Remediation Summary and Site Closure Request

February 23, 2021

Abo Centurion Station Crude Oil Release
NRM2003032458

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1.0 Introduction

TRC Environmental Corporation (TRC), on behalf of Holly Energy Partners – Operating, L.P. (HEP), has prepared this *Remediation Summary and Site Closure Request* for the crude oil release at Abo Centurion Station (Site). The Site is located approximately 9.5 miles southeast of Artesia, in Eddy County, New Mexico at global positioning system (GPS) coordinates of 32.763269, -104.268120. The property surface rights are owned by the State of New Mexico and administered by the New Mexico State Land Office (NMSLO). Land use in the Site vicinity is primarily oil and gas production activity and cattle grazing. The location of the Release Site is depicted on Figure 1.

2.0 Background

On December 4, 2019, internal corrosion on a pipe resulted in a release of approximately 15 barrels (bbls) of crude oil. Immediately following the release, the area was secured and the pipe was repaired. The released crude oil flowed on the ground approximately 270 feet south/southeast from the release point, crossing numerous piping systems. Immediately following the release, vacuum trucks recovered approximately 3 bbls of free-standing crude oil from the ground. On December 5 and 6, 2019, HEP removed approximately 30 cubic yards (cy) of affected soil from the release point and stockpiled the soil on plastic sheeting pending further waste management activities.

Verbal notification of the release was provided to the New Mexico Oil Conservation Division (NMOCD) on December 4, 2019, and the NMOCD Release Notification and Corrective Action Form (C-141) was submitted on December 18, 2019. The C-141 was approved by the NMOCD on January 29, 2020, and the Site was given a NMOCD Tracking Number of NRM2003032458. Crude oil surface impacts at the Site covered approximately 1,100 square feet. A copy of the final C-141 is included as Appendix A. Photographic documentation is provided in Appendix B. The release point and the surface extent of the crude oil release are depicted on Figure 2.

On December 12, 2019, initial investigation activities were conducted to assess the extent of affected soil associated with the crude oil release. Lateral delineation of affected soil was based on visual observation of the surface extent of the crude oil release. Three test trenches (TT-1 through TT-3) were advanced across the surface extent of the release area utilizing a backhoe to assess the vertical extent of the release. During excavation of trench TT-3, the first two attempts to vertically advance the excavation were terminated at approximately 2 feet below ground surface (bgs) due to a hard caliche layer. The third attempt was completed to a depth of 5 feet bgs, where an unmarked Centurion pipe was encountered and prevented deeper completion of the trench. The results of the December 2019 sampling event indicated that further investigation was required to complete vertical delineation of benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH) at trench TT-3. Additional investigation at this location was performed on March 30, 2020.

On March 30, 2020, a hydro-excavator was initially used to further assess the feasibility of evaluating affected soil at trench TT-3 where the Centurion pipe was encountered. Multiple attempts were made to hydro-excavate soil at the Centurion pipe; however, hydro-excavation could not remove soil to the depth of the Centurion pipe. Using a backhoe, numerous attempts were made to advance another trench (TT-4) within the release footprint in the area immediately adjacent to trench TT-3. Mechanical backhoe refusal was met at approximately 1 foot bgs at each attempted location. After approximately five attempts, a softer surface was found within the release footprint (approximately 10 feet south/southeast of the trench TT-3 location) that allowed for sample collection to a depth of approximately 2.5 feet bgs, where backhoe refusal was encountered due to the hard caliche layer. Vertical delineation at trenches TT-3 and TT-4 was limited by a combination of the Centurion pipe and refusal at the hard caliche layer such that further vertical delineation was not feasible. Figure 2 provides a map of the test trench locations and sample results from December 12, 2019, and March 30, 2020.

On June 4, 2020, a *Site Characterization Report and Remediation Workplan* was submitted to the NMOCD. The report detailed information regarding completion of the test trenches, the results of the initial investigation, and determination of the NMOCD Closure Criteria applicable to the Site. Analytical results of the initial investigation are presented in Table 1. The Remediation Workplan included a proposal that soils with benzene, BTEX, and TPH concentrations above the Closure Criteria would be excavated to the maximum extent practicable considering excavation limitations around the existing pipelines and depth limitations due to the hard caliche layer.

HEP further proposed that an attempt would be made to hydro-excavate affected soils above the Centurion pipe at the trench TT-3 location and in the vicinity of the other underground lines that cross the release area. The area would be excavated until confirmation samples collected from the base and sidewalls of the excavation indicated soil exhibiting benzene, BTEX, and TPH concentrations above NMOCD Closure Criteria had been removed, or until additional mechanical excavation into the hard caliche layer was no longer feasible. Excavated material would be characterized and transported under manifest to a NMOCD approved disposal facility.

The Remediation Workplan proposed that confirmation soil samples would be collected from the base of the excavated areas on the basis of one soil sample per 200 square feet of excavation floor, and sidewall confirmation soil samples would be collected from the excavated areas on a basis of one soil sample per 100 linear feet of sidewall. Each confirmation sample would be analyzed for BTEX by EPA SW-846 Method 8260 and TPH by EPA SW-846 Method 8015M. As laboratory results from the initial investigation reported all chloride concentrations below 600 milligrams per kilogram (mg/kg), confirmation samples would not be analyzed for chlorides.

Additionally, HEP proposed that if confirmation sample results reported concentrations of benzene, BTEX and/or TPH above the Closure Criteria and backhoe refusal had been encountered on the hard caliche layer, areas of concentrations above the Closure Criteria on the hard caliche layer would be sprayed with MicroBlaze® to promote natural attenuation, the excavation would remain open for approximately 30 days, and an additional confirmation sample would be collected. If that sample was not below the Closure Criteria, an additional application of MicroBlaze® would be performed, and the excavation would be backfilled to grade with non-impacted similar material. Following backfilling, the surface would be graded to near original conditions and contoured to prevent erosion and ponding, promote stability, and preserve storm water flow patterns.

On August 7, 2020, the NMOCD approved the *Site Characterization Report and Remediation Workplan* with the condition that a borehole be installed to vertically delineate affected soil and to determine if the release permeated through the caliche layer into underlying soils.

On December 18, 2020, due to the multiple field events for excavation, MicroBlaze® applications, and confirmation sampling, HEP requested an extension of the Closure Report submittal date to March 4, 2021. The date was approved by the NMOCD.

This *Remediation Summary and Site Closure Request* presents information regarding the excavation, MicroBlaze® application, confirmation sample collection, soil disposal, and backfill activities conducted to achieve NMOCD closure of the Site.

3.0 NMOCD Closure Criteria

Cleanup standards for crude oil 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 such as distance to the nearest wetland, karst potential, distance to nearest flood-plain, and whether the Site is located within incorporated municipal boundaries or within a defined fresh water field. The evaluation of the applicable NMOCD Closure Criteria was documented in the *Site Characterization Report and Remediation Workplan* dated June 3, 2020. A summary of this evaluation is provided below.

A review of the New Mexico Office of the State Engineer (NMOSE) records indicated one water well is located within 0.5 mile of the Site. As shown on the table below, the recorded depth to groundwater is 50 feet bgs. The location of the water well relative to the Site is depicted on Figure 3.

Well ID	Location from Release Site	Owner	Use	Well Depth and Depth to Water (feet bgs)
RA-03917	0.40 miles to northeast	N/A	N/A	130 feet/50 feet

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. The New Mexico Bureau of Land Management (BLM) karst potential map indicates the Site is located within the "high karst potential" area. Finally, 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 and 5 depict the FEMA floodplain information and the karst potential data, respectively.

TRC reviewed available information to determine the Closure Criteria for the Site. As the Release Site is within a high karst area, the NMOCD Closure Criteria for the Abo Centurion Station Crude Oil Release are based on the most stringent regulatory guidelines. A summary of the Closure Criteria is provided in the table below.

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 Summary of Soil Remediation Activities

4.1 Summary of October 2020 Activities and Soil Sampling

4.1.1 Soil Boring Installation

On October 13, 2020, one soil boring (BH-1) was installed at the northern portion of the release area to vertically delineate affected soil and determine if the release had permeated through the hard caliche layer into underlying soils. Soil boring BH-1 was advanced to a total depth of 30 feet bgs using an air rotary drilling rig provided by Talon, LPE of Amarillo, Texas. Soil samples were collected from the surface and every 5 feet thereafter to the total depth of the boring. Soil samples were placed in laboratory

prepared containers, labeled, immediately placed on ice, and hand delivered to Xenco Laboratories (Xenco) Laboratories of Midland, Texas for analysis of BTEX by EPA SW-846 Method 8260, TPH by EPA SW-846 Method 8015M, and chlorides by EPA Method 300. Table 2 provides a summary of the laboratory results for the soil samples collected from boring BH-1. The soil boring location is shown on Figure 6. A copy of the soil boring log is provided in Appendix C. The laboratory report and chain-of-custody documentation is provided in Appendix D.

Lithology observed in boring BH-1 consisted of medium to coarse grained sand from the surface to a depth of 5 feet bgs. Hard/consolidated caliche was encountered from a depth of 5 to 10 feet bgs, and hard to interlayered gypsum was encountered from a depth of 10 to 30 feet bgs. At a depth of 30 feet bgs, damp, sandy gravel was encountered, and the boring was terminated.

Analytical results for samples collected from the soil boring indicated a maximum TPH concentration of 5,966 mg/kg from the 0-1 foot interval; ethylbenzene and xylenes were detected in this sample but were below the Closure Criteria. Benzene, total BTEX, and TPH concentrations were reported below the test method detection limit in the samples collected from 5 feet bgs to 25 feet bgs. The sample collected at a depth of 30 feet bgs reported a TPH concentration of 151.7 mg/kg, with BTEX concentrations reported below the test method detection limits.

Field observations during drilling of boring BH-1 indicated that soil affected by the HEP Abo Centurion crude oil release was present in the upper 5 feet but was absent immediately below this depth interval. However, from 15 to 30 feet bgs, gray weathered petroleum hydrocarbon staining and weathered hydrocarbon odor were observed for most of this 15 foot interval. Vertical delineation of affected soil from the HEP Abo Centurion release was confirmed within the upper 5 feet at boring BH-1 followed by approximately 10 feet of unaffected soil from 5 to 15 feet bgs, which was in turn underlain by evidence of affected soil from 15 to 30 feet bgs. The affected soil from 15 to 30 feet bgs encountered at boring BH-1 was the result of a historical release in the area not associated with HEP's 2019 Abo Centurion crude oil release.

As the Centurion Pipeline, L.P. Artesia Tank Farm (Centurion Facility) is located immediately west of the release area, TRC reviewed the NMOCD database for historical releases in the area and identified that a release of crude oil was discovered at the Centurion Facility in March 1993 (NMOCD No. 2RP-6). The following summarizes key information on the Centurion Facility release based on reports available in the NMOCD database including *2008 Annual Groundwater Monitoring Report* prepared by Delta Consultants and dated October 22, 2008, and *2017 Annual Groundwater Monitoring Report* prepared by APEX and dated April 2018:

- A crude oil release was discovered in March 1993. An initial assessment performed in August 1993 included the completion of 23 soil borings and identified the presence of light non-aqueous phase liquids (LNAPL) approximately 1,700 feet down to Scoggin Draw (located along the eastern and southern limits of the HEP release area).
- A recovery/interceptor trench was installed and a groundwater remediation system was installed in 1994.
- A total of 14 monitoring wells (MW-1 through MW-14) were initially installed to monitor affected groundwater.
- The remediation system was shut down in 1997 due to the reported absence of LNAPL and decommissioned by the fall of 1998.
- Following decommissioning of the remediation system, monitored natural attenuation (MNA) was performed as the continued response action for affected groundwater.
- Benzene was the only COC to exceed New Mexico Water Quality Control Commission (WQCC) groundwater standards.

- With NMOCD approval, five monitoring wells were plugged and abandoned in 2003 (MW-4, MW-6, MW-7, MW-12, and MW-13), three monitoring wells were plugged and abandoned in 2005 (MW-5, MW-8, and MW-14), and nine monitoring wells were plugged and abandoned in 2013 (MW-1, MW-2, MW-2A, MW-3, MW-3A, MW-3B, MW-9, MW-10, and MW-11).
- Based on 2014 analytical data provided in the *2017 Annual Groundwater Monitoring Report*, COCs outside the Centurion Facility were reported below the WQCC groundwater standards, and previous reports indicated the plume was stable and decreasing as a result of biodegradation.
- Additional remediation at the Centurion Facility was deferred until the site was more accessible for residual LNAPL removal, and the NMOCD approved the installation of two downgradient sentinel wells (MW-1 and MW-2) for monitoring purposes.
- Annual monitoring of sentinel wells MW-1 and MW-2 has continued. As of the *2017 Annual Groundwater Monitoring Report*, benzene remained below the WQCC groundwater standard in these two wells.

Centurion Facility monitoring wells MW-4 and MW-9 were installed to the east of the HEP Abo Centurion Station as shown on Figure 7. The HEP Abo Centurion Station and boring BH-1 are located between these two wells and the Centurion Facility. Data from the *2008 Annual Groundwater Monitoring Report* indicated that LNAPL was measured in well MW-4 during two events (0.18 feet on December 5, 1998, and 0.02 feet on April 1, 1999). LNAPL was observed in well MW-9 during each event from 1994 to 1998 with a maximum apparent thickness of 0.03 feet on November 17, 1994 and July 6, 1996; LNAPL was last observed in well MW-9 at an apparent thickness of 0.01 feet in March 2002. Groundwater analytical data for wells MW-4 and MW-9 indicated that benzene exceeded the WQCC groundwater standard on several occasions but was below the WQCC groundwater standard during the last one to two monitoring events before they were plugged and abandoned.

The 2008 and 2017 Centurion Facility groundwater monitoring reports document the presence of a LNAPL plume in the vicinity and likely beneath the HEP Abo Centurion Station and boring BH-1. The laboratory and field data from boring BH-1 identified a non-impacted interval from 5 to 15 feet bgs clearly differentiating the HEP Abo Centurion crude oil release impacts at 0 to 5 feet bgs from the Centurion Facility impacts from 15 to 30 feet bgs. Therefore, the observations of weathered petroleum hydrocarbon odor and gray weathered petroleum hydrocarbon staining in HEP's boring BH-1 from a depth of 15-30 feet bgs and the TPH concentration that exceeded Closure Criteria in the soil sample collected from boring BH-1 at a depth of 30 feet bgs are attributed to the historical Centurion Facility release and require no further response by HEP.

Figure 7 shows the location of the HEP Abo Centurion Station, the release point and sample points, the boring BH-1 location, the location of Centurion Facility monitoring wells MW-4 and MW-9, and Scoggin Draw. Site Maps that show the location of Scoggin Draw and Centurion Facility monitoring wells, and select pages of Table 1 from the Centurion Facility *2008 Annual Groundwater Monitoring Report* are included as Appendix E.

4.1.2 Excavation and Analytical Results

On October 13 and 14, 2020, approximately 160 cy of affected soil was excavated from the HEP release area and stockpiled on plastic pending waste characterization and disposal. Soil was excavated from the south end of the release area (CS-1, CS-2, CS-3, CS-4, CSW-1, CSW-2, CSW-3 and CSW-8) until photoionization detector (PID) readings decreased and no hydrocarbon odor or staining was observed. Soil was excavated from the north end of the release area (CS-5, CS-6, CS-7, CSW-4, CSW-5, CSW-6 and CSW-7) until backhoe refusal was encountered on the hard caliche layer. On October 14, 2020, a total of seven five-point composite floor samples (CS-1 through CS-7) were collected from the floor of the excavated area on a 200 square foot (sq. ft.) basis as proposed in the NMOCD-approved Remediation Workplan. Additionally, a total of eight sidewall confirmation soil samples (CSW-1 through CSW-8) and

one duplicate sample (Duplicate-1 from CSW-1) were collected from the excavated area per 100 linear feet of sidewall.

The soil samples were placed in laboratory-prepared glass containers, immediately placed on ice, and delivered to Xenco for analysis of BTEX by EPA Method 8260 and TPH by EPA Method 8015M. Due to the concentrations of chloride being below the Closure Criteria for the initial investigation samples in 2019, no further analysis for chloride was warranted or performed during remediation. A summary of the analytical results is provided in Table 3. Confirmation soil sample locations and results are depicted on Figure 6. Photographs are provided in Appendix B. The laboratory report and chain-of-custody documentation are provided in Appendix D.

No confirmation samples reported benzene or total BTEX concentrations above the Closure Criteria. All benzene concentrations were reported below the method detection limit. Low level detections of toluene, ethylbenzene and/or xylenes were reported in samples CS-2 (3'), CS-3 (2'), CS-4 (2'), CS-5 (2'), CS-6 (2'), CSW-4, CSW-5 and CSW-8, while BTEX concentrations in all other samples were reported below the method detection limits.

TPH concentrations exceeded the Closure Criteria in the following floor samples:

- CS-2 (3') = 3,367 mg/kg,
- CS-3 (2') = 340 mg/kg,
- CS-4 (2') = 3,157 mg/kg,
- CS-5 (2') = 927.6 mg/kg, and
- CS-6 (2') = 335 mg/kg.

TPH concentrations exceeded the Closure Criteria in the following sidewall samples:

- CSW-4 = 4,165 mg/kg, and
- CSW-8 = 113.1 mg/kg.

As a result of the TPH confirmation sample exceedances indicated above, additional excavation activities were performed on November 20, 2020, as described in Section 4.2 below.

4.2 Summary of November 2020 Activities and Analytical Results

On November 20, 2020, an additional 40 cy of soil was excavated from the southern portion of the release area and confirmation samples were collected from CS-2 (5'), CS-3 (5'), CS-4 (5') and CSW-8 (2.5'). Soil samples were delivered to Xenco for TPH analysis by EPA Method 8015M. The laboratory reported all TPH concentrations below the method detection limit. Excavated soil was added to the stockpile. Table 3 provides a summary of the analytical results. The laboratory report and chain-of-custody documentation are provided in Appendix D.

Per the approved NMOCD Workplan, on November 20, 2020, Microblaze® was applied to the northern confirmation sample points CSW-4, CS-5 (2') and CS-6 (2') where TPH concentrations were previously reported above the Closure Criteria but further excavation could not be conducted due to the hard caliche layer. Confirmation samples were scheduled to be collected from these locations in December 2020 as described below in Section 4.3.

4.3 Summary of December 2020 Activities and Analytical Results

On December 7, 2020, 232 cy of stockpiled soil (approximately 30 cy from the initial response, 160 cy from the first excavation event, and 40 cy from the second excavation event) was transported under non-hazardous waste manifests to R360 Halfway Disposal facility (R360). Clean backfill material was transported from a private caliche pit located near Hobbs, New Mexico at GPS coordinates: 32.77775N, -103.063917. A soil sample was collected from the pit on September 30, 2020, and delivered to Xenco for analysis of BTEX by EPA Method 8260C, TPH by EPA Method 8015M, and chlorides by EPA Method 300 to confirm the soil to be used as backfill was non-impacted. The laboratory reported all analyte concentrations were below detection limits. The laboratory report and chain-of-custody documentation are provided in Appendix D. The waste manifests are provided in Appendix E.

On December 21, 2020, final confirmation samples were collected from northern sample points CSW-4a, CS-5a (2') and CS-6a (2') where further excavation could not be conducted due to the hard caliche layer and an additional confirmation sample was inadvertently collected from southern sample point CSW-8a (2.5') where TPH concentrations had previously been reported below the detection limit. All samples were submitted to Xenco for TPH analysis by EPA Method 8015M. TPH concentrations decreased at sample location CSW-4a (from 4,165 mg/kg to 277.7 mg/kg) and CS-6a (2') (from 335 mg/kg to 241 mg/kg) after the Microblaze® application on November 20, 2020. The TPH concentration at sample location CS-5a (2') increased from 927.6 mg/kg to 2,163 mg/kg. TPH concentrations in the three samples on the hard caliche layer remained above the Closure Criteria. Per the approved Remediation Workplan, Microblaze® was applied a second time to these northern sample point areas and all excavated areas were backfilled with the imported clean soil on December 23, 2020.

4.4 Laboratory Analytical Data Quality Assurance/Quality Control Results

Data reported in Work Orders 675147, 675213, 678749 and 682120 generated by Xenco Laboratories in Midland, Texas were 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 Site Closure Request

Remediation activities were conducted in accordance with NMOCD guidelines and in adherence with the NMOCD-approved Remediation Workplan for this Site. Affected soil with TPH concentrations greater than the NMOCD Closure Criteria were removed to the extent practicable and transported to an appropriate disposal facility. The excavation conducted at the southern portion of the release area achieved confirmation samples with concentrations below the Closure Criteria. At the northern portion of the release area, Microblaze® was applied on November 20 and December 21, 2020, to areas where refusal was encountered on the hard caliche layer and confirmation samples exhibited TPH concentrations above the Closure Criteria on October 14 and December 21, 2020. Following the final Microblaze® application on December 21, 2020, the excavation was backfilled with similar non-impacted material on December 23, 2020. Based on completion of the remediation activities in accordance with the NMOCD-approved Remediation Workplan, HEP respectfully requests that the NMOCD grant closure to the Abo Centurion Station Crude Oil Release (NRM2003032458).

6.0 Distribution

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TABLES

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS FROM INITIAL INVESTIGATION
HOLLY ENERGY PARTNERS - OPERATING, L.P.
ABO CENTURION STATION CRUDE OIL RELEASE
NMOCD TRACKING NO.: NRM2003032458

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
TT-1 @ 0-1'	12/12/19	0-1	Excavated*	3,070	4,410	457 J	**7,937**	0.329	22.9	17.9	66.7	**107.829**	22.9
TT-1 @ 7'	12/12/19	7	In-Situ	<2.19	<3.38	<3.38	<3.38	<0.0548	<0.0548	<0.0548	<0.0548	<0.0548	452
TT-1 @ 10'	12/12/19	10	In-Situ	<2.25	<3.54	<3.54	<3.54	0.0563 J	0.146 J	<0.0563	<0.0563	0.2023	358
TT-2 @ 0-1'	12/12/19	0-1	Excavated*	7,880	13,400	1,080 J	**22,360**	**31.7**	161	61.4	214	**468.1**	31.0
TT-2 @ 4'	12/12/19	4	In-Situ	<2.14	<3.14	<3.14	<3.14	<0.0535	<0.0535	<0.0535	<0.0535	<0.0535	10.3
Dup-1	12/12/19	4	In-Situ	4.05 J	<3.30	<3.30	4.05 J	<0.0511	<0.0511	<0.0511	<0.0511	<0.0511	5.37
TT-2 @ 7'	12/12/19	7	In-Situ	<2.22	11.6	<3.31	11.6	<0.0556	<0.0556	<0.0556	<0.0556	<0.0556	27.8
TT-3 @ 0-1'	12/12/19	0-1	Excavated*	9,670	23,100	4,230	**37,000**	**40.0**	205	81.8	267	**593.8**	41.1
TT-3 @ 3'	12/12/19	3	In-Situ	21,200	20,700	1,490	**43,390**	**163**	535	163	481	**1,342**	21.2
TT-3 @ 5'	12/12/19	5	In-Situ	6,630	8,190	617 J	**15,437**	**24.5**	672	187	794	**1,677.5**	30.6
TT-4 Surface	03/30/20	0-0.5	Excavated*	168	23,000	4,150	**27,318**	0.0278	0.290	0.137	0.522	0.9768	NA
Duplicate	03/30/20	0-0.5	Excavated*	104	24,000	6,880	**30,984**	0.0329	0.319	0.151	0.556	1.0589	NA
TT-4 @ 1'	03/30/20	1	Excavated*	2,230	7,810	369 J	**10,409**	0.0966	3.86	4.99	18.6	27.5466	NA
TT-4 @ 2'	03/30/20	2	In-Situ	33.1	84.5	13.7	**131.3**	<0.00120	0.00873	0.00623	0.0233	0.03826	NA
TT-4 @ 30"R	03/30/20	2.5	In-Situ	7.08	103	11.7	**121.78**	<0.00109	0.00235	0.00555	0.0373	0.0452	NA

Notes:

1. GRO: Gasoline Range Organics
2. DRO: Diesel Range Organics
3. MRO: Motor Oil Range Organics
4. -: No NMOCD Closure Criteria established.
5. Bold and highlighting indicates the COC was detected above the NMOCD Closure Criteria.
6. < indicates the COC was below the appropriate laboratory method/sample detection limit
7. J flag indicates analyte was detected between the reporting limit and sample detection limit.
8. Dup-1 was collected from the same location as TT-2 @ 4'
9. Duplicate was collected from the same location as TT-4 Surface
10. NA: not analyzed
11. Excavated*: Excavated during remediation activities in October and November, 2020.

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS FROM SOIL BORING
HOLLY ENERGY PARTNERS - OPERATING, L.P.
ABO CENTURION STATION CRUDE OIL RELEASE
NMOCD TRACKING NO.: NRM2003032458

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
				milligrams per kilogram (mg/kg)								
NMOCD Closure Criteria				**-**	**-**	**-**	**100**	**10**	**-**	**-**	**-**	**50**
BH-1 (0-1')	10/13/20	0-1	Excavated	**113**	**5,600**	**253**	**5,966**	<0.0249	<0.124	**0.0502**	**0.504**	**0.5542**
BH-1 (5')	10/13/20	5	In-Situ	<50.0	<50.0	<50.0	<50	<0.000996	<0.00498	<0.000996	<0.000996	<0.000996
Duplicate-1 (BH-1 [5'])	10/13/20	5	In-Situ	<50.0	<50.0	<50.0	<50	<0.000996	<0.00498	<0.000996	<0.000996	<0.000996
BH-1 (10')	10/13/20	10	In-Situ	<50.0	<50.0	<50.0	<50	<0.0253	<0.126	<0.0253	<0.0253	<0.0253
BH-1 (15')	10/13/20	15	In-Situ	<49.9	<49.9	<49.9	<49.9	<0.0252	<0.126	<0.0252	<0.0252	<0.0252
BH-1 (20')	10/13/20	20	In-Situ	<49.9	<49.9	<49.9	<49.9	<0.0249	<0.124	<0.0249	<0.0249	<0.0249
BH-1 (25')	10/13/20	25	In-Situ	<49.8	<49.8	<49.8	<49.8	<0.0251	<0.125	<0.0251	<0.0251	<0.0251
BH-1 (30')	10/13/20	30	In-Situ	**61.1**	**90.6**	<50.0	**151.7**	<0.000990	<0.00495	<0.000990	<0.00099	<0.00099

Notes:

1. GRO: Gasoline Range Organics
2. DRO: Diesel Range Organics
3. MRO: Motor Oil Range Organics
4. -: No NMOCD Closure Criteria established.
5. Bold indicates the COC was detected above the test method detection limit.
6. Bold and highlighting indicates the COC was detected above the NMOCD Closure Criteria.
7. < indicates the COC was below the appropriate laboratory method/sample detection limit
8. Duplicate-1 was collected from the same location as BH-1 (5')
10. NA: not analyzed

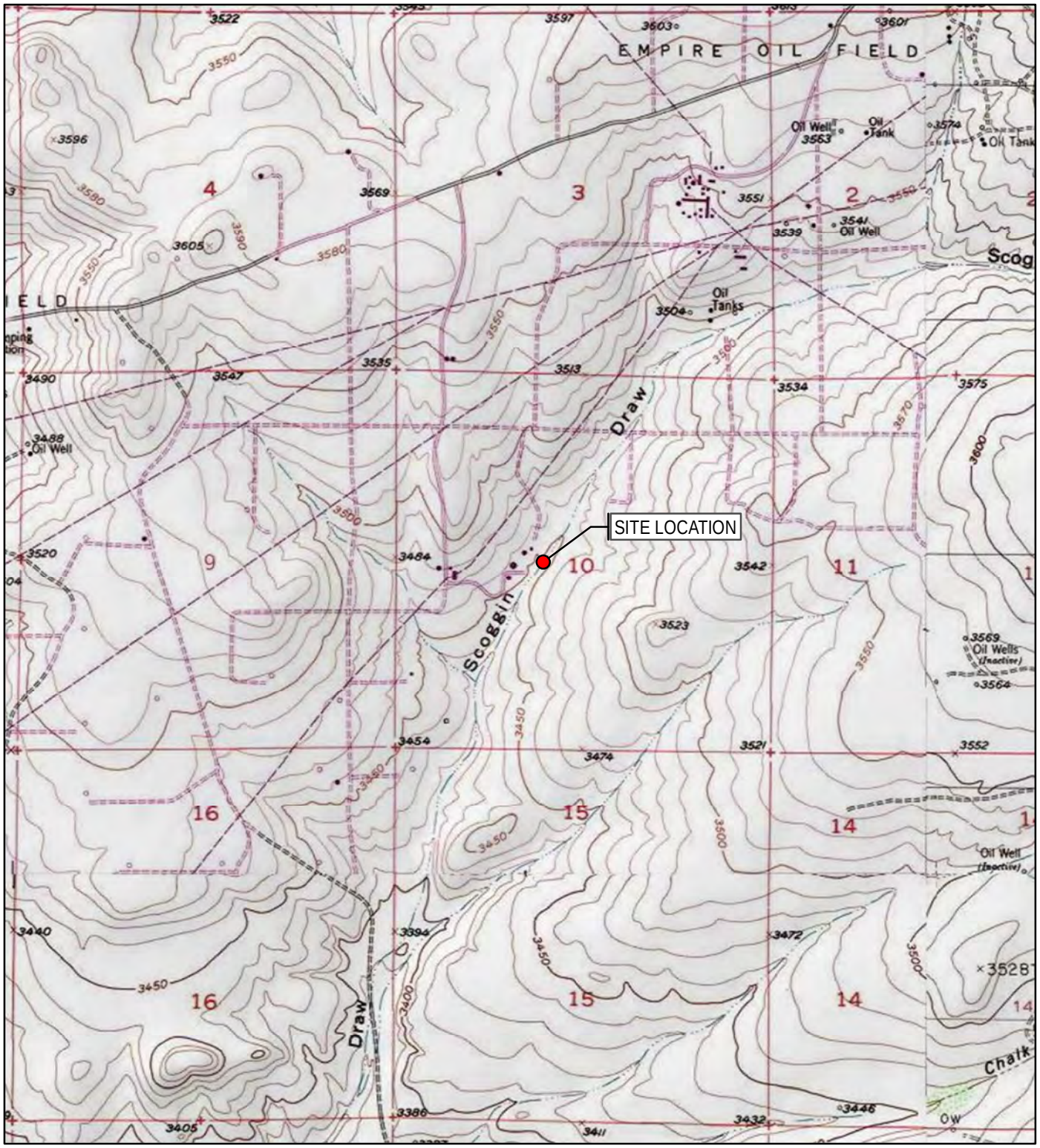
TABLE 3
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS FROM EXCAVATION
HOLLY ENERGY PARTNERS - OPERATING, L.P.
ABO CENTURION STATION CRUDE OIL RELEASE
NMOCD TRACKING NO.: NRM2003032458

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
				milligrams per kilogram (mg/kg)								
NMOCD Closure Criteria				-	-	-	100	10	-	-	-	50
Confirmation Floor Samples												
CS-1 (8')	10/14/20	8	In-Situ	<50.0	**80.8**	<50.0	**80.8**	<0.000992	<0.00496	<0.000992	<0.000992	<0.000992
CS-2 (3')	10/14/20	3	Excavated	**162**	**3,070**	**135**	**3,367**	<0.00100	**0.0190**	**0.00745**	**0.0749**	**0.10135**
CS-2 (5')	11/20/20	5	In-Situ	<50.0	<50.0	<50.0	<50	--	--	--	--	--
CS-3 (2')	10/14/20	2	Excavated	<50.0	**340**	<50.0	**340**	<0.000992	<0.00496	<0.000992	**0.00438**	**0.00438**
CS-3 (5')	11/20/20	5	In-Situ	<49.8	<49.8	<49.8	<49.8	--	--	--	--	--
CS-4 (2')	10/14/20	2	Excavated	<50.0	**2,880**	**277**	**3,157**	<0.00100	<0.00500	**0.00199**	**0.00911**	**0.0111**
CS-4 (5')	11/20/20	5	In-Situ	<49.9	<49.9	<49.9	<49.9	--	--	--	--	--
CS-5 (2')	10/14/20	2	Excavated	**95.1**	**777**	**55.5**	**927.6**	<0.000994	**0.00817**	**0.00489**	**0.0671**	**0.08016**
CS-5a (2')	12/21/20	2	In-Situ	<50.0	**1,970**	**193**	**2,163**	--	--	--	--	--
CS-6 (2')	10/14/20	2	Excavated	<50.0	**335**	<50.0	**335**	<0.000992	<0.00496	**0.00246**	**0.0143**	**0.01676**
CS-6a (2')	12/21/20	2	In-Situ	<49.8	**241**	<49.8	**241**	--	--	--	--	--
CS-7 (2')	10/14/20	2	In-Situ	<49.8	<49.8	<49.8	<49.8	<0.00101	<0.00504	<0.00101	<0.00101	<0.00101
Confirmation Sidewall Samples												
CSW-1	10/14/20	1	In-Situ	<50.0	<50.0	<50.0	<50	<0.000996	<0.00498	<0.000996	<0.000996	<0.000996
Duplicate-1 (CSW-1)	10/14/20	1	In-Situ	<49.9	<49.9	<49.9	<49.9	<0.00100	<0.00502	<0.00100	<0.001	<0.001
CSW-2	10/14/20	1.5	In-Situ	<49.9	<49.9	<49.9	<49.9	<0.00100	<0.00502	<0.00100	<0.001	<0.001
CSW-3	10/14/20	4	In-Situ	<50.0	**65.5**	<50.0	**65.5**	<0.000998	<0.00499	<0.000998	<0.000998	<0.000998
CSW-4	10/14/20	1	Excavated	**418**	**3,520**	**227**	**4,165**	<0.00100	<0.00500	**0.00315**	**0.00471**	**0.00786**
CSW-4a	12/21/20	1	In-Situ	<49.9	**222**	**55.7**	**277.7**	--	--	--	--	--
CSW-5	10/14/20	1	In-Situ	<49.9	<49.9	<49.9	<49.9	<0.00100	<0.00500	**0.00413**	**0.02064**	**0.02477**
CSW-6	10/14/20	1	In-Situ	<49.8	<49.8	<49.8	<49.8	<0.00100	<0.00500	<0.00100	<0.001	<0.001
CSW-7	10/14/20	1	In-Situ	<50.0	**56.7**	<50.0	**56.7**	<0.000994	<0.00497	<0.000994	<0.000994	<0.000994
CSW-8	10/14/20	1	Excavated	**56.2**	**56.9**	<50.0	**113.1**	<0.00100	<0.00502	**0.00482**	**0.0362**	**0.04102**
CSW-8 (2.5')	11/20/20	2.5	In-Situ	<50.0	<50.0	<50.0	<50	--	--	--	--	--
CSW-8a (2.5')	12/21/20	2.5	In-Situ	<49.9	<49.9	<49.9	<49.9	--	--	--	--	--

Notes:

1. GRO: Gasoline Range Organics
2. DRO: Diesel Range Organics
3. MRO: Motor Oil Range Organics
4. -: No data collected.
5. Bold indicates the COC was detected above the test method detection limit.
6. Bold and highlighting indicates the COC was detected above the NMOCD Closure Criteria.
7. < indicates the COC was below the appropriate laboratory method/sample detection limit
8. Duplicate-1 was collected from the same location as CSW-1.

FIGURES



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES - SPRING LAKE, NEW MEXICO (1978).

N

1 " = 2,000 '
1:24,000

0 2,000 4,000
FEET

TRC
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Austin, TX 78752
Phone: 512.329.6080
TRC - GIS

PROJECT:
HOLLY ENERGY PARTNERS - OPERATING, L.P.
ABO CENTURION STATION CRUDE OIL RELEASE
EDDY COUNTY, NEW MEXICO

TITLE:
SITE LOCATION MAP

DRAWN BY:	S. RAY
CHECKED BY:	M. HORN
APPROVED BY:	C. CRAIN
DATE:	FEBRUARY 2021
PROJ. NO.:	420669
FILE:	420669_1_slm.mxd

FIGURE 1

S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\390412_Abo_Centurion_Release_2020\mxd\420669_1_slm.mxd -- Saved By: SRAY on 2/19/2021, 13:07:09 PM

Sample ID	Benzene	Total BTEX	Total TPH	Chloride
TT-3 @ 0-1'	**40.0**	**593.8**	**37,000**	41.1
TT-3 @ 3'	**163**	**1,342**	**43,390**	21.2
TT-3 @ 5'	**24.5**	**1,677.5**	**15,437**	30.6

Sample ID	Benzene	Total BTEX	Total TPH	Chloride
TT-4 Surface	0.0278	0.9768	**27,318**	-
Duplicate	0.0329	1.0589	**30,984**	-
TT-4 @ 1'	0.0966	27.5466	**10,409**	-
TT-4 @ 2'	<0.00120	0.03826	**131.3**	-
TT-4 @ 30"R	<0.00109	0.0452	**121.78**	-

Sample ID	Benzene	Total BTEX	Total TPH	Chloride
TT-2 @ 0-1'	**31.7**	**468.1**	**22,360**	31.0
TT-2 @ 4'	<0.0535	<0.0535	<3.14	10.3
Dup-1	<0.0511	<0.0511	4.05	5.37
TT-2 @ 7'	<0.0556	<0.0556	11.6	27.8

Sample ID	Benzene	Total BTEX	Total TPH	Chloride
TT-1 @ 0-1'	0.329	**107.829**	**7,937**	22.9
TT-1 @ 7'	<0.0548	<0.0548	<3.38	452
TT-1 @ 10'	0.0563J	0.2023	<3.54	358

LEGEND

- Test Trench Locations
- Release Point
- Lateral Extent of Surface Release
- HEP Abo Centurion Station Fenceline
- Pipeline Continues In Both Directions
- Centurion Facility Fenceline
- Pipeline Terminates On The Western End and Continues On The Eastern End

	Benzene	Total BTEX	Total TPH	Chloride
NMOCD Closure Criteria	10 mg/kg	50 mg/kg	100 mg/kg	600 mg/kg

NOTES:
1. Bold and highlighting indicates the COC was detected above the NMOCD Cleanup Standards.
2. < indicates the COC was below the appropriate laboratory method/sample detection limit.
3. Dup-1 was collected from the same location as TT-2 @ 4'.
4. Duplicate was collected from the same location as TT-4 Surface.
5. Samples were collected from TT-1, TT-2 and TT-3 on December 12, 2019.
6. Samples were collected from TT-4 on March 30, 2020.

N

0 35 70 Feet

1 " = 35 '

1:420

BASE MAP FROM GOOGLE AND THEIR DATA PARTNERS (3/12/2016).

PROJECT:
HOLLY ENERGY PARTNERS - OPERATING, L.P.
ABO CENTURION STATION CRUDE OIL RELEASE
EDDY COUNTY, NEW MEXICO

TITLE:
SOIL SAMPLE ANALYTICAL RESULTS MAP
TEST TRENCHES
(DECEMBER 12, 2019 AND MARCH 30, 2020)

DRAWN BY:	S. RAY	PROJ. NO.:	390412
CHECKED BY:	JES		
APPROVED BY:	JES		
DATE:	FEBRUARY 2021		

FIGURE 2

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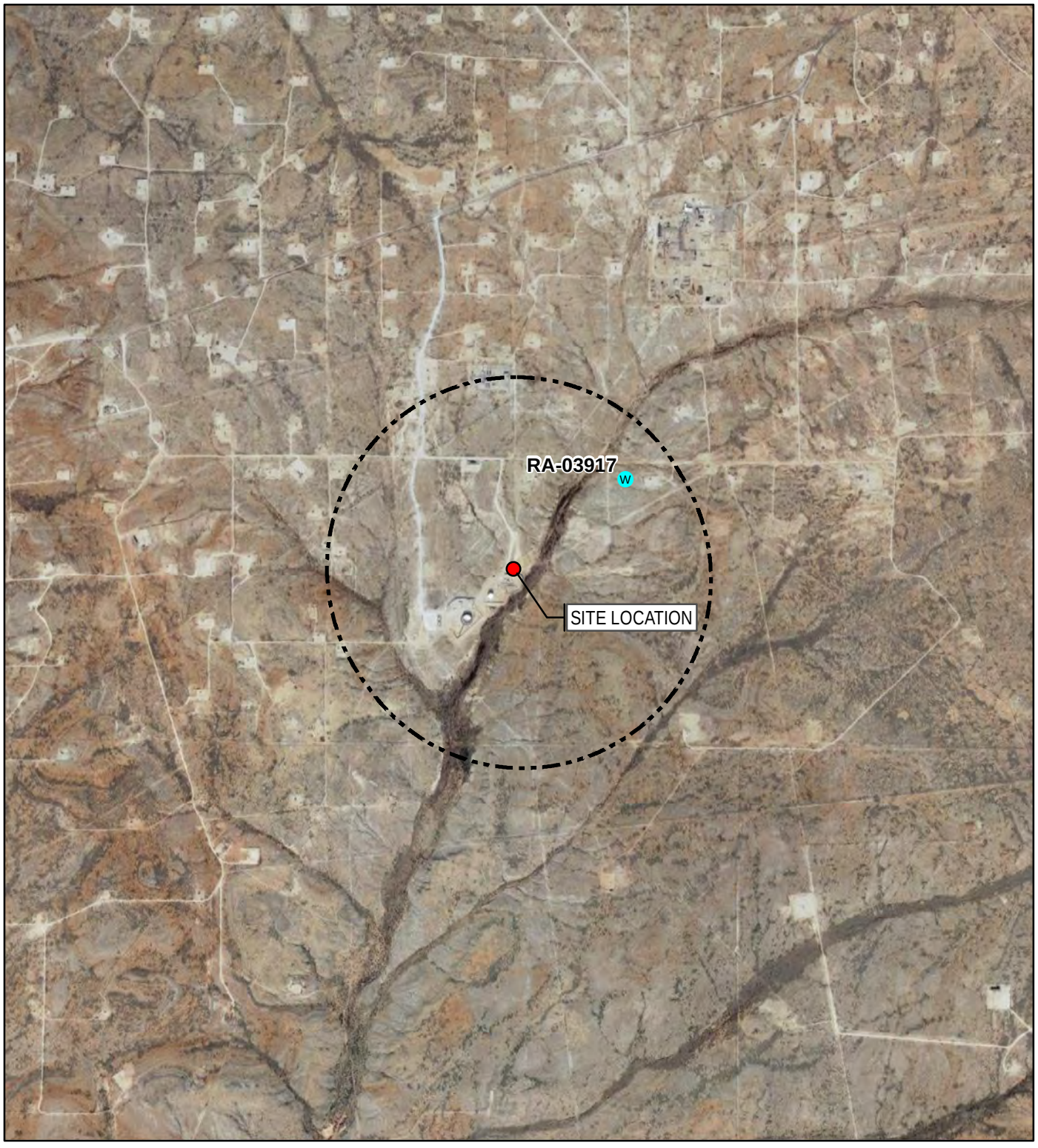
FILE NO.: 390412_2_V3.mxd



LEGEND

1/2 Mile Radius (W) Water Well

BASE MAP FROM GOOGLE / MAXAR AND THEIR DATA PARTNERS.

1 " = 2,000 '
1:24,000

0 2,000 4,000
FEET

N

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TRC - GIS

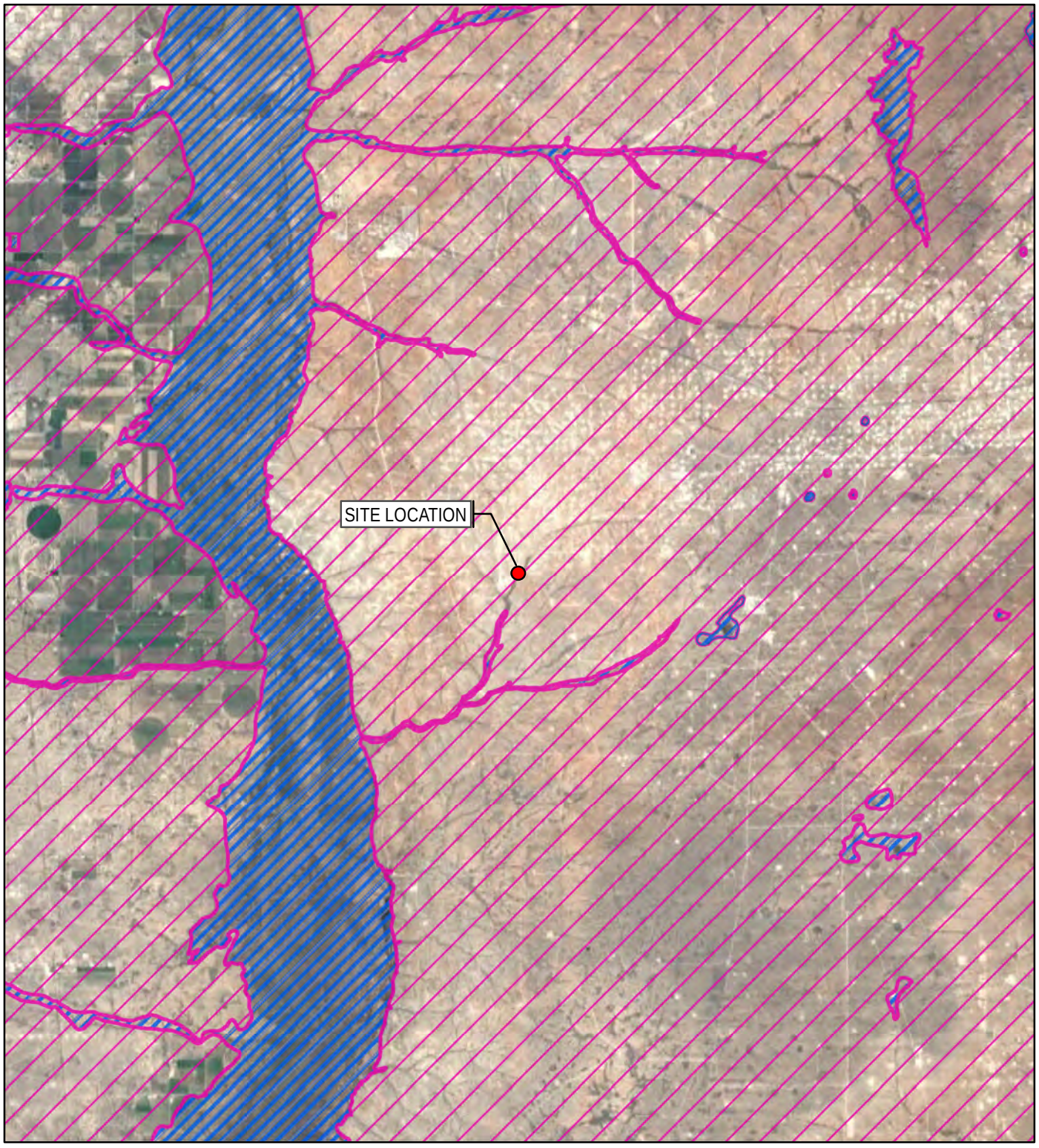
PROJECT:
HOLLY ENERGY PARTNERS - OPERATING, L.P.
ABO CENTURION STATION CRUDE OIL RELEASE
EDDY COUNTY, NEW MEXICO

TITLE:
WELLHEAD PROTECTION AREA MAP

DRAWN BY:	S. RAY
CHECKED BY:	M. HORN
APPROVED BY:	C. CRAIN
DATE:	FEBRUARY 2021
PROJ. NO.:	420669
FILE:	420669_3.mxd

FIGURE 3

S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\390412_Abo_Centurion_Release_2020\mxd\420669_3.mxd -- Saved By: SRAY on 2/19/2021, 13:12:58 PM



LEGEND

A; AE - AREA INSIDE 100 YEAR FLOODPLAIN

X - AREA OUTSIDE OF 500 YEAR FLOODPLAIN

BASE MAP FROM GOOGLE / MAXAR AND THEIR DATA PARTNERS.

1 " = 2 MILES
1:126,720

0 1 2 Miles

N

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Suite #250
Austin, TX 78752
Phone: 512.329.6080

TRC - GIS

PROJECT:

HOLLY ENERGY PARTNERS - OPERATING, L.P.
ABO CENTURION STATION CRUDE OIL RELEASE
EDDY COUNTY, NEW MEXICO

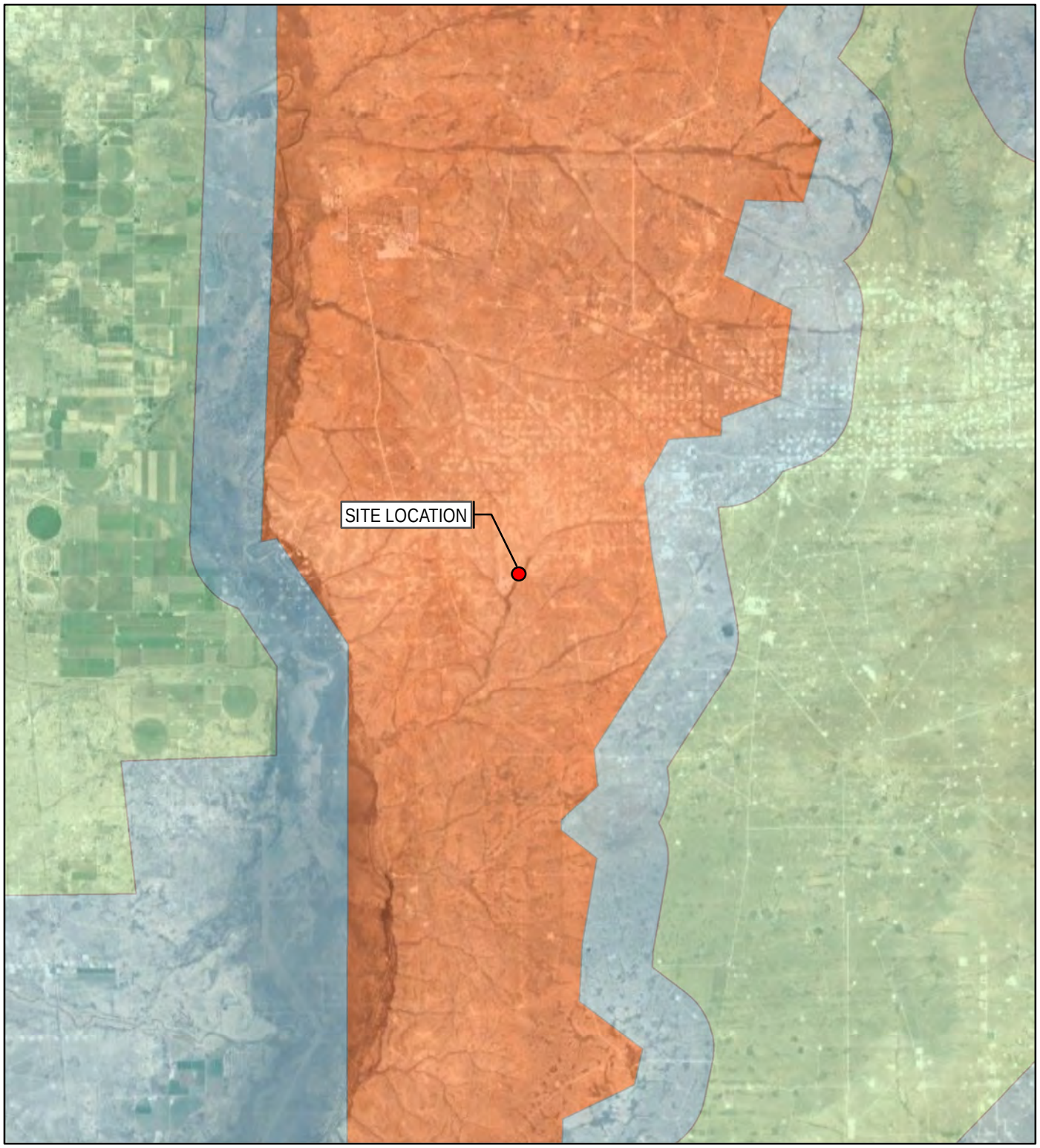
TITLE:

FEMA FLOODPLAIN MAP

DRAWN BY:	S. RAY
CHECKED BY:	M. HORN
APPROVED BY:	C. CRAIN
DATE:	FEBRUARY 2021
PROJ. NO.:	420669
FILE:	420669_4.mxd

FIGURE 4

S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\390412_Abo_Centurion_Release_2020\mxd\420669_4.mxd -- Saved By: SRAY on 2/19/2021, 14:57:48 PM



LEGEND

LOW KARST POTENTIAL

MEDIUM KARST POTENTIAL

HIGH KARST POTENTIAL

BASE MAP FROM GOOGLE / MAXAR AND THEIR DATA PARTNERS.

1 " = 2 MILES
1:126,720

0 1 2 Miles

N

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Austin, TX 78752
Phone: 512.329.6080

TRC - GIS

PROJECT:

HOLLY ENERGY PARTNERS - OPERATING, L.P.
ABO CENTURION STATION CRUDE OIL RELEASE
EDDY COUNTY, NEW MEXICO

TITLE:

KARST POTENTIAL MAP

DRAWN BY:	S. RAY
CHECKED BY:	M. HORN
APPROVED BY:	C. CRAIN
DATE:	FEBRUARY 2021
PROJ. NO.:	420669
FILE:	420669_5.mxd

FIGURE 5

S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\390412_Abo_Centurion_Release_2020\mxd\420669_5.mxd -- Saved By: SRAY on 2/19/2021, 14:59:20 PM

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CSW-6	10/14/2020	1	<49.8	<0.00100	<0.001

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CS-7 (2')	10/14/2020	2	<49.8	<0.00101	<0.00101

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CSW-5	10/14/2020	1	<49.9	<0.00100	**0.02477**

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CS-6a (2')	12/21/2020	2	**241**	--	**--**

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CSW-7	10/14/2020	1	**56.7**	<0.000994	<0.000994

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CS-5a (2')	12/21/2020	2	**2,163**	--	**--**

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CSW-4a	12/21/2020	1	**277.7**	--	**--**

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CS-3 (5')	11/20/2020	5	<49.8	--	**--**

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CS-4 (5')	11/20/2020	5	<49.9	--	**--**

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CSW-2	10/14/2020	1.5	<49.9	<0.00100	<0.001

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CSW-8 (2.5')	11/20/2020	2.5	<50	--	--
CSW-8a (2.5')	12/21/2020	2.5	<49.9	--	**--**

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CS-2 (5')	11/20/2020	5	<50	--	**--**

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CSW-1	10/14/2020	1	<50	<0.000996	<0.000996
Duplicate-1	10/14/2020	1	<49.9	<0.00100	<0.001

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CS-1 (8')	10/14/2020	8	**10.5**	<0.000992	<0.000992

Sample ID	Date	Depth	Total TPH	Benzene	Total BTEX
CSW-3	10/14/2020	4	**65.5**	<0.000998	<0.000998

CSW-6
CS-7 (2')
CSW-5
BH-1
CS-6a (2')
TT-3
TT-4
CSW-7
CS-5a (2')
CSW-4a
CS-4 (5')
TT-2
CSW-8a (2.5')
CS-3 (5')
CSW-2
CS-2 (5')
CSW-1
CS-1 (8')
CSW-3
TT-1

- Release Point
- Soil Boring Location
- Confirmation Floor Sample
- Confirmation Sidewall Sample
- Test Trench Locations
- Pipeline Continues In Both Directions
- Pipeline Terminates On The Western End and Continues On The Eastern End
- Centurion Facility Fenceline
- HEP Abo Centurion Station Fenceline
- Lateral Extent of Surface Release and Excavation Limits

BASE MAP FROM GOOGLE AND THEIR DATA PARTNERS (3/12/2016).

NOTES:
1. Bold indicates the COC was detected, but was below the NMOCD Closure Criteria.
2. Bold and highlighting indicates the COC was detected above the NMOCD Closure Criteria.
3. < indicates the COC was below the appropriate laboratory method/sample detection limit.
4. mg/kg milligrams per kilogram
5. Depths are in feet below ground surface.

	Total TPH	Benzene	Total BTEX
NMOCD Closure Criteria	**100 mg/kg**	**10 mg/kg**	**50 mg/kg**

N

0 15 30 Feet
1 " = 30 '
1:360

PROJECT:
HOLLY ENERGY PARTNERS - OPERATING, L.P.
ABO CENTURION STATION CRUDE OIL RELEASE
EDDY COUNTY, NEW MEXICO

TITLE:
SOIL EXCAVATION AND FINAL CONFIRMATION SAMPLE MAP

DRAWN BY:	S. RAY	PROJ. NO.:	4220669
CHECKED BY:	M. HORN		
APPROVED BY:	C. CRAIN		
DATE:	FEBRUARY 2021		

FIGURE 6

TRC
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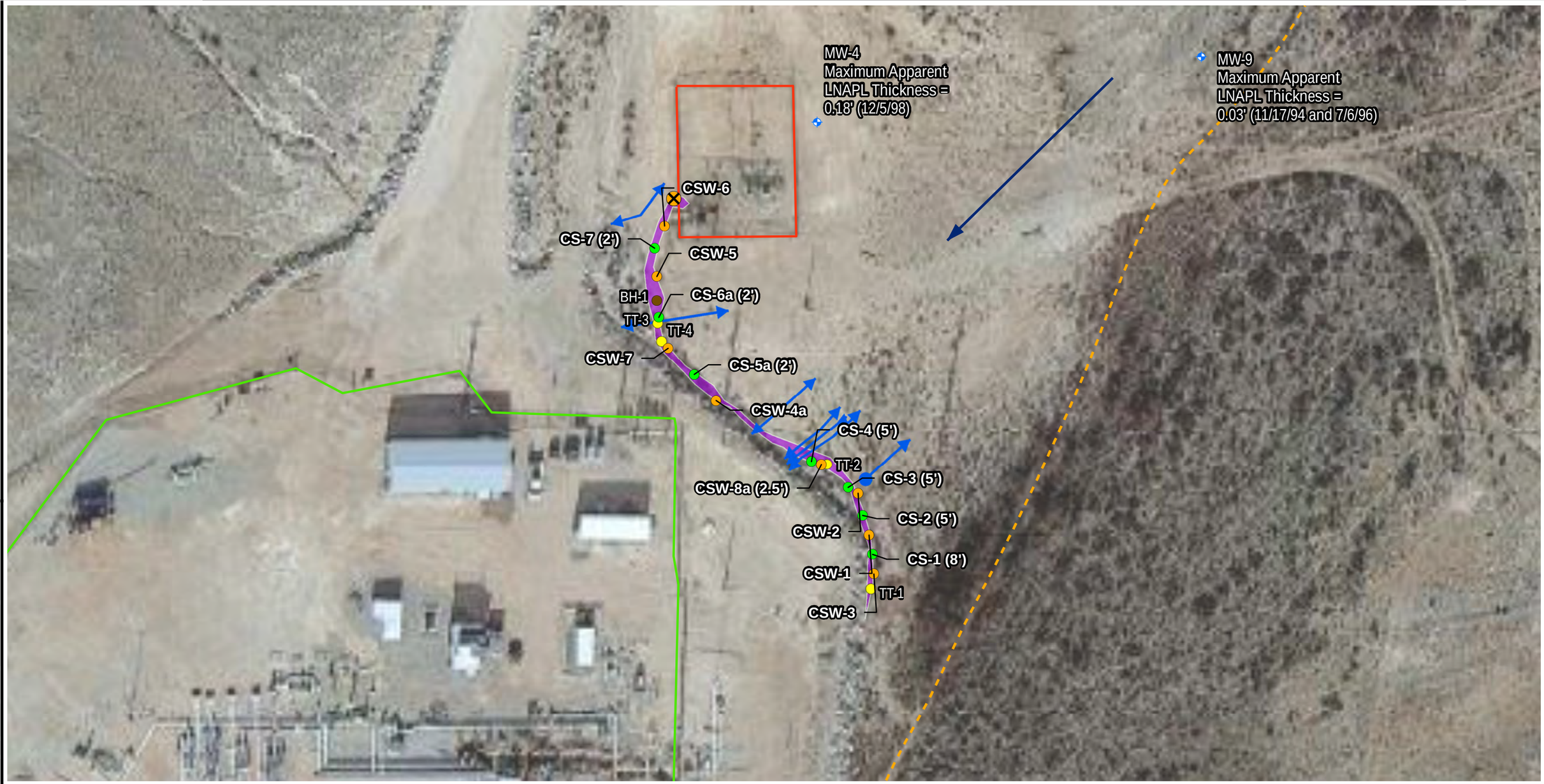
FILE NO.: 420669_6.mxd



Release Point
Soil Boring Location
Centurion Monitor Well
Confirmation Floor Sample
Confirmation Sidewall Sample
Test Trench Locations
Pipeline Continues In Both Directions
Pipeline Terminates On The Western End and Continues On The Eastern End
Groundwater Flow Direction
Centurion Facility Fenceline
HEP Abo Centurion Station Fenceline
Scoggin Draw
Lateral Extent of Surface Release and Excavation Limits

NOTES:
1. Centurion Monitor Well locations taken from the 2008 Annual Groundwater Monitoring Report prepared by Delta Consultants, Plano, Texas, dated October 22, 2008.
2. LNAPL = light non-aqueous phase liquids.

N

0 25 50 Feet
1 " = 50 '
1:600

BASE MAP FROM GOOGLE AND THEIR DATA PARTNERS (3/12/2016).

PROJECT:
HOLLY ENERGY PARTNERS - OPERATING, L.P.
ABO CENTURION STATION CRUDE OIL RELEASE
EDDY COUNTY, NEW MEXICO

TITLE:
SITE MAP WITH HISTORICAL MONITOR WELL LOCATIONS

DRAWN BY:	S. RAY	PROJ. NO.:	4220669
CHECKED BY:	M. HORN		
APPROVED BY:	C. CRAIN		**FIGURE 7**
DATE:	FEBRUARY 2021		

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FILE NO.: 420669_7.mxd

Appendix A: Release Notification and Corrective Action Form (NMOCD Form C-141)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2003032458
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Holly Energy Partners	OGRID 282505
Contact Name Melanie Nolan	Contact Telephone 214-605-8303
Contact email Melanie.Nolan@hollyenergy.com	Incident # *(assigned by OCD)*
Contact mailing address 1602 W Main St. Artesia, NM 88210	

Location of Release Source

Latitude 32.76337442
(NAD 83 in decimal degrees to 5 decimal places)

Longitude -104.26801562

Site Name Abo Centurion Station	Site Type Shipping Receiving Station
Date Release Discovered 12/4/2019	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
	10	18S	27E	Eddy

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) Approximately 15	Volume Recovered (bbls) 3
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Due to internal corrosion on the pipeline 15 bbls of crude oil was released to surrounding area.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2003032458
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

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.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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

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.

Printed Name: Melanie Nolan Title: Environmental Specialist

Signature: Melanie Nolan Date: 12/18/2019

email: Melanie.Nolan@hollyenergy.com Telephone: 214-605-8303

OCD Only

Received by: Date:

Form C-141 State of New Mexico
Page 3 Oil Conservation Division

Incident ID	NRM2003032458
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water? According to OCD records, depth to water at this site is 49' bgs. - CE	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology? CE	☒ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM2003032458
District RP	
Facility ID	
Application ID	

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.

Printed Name: Melanie Nolan Title: Environmental Specialist

Signature: Melanie Nolan Date: 5/21/2020

email: Melanie.Nolan@hollyenergy.com Telephone: 214-605-8303

OCD Only

Received by: Cristina Eads Date: 06/04/2020

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NRM2003032458
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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.

Printed Name: Melanie Nolan Title: Environmental Specialist

Signature: Melanie Nolan Date: 5/21/2020

email: Melanie.Nolan@hollyenergy.com Telephone: 214-605-8303

OCD Only

Received by: Cristina Eads Date: 06/04/2020

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Cristina Eads Date: 08/07/2020

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NRM2003032458
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Melanie Nolan Title: Environmental Specialist

Signature: Melanie Nolan Date: 2-23-2021

email: Melanie.Nolan@hollyenergy.com Telephone: 214-605-8303

OCD Only

Received by: Cristina Eads Date: 02-23-2021

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Cristina Eads Date: 06-28-2021

Printed Name: Cristina Eads Title: Environmental Specialist

Appendix B: Photographic Documentation

HEP- Abo Centurion Crude Oil Release

Photographic Documentation

Photograph No. 1 **Date:** **10/13/2019** **Direction:** **South** **Description:** **View of Release area prior to remediation.**	
Photograph No. 2 **Date:** **11/13/2019** **Direction:** **Southwest** **Description:** **View of Release area prior to remediation.**	

HEP- Abo Centurion Crude Oil Release

Photographic Documentation

Photograph No. 3 **Date:** **11/13/2019** **Direction:** **Southeast** **Description:** **View of Release area prior to remediation.**	
Photograph No. 4 **Date:** **10/14/2020** **Direction:** **South** **Description:** **View of excavation activities.**	

HEP- Abo Centurion Crude Oil Release

Photographic Documentation

Photograph No. 5 **Date:** **10/14/2020** **Direction:** **Northwest** **Description:** **View of excavation activities.**	
Photograph No. 6 **Date:** **10/14/2020** **Direction:** **Northwest** **Description:** **View of excavation activities.**	

HEP- Abo Centurion Crude Oil Release

Photographic Documentation

Photograph No. 7 **Date:** **10/14/2020** **Direction:** **North** **Description:** **View of remediated area.**	
Photograph No. 8 **Date:** **10/14/2020** **Direction:** **South** **Description:** **View of stockpile.**	

HEP- Abo Centurion Crude Oil Release

Photographic Documentation

Photograph No. 9 **Date:** **12/21/2020** **Direction:** **West** **Description:** **View of area after backfilling and surface restoration.**	
Photograph No. 10 **Date:** **12/21/2020** **Direction:** **North** **Description:** **View of area after backfilling and surface restoration.**	

HEP- Abo Centurion Crude Oil Release

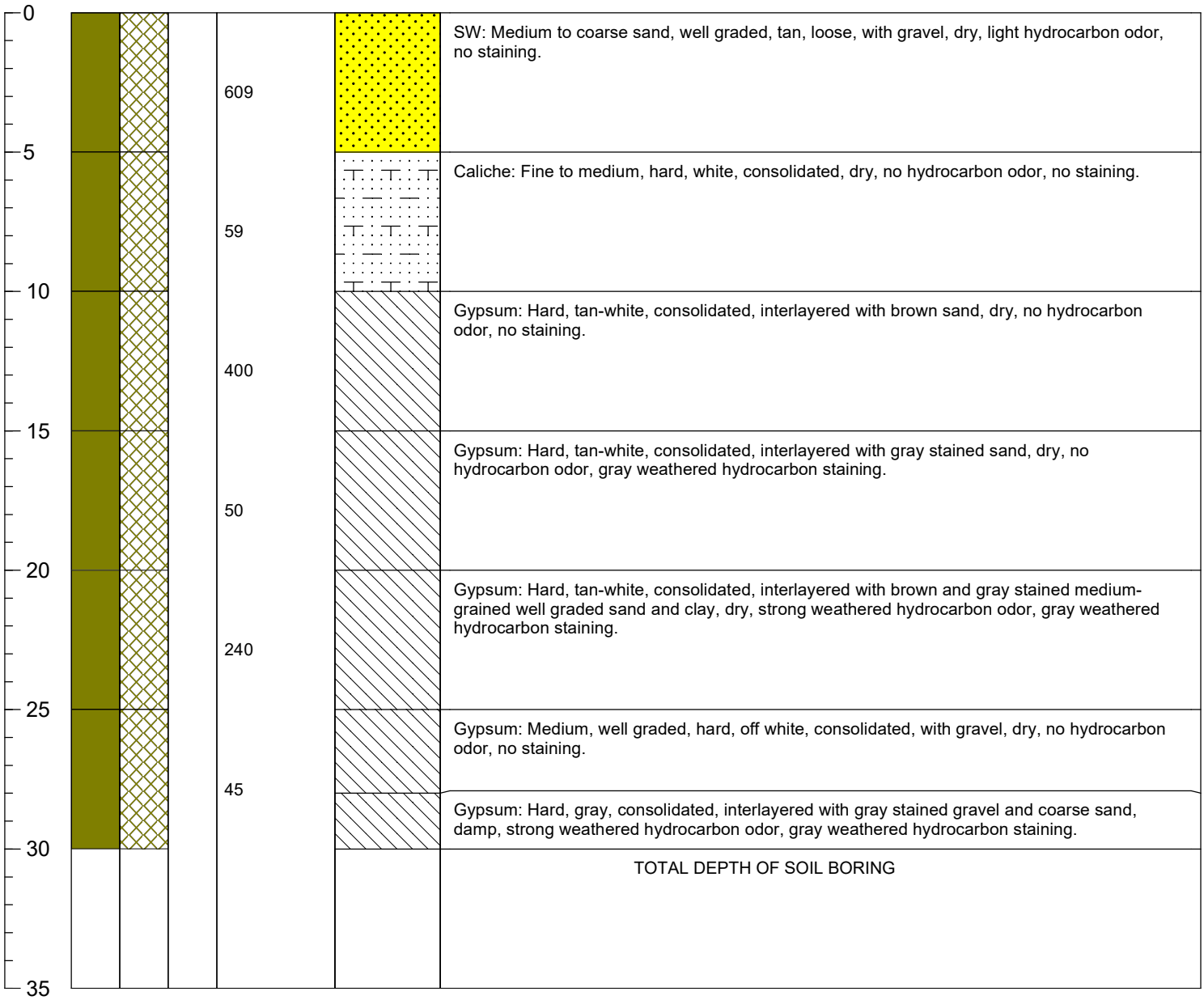
Photographic Documentation

Photograph No. 11 **Date: 12/21/2020** **Direction: North** **Description: View of area after backfilling and surface restoration.**	
Photograph No. 12 **Date: 12/21/2020** **Direction: Southeast** **Description: View of area after backfilling and surface restoration.**	

Appendix C: Soil Boring Log

BORING LOG BH-1

Client: HEP		TRC Project #: 420669
Site: Abo Centurion Station		Start Date: 10/13/2020
Address: Eddy County, NM		Finish Date: 10/13/2020
Project: Site Assessment		Permit #: Not Applicable
Drilling Company: Talon LPE	Drilling Crew: D. Londagin & crew	TRC Site Rep.: Tania Babu
Drilling Method: Air Rotary		TRC Reviewer: Cynthia Crain
Boring Diameter (in): 6	Boring Depth (ft bgs): 30	Coord. Sys.: WGS 84
Sampling Method: Split-spoon		Longitude: 104°16'05.0"W
Blow Count Method: Not Applicable	Grout: Bentonite	Latitude: 32°45'47.0"N
Field Screening Parameter: PID		Elevation Datum: Not Applicable
Meter: MiniRAE 3000	Units: ppm	Ground Elevation (ft): Not Measured



Appendix D: Laboratory Analytical Reports

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Certificate of Analysis Summary 674005

TRC Solutions, Inc, Midland, TX

Project Name: Lovington Bootser Station Release

Project Id:

Contact: Cindy Crain

Project Location:

Date Received in Lab: Wed 09.30.2020 16:38

Report Date: 10.16.2020 13:56

Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	674005-001						
	Field Id:	Backfill						
	Depth:							
	Matrix:	SOIL						
	Sampled:	09.30.2020 11:00						
BTEX by SW 8260C SUB: T104704215-20-38	***Extracted:***	10.02.2020 21:00						
	Analyzed:	10.03.2020 02:43						
	Units/RL:	mg/kg	RL					
Benzene		<0.00101	0.00101					
Toluene		<0.00503	0.00503					
Ethylbenzene		<0.00101	0.00101					
m,p-Xylenes		<0.00201	0.00201					
o-Xylene		<0.00101	0.00101					
Total Xylenes		<0.00101	0.00101					
Total BTEX		<0.00101	0.00101					
Chloride by EPA 300	***Extracted:***	10.08.2020 14:05						
	Analyzed:	10.08.2020 17:35						
	Units/RL:	mg/kg	RL					
Chloride		142	5.05					
TPH by SW8015 Mod	***Extracted:***	10.01.2020 11:15						
	Analyzed:	10.01.2020 21:01						
	Units/RL:	mg/kg	RL					
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9					
Diesel Range Organics (DRO)		<49.9	49.9					
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9					
Total TPH		<49.9	49.9					

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Analytical Report 674005

for

TRC Solutions, Inc

Project Manager: Cindy Crain

Lovington Bootser Station Release

10.16.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

10.16.2020

Project Manager: **Cindy Crain**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: Eurofins Xenco, LLC Report No(s): **674005**
Lovington Bootser Station Release
Project Address:

Cindy Crain:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 674005. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 674005 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Sample Cross Reference 674005

TRC Solutions, Inc, Midland, TX

Lovington Bootser Station Release

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Backfill	S	09.30.2020 11:00		674005-001

CASE NARRATIVE

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Client Name: TRC Solutions, Inc

Project Name: Lovington Bootser Station Release

Project ID:
Work Order Number(s): *674005*

Report Date: *10.16.2020*
Date Received: *09.30.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3138901 BTEX by SW 8260C

Lab Sample ID 674005-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Ethylbenzene, Toluene, m,p-Xylenes recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 674005-001.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

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Certificate of Analytical Results 674005

TRC Solutions, Inc, Midland, TX

Lovington Bootser Station Release

Sample Id: **Backfill** Matrix: Soil Date Received:09.30.2020 16:38

Lab Sample Id: 674005-001 Date Collected: 09.30.2020 11:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 10.08.2020 14:05 % Moisture:

Seq Number: 3139221 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**142**	5.05	mg/kg	10.08.2020 17:35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.01.2020 11:15 % Moisture:

Seq Number: 3138683 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.01.2020 21:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.01.2020 21:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.01.2020 21:01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.01.2020 21:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	10.01.2020 21:01	
o-Terphenyl	84-15-1	91	%	70-130	10.01.2020 21:01	

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Certificate of Analytical Results 674005

TRC Solutions, Inc, Midland, TX

Lovington Bootser Station Release

Sample Id:	**Backfill**	Matrix:	Soil	Date Received:	09.30.2020 16:38
Lab Sample Id:	674005-001	Date Collected:	09.30.2020 11:00		
Analytical Method:	BTEX by SW 8260C			Prep Method:	SW5035A
Tech:	NAL				
Analyst:	NAL	Date Prep:	10.02.2020 21:00	% Moisture:	
Seq Number:	3138901			Basis:	Wet Weight
				SUB:	T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.03.2020 02:43	U	1
Toluene	108-88-3	<0.00503	0.00503	mg/kg	10.03.2020 02:43	UX	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.03.2020 02:43	UX	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	10.03.2020 02:43	UX	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.03.2020 02:43	UX	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.03.2020 02:43	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.03.2020 02:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	53-142	10.03.2020 02:43	
1,2-Dichloroethane-D4	17060-07-0	102	%	53-150	10.03.2020 02:43	
Toluene-D8	2037-26-5	92	%	70-130	10.03.2020 02:43	

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

eurofins | Environment Testing Xenco

QC Summary 674005

TRC Solutions, Inc

Lovington Bootser Station Release

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139221 — Matrix: Solid — Date Prep: 10.08.2020
MB Sample Id: 7712878-1-BLK — LCS Sample Id: 7712878-1-BKS — LCSD Sample Id: 7712878-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	268	107	268	107	90-110	0	20	mg/kg	10.08.2020 14:31	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139221 — Matrix: Soil — Date Prep: 10.08.2020
Parent Sample Id: 674561-001 — MS Sample Id: 674561-001 S — MSD Sample Id: 674561-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	71.7	251	325	101	325	101	90-110	0	20	mg/kg	10.08.2020 14:50	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139221 — Matrix: Soil — Date Prep: 10.08.2020
Parent Sample Id: 674584-002 — MS Sample Id: 674584-002 S — MSD Sample Id: 674584-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	317	253	584	106	583	105	90-110	0	20	mg/kg	10.08.2020 16:19	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3138683 — Matrix: Solid — Date Prep: 10.01.2020
MB Sample Id: 7712480-1-BLK — LCS Sample Id: 7712480-1-BKS — LCSD Sample Id: 7712480-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	951	95	1000	100	70-130	5	20	mg/kg	10.01.2020 12:39	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1030	103	70-130	1	20	mg/kg	10.01.2020 12:39	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		107		106		70-130	%	10.01.2020 12:39
o-Terphenyl	91		96		95		70-130	%	10.01.2020 12:39

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3138683 — Matrix: Solid — Date Prep: 10.01.2020
MB Sample Id: 7712480-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.01.2020 12:17	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 674005

TRC Solutions, Inc

Lovington Bootser Station Release

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3138683 Matrix: Soil Date Prep: 10.01.2020
Parent Sample Id: 673912-001 MS Sample Id: 673912-001 S MSD Sample Id: 673912-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	882	88	869	87	70-130	1	20	mg/kg	10.01.2020 13:44	
Diesel Range Organics (DRO)	<49.9	997	967	97	994	100	70-130	3	20	mg/kg	10.01.2020 13:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		96		70-130	%	10.01.2020 13:44
o-Terphenyl	82		85		70-130	%	10.01.2020 13:44

Analytical Method: **BTEX by SW 8260C** Prep Method: SW5035A
Seq Number: 3138901 Matrix: Solid Date Prep: 10.02.2020
MB Sample Id: 7712658-1-BLK LCS Sample Id: 7712658-1-BKS LCSD Sample Id: 7712658-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0494	99	0.0486	97	62-132	2	25	mg/kg	10.02.2020 22:28	
Toluene	<0.00500	0.0500	0.0445	89	0.0429	86	66-124	4	25	mg/kg	10.02.2020 22:28	
Ethylbenzene	<0.00100	0.0500	0.0454	91	0.0444	89	71-134	2	25	mg/kg	10.02.2020 22:28	
m,p-Xylenes	<0.00200	0.100	0.0889	89	0.0881	88	69-128	1	25	mg/kg	10.02.2020 22:28	
o-Xylene	<0.00100	0.0500	0.0451	90	0.0445	89	72-131	1	25	mg/kg	10.02.2020 22:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	111		114		115		53-142	%	10.02.2020 22:28
1,2-Dichloroethane-D4	101		103		99		53-150	%	10.02.2020 22:28
Toluene-D8	90		94		94		70-130	%	10.02.2020 22:28

Analytical Method: **BTEX by SW 8260C** Prep Method: SW5035A
Seq Number: 3138901 Matrix: Soil Date Prep: 10.02.2020
Parent Sample Id: 674005-001 MS Sample Id: 674005-001 S MSD Sample Id: 674005-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00101	0.0503	0.0397	79	0.0350	71	62-132	13	25	mg/kg	10.02.2020 23:14	
Toluene	<0.00503	0.0503	0.0344	68	0.0297	60	66-124	15	25	mg/kg	10.02.2020 23:14	X
Ethylbenzene	<0.00101	0.0503	0.0356	71	0.0309	62	71-134	14	25	mg/kg	10.02.2020 23:14	X
m,p-Xylenes	<0.00201	0.101	0.0696	69	0.0601	61	69-128	15	25	mg/kg	10.02.2020 23:14	X
o-Xylene	<0.00101	0.0503	0.0350	70	0.0300	60	72-131	15	25	mg/kg	10.02.2020 23:14	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	115		116		53-142	%	10.02.2020 23:14
1,2-Dichloroethane-D4	103		107		53-150	%	10.02.2020 23:14
Toluene-D8	91		89		70-130	%	10.02.2020 23:14

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Chain of Custody

Work Order No: 674005

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com Page 1 of 1

Project Manager:	Cindy Crain	Bill to: (if different)	Cindy Crain
Company Name:	TRC	Company Name:	TRC
Address:	10 Desta Dr. STE 150E	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432-215-6730	Email:	Cindy, Tania, Misti

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Lovington Booster Station	Turn Around	
Project Number:	Release	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Tania Bata / Misti Teinert	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	11.2/11.7	Thermometer ID	IR8	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	+0.5	
Sample Custody Seals:	Yes No (N/A)	Total Containers:	2	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (8015M)	Chloride (E300)	BTEX (8260)	Work Order Notes
Backfill	S	09/30/20	1100	–	2	X	X	X	TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		9/30 1637	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number : 71245

Date/Time:	09.30.2020	Created by:	Brianna Teel	Please send report to:	Jessica Kramer
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**Houston**	Air Bill No.:	771677025779	E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
674005-001	S	Backfill	09.30.2020 11:00	SW8260CBTEX	BTEX by SW 8260C	10.06.2020	10.14.2020	JKR	BZ BZME EBZ XYLENE	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Date Relinquished: 09.30.2020

Received By: Monica Benavides

Date Received: 10.01.2020

Cooler Temperature: 2.4

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 71245

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-203

Sent By: Brianna Teel **Date Sent:** 09.30.2020 09.11 AM

Received By: Monica Benavides **Date Received:** 10.01.2020 10.00 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 10.01.2020

Monica Benavides

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 09.30.2020 04.38.44 PM

Work Order #: 674005

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	11.7	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	Cooling in progress
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Xenco Stafford-BTEX8260
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 10.01.2020
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10.05.2020
Jessica Kramer

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Certificate of Analysis Summary 675147

TRC Solutions, Inc, Midland, TX

Project Name: Abo to Centurion Station

Project Id:

Contact: Cindy Crain

Project Location:

Date Received in Lab: Wed 10.14.2020 15:23

Report Date: 01.15.2021 16:19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	675147-001		675147-002		675147-003		675147-004		675147-005		675147-006	
	Field Id:	BH-1 (0-1')		BH-1 (5')		BH-1 (10')		BH-1 (15')		BH-1 (20')		BH-1 (25')	
	Depth:	0-1 ft		5- ft		10- ft		15- ft		20- ft		25- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	10.13.2020 13:00		10.13.2020 13:10		10.13.2020 13:20		10.13.2020 13:30		10.13.2020 13:40		10.13.2020 13:50	
BTEX by SW 8260C	***Extracted:***	10.21.2020 15:50		10.16.2020 19:30		10.21.2020 15:50		10.21.2020 15:50		10.21.2020 15:50		10.21.2020 15:50	
SUB: T104704215-20-38	***Analyzed:***	10.21.2020 17:42		10.17.2020 05:40		10.21.2020 18:03		10.21.2020 18:23		10.21.2020 18:44		10.21.2020 19:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0249	0.0249	<0.000996	0.000996	<0.0253	0.0253	<0.0252	0.0252	<0.0249	0.0249	<0.0251	0.0251
Toluene		<0.124	0.124	<0.00498	0.00498	<0.126	0.126	<0.126	0.126	<0.124	0.124	<0.125	0.125
Ethylbenzene		0.0502	0.0249	<0.000996	0.000996	<0.0253	0.0253	<0.0252	0.0252	<0.0249	0.0249	<0.0251	0.0251
m,p-Xylenes		0.313	0.0497	<0.00199	0.00199	<0.0505	0.0505	<0.0503	0.0503	<0.0497	0.0497	<0.0501	0.0501
o-Xylene		0.191	0.0249	<0.000996	0.000996	<0.0253	0.0253	<0.0252	0.0252	<0.0249	0.0249	<0.0251	0.0251
Total Xylenes		0.504	0.0249	<0.000996	0.000996	<0.0253	0.0253	<0.0252	0.0252	<0.0249	0.0249	<0.0251	0.0251
Total BTEX		0.5542	0.0249	<0.000996	0.000996	<0.0253	0.0253	<0.0252	0.0252	<0.0249	0.0249	<0.0251	0.0251
TPH by SW8015 Mod	***Extracted:***	10.14.2020 17:00		10.14.2020 17:00		10.14.2020 17:00		10.14.2020 17:00		10.14.2020 17:00		10.16.2020 08:00	
	Analyzed:	10.15.2020 00:57		10.15.2020 01:16		10.15.2020 01:35		10.15.2020 01:54		10.15.2020 02:13		10.16.2020 16:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		113	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8
Diesel Range Organics (DRO)		5600	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		253	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8
Total TPH		5966	49.8	<50	50	<50	50	<49.9	49.9	<49.9	49.9	<49.8	49.8

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Certificate of Analysis Summary 675147

TRC Solutions, Inc, Midland, TX

Project Name: Abo to Centurion Station

Project Id:

Contact: Cindy Crain

Project Location:

Date Received in Lab: Wed 10.14.2020 15:23

Report Date: 01.15.2021 16:19

Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	675147-007		675147-008			
	Field Id:	BH-1 (30')		Duplicate-1			
	Depth:	30- ft					
	Matrix:	SOIL		SOIL			
	Sampled:	10.13.2020 13:00		10.13.2020 00:00			
BTEX by SW 8260C	***Extracted:***	10.16.2020 19:30		10.16.2020 19:30			
SUB: T104704215-20-38	***Analyzed:***	10.17.2020 07:24		10.17.2020 07:44			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		<0.000990	0.000990	<0.000996	0.000996		
Toluene		<0.00495	0.00495	<0.00498	0.00498		
Ethylbenzene		<0.000990	0.000990	<0.000996	0.000996		
m,p-Xylenes		<0.00198	0.00198	<0.00199	0.00199		
o-Xylene		<0.000990	0.000990	<0.000996	0.000996		
Total Xylenes		<0.00099	0.00099	<0.000996	0.000996		
Total BTEX		<0.00099	0.00099	<0.000996	0.000996		
TPH by SW8015 Mod	***Extracted:***	10.16.2020 08:00		10.14.2020 17:00			
	Analyzed:	10.16.2020 17:06		10.15.2020 11:51			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		61.1	50.0	<50.0	50.0		
Diesel Range Organics (DRO)		90.6	50.0	<50.0	50.0		
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0		
Total TPH		151.7	50	<50	50		

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

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Analytical Report 675147

for

TRC Solutions, Inc

Project Manager: Cindy Crain

Abo to Centurion Station

01.15.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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01.15.2021

Project Manager: **Cindy Crain**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: Eurofins Xenco, LLC Report No(s): **675147**
Abo to Centurion Station
Project Address:

Cindy Crain:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 675147. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 675147 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 675147

TRC Solutions, Inc, Midland, TX

Abo to Centurion Station

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 (0-1')	S	10.13.2020 13:00	0 - 1 ft	675147-001
BH-1 (5')	S	10.13.2020 13:10	5 ft	675147-002
BH-1 (10')	S	10.13.2020 13:20	10 ft	675147-003
BH-1 (15')	S	10.13.2020 13:30	15 ft	675147-004
BH-1 (20')	S	10.13.2020 13:40	20 ft	675147-005
BH-1 (25')	S	10.13.2020 13:50	25 ft	675147-006
BH-1 (30')	S	10.13.2020 13:00	30 ft	675147-007
Duplicate-1	S	10.13.2020 00:00	ft	675147-008

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CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: Abo to Centurion Station

Project ID:
Work Order Number(s): *675147*

Report Date: *01.15.2021*
Date Received: *10.14.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3139760 TPH by SW8015 Mod

Surrogate 1-Chlorooctane recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 675147-008.

Batch: LBA-3140277 BTEX by SW 8260C

Samples 675147-003, 004, 005, 006 were run at 25x dilution since they are all white powders.

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Certificate of Analytical Results 675147

TRC Solutions, Inc, Midland, TX

Abo to Centurion Station

Sample Id:	**BH-1 (0-1')**	Matrix:	Soil	Date Received:	10.14.2020 15:23
Lab Sample Id:	675147-001	Date Collected:	10.13.2020 13:00	Sample Depth:	0 - 1 ft

Analytical Method: TPH by SW8015 Mod
Prep Method: SW8015P
Tech: DVM
Analyst: ARM
Date Prep: 10.14.2020 17:00
% Moisture:
Basis: Wet Weight
Seq Number: 3139760

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**113**	49.8	mg/kg	10.15.2020 00:57		1
Diesel Range Organics (DRO)	C10C28DRO	**5600**	49.8	mg/kg	10.15.2020 00:57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**253**	49.8	mg/kg	10.15.2020 00:57		1
Total TPH	PHC635	**5966**	49.8	mg/kg	10.15.2020 00:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-130	10.15.2020 00:57	
o-Terphenyl	84-15-1	84	%	70-130	10.15.2020 00:57	

Analytical Method: BTEX by SW 8260C
Prep Method: SW5035A
Tech: NGA
Analyst: NGA
Date Prep: 10.21.2020 15:50
% Moisture:
Basis: Wet Weight
Seq Number: 3140277
SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0249	0.0249	mg/kg	10.21.2020 17:42	U	25
Toluene	108-88-3	<0.124	0.124	mg/kg	10.21.2020 17:42	U	25
Ethylbenzene	100-41-4	**0.0502**	0.0249	mg/kg	10.21.2020 17:42		25
m,p-Xylenes	179601-23-1	**0.313**	0.0497	mg/kg	10.21.2020 17:42		25
o-Xylene	95-47-6	**0.191**	0.0249	mg/kg	10.21.2020 17:42		25
Total Xylenes	1330-20-7	**0.504**	0.0249	mg/kg	10.21.2020 17:42		25
Total BTEX		**0.5542**	0.0249	mg/kg	10.21.2020 17:42		25

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	89	%	53-142	10.21.2020 17:42	
1,2-Dichloroethane-D4	17060-07-0	90	%	53-150	10.21.2020 17:42	
Toluene-D8	2037-26-5	96	%	70-130	10.21.2020 17:42	

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TRC Solutions, Inc, Midland, TX

Abo to Centurion Station

Sample Id: **BH-1 (5')** Matrix: Soil Date Received:10.14.2020 15:23

Lab Sample Id: 675147-002 Date Collected: 10.13.2020 13:10 Sample Depth: 5 ft

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.14.2020 17:00 % Moisture:

Seq Number: 3139760 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.15.2020 01:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.15.2020 01:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.15.2020 01:16	U	1
Total TPH	PHC635	<50	50	mg/kg	10.15.2020 01:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	70	%	70-130	10.15.2020 01:16	
o-Terphenyl	84-15-1	84	%	70-130	10.15.2020 01:16	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A

Tech: NAL

Analyst: NAL Date Prep: 10.16.2020 19:30 % Moisture:

Seq Number: 3139995 Basis: Wet Weight

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	10.17.2020 05:40	U	1
Toluene	108-88-3	<0.00498	0.00498	mg/kg	10.17.2020 05:40	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	10.17.2020 05:40	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	10.17.2020 05:40	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	10.17.2020 05:40	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	10.17.2020 05:40	U	1
Total BTEX		<0.000996	0.000996	mg/kg	10.17.2020 05:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	53-142	10.17.2020 05:40	
1,2-Dichloroethane-D4	17060-07-0	96	%	53-150	10.17.2020 05:40	
Toluene-D8	2037-26-5	96	%	70-130	10.17.2020 05:40	

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TRC Solutions, Inc, Midland, TX

Abo to Centurion Station

Sample Id: **BH-1 (10')** Matrix: Soil Date Received:10.14.2020 15:23

Lab Sample Id: 675147-003 Date Collected: 10.13.2020 13:20 Sample Depth: 10 ft

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.14.2020 17:00 % Moisture:

Seq Number: 3139760 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.15.2020 01:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.15.2020 01:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.15.2020 01:35	U	1
Total TPH	PHC635	<50	50	mg/kg	10.15.2020 01:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	10.15.2020 01:35	
o-Terphenyl	84-15-1	89	%	70-130	10.15.2020 01:35	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A

Tech: NGA

Analyst: NGA Date Prep: 10.21.2020 15:50 % Moisture:

Seq Number: 3140277 Basis: Wet Weight

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0253	0.0253	mg/kg	10.21.2020 18:03	U	25
Toluene	108-88-3	<0.126	0.126	mg/kg	10.21.2020 18:03	U	25
Ethylbenzene	100-41-4	<0.0253	0.0253	mg/kg	10.21.2020 18:03	U	25
m,p-Xylenes	179601-23-1	<0.0505	0.0505	mg/kg	10.21.2020 18:03	U	25
o-Xylene	95-47-6	<0.0253	0.0253	mg/kg	10.21.2020 18:03	U	25
Total Xylenes	1330-20-7	<0.0253	0.0253	mg/kg	10.21.2020 18:03	U	25
Total BTEX		<0.0253	0.0253	mg/kg	10.21.2020 18:03	U	25

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	92	%	53-142	10.21.2020 18:03	
1,2-Dichloroethane-D4	17060-07-0	96	%	53-150	10.21.2020 18:03	
Toluene-D8	2037-26-5	94	%	70-130	10.21.2020 18:03	

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TRC Solutions, Inc, Midland, TX

Abo to Centurion Station

Sample Id: **BH-1 (15')** Matrix: Soil Date Received:10.14.2020 15:23

Lab Sample Id: 675147-004 Date Collected: 10.13.2020 13:30 Sample Depth: 15 ft

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.14.2020 17:00 % Moisture:

Seq Number: 3139760 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.15.2020 01:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.15.2020 01:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.15.2020 01:54	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.15.2020 01:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-130	10.15.2020 01:54	
o-Terphenyl	84-15-1	84	%	70-130	10.15.2020 01:54	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A

Tech: NGA

Analyst: NGA Date Prep: 10.21.2020 15:50 % Moisture:

Seq Number: 3140277 Basis: Wet Weight

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0252	0.0252	mg/kg	10.21.2020 18:23	U	25
Toluene	108-88-3	<0.126	0.126	mg/kg	10.21.2020 18:23	U	25
Ethylbenzene	100-41-4	<0.0252	0.0252	mg/kg	10.21.2020 18:23	U	25
m,p-Xylenes	179601-23-1	<0.0503	0.0503	mg/kg	10.21.2020 18:23	U	25
o-Xylene	95-47-6	<0.0252	0.0252	mg/kg	10.21.2020 18:23	U	25
Total Xylenes	1330-20-7	<0.0252	0.0252	mg/kg	10.21.2020 18:23	U	25
Total BTEX		<0.0252	0.0252	mg/kg	10.21.2020 18:23	U	25

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	90	%	53-142	10.21.2020 18:23	
1,2-Dichloroethane-D4	17060-07-0	95	%	53-150	10.21.2020 18:23	
Toluene-D8	2037-26-5	100	%	70-130	10.21.2020 18:23	

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TRC Solutions, Inc, Midland, TX

Abo to Centurion Station

Sample Id:	**BH-1 (20')**	Matrix:	Soil	Date Received:	10.14.2020 15:23
Lab Sample Id:	675147-005	Date Collected:	10.13.2020 13:40	Sample Depth:	20 ft

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	10.14.2020 17:00	% Moisture:	
Seq Number:	3139760			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.15.2020 02:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.15.2020 02:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.15.2020 02:13	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.15.2020 02:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	10.15.2020 02:13	
o-Terphenyl	84-15-1	92	%	70-130	10.15.2020 02:13	

Analytical Method:	BTEX by SW 8260C			Prep Method:	SW5035A
Tech:	NGA				
Analyst:	NGA	Date Prep:	10.21.2020 15:50	% Moisture:	
Seq Number:	3140277			Basis:	Wet Weight
				SUB:	T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0249	0.0249	mg/kg	10.21.2020 18:44	U	25
Toluene	108-88-3	<0.124	0.124	mg/kg	10.21.2020 18:44	U	25
Ethylbenzene	100-41-4	<0.0249	0.0249	mg/kg	10.21.2020 18:44	U	25
m,p-Xylenes	179601-23-1	<0.0497	0.0497	mg/kg	10.21.2020 18:44	U	25
o-Xylene	95-47-6	<0.0249	0.0249	mg/kg	10.21.2020 18:44	U	25
Total Xylenes	1330-20-7	<0.0249	0.0249	mg/kg	10.21.2020 18:44	U	25
Total BTEX		<0.0249	0.0249	mg/kg	10.21.2020 18:44	U	25

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	83	%	53-142	10.21.2020 18:44	
1,2-Dichloroethane-D4	17060-07-0	83	%	53-150	10.21.2020 18:44	
Toluene-D8	2037-26-5	94	%	70-130	10.21.2020 18:44	

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TRC Solutions, Inc, Midland, TX

Abo to Centurion Station

Sample Id: **BH-1 (25')** Matrix: Soil Date Received:10.14.2020 15:23

Lab Sample Id: 675147-006 Date Collected: 10.13.2020 13:50 Sample Depth: 25 ft

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:

Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.16.2020 16:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.16.2020 16:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.16.2020 16:47	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.16.2020 16:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-130	10.16.2020 16:47	
o-Terphenyl	84-15-1	96	%	70-130	10.16.2020 16:47	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A

Tech: NGA

Analyst: NGA Date Prep: 10.21.2020 15:50 % Moisture:

Seq Number: 3140277 Basis: Wet Weight

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0251	0.0251	mg/kg	10.21.2020 19:05	U	25
Toluene	108-88-3	<0.125	0.125	mg/kg	10.21.2020 19:05	U	25
Ethylbenzene	100-41-4	<0.0251	0.0251	mg/kg	10.21.2020 19:05	U	25
m,p-Xylenes	179601-23-1	<0.0501	0.0501	mg/kg	10.21.2020 19:05	U	25
o-Xylene	95-47-6	<0.0251	0.0251	mg/kg	10.21.2020 19:05	U	25
Total Xylenes	1330-20-7	<0.0251	0.0251	mg/kg	10.21.2020 19:05	U	25
Total BTEX		<0.0251	0.0251	mg/kg	10.21.2020 19:05	U	25

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	91	%	53-142	10.21.2020 19:05	
1,2-Dichloroethane-D4	17060-07-0	91	%	53-150	10.21.2020 19:05	
Toluene-D8	2037-26-5	95	%	70-130	10.21.2020 19:05	

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TRC Solutions, Inc, Midland, TX

Abo to Centurion Station

Sample Id: **BH-1 (30')** Matrix: Soil Date Received:10.14.2020 15:23
Lab Sample Id: 675147-007 Date Collected: 10.13.2020 13:00 Sample Depth: 30 ft

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:
Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**61.1**	50.0	mg/kg	10.16.2020 17:06		1
Diesel Range Organics (DRO)	C10C28DRO	**90.6**	50.0	mg/kg	10.16.2020 17:06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.16.2020 17:06	U	1
Total TPH	PHC635	**151.7**	50	mg/kg	10.16.2020 17:06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	10.16.2020 17:06	
o-Terphenyl	84-15-1	111	%	70-130	10.16.2020 17:06	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A
Tech: NAL
Analyst: NAL Date Prep: 10.16.2020 19:30 % Moisture:
Seq Number: 3139995 Basis: Wet Weight
SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000990	0.000990	mg/kg	10.17.2020 07:24	U	1
Toluene	108-88-3	<0.00495	0.00495	mg/kg	10.17.2020 07:24	U	1
Ethylbenzene	100-41-4	<0.000990	0.000990	mg/kg	10.17.2020 07:24	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	10.17.2020 07:24	U	1
o-Xylene	95-47-6	<0.000990	0.000990	mg/kg	10.17.2020 07:24	U	1
Total Xylenes	1330-20-7	<0.00099	0.00099	mg/kg	10.17.2020 07:24	U	1
Total BTEX		<0.00099	0.00099	mg/kg	10.17.2020 07:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	53-142	10.17.2020 07:24	
1,2-Dichloroethane-D4	17060-07-0	102	%	53-150	10.17.2020 07:24	
Toluene-D8	2037-26-5	99	%	70-130	10.17.2020 07:24	

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TRC Solutions, Inc, Midland, TX

Abo to Centurion Station

Sample Id: **Duplicate-1** Matrix: Soil Date Received:10.14.2020 15:23

Lab Sample Id: 675147-008 Date Collected: 10.13.2020 00:00

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.14.2020 17:00 % Moisture:

Seq Number: 3139760 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.15.2020 11:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.15.2020 11:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.15.2020 11:51	U	1
Total TPH	PHC635	<50	50	mg/kg	10.15.2020 11:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	65	%	70-130	10.15.2020 11:51	**
o-Terphenyl	84-15-1	76	%	70-130	10.15.2020 11:51	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A

Tech: NAL

Analyst: NAL Date Prep: 10.16.2020 19:30 % Moisture:

Seq Number: 3139995 Basis: Wet Weight

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	10.17.2020 07:44	U	1
Toluene	108-88-3	<0.00498	0.00498	mg/kg	10.17.2020 07:44	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	10.17.2020 07:44	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	10.17.2020 07:44	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	10.17.2020 07:44	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	10.17.2020 07:44	U	1
Total BTEX		<0.000996	0.000996	mg/kg	10.17.2020 07:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	53-142	10.17.2020 07:44	
1,2-Dichloroethane-D4	17060-07-0	94	%	53-150	10.17.2020 07:44	
Toluene-D8	2037-26-5	97	%	70-130	10.17.2020 07:44	

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 675147

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TRC Solutions, Inc

Abo to Centurion Station

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139760 — Matrix: Solid — Date Prep: 10.14.2020
MB Sample Id: 7713279-1-BLK — LCS Sample Id: 7713279-1-BKS — LCSD Sample Id: 7713279-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	824	82	874	87	70-130	6	20	mg/kg	10.14.2020 20:45	
Diesel Range Organics (DRO)	<50.0	1000	838	84	849	85	70-130	1	20	mg/kg	10.14.2020 20:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	70		91		96		70-130	%	10.14.2020 20:45
o-Terphenyl	83		91		99		70-130	%	10.14.2020 20:45

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139996 — Matrix: Solid — Date Prep: 10.16.2020
MB Sample Id: 7713451-1-BLK — LCS Sample Id: 7713451-1-BKS — LCSD Sample Id: 7713451-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	848	85	830	83	70-130	2	20	mg/kg	10.16.2020 09:09	
Diesel Range Organics (DRO)	<50.0	1000	924	92	902	90	70-130	2	20	mg/kg	10.16.2020 09:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		103		94		70-130	%	10.16.2020 09:09
o-Terphenyl	115		108		108		70-130	%	10.16.2020 09:09

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139760 — Matrix: Solid — Date Prep: 10.14.2020
MB Sample Id: 7713279-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.14.2020 20:26	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139996 — Matrix: Solid — Date Prep: 10.16.2020
MB Sample Id: 7713451-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.16.2020 08:50	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery — [D] = 100 * (C) / [B]
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 675147

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TRC Solutions, Inc

Abo to Centurion Station

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139996 — Matrix: Soil — Date Prep: 10.16.2020
Parent Sample Id: 675213-001 — MS Sample Id: 675213-001 S — MSD Sample Id: 675213-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	802	80	824	82	70-130	3	20	mg/kg	10.16.2020 10:06	
Diesel Range Organics (DRO)	80.8	997	915	84	937	86	70-130	2	20	mg/kg	10.16.2020 10:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		101		70-130	%	10.16.2020 10:06
o-Terphenyl	97		100		70-130	%	10.16.2020 10:06

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139760 — Matrix: Soil — Date Prep: 10.14.2020
Parent Sample Id: 675064-032 — MS Sample Id: 675064-032 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	796	80	70-130	mg/kg	10.14.2020 21:43	
Diesel Range Organics (DRO)	<49.9	997	778	78	70-130	mg/kg	10.14.2020 21:43	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		70-130	%	10.14.2020 21:43
o-Terphenyl	85		70-130	%	10.14.2020 21:43

Analytical Method: BTEX by SW 8260C — Prep Method: SW5035A
Seq Number: 3139995 — Matrix: Solid — Date Prep: 10.16.2020
MB Sample Id: 7713499-1-BLK — LCS Sample Id: 7713499-1-BKS — LCSD Sample Id: 7713499-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0498	100	0.0461	92	62-132	8	25	mg/kg	10.17.2020 01:12	
Toluene	<0.00500	0.0500	0.0542	108	0.0474	95	66-124	13	25	mg/kg	10.17.2020 01:12	
Ethylbenzene	<0.00100	0.0500	0.0528	106	0.0476	95	71-134	10	25	mg/kg	10.17.2020 01:12	
m,p-Xylenes	<0.00200	0.100	0.104	104	0.0937	94	69-128	10	25	mg/kg	10.17.2020 01:12	
o-Xylene	<0.00100	0.0500	0.0519	104	0.0477	95	72-131	8	25	mg/kg	10.17.2020 01:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	96		96		99		53-142	%	10.17.2020 01:12
1,2-Dichloroethane-D4	100		92		104		53-150	%	10.17.2020 01:12
Toluene-D8	96		100		101		70-130	%	10.17.2020 01:12

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 675147

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TRC Solutions, Inc

Abo to Centurion Station

Analytical Method: BTEX by SW 8260C — Prep Method: SW5035A
Seq Number: 3140277 — Matrix: Solid — Date Prep: 10.21.2020
MB Sample Id: 7713687-1-BLK — LCS Sample Id: 7713687-1-BKS — LCSD Sample Id: 7713687-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0452	90	0.0430	86	62-132	5	25	mg/kg	10.21.2020 10:18	
Toluene	<0.00500	0.0500	0.0483	97	0.0479	96	66-124	1	25	mg/kg	10.21.2020 10:18	
Ethylbenzene	<0.00100	0.0500	0.0457	91	0.0471	94	71-134	3	25	mg/kg	10.21.2020 10:18	
m,p-Xylenes	<0.00200	0.100	0.0922	92	0.0959	96	69-128	4	25	mg/kg	10.21.2020 10:18	
o-Xylene	<0.00100	0.0500	0.0496	99	0.0471	94	72-131	5	25	mg/kg	10.21.2020 10:18	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	84		101		89		53-142	%	10.21.2020 10:18
1,2-Dichloroethane-D4	87		103		89		53-150	%	10.21.2020 10:18
Toluene-D8	93		103		95		70-130	%	10.21.2020 10:18

Analytical Method: BTEX by SW 8260C — Prep Method: SW5035A
Seq Number: 3139995 — Matrix: Soil — Date Prep: 10.16.2020
Parent Sample Id: 675145-002 — MS Sample Id: 675145-002 S — MSD Sample Id: 675145-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000996	0.0498	0.0462	93	0.0443	89	62-132	4	25	mg/kg	10.17.2020 01:55	
Toluene	<0.00498	0.0498	0.0491	99	0.0434	88	66-124	12	25	mg/kg	10.17.2020 01:55	
Ethylbenzene	<0.000996	0.0498	0.0450	90	0.0425	86	71-134	6	25	mg/kg	10.17.2020 01:55	
m,p-Xylenes	<0.00199	0.0996	0.0872	88	0.0809	82	69-128	7	25	mg/kg	10.17.2020 01:55	
o-Xylene	<0.000996	0.0498	0.0446	90	0.0442	89	72-131	1	25	mg/kg	10.17.2020 01:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	104		111		53-142	%	10.17.2020 01:55
1,2-Dichloroethane-D4	109		94		53-150	%	10.17.2020 01:55
Toluene-D8	107		105		70-130	%	10.17.2020 01:55

Analytical Method: BTEX by SW 8260C — Prep Method: SW5035A
Seq Number: 3140277 — Matrix: Soil — Date Prep: 10.21.2020
Parent Sample Id: 675145-004 — MS Sample Id: 675145-004 S — MSD Sample Id: 675145-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00101	0.0503	0.0437	87	0.0467	94	62-132	7	25	mg/kg	10.21.2020 12:26	
Toluene	<0.00503	0.0503	0.0448	89	0.0510	103	66-124	13	25	mg/kg	10.21.2020 12:26	
Ethylbenzene	<0.00101	0.0503	0.0427	85	0.0486	98	71-134	13	25	mg/kg	10.21.2020 12:26	
m,p-Xylenes	0.00200	0.101	0.0885	86	0.0999	99	69-128	12	25	mg/kg	10.21.2020 12:26	
o-Xylene	0.000996	0.0503	0.0460	89	0.0513	101	72-131	11	25	mg/kg	10.21.2020 12:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	105		104		53-142	%	10.21.2020 12:26
1,2-Dichloroethane-D4	98		108		53-150	%	10.21.2020 12:26
Toluene-D8	99		105		70-130	%	10.21.2020 12:26

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

Chain of Custody

Work Order No: 675147

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Cindy Crain	Bill to: (if different)	Cindy Crain
Company Name:	TRC	Company Name:	TRC
Address:	10 Desta Dr. STE 150E	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432-215-6730	Email:	Cindy, Tania, Misti

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Abo Centurion Station	Turn Around	
Project Number:		Routine ☐	
P.O. Number:		Rush:	
Sampler's Name:	Tania Babu	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	4.4/4.9	Thermometer ID	R8	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0.5	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX (8260)	TPH (8015M)	Sample Comments
BH-1 (0-1')	s	10/13/2020	1300	0-1'	1	x	x	
BH-1 (5')	s	10/13/2020	1310	5'	1	x	x	x- run analysis
BH-1 (10')	s	10/13/2020	1320	10'	1	x	x	√- HOLD
BH-1 (15')	s	10/13/2020	1330	15'	1	x	x	
BH-1 (20')	s	10/13/2020	1340	20'	1	x	x	
BH-1 (25')	s	10/13/2020	1350	25'	1	√	√	
BH-1 (30')	s	10/13/2020	1400	30'	1	√	√	
Duplicate-1	s	10/13/2020	--	--	1	x	x	

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		10/14/20 15:23	2		
3			4		
5			6		

Inter-Office Shipment

IOS Number : 71847

Date/Time:	10.14.2020	Created by:	Brianna Teel	Please send report to:	Jessica Kramer
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**Houston**	Air Bill No.:	771801601301	E-Mail:	jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
675147-001	S	BH-1 (0-1')	10.13.2020 13:00	SW8260CBTEX	BTEX by SW 8260C	10.20.2020	10.27.2020	JKR	BZ BZME EBZ XYLENE	
675147-002	S	BH-1 (5')	10.13.2020 13:10	SW8260CBTEX	BTEX by SW 8260C	10.20.2020	10.27.2020	JKR	BZ BZME EBZ XYLENE	
675147-003	S	BH-1 (10')	10.13.2020 13:20	SW8260CBTEX	BTEX by SW 8260C	10.20.2020	10.27.2020	JKR	BZ BZME EBZ XYLENE	
675147-004	S	BH-1 (15')	10.13.2020 13:30	SW8260CBTEX	BTEX by SW 8260C	10.20.2020	10.27.2020	JKR	BZ BZME EBZ XYLENE	
675147-005	S	BH-1 (20')	10.13.2020 13:40	SW8260CBTEX	BTEX by SW 8260C	10.20.2020	10.27.2020	JKR	BZ BZME EBZ XYLENE	
675147-006	S	BH-1 (25')	10.13.2020 13:50	SW8260CBTEX	BTEX by SW 8260C	10.20.2020	10.27.2020	JKR	BZ BZME EBZ XYLENE	
675147-006	S	BH-1 (25')	10.13.2020 13:50	SW8260CBTEX	BTEX by SW 8260C	10.20.2020	10.27.2020	JKR	BZ BZME EBZ XYLENE	
675147-007	S	BH-1 (30')	10.13.2020 13:00	SW8260CBTEX	BTEX by SW 8260C	10.20.2020	10.27.2020	JKR	BZ BZME EBZ XYLENE	
675147-007	S	BH-1 (30')	10.13.2020 13:00	SW8260CBTEX	BTEX by SW 8260C	10.20.2020	10.27.2020	JKR	BZ BZME EBZ XYLENE	
675147-008	S	Duplicate-1	10.13.2020 00:00	SW8260CBTEX	BTEX by SW 8260C	10.20.2020	10.27.2020	JKR	BZ BZME EBZ XYLENE	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel

Brianna Teel

Date Relinquished: 10.14.2020

Received By: Hypatia Keys

Hypatia Keys

Date Received: 10.15.2020

Cooler Temperature: 4.1

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 71847

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : hou-203

Sent By: Brianna Teel **Date Sent:** 10.14.2020 03.49 PM

Received By: Hypatia Keys **Date Received:** 10.15.2020 04.25 PM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.1	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Hypatia Keys Date: 10.15.2020

Hypatia Keys

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 10.14.2020 03.23.00 PM

Work Order #: 675147

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.9	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Xenco Stafford-BTEX8260
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 10.14.2020
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10.15.2020
Jessica Kramer

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Certificate of Analysis Summary 675213

TRC Solutions, Inc, Midland, TX

Project Name: HEP Abo to Centurion

Project Id: 390412
Contact: Cindy Crain
Project Location: Artesia, NM

Date Received in Lab: Thu 10.15.2020 10:43
Report Date: 10.29.2020 08:06
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	675213-001		675213-002		675213-003		675213-004		675213-005		675213-006	
	Field Id:	CS-1 (8')		CS-2 (3')		CS-3 (2')		CSW-1		CSW-2		CSW-3	
	Depth:	8- ft		3- ft		2- ft		1- ft		1.5- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	10.14.2020 10:00		10.14.2020 10:10		10.14.2020 10:20		10.14.2020 10:30		10.14.2020 10:40		10.14.2020 10:50	
BTEX by SW 8260C SUB: T104704215-20-38	***Extracted:***	10.16.2020 19:30		10.22.2020 17:30		10.16.2020 19:30		10.21.2020 15:50		10.21.2020 15:50		10.21.2020 15:50	
	Analyzed:	10.17.2020 08:47		10.23.2020 03:47		10.17.2020 09:28		10.21.2020 19:34		10.21.2020 19:46		10.21.2020 20:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.000992	0.000992	<0.00100	0.00100	<0.000992	0.000992	<0.000996	0.000996	<0.00100	0.00100	<0.000998	0.000998
Toluene		<0.00496	0.00496	0.0190	0.00500	<0.00496	0.00496	<0.00498	0.00498	<0.00502	0.00502	<0.00499	0.00499
Ethylbenzene		<0.000992	0.000992	0.00745	0.00100	<0.000992	0.000992	<0.000996	0.000996	<0.00100	0.00100	<0.000998	0.000998
m,p-Xylenes		<0.00198	0.00198	0.0271	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
o-Xylene		<0.000992	0.000992	0.0478	0.00100	0.00438	0.000992	<0.000996	0.000996	<0.00100	0.00100	<0.000998	0.000998
Total Xylenes		<0.000992	0.000992	0.0749	0.001	0.00438	0.000992	<0.000996	0.000996	<0.001	0.001	<0.000998	0.000998
Total BTEX		<0.000992	0.000992	0.10135	0.001	0.00438	0.000992	<0.000996	0.000996	<0.001	0.001	<0.000998	0.000998
TPH By SW8015 Mod	***Extracted:***	10.16.2020 08:00		10.16.2020 08:00		10.16.2020 08:00		10.16.2020 08:00		10.16.2020 08:00		10.16.2020 08:00	
	Analyzed:	10.16.2020 09:47		10.16.2020 10:44		10.16.2020 11:03		10.16.2020 11:23		10.16.2020 11:42		10.16.2020 12:01	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	162	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		80.8	50.0	3070	49.8	340	50.0	<50.0	50.0	<49.9	49.9	65.5	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	135	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0
Total TPH		80.8	50	3367	49.8	340	50	<50	50	<49.9	49.9	65.5	50

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Certificate of Analysis Summary 675213

TRC Solutions, Inc, Midland, TX

Project Name: HEP Abo to Centurion

Project Id: 390412
Contact: Cindy Crain
Project Location: Artesia, NM

Date Received in Lab: Thu 10.15.2020 10:43
Report Date: 10.29.2020 08:06
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	675213-007		675213-008		675213-009		675213-010		675213-011		675213-012	
	Field Id:	Duplicate-1		Stockpile		CS-4 (2')		CS-5 (2')		CS-6 (2')		CS-7 (2')	
	Depth:					2- ft		2- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	10.14.2020 00:00		10.14.2020 11:00		10.14.2020 12:00		10.14.2020 12:10		10.14.2020 12:20		10.14.2020 12:30	
BTEX by SW 8260C	***Extracted:***	10.21.2020 15:50		10.21.2020 15:50		10.23.2020 08:00		10.23.2020 08:00		10.23.2020 13:00		10.22.2020 14:30	
SUB: T104704215-20-38	***Analyzed:***	10.21.2020 20:28		10.21.2020 20:49		10.23.2020 18:50		10.23.2020 19:11		10.23.2020 15:37		10.22.2020 14:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.000994	0.000994	<0.000992	0.000992	<0.00101	0.00101
Toluene		<0.00502	0.00502	0.0189	0.00502	<0.00500	0.00500	0.00817	0.00497	<0.00496	0.00496	<0.00504	0.00504
Ethylbenzene		<0.00100	0.00100	0.00335	0.00100	0.00199	0.00100	0.00489	0.000994	0.00246	0.000992	<0.00101	0.00101
m,p-Xylenes		<0.00201	0.00201	0.236	0.00201	0.00667	0.00200	0.0265	0.00199	0.00985	0.00198	<0.00202	0.00202
o-Xylene		<0.00100	0.00100	0.740 D	0.0251	0.00244	0.00100	0.0406	0.000994	0.00445	0.000992	<0.00101	0.00101
Total Xylenes		<0.001	0.001	0.976	0.00201	0.00911	0.001	0.0671	0.000994	0.0143	0.000992	<0.00101	0.00101
Total BTEX		<0.001	0.001	0.99825	0.001	0.0111	0.001	0.08016	0.000994	0.01676	0.000992	<0.00101	0.00101
Chloride by EPA 300	***Extracted:***			10.16.2020 16:50									
	Analyzed:			10.16.2020 20:25									
	Units/RL:			mg/kg	RL								
Chloride				119	50.2								
TPH By SW8015 Mod	***Extracted:***	10.16.2020 08:00		10.16.2020 08:00		10.16.2020 08:00		10.16.2020 08:00		10.16.2020 08:00		10.16.2020 08:00	
	Analyzed:	10.16.2020 12:20		10.16.2020 12:39		10.16.2020 13:18		10.16.2020 13:37		10.16.2020 14:15		10.16.2020 14:34	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	294	49.8	<50.0	50.0	95.1	49.9	<50.0	50.0	<49.8	49.8
Diesel Range Organics (DRO)		<49.9	49.9	3530	49.8	2880	50.0	777	49.9	335	50.0	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	233	49.8	277	50.0	55.5	49.9	<50.0	50.0	<49.8	49.8
Total TPH		<49.9	49.9	4057	49.8	3157	50	927.6	49.9	335	50	<49.8	49.8

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Certificate of Analysis Summary 675213

TRC Solutions, Inc, Midland, TX

Project Name: HEP Abo to Centurion

Project Id: 390412
Contact: Cindy Crain
Project Location: Artesia, NM

Date Received in Lab: Thu 10.15.2020 10:43
Report Date: 10.29.2020 08:06
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	675213-013		675213-014		675213-015		675213-016		675213-017	
	Field Id:	CSW-4		CSW-5		CSW-6		CSW-7		CSW-8	
	Depth:										
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	10.14.2020 12:40		10.14.2020 12:50		10.14.2020 13:00		10.14.2020 13:10		10.14.2020 13:20	
BTEX by SW 8260C	***Extracted:***	10.22.2020 17:30		10.23.2020 13:00		10.23.2020 13:00		10.23.2020 13:00		10.23.2020 13:00	
SUB: T104704215-20-38	***Analyzed:***	10.23.2020 04:08		10.23.2020 15:58		10.23.2020 16:19		10.23.2020 16:40		10.23.2020 17:01	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.000994	0.000994	<0.00100	0.00100
Toluene		<0.00500	0.00500	<0.00500	0.00500	<0.00500	0.00500	<0.00497	0.00497	<0.00502	0.00502
Ethylbenzene		0.00315	0.00100	0.00413	0.00100	<0.00100	0.00100	<0.000994	0.000994	0.00482	0.00100
m,p-Xylenes		<0.00200	0.00200	0.0146	0.00200	<0.00200	0.00200	<0.00199	0.00199	0.0194	0.00201
o-Xylene		0.00471	0.00100	0.00604	0.00100	<0.00100	0.00100	<0.000994	0.000994	0.0168	0.00100
Total Xylenes		0.00471	0.001	0.02064	0.001	<0.001	0.001	<0.000994	0.000994	0.0362	0.001
Total BTEX		0.00786	0.001	0.02477	0.001	<0.001	0.001	<0.000994	0.000994	0.04102	0.001
TPH By SW8015 Mod	***Extracted:***	10.16.2020 08:00		10.16.2020 08:00		10.16.2020 08:00		10.16.2020 08:00		10.16.2020 08:00	
	Analyzed:	10.16.2020 14:53		10.16.2020 15:12		10.16.2020 15:31		10.16.2020 15:50		10.16.2020 16:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		418	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	56.2	50.0
Diesel Range Organics (DRO)		3520	50.0	<49.9	49.9	<49.8	49.8	56.7	50.0	56.9	50.0
Motor Oil Range Hydrocarbons (MRO)		227	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0
Total TPH		4165	50	<49.9	49.9	<49.8	49.8	56.7	50	113.1	50

BRL - Below Reporting Limit

Jessica Kramer

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Analytical Report 675213

for

TRC Solutions, Inc

Project Manager: Cindy Crain

HEP Abo to Centurion

390412

10.29.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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10.29.2020

Project Manager: **Cindy Crain**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: Eurofins Xenco, LLC Report No(s): **675213**
HEP Abo to Centurion
Project Address: Artesia, NM

Cindy Crain:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 675213. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 675213 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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Sample Cross Reference 675213

TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CS-1 (8')	S	10.14.2020 10:00	8 ft	675213-001
CS-2 (3')	S	10.14.2020 10:10	3 ft	675213-002
CS-3 (2')	S	10.14.2020 10:20	2 ft	675213-003
CSW-1	S	10.14.2020 10:30	1 ft	675213-004
CSW-2	S	10.14.2020 10:40	1.5 ft	675213-005
CSW-3	S	10.14.2020 10:50	4 ft	675213-006
Duplicate-1	S	10.14.2020 00:00		675213-007
Stockpile	S	10.14.2020 11:00		675213-008
CS-4 (2')	S	10.14.2020 12:00	2 ft	675213-009
CS-5 (2')	S	10.14.2020 12:10	2 ft	675213-010
CS-6 (2')	S	10.14.2020 12:20	2 ft	675213-011
CS-7 (2')	S	10.14.2020 12:30	2 ft	675213-012
CSW-4	S	10.14.2020 12:40		675213-013
CSW-5	S	10.14.2020 12:50		675213-014
CSW-6	S	10.14.2020 13:00		675213-015
CSW-7	S	10.14.2020 13:10		675213-016
CSW-8	S	10.14.2020 13:20		675213-017

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CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: HEP Abo to Centurion

Project ID: *390412*
Work Order Number(s): *675213*

Report Date: *10.29.2020*
Date Received: *10.15.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3140539 BTEX by SW 8260C

Lab Sample ID 675213-009 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Toluene recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 675213-008, -009, -010, -011, -014, -015, -016, -017.

The Laboratory Control Sample for Toluene is within laboratory Control Limits, therefore the data was accepted.

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Certificate of Analytical Results 675213

TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id:	**CS-1 (8')**	Matrix:	Soil	Date Received:	10.15.2020 10:43
Lab Sample Id:	675213-001	Date Collected:	10.14.2020 10:00	Sample Depth:	8 ft

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	10.16.2020 08:00	% Moisture:	
Seq Number:	3139996			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.16.2020 09:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	**80.8**	50.0	mg/kg	10.16.2020 09:47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.16.2020 09:47	U	1
Total TPH	PHC635	**80.8**	50	mg/kg	10.16.2020 09:47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	10.16.2020 09:47	
o-Terphenyl	84-15-1	101	%	70-130	10.16.2020 09:47	

Analytical Method:	BTEX by SW 8260C			Prep Method:	SW5035A
Tech:	NAL				
Analyst:	NAL	Date Prep:	10.16.2020 19:30	% Moisture:	
Seq Number:	3139995			Basis:	Wet Weight
				SUB:	T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000992	0.000992	mg/kg	10.17.2020 08:47	U	1
Toluene	108-88-3	<0.00496	0.00496	mg/kg	10.17.2020 08:47	U	1
Ethylbenzene	100-41-4	<0.000992	0.000992	mg/kg	10.17.2020 08:47	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	10.17.2020 08:47	U	1
o-Xylene	95-47-6	<0.000992	0.000992	mg/kg	10.17.2020 08:47	U	1
Total Xylenes	1330-20-7	<0.000992	0.000992	mg/kg	10.17.2020 08:47	U	1
Total BTEX		<0.000992	0.000992	mg/kg	10.17.2020 08:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	111	%	53-142	10.17.2020 08:47	
1,2-Dichloroethane-D4	17060-07-0	104	%	53-150	10.17.2020 08:47	
Toluene-D8	2037-26-5	93	%	70-130	10.17.2020 08:47	

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Certificate of Analytical Results 675213

TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id: **CS-2 (3')** Matrix: Soil Date Received:10.15.2020 10:43
Lab Sample Id: 675213-002 Date Collected: 10.14.2020 10:10 Sample Depth: 3 ft

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:
Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**162**	49.8	mg/kg	10.16.2020 10:44		1
Diesel Range Organics (DRO)	C10C28DRO	**3070**	49.8	mg/kg	10.16.2020 10:44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**135**	49.8	mg/kg	10.16.2020 10:44		1
Total TPH	PHC635	**3367**	49.8	mg/kg	10.16.2020 10:44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-130	10.16.2020 10:44	
o-Terphenyl	84-15-1	110	%	70-130	10.16.2020 10:44	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A
Tech: NGA
Analyst: NGA Date Prep: 10.22.2020 17:30 % Moisture:
Seq Number: 3140465 Basis: Wet Weight
SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.23.2020 03:47	U	1
Toluene	108-88-3	**0.0190**	0.00500	mg/kg	10.23.2020 03:47		1
Ethylbenzene	100-41-4	**0.00745**	0.00100	mg/kg	10.23.2020 03:47		1
m,p-Xylenes	179601-23-1	**0.0271**	0.00200	mg/kg	10.23.2020 03:47		1
o-Xylene	95-47-6	**0.0478**	0.00100	mg/kg	10.23.2020 03:47		1
Total Xylenes	1330-20-7	**0.0749**	0.001	mg/kg	10.23.2020 03:47		1
Total BTEX		**0.10135**	0.001	mg/kg	10.23.2020 03:47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	116	%	53-142	10.23.2020 03:47	
1,2-Dichloroethane-D4	17060-07-0	101	%	53-150	10.23.2020 03:47	
Toluene-D8	2037-26-5	108	%	70-130	10.23.2020 03:47	

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Certificate of Analytical Results 675213

TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id:	**CS-3 (2')**	Matrix:	Soil	Date Received:	10.15.2020 10:43
Lab Sample Id:	675213-003	Date Collected:	10.14.2020 10:20	Sample Depth:	2 ft

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	10.16.2020 08:00	% Moisture:	
Seq Number:	3139996			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.16.2020 11:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**340**	50.0	mg/kg	10.16.2020 11:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.16.2020 11:03	U	1
Total TPH	PHC635	**340**	50	mg/kg	10.16.2020 11:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	10.16.2020 11:03	
o-Terphenyl	84-15-1	108	%	70-130	10.16.2020 11:03	

Analytical Method:	BTEX by SW 8260C			Prep Method:	SW5035A
Tech:	NAL				
Analyst:	NAL	Date Prep:	10.16.2020 19:30	% Moisture:	
Seq Number:	3139995			Basis:	Wet Weight
				SUB:	T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000992	0.000992	mg/kg	10.17.2020 09:28	U	1
Toluene	108-88-3	<0.00496	0.00496	mg/kg	10.17.2020 09:28	U	1
Ethylbenzene	100-41-4	<0.000992	0.000992	mg/kg	10.17.2020 09:28	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	10.17.2020 09:28	U	1
o-Xylene	95-47-6	**0.00438**	0.000992	mg/kg	10.17.2020 09:28		1
Total Xylenes	1330-20-7	**0.00438**	0.000992	mg/kg	10.17.2020 09:28		1
Total BTEX		**0.00438**	0.000992	mg/kg	10.17.2020 09:28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	53-142	10.17.2020 09:28	
1,2-Dichloroethane-D4	17060-07-0	105	%	53-150	10.17.2020 09:28	
Toluene-D8	2037-26-5	98	%	70-130	10.17.2020 09:28	

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Certificate of Analytical Results 675213

TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id: **CSW-1** Matrix: Soil Date Received:10.15.2020 10:43

Lab Sample Id: 675213-004 Date Collected: 10.14.2020 10:30 Sample Depth: 1 ft

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:

Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.16.2020 11:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.16.2020 11:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.16.2020 11:23	U	1
Total TPH	PHC635	<50	50	mg/kg	10.16.2020 11:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	10.16.2020 11:23	
o-Terphenyl	84-15-1	104	%	70-130	10.16.2020 11:23	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A

Tech: NGA

Analyst: NGA Date Prep: 10.21.2020 15:50 % Moisture:

Seq Number: 3140277 Basis: Wet Weight

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	10.21.2020 19:34	U	1
Toluene	108-88-3	<0.00498	0.00498	mg/kg	10.21.2020 19:34	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	10.21.2020 19:34	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	10.21.2020 19:34	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	10.21.2020 19:34	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	10.21.2020 19:34	U	1
Total BTEX		<0.000996	0.000996	mg/kg	10.21.2020 19:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	86	%	53-142	10.21.2020 19:34	
1,2-Dichloroethane-D4	17060-07-0	95	%	53-150	10.21.2020 19:34	
Toluene-D8	2037-26-5	97	%	70-130	10.21.2020 19:34	

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Certificate of Analytical Results 675213

TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id:	**CSW-2**	Matrix:	Soil	Date Received:	10.15.2020 10:43
Lab Sample Id:	675213-005	Date Collected:	10.14.2020 10:40	Sample Depth:	1.5 ft

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	10.16.2020 08:00	% Moisture:	
Seq Number:	3139996			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.16.2020 11:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.16.2020 11:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.16.2020 11:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.16.2020 11:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	10.16.2020 11:42	
o-Terphenyl	84-15-1	107	%	70-130	10.16.2020 11:42	

Analytical Method:	BTEX by SW 8260C			Prep Method:	SW5035A
Tech:	NGA				
Analyst:	NGA	Date Prep:	10.21.2020 15:50	% Moisture:	
Seq Number:	3140277			Basis:	Wet Weight
				SUB:	T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.21.2020 19:46	U	1
Toluene	108-88-3	<0.00502	0.00502	mg/kg	10.21.2020 19:46	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.21.2020 19:46	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	10.21.2020 19:46	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.21.2020 19:46	U	1
Total Xylenes	1330-20-7	<0.001	0.001	mg/kg	10.21.2020 19:46	U	1
Total BTEX		<0.001	0.001	mg/kg	10.21.2020 19:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	53-142	10.21.2020 19:46	
1,2-Dichloroethane-D4	17060-07-0	101	%	53-150	10.21.2020 19:46	
Toluene-D8	2037-26-5	97	%	70-130	10.21.2020 19:46	

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Certificate of Analytical Results 675213

TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id:	**CSW-3**	Matrix:	Soil	Date Received:	10.15.2020 10:43
Lab Sample Id:	675213-006	Date Collected:	10.14.2020 10:50	Sample Depth:	4 ft

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	10.16.2020 08:00	% Moisture:	
Seq Number:	3139996			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.16.2020 12:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	**65.5**	50.0	mg/kg	10.16.2020 12:01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.16.2020 12:01	U	1
Total TPH	PHC635	**65.5**	50	mg/kg	10.16.2020 12:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	10.16.2020 12:01	
o-Terphenyl	84-15-1	104	%	70-130	10.16.2020 12:01	

Analytical Method:	BTEX by SW 8260C			Prep Method:	SW5035A
Tech:	NGA				
Analyst:	NGA	Date Prep:	10.21.2020 15:50	% Moisture:	
Seq Number:	3140277			Basis:	Wet Weight
				SUB:	T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	10.21.2020 20:07	U	1
Toluene	108-88-3	<0.00499	0.00499	mg/kg	10.21.2020 20:07	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	10.21.2020 20:07	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.21.2020 20:07	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	10.21.2020 20:07	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	10.21.2020 20:07	U	1
Total BTEX		<0.000998	0.000998	mg/kg	10.21.2020 20:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	94	%	53-142	10.21.2020 20:07	
1,2-Dichloroethane-D4	17060-07-0	89	%	53-150	10.21.2020 20:07	
Toluene-D8	2037-26-5	102	%	70-130	10.21.2020 20:07	

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TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id: **Duplicate-1** Matrix: Soil Date Received:10.15.2020 10:43
Lab Sample Id: 675213-007 Date Collected: 10.14.2020 00:00

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:
Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.16.2020 12:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.16.2020 12:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.16.2020 12:20	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.16.2020 12:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	10.16.2020 12:20	
o-Terphenyl	84-15-1	108	%	70-130	10.16.2020 12:20	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A
Tech: NGA
Analyst: NGA Date Prep: 10.21.2020 15:50 % Moisture:
Seq Number: 3140277 Basis: Wet Weight
SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.21.2020 20:28	U	1
Toluene	108-88-3	<0.00502	0.00502	mg/kg	10.21.2020 20:28	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.21.2020 20:28	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	10.21.2020 20:28	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.21.2020 20:28	U	1
Total Xylenes	1330-20-7	<0.001	0.001	mg/kg	10.21.2020 20:28	U	1
Total BTEX		<0.001	0.001	mg/kg	10.21.2020 20:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	53-142	10.21.2020 20:28	
1,2-Dichloroethane-D4	17060-07-0	91	%	53-150	10.21.2020 20:28	
Toluene-D8	2037-26-5	95	%	70-130	10.21.2020 20:28	

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TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id: **Stockpile** Matrix: Soil Date Received:10.15.2020 10:43

Lab Sample Id: 675213-008 Date Collected: 10.14.2020 11:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 10.16.2020 16:50 % Moisture:

Seq Number: 3139954 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**119**	50.2	mg/kg	10.16.2020 20:25		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:

Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**294**	49.8	mg/kg	10.16.2020 12:39		1
Diesel Range Organics (DRO)	C10C28DRO	**3530**	49.8	mg/kg	10.16.2020 12:39		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**233**	49.8	mg/kg	10.16.2020 12:39		1
Total TPH	PHC635	**4057**	49.8	mg/kg	10.16.2020 12:39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-130	10.16.2020 12:39	
o-Terphenyl	84-15-1	123	%	70-130	10.16.2020 12:39	

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TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id:	**Stockpile**	Matrix:	Soil	Date Received:	10.15.2020 10:43
Lab Sample Id:	675213-008	Date Collected:	10.14.2020 11:00		
Analytical Method:	BTEX by SW 8260C			Prep Method:	SW5035A
Tech:	NGA				
Analyst:	NGA	Date Prep:	10.21.2020 15:50	% Moisture:	
Seq Number:	3140277			Basis:	Wet Weight
				SUB:	T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.21.2020 20:49	U	1
Toluene	108-88-3	**0.0189**	0.00502	mg/kg	10.21.2020 20:49		1
Ethylbenzene	100-41-4	**0.00335**	0.00100	mg/kg	10.21.2020 20:49		1
m,p-Xylenes	179601-23-1	**0.236**	0.00201	mg/kg	10.21.2020 20:49		1
o-Xylene	95-47-6	**0.740**	0.0251	mg/kg	10.23.2020 19:34	D	25
Total Xylenes	1330-20-7	**0.976**	0.00201	mg/kg	10.23.2020 19:34		25
Total BTEX		**0.99825**	0.001	mg/kg	10.23.2020 19:34		25

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	115	%	53-142	10.21.2020 20:49	
1,2-Dichloroethane-D4	17060-07-0	116	%	53-150	10.21.2020 20:49	
Toluene-D8	2037-26-5	110	%	70-130	10.21.2020 20:49	

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TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id:	**CS-4 (2')**	Matrix:	Soil	Date Received:	10.15.2020 10:43
Lab Sample Id:	675213-009	Date Collected:	10.14.2020 12:00	Sample Depth:	2 ft

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	10.16.2020 08:00	% Moisture:	
Seq Number:	3139996			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.16.2020 13:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	**2880**	50.0	mg/kg	10.16.2020 13:18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**277**	50.0	mg/kg	10.16.2020 13:18		1
Total TPH	PHC635	**3157**	50	mg/kg	10.16.2020 13:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	10.16.2020 13:18	
o-Terphenyl	84-15-1	105	%	70-130	10.16.2020 13:18	

Analytical Method:	BTEX by SW 8260C			Prep Method:	SW5035A
Tech:	AMW				
Analyst:	AMW	Date Prep:	10.23.2020 08:00	% Moisture:	
Seq Number:	3140539			Basis:	Wet Weight
				SUB:	T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.23.2020 18:50	U	1
Toluene	108-88-3	<0.00500	0.00500	mg/kg	10.23.2020 18:50	UX	1
Ethylbenzene	100-41-4	**0.00199**	0.00100	mg/kg	10.23.2020 18:50		1
m,p-Xylenes	179601-23-1	**0.00667**	0.00200	mg/kg	10.23.2020 18:50		1
o-Xylene	95-47-6	**0.00244**	0.00100	mg/kg	10.23.2020 18:50		1
Total Xylenes	1330-20-7	**0.00911**	0.001	mg/kg	10.23.2020 18:50		1
Total BTEX		**0.0111**	0.001	mg/kg	10.23.2020 18:50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	53-142	10.23.2020 18:50	
1,2-Dichloroethane-D4	17060-07-0	106	%	53-150	10.23.2020 18:50	
Toluene-D8	2037-26-5	108	%	70-130	10.23.2020 18:50	

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TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id: **CS-5 (2')** Matrix: Soil Date Received:10.15.2020 10:43
Lab Sample Id: 675213-010 Date Collected: 10.14.2020 12:10 Sample Depth: 2 ft

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:
Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**95.1**	49.9	mg/kg	10.16.2020 13:37		1
Diesel Range Organics (DRO)	C10C28DRO	**777**	49.9	mg/kg	10.16.2020 13:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**55.5**	49.9	mg/kg	10.16.2020 13:37		1
Total TPH	PHC635	**927.6**	49.9	mg/kg	10.16.2020 13:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	10.16.2020 13:37	
o-Terphenyl	84-15-1	123	%	70-130	10.16.2020 13:37	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A
Tech: AMW
Analyst: AMW Date Prep: 10.23.2020 08:00 % Moisture:
Seq Number: 3140539 Basis: Wet Weight
SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	10.23.2020 19:11	U	1
Toluene	108-88-3	**0.00817**	0.00497	mg/kg	10.23.2020 19:11		1
Ethylbenzene	100-41-4	**0.00489**	0.000994	mg/kg	10.23.2020 19:11		1
m,p-Xylenes	179601-23-1	**0.0265**	0.00199	mg/kg	10.23.2020 19:11		1
o-Xylene	95-47-6	**0.0406**	0.000994	mg/kg	10.23.2020 19:11		1
Total Xylenes	1330-20-7	**0.0671**	0.000994	mg/kg	10.23.2020 19:11		1
Total BTEX		**0.08016**	0.000994	mg/kg	10.23.2020 19:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	105	%	53-142	10.23.2020 19:11	
1,2-Dichloroethane-D4	17060-07-0	102	%	53-150	10.23.2020 19:11	
Toluene-D8	2037-26-5	103	%	70-130	10.23.2020 19:11	

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TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id:	**CS-6 (2')**	Matrix:	Soil	Date Received:	10.15.2020 10:43
Lab Sample Id:	675213-011	Date Collected:	10.14.2020 12:20	Sample Depth:	2 ft

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	10.16.2020 08:00	% Moisture:	
Seq Number:	3139996			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.16.2020 14:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	**335**	50.0	mg/kg	10.16.2020 14:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.16.2020 14:15	U	1
Total TPH	PHC635	**335**	50	mg/kg	10.16.2020 14:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	10.16.2020 14:15	
o-Terphenyl	84-15-1	105	%	70-130	10.16.2020 14:15	

Analytical Method:	BTEX by SW 8260C			Prep Method:	SW5035A
Tech:	AMW				
Analyst:	AMW	Date Prep:	10.23.2020 13:00	% Moisture:	
Seq Number:	3140539			Basis:	Wet Weight
				SUB:	T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000992	0.000992	mg/kg	10.23.2020 15:37	U	1
Toluene	108-88-3	<0.00496	0.00496	mg/kg	10.23.2020 15:37	U	1
Ethylbenzene	100-41-4	**0.00246**	0.000992	mg/kg	10.23.2020 15:37		1
m,p-Xylenes	179601-23-1	**0.00985**	0.00198	mg/kg	10.23.2020 15:37		1
o-Xylene	95-47-6	**0.00445**	0.000992	mg/kg	10.23.2020 15:37		1
Total Xylenes	1330-20-7	**0.0143**	0.000992	mg/kg	10.23.2020 15:37		1
Total BTEX		**0.01676**	0.000992	mg/kg	10.23.2020 15:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	53-142	10.23.2020 15:37	
1,2-Dichloroethane-D4	17060-07-0	100	%	53-150	10.23.2020 15:37	
Toluene-D8	2037-26-5	94	%	70-130	10.23.2020 15:37	

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TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id: **CS-7 (2')** Matrix: Soil Date Received:10.15.2020 10:43
Lab Sample Id: 675213-012 Date Collected: 10.14.2020 12:30 Sample Depth: 2 ft

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:
Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.16.2020 14:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.16.2020 14:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.16.2020 14:34	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.16.2020 14:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	10.16.2020 14:34	
o-Terphenyl	84-15-1	108	%	70-130	10.16.2020 14:34	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A
Tech: NGA
Analyst: NGA Date Prep: 10.22.2020 14:30 % Moisture:
Seq Number: 3140386 Basis: Wet Weight
SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.22.2020 14:48	U	1
Toluene	108-88-3	<0.00504	0.00504	mg/kg	10.22.2020 14:48	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.22.2020 14:48	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	10.22.2020 14:48	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.22.2020 14:48	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.22.2020 14:48	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.22.2020 14:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	95	%	53-142	10.22.2020 14:48	
1,2-Dichloroethane-D4	17060-07-0	96	%	53-150	10.22.2020 14:48	
Toluene-D8	2037-26-5	95	%	70-130	10.22.2020 14:48	

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TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id: **CSW-4** Matrix: Soil Date Received:10.15.2020 10:43
Lab Sample Id: 675213-013 Date Collected: 10.14.2020 12:40

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:
Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**418**	50.0	mg/kg	10.16.2020 14:53		1
Diesel Range Organics (DRO)	C10C28DRO	**3520**	50.0	mg/kg	10.16.2020 14:53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**227**	50.0	mg/kg	10.16.2020 14:53		1
Total TPH	PHC635	**4165**	50	mg/kg	10.16.2020 14:53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	130	%	70-130	10.16.2020 14:53	
o-Terphenyl	84-15-1	86	%	70-130	10.16.2020 14:53	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A
Tech: NGA
Analyst: NGA Date Prep: 10.22.2020 17:30 % Moisture:
Seq Number: 3140465 Basis: Wet Weight
SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.23.2020 04:08	U	1
Toluene	108-88-3	<0.00500	0.00500	mg/kg	10.23.2020 04:08	U	1
Ethylbenzene	100-41-4	**0.00315**	0.00100	mg/kg	10.23.2020 04:08		1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.23.2020 04:08	U	1
o-Xylene	95-47-6	**0.00471**	0.00100	mg/kg	10.23.2020 04:08		1
Total Xylenes	1330-20-7	**0.00471**	0.001	mg/kg	10.23.2020 04:08		1
Total BTEX		**0.00786**	0.001	mg/kg	10.23.2020 04:08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	53-142	10.23.2020 04:08	
1,2-Dichloroethane-D4	17060-07-0	103	%	53-150	10.23.2020 04:08	
Toluene-D8	2037-26-5	97	%	70-130	10.23.2020 04:08	

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Certificate of Analytical Results 675213

TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id: **CSW-5** Matrix: Soil Date Received:10.15.2020 10:43
Lab Sample Id: 675213-014 Date Collected: 10.14.2020 12:50

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:
Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.16.2020 15:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.16.2020 15:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.16.2020 15:12	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.16.2020 15:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	10.16.2020 15:12	
o-Terphenyl	84-15-1	102	%	70-130	10.16.2020 15:12	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A
Tech: AMW
Analyst: AMW Date Prep: 10.23.2020 13:00 % Moisture:
Seq Number: 3140539 Basis: Wet Weight
SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.23.2020 15:58	U	1
Toluene	108-88-3	<0.00500	0.00500	mg/kg	10.23.2020 15:58	U	1
Ethylbenzene	100-41-4	**0.00413**	0.00100	mg/kg	10.23.2020 15:58		1
m,p-Xylenes	179601-23-1	**0.0146**	0.00200	mg/kg	10.23.2020 15:58		1
o-Xylene	95-47-6	**0.00604**	0.00100	mg/kg	10.23.2020 15:58		1
Total Xylenes	1330-20-7	**0.02064**	0.001	mg/kg	10.23.2020 15:58		1
Total BTEX		**0.02477**	0.001	mg/kg	10.23.2020 15:58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	95	%	53-142	10.23.2020 15:58	
1,2-Dichloroethane-D4	17060-07-0	96	%	53-150	10.23.2020 15:58	
Toluene-D8	2037-26-5	94	%	70-130	10.23.2020 15:58	

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TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id: **CSW-6** Matrix: Soil Date Received:10.15.2020 10:43

Lab Sample Id: 675213-015 Date Collected: 10.14.2020 13:00

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:

Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.16.2020 15:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.16.2020 15:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.16.2020 15:31	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.16.2020 15:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	10.16.2020 15:31	
o-Terphenyl	84-15-1	110	%	70-130	10.16.2020 15:31	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A

Tech: AMW

Analyst: AMW Date Prep: 10.23.2020 13:00 % Moisture:

Seq Number: 3140539 Basis: Wet Weight

SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.23.2020 16:19	U	1
Toluene	108-88-3	<0.00500	0.00500	mg/kg	10.23.2020 16:19	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.23.2020 16:19	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.23.2020 16:19	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.23.2020 16:19	U	1
Total Xylenes	1330-20-7	<0.001	0.001	mg/kg	10.23.2020 16:19	U	1
Total BTEX		<0.001	0.001	mg/kg	10.23.2020 16:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	103	%	53-142	10.23.2020 16:19	
1,2-Dichloroethane-D4	17060-07-0	108	%	53-150	10.23.2020 16:19	
Toluene-D8	2037-26-5	94	%	70-130	10.23.2020 16:19	

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TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id: **CSW-7** Matrix: Soil Date Received:10.15.2020 10:43
Lab Sample Id: 675213-016 Date Collected: 10.14.2020 13:10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:
Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.16.2020 15:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	**56.7**	50.0	mg/kg	10.16.2020 15:50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.16.2020 15:50	U	1
Total TPH	PHC635	**56.7**	50	mg/kg	10.16.2020 15:50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	10.16.2020 15:50	
o-Terphenyl	84-15-1	110	%	70-130	10.16.2020 15:50	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A
Tech: AMW
Analyst: AMW Date Prep: 10.23.2020 13:00 % Moisture:
Seq Number: 3140539 Basis: Wet Weight
SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	10.23.2020 16:40	U	1
Toluene	108-88-3	<0.00497	0.00497	mg/kg	10.23.2020 16:40	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	10.23.2020 16:40	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	10.23.2020 16:40	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	10.23.2020 16:40	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	10.23.2020 16:40	U	1
Total BTEX		<0.000994	0.000994	mg/kg	10.23.2020 16:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	53-142	10.23.2020 16:40	
1,2-Dichloroethane-D4	17060-07-0	96	%	53-150	10.23.2020 16:40	
Toluene-D8	2037-26-5	98	%	70-130	10.23.2020 16:40	

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TRC Solutions, Inc, Midland, TX

HEP Abo to Centurion

Sample Id: **CSW-8** Matrix: Soil Date Received:10.15.2020 10:43
Lab Sample Id: 675213-017 Date Collected: 10.14.2020 13:20

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 10.16.2020 08:00 % Moisture:
Seq Number: 3139996 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**56.2**	50.0	mg/kg	10.16.2020 16:09		1
Diesel Range Organics (DRO)	C10C28DRO	**56.9**	50.0	mg/kg	10.16.2020 16:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.16.2020 16:09	U	1
Total TPH	PHC635	**113.1**	50	mg/kg	10.16.2020 16:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	10.16.2020 16:09	
o-Terphenyl	84-15-1	92	%	70-130	10.16.2020 16:09	

Analytical Method: BTEX by SW 8260C Prep Method: SW5035A
Tech: AMW
Analyst: AMW Date Prep: 10.23.2020 13:00 % Moisture:
Seq Number: 3140539 Basis: Wet Weight
SUB: T104704215-20-38

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.23.2020 17:01	U	1
Toluene	108-88-3	<0.00502	0.00502	mg/kg	10.23.2020 17:01	U	1
Ethylbenzene	100-41-4	**0.00482**	0.00100	mg/kg	10.23.2020 17:01		1
m,p-Xylenes	179601-23-1	**0.0194**	0.00201	mg/kg	10.23.2020 17:01		1
o-Xylene	95-47-6	**0.0168**	0.00100	mg/kg	10.23.2020 17:01		1
Total Xylenes	1330-20-7	**0.0362**	0.001	mg/kg	10.23.2020 17:01		1
Total BTEX		**0.04102**	0.001	mg/kg	10.23.2020 17:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	53-142	10.23.2020 17:01	
1,2-Dichloroethane-D4	17060-07-0	98	%	53-150	10.23.2020 17:01	
Toluene-D8	2037-26-5	94	%	70-130	10.23.2020 17:01	

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 675213

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TRC Solutions, Inc

HEP Abo to Centurion

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139954 — Matrix: Solid — Date Prep: 10.16.2020
MB Sample Id: 7713445-1-BLK — LCS Sample Id: 7713445-1-BKS — LCSD Sample Id: 7713445-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	251	100	251	100	90-110	0	20	mg/kg	10.16.2020 19:09	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139954 — Matrix: Soil — Date Prep: 10.16.2020
Parent Sample Id: 675138-014 — MS Sample Id: 675138-014 S — MSD Sample Id: 675138-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	128	255	424	116	410	111	90-110	3	20	mg/kg	10.16.2020 19:28	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139954 — Matrix: Soil — Date Prep: 10.16.2020
Parent Sample Id: 675266-003 — MS Sample Id: 675266-003 S — MSD Sample Id: 675266-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1170	2500	4030	114	3940	111	90-110	2	20	mg/kg	10.16.2020 20:57	X

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139996 — Matrix: Solid — Date Prep: 10.16.2020
MB Sample Id: 7713451-1-BLK — LCS Sample Id: 7713451-1-BKS — LCSD Sample Id: 7713451-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	848	85	830	83	70-130	2	20	mg/kg	10.16.2020 09:09	
Diesel Range Organics (DRO)	<50.0	1000	924	92	902	90	70-130	2	20	mg/kg	10.16.2020 09:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		103		94		70-130	%	10.16.2020 09:09
o-Terphenyl	115		108		108		70-130	%	10.16.2020 09:09

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139996 — Matrix: Solid — Date Prep: 10.16.2020
MB Sample Id: 7713451-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.16.2020 08:50	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 675213

TRC Solutions, Inc

HEP Abo to Centurion

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3139996 Matrix: Soil Date Prep: 10.16.2020
Parent Sample Id: 675213-001 MS Sample Id: 675213-001 S MSD Sample Id: 675213-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	802	80	824	82	70-130	3	20	mg/kg	10.16.2020 10:06	
Diesel Range Organics (DRO)	80.8	997	915	84	937	86	70-130	2	20	mg/kg	10.16.2020 10:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		101		70-130	%	10.16.2020 10:06
o-Terphenyl	97		100		70-130	%	10.16.2020 10:06

Analytical Method: **BTEX by SW 8260C** Prep Method: SW5035A
Seq Number: 3139995 Matrix: Solid Date Prep: 10.16.2020
MB Sample Id: 7713499-1-BLK LCS Sample Id: 7713499-1-BKS LCSD Sample Id: 7713499-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0498	100	0.0461	92	62-132	8	25	mg/kg	10.17.2020 01:12	
Toluene	<0.00500	0.0500	0.0542	108	0.0474	95	66-124	13	25	mg/kg	10.17.2020 01:12	
Ethylbenzene	<0.00100	0.0500	0.0528	106	0.0476	95	71-134	10	25	mg/kg	10.17.2020 01:12	
m,p-Xylenes	<0.00200	0.100	0.104	104	0.0937	94	69-128	10	25	mg/kg	10.17.2020 01:12	
o-Xylene	<0.00100	0.0500	0.0519	104	0.0477	95	72-131	8	25	mg/kg	10.17.2020 01:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	96		96		99		53-142	%	10.17.2020 01:12
1,2-Dichloroethane-D4	100		92		104		53-150	%	10.17.2020 01:12
Toluene-D8	96		100		101		70-130	%	10.17.2020 01:12

Analytical Method: **BTEX by SW 8260C** Prep Method: SW5035A
Seq Number: 3140277 Matrix: Solid Date Prep: 10.21.2020
MB Sample Id: 7713687-1-BLK LCS Sample Id: 7713687-1-BKS LCSD Sample Id: 7713687-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0452	90	0.0430	86	62-132	5	25	mg/kg	10.21.2020 10:18	
Toluene	<0.00500	0.0500	0.0483	97	0.0479	96	66-124	1	25	mg/kg	10.21.2020 10:18	
Ethylbenzene	<0.00100	0.0500	0.0457	91	0.0471	94	71-134	3	25	mg/kg	10.21.2020 10:18	
m,p-Xylenes	<0.00200	0.100	0.0922	92	0.0959	96	69-128	4	25	mg/kg	10.21.2020 10:18	
o-Xylene	<0.00100	0.0500	0.0496	99	0.0471	94	72-131	5	25	mg/kg	10.21.2020 10:18	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	84		101		89		53-142	%	10.21.2020 10:18
1,2-Dichloroethane-D4	87		103		89		53-150	%	10.21.2020 10:18
Toluene-D8	93		103		95		70-130	%	10.21.2020 10:18

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 675213

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TRC Solutions, Inc

HEP Abo to Centurion

Analytical Method: BTEX by SW 8260C — Prep Method: SW5035A
Seq Number: 3140386 — Matrix: Solid — Date Prep: 10.22.2020
MB Sample Id: 7713755-1-BLK — LCS Sample Id: 7713755-1-BKS — LCSD Sample Id: 7713755-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0402	80	0.0405	81	62-132	1	25	mg/kg	10.22.2020 10:34	
Toluene	<0.00500	0.0500	0.0431	86	0.0436	87	66-124	1	25	mg/kg	10.22.2020 10:34	
Ethylbenzene	<0.00100	0.0500	0.0425	85	0.0449	90	71-134	5	25	mg/kg	10.22.2020 10:34	
m,p-Xylenes	<0.00200	0.100	0.0850	85	0.0877	88	69-128	3	25	mg/kg	10.22.2020 10:34	
o-Xylene	<0.00100	0.0500	0.0437	87	0.0422	84	72-131	3	25	mg/kg	10.22.2020 10:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	86		94		93		53-142	%	10.22.2020 10:34
1,2-Dichloroethane-D4	89		92		96		53-150	%	10.22.2020 10:34
Toluene-D8	108		99		96		70-130	%	10.22.2020 10:34

Analytical Method: BTEX by SW 8260C — Prep Method: SW5035A
Seq Number: 3140465 — Matrix: Solid — Date Prep: 10.22.2020
MB Sample Id: 7713823-1-BLK — LCS Sample Id: 7713823-1-BKS — LCSD Sample Id: 7713823-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0399	80	0.0421	84	62-132	5	25	mg/kg	10.22.2020 20:49	
Toluene	<0.00500	0.0500	0.0406	81	0.0471	94	66-124	15	25	mg/kg	10.22.2020 20:49	
Ethylbenzene	<0.00100	0.0500	0.0407	81	0.0465	93	71-134	13	25	mg/kg	10.22.2020 20:49	
m,p-Xylenes	<0.00200	0.100	0.0821	82	0.0925	93	69-128	12	25	mg/kg	10.22.2020 20:49	
o-Xylene	<0.00100	0.0500	0.0429	86	0.0464	93	72-131	8	25	mg/kg	10.22.2020 20:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	91		102		92		53-142	%	10.22.2020 20:49
1,2-Dichloroethane-D4	98		106		87		53-150	%	10.22.2020 20:49
Toluene-D8	96		95		97		70-130	%	10.22.2020 20:49

Analytical Method: BTEX by SW 8260C — Prep Method: SW5035A
Seq Number: 3140539 — Matrix: Solid — Date Prep: 10.23.2020
MB Sample Id: 7713835-1-BLK — LCS Sample Id: 7713835-1-BKS — LCSD Sample Id: 7713835-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0466	93	0.0413	83	62-132	12	25	mg/kg	10.23.2020 09:12	
Toluene	<0.00500	0.0500	0.0479	96	0.0472	94	66-124	1	25	mg/kg	10.23.2020 09:12	
Ethylbenzene	<0.00100	0.0500	0.0473	95	0.0464	93	71-134	2	25	mg/kg	10.23.2020 09:12	
m,p-Xylenes	<0.00200	0.100	0.0949	95	0.0936	94	69-128	1	25	mg/kg	10.23.2020 09:12	
o-Xylene	<0.00100	0.0500	0.0498	100	0.0450	90	72-131	10	25	mg/kg	10.23.2020 09:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	95		100		83		53-142	%	10.23.2020 09:12
1,2-Dichloroethane-D4	89		108		83		53-150	%	10.23.2020 09:12
Toluene-D8	98		98		99		70-130	%	10.23.2020 09:12

MS/MSD Percent Recovery [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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QC Summary 675213

TRC Solutions, Inc

HEP Abo to Centurion

Analytical Method: **BTEX by SW 8260C** Prep Method: SW5035A
Seq Number: 3139995 Matrix: Soil Date Prep: 10.16.2020
Parent Sample Id: 675145-002 MS Sample Id: 675145-002 S MSD Sample Id: 675145-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000996	0.0498	0.0462	93	0.0443	89	62-132	4	25	mg/kg	10.17.2020 01:55	
Toluene	<0.00498	0.0498	0.0491	99	0.0434	88	66-124	12	25	mg/kg	10.17.2020 01:55	
Ethylbenzene	<0.000996	0.0498	0.0450	90	0.0425	86	71-134	6	25	mg/kg	10.17.2020 01:55	
m,p-Xylenes	<0.00199	0.0996	0.0872	88	0.0809	82	69-128	7	25	mg/kg	10.17.2020 01:55	
o-Xylene	<0.000996	0.0498	0.0446	90	0.0442	89	72-131	1	25	mg/kg	10.17.2020 01:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	104		111		53-142	%	10.17.2020 01:55
1,2-Dichloroethane-D4	109		94		53-150	%	10.17.2020 01:55
Toluene-D8	107		105		70-130	%	10.17.2020 01:55

Analytical Method: **BTEX by SW 8260C** Prep Method: SW5035A
Seq Number: 3140277 Matrix: Soil Date Prep: 10.21.2020
Parent Sample Id: 675145-004 MS Sample Id: 675145-004 S MSD Sample Id: 675145-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00101	0.0503	0.0437	87	0.0467	94	62-132	7	25	mg/kg	10.21.2020 12:26	
Toluene	<0.00503	0.0503	0.0448	89	0.0510	103	66-124	13	25	mg/kg	10.21.2020 12:26	
Ethylbenzene	<0.00101	0.0503	0.0427	85	0.0486	98	71-134	13	25	mg/kg	10.21.2020 12:26	
m,p-Xylenes	0.00200	0.101	0.0885	86	0.0999	99	69-128	12	25	mg/kg	10.21.2020 12:26	
o-Xylene	0.000996	0.0503	0.0460	89	0.0513	101	72-131	11	25	mg/kg	10.21.2020 12:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	105		104		53-142	%	10.21.2020 12:26
1,2-Dichloroethane-D4	98		108		53-150	%	10.21.2020 12:26
Toluene-D8	99		105		70-130	%	10.21.2020 12:26

Analytical Method: **BTEX by SW 8260C** Prep Method: SW5035A
Seq Number: 3140386 Matrix: Soil Date Prep: 10.22.2020
Parent Sample Id: 675213-012 MS Sample Id: 675213-012 S MSD Sample Id: 675213-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000996	0.0498	0.0463	93	0.0423	85	62-132	9	25	mg/kg	10.22.2020 11:06	
Toluene	<0.00498	0.0498	0.0494	99	0.0442	89	66-124	11	25	mg/kg	10.22.2020 11:06	
Ethylbenzene	<0.000996	0.0498	0.0477	96	0.0439	88	71-134	8	25	mg/kg	10.22.2020 11:06	
m,p-Xylenes	<0.00199	0.0996	0.101	101	0.0906	91	69-128	11	25	mg/kg	10.22.2020 11:06	
o-Xylene	<0.000996	0.0498	0.0511	103	0.0461	92	72-131	10	25	mg/kg	10.22.2020 11:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	105		108		53-142	%	10.22.2020 11:06
1,2-Dichloroethane-D4	99		90		53-150	%	10.22.2020 11:06
Toluene-D8	96		95		70-130	%	10.22.2020 11:06

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 675213

TRC Solutions, Inc

HEP Abo to Centurion

Analytical Method: **BTEX by SW 8260C** Prep Method: SW5035A

Seq Number: 3140465 Matrix: Soil Date Prep: 10.22.2020

Parent Sample Id: 675851-004 MS Sample Id: 675851-004 S MSD Sample Id: 675851-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0273	1.36	1.16	85	1.14	84	62-132	2	25	mg/kg	10.22.2020 21:31	
Toluene	<0.136	1.36	1.17	86	1.21	89	66-124	3	25	mg/kg	10.22.2020 21:31	
Ethylbenzene	0.311	1.36	1.45	84	1.48	86	71-134	2	25	mg/kg	10.22.2020 21:31	
m,p-Xylenes	0.925	2.73	3.25	85	3.27	86	69-128	1	25	mg/kg	10.22.2020 21:31	
o-Xylene	0.505	1.36	1.72	89	1.80	95	72-131	5	25	mg/kg	10.22.2020 21:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	96		103		53-142	%	10.22.2020 21:31
1,2-Dichloroethane-D4	93		93		53-150	%	10.22.2020 21:31
Toluene-D8	98		98		70-130	%	10.22.2020 21:31

Analytical Method: **BTEX by SW 8260C** Prep Method: SW5035A

Seq Number: 3140539 Matrix: Soil Date Prep: 10.23.2020

Parent Sample Id: 675213-009 MS Sample Id: 675213-009 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.000996	0.0498	0.0392	79	62-132	mg/kg	10.23.2020 11:14	
Toluene	<0.00498	0.0498	0.0733	147	66-124	mg/kg	10.23.2020 11:14	X
Ethylbenzene	0.00199	0.0498	0.0412	79	71-134	mg/kg	10.23.2020 11:14	
m,p-Xylenes	0.00667	0.0996	0.0919	86	69-128	mg/kg	10.23.2020 11:14	
o-Xylene	0.00244	0.0498	0.0431	82	72-131	mg/kg	10.23.2020 11:14	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	111		53-142	%	10.23.2020 11:14
1,2-Dichloroethane-D4	100		53-150	%	10.23.2020 11:14
Toluene-D8	102		70-130	%	10.23.2020 11:14

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: 675213

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Project Manager:	Cindy Crain	Bill to: (if different)	
Company Name:	TRC	Company Name:	
Address:	10 Desta Dr., Ste 150E	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432-215-6730	Email:	Cindy, Misti, Talia

Project Name:	HEP Abo to Centurion
Project Number:	390412
Project Location:	Artesia, NM
Sampler's Name:	Misti Teinert
PO #:	

Turn Around
☑ Routine ☐ Rush
Due Date:
TAT starts the day received by the lab, if received by 4:30pm

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	IR8
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.3
Total Containers:		Corrected Temperature:	2.0

Work Order Comments
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Preservative Codes
None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH 8015M	BTEX 8260	Chloride	Sample Comments
CS-1 (8')	S	10/14/20	1000	8'	G	1		X	X		
CS-2 (3')			1010	3'							
CS-3 (2')			1020	2'							
CSW-1			1030	NA	C						
CSW-2			1040	NA							
CSW-3			1050	NA							
Duplicate-1			—	NA							
Stockpile			1100	NA						X	
CS-4 (2')			1200	2'	G						
CS-5 (2')			1210	2'							

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Misti Teinert		10/15 1043	2		
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: 675213

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Project Manager:	Cindy Crain	Bill to: (if different)	
Company Name:	TRC	Company Name:	
Address:	10 Desta Dr, Ste 150E	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432-215-6730	Email:	Cindy, Misti, Tania

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	HEP Abo to Centurion	Turn Around	
Project Number:	390412	☑ Routine ☐ Rush	
Project Location:	Artesia, NM	Due Date:	
Sampler's Name:	Misti Teinert	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.3	
Total Containers:		Corrected Temperature:	2.0	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH 8015M	BTEX 8260	Chloride	Sample Comments
CS-6 (2')	S	10/14/20	1220	2'	G	1					
CS-7 (2')			1230	2'							
CSW-4			1240	NA	C						
CSW-5			1250								
CSW-6			1300								
CSW-7			1310								
CSW-8			1320								

ANALYSIS REQUEST

Preservative Codes

None: NO — DI Water: H_2O
Cool: Cool — MeOH: Me
HCL: HC — HNO_3: HN
H_2S0_4: H_2 — NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Misti		10/15 1043	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Inter-Office Shipment

IOS Number : 71869

Date/Time: 10.15.2020
Lab# From: **Midland**
Lab# To: **Houston**
Created by: Brianna Teel
Delivery Priority:
Air Bill No.: 771814028540

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave
E-Mail: jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
675213-001	S	CS-1 (8')	10.14.2020 10:00	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-002	S	CS-2 (3')	10.14.2020 10:10	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-003	S	CS-3 (2')	10.14.2020 10:20	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-004	S	CSW-1	10.14.2020 10:30	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-005	S	CSW-2	10.14.2020 10:40	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-006	S	CSW-3	10.14.2020 10:50	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-007	S	Duplicate-1	10.14.2020 00:00	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-008	S	Stockpile	10.14.2020 11:00	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-009	S	CS-4 (2')	10.14.2020 12:00	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-010	S	CS-5 (2')	10.14.2020 12:10	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-011	S	CS-6 (2')	10.14.2020 12:20	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-012	S	CS-7 (2')	10.14.2020 12:30	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-013	S	CSW-4	10.14.2020 12:40	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-014	S	CSW-5	10.14.2020 12:50	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-015	S	CSW-6	10.14.2020 13:00	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-016	S	CSW-7	10.14.2020 13:10	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	
675213-017	S	CSW-8	10.14.2020 13:20	SW8260CBTEX	BTEX by SW 8260C	10.21.2020	10.28.2020	JKR	BZ BZME EBZ XYLENE	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 10.15.2020

Received By: Hypatia Keys
Hypatia Keys

Date Received: 10.16.2020

Cooler Temperature: 1.3

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 71869

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : hou-203

Sent By: Brianna Teel **Date Sent:** 10.15.2020 11.52 AM

Received By: Hypatia Keys **Date Received:** 10.16.2020 01.42 PM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Hypatia Keys Date: 10.16.2020

Hypatia Keys

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 10.15.2020 10.43.00 AM

Work Order #: 675213

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.8	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Xenco Stafford-BTEX8260
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 10.15.2020
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10.16.2020
Jessica Kramer

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Certificate of Analysis Summary 678749

TRC Solutions, Inc, Midland, TX

Project Name: HEP Abo to Centunion

Project Id: 390412
Contact: Cindy Crain
Project Location: Artesia NM

Date Received in Lab: Mon 11.23.2020 10:05
Report Date: 11.30.2020 10:55
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	678749-001		678749-002		678749-003		678749-004			
	Field Id:	CS-2 (5')		CS-3 (5')		CS-4 (5')		CSW-8 (2.5')			
	Depth:	5- ft		5- ft		5- ft		2.5- ft			
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	11.20.2020 14:00		11.20.2020 14:10		11.20.2020 14:20		11.20.2020 14:30			
TPH by SW8015 Mod	***Extracted:***	11.24.2020 17:00		11.24.2020 17:00		11.24.2020 17:00		11.24.2020 17:00			
	Analyzed:	11.25.2020 05:27		11.25.2020 06:26		11.25.2020 06:45		11.25.2020 07:05			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.0	50.0		
Diesel Range Organics (DRO)		<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.0	50.0		
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.0	50.0		
Total TPH		<50	50	<49.8	49.8	<49.9	49.9	<50	50		

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Analytical Report 678749

for

TRC Solutions, Inc

Project Manager: Cindy Crain

HEP Abo to Centunion

390412

11.30.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

11.30.2020

Project Manager: **Cindy Crain**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: Eurofins Xenco, LLC Report No(s): **678749**
HEP Abo to Centunion
Project Address: Artesia NM

Cindy Crain:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 678749. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 678749 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 678749

TRC Solutions, Inc, Midland, TX

HEP Abo to Centunion

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CS-2 (5')	S	11.20.2020 14:00	5 ft	678749-001
CS-3 (5')	S	11.20.2020 14:10	5 ft	678749-002
CS-4 (5')	S	11.20.2020 14:20	5 ft	678749-003
CSW-8 (2.5')	S	11.20.2020 14:30	2.5 ft	678749-004

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CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: HEP Abo to Centunion

Project ID: *390412*
Work Order Number(s): *678749*

Report Date: *11.30.2020*
Date Received: *11.23.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3143307 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7715934-1-BKS,7715934-1-BLK,678749-003,678749-002,678749-004,678749-001.

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Certificate of Analytical Results 678749

TRC Solutions, Inc, Midland, TX

HEP Abo to Centunion

Sample Id:	**CS-2 (5')**	Matrix:	Soil	Date Received:	11.23.2020 10:05
Lab Sample Id:	678749-001	Date Collected:	11.20.2020 14:00	Sample Depth:	5 ft
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	11.24.2020 17:00	% Moisture:	
Seq Number:	3143307			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.25.2020 05:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.25.2020 05:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.25.2020 05:27	U	1
Total TPH	PHC635	<50	50	mg/kg	11.25.2020 05:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	11.25.2020 05:27	
o-Terphenyl	84-15-1	163	%	70-130	11.25.2020 05:27	**

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Certificate of Analytical Results 678749

TRC Solutions, Inc, Midland, TX

HEP Abo to Centunion

Sample Id:	**CS-3 (5')**	Matrix:	Soil	Date Received:	11.23.2020 10:05
Lab Sample Id:	678749-002	Date Collected:	11.20.2020 14:10	Sample Depth:	5 ft
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	11.24.2020 17:00	% Moisture:	
Seq Number:	3143307			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.25.2020 06:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.25.2020 06:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.25.2020 06:26	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.25.2020 06:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	11.25.2020 06:26	
o-Terphenyl	84-15-1	161	%	70-130	11.25.2020 06:26	**

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Certificate of Analytical Results 678749

TRC Solutions, Inc, Midland, TX

HEP Abo to Centunion

Sample Id:	**CS-4 (5')**	Matrix:	Soil	Date Received:	11.23.2020 10:05
Lab Sample Id:	678749-003	Date Collected:	11.20.2020 14:20	Sample Depth:	5 ft
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	11.24.2020 17:00	% Moisture:	
Seq Number:	3143307			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.25.2020 06:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.25.2020 06:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.25.2020 06:45	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.25.2020 06:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	11.25.2020 06:45	
o-Terphenyl	84-15-1	147	%	70-130	11.25.2020 06:45	**

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Certificate of Analytical Results 678749

TRC Solutions, Inc, Midland, TX

HEP Abo to Centunion

Sample Id:	**CSW-8 (2.5')**	Matrix:	Soil	Date Received:	11.23.2020 10:05
Lab Sample Id:	678749-004	Date Collected:	11.20.2020 14:30	Sample Depth:	2.5 ft
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	11.24.2020 17:00	% Moisture:	
Seq Number:	3143307			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.25.2020 07:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.25.2020 07:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.25.2020 07:05	U	1
Total TPH	PHC635	<50	50	mg/kg	11.25.2020 07:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	11.25.2020 07:05	
o-Terphenyl	84-15-1	159	%	70-130	11.25.2020 07:05	**

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 678749

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TRC Solutions, Inc

HEP Abo to Centunion

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3143307 Matrix: Solid Date Prep: 11.24.2020
MB Sample Id: 7715934-1-BLK LCS Sample Id: 7715934-1-BKS LCSD Sample Id: 7715934-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	977	98	989	99	70-130	1	20	mg/kg	11.25.2020 04:48	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1070	107	70-130	4	20	mg/kg	11.25.2020 04:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		115		116		70-130	%	11.25.2020 04:48
o-Terphenyl	159	**	182	**	90		70-130	%	11.25.2020 04:48

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3143307 Matrix: Solid Date Prep: 11.24.2020
MB Sample Id: 7715934-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.25.2020 04:28	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3143307 Matrix: Soil Date Prep: 11.24.2020
Parent Sample Id: 678749-001 MS Sample Id: 678749-001 S MSD Sample Id: 678749-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	955	96	1010	101	70-130	6	20	mg/kg	11.25.2020 05:46	
Diesel Range Organics (DRO)	<49.8	996	1040	104	1090	109	70-130	5	20	mg/kg	11.25.2020 05:46	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		97		70-130	%	11.25.2020 05:46
o-Terphenyl	81		93		70-130	%	11.25.2020 05:46

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: 6798749

www.xenco.com Page 1 of 1

Project Manager:	Cindy Crain	Bill to: (if different)	
Company Name:	TRC	Company Name:	
Address:	10 Desta Dr, Ste 150E	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432-215-6730	Email:	Cindy, Misti

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	HEP Abo to Centurion	Turn Around	
Project Number:	390412	☑ Routine ☐ Rush	
Project Location:	Artesia, NM	Due Date:	
Sampler's Name:	Misti Reinert	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR8
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0.5
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.5
Total Containers:		Corrected Temperature:	3.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH 8015M
CS-2 (5')	S	11/23/20	1400	5'	G	1		X
CS-3 (5')	↓	↓	1410	5'	↓	↓		↓
CS-4 (5')			1420	5'				
CSW-2 (2.5')	↓	↓	1430	2.5'	↓	↓		↓

ANALYSIS REQUEST

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Misti Bmt		11/23/20 1005	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 11.23.2020 10.05.00 AM

Work Order #: 678749

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 11.23.2020

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 11.25.2020

Jessica Kramer

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Certificate of Analysis Summary 682120

TRC Solutions, Inc, Midland, TX

Project Name: HEP Abo + Centurion

Project Id: 390412
Contact: Cindy Crain
Project Location: Artesia, NM

Date Received in Lab: Mon 12.21.2020 16:48
Report Date: 12.30.2020 07:50
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	682120-001		682120-002		682120-003		682120-004			
	Field Id:	CS-6a (2')		CS-5a (2')		CSW-4a		CSW-8a			
	Depth:	2- ft		2- ft							
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	12.21.2020 09:00		12.21.2020 09:10		12.21.2020 09:20		12.21.2020 09:30			
TPH by SW8015 Mod	***Extracted:***	12.28.2020 16:00		12.28.2020 16:00		12.28.2020 16:00		12.28.2020 16:00			
	Analyzed:	12.29.2020 03:37		12.29.2020 03:59		12.29.2020 04:21		12.29.2020 04:43			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.0	50.0	<49.9	49.9	<49.9	49.9		
Diesel Range Organics (DRO)		241	49.8	1970	50.0	222	49.9	<49.9	49.9		
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	193	50.0	55.7	49.9	<49.9	49.9		
Total TPH		241	49.8	2163	50	277.7	49.9	<49.9	49.9		

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Analytical Report 682120

for

TRC Solutions, Inc

Project Manager: Cindy Crain

HEP Abo + Centurion

390412

12.30.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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12.30.2020

Project Manager: **Cindy Crain**
TRC Solutions, Inc
2057 Commerce
Midland, TX 79703

Reference: Eurofins Xenco, LLC Report No(s): **682120**
HEP Abo + Centurion
Project Address: Artesia, NM

Cindy Crain:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 682120. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 682120 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Sample Cross Reference 682120

TRC Solutions, Inc, Midland, TX

HEP Abo + Centurion

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CS-6a (2')	S	12.21.2020 09:00	2 ft	682120-001
CS-5a (2')	S	12.21.2020 09:10	2 ft	682120-002
CSW-4a	S	12.21.2020 09:20		682120-003
CSW-8a	S	12.21.2020 09:30		682120-004

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CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: HEP Abo + Centurion

Project ID: *390412*
Work Order Number(s): *682120*

Report Date: *12.30.2020*
Date Received: *12.21.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3146247 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 682353-021 S,682353-021 SD,682120-002,682120-003.
Surrogate 1-Chlorooctane recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7718035-1-BSD,682353-021 S,682353-021 SD,682120-003.

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Certificate of Analytical Results 682120

TRC Solutions, Inc, Midland, TX

HEP Abo + Centurion

Sample Id:	**CS-6a (2')**	Matrix:	Soil	Date Received:	12.21.2020 16:48
Lab Sample Id:	682120-001	Date Collected:	12.21.2020 09:00	Sample Depth:	2 ft
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	DVM	Date Prep:	12.28.2020 16:00	% Moisture:	
Seq Number:	3146247			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.29.2020 03:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	**241**	49.8	mg/kg	12.29.2020 03:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.29.2020 03:37	U	1
Total TPH	PHC635	**241**	49.8	mg/kg	12.29.2020 03:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-130	12.29.2020 03:37	
o-Terphenyl	84-15-1	108	%	70-130	12.29.2020 03:37	

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Certificate of Analytical Results 682120

TRC Solutions, Inc, Midland, TX

HEP Abo + Centurion

Sample Id:	**CS-5a (2')**	Matrix:	Soil	Date Received:	12.21.2020 16:48
Lab Sample Id:	682120-002	Date Collected:	12.21.2020 09:10	Sample Depth:	2 ft
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	DVM	Date Prep:	12.28.2020 16:00	% Moisture:	
Seq Number:	3146247			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.29.2020 03:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1970**	50.0	mg/kg	12.29.2020 03:59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**193**	50.0	mg/kg	12.29.2020 03:59		1
Total TPH	PHC635	**2163**	50	mg/kg	12.29.2020 03:59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	12.29.2020 03:59	
o-Terphenyl	84-15-1	164	%	70-130	12.29.2020 03:59	**

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Certificate of Analytical Results 682120

TRC Solutions, Inc, Midland, TX

HEP Abo + Centurion

Sample Id:	**CSW-4a**	Matrix:	Soil	Date Received:	12.21.2020 16:48
Lab Sample Id:	682120-003	Date Collected:	12.21.2020 09:20		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	DVM	Date Prep:	12.28.2020 16:00	% Moisture:	
Seq Number:	3146247			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.29.2020 04:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	**222**	49.9	mg/kg	12.29.2020 04:21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**55.7**	49.9	mg/kg	12.29.2020 04:21		1
Total TPH	PHC635	**277.7**	49.9	mg/kg	12.29.2020 04:21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	145	%	70-130	12.29.2020 04:21	**
o-Terphenyl	84-15-1	153	%	70-130	12.29.2020 04:21	**

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Certificate of Analytical Results 682120

TRC Solutions, Inc, Midland, TX

HEP Abo + Centurion

Sample Id:	**CSW-8a**	Matrix:	Soil	Date Received:	12.21.2020 16:48
Lab Sample Id:	682120-004	Date Collected:	12.21.2020 09:30		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	DVM	Date Prep:	12.28.2020 16:00	% Moisture:	
Seq Number:	3146247			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.29.2020 04:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.29.2020 04:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.29.2020 04:43	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.29.2020 04:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-130	12.29.2020 04:43	
o-Terphenyl	84-15-1	119	%	70-130	12.29.2020 04:43	

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 682120

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TRC Solutions, Inc

HEP Abo + Centurion

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3146247 Matrix: Solid Date Prep: 12.28.2020
MB Sample Id: 7718035-1-BLK LCS Sample Id: 7718035-1-BKS LCSD Sample Id: 7718035-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1030	103	1030	103	70-130	0	20	mg/kg	12.29.2020 00:40	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1100	110	70-130	1	20	mg/kg	12.29.2020 00:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		122		134	**	70-130	%	12.29.2020 00:40
o-Terphenyl	103		124		126		70-130	%	12.29.2020 00:40

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3146247 Matrix: Solid Date Prep: 12.28.2020
MB Sample Id: 7718035-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.29.2020 00:18	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3146247 Matrix: Soil Date Prep: 12.28.2020
Parent Sample Id: 682353-021 MS Sample Id: 682353-021 S MSD Sample Id: 682353-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1370	137	1350	136	70-130	1	20	mg/kg	12.29.2020 01:45	X
Diesel Range Organics (DRO)	<49.9	997	1140	114	1100	110	70-130	4	20	mg/kg	12.29.2020 01:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	145	**	140	**	70-130	%	12.29.2020 01:45
o-Terphenyl	131	**	140	**	70-130	%	12.29.2020 01:45

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

XENCO LABORATORIES

Chain of Custody

Work Order No: 682122

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	Cindy Crain	Bill to: (if different)	
Company Name:	TRC	Company Name:	
Address:	10 Desta Dr. Ste 150E	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432-215-6730	Email:	Cindy

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	HEP Abo to Centurion	Turn Around	
Project Number:	390412	Routine	☑
Project Location	Artesia, NM	Rush:	
Sampler's Name:	Misti Teinert	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	(Yes) No
Temperature (°C):	9.4 / 10.1	Thermometer ID	R8
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-.5
Sample Custody Seals:	Yes No (N/A)	Total Containers:	4

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH 8015M	Sample Comments
	CS-6a (2')	S	12/21/20	0900	2'	1	X	
	CS-5a (2')			0910	2'			
	CSW-4a			0920	—			
	CSW-8a			0930	—			

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		12/21/20 14:48	2		
3			4		
5			6		

Revised Date 022619 Rev. 2019.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc

Date/ Time Received: 12.21.2020 04.48.00 PM

Work Order #: 682120

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	10.1	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	Cooling in progress
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**N/A**	
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

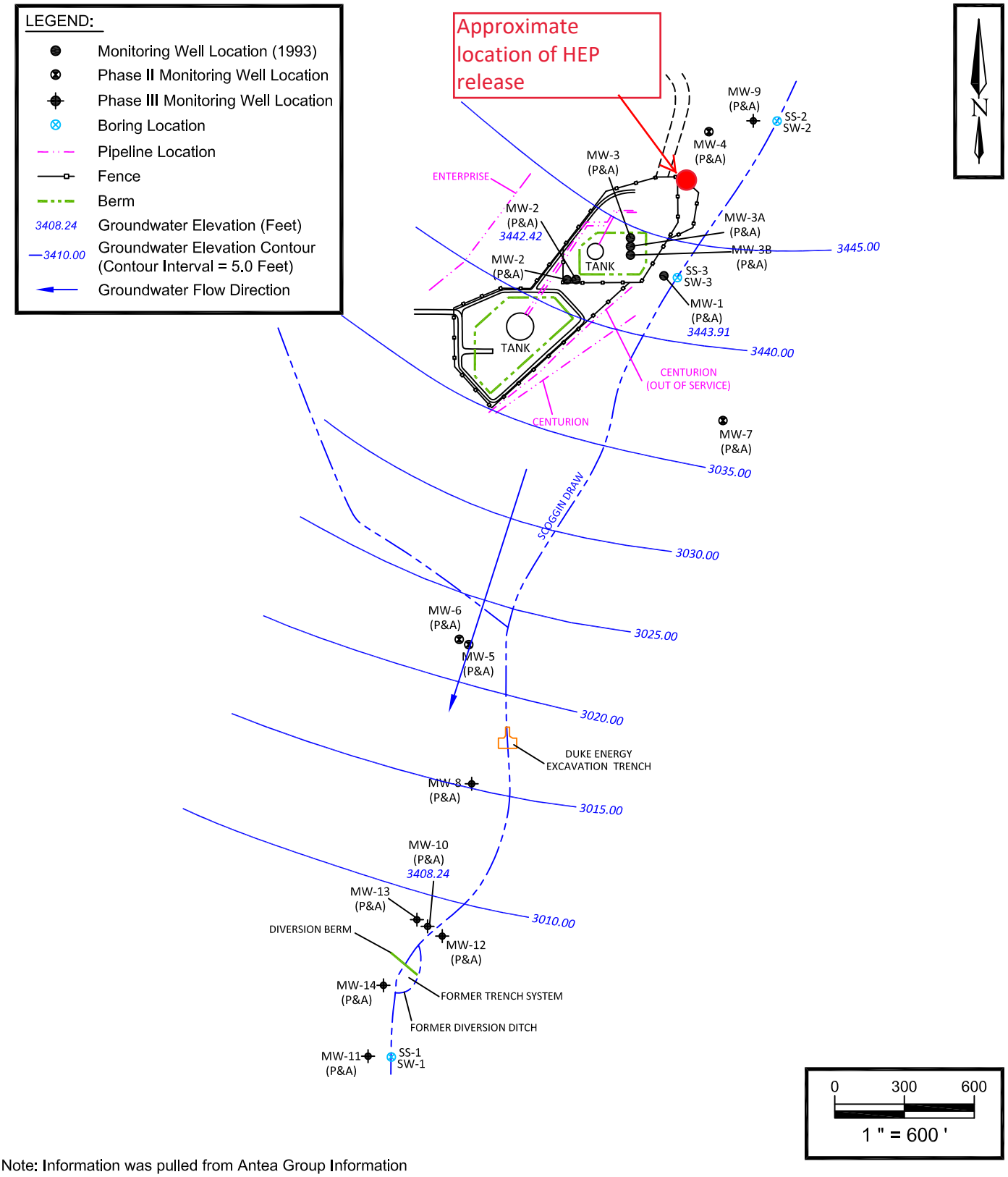
Checklist completed by: Brianna Teel Date: 12.21.2020

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 12.23.2020

Jessica Kramer

Appendix E – Data from Centurion Facility 2008 Annual Groundwater Monitoring Report



Note: Information was pulled from Antea Group Information

Centurion Pipeline
Artesia Tank Farm
Artesia, Eddy County, New Mexico
32.761507 N, 104.270481 W

Project No. 7250715068

Apex
505 N. Big Springs Street, Suite 301A
Midland, Texas 79701
Phone: (432) 695-6016
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 4

Groundwater Gradient Map
June 10, 2010

Z:\Houston South\Drafting\Midland 07\2015\7250715068\Figure 3.dwg 03/21/16

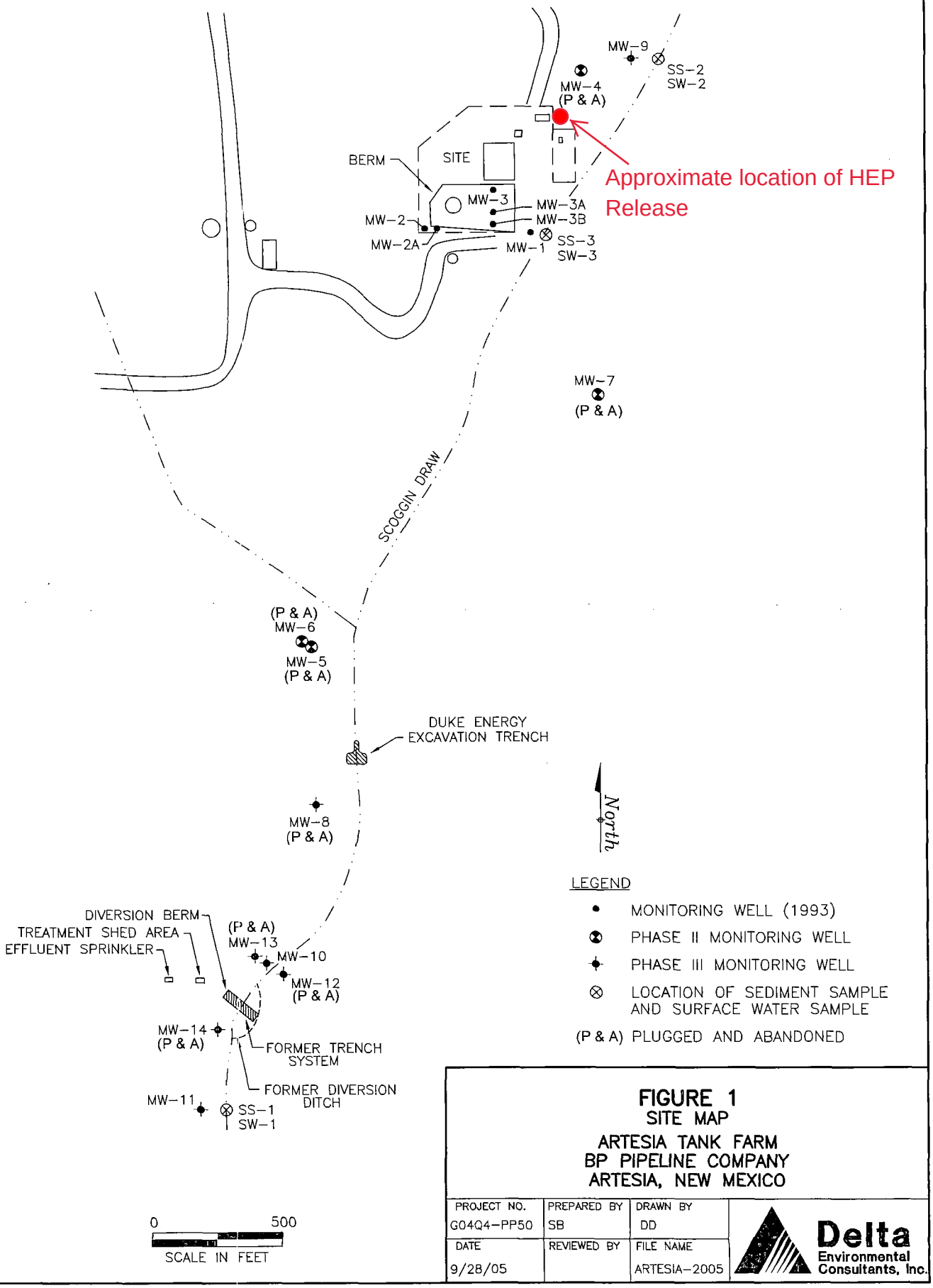


FIGURE 1
SITE MAP
ARTESIA TANK FARM
BP PIPELINE COMPANY
ARTESIA, NEW MEXICO

PROJECT NO.	PREPARED BY	DRAWN BY
G04Q4-PP50	SB	DD
DATE	REVIEWED BY	FILE NAME
9/28/05		ARTESIA-2005

Delta Environmental Consultants, Inc.

TABLE 1
GROUNDWATER ELEVATION DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

LOCATION	DATE	CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PRODUCT THICKNESS	GROUND WATER ELEVATION
MW-3	05/21/93	3447.67	16.45	17.81	1.36	3431.02
	11/17/94		13.07	13.65	0.58	3434.51
	02/09/95		13.75	14.32	0.57	3433.83
	06/16/95		15.20	15.84	0.64	3432.37
	10/02/95		10.69	11.43	0.74	3436.87
	11/26/95		9.69	10.41	0.72	3437.87
	04/16/96		9.58	9.63	0.05	3438.08
	07/06/96		11.70	11.80	0.10	3435.96
	09/30/96		8.71	8.75	0.04	3438.95
	01/10/97		10.33	10.40	0.07	3437.33
	04/02/97		11.36	11.42	0.06	3436.30
	07/10/97		13.02	13.10	0.08	3434.64
	10/17/97		13.22	13.24	0.02	3434.45
	01/18/98		10.68	10.78	0.10	3436.98
	04/18/98		11.47	11.55	0.08	3436.19
	05/29/98		12.34	12.45	0.11	3435.31
	06/30/98		12.70	12.80	0.10	3434.96
	07/23/98		13.95	14.02	0.07	3433.71
	08/19/98		15.08	15.15	0.07	3432.58
	12/05/98		16.40	16.50	0.10	3431.26
	04/01/99		16.00	16.08	0.08	3431.66
	06/03/99		14.35	14.38	0.03	3433.32
	09/16/99		7.82	7.87	0.05	3439.84
	01/08/00		8.50	8.60	0.10	3439.16
	06/08/00		6.98	7.05	0.07	3440.68
	07/24/01		6.63	6.73	0.10	3441.03
	03/12/02		5.43	5.50	0.07	3442.23
	07/18/03		Not gauged			
	03/29/04		Not gauged			
	08/17/05		5.20	5.28	0.08	3442.46
	10/10/06		Not gauged			
	08/12/08		Not gauged			
MW-3A	10/10/01	ND	NP	7.34	NA	ND
(MW-3RS)	03/12/02		NP	5.24	NA	ND
(MW-3C)	07/18/03		NP	6.34	NA	ND
	03/29/04		NP	4.50	NA	ND
	08/17/05		NP	3.70	NA	ND
	10/10/06		NP	3.18	NA	ND
	08/12/08		NP	3.32	NA	ND
MW-3B	10/10/01	ND	NP	7.47	NA	ND
(MW-3R)	03/12/02		NP	5.62	NA	ND
	07/18/03		NP	6.81	NA	ND
	03/29/04		Not gauged			
	08/17/05		NP	4.82	NA	ND
	10/10/06		NP	3.86	NA	ND
	08/12/08		NP	3.90	NA	ND
MW-4	11/17/94	ND	NP	28.28	NA	ND
	02/09/95		NP	28.51	NA	ND
	06/16/95		NP	29.58	NA	ND
	10/02/95		NP	24.42	NA	ND
	11/26/95		NP	22.61	NA	ND
	04/16/96		NP	20.63	NA	ND
	07/06/96		NP	26.44	NA	ND
	09/30/96		NP	21.88	NA	ND
	01/10/97		NP	25.24	NA	ND
	04/02/97		NP	25.49	NA	ND
	04/18/98		NP	25.02	NA	ND
	12/05/98		29.52	29.70	0.18	ND
	04/01/99		28.65	28.67	0.02	ND
	06/03/99		NP	26.48	NA	ND
	09/20/99		NP	18.85	NA	ND
	01/08/00		NP	19.30	NA	ND
	06/08/00		NP	18.46	NA	ND
	07/24/01		NP	16.93	NA	ND
	03/12/02		NP	14.89	NA	ND
	06/19/03		Plugged and Abandoned			

TABLE I
GROUNDWATER ELEVATION DATA
CENTURION PIPELINE L.P. - ARTESIA TANK FARM
ARTESIA, NEW MEXICO

LOCATION	DATE	CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PRODUCT THICKNESS	GROUND WATER ELEVATION
MW-8	11/17/94	3424.57	13.69	14.95	1.26	3410.69
	02/09/95		14.46	15.02	0.56	3410.03
	06/16/95		15.50	16.41	0.91	3408.93
	10/02/95		13.03	13.45	0.42	3411.48
	11/26/95		14.16	14.71	0.55	3410.33
	04/16/96		13.66	13.70	0.04	3410.90
	07/06/96		13.05	13.07	0.02	3411.52
	09/30/96		8.04	8.07	0.03	3416.53
	01/10/97		9.89	9.90	0.01	3414.68
	04/02/97		10.58	10.60	0.02	3413.99
	07/10/97		NP	12.59	NA	3411.98
	10/17/97		NP	10.20	NA	3414.37
	01/18/98		NP	10.08	NA	3414.49
	04/18/98		NP	10.52	NA	3414.05
	05/29/98		NP	11.55	NA	3413.02
	06/30/98		NP	11.87	NA	3412.70
	07/23/98		NP	13.65	NA	3410.92
	08/19/98		NP	14.42	NA	3410.15
	12/05/98		NP	15.30	NA	3409.27
	04/01/99		NP	15.73	NA	3408.84
	06/03/99		NP	11.88	NA	3412.69
	09/20/99		NP	7.20	NA	3417.37
	01/08/00		NP	8.58	NA	3415.99
	06/08/00		NP	9.71	NA	3414.86
	07/24/01		NP	9.53	NA	3415.04
	03/21/02		NP	7.28	NA	3417.29
	07/17/03		NP	8.59	NA	3415.98
	03/29/04		NP	6.80	NA	3417.77
	08/17/05		NP	6.82	NA	3417.75
			Plugged and Abandoned			
MW-9	11/17/94	3456.12	23.07	23.10	0.03	3433.05
	02/09/95		Sheen	23.41	Sheen	3432.71
	06/16/95		Sheen	24.65	Sheen	3431.47
	10/02/95		Sheen	20.73	Sheen	3435.39
	11/26/95		Sheen	19.52	Sheen	3436.60
	04/16/96		17.53	17.54	0.01	3438.59
	07/06/96		21.20	21.23	0.03	3434.92
	09/30/96		16.00	16.02	0.02	3440.12
	01/10/97		17.55	17.57	0.02	3438.57
	04/02/97		18.91	18.92	0.01	3437.21
	07/10/97		20.39	20.41	0.02	3435.73
	10/17/97		20.13	20.15	0.02	3435.99
	01/18/98		18.39	18.40	0.01	3437.73
	04/18/98		18.80	18.81	0.01	3437.32
	05/29/98		NP	19.50	NA	3436.62
	06/30/98		NP	19.82	NA	3436.30
	07/23/98		21.00	21.01	0.01	3435.12
	08/19/98		NP	21.75	NA	3434.37
	12/05/98		NP	23.18	NA	3432.94
	04/01/99		NP	22.85	NA	3433.27
	06/03/99		NP	20.85	NA	3435.27
	09/20/99		NP	12.56	NA	3443.56
	01/08/00		NP	12.64	NA	3443.48
	06/08/00		NP	11.65	NA	3444.47
	07/24/01		NP	10.65	NA	3445.47
	03/12/02		7.80	7.81	0.01	3448.32
	07/18/03		Sheen	9.71	Sheen	3446.41
	03/29/04		NP	6.90	NA	3449.22
	08/17/05		NP	9.63	NA	3446.49
	10/10/06		NP	6.12	NA	3450.00
	08/12/08		NP	6.02	NA	3450.10

Appendix F – Disposal Tickets and Transporter Manifests

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	HOLLY ENERGY	Ticket #:	700-1180397
Customer #:	CRI3200	Bid #:	Walk-in Bid
Ordered by:	MELANIE NOLAN	Date:	12/7/2020
AFE #:		Generator:	Holly Energy
PO #:		Generator #:	
Manifest #:	NA	Well Ser. #:	999908
Manif. Date:	12/7/2020	Well Name:	ABO CENTURION STATION
Hauler:	M Mata Trucking LLC	Well #:	
Driver	JESUS	Field:	
Truck #	101	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	EDDY (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	HOLLY ENERGY
Customer #:	CRI3200
Ordered by:	MELANIE NOLAN
AFE #:	
PO #:	
Manifest #:	NA
Manif. Date:	12/7/2020
Hauler:	M Mata Trucking LLC
Driver	MANUEL
Truck #	150
Card #	
Job Ref #	

Ticket #:	700-1180398
Bid #:	Walk-in Bid
Date:	12/7/2020
Generator:	Holly Energy
Generator #:	
Well Ser. #:	999908
Well Name:	ABO CENTURION STATION
Well #:	
Field:	
Field #:	
Rig:	NON-DRILLING
County	EDDY (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01GW81

12/7/2020 10:47:03AM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	HOLLY ENERGY
Customer #:	CRI3200
Ordered by:	MELANIE NOLAN
AFE #:	
PO #:	
Manifest #:	NA
Manif. Date:	12/7/2020
Hauler:	M Mata Trucking LLC
Driver	JONAHTAN
Truck #	01
Card #	
Job Ref #	

Ticket #:	700-1180399
Bid #:	Walk-in Bid
Date:	12/7/2020
Generator:	Holly Energy
Generator #:	
Well Ser. #:	999908
Well Name:	ABO CENTURION STATION
Well #:	
Field:	
Field #:	
Rig:	NON-DRILLING
County	EDDY (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	HOLLY ENERGY
Customer #:	CRI3200
Ordered by:	MELANIE NOLAN
AFE #:	
PO #:	
Manifest #:	NA
Manif. Date:	12/7/2020
Hauler:	M Mata Trucking LLC
Driver	SERGIO
Truck #	12
Card #	
Job Ref #	

Ticket #:	700-1180400
Bid #:	Walk-in Bid
Date:	12/7/2020
Generator:	Holly Energy
Generator #:	
Well Ser. #:	999908
Well Name:	ABO CENTURION STATION
Well #:	
Field:	
Field #:	
Rig:	NON-DRILLING
County	EDDY (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: SVG Date:

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	HOLLY ENERGY	Ticket #:	700-1180550
Customer #:	CRI3200	Bid #:	Walk-in Bid
Ordered by:	MELANIE NOLAN	Date:	12/7/2020
AFE #:		Generator:	Holly Energy
PO #:		Generator #:	
Manifest #:	NA	Well Ser. #:	999908
Manif. Date:	12/7/2020	Well Name:	ABO CENTURION STATION
Hauler:	M Mata Trucking LLC	Well #:	
Driver	SERGIO	Field:	
Truck #	12	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	EDDY (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	HOLLY ENERGY
Customer #:	CRI3200
Ordered by:	MELANIE NOLAN
AFE #:	
PO #:	
Manifest #:	NA
Manif. Date:	12/7/2020
Hauler:	RDR EAGLE TRUCKING
Driver	RICARDO
Truck #	08
Card #	
Job Ref #	

Ticket #:	700-1180558
Bid #:	Walk-in Bid
Date:	12/7/2020
Generator:	Holly Energy
Generator #:	
Well Ser. #:	999908
Well Name:	ABO CENTURION STATION
Well #:	
Field:	
Field #:	
Rig:	NON-DRILLING
County	EDDY (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

f6UJ9A01GWJ9

12/7/2020 4:42:33PM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	HOLLY ENERGY
Customer #:	CRI3200
Ordered by:	MELANIE NOLAN
AFE #:	
PO #:	
Manifest #:	NA
Manif. Date:	12/7/2020
Hauler:	RDR EAGLE TRUCKING
Driver	RICARDO
Truck #	08
Card #	
Job Ref #	

Ticket #:	700-1180405
Bid #:	Walk-in Bid
Date:	12/7/2020
Generator:	Holly Energy
Generator #:	
Well Ser. #:	999908
Well Name:	ABO CENTURION STATION
Well #:	
Field:	
Field #:	
Rig:	NON-DRILLING
County	EDDY (NM)

Facility: CRI

Product / Service	Quantity	Units
Contaminated Soil (RCRA Exempt)	20.00	yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

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_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	HOLLY ENERGY	Ticket #:	700-1180548
Customer #:	CRI3200	Bid #:	Walk-in Bid
Ordered by:	MELANIE NOLAN	Date:	12/7/2020
AFE #:		Generator:	Holly Energy
PO #:		Generator #:	
Manifest #:	NA	Well Ser. #:	999908
Manif. Date:	12/7/2020	Well Name:	ABO CENTURION STATION
Hauler:	M Mata Trucking LLC	Well #:	
Driver	MANUEL	Field:	
Truck #	150	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	EDDY (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	HOLLY ENERGY
Customer #:	CRI3200
Ordered by:	MELANIE NOLAN
AFE #:	
PO #:	
Manifest #:	NA
Manif. Date:	12/7/2020
Hauler:	M Mata Trucking LLC
Driver	JONATHAN
Truck #	01
Card #	
Job Ref #	

Ticket #:	700-1180549
Bid #:	Walk-in Bid
Date:	12/7/2020
Generator:	Holly Energy
Generator #:	
Well Ser. #:	999908
Well Name:	ABO CENTURION STATION
Well #:	
Field:	
Field #:	
Rig:	NON-DRILLING
County	EDDY (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	12.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

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_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01GWIZ

12/7/2020 4:31:15PM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	HOLLY ENERGY	Ticket #:	700-1180557
Customer #:	CRI3200	Bid #:	Walk-in Bid
Ordered by:	MELANIE NOLAN	Date:	12/7/2020
AFE #:		Generator:	Holly Energy
PO #:		Generator #:	
Manifest #:	NA	Well Ser. #:	999908
Manif. Date:	12/7/2020	Well Name:	ABO CENTURION STATION
Hauler:	M Mata Trucking LLC	Well #:	
Driver	JESUS	Field:	
Truck #	101	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	EDDY (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

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_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	HOLLY ENERGY	Ticket #:	700-1180406
Customer #:	CRI3200	Bid #:	Walk-in Bid
Ordered by:	MELANIE NOLAN	Date:	12/7/2020
AFE #:		Generator:	Holly Energy
PO #:		Generator #:	
Manifest #:	NA	Well Ser. #:	999908
Manif. Date:	12/7/2020	Well Name:	ABO CENTURION STATION
Hauler:	RDR EAGLE TRUCKING	Well #:	
Driver	RICARDO	Field:	
Truck #	1295	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	EDDY (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01GW8L

12/7/2020 11:00:39AM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	HOLLY ENERGY
Customer #:	CRI3200
Ordered by:	MELANIE NOLAN
AFE #:	
PO #:	
Manifest #:	NA
Manif. Date:	12/7/2020
Hauler:	RDR EAGLE TRUCKING
Driver	RICARDO
Truck #	1295
Card #	
Job Ref #	

Ticket #:	700-1180559
Bid #:	Walk-in Bid
Date:	12/7/2020
Generator:	Holly Energy
Generator #:	
Well Ser. #:	999908
Well Name:	ABO CENTURION STATION
Well #:	
Field:	
Field #:	
Rig:	NON-DRILLING
County	EDDY (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners
1602 W. Main Street
Artesia, NM 88210

LOCATION OF MATERIAL:

Site: Abo Centurion Station
Location: 32.76337442, -104.26801562
Eddy County, New Mexico
NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M
Mata Trucking,
PO BOX 1263,
Hobbs, NM, 88241

DESCRIPTION OF WASTE: .

E&P NON-EXEMPT SOIL

VOLUME: approx. 250 cubicyards 20yds

FACILITY CONTACT:.

Melanie Nolan
Holly Energy Partners
1602 W. Main St., Artesia, NM 88210

Signature: Melanie Nolan

Date: 12-4-2020

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking,
PO BOX 1263,
Hobbs, NM, 88241

TK# 101

Name: Jesus Mata

Signature: Jesus Mata

Date: 12-7-2020

DISPOSAL SITE:
R360 Hobbs Facility
MM66 Carlsbad Hwy
Hobbs, NM 88241

Signature: SM

Date: 12/7/20

loads - 11

Direct Bill: Holly Energy Partners
Care Of: Melanie Nolan

TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners
1602 W. Main Street
Artesia, NM88210

LOCATION OF MATERIAL:

Site: Abo Centurion Station
Location: 32.76337442, -104.26801562
Eddy County, New Mexico
NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M
Mata Trucking,
PO BOX 1263,
Hobbs, NM, 88241

1. Load
2 LOAD

DESCRIPTION OF WASTE: .

E&P NON-EXEMPT SOIL

VOLUME: approx. 250 cubicyards 20 yards

FACILITY CONTACT:.

Melanie Nolan
Holly Energy Partners
1602 W. Main St., Artesia, NM88210

Signature:

Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking,
PO BOX 1263,
Hobbs, NM, 88241

TRUCK # 150

20 YDS.

Name: Manuel Mata

Signature:

Date: 12-7-20

DISPOSAL SITE:
R360 Hobbs Facility
MM66 Carlsbad Hwy
Hobbs, NM 88241

Signature:

Date: 12/7/20

Direct Bill: Holly Energy Partners
Care Of: Melanie Nolan

TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners
1602 W. Main Street
Artesia, NM 88210

LOCATION OF MATERIAL:

Site: Abo Centurion Station
Location: 32.76337442, -104.26801562
Eddy County, New Mexico
NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M
Mata Trucking,
PO BOX 1263,
Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON- EXEMPT SOIL

VOLUME: approx. 250 cubicyards

#1 load = 20 yds

2 load = 12 yds

FACILITY CONTACT:

Melanie Nolan
Holly Energy Partners
1602 W. Main St., Artesia, NM 88210

Signature: Melanie Nolan

Date: 12-4-2020

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking,
PO BOX 1263,
Hobbs, NM, 88241

#01

Name: Jonathan

Signature: Jonathan

Date: 12/7/20

DISPOSAL SITE:
R360 Hobbs Facility
MM 66 Carlsbad Hwy
Hobbs, NM 88241

Signature: [signature]

Date: 12/7/20

Direct Bill: Holly Energy Partners
Care Of: Melanie Nolan

TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners
1602 W. Main Street
Artesia, NM88210

LOCATION OF MATERIAL:

Site: Abo Centurion Station
Location: 32.76337442, -104.26801562
Eddy County, New Mexico
NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M
Mata Trucking,
PO BOX 1263,
Hobbs, NM, 88241

DESCRIPTION OF WASTE: .

E&P NON-EXEMPT SOIL

VOLUME: approx. 250 cubicyards

1. Load
2. Load
20 yards

FACILITY CONTACT:.

Melanie Nolan
Holly Energy Partners
1602 W. Main St., Artesia, NM88210

Signature:

Date:

.NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking,
PO BOX 1263,
Hobbs, NM, 88241

TKt 12

Sergio

Name:

Signature:

Date: 12/7/20

.DISPOSAL SITE:
R360 Hobbs Facility
MM66 Carlsbad Hwy
Hobbs, NM 88241

Signature:

Date: 12/7/20

Direct Bill: Holly Energy Partners
Care Of: Melanie Nolan

#12

TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners
1602 W. Main Street
Artesia, NM 88210

LOCATION OF MATERIAL:

Site: Abo Centurion Station
Location: 32.76337442, -104.26801562
Eddy County, New Mexico
NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M
Mata Trucking,
PO BOX 1263,
Hobbs, NM, 88241

DESCRIPTION OF WASTE: .

E&P NON-EXEMPT SOIL

VOLUME: approx. 250 cubic yards

1st load 20 yds
2nd load

FACILITY CONTACT:.

Melanie Nolan
Holly Energy Partners
1602 W. Main St., Artesia, NM 88210

Signature:

Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking,
PO BOX 1263,
Hobbs, NM, 88241

RDR Trucking
#08

Name: Ricardo Chavez

Signature:

Date: 12-7-20

DISPOSAL SITE:
R360 Hobbs Facility
MM66 Carlsbad Hwy
Hobbs, NM 88241

Signature:

Date: 12/7/20

Direct Bill: Holly Energy Partners
Care Of: Melanie Nolan

TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners
1602 W. Main Street
Artesia, NM88210

LOCATION OF MATERIAL:

Site: Abo Centurion Station
Location: 32.76337442, -104.26801562
Eddy County, New Mexico
NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M
Mata Trucking,
PO BOX 1263,
Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON- EXEMPT SOIL

1. Load - 20 yards
2. Load - 20 yards

VOLUME: approx. 250 cubicyards

FACILITY CONTACT:

Melanie Nolan
Holly Energy Partners
1602 W. Main St., Artesia, NM88210

Signature: [signature]

Date: [illegible]

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking,
PO BOX 1263,
Hobbs, NM, 88241

RDR Eagle trucking
1295

Name: Ricardo

Signature: [signature]

Date: 12-07-2020

DISPOSAL SITE:
R360 Hobbs Facility
MM66 Carlsbad Hwy
Hobbs, NM 88241

Signature: [signature]

Date: 12/7/20

Direct Bill: Holly Energy Partners
Care Of: Melanie Nolan

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator: HOLLY ENERGY PARTNERS 1602 W. Main St. Artesia, NM 88210	OGRID: 282505
	Action Number: 18579
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
ceads	None	6/28/2021