

Incident ID	nCE2003752717
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: 7-22-22
 email: Melanie.Nolan@hollyenergy.com Telephone: 214-605-8303

OCD Only

Received by: Robert Hamlet Date: 1/17/2023

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: Robert Hamlet Date: 1/17/2023



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July 21, 2022

Mr. Robert Hamlet
Environmental Specialist - Advanced
Environmental Bureau
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico, 88210

**Re: Revised Site Characterization Report and Remediation Workplan
Holly Energy Partners – Operating, L.P.
Former Tank 970 / Artesia Station West, Eddy County, New Mexico
NMOCD Incident No. NCE2003752717**

Dear Mr. Hamlet:

Please find attached electronic copies of the *Revised Site Characterization Report and Remediation Workplan* (Revised SCR and RWP) for the Holly Energy Partners – Operating, L.P. (HEP) Former Tank 970 / Artesia Station West facility (the “Site”), New Mexico Oil Conservation Commission (NMOCD) incident number NCE2003752717, located southeast of Artesia in Eddy County, New Mexico. As discussed during the February 21, 2022 conference call, NMOCD requested HEP e-mail the Revised SCR and RWP as a draft version for review and submit the final Revised SCR and RWP to NMOCD via the portal after NMOCD’s review of the draft version. Following HEP’s submission via e-mail of the draft Revised SCR and RWP on April 15, 2022, and subsequent requested re-submission via e-mail on June 6, 2022, NMOCD requested via e-mail on July 13, 2022 that HEP submit the final Revised SCR and RWP via the portal.

The results of assessment and delineation activities conducted from January 2020 through June 2021 and a proposed remediation workplan were submitted to the NMOCD in the August 16, 2021, *Site Characterization Report and Remediation Workplan* (August 2021 SCR and RWP). The NMOCD rejected the proposed remediation workplan portion of the August 2021 SCR and RWP in an e-mail dated November 29, 2021. Following the NMOCD’s rejection of the remediation workplan, HEP requested a meeting with the NMOCD to discuss the path forward for the remediation workplan. A virtual meeting was conducted between HEP, NMOCD, and TRC on February 21, 2022. The results of the meeting and the path forward were documented in an e-mail submitted to NMOCD on March 14, 2022, which was acknowledged by NMOCD in a March 14, 2022, e-mail.

This Revised SCR and RWP includes updates and revisions to the August 2021 SCR and RWP consistent with discussions with NMOCD. These updates and revisions are summarized below to facilitate NMOCD review. The remainder of the Revised SCR and RWP is not changed from the August 2021 SCR and RWP.

UPDATES AND REVISIONS TO AUGUST 2021 SCR AND RWP

Section 2.4 August 2021 Site Characterization Report and Remediation Workplan Submittal, November 2021 NMOCD Denial, and Path Forward

This section has been added to document NMOCD’s denial of the August 2021 SCR and RWP, the February 2022 virtual meeting, and the March 2022 e-mail summarizing the path forward.

Mr. Robert Hamlet
Revised Site Characterization Report and Remediation Workplan
July 21, 2022
Page 2

Section 4.5 Site Characteristics

Sections 4.5.1 and 4.5.2 include updates and revisions, including a reference to new Figures 8A through 8C (as documented below) and additional discussion regarding the lithology and vertical extent of benzene, toluene, ethylbenzene, and xylene (BTEX) and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) concentrations beneath the Site.

Section 5.0 Proposed Remediation Workplan

As discussed during the February 2022 virtual meeting and summarized in the March 2022 e-mail, the proposed remediation workplan includes the following revisions:

- Section 5.1 – TPH diesel range organics (DRO) and motor oil range organics (MRO) in soil at depths greater than approximately 4.5 feet below ground surface (bgs) do not require additional action based on: (1) removal of the source (Former Tank 970); (2) limited leaching of DRO and MRO from soil to groundwater; (3) presence of the underlying clay layer inhibiting further vertical migration; (4) depth to groundwater (greater than 112 feet bgs); and (5) proposed installation of a liner to prevent stormwater infiltration through the affected soil.
- Section 5.1.1 – Conduct excavation of soil with total BTEX and/or TPH concentrations above Closure Criteria in the accessible portions of the Site to a depth of approximately 4.5 feet bgs. This remedial action is consistent with the August 2021 SCR and RWP.
- Section 5.1.2 – Install a liner at the base of the excavation and backfill to current grade to inhibit future stormwater infiltration through the affected soil at depth and to also promote lateral air flow through the affected zone during implementation of soil vapor extraction (SVE), if selected. This remedial action is consistent with the August 2021 SCR and RWP with exception of including installation of temporary casing through the liner to facilitate vapor extraction well installation.
- Section 5.1.3 – Conduct a SVE pilot test to determine the effective radius of influence (ROI) to address TPH GRO and total BTEX concentrations above Closure Criteria in soil in approximately the upper 32 feet bgs.
- Section 5.1.4 – Presents an updated schedule for implementation of the remediation workplan.

Appendix A – Updated C-141

An updated C-141 has been provided as Appendix A. The Site Assessment/Characterization and Remediation Plan pages are included. The Release Notification C-141 pages are not included as they were accepted by the NMOCD on February 6, 2020.

Appendix D – References

References have been updated to include e-mail correspondence with NMOCD in 2021 and 2022, and additional references for application of SVE at the Site.

Figures

The figures presented in the Revised SCR and RWP include the following revisions and additions:

- Figure 7 has been revised to include proposed soil vapor extraction wells for the proposed SVE pilot test.

Mr. Robert Hamlet
Revised Site Characterization Report and Remediation Workplan
July 21, 2022
Page 3

- Figure 8A has been added and depicts the locations of cross section lines for Cross Sections A-A' and B-B' (Figures 8B and 8C, respectively).
- Figures 8B and 8C have been added and depict Cross Sections A-A' and B-B', respectively. The lithology and lateral and vertical extent of soil with total BTEX and total TPH concentrations above Closure Criteria are shown.

CLOSING

HEP will implement the remediation workplan upon approval of the Revised SCR and RWP by the NMOCD. If you should have any questions or comments regarding this report, please contact me at (432) 238-3003 or Trevor Baird with HEP at (214) 954-6712.

Sincerely,



Jared Stoffel
Project Manager
TRC

cc: NMOCD: M. Bratcher, B. Billings
NMSLO: R. Mann
Trevor Baird, P.E., HEP, Dallas Texas
Melanie Nolan, HEP, Artesia, New Mexico
Arsin Sahba, P.G., HF Sinclair, Dallas, Texas



REVISED SITE CHARACTERIZATION REPORT AND REMEDIATION WORKPLAN

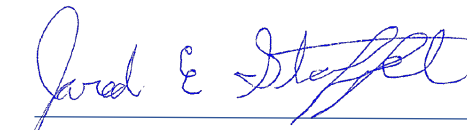
Former Tank 970 / Artesia Station West
NMOCD Incident No. NCE2003752717
Unit G, Section 28, Township 18S, Range 28E
Eddy County, New Mexico

July 21, 2022

Project Number: 437988

Prepared For:
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Table of Contents

1.0 INTRODUCTION..... 1

2.0 BACKGROUND..... 1

2.1 Release Discovery and Notification 1

2.2 Initial (January 2020) Investigation 2

2.3 November and December 2020 Investigation 3

2.4 August 2021 Site Characterization Report and Remediation Workplan Submittal, November 2021 NMOCD Denial, and Path Forward..... 5

3.0 NMOCD CLOSURE CRITERIA 6

3.1 Groundwater Evaluation 6

3.1.1 Site Investigation..... 6

3.1.2 Depth to Groundwater Records Research in Surrounding Area 7

3.2 Surface Features and Other Development 8

3.3 Wetlands, Floodplain, and Karst Geology 9

3.4 Closure Criteria Applicable to the Site 9

4.0 SITE ASSESSMENT/CHARACTERIZATION RESULTS..... 10

4.1 Site Map 10

4.2 Depth to Groundwater..... 10

4.3 Wellhead Protection Area 11

4.4 Distance to Nearest Significant Watercourse 11

4.5 Site Characteristics 11

4.5.1 Summary of June 2021 Soil Investigation 11

4.5.2 June 2021 Soil Sample Analytical Results and Delineation Status 12

4.5.3 June 2021 Laboratory Analytical Data Quality Assurance/Quality Control Results 15

5.0 PROPOSED REMEDIATION WORKPLAN..... 15

5.1 Proposed Remedial Activities 16

5.1.1 Soil Excavation and Off-Site Disposal 17

5.1.2 Liner Installation and Backfilling..... 17

5.1.3 Soil Vapor Extraction Pilot Test 18

5.1.4 Schedule 20

5.2 Requested Deferral Until Time of Abandonment (TOA) of Artesia Station West Facility .21

6.0 DISTRIBUTION..... 22

Tables

- Table 1: Summary of Field Observations and Measurements
- Table 2: Summary of Soil Sample Analytical Results

Figures

- Figure 1: Site Location Map
- Figure 2: Site and Sample Location Map
- Figure 3: Closure Criteria Modifiers
- Figure 4: Wetlands Map



-
- Figure 5: Karst Potential Map
 - Figure 6: Floodplain Map
 - Figure 7: Proposed Soil Remediation and Deferral Areas
 - Figure 8A: Site and Cross Section Location Map
 - Figure 8B: Cross Section A to A'
 - Figure 8C: Cross Section B to B'

Appendices

- Appendix A: NMOCD Form C-141 Site Assessment/Characterization and Remediation Plan Pages
- Appendix B: Photograph Log
- Appendix C: Boring Logs
- Appendix D: Laboratory Analytical Report
- Appendix E: E-Mail Correspondence and References



1.0 INTRODUCTION

TRC Environmental Corporation (TRC) has prepared this *Revised Site Characterization Report and Remediation Workplan* on behalf of Holly Energy Partners – Operating, L.P. (HEP). This document summarizes the environmental investigation performed to date and proposes remediation activities at former Tank 970 at HEP’s Artesia Station West facility (the “Site”). The Site is located on County Road 229 (also known as Depco Road) approximately 15 miles southeast of Artesia in Eddy County, New Mexico. The Site is located within Unit G, Section 28, Township 18 South, Range 28 East and the coordinates of the release are latitude 32.71917, longitude -104.18119. The Site location is depicted on a topographic map in Figure 1.

2.0 BACKGROUND

2.1 Release Discovery and Notification

After the removal of crude oil Tank 970, stained soil was observed at the ground surface inside the former tank footprint in December 2019. No free liquids were observed and there was no liner beneath former Tank 970. The Site is leased by HEP and owned by the State of New Mexico. Land use in the Site vicinity is primarily oil and gas production activity and cattle grazing.

Initial assessment and delineation activities were conducted on January 22, 2020, to determine the nature and extent of affected soil. Investigation activities were conducted in accordance with the New Mexico Oil Conservation Division (NMOCD) rule 19.15.29 New Mexico Administrative Code (NMAC). The results of the investigation and data evaluation are included in this report. Figure 2 provides the Site layout and soil sample locations, as well as soil analytical data.

The results of field screening performed during the January 2020 investigation determined that a release had occurred. Field screening performed during the investigation included observations of hydrocarbon odor and staining, photo-ionization detector (PID) measurements, and chloride measurements. This is described further in Section 2.2 of this report. The results of the January 2020 field screening are provided in Table 1.

HEP notified NMOCD of the release by telephone and electronic mail (email) on January 23, 2020, and submitted a NMOCD C-141 Form (Release Notification Report) on January 29, 2020 (HEP, 2020). A copy of the completed C-141 Form was provided in the initial *Site Characterization Report* (dated April 2020) prepared for this Site and has not been included in this report. The NMOCD accepted the initial notification and C-141 Form by email on February 6, 2020 (also provided in the April 2020 *Site Characterization Report* [SCR]) and assigned incident number NCE2003752717 (NMOCD, 2020). The NMOCD C-141 Form Site Assessment/Characterization and Remediation Plan pages are signed and included as Appendix A.



2.2 Initial (January 2020) Investigation

The initial investigation at the Site was performed on January 22, 2020 and was documented in the April 2020 SCR (TRC, 2020). During the initial investigation, eight test pits were excavated at the Site using a backhoe. Three test pits were excavated within the footprint of former Tank 970, two test pits were excavated south of former Tank 970, and three test pits were excavated west of former Tank 970. Initially, two test pits were planned to the west and south (i.e., one in each direction) but additional “step-out” test pits were excavated based on the results of field observations and screening which indicated the presence of hydrocarbon-affected soil in the initial test pits. The area to the north of former Tank 970 was inaccessible due to the presence of aboveground utilities and stockpiled gravel. A test pit (TP-6) was attempted to the east of former Tank 970 but was terminated when electrical conduit was encountered at a depth of 8 inches. After the electrical conduit was observed in the test pit, additional subsurface lines in the area were identified by HEP, preventing additional test pits from being excavated east of former Tank 970.

The total depth of the test pits ranged from 11 to 12 feet below ground surface (bgs). Groundwater was not encountered in any of the test pits. The total depth of the test pits was limited by refusal due to the presence of caliche encountered at a depth of 11 to 12 feet. Unconsolidated sands were observed above the caliche in all of the test pits excavated at the Site.

Lithology and field observations of potential hydrocarbon-affected soil, including hydrocarbon odor, staining, and PID readings, were recorded for each test pit. Field measurements using chloride test kits were also conducted at select intervals in test pits TP-1, TP-2, TP-3, TP-4a, TP-4b, and TP-5. The test pit locations are depicted on Figure 2. The field observations and field screening data are provided in Table 1.

TRC collected discrete soil samples from the test pits either by hand, using a shovel, or from the backhoe bucket at depths that did not allow for safe sampling via hand/shovel. Non-dedicated sampling equipment was decontaminated prior to its initial use and before each sample was collected. Soil samples were collected for laboratory analysis based on field observations of potential hydrocarbon-affected soil and PID readings. The soil samples were collected from seven of the eight test pits excavated at the Site. The samples were submitted to ALS Laboratory in Houston, Texas, for laboratory analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method SW8260; total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 8015M; and chloride by EPA Method 300. Following investigation and soil sampling activities, the test pits were backfilled with the excavated material.

Laboratory analytical results were compared to the NMOCD Closure Criteria for sites where groundwater is deeper than 100 feet bgs (discussed in Section 3.0). The following summarizes exceedances of the applicable NMOCD Closure Criteria:



- Benzene was not detected above the Closure Criterion of 10 milligrams per kilogram (mg/kg) in any soil sample.
- The sum of benzene, toluene, ethylbenzene, and xylenes (total BTEX) was detected above the Closure Criterion of 50 mg/kg in soil samples collected from test pits TP-1, TP-3, TP-4a, TP-4b, and TP-5. The vertical extent of total BTEX concentrations that exceed Closure Criteria was delineated in test pits TP-1 and TP-4b.
- The sum of TPH gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) (i.e., total TPH) was detected above the Closure Criterion of 2,500 mg/kg in the seven test pits that were sampled. The vertical extent of total TPH concentrations above the Closure Criterion was delineated in test pits TP-1, TP-2, and TP-4c.
- The sum of TPH GRO and DRO (i.e., TPH GRO+DRO) was detected above the Closure Criterion of 1,000 mg/kg in samples collected from test pits TP-1, TP-2, TP-3, TP-4a, TP-4b, and TP-5. The vertical extent of TPH GRO+DRO concentrations above the Closure Criterion was vertically delineated in test pits TP-1 and TP-2.
- Chloride was not detected in any soil sample above the Closure Criterion of 20,000 mg/kg.

The April 2020 SCR concluded that the soil with concentrations above Closure Criteria were not laterally or vertically delineated and recommended that additional assessment be performed. The April 2020 SCR was submitted to the NMOCD on April 22, 2020. The NMOCD approved the April 2020 SCR on June 8, 2020.

2.3 November and December 2020 Investigation

Due to COVID travel restrictions in New Mexico in 2020, HEP requested two 90-day extensions to complete the additional Site investigation. The first extension was requested on July 29, 2020, and was approved by NMOCD that same day. The second extension was requested on October 20, 2020, and was approved by NMOCD on October 27, 2020.

Additional investigation was conducted in November and December 2020, and was documented in the January 2021 SCR. From November 10 to 13, 2020, soil borings SB-1, SB-2, and SB-3 were completed using air rotary drilling techniques and soil borings HA-North, HA-East, HA-South, and HA-West were completed using a hand auger. The fourth air rotary soil boring, SB-4, was completed on December 8, 2020. The objective of these borings was to laterally and vertically delineate hydrocarbon-affected soil above the water table. Borings HA-North, HA-East, HA-South, and HA-West were completed to depths of 1 to 2 feet bgs; borings SB-1, SB-2, and SB-4 were drilled to a depth of 102 feet bgs; and boring SB-3 was drilled to a depth of 112 feet bgs. Eighty-two (82) feet of casing and 24 of screen were installed in boring SB-1, which remained open for approximately 48 hours to confirm the absence of groundwater in the upper 100 feet of soil. In addition, SB-3 remained open to a depth of 112 feet for several hours prior to



being plugged and never produced groundwater. Since groundwater was not encountered, none of the borings were converted to monitoring wells.

Boring SB-1 was completed in the former Tank 970 footprint near the location of test pit TP-3, which had the highest concentrations of TPH during the initial investigation. Borings SB-2 and HA-West were completed west of the footprint; boring HA-North was completed northwest of the footprint; boring SB-3 was completed northeast of the footprint; boring HA-East was completed east of the footprint; and borings SB-4 and HA-South were completed south of the footprint. The boring locations are depicted on Figure 2.

Two-foot-long soil cores were collected in 5-foot intervals from each air rotary boring using a split-spoon sampler. Soil was also collected and evaluated from the hand auger bucket in the hand auger borings. Lithology, field observations of the potential presence of petroleum hydrocarbons, including hydrocarbon odor and staining, PID readings, and chloride test kit results (air rotary borings only) were recorded at each boring. Discrete soil samples were collected from the borings for laboratory analysis based on field observations of petroleum hydrocarbons and PID readings. Chloride test kit results were recorded for borings SB-1 through SB-4; the chloride test kit results ranged from 79.3 to 3,780 mg/kg, well below the Closure Criterion of 20,000 mg/kg.

The samples were submitted to ALS Laboratory in Houston, Texas, for laboratory analysis of BTEX by EPA Method SW8260, TPH by EPA Method 8015M, and chloride by EPA Method 300. Laboratory analytical results for each soil sample were compared to the NMOCD Closure Criteria for sites where groundwater is deeper than 100 feet bgs (discussed in Section 3.0). The following summarizes exceedances of the applicable NMOCD Closure Criteria:

- Benzene was not detected above the Closure Criterion of 10 mg/kg in any sample collected during the November/December 2020 investigation.
- Total BTEX was detected above the Closure Criterion of 50 mg/kg in two samples (5 to 7 feet bgs and 20 to 22 feet bgs) collected from boring SB-4, which was drilled south of the former Tank 970 footprint.
- Total TPH and TPH GRO+DRO were detected above the Closure Criteria of 2,500 mg/kg and 1,000 mg/kg, respectively, in two samples (and one duplicate sample) collected from boring SB-1 (20 to 22 feet bgs and 75 to 77 feet bgs); one sample collected from boring SB-2 (0 to 2 feet bgs); six samples collected from boring SB-3 (from 0 to 62 feet bgs); one sample collected from boring HA-North (0 to 2 feet bgs); and four samples collected from boring SB-4 (from 5 to 77 feet bgs).
- Chloride was not detected in any soil sample above the Closure Criterion of 20,000 mg/kg.

The November and December 2020 investigation activities were documented in the SCR submitted to NMOCD on January 25, 2021 (TRC, 2021a). The following conclusions were based on the results of the initial and November/December 2020 investigations:



- Chloride and benzene concentrations do not exceed the Closure Criteria in soil at the Site.
- Total BTEX and TPH concentrations above the Closure Criteria have been vertically delineated but not laterally delineated, except to the west, in soil at the Site.

Based on the above conclusions, three additional soil borings were proposed to delineate the lateral extent of TPH in soil to the north, and delineate the lateral extent of total BTEX and TPH in soil to the east and south. The NMOCD approved the January 2021 SCR, including the proposed workplan for additional investigation, in an email message dated March 19, 2021 (NMOCD, 2021a). The additional investigation was conducted in June 2021 in accordance with the January 2021 SCR and is documented in Section 4.5.1.

2.4 August 2021 Site Characterization Report and Remediation Workplan Submittal, November 2021 NMOCD Denial, and Path Forward

The results of assessment and delineation activities conducted from January 2020 through June 2021 and a proposed remediation workplan were submitted to the NMOCD in the August 16, 2021, *Site Characterization Report and Remediation Workplan* (SCR and RWP) (TRC, 2021b).

The NMOCD rejected the proposed remediation workplan in an e-mail dated November 29, 2021 (NMOCD, 2021b). Following the NMOCD's rejection of the remediation workplan, HEP requested a meeting with the NMOCD to discuss the path forward for the remediation workplan. A virtual meeting was conducted between HEP, NMOCD, and TRC on February 21, 2022. The results of the meeting and the path forward were documented in an e-mail submitted to NMOCD on March 14, 2022, which was acknowledged by NMOCD in a March 14, 2022, e-mail (TRC, 2022). As discussed during the February 2022 virtual meeting and summarized in the March 2022 e-mail, HEP is submitting this *Revised Site Characterization Report and Remediation Workplan* to include the following:

- Conduct a soil vapor extraction (SVE) pilot test to determine the effective radius of influence (ROI) to address TPH gasoline range organics (GRO) and total BTEX concentrations above Closure Criteria in soil in approximately the upper 32 feet bgs.
- Conduct excavation of soil with total BTEX and/or TPH concentrations above Closure Criteria in the accessible portions of the Site to a depth of approximately 4.5 feet bgs.
- Install a liner at the base of the excavation and backfill to current grade to inhibit future stormwater infiltration through the affected soil at depth and to also promote lateral air flow through the affected zone during implementation of SVE, if selected.
- TPH DRO and MRO in soil at depths greater than approximately 4.5 feet bgs do not require additional action based on: (1) removal of the source (Former Tank 970); (2) limited leaching of DRO and MRO from soil to groundwater; (3) presence of the underlying clay layer inhibiting further vertical migration; (4) depth to groundwater (greater than 112 feet bgs); and (5) proposed installation of a liner to prevent stormwater infiltration through the affected soil.



As discussed in Section 5.0 below, soil with TPH GRO and total BTEX above Closure Criteria beneath the Proposed Excavation/Liner Area to an approximate depth of 32 feet bgs will be addressed via SVE, contingent upon the results of a SVE pilot test. This is deeper than the target depth (25 feet bgs) indicated in the March 14, 2022, e-mail to address the TPH GRO exceedance of the Closure Criteria in SB-3 at 30-32 feet bgs.

3.0 NMOCD CLOSURE CRITERIA

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

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
- Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary highwater mark).
- Within 300 feet from an occupied permanent residence, school, hospital, institution, or church.
- Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes.
- Within 1,000 feet of any fresh water well or spring.
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
- Within 300 feet of a wetland.
- Within the area overlying a subsurface mine.
- Within an unstable area such as a karst formation.
- Within a 100-year floodplain.

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

3.1 Groundwater Evaluation

3.1.1 Site Investigation

Groundwater was not encountered during investigation activities conducted to date, including the initial January 2020 investigation, the November/December 2020 investigation, and the June



2021 investigation. The maximum depth investigated at the Site is 112 feet bgs, which is the total depth of boring SB-3; no evidence of groundwater was observed to a depth of 112 feet bgs in SB-3. Boring SB-1, which was drilled to a depth of 102 feet bgs, remained open for approximately 48 hours to confirm the absence of groundwater in the top 100 feet of soil. To ensure that boring SB-1 did not collapse, a temporary well was installed (20 feet of slotted screen and 82 feet of riser pipe) in the borehole on November 11, 2020, and was removed after approximately 48 hours during borehole plugging and abandonment on November 13, 2020 (as documented in the January 2021 SCR).

3.1.2 Depth to Groundwater Records Research in Surrounding Area

The exact depth to groundwater beneath the Site is unknown but is greater than 112 feet bgs based on the investigation data as discussed in Section 3.1.1. A review of the New Mexico Office of the State Engineer (NMOSE) records indicated two water wells and several water rights are located within 2.5 miles of the Site. As shown on the table below, the recorded depth to groundwater for water well CP 00478 POD1 was 145 feet bgs; the other water well, RA 09588, did not have depth to water data.

The water rights within 2.5 miles of the Site that appear in NMOSE's Point of Diversion (POD) Geographic Information System (GIS) website are also summarized in the table and discussed further below.

NMOSE Listed Water Wells and Water Rights in the Vicinity of the Site				
Well ID	Approximate Location Relative to Release Site	Owner	Use	Well Depth and Depth to Water (feet bgs)
RA-12879-POD1 to POD4	At Release Site	HEP	Boring/Monitoring Well Permits Obtained for Site Investigation	No Well/Not Encountered at Total Depth of 112 Feet bgs
RA 09588	0.6 miles to the south	Marathon Oil Company	Well Installed in November 2020	300 feet/Not Reported
RA 08238	0.9 miles to the north	Bogle Farms	Livestock Watering	Not Applicable ¹
RA 08240	1.4 miles to the southwest	Bogle Farms	Livestock Watering	Not Applicable ²
CP 01662 POD1	1.75 miles to the south-southwest	Key Livestock	Livestock Watering	1,000 feet/Not Provided ³
CP 00478 POD1	2.25 miles to the south-southwest	John A. Yates	Secondary Recovery of Oil (i.e., industrial)	312 feet/145 feet



NMOSE Listed Water Wells and Water Rights in the Vicinity of the Site				
Well ID	Approximate Location Relative to Release Site	Owner	Use	Well Depth and Depth to Water (feet bgs)
RA 08239	2.3 miles to the west	Key Livestock	Livestock Watering	Not Applicable ⁴

Notes: ¹ This appears to be a water right for 1.47 acre-feet based on historical usage (12/31/1914) that is not associated with a water well.

² This appears to be a water right for 1.52 acre-feet based on historical usage (12/31/1945) that is not associated with a water well.

³ This 2017 application lists a well depth of 1,000 feet and a water right for 3 acre-feet, but no well log or other information confirming that a well was installed at this location is available in NMOSE records.

⁴ This appears to be a 2017 sale of a 1.8 acre-feet historical (12/31/1914) water right from Bogle Farms to Key Livestock. However, there is no well associated with these records.

Based on TRC's review of NMOSE records, CP 00478 POD1 is the only well within 2.5 miles of the Site with depth to water information.

3.2 Surface Features and Other Development

TRC reviewed recent aerial photographs, topographic maps, the NMOSE POD GIS website, and information available from the Eddy County, New Mexico Central Appraisal District website. As shown on Figure 3, the Site is not located:

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
 - No watercourses (rivers, streams, arroyos, etc.) are apparent within 300 feet of the Site in the aerial photography (Figure 3) or on the topographic map (Figure 1).
- Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary highwater mark).
 - The topographic map, aerial photography, and wetland/floodplain maps (discussed below) each show a playa lake located approximately 650 feet to the south of the Site. However, there is not a lakebed, sinkhole or playa lake located within 200 feet of the Site.
- Within 300 feet from an occupied permanent residence, school, hospital, institution, or church.
 - The aerial photography and information available from the Eddy County, New Mexico Central Appraisal District do not show or list any permanent residence, school, hospital, institution, or church within 300 feet of the Site.
- Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes.



- No wells or springs located within 500 feet of the Site appear in any of the NMOSE records reviewed.
- Within 1,000 feet of any fresh water well or spring.
 - No fresh water wells or springs located within 1,000 feet of the Site appear in any of the records reviewed.
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
 - Based on the property and other records reviewed, the Site is not located in incorporated municipal boundaries or within a defined municipal fresh water well field.
- Within the area overlying a subsurface mine.
 - The Site does not overlie a subsurface mine.

3.3 Wetlands, Floodplain, and Karst Geology

A review of the United States Fish and Wildlife Service (USFWS) wetlands map indicates that 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 “low karst potential” area. Finally, review of the Federal Emergency Management Act (FEMA) floodplain map indicates the release at the Site is located outside of the 100-year floodplain. Figures 4, 5, and 6 depict the Site and USFWS wetlands, karst potential, and FEMA floodplain information, respectively.

3.4 Closure Criteria Applicable to the Site

Based on this information, the Closure Criteria applicable to the Site are those for sites where groundwater is found at a depth of greater than 100 feet bgs based on Site-specific information. A summary of the Closure Criteria is provided in the following table and in Table 2.

NMOCD Closure Criteria

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



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

4.0 SITE ASSESSMENT/CHARACTERIZATION RESULTS

19.15.29.11 NMAC requires that a Site Characterization Report have the components described in Sections 4.1 through 4.5 of this document.

4.1 Site Map

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

4.2 Depth to Groundwater

As discussed in Section 3.1, the exact depth to groundwater beneath the Site is unknown. Site-specific information indicates groundwater is not present to a depth of 112 feet bgs. A review of the NMOSE water well records indicates the depth to groundwater at the nearest well with depth to water information (CP 00478 POD1, located 2.25 miles south-southwest of the Site) is 145 feet bgs.

According to the Geologic Map of New Mexico, soils immediately beneath the Site are mapped as quaternary-aged alluvial or eolian deposits ("Qoa"). These eolian deposits appear to be underlain by the Rustler Formation. The Rustler Formation ranges in thickness from about 200 feet in northern Eddy County to about 500 feet southeast of Carlsbad. It consists of anhydrite, gypsum, interbedded red and green sandy clay, and some beds of dolomite. The Rustler Formation can yield water to stock wells and some domestic wells, but generally is not desirable for domestic use because of its high chloride and sulfate content (USGS 1952). This description is consistent with the overall absence of NMOSE-recorded water supply wells in the Site vicinity.

The Rustler Formation overlies the Salado Formation, which consists of halite, small amounts of other potassium salts, and red sandy shale. Groundwater found in the Salado Formation is reportedly a brine and is only used for industrial purposes in Eddy County.



4.3 Wellhead Protection Area

The 0.5-mile wellhead protection area is shown on Figure 1. There are no known water sources, including wells, springs, or other sources of fresh water extraction within 0.5-mile of the Site.

4.4 Distance to Nearest Significant Watercourse

The horizontal distance to the nearest significant watercourse as defined in Subsection P of 19.15.17.7 NMAC is greater than 0.5-mile from the Site. As depicted on Figure 1, there are several watercourses east of the Site, but all are located greater than 0.5-mile from the Site.

4.5 Site Characteristics

Site characteristics discussed in Section 4.5 refer to the most recent (June 2021) investigation except with respect to conclusions regarding soil delineation. The conclusions regarding lateral and vertical soil delineation of total BTEX and TPH (Section 4.5.2) in soil are based on Site investigation activities conducted to date, including the initial January 2020 investigation, the November/December 2020 investigation, and the June 2021 investigation. Summaries of the January 2020 and November/December 2020 investigations are provided in Sections 2.2 and 2.3 of this report. Boring logs, photographs, laboratory analytical reports, and laboratory data quality assurance/quality control associated with the January 2020 and November/December 2020 investigations were included in the April 2020 and January 2021 SCRs, respectively, and are not included herein. Cumulative soil sample analytical results are presented on Table 2.

4.5.1 Summary of June 2021 Soil Investigation

Soil borings SB-North, SB-East, and SB-South were completed from June 1 through 3, 2021, to laterally delineate hydrocarbon-affected soil. The borings were completed using air rotary drilling to a depth of 82 feet bgs based on the maximum depth at which vertical delineation of affected soil was achieved to the NMOCD Closure Criteria during the November/December 2020 investigation activities. Boring SB-North was drilled within the fenceline north of the former tank footprint, boring SB-East was drilled within the HEP leasehold (outside the fenceline) to the east of the former tank footprint, and boring SB-South was drilled within the HEP leasehold (outside the fenceline) to the south of the former tank footprint. The boring locations are shown on Figure 2. Photographs of the Site and June 2021 investigation activities are provided in Appendix B.

Two-foot long soil cores were collected at 5-foot intervals from each air rotary boring using a split-spoon sampler. Lithology and field observations of the potential presence of petroleum hydrocarbons, including hydrocarbon odor and staining, and PID readings, were recorded for each boring. Field measurements for chloride were not performed during the June 2021 Site investigation, because previously detected chloride concentrations did not exceed the Closure Criterion so additional analysis for chloride was not warranted.



The lithology observed in borings SB-East, SB-North, and SB-South was consistent with previous investigations. In general, the lithology is primarily weakly consolidated sands that are intermittently interbedded with sandy clay, clayey sand, and caliche strata. No hydrocarbon odor or staining was observed in any of the borings. The PID readings at borings SB-East, SB-North, and SB-South were below 100 parts per million (ppm) with exception of the sand unit at boring SB-East at depths of 25 to 27 feet bgs (114.4 ppm) and 45 to 47 feet bgs (113.3 ppm). It should be noted that the PID potentially malfunctioned during drilling at boring SB-South; the PID readings for samples between 30 and 82 feet bgs at boring SB-South may not be accurate or representative of actual conditions; however, samples were submitted for laboratory analysis every 5 to 10 feet to compensate for potential malfunctioning of the PID. Groundwater was not encountered, so the borings were not converted to monitoring wells. The lithology, field observations, and field screening results are summarized on the boring logs presented in Appendix C. The Site lithology is further discussed in Section 4.5.2.

Soil samples collected from the borings were submitted for laboratory analysis of BTEX and/or TPH based on field observations and PID readings, as well as target delineation depths based on total BTEX and TPH concentrations from previous investigations, as follows:

- At boring SB-North, 15 soil samples, including one duplicate sample, were collected between 0 and 82 feet bgs for laboratory analysis of TPH (the duplicate sample collected from 15 to 17 feet bgs was additionally analyzed for BTEX to maintain “blind” sample integrity). Samples were collected at 5 to 10 vertical foot intervals.
- At boring SB-East, 15 soil samples, including one duplicate sample, were collected between 0 and 82 feet bgs for laboratory analysis of BTEX and TPH. Samples were collected at 5 to 10 vertical foot intervals.
- At boring SB-South, eight soil samples, including one duplicate sample, were collected between 0 and 32 feet bgs for laboratory analysis of BTEX and TPH, and six samples were collected between 40 and 82 feet bgs for laboratory analysis of TPH. Samples were collected at 5 to 10 vertical foot intervals.

Non-dedicated sampling equipment was decontaminated prior to its initial use and before each sample was collected. Following investigation and soil sampling activities, the borings were backfilled with hydrated bentonite.

4.5.2 June 2021 Soil Sample Analytical Results and Delineation Status

Laboratory analytical results for the June 2021 soil samples were compared to the NMOCD Closure Criteria for sites where groundwater is deeper than 100 feet bgs. Benzene, total BTEX, and TPH were not detected above the Closure Criteria in any sample collected at June 2021 borings SB-North, SB-East, and SB-South. The June 2021 investigation provides full delineation of soil at the Site.

The analytical results of the soil samples are summarized on Figure 2, and the lateral extent of soil with total BTEX and/or TPH concentrations above the Closure Criteria is shown on Figure 7.



The lateral extent has been set at a point approximately halfway between sample locations with data that exceeded the Closure Criteria and those with delineating data (below Closure Criteria). A Site map depicting cross section location lines is included as Figure 8A. The lithology and lateral and vertical extent of soil with total BTEX and TPH concentrations above Closure Criteria are shown on the cross sections included as Figures 8B (north to south) and 8C (west to east).

The following summarizes exceedances of the applicable NMOCD Closure Criteria for samples collected during investigations conducted from January 2020 to June 2021:

- Benzene was not detected above the Closure Criterion of 10 mg/kg in any soil sample.
- Total BTEX was detected above the Closure Criterion of 50 mg/kg in soil samples collected from soil boring SB-4 (5 to 7 feet bgs and 20 to 22 feet bgs) and test pits TP-1 (6 feet bgs), TP-3 (ground surface, 6 feet bgs and 12 feet bgs), TP-4a (6 feet bgs), TP-4b (2 feet bgs and 8 feet bgs), and TP-5 (10 feet bgs).
 - The lateral extent of total BTEX concentrations above the Closure Criterion in soil from 0 to 4 feet bgs has been delineated in all four cardinal directions by samples collected from borings HA-North, SB-3 and SB-North to the north, HA-East and SB-East to the east, HA-South and SB-South to the south, and HA-West and SB-2 to the west.
 - The lateral extent of total BTEX concentrations above the Closure Criterion in soil beneath a depth of 4 feet bgs (i.e., from 5 to 22 feet bgs) has been delineated in all four cardinal directions by samples collected from borings SB-3 and SB-North to the north, SB-East to the east, SB-South to the south, and SB-2 to the west.
 - The vertical extent of total BTEX concentrations above the Closure Criterion has been delineated by underlying soil samples collected throughout the Site, including 10 underlying samples collected from 20 to 102 feet bgs at boring SB-1 (vertically delineated TP-3 and TP-4a based on proximity) and nine underlying samples collected from 30 to 102 feet bgs at boring SB-4 (vertically delineated TP-5 based on proximity).
- Total TPH was detected above the Closure Criterion of 2,500 mg/kg in soil samples collected from borings SB-1 (20 to 22 feet bgs and 75 to 77 feet bgs), SB-2 (0 to 2 feet bgs), SB-3 (six samples from 0 to 62 feet bgs), SB-4 (four samples from 5 to 77 feet bgs), and HA-North (0 to 2 feet bgs), and test pits TP-1 (6 feet bgs), TP-2 (10 feet bgs), TP-3 (ground surface, 6 feet bgs and 12 feet bgs), TP-4a (6 feet bgs), TP-4b (2 feet bgs, 8 feet bgs and 10 feet bgs), TP-4c (ground surface), and TP-5 (ground surface and 10 feet bgs).
 - The lateral extent of total TPH concentrations above the Closure Criterion in soil from 0 to 4 feet bgs has been delineated in all four cardinal directions by samples collected from borings SB-North to the north, HA-East and SB-East to the east, HA-South and SB-South to the south, and HA-West to the west.
 - The lateral extent of total TPH concentrations above the Closure Criterion in soil beneath a depth of 4 feet bgs (i.e., from 5 to 77 feet bgs) has been delineated in



all four cardinal directions by samples collected from borings SB-North to the north, SB-East to the east, SB-South to the south, and SB-2 to the west.

- The vertical extent of total TPH concentrations above the Closure Criterion has been delineated by underlying soil samples collected throughout the Site, including four underlying samples collected from 80 to 102 feet bgs at boring SB-1 (vertically delineated TP-3, TP-4a and TP-4b based on proximity), seven underlying samples collected from 20 to 102 feet bgs at boring SB-2, five underlying samples collected from 70 to 112 feet bgs at boring SB-3, and four underlying samples collected from 80 to 102 feet bgs at boring SB-4 (vertically delineated TP-5 based on proximity).
- TPH GRO+DRO was detected above the Closure Criterion of 1,000 mg/kg in the same samples as total TPH with the exception of the ground surface sample collected from test pits TP-4c and TP-5, which exceeded the Closure Criterion for total TPH but did not exceed the Closure Criterion for TPH GRO+DRO. The lateral and vertical extent of TPH GRO+DRO concentrations above the Closure Criterion have been delineated by the same network of samples described above for total TPH.
- Chloride was not detected in any soil sample above the Closure Criterion of 20,000 mg/kg. Chloride concentrations ranged from non-detect to 3,850 mg/kg.

NMOCD's November 2021 remediation workplan rejection referenced lighter end hydrocarbons, which were clarified as total BTEX and TPH GRO during the February 2022 virtual meeting. As shown on Figures 8B and 8C, the vertical extent of total BTEX above the Closure Criterion is limited to a depth of approximately 25 feet bgs. While not separately shown on Figures 8B and 8C (total TPH concentrations are shown), the vertical extent of TPH GRO concentrations that alone exceed the TPH GRO + DRO Closure Criterion of 1,000 mg/kg (there is no Closure Criterion for TPH GRO) is predominantly limited to a depth of approximately 32 feet bgs. The extent of TPH GRO exceedances is estimated because the TPH GRO concentrations are being compared to the TPH GRO + DRO Closure Criterion. TPH GRO concentrations slightly exceeded 1,000 mg/kg beneath a depth of 32 feet bgs in only one sample at the Site: the 75 to 77 feet duplicate sample collected at boring SB-1 had a concentration of 1,200 mg/kg while the original sample had a concentration of 82 mg/kg so it is reasonable that this sample does not have TPH GRO concentrations requiring active remediation. A continuous clay to clayey sand layer is present at a depth ranging from 50 feet bgs at the northern and eastern portions of the Site to 100 feet bgs at the southern and western portions of the Site. The clay to clayey sand layer ranges from 10 to at least 30 feet thick. As shown on the cross sections in Figures 8B and 8C, total TPH concentrations significantly decrease to below Closure Criterion at the upper boundary of this clay to clayey sand layer supporting that this clay to clayey sand layer inhibited vertical migration of the release.

In summary, total BTEX and TPH concentrations in soil at the Site have been laterally and vertically delineated to the Closure Criteria. Chloride and benzene do not exceed the Closure Criteria in soil at the Site. Cumulative (January 2020 to June 2021) soil sample analytical



results and Closure Criteria are presented in Table 2 and Figure 2. The June 2021 laboratory analytical report is attached as Appendix D.

4.5.3 June 2021 Laboratory Analytical Data Quality Assurance/Quality Control Results

Data reported in work order HS21060237 generated by ALS Laboratory in Houston, Texas was reviewed to ensure that reported analytical results meet data quality objectives. It was determined by quality control data associated with analytical results that reported concentrations of target analytes were defensible and that measurement data reliability is within the expected limits of sampling and analytical error. The analytical results are usable for characterization and delineation at the Site.

5.0 PROPOSED REMEDIATION WORKPLAN

The Site is an active, operating crude oil terminal with service equipment and structures near and within the extent of the affected soil. Soil with total BTEX and/or TPH concentrations above the NMOCD Closure Criteria will be addressed by a hybrid approach due to the presence of critical infrastructure that precludes implementation of remedial activities by mechanical means at certain portions of the Site. It is proposed that soil remediation be conducted in the accessible portions of the Site (i.e., Proposed Excavation/Liner Area). Soil with TPH GRO and total BTEX above Closure Criteria beneath the excavated and lined area to an approximate depth of 32 feet bgs will be addressed via SVE contingent upon the results of a SVE pilot test. While not intended to reduce TPH DRO and MRO concentrations in soil in the upper 32 feet, it is anticipated that the implementation of SVE (if selected) will likely reduce TPH DRO and MRO concentrations, as well as TPH GRO and BTEX concentrations. TPH DRO and MRO in soil at depths greater than approximately 4.5 feet bgs do not require additional action; the rationale is discussed below in Section 5.1. A formal request for deferral of remediation until the time of abandonment in inaccessible portions of the Site (i.e., Proposed Deferral Area) near critical infrastructure will be submitted after the completion of the excavation, liner installation and SVE pilot test activities.

The combination of active remediation and deferral minimizes the potential risk posed to human health receptors and underlying groundwater while allowing the continued operation of the Site as an active crude oil terminal. Additional details regarding the proposed remedial activities are provided below. The extent of soil with total BTEX and/or TPH concentrations above the Closure Criteria, Proposed Excavation/Liner Area, and Proposed Deferral Area are shown on Figure 7. The overall remediation area is approximately 1.59 acres with the Proposed Excavation/Liner Area being approximately 0.71 acres and the Proposed Deferral Area being approximately 0.88 acres.



5.1 Proposed Remedial Activities

Remediation of soil with total BTEX and/or TPH concentrations above the NMOCD Closure Criteria at the Proposed Excavation/Liner Area will be addressed by the following:

1. Excavation and off-Site disposal of soil containing concentrations of TPH and/or total BTEX that exceed NMOCD Closure Criteria to eliminate or minimize potential human health exposure in soil at or near the ground surface (i.e., within the upper 4 feet). The proposed bottom depth of this excavation will be 4.5 feet bgs.
2. Installation of a liner at the base of the excavation to eliminate the potential leaching and partitioning of total BTEX and/or TPH remaining in soil to underlying groundwater. The liner will also promote lateral air flow through the affected zone during implementation of SVE, if selected. The liner will serve as an engineering control.
3. Implement SVE to address soil containing concentrations of TPH GRO and total BTEX that exceed NMOCD Closure Criteria to a depth of 32 feet bgs contingent upon the results of a SVE pilot test.

As discussed during the February 2022 virtual meeting with the NMOCD and documented in the subsequent March 2022 e-mail, TPH DRO and MRO in soil at depths greater than approximately 4.5 feet bgs do not require additional action based on the following:

- The source of the December 2019 release (Former Tank 970) has been removed from the Site. The release is not ongoing and the extent of affected soil has been laterally and vertically delineated. Without an active source of hydrocarbons, the affected soil is in stasis and hydrocarbons are not migrating. There is no additional hydraulic head to drive hydrocarbons further in the subsurface (either vertically or horizontally).
- Soil with TPH DRO and MRO above Closure Criteria does not pose a soil leaching to groundwater risk based on the low solubility and limited mobility of these heavier-range hydrocarbons.
- An underlying clay to clayey sand layer is present at approximately 50 to 100 feet bgs, as shown in the cross sections depicted in Figures 8B and 8C. This clay to clayey sand layer is continuous beneath the Site and ranges from 10 to at least 30 feet thick. The presence of the clay to clayey sand inhibits further vertical migration of hydrocarbons at the Site.
- Investigation results confirmed that the depth to groundwater beneath the Site is greater than 112 feet bgs. Soil borings SB-1, SB-3, SB-North, and SB-East indicated that the deepest affected soil interval (with concentrations above TPH Closure Criteria) was 77 feet bgs in boring SB-1.
- A liner will be installed to prevent stormwater infiltration through the affected soil. This will further inhibit further vertical migration of hydrocarbons at the Site and will promote lateral air flow through the affected zone during implementation of SVE, if selected.



The Proposed Excavation/Liner Area shown on Figure 7 is based on historical investigation results and the presence of critical infrastructure. The lateral extent of the area requiring remediation has been set at a point approximately halfway between sample locations with data that exceeded Closure Criteria and those with delineating data (below Closure Criteria). Additional details regarding the proposed excavation, liner installation, and SVE pilot test are provided below.

5.1.1 Soil Excavation and Off-Site Disposal

The proposed excavation will be conducted within the Proposed Excavation/Liner Area to a depth of approximately 4.5 feet bgs. The soil will be excavated using a backhoe or excavator. Field observations of the potential presence of petroleum hydrocarbons, including hydrocarbon odor and staining and PID readings, will be recorded throughout the excavation.

Confirmation soil samples will be collected from excavation sidewalls every 100 linear feet. Sidewall confirmation samples will be submitted for laboratory analysis of BTEX by EPA Method SW8260 and TPH by EPA Method 8015M. If benzene, total BTEX, and/or TPH concentrations exceed the NMOCD Closure Criteria in sidewall samples, the excavation will be laterally expanded as needed to achieve the NMOCD Closure Criteria. Additional sidewall samples will be collected accordingly, with the exception that the excavation will not be expanded in the direction of the Proposed Deferral Area.

Excavation bottom confirmation samples will be collected every 200 square feet in the Proposed Excavation/Liner Area to document affected soil conditions prior to installation of the liner. Bottom confirmation samples will be submitted for laboratory analysis of BTEX by EPA Method SW8260 and TPH by EPA Method 8015M.

Excavated soil will be temporarily stockpiled on plastic sheeting at the Site, profiled, and transported off-Site for disposal at a NMOCD-permitted disposal facility. Based on existing Site data, it is estimated that approximately 6,200 cubic yards of soil will be excavated for off-Site disposal.

5.1.2 Liner Installation and Backfilling

Following excavation activities and prior to backfilling, a liner will be installed at the base of the excavation in the Proposed Excavation/Liner Area to eliminate the potential leaching and migration of BTEX and/or TPH remaining in soil to underlying groundwater. The liner will be sufficiently impermeable to prevent the infiltration of stormwater through the underlying soil with remaining total BTEX and/or TPH concentrations above Closure Criteria.

The liner (i.e., synthetic geomembrane) will likely consist of high-density polyethylene (HDPE), polyvinyl chloride (PVC), or a similar pre-fabricated product compatible and appropriate for use at a crude oil terminal. Prior to installation, the excavated surface will be prepared so that it is free of angular gravel or other foreign objects that might puncture the liner. The liner will be installed so that it is contiguous throughout the Proposed Excavation/Liner Area; the liner seams



will be connected and sealed using tape or heat welding per manufacturer's instructions. The final extent (i.e., boundary coordinates) of the liner will be surveyed prior to backfilling. The Proposed Excavation/Liner Area is shown on Figure 7.

To accommodate the future installation of four SVE pilot test wells for the proposed SVE pilot test and preserve the integrity of the liner, 12-inch diameter PVC casing will be temporarily installed to a depth of approximately 6 feet bgs (i.e., 1.5 feet below the depth of the liner) at the locations of the proposed SVE pilot test wells. The 12-inch diameter casing will be vertically installed by pushing the PVC into the soil using the excavator. If pushing the casing into the soil using the excavator is not feasible, a small trench will be excavated using the excavator to install the casing to 6 feet bgs, and soil will be backfilled around the casing. The liner will be installed around the PVC casing.

Following liner and temporary PVC casing installation, the excavation will be backfilled to original grade using clean, imported fill that is free from angular gravel and foreign objects that might puncture the liner. The final depth to the liner will be recorded throughout the Proposed Excavation/Liner Area. Care will be taken to ensure the backfilling activities do not puncture or tear the liner.

Should the liner be cut or punctured during future construction or maintenance activities at the Site, the liner will be repaired to ensure it effectively prevents the infiltration of stormwater through the underlying soil.

5.1.3 Soil Vapor Extraction Pilot Test

Following soil excavation, off-Site disposal, liner installation, and backfilling, HEP proposes evaluating the use of SVE to remediate TPH GRO and total BTEX above the Closure Criteria in soil to a depth of 32 feet bgs, as this is the depth interval with the predominance of TPH GRO and total BTEX concentrations above the Closure Criteria at the Site. SVE is an in-situ unsaturated (vadose) zone soil remediation technology in which a vacuum is applied to subsurface soil to induce the controlled flow of air to the vapor extraction well and remove volatile and some semi-volatile hydrocarbons from the soil; vacuum induced by SVE enhances volatilization of these hydrocarbons. Volatile hydrocarbons include BTEX and TPH GRO. Semi-volatile hydrocarbons can include TPH DRO and MRO. SVE is appropriate for addressing TPH GRO and BTEX at the Site because they have high vapor pressures and can be readily volatilized and effectively treated using SVE. In addition, the proposed liner (to be installed before the proposed SVE pilot test) will act as a surface seal and will promote the lateral vacuum/flow propagation in vadose zone soils thus increasing the effective ROI of SVE at the Site. The SVE process involves the continuous flow of air through vadose zone soil, so the added oxygen promotes in-situ biodegradation of lower-volatility organic compounds that may be present in Site soil.

A SVE pilot test will be performed at the Site to determine the effective ROI and the optimum operational parameters to maximize treatment of TPH GRO and BTEX in soil to a depth of 32 feet bgs. The effective ROI will be determined based on the results of the pilot test using the



one-dimensional model of effective ROI during SVE (Bass, 1993). The model provides an estimate of the effective ROI for SVE systems, which is defined by Bass as “the maximum distance from a vapor extraction point through which sufficient air is drawn to remove the required fraction of contamination in the desired time.”

The SVE pilot test will be conducted as follows:

- Install four SVE pilot test wells (VW-01 to VW-04) at the locations of the temporary 12-inch diameter PVC casings. The proposed SVE pilot test well locations are depicted on Figure 7. As shown, SVE pilot test well VW-01 is located near the center of Former Tank 970 (32.719112, -104.181216) while SVE pilot test wells VW-04 (32.719138, -104.181244), VW-03 (32.719074, -104.181292), and VW-02 (32.718964, -104.181221) are proposed 10, 25, and 50 feet, respectively, from well VW-01. The latitude and longitude are approximate and may be shifted in the field, but the estimated distances between the SVE pilot test wells listed above will be maintained. The SVE pilot test wells will be installed using 2-inch diameter schedule 40 PVC casing to a total depth of 32 feet bgs and screened using slotted screen from approximately 10 to 32 feet bgs. The annular space will be filled with 10/20-grade silica sand installed across the well screen to 2 feet above the top of the well screen. Two feet of hydrated bentonite chips will be installed above the sand, and bentonite-cement grout will be installed to just below the ground surface. The 12-inch diameter PVC casing will be removed during installation of the bentonite-cement grout. The bentonite-cement grout will form a seal with the liner. The wellheads will be completed at the surface via flush-mount traffic-rated well boxes set in concrete.
- A mobile SVE system will be used to conduct the pilot test. Extraction will be conducted at the SVE pilot test wells for seven days total. Soil vapors will be treated using an internal combustion engine (ICE) and/or a thermal oxidizer before being exhausted to the atmosphere. Initially, a three-day continuous test (24 hours per day for 72 hours total) will be conducted with extraction at SVE pilot test well VW-01 to observe influent vapor concentrations and recovery rates over time. The three-day continuous test will include variable extraction/vacuum rates to define the pressure/flow characteristics of the subsurface. During the subsequent four days, extraction will be conducted on a pulsed or cycled basis approximately 12 hours per day with 12 hours of rest (no extraction) between each day. Allowing rest time in between SVE cycling events has been shown to increase hydrocarbon recovery rates and the effectiveness of aerobic biodegradation as it helps to eliminate stagnation zones, promotes varying soil gas vacuum/pressure and chemistry changes that increase bioavailability of oxygen to soil bacteria, and allows the hydrocarbon mass to re-enter permeable pathways. Extraction will be performed at SVE pilot test well VW-01 during the four-day cycled test but may also be performed at SVE pilot test wells VW-02, VW-03, and/or VW-04 to evaluate influent vapor concentrations and vapor concentration rebound rates at these wells. Extraction may be conducted at these SVE pilot test wells individually or concurrently during the four-day cycled test.



- The following extraction parameters will be periodically recorded at SVE pilot test well VW-01 (and possibly SVE pilot test wells VW-02, VW-03, and VW-04 if selected for extraction during the four-day cycled test) during the pilot test: flow rate, vapor temperature, absolute and barometric pressure, influent and effluent volatile organic compound (VOC) concentrations, vacuum, and total hydrocarbon recovery rates. Additional soil vapor parameters will be recorded before, periodically during, and after the pilot test at SVE pilot test well VW-01 (and possibly SVE pilot test wells VW-02, VW-03, and VW-04 if used for extraction during the four-day cycled test), including oxygen, carbon dioxide, hydrogen sulfide, methane, and lower explosive limit (LEL) levels.
- SVE pilot test wells VW-02 to VW-04, when not being used for extraction, will be used to collect monitoring data and determine the effective ROI. Vacuum readings will be periodically recorded at these SVE pilot test wells during the pilot test. Additional soil vapor parameters will be recorded before, periodically during, and after the pilot test at these SVE pilot test wells, including oxygen, carbon dioxide, hydrogen sulfide, methane, and LEL levels.

Wellhead vacuum will be measured at SVE pilot test wells not being used for extraction using a Magnehelic differential pressure gauge. Soil vapor VOC concentrations will be monitored using a PID (or equivalent), which will be used to determine the total hydrocarbon recovery rates. Soil vapor oxygen, carbon dioxide, hydrogen sulfide, methane, and LEL will be measured using appropriately calibrated four-gas and landfill gas meters (or equivalent).

The effective ROI will be determined based on the results of the pilot test using the one-dimensional model of effective ROI during SVE (Bass, 1993), as described above. The appropriate period of active SVE and rest time will be determined during the four-day cycled pilot test by monitoring VOC, oxygen, carbon dioxide, hydrogen sulfide, methane, and LEL levels at the SVE pilot test wells used for extraction before, during, and after extraction.

The findings of the SVE pilot test will be presented in a letter report to NMOCD. If SVE is determined to be effective for treating total BTEX and TPH GRO in soil to a depth of 32 feet bgs based on the results of the pilot test, the letter report will also include the full-scale SVE system design, operational schedule and timeframe, procedures for system operation and maintenance (O&M), and remediation endpoints/confirmation sampling. The pilot test data will be used to determine the optimal design and operational parameters. If the pilot test results indicate SVE is not effective or appropriate, the letter report will document the findings of the pilot test and propose an alternative for remediating TPH GRO and total BTEX to a depth of 32 feet bgs.

5.1.4 Schedule

HEP proposes the following schedule for implementation of the Revised Remediation Workplan:

- Conduct soil excavation, off-Site disposal, liner installation, and backfilling within 150 days from NMOCD-approval of this Revised SCR and RWP.



- Install SVE pilot test wells and conduct the SVE pilot test within 90 days of completing the excavation, off-Site disposal, liner installation, and backfilling.
- Submit a letter report documenting the results of the soil excavation, off-Site disposal, liner installation, backfilling, and SVE pilot test, and proposing full-scale SVE system design or, if SVE is not effective, an alternative for remediating TPH GRO and total BTEX above the Closure Criteria to a depth of 32 feet bgs within 90 days of completing the SVE pilot test.

5.2 Requested Deferral Until Time of Abandonment (TOA) of Artesia Station West Facility

Remediation of soil with total BTEX and/or TPH concentrations above the NMOCD Closure Criteria cannot be conducted at several portions of the Site due to the presence of active infrastructure, including aboveground and underground fuel pipelines and associated support structures, aboveground and underground utilities, tank berms, and other equipment necessary to operate the Site as a crude oil terminal. The deferral is also warranted because the soil with total BTEX and/or TPH concentrations above the NMOCD Closure Criteria has been fully delineated and does not cause an imminent risk to human health, the environment, or groundwater. HEP requests deferral of remedial activities for the Proposed Deferral Area shown on Figure 7 until time of abandonment in accordance with 19.15.29.12(C)(2) NMAC. The Proposed Deferral Area includes borings SB-3 and HA-North that had exceedances of the Closure Criteria. Borings HA-East and HA-South, also located in the Proposed Deferral Area, did not have Closure Criteria exceedances.

The extent of the Proposed Deferral Area shown on Figure 7 is based on HEP's current understanding of the sensitive infrastructure that prevents mechanical remediation. To minimize the extent of the Deferral Area, it is proposed that a geophysical survey be conducted at the Site to identify and locate underground fuel pipelines and utilities. The final extent of the Deferral Area may be revised based on the results of the survey. If a utility or pipeline is determined to be inactive and/or abandoned and it can be safely removed, the line may be removed to facilitate remediation in the area of the line and minimize the extent of the Deferral Area.

At the time of abandonment of the Facility or the removal of the surface equipment and features in the Deferral Area, additional sampling will be conducted to provide updated soil data and/or a revised remediation workplan will be submitted to NMOCD proposing remedial activities to address the remaining soil with total BTEX and/or TPH concentrations above the NMOCD Closure Criteria. HEP will perform final remediation and reclamation of the facility area in accordance with 19.15.29.12 and 19.15.29.13 NMAC, if necessary, once the facility is no longer operational.

A formal request for deferral of remediation until the time of abandonment in inaccessible portions of the Site (i.e., Proposed Deferral Area) near critical infrastructure will be submitted after the completion of the excavation, liner installation and SVE pilot test activities.



6.0 DISTRIBUTION

- Copy 1: Robert Hamlet and Mike Bratcher
New Mexico Energy, Minerals, and Natural Resources Department
Oil Conservation Division, District 2
811 S. First Street
Artesia, NM 88210
- Copy 2: Bradford Billings
Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, NM 87505
- Copy 3: Ryan Mann
Hobbs Field Office
New Mexico State Land Office
914 N. Linam Street
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- Copy 4: Trevor Baird
Holly Energy Partners – Operating, L.P.
2828 N. Harwood Street, Suite 1300
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- Copy 5: Arsin Sahba
HF Sinclair
2828 N. Harwood Street, Suite 1300
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TABLES

**TABLE 1
SUMMARY OF FIELD OBSERVATIONS AND MEASUREMENTS
FIELD WORK - JANUARY 22, 2020
FORMER TANK 970 / ARTESIA STATION WEST, EDDY COUNTY, NM**

Test Pit Number	Location	Depth (feet bgs)	PID Measurement (ppm)	Chloride Test Kit Measurement (ppm)	Sample Submitted to Laboratory?	Lithology	Other Observations
TP-1	Tank Footprint	0	0.3	456	Yes	Dark brown unconsolidated coarse sand. Damp, well sorted.	Stained soil.
		2	69.9	1404			Petroleum odor & staining.
		4	2854	1854			Strong petroleum odor.
		6	5000+	3000+	Yes	Light brown/tan well sorted unconsolidated sand. Harder with depth.	
		8	4630	NM			
		10	4318	NM			
12	3371	3000+	Yes	Tan caliche.	Strong petroleum odor. Refusal at 12 feet.		
TP-2	Tank Footprint	0	0.8	576	Yes	Dark brown unconsolidated coarse sand. Damp, well sorted.	Stained soil.
		2	661	300			Petroleum odor & staining.
		4	1107	408			Strong petroleum odor.
		6	782	300		Light brown/tan well sorted unconsolidated sand. Harder with depth.	
		8	1334	247			
		10	1489	164	Yes		
12	1130	117	Yes	Tan caliche.	Strong petroleum odor. Refusal at 12 feet.		
TP-3	Tank Footprint	0	1870	618	Yes	Dark brown unconsolidated coarse sand. Damp, well sorted.	Stained soil.
		2	2680	NM			Petroleum odor & staining.
		4	2099	NM			Strong petroleum odor.
		6	4500	447	Yes	Light brown/tan well sorted unconsolidated sand. Harder with depth.	
		8	2800	NM			
		10	3730	NM			
12	4790	2472	Yes	Tan caliche.	Strong petroleum odor. Refusal at 12 feet.		
TP-4a	West of Former Tank	0	7.5	136		Dark brown unconsolidated coarse sand. Damp, well sorted.	No surface staining.
		2	840	NM			Petroleum odor.
		4	1721	NM			Strong petroleum odor.
		6	4419	96	Yes	Light brown/tan well sorted unconsolidated sand. Harder with depth.	
		8	2509	NM			
		10	2267	NM			
12	2246	64		Tan caliche.	Strong petroleum odor. Refusal at 12 feet.		
TP-4b	West of Former Tank	0	9.5	NM		Dark brown unconsolidated coarse sand. Damp, well sorted.	No surface staining.
		2	1430	NM	Yes		Petroleum odor.
		4	3290	NM			Strong petroleum odor.
		6	1920	1224		Light brown/tan well sorted unconsolidated sand. Harder with depth.	
		8	5000+	NM	Yes		
		10	4400	NM	Yes	Well cemented tan caliche.	
12	4003	NM		Tan caliche.	Strong petroleum odor. Refusal at 12 feet.		

**TABLE 1
SUMMARY OF FIELD OBSERVATIONS AND MEASUREMENTS
FIELD WORK - JANUARY 22, 2020
FORMER TANK 970 / ARTESIA STATION WEST, EDDY COUNTY, NM**

Test Pit Number	Location	Depth (feet bgs)	PID Measurement (ppm)	Chloride Test Kit Measurement (ppm)	Sample Submitted to Laboratory?	Lithology	Other Observations
TP-4c	West of Former Tank	0	0.9	NM	Yes	Dark brown unconsolidated coarse sand. Damp, well sorted.	No surface staining.
		2	NC	NM			No odor or other significant observations.
		4	NC	NM			
		6	21.3	NM			
		8	23.3	NM			
		10	1.7	NM		Light brown/tan well sorted unconsolidated sand. Harder with depth.	
		12	1.8	NM	Yes	Tan caliche.	Refusal at 12 feet.
TP-5a	South of Former Tank	0	12.7	NM		Dark brown unconsolidated sand. Damp, well sorted.	No surface staining.
		2	142	NM		Dark gray/black unconsolidated sand, damp. Harder with depth.	Strong petroleum odor and stained/discolored soil suggestive of a historical release.
		4	342	NM			
		6	669	NM			
		8	1960	NM			
		10	1440	NM			
		12	1946	NM		Dark gray caliche.	Strong petroleum odor & staining. Refusal at 12 feet.
TP-5	South of Former Tank	0	2	NM	Yes	Dark brown unconsolidated coarse sand. Damp, well sorted.	No surface staining.
		2	1442	NM		Light brown/tan well sorted unconsolidated sand. Harder with depth.	Petroleum odor.
		4	1427	NM			
		6	1581	1503			
		8	1701	NM			
		10	1766	NM	Yes		
11	1201	277		Tan caliche.	Petroleum odor. Refusal at 11 feet.		
TP-6	East of Former Tank	0	NA	NA		Road Base	Dead utility/conduit pipe encountered at 8 inches bgs. Trenching in this location terminated at request of HEP operations.

Notes: bgs = below ground surface.
ppm = parts per million.
PID = Photo-Ionization Detector
NM = Not Measured
NA = Not Applicable

**TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
FORMER TANK 970 / ARTESIA STATION WEST, EDDY COUNTY, NM**

Constituent of Concern	Sample Collection Date	BTEX (mg/kg)					TPH (mg/kg)				Chloride (mg/kg)		
		Benzene	Ethyl-benzene	Toluene	Xylenes	Total BTEX ²	GRO	DRO	MRO	TPH ⁴			
NMOCDClosure Criteria (GW >100' bgs)¹		10	NA	NA	NA	50 ³	1,000 ⁵		NA	2,500 ⁶	20,000		
TANK FOOTPRINT	TP-1-Surface	1/22/2020	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	0.45	43	150	193.45	1,200	
	TP-1-6'	1/22/2020	0.58	23.0	6.8	56.0	86.38	1,600	7,100	5000	13,700	3,770	
	TP-1-12'	1/22/2020	<0.0053	0.049	<0.0053	0.15	0.199	80.0	410	360	850	3,850	
	TP-2-Surface	1/22/2020	<0.0055	0.027	<0.0055	0.073	0.1	1.4	58.0	250	309.4	16.6	
	TP-2-10'	1/22/2020	<0.53	3.0	<0.53	8.7	11.7	200	1,500	1800	3,500	219	
	TP-2-12'	1/22/2020	<0.0054	0.036	<0.0054	0.1	0.136	56.0	810	1200	2066	159	
	TP-3-Surface	1/22/2020	<0.27	16	5.7	43	64.7	1,200	9,500	7,200	17,900	1,290	
	TP-3-6'	1/22/2020	1.3	29.0	19.0	62.0	111.3	1,600	7,600	5,600	14,800	2,960	
	TP-3-12'	1/22/2020	<0.28	16.0	6.0	35.0	57.0	1,300	5,200	3,900	10,400	1,670	
	1-SB	20-22'	11/10/2020	<0.0048	2.0	0.13	5.8	7.93	110	1,800	1,500	3,410	3,490
		30-32'	11/10/2020	<0.0050	0.12	0.013	0.29	0.423	5.3	560	670	1,235.3	1,980
		40-42'	11/10/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	0.3	71.0	77.0	148.3	1,430
		50-52'	11/10/2020	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	0.56	170	150	320.56	792
		60-62'	11/10/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	1.3	100	130	231.3	619
		75-77'	11/10/2020	0.054	7.8	1.3	21.0	30.154	82	4,100	2,600	6,782	440
Duplicate-1 (75-77')		11/10/2020	4.1	8.4	2.8	21.0	36.3	1,200	1,600	990	3,790	788	
80-82'		11/11/2020	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.054	<1.7	5.9	5.9	24.0	
90-92'		11/11/2020	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.05	54.0	62.0	116	290	
95-97'		11/11/2020	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	0.057	79	110	189.057	200	
100-102'	11/11/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.049	37.0	46.0	83.0	219		

**TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
FORMER TANK 970 / ARTESIA STATION WEST, EDDY COUNTY, NM**

Constituent of Concern	Sample Collection Date	BTEX (mg/kg)					TPH (mg/kg)				Chloride (mg/kg)			
		Benzene	Ethyl-benzene	Toluene	Xylenes	Total BTEX ²	GRO	DRO	MRO	TPH ⁴				
NMOCDC Closure Criteria (GW >100' bgs)¹		10	NA	NA	NA	50 ³	1,000 ⁵		NA	2,500 ⁶	20,000			
LATERAL DELINEATION	North	SB-3	0-2'	11/12/2020	0.013	0.6	<0.24	1.8	2.413	9.2	3,900	4,700	8,609.2	64.1
			20-22'	11/12/2020	<0.039	1.5	0.4	4.4	6.3	41.0	3,000	1,900	4,941	6.16
			30-32'	11/12/2020	<0.044	5.2	1.3	13	19.5	1,100	2,000	1,200	4,300	11.0
			40-42'	11/12/2020	<0.046	2.5	0.77	6.8	10.07	120	2,900	1,900	4,920	13.0
			50-52'	11/12/2020	<0.038	4.8	1.1	12.0	17.9	800	2,100	1,200	4,100	21.3
			60-62'	11/13/2020	<0.043	6.5	1.7	15.0	23.2	840	1,400	880	3,120	37.7
			70-72'	11/13/2020	<0.0050	0.0057	<0.0050	0.019	0.0247	0.22	220	180	400.22	8.04
			80-82'	11/13/2020	<0.0050	0.014	<0.0050	0.048	0.062	0.76	350	270	620.76	15.2
			100-102'	11/13/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.049	4.6	28.0	32.6	39.7
			105-107'	11/13/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.052	<1.7	8.0	8.0	56.4
	Duplicate-2 (105-107')	11/13/2020	<0.0051	<0.0051	<0.0051	0.0059	0.0059	<0.054	6.3	11.0	17.3	46.4		
	110-112'	11/13/2020	<0.0048	<0.0048	<0.0048	0.0059	0.0059	0.064	60.0	14.0	74.064	28.7		
	HA-North 0-2'	11/13/2020	0.0093	0.13	0.039	0.31	0.4883	31.0	6,300	5,000	11,331	358		
	SB-North	0-2'	6/1/2021	NA	NA	NA	NA	NA	<0.053	200	1,100	1,300	NA	
		5-7'	6/1/2021	NA	NA	NA	NA	NA	<0.049	110	570	680	NA	
		10-12'	6/1/2021	NA	NA	NA	NA	NA	<0.054	8.1	30	38.1	NA	
		15-17'	6/1/2021	NA	NA	NA	NA	NA	<0.052	3.5	5.9	9.4	NA	
		DUP-1 (15-17')	6/1/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.051	9.0	20	29.0	NA	
		20-22'	6/1/2021	NA	NA	NA	NA	NA	<0.047	6.5	9.3	15.8	NA	
		30-32'	6/1/2021	NA	NA	NA	NA	NA	<0.050	7.7	13	20.7	NA	
35-37'		6/1/2021	NA	NA	NA	NA	NA	<0.048	2.3	4.5	6.8	NA		
40-42'		6/1/2021	NA	NA	NA	NA	NA	<0.049	3.8	4.4	8.2	NA		
50-52'		6/1/2021	NA	NA	NA	NA	NA	<0.050	6.4	5.4	11.8	NA		
55-57'	6/1/2021	NA	NA	NA	NA	NA	<0.051	2.6	4.1	6.7	NA			
60-62'	6/1/2021	NA	NA	NA	NA	NA	<0.054	10	<3.4	10	NA			
70-72'	6/1/2021	NA	NA	NA	NA	NA	<0.051	10	9.5	19.5	NA			
75-77'	6/1/2021	NA	NA	NA	NA	NA	<0.054	2.5	<3.4	2.5	NA			
80-82'	6/1/2021	NA	NA	NA	NA	NA	<0.050	5.1	<3.4	5.1	NA			

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SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
FORMER TANK 970 / ARTESIA STATION WEST, EDDY COUNTY, NM

Constituent of Concern	Sample Collection Date	BTEX (mg/kg)					TPH (mg/kg)				Chloride (mg/kg)	
		Benzene	Ethyl-benzene	Toluene	Xylenes	Total BTEX ²	GRO	DRO	MRO	TPH ⁴		
NMOCDClosure Criteria (GW >100' bgs) ¹		10	NA	NA	NA	50 ³	1,000 ⁵		NA	2,500 ⁶	20,000	
LATERAL DELINEATION East SB-East	TP-6	1/22/2020	Test pit installed to east terminated at 8 inches deep due to underground utilities. No sample collected.									
	HA-East 0-1'	11/13/2020	<0.0048	0.027	0.03	0.055	0.112	0.06	58.0	250	308.06	42.2
	0-2'	6/2/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	34	17	51	NA
	5-7'	6/2/2021	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.052	28	5.1	33.1	NA
	10-12'	6/2/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.047	5.9	<3.4	5.9	NA
	20-22'	6/2/2021	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.049	5.0	3.8	8.8	NA
	25-27'	6/2/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.046	23	<3.4	23	NA
	30-32'	6/2/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.049	38	4.6	42.6	NA
	40-42'	6/2/2021	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.051	15	18	33	NA
	45-47'	6/2/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	6.7	8.7	15.4	NA
	50-52'	6/2/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.054	6.2	<3.4	6.2	NA
	55-57'	6/2/2021	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.052	14	4.2	18.2	NA
	60-62'	6/2/2021	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.050	5.8	3.6	9.4	NA
	70-72'	6/2/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.052	110	6.3	116.3	NA
	75-77'	6/2/2021	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.048	6.7	15	21.7	NA
80-82'	6/2/2021	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.046	28	6.1	34.1	NA	
DUP-2 (80-82')	6/2/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.052	29	12	41	NA	

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Constituent of Concern	Sample Collection Date	BTEX (mg/kg)					TPH (mg/kg)				Chloride (mg/kg)	
		Benzene	Ethyl-benzene	Toluene	Xylenes	Total BTEX ²	GRO	DRO	MRO	TPH ⁴		
NMOCD Closure Criteria (GW >100' bgs)¹		10	NA	NA	NA	50 ³	1,000 ⁵		NA	2,500 ⁶	20,000	
LATERAL DELINEATION West SB-2	TP-4a-6'	1/22/2020	0.42	67.0	3.4	130	200.82	450	8,200	4,200	12,850	37.6
	TP-4b-2'	1/22/2020	0.36	19.0	9.4	88.0	116.76	290	6,500	4,200	10,990	1,020
	TP-4b-8'	1/22/2020	<0.28	18.0	3.3	53.0	74.3	210	4,000	2,500	6,710	303
	TP-4b-10'	1/22/2020	<0.29	5.8	0.68	18.0	24.48	420	3,100	2,100	5,620	257
	TP-4c-Surface	1/22/2020	<0.0057	<0.0057	<0.0057	0.016	0.016	0.15	470	2,200	2,670.15	309
	TP-4c-12'	1/22/2020	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.059	70.0	8.5	78.5	83.0
	0-2'	11/11/2020	0.13	0.7	<0.043	1.3	2.13	660	11,000	20,000	31,660	774
	20-22'	11/11/2020	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.049	2.6	8.6	11.2	358
	40-42'	11/11/2020	<0.0048	0.0075	<0.0048	0.021	0.0285	0.56	170	230	400.56	75.8
	60-62'	11/11/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.051	19.0	81.0	100	639
	80-82'	11/12/2020	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.052	23.0	44.0	67.0	397
	90-92'	11/12/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.054	6.1	18.0	24.1	592
	95-97'	11/12/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.046	4.4	14.0	18.4	677
	100-102'	11/12/2020	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.050	2.5	8.3	10.8	202
HA-West 0-1'	11/13/2020	0.0052	0.049	0.059	0.1	0.2132	0.97	280	1,300	1,580.97	88.8	

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Constituent of Concern	Sample Collection Date	BTEX (mg/kg)					TPH (mg/kg)				Chloride (mg/kg)		
		Benzene	Ethyl-benzene	Toluene	Xylenes	Total BTEX ²	GRO	DRO	MRO	TPH ⁴			
NMOCDC Closure Criteria (GW >100' bgs)¹		10	NA	NA	NA	50 ³	1,000 ⁵		NA	2,500 ⁶	20,000		
LATERAL DELINEATION South	TP-5a	1/22/2020	No sample collected due to apparent historical contamination.										
	TP-5-Surface	1/22/2020	0.0096	0.091	0.061	0.15	0.3116	2.0	940	3,000	3,942	1,300	
	TP-5-10'	1/22/2020	2.3	58.0	15.0	120	195.3	2,000	6,700	3,900	12,600	998	
	SB-4	0-2'	12/8/2020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.18	420	1,100	1,520.18	768
		5-7'	12/8/2020	<1.2	40.0	2.9	77.0	119.9	440	4,900	2,600	7,940	645
		20-22'	12/8/2020	<2.4	41.0	28.0	87.0	156	1,800*	4,900	2,600	9,300	158
		30-32'	12/8/2020	0.048	0.62	<0.042	2.2	2.868	8.5	920	780	1,708.5	71.9
		40-42'	12/8/2020	0.0077	0.14	0.028	0.44	0.6157	1.1	410	420	831.1	57.7
		50-52'	12/8/2020	<0.48	1.6	<0.48	5.1	6.7	42	1,500	1,100	2,642	<4.91
		65-67'	12/8/2020	<0.0048	0.11	<0.043	0.51	0.62	5.0	590	490	1085	34.6
		Duplicate-3 (65-67')	12/8/2020	<0.0050	0.22	0.19	0.87	1.28	5.9	750	640	1,395.9	39.4
		75-77'	12/8/2020	0.15	0.66	0.25	1.7	2.76	10	5,600	2,900	8,510	17.2
		80-82'	12/8/2020	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	0.073	39.0	32.0	71.073	31.6
		90-92'	12/8/2020	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.050	11.0	20.0	31.0	22.7
	95-97'	12/8/2020	<0.0048	0.012	0.014	0.025	0.051	<0.050	33.0	6.5	39.5	15.5	
	100-102'	12/8/2020	<0.0048	<0.0048	<0.0048	0.059	0.059	<0.050	48.0	32.0	80.0	15.3	
	HA-South 0-1'	11/13/2020	<0.0048	0.034	0.028	0.072	0.134	0.79	170	1,000	1,170.79	279	
	SB-South	0-2'	6/2/2021	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.052	33	4.1	37.1	NA
		5-7'	6/2/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.052	7.9	6.0	13.9	NA
		10-12'	6/2/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	4.6	<3.4	4.6	NA
		15-17'	6/2/2021	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.047	1.8	<3.4	1.8	NA
		20-22'	6/2/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.048	3.3	4.6	7.9	NA
		25-27'	6/2/2021	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.048	7.5	18	25.5	NA
		30-32'	6/2/2021	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.051	33	29	62	NA
		DUP-3 (30-32')	6/2/2021	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.052	5.0	14	19.0	NA
		40-42'	6/2/2021	NA	NA	NA	NA	NA	<0.052	3.2	5.7	8.9	NA
		50-52'	6/2/2021	NA	NA	NA	NA	NA	<0.047	8.5	15	23.5	NA
		60-62'	6/2/2021	NA	NA	NA	NA	NA	<0.046	4.7	15	19.7	NA
70-72'	6/3/2021	NA	NA	NA	NA	NA	<0.052	39	49	88	NA		
75-77'	6/3/2021	NA	NA	NA	NA	NA	<0.050	13	29	42	NA		
80-82'	6/3/2021	NA	NA	NA	NA	NA	<0.050	7.2	11	18.2	NA		

**TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
FORMER TANK 970 / ARTESIA STATION WEST, EDDY COUNTY, NM**

Constituent of Concern	Sample Collection Date	BTEX (mg/kg)					TPH (mg/kg)				Chloride (mg/kg)
		Benzene	Ethylbenzene	Toluene	Xylenes	Total BTEX ²	GRO	DRO	MRO	TPH ⁴	
NMOCD Closure Criteria (GW >100' bgs)¹		10	NA	NA	NA	50 ³	1,000 ⁵		NA	2,500 ⁶	20,000

Notes: NMOCD Closure Criteria = New Mexico Oil Conservation District Closure Criteria for a Site (varies with depth to groundwater)

¹ = Closure Criteria provided for sites with groundwater at a depth of greater than 100' bgs.

"NA" in NMOCD Closure Criteria row indicates there is no Closure Criterion for that constituent.

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes by EPA Method 8260.

² = Total BTEX is the sum of the benzene + toluene + ethylbenzene + total xylenes concentrations.

³ = This value is compared against the sum of the benzene + toluene + ethylbenzene + total xylenes concentrations.

TPH = Total Petroleum Hydrocarbons by EPA Method 8015.

GRO = Gasoline Range Organics.

DRO = Diesel Range Organics.

MRO = Motor Oil Range Organics.

⁴ = TPH is the sum of the GRO + DRO + MRO concentrations.

⁵ = This value is compared against the sum of the GRO + DRO concentrations.

⁶ = This value is compared against the sum of the GRO + DRO + MRO concentrations.

Chloride concentrations determined by EPA Method 300.0.

GW = Groundwater.

TP = Test Pit.

SB = Soil Boring.

HA = Hand Auger Boring.

NA = Not Analyzed or Applicable.

' = feet.

' bgs = feet below ground surface.

Sample depth provided in sample name.

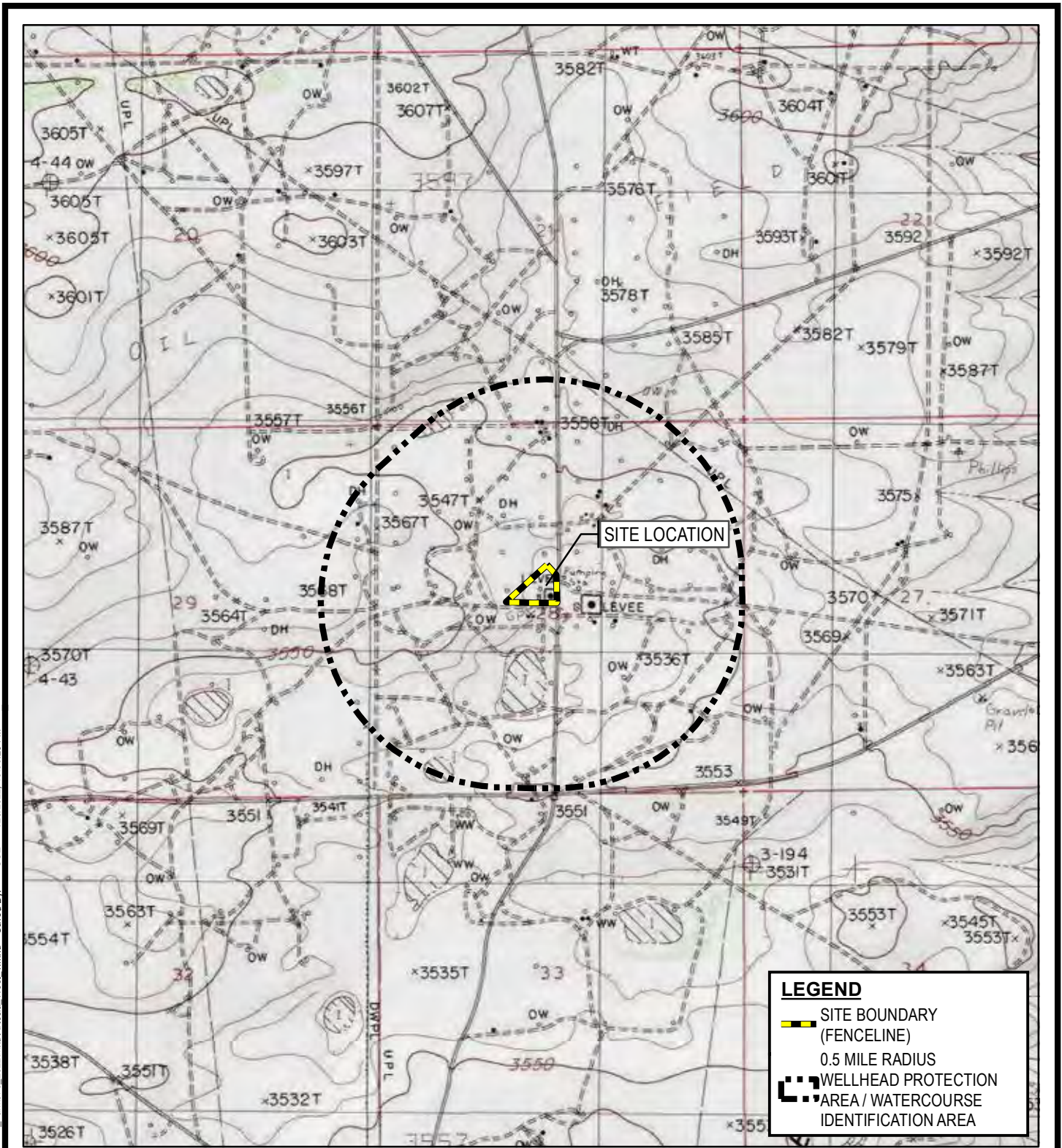
Detected concentrations reported in bold.

Orange shading represents concentration above NMOCD Closure Criteria for sites with groundwater at depths greater than 100'.

* = The initial reported concentration for this analyte (TPH GRO) was 11,000 mg/kg, when reanalyzed out of hold time the concentration was reported at 1,800 mg/kg. Lower value reported in table because 11,000 mg/kg appears to be anomalous.



FIGURES



LEGEND

- SITE BOUNDARY (FENCELINE)
- 0.5 MILE RADIUS WELLHEAD PROTECTION AREA / WATERCOURSE IDENTIFICATION AREA

BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.



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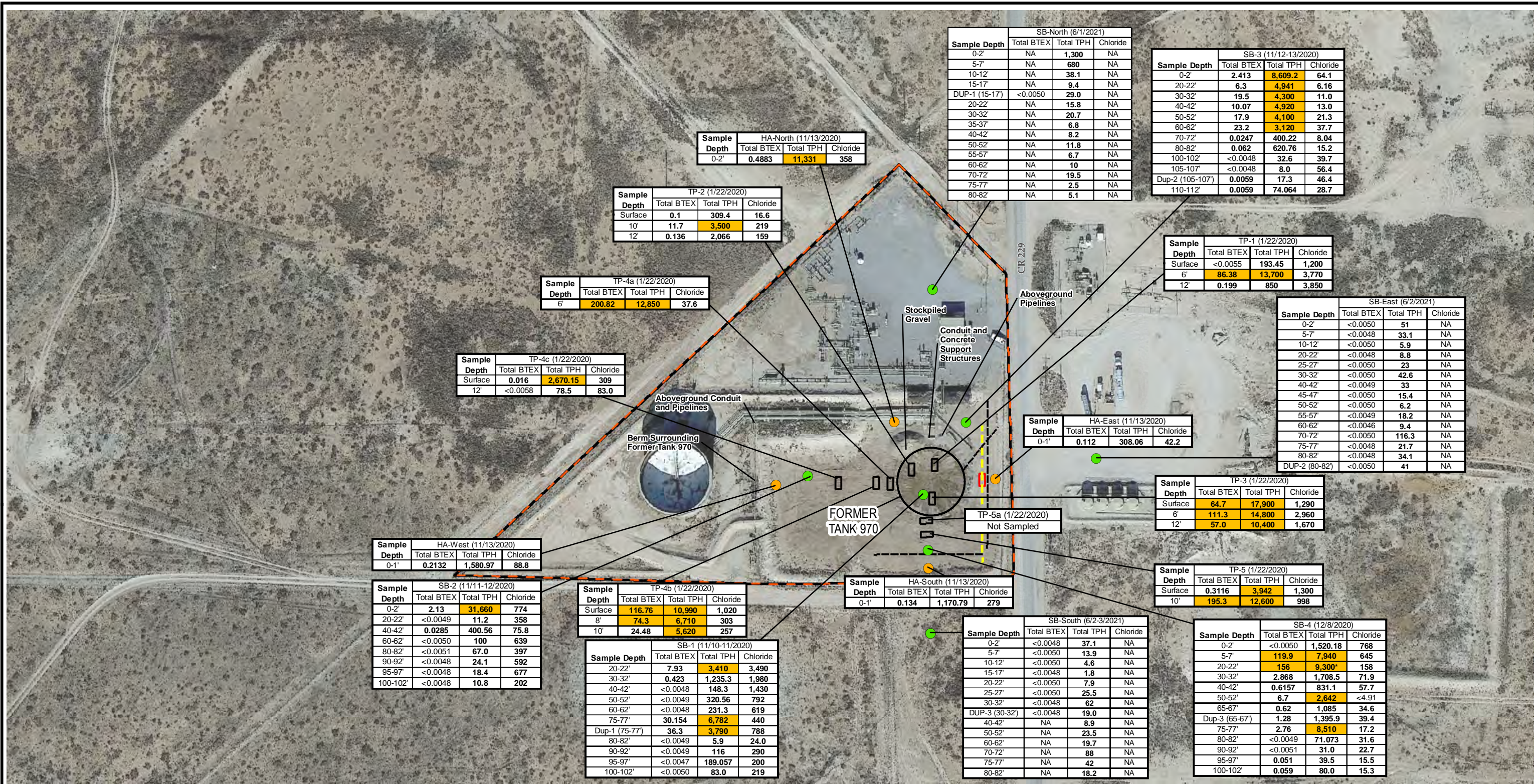
505 East Huntland Drive
Suite #250
Austin, TX 78752
Phone: 512.329.6080

PROJECT: **HOLLY ENERGY PARTNERS - OPERATING, L.P.
ARTESIA STATION WEST, EDDY COUNTY, NM
FORMER TANK 970**

TITLE: **SITE LOCATION MAP**

DRAWN BY:	S. RAY
CHECKED BY:	RDV
APPROVED BY:	RDV
DATE:	MARCH 2022
PROJ. NO.:	390691
FILE:	Artesia_West_1.mxd

FIGURE 1



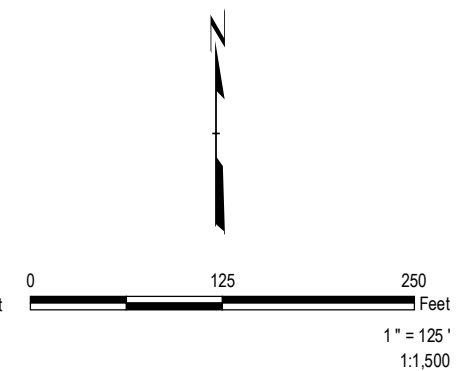
LEGEND

- FENCELINE
- UNMARKED, OUT OF SERVICE UNDERGROUND UTILITY
- CONFIRMED UNDERGROUND LINE
- TEST PIT
- TEST PIT THAT WAS STOPPED DUE TO UNMARKED UNDERGROUND UTILITY
- AIR ROTARY BORING LOCATION
- HAND AUGER BORING LOCATION

SOURCE: BASEMAP FROM GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).

NOTES:

1. Sample collection date provided next to sample location.
2. Sample Depth provided in feet (').
3. Concentrations provided in mg/kg.
4. Detected concentrations reported in bold.
5. BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes by EPA Method 8260.
Total BTEX = Sum of Benzene, Toluene, Ethylbenzene, and Total Xylenes
6. TPH = Total Petroleum Hydrocarbons by EPA Method 8015.
Total TPH = Sum of Gasoline Range, Diesel Range, and Motor Oil Range Organics.
7. Chloride by EPA Method 300.
8. Orange highlighted values exceed Closure Criteria for sites with groundwater greater than 100 feet deep.
9. Samples Names "Duplicate-1", "Duplicate-2", and "Duplicate-3" shortened to "Dup-1", "Dup-2", and "Dup-3" for this figure.
10. * = The initial reported concentration for TPH GRO in this sample was 11,000 mg/kg. Because this value appeared unusual for the Site it was reanalyzed out of hold. The reanalyzed GRO concentration was 1,800 mg/kg. The 1,800 mg/kg measurement was included in this total because the 11,000 mg/kg value appears to be anomalous.



PROJECT: **HOLLY ENERGY PARTNERS - OPERATING, L.P.**
ARTESIA STATION WEST, EDDY COUNTY, NM
FORMER TANK 970

TITLE: **SITE AND SAMPLE LOCATION PLAN**

DRAWN BY: S. RAY PROJ. NO.: 437988
CHECKED BY: RDV
APPROVED BY: RDV
DATE: MARCH 2022

FIGURE 2

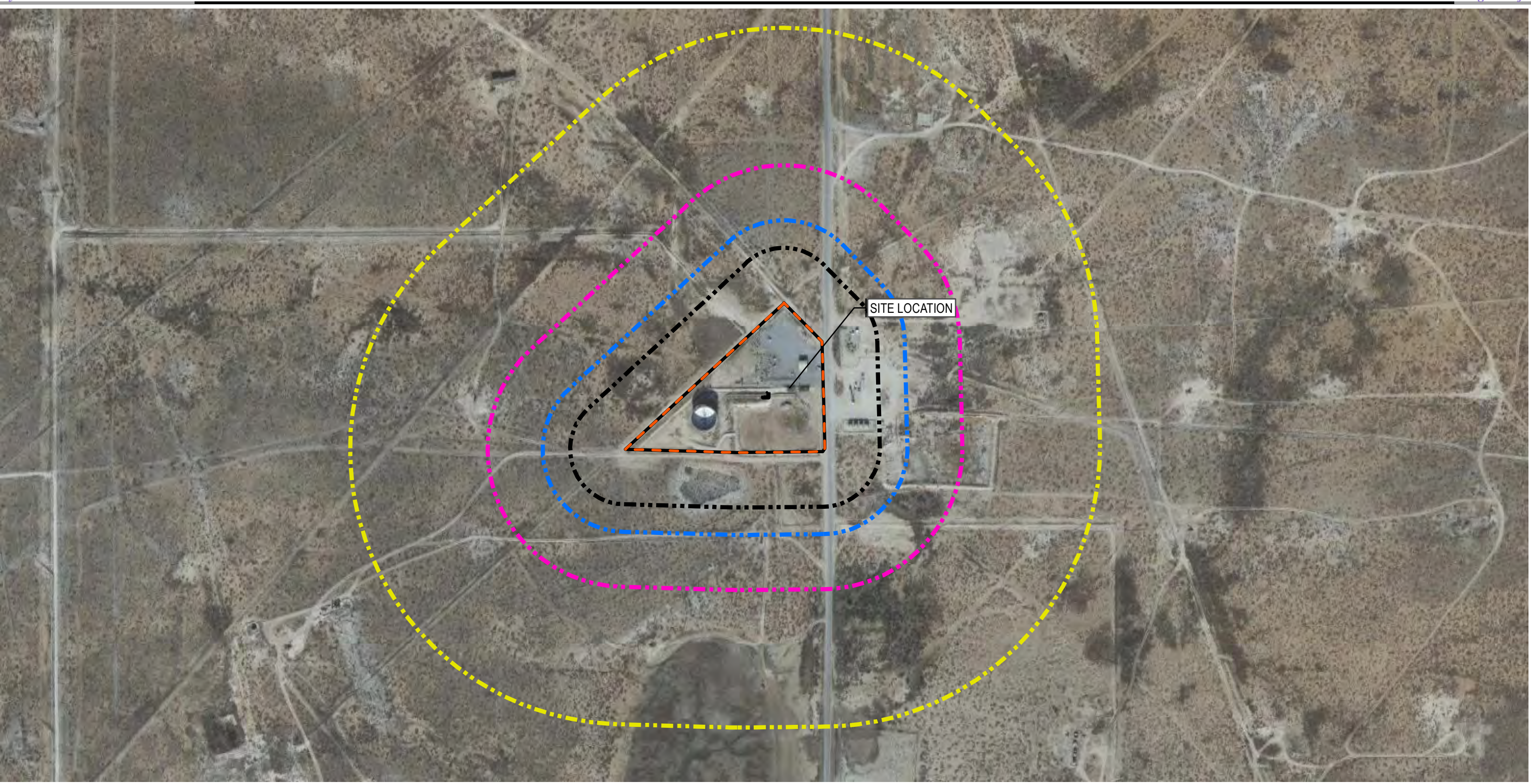
505 East Huntland Drive
Suite #250
Austin, TX 78752
Phone: 512.329.6080

FILE NO.: 460025_Artesia_West_2.mxd






TRC - GIS

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

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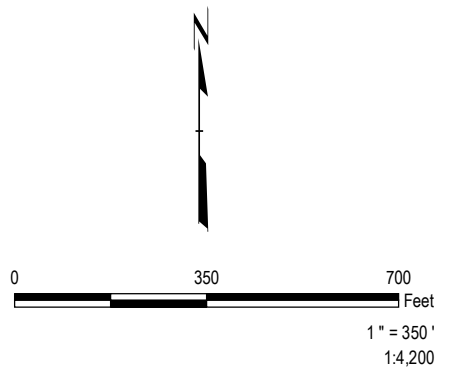
LEGEND


-  FENCELINE
-  200' RADIUS (SEE CLOSURE CRITERIA MODIFIER 1)
-  300' RADIUS (SEE CLOSURE CRITERIA MODIFIER 2)
-  500' RADIUS (SEE CLOSURE CRITERIA MODIFIER 3)
-  1000' RADIUS (SEE CLOSURE CRITERIA MODIFIER 4)

SOURCE: BASEMAP FROM GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).

CLOSURE CRITERIA MODIFIERS

1. WITHIN 200 FEET OF ANY LAKEBED, SINKHOLE OR PLAYA LAKE (MEASURED FROM THE ORDINARY HIGH-WATER MARK).
2. WITHIN 300 FEET OF ANY CONTINUOUSLY FLOWING WATERCOURSE OR ANY OTHER SIGNIFICANT WATERCOURSE; OR FROM AN OCCUPIED PERMANENT RESIDENCE, SCHOOL, HOSPITAL, OR CHURCH.
3. WITHIN 500 FEET OF A SPRING OR A PRIVATE, DOMESTIC FRESH WATER WELL USED BY LESS THAN FIVE HOUSEHOLDS FOR DOMESTIC OR STOCK WATERING PURPOSES.
4. WITHIN 1,000 FEET OF ANY FRESH WATER WELL OR SPRING.

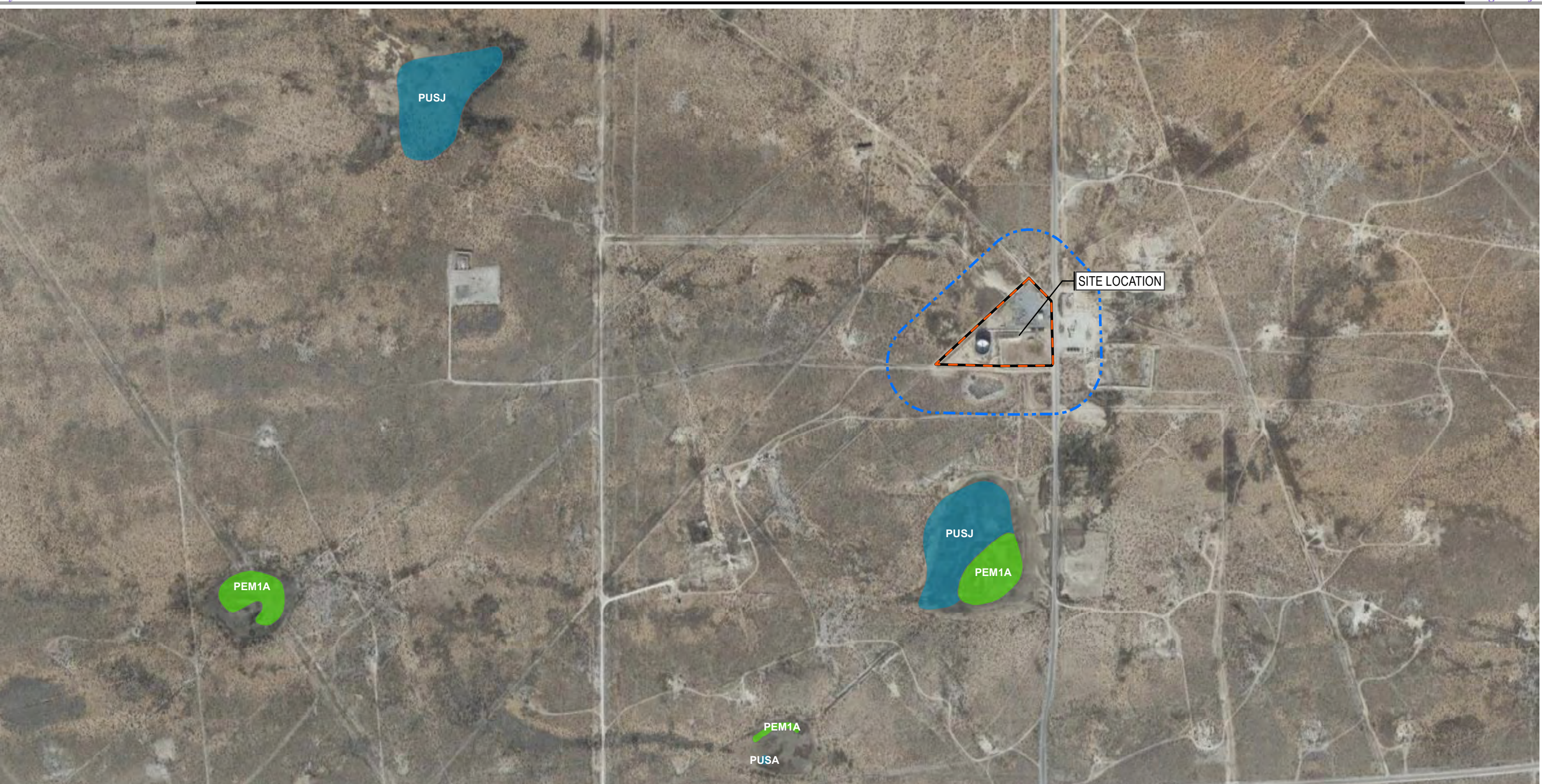


PROJECT:		HOLLY ENERGY PARTNERS - OPERATING, L.P.	
		ARTESIA STATION WEST, EDDY COUNTY, NM	
		FORMER TANK 970	
TITLE:			
CLOSURE CRITERIA MODIFIERS			
DRAWN BY:	S. RAY	PROJ NO.:	390691
CHECKED BY:	RDV	FIGURE 3	
APPROVED BY:	RDV		
DATE:	MARCH 2022		
		505 East Huntland Drive Suite #250 Austin, TX 78752 Phone: 512.329.6080	
FILE NO.:	460025_Artesia_West_3.mxd		

TRC - GIS

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

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LEGEND

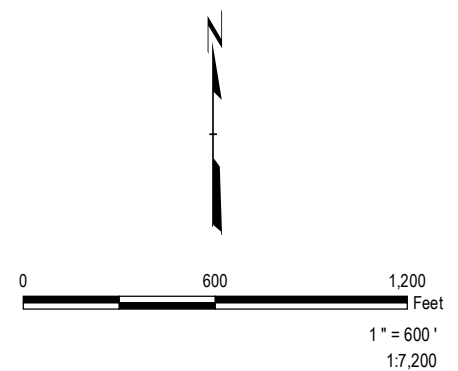
- SITE BOUNDARY (FENCELINE)
- FRESHWATER EMERGENT WETLAND
- FRESHWATER POND
- 300' RADIUS (SEE NOTE 4)

SOURCE: WETLANDS - FISH AND WILDLIFE SERVICE NATIONAL WETLANDS INVENTORY.
BASEMAP FROM GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).

NOTES:

1. PUSA = PALUSTRINE (P), UNCONSOLIDATED SHORE (US), TEMPORARILY FLOODED (A)
2. PUSJ = PALUSTRINE (P), UNCONSOLIDATED SHORE (US), INTERMITTENTLY FLOODED (J)
3. PEM1A = PALUSTRINE (P), EMERGENT (EM), PERSISTENT (1), TEMPORARILY FLOODED (A)
4. WITHIN 300 FEET OF A WETLAND

TEMPORARILY FLOODED = FLOODED FOR BRIEF PERIODS DURING GROWING SEASON, BUT WATER TABLE OTHERWISE WELL BELOW SURFACE.
INTERMITTENTLY FLOODED = SURFACE USUALLY EXPOSED WITH SURFACE WATER PRESENT FOR VARIABLE PERIODS WITHOUT DETECTABLE SEASONAL PATTERNS.

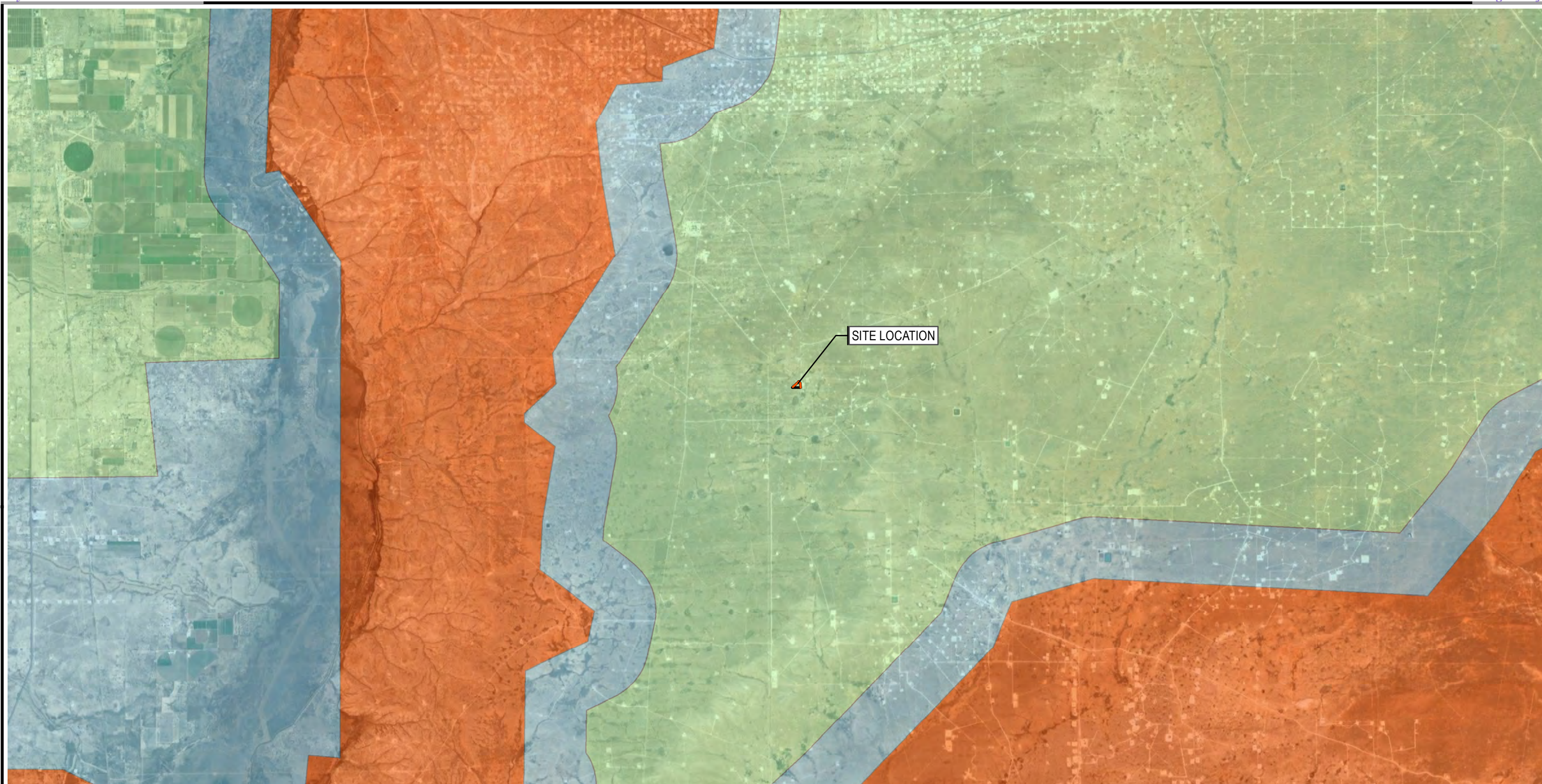


PROJECT:		HOLLY ENERGY PARTNERS - OPERATING, L.P. ARTESIA STATION WEST, EDDY COUNTY, NM FORMER TANK 970	
TITLE:		WETLANDS MAP	
DRAWN BY:	S. RAY	PROJ NO.:	390691
CHECKED BY:	RDV	FIGURE 4	
APPROVED BY:	RDV		
DATE:	MARCH 2022	505 East Huntland Drive Suite #250 Austin, TX 78752 Phone: 512.329.6080	
FILE NO.:	460025_Artesia_West_4.mxd		

TRC - GIS


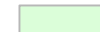
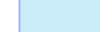

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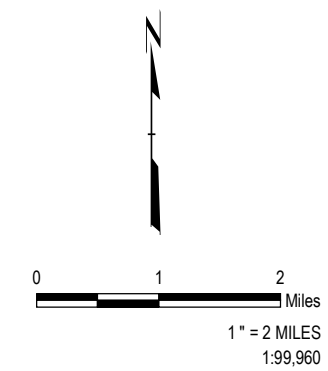
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SOURCE: KARST DATA FROM NEW MEXICO BUREAU OF LAND MANAGEMENT.
BASEMAP FROM GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).

LEGEND

-  SITE BOUNDARY (FENCELINE)
-  LOW KARST POTENTIAL
-  MEDIUM KARST POTENTIAL
-  HIGH KARST POTENTIAL

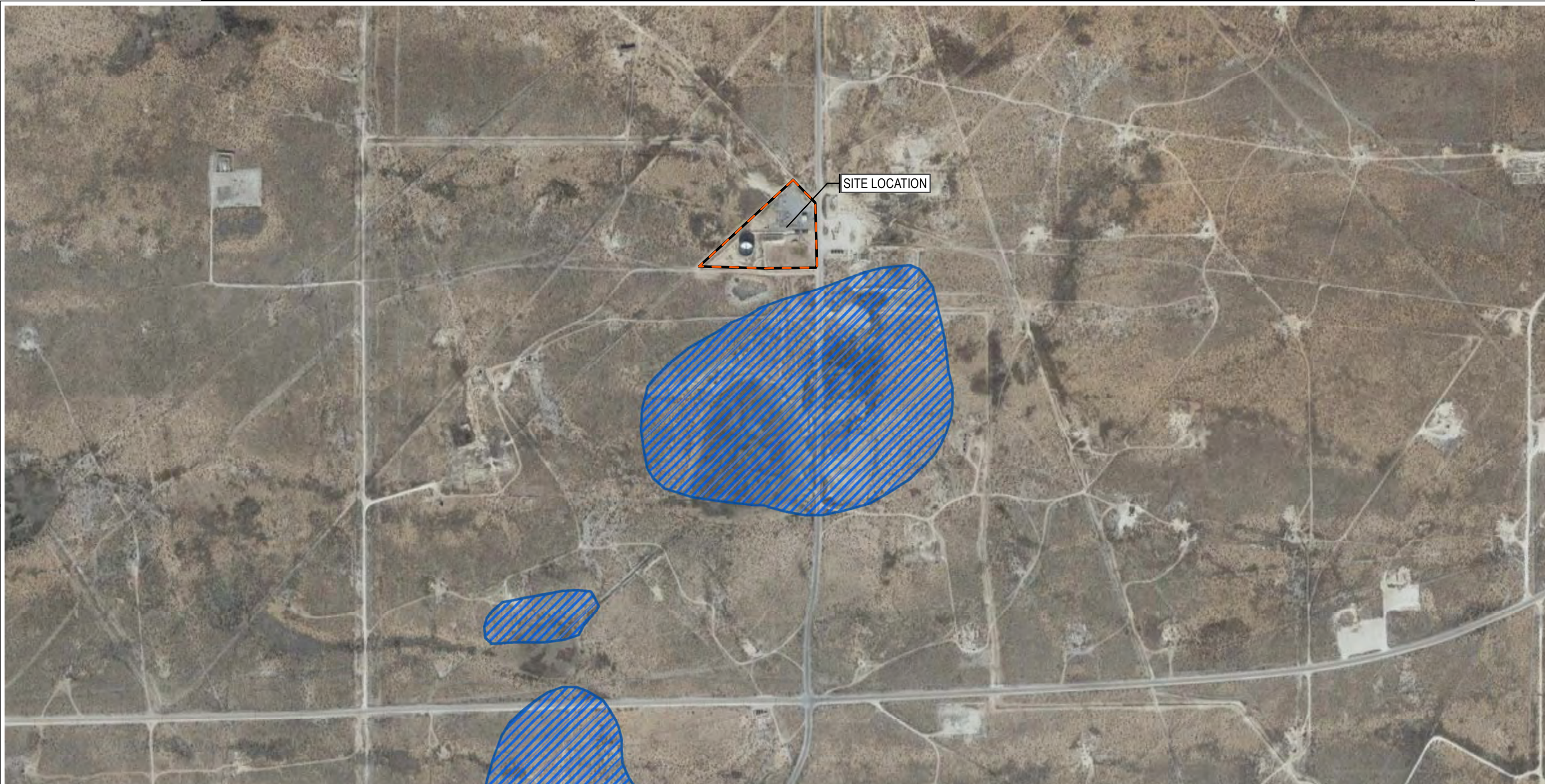




PROJECT:		HOLLY ENERGY PARTNERS - OPERATING, L.P. ARTESIA STATION WEST, EDDY COUNTY, NM FORMER TANK 970	
TITLE:		KARST POTENTIAL MAP	
DRAWN BY:	S. RAY	PROJ NO.:	390691
CHECKED BY:	RDV	FIGURE 5	
APPROVED BY:	RDV		
DATE:	MARCH 2022	505 East Huntland Drive Suite #250 Austin, TX 78752 Phone: 512.329.6080	
FILE NO.:	Artesia_West_5.mxd		

TRC - GIS

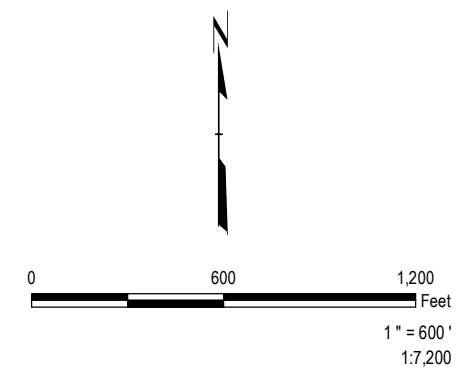
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Map Rotation: 0


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- LEGEND**
-  SITE BOUNDARY (FENCELINE)
 -  AREA INSIDE 100 YEAR FLOODPLAIN

SOURCE: FLOODPLAIN - FEMA FLOOD MAP SERVICE CENTER (MSC).
BASEMAP FROM GOOGLE AND GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).

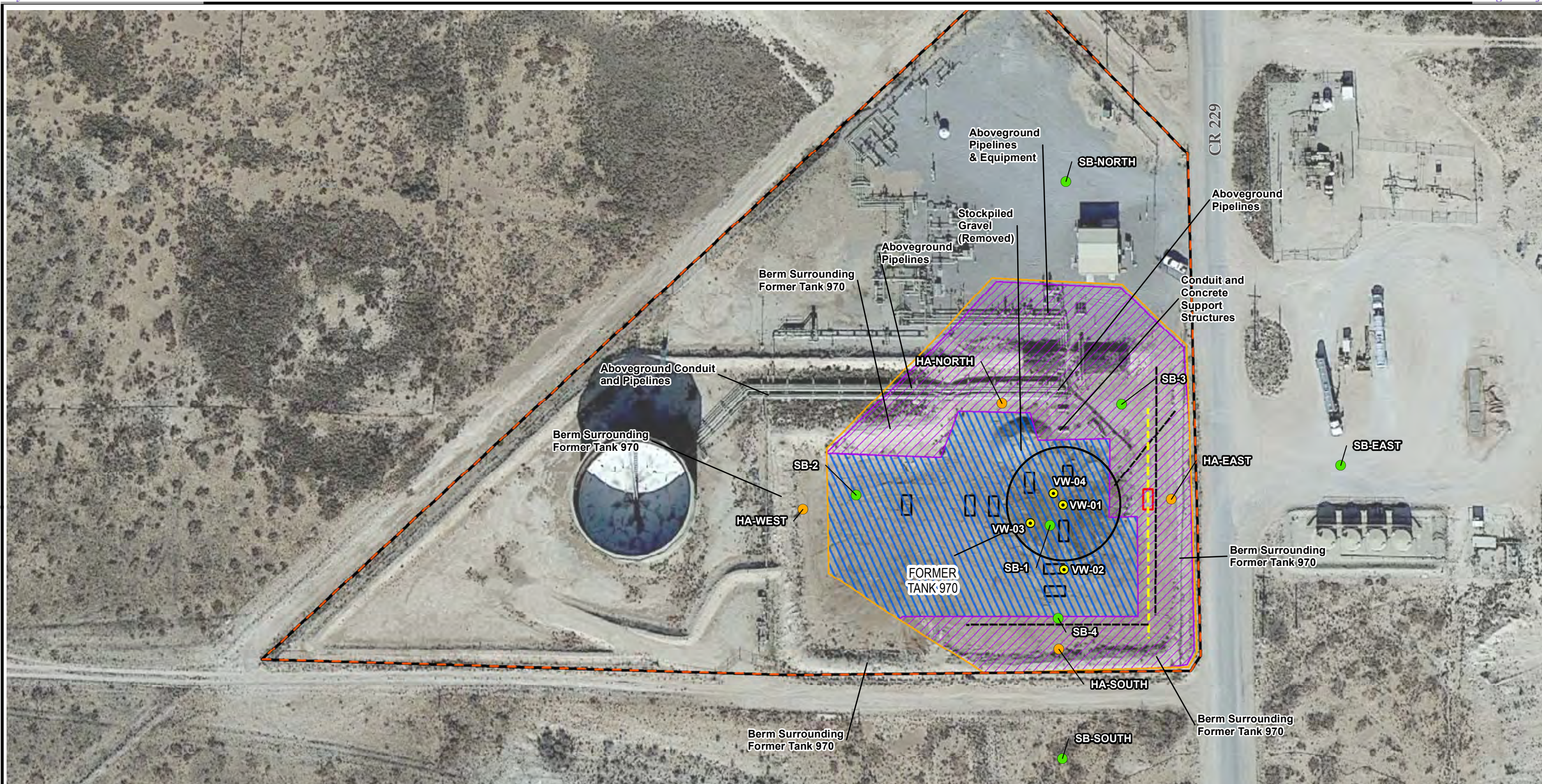


PROJECT:		HOLLY ENERGY PARTNERS - OPERATING, L.P.	
		ARTESIA STATION WEST, EDDY COUNTY, NM	
		FORMER TANK 970	
TITLE:			
FLOODPLAIN MAP			
DRAWN BY:	S. RAY	PROJ NO.:	390691
CHECKED BY:	RDV	FIGURE 6	
APPROVED BY:	RDV		
DATE:	MARCH 2022		
		505 East Huntland Drive Suite #250 Austin, TX 78752 Phone: 512.329.6080	
FILE NO.:		460025_Artesia_West_6.mxd	

TRC - GIS

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
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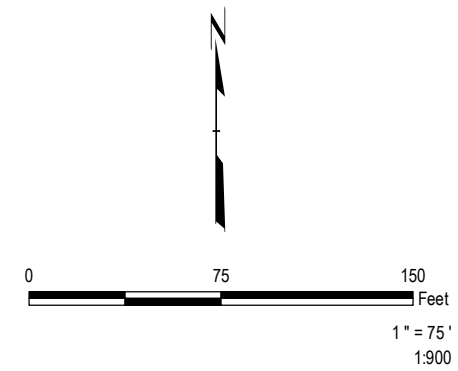


LEGEND

- FENCELINE
- UNMARKED, OUT OF SERVICE UNDERGROUND UTILITY
- CONFIRMED UNDERGROUND LINE
- TEST PIT
- TEST PIT THAT WAS STOPPED DUE TO UNMARKED UNDERGROUND UTILITY
- AIR ROTARY BORING LOCATION
- HAND AUGER BORING LOCATION
- PROPOSED SVE PILOT TEST WELLS
- APPROXIMATE EXTENT OF SOIL WITH TOTAL BTEX AND/OR TPH CONCENTRATIONS ABOVE CLOSURE CRITERIA
- PROPOSED EXCAVATION/LINER AREA
- PROPOSED DEFERRAL AREA

SOURCE: BASEMAP FROM GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).

NOTES:
 BTEX = BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENES
 SVE = SOIL VAPOR EXTRACTION
 TPH = TOTAL PETROLEUM HYDROCARBONS

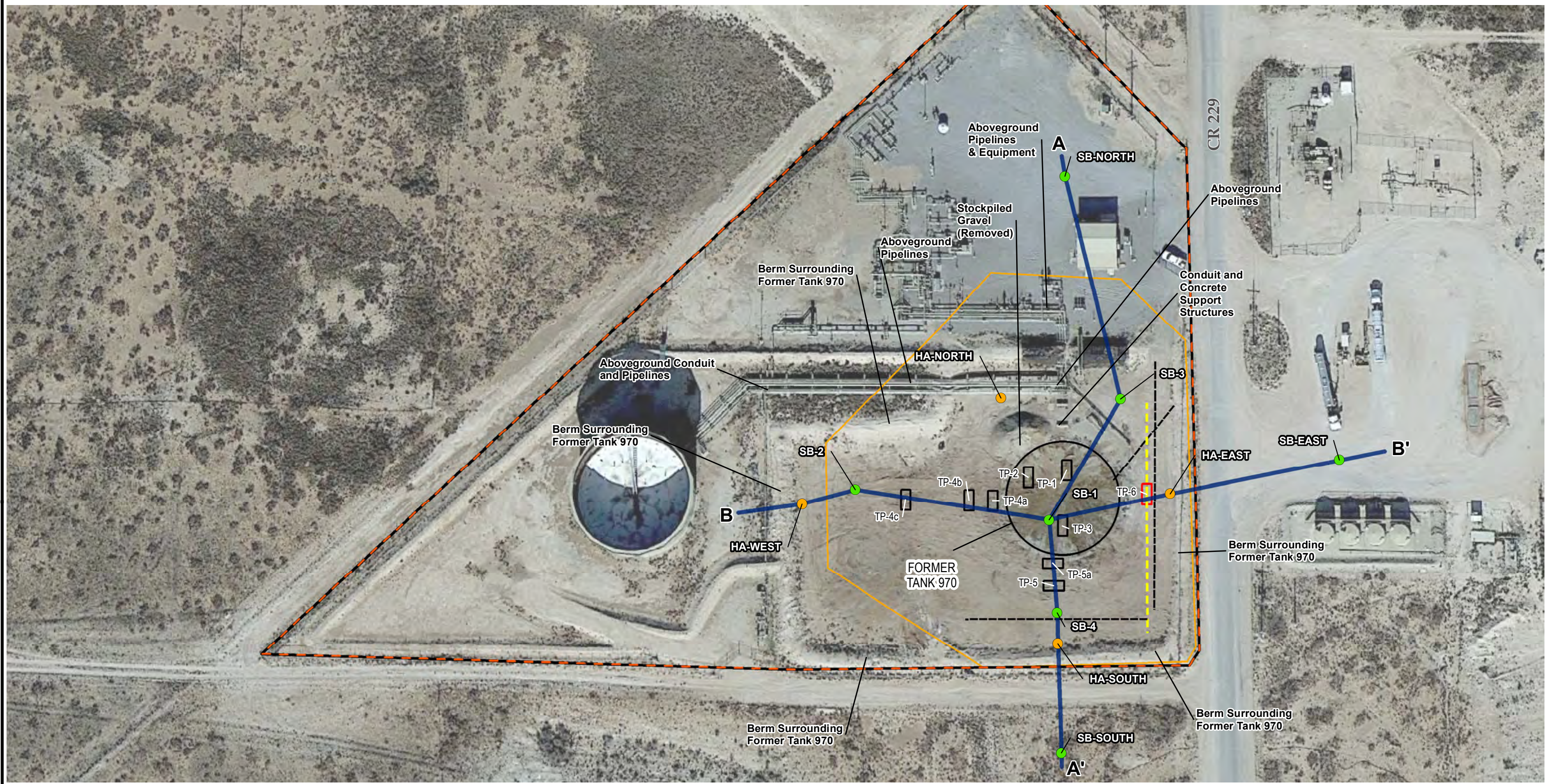


PROJECT: HOLLY ENERGY PARTNERS - OPERATING, L.P. ARTESIA STATION WEST, EDDY COUNTY, NM FORMER TANK 970	
TITLE: PROPOSED SOIL REMEDIATION AND DEFERRAL AREAS	
DRAWN BY: M. JAGOE	PROJ NO.: 460025
CHECKED BY: D. HELBERT	FIGURE 7
APPROVED BY: B. GILBERT	
DATE: MARCH 2022	
505 East Huntland Drive Suite #250 Austin, TX 78752 Phone: 512.329.6080	
FILE NO.:	460025_Artesia_West_7.mxd

TRC - GIS

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0

Plot Date: 3/30/2022 17:22:30 PM by M/JAGOE -- LAYOUT: ANSI B(11"x17")
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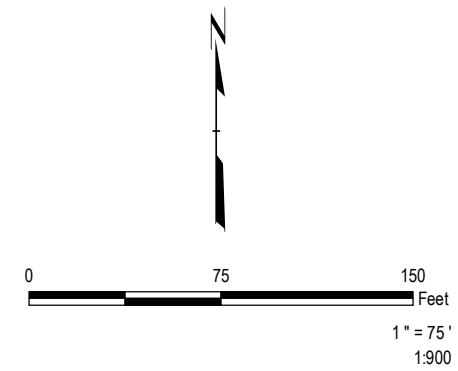


SOURCE: BASEMAP FROM GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/21/2019).

LEGEND

- FENCELINE
- UNMARKED, OUT OF SERVICE UNDERGROUND UTILITY
- CONFIRMED UNDERGROUND
- TEST PIT
- TEST PIT THAT WAS STOPPED DUE TO UNMARKED UNDERGROUND UTILITY
- AIR ROTARY BORING
- HAND AUGER BORING LOCATION
- APPROXIMATE EXTENT OF SOIL WITH TOTAL BTEX AND/OR TPH CONCENTRATIONS ABOVE CLOSURE CRITERIA
- CROSS SECTION LINE

NOTES:
 BTEX = BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENES
 TPH = TOTAL PETROLEUM HYDROCARBONS



PROJECT: **HOLLY ENERGY PARTNERS - OPERATING, L.P.**
ARTESIA STATION WEST, EDDY COUNTY, NM
FORMER TANK 970

TITLE: **SITE AND CROSS SECTION LOCATION MAP**

DRAWN BY: M. JAGOE	PROJ NO.: 460025
CHECKED BY: D. HELBERT	
APPROVED BY: B. GILBERT	
DATE: MARCH 2022	

FIGURE 8A

505 East Huntland Drive
 Suite #250
 Austin, TX 78752
 Phone: 512.329.6080

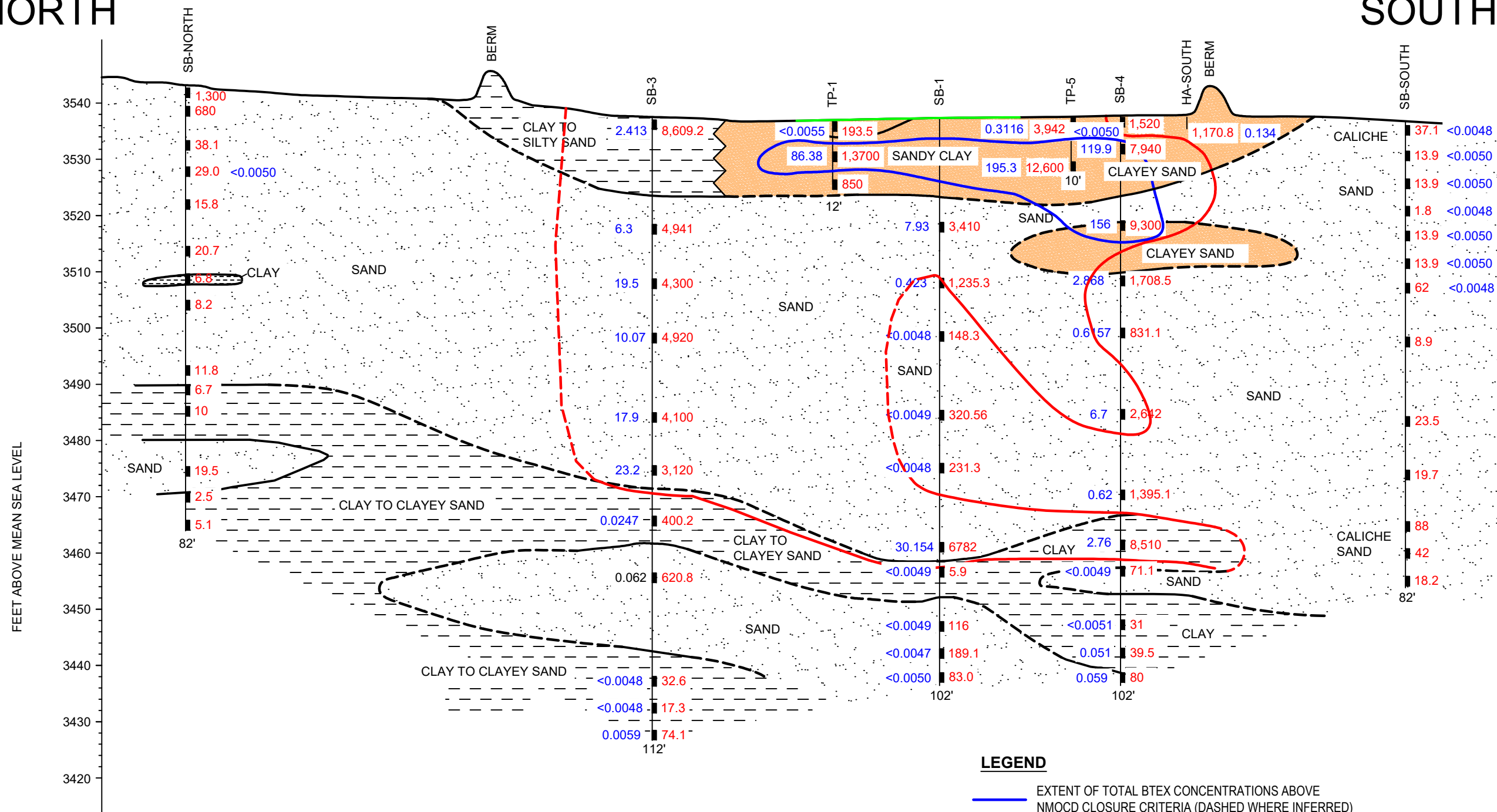
FILE NO.: 460025_8A_XSec.mxd

A TO A'

SURFACE ELEVATION APPROXIMATE

A NORTH

A' SOUTH



NOTES:
 1. TOTAL TPH CONCENTRATIONS IN RED
 2. TOTAL BTEX CONCENTRATIONS IN BLUE
 3. CONCENTRATIONS IN MG/KG

NMOC D CLOSURE CRITERIA:
 TOTAL TPH= 2,500 MG/KG
 TOTAL BTEX= 50 MG/KG

LITHOLOGY KEY:

	SAND / SAND DOMINANT
	CLAY / CLAY DOMINANT
	SANDY CLAY / CLAYEY SAND

LEGEND

- EXTENT OF TOTAL BTEX CONCENTRATIONS ABOVE NMOC D CLOSURE CRITERIA (DASHED WHERE INFERRED)
- EXTENT OF TOTAL TPH CONCENTRATIONS ABOVE NMOC D CLOSURE CRITERIA (DASHED WHERE INFERRED)
- FORMER TANK 970 FOOTPRINT
- SOIL SAMPLE INTERVAL

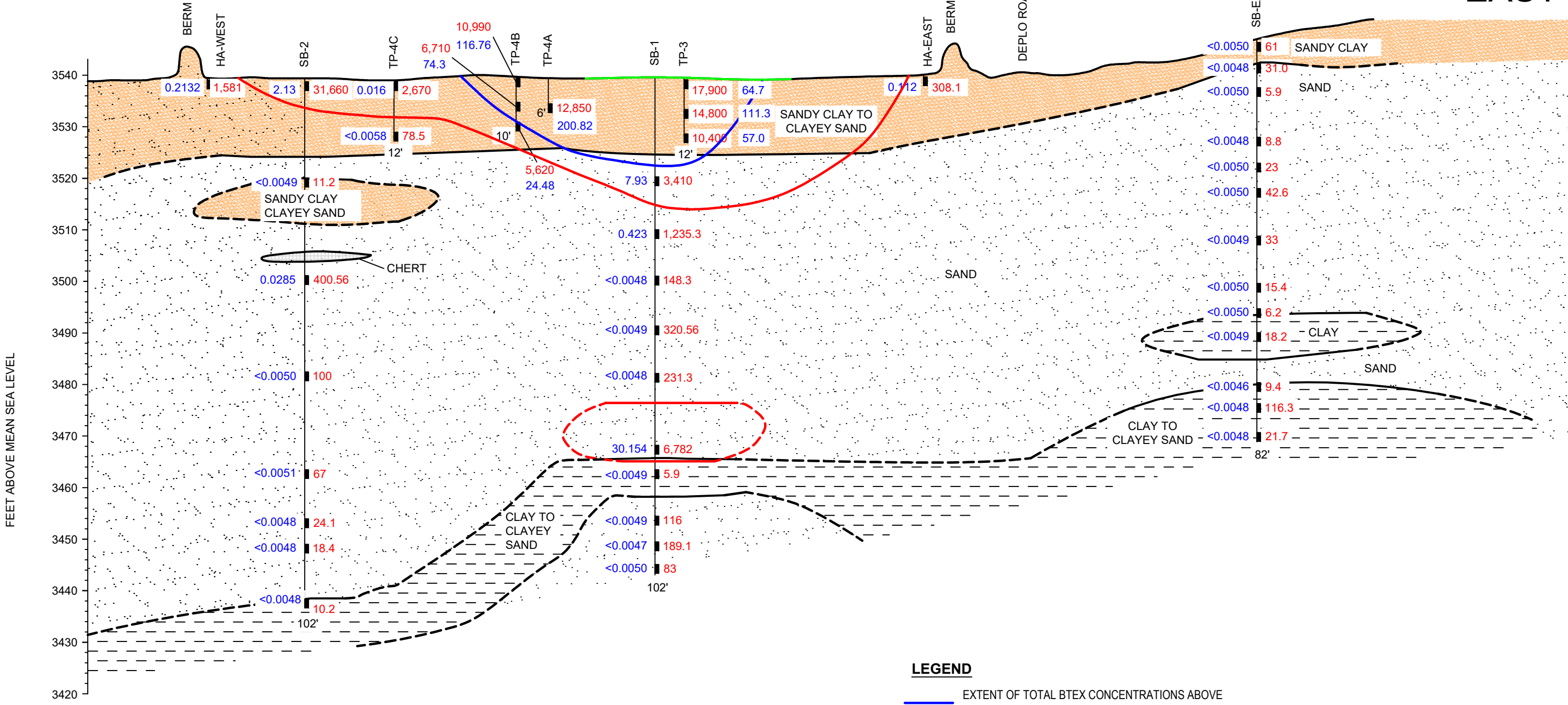
NOTES:
 BTEX = BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENES
 MG/KG = MILLIGRAMS PER KILOGRAM
 NMOC D = NEW MEXICO OIL CONSERVATION DIVISION
 TPH = TOTAL PETROLEUM HYDROCARBONS

SCALE:
 1"=20'
 V.E.=2X
 1"=40'

PROJECT: HOLLY ENERGY PARTNERS- OPERATING, L.P. ARTESIA STATION WEST, EDDY COUNTY, NM FORMER TANK 970	
TITLE: CROSS SECTION A TO A'	
DRAWN BY: E.ALEXANDER	PROJ NO.: 460025.0000.0000
CHECKED BY: J.STOFFEL	FIGURE 8B
APPROVED BY: B.GILBERT	
DATE: JANUARY 2022	
650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600	
FILE NO.:	Holly Energy Cross Sections.dwg

B TO B'

SURFACE ELEVATION APPROXIMATE



NOTES:
 1. TOTAL TPH CONCENTRATIONS IN RED
 2. TOTAL BTEX CONCENTRATIONS IN BLUE
 3. CONCENTRATIONS IN MG/KG

NMOC D CLOSURE CRITERIA:
 TOTAL TPH= 2,500 MG/KG
 TOTAL BTEX= 50 MG/KG

LITHOLOGY KEY:

	SAND / SAND DOMINANT
	CLAY / CLAY DOMINANT
	SANDY CLAY / CLAYEY SAND
	CHERT

LEGEND

- Blue line: EXTENT OF TOTAL BTEX CONCENTRATIONS ABOVE NMOC D CLOSURE CRITERIA (DASHED WHERE INFERRED)
- Red line: EXTENT OF TOTAL TPH CONCENTRATIONS ABOVE NMOC D CLOSURE CRITERIA (DASHED WHERE INFERRED)
- Green line: FORMER TANK 970 FOOTPRINT
- Black rectangle: SOIL SAMPLE INTERVAL

NOTES:
 BTEX = BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENES
 MG/KG = MILLIGRAMS PER KILOGRAM
 NMOC D = NEW MEXICO OIL CONSERVATION DIVISION
 TPH = TOTAL PETROLEUM HYDROCARBONS

SCALE:
 1"=20'
 V.E.=2X
 1"=40'

PROJECT: HOLLY ENERGY PARTNERS- OPERATING, L.P. ARTESIA STATION WEST, EDDY COUNTY, NM FORMER TANK 970	
TITLE: CROSS SECTION B TO B'	
DRAWN BY: E.ALEXANDER	PROJ NO.: 460025.0000.0000
CHECKED BY: J.STOFFEL	FIGURE 8C
APPROVED BY: B.GILBERT	
DATE: JANUARY 2022	
650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600	
FILE NO.:	Holly Energy Cross Sections.dwg



**Appendix A:
NMOCD Form C-141 Site Assessment/Characterization and
Remediation Plan Pages**

Incident ID	nCE2003752717
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?	>112 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 1/2-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.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	nCE2003752717
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: 7-22-22
 email: Melanie.Nolan@hollyenergy.com Telephone: 214-605-8303

OCD Only

Received by: _____ Date: _____

Incident ID	nCE2003752717
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: 7-22-22
 email: Melanie.Nolan@hollyenergy.com Telephone: 214-605-8303

OCD Only

Received by: _____ Date: _____

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____



Appendix B: Photograph Log


Appendix B Photograph Log



Photo 1: View looking east of SB-East after it was plugged.



Photo 2: View looking south of SB-South after it was plugged.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
437988	Mr. Jared Stoffel 6/1-2/21	1 of 2	Holly Energy Partners - Operating, L.P.	Tank 970 / Artesia Station West, Eddy County, NM	


Appendix B Photograph Log



Photo 3: View facing north of SB-North after it was plugged.



Photo 4: View facing southeast of drummed soil cuttings from SB-East, SB-North, and SB-South. The drums were stored along the northeast fence line of the Artesia Station West yard.

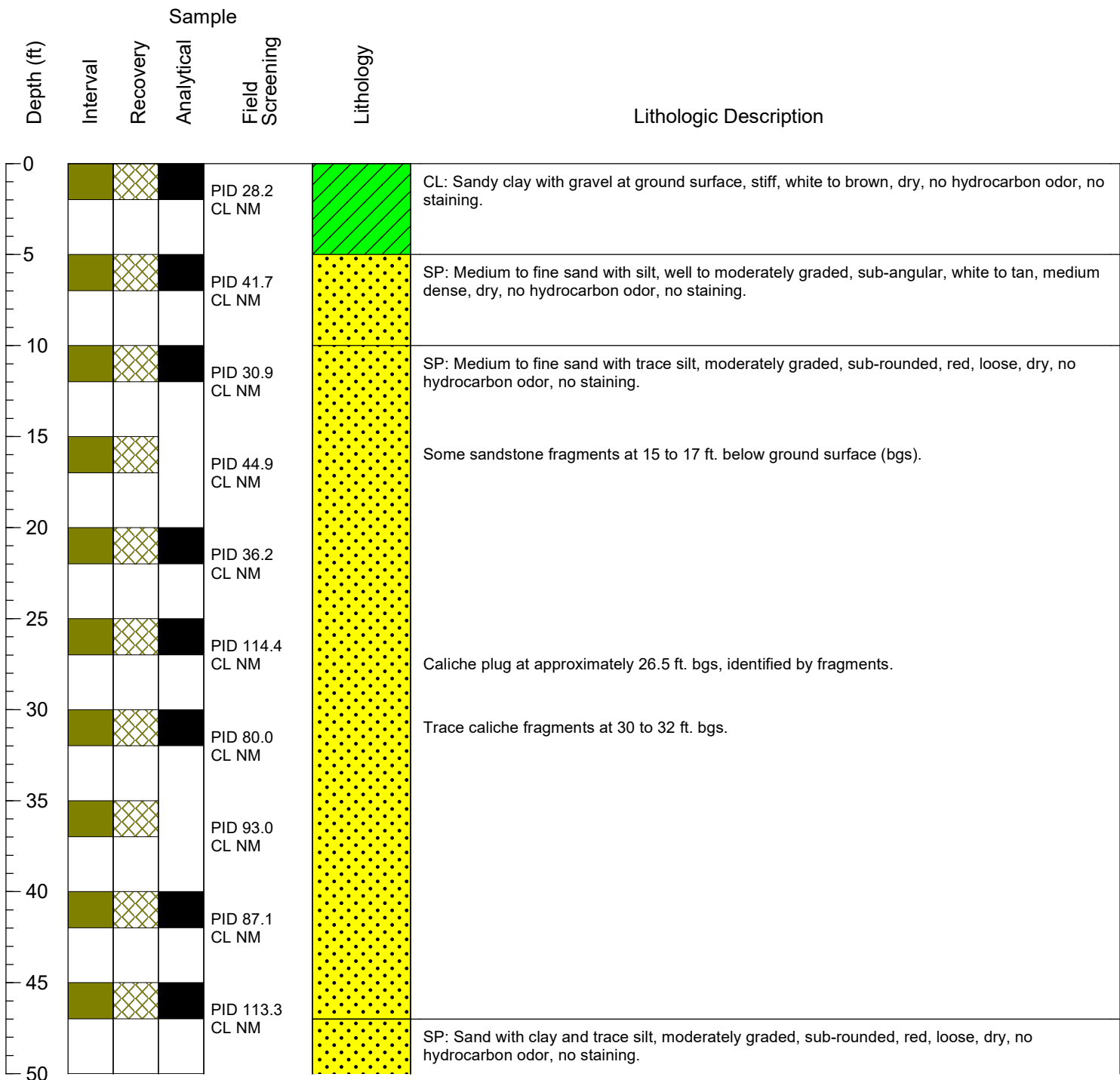
TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
437988	Mr. Jared Stoffel 6/1-2/21	2 of 2	Holly Energy Partners – Operating, L.P.	Tank 970 / Artesia Station West, Eddy County, NM	



Appendix C: Boring Logs

TRC BORING LOG SB-East

Client: HEP		TRC Project #: 437988
Site: Tank 970/Artesia Station West		Start Date: 6/2/2021
Address: Eddy County, NM		Finish Date: 6/2/2021
Project: Site Assessment		Permit #: NA
Drilling Company: Talon LPE	Drilling Crew: Devin Londagin & crew	TRC Site Rep.: Jared Stoffel
Drilling Method: Air Rotary		TRC Reviewer: Richard Varnell
Boring Diameter (in): 6.25	Boring Depth (ft bgs): 82	Coord. Sys.: WGS 84
Sampling Method: Split-spoon		Latitude: 32.7192
Blow Count Method: NA	Grout: None	Longitude: -104.1805
Field Screening Parameter: PID/Chloride		Elevation Datum: NA
Meter: MiniRAE 3000/Conductivity meter	Units: ppm	Ground Elevation (ft): Not measured



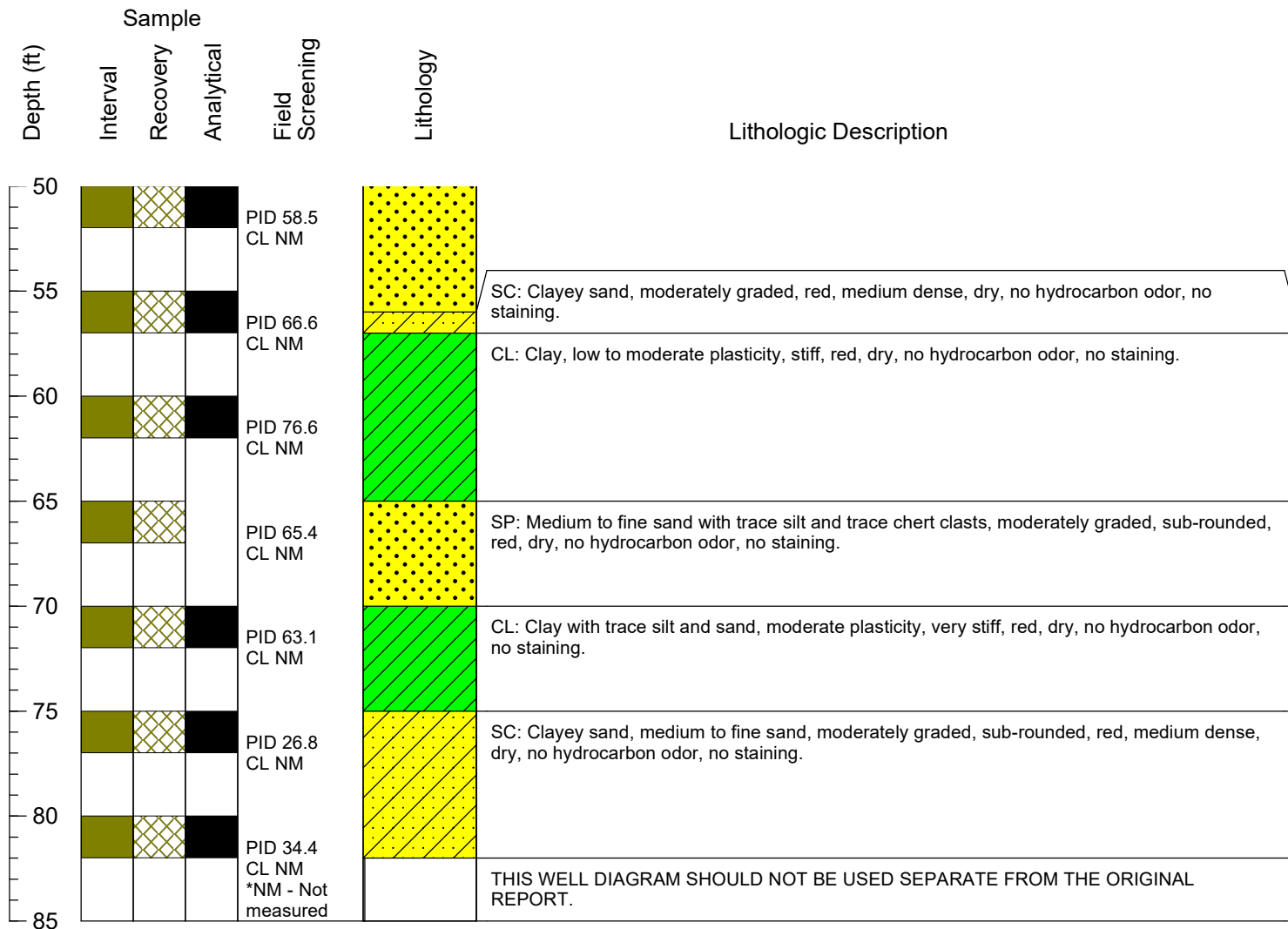
TRC BORING LOG

SB-East

Client: HEP

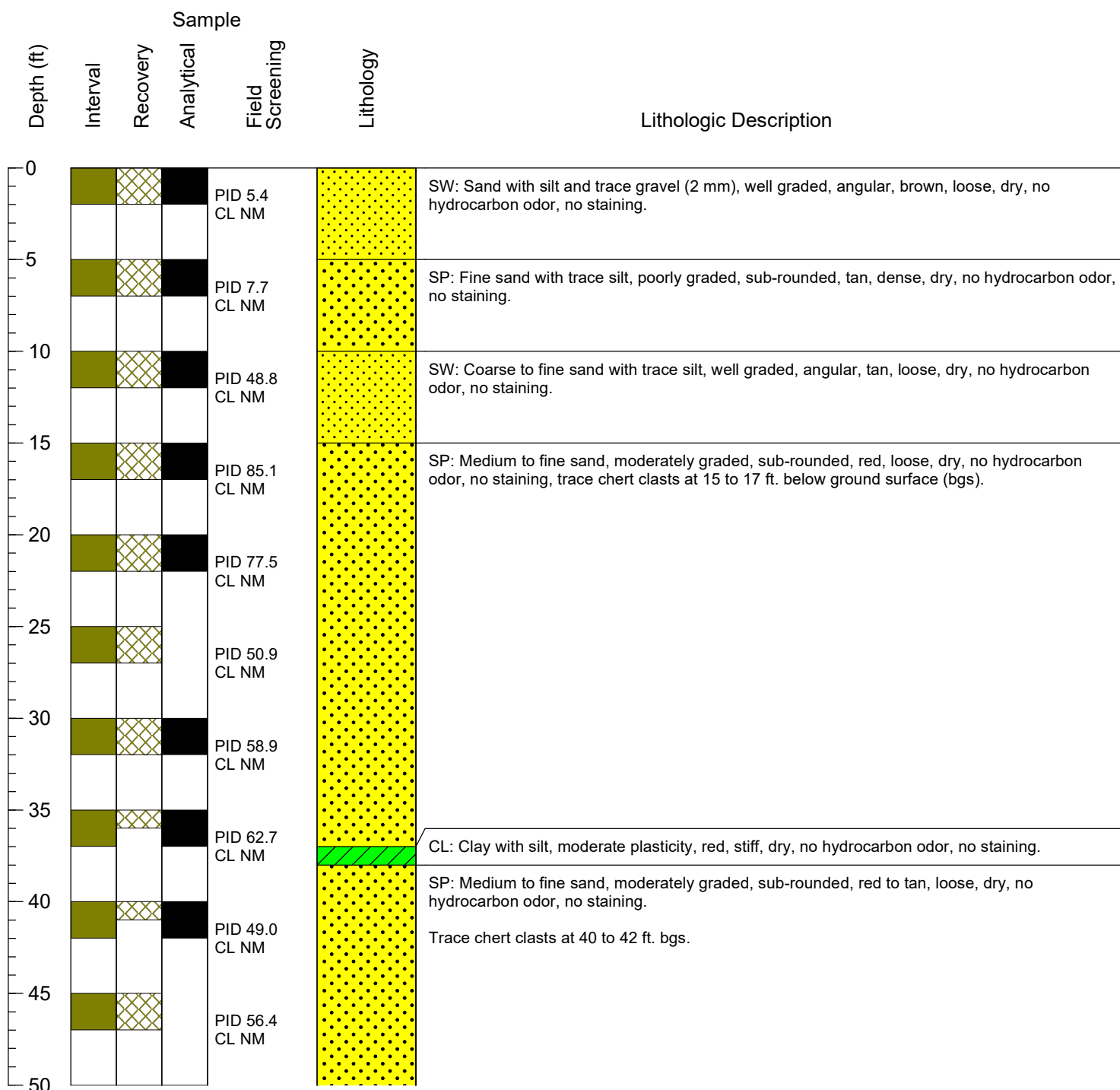
Site: Tank 970/Artesia Station West

Page 2 of 2



TRC BORING LOG SB-North

Client: HEP		TRC Project #: 437988
Site: Tank 970/Artesia Station West		Start Date: 6/1/2021
Address: Eddy County, NM		Finish Date: 6/1/2021
Project: Site Assessment		Permit #: NA
Drilling Company: Talon LPE	Drilling Crew: Devin Londagin & crew	TRC Site Rep.: Jared Stoffel
Drilling Method: Air Rotary		TRC Reviewer: Richard Varnell
Boring Diameter (in): 6.25	Boring Depth (ft bgs): 82	Coord. Sys.: WGS 84
Sampling Method: Split-spoon		Latitude: 32.7198
Blow Count Method: NA	Grout: None	Longitude: -104.1812
Field Screening Parameter: PID/Chloride		Elevation Datum: NA
Meter: MiniRAE 3000/Conductivity meter	Units: ppm	Ground Elevation (ft): Not measured



TRC BORING LOG

SB-North

Client: HEP

Site: Tank 970/Artesia Station West

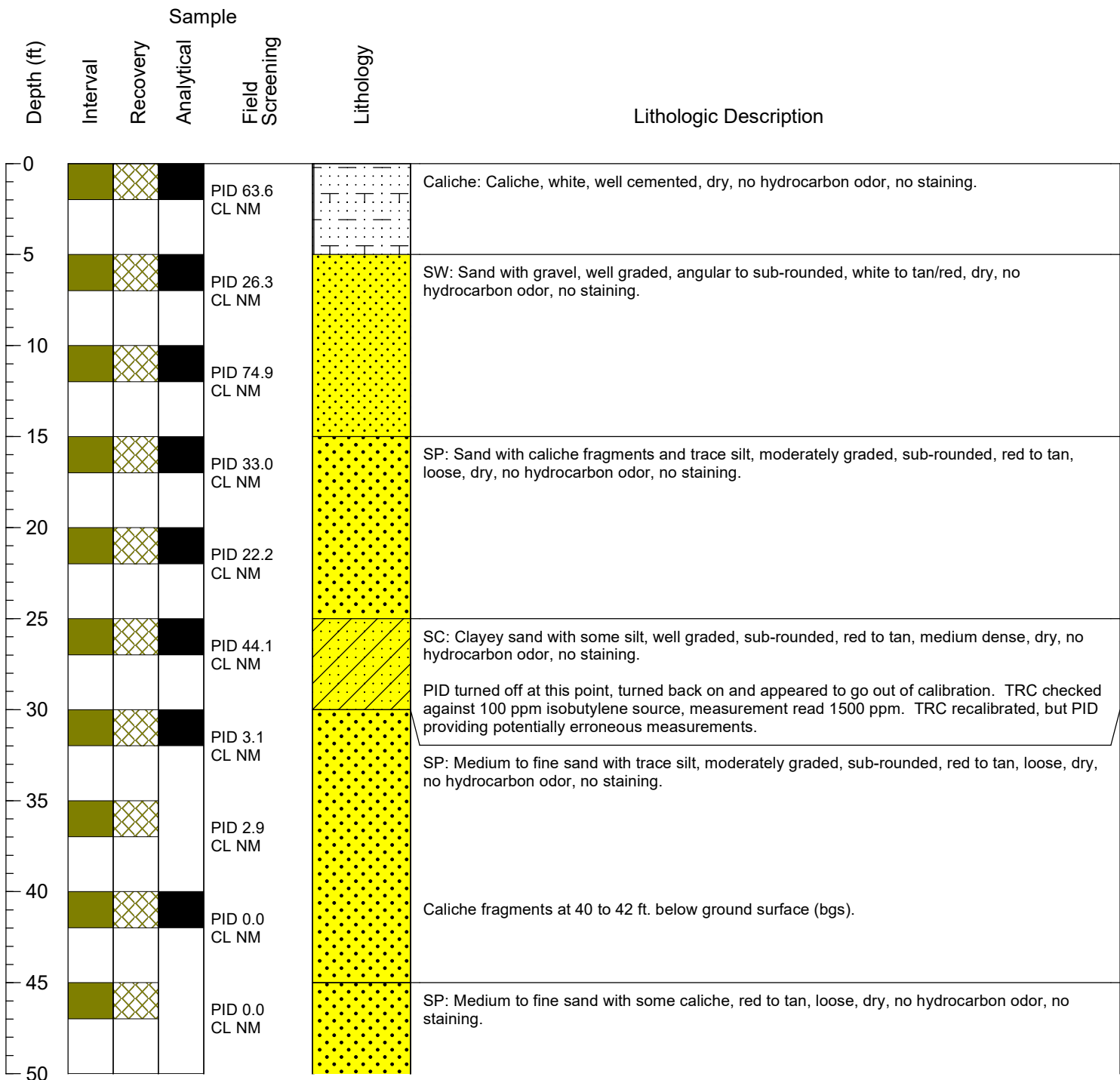
Page 2 of 2

Depth (ft)	Sample			Lithology	Lithologic Description
	Interval	Recovery	Analytical		
50					
					PID 53.1 CL NM
55					
					PID 28.2 CL NM
60					
					PID 52.2 CL NM
65					
					PID 42.4 CL NM
70					
					PID 33.9 CL NM
75					
					PID 39.7 CL NM
80					
					PID 17.3 CL NM *NM - Not measured
85					

THIS WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT.

TRC BORING LOG SB-South

Client: HEP		TRC Project #: 437988
Site: Tank 970/Artesia Station West		Start Date: 6/2/2021
Address: Eddy County, NM		Finish Date: 6/3/2021
Project: Site Assessment		Permit #: NA
Drilling Company: Talon LPE	Drilling Crew: Devin Londagin & crew	TRC Site Rep.: Jared Stoffel
Drilling Method: Air Rotary		TRC Reviewer: Richard Varnell
Boring Diameter (in): 6.25	Boring Depth (ft bgs): 82	Coord. Sys.: WGS 84
Sampling Method: Split-spoon		Latitude: 32.7186
Blow Count Method: NA	Grout: None	Longitude: -104.1812
Field Screening Parameter: PID/Chloride		Elevation Datum: NA
Meter: MiniRAE 3000/Conductivity meter	Units: ppm	Ground Elevation (ft): Not measured



TRC BORING LOG

SB-South

Client: HEP

Site: Tank 970/Artesia Station West

Page 2 of 2

Depth (ft)	Sample			Field Screening	Lithology	Lithologic Description
	Interval	Recovery	Analytical			
50				PID 0.0 CL NM	[Yellow dotted pattern]	Chert fragments at 60 to 62 ft. bgs.
55				PID 0.0 CL NM		
60				PID 0.0 CL NM		
65				PID 1.2 CL NM	[Yellow dotted pattern]	SP: Sand with trace silt, trace chert clasts, trace caliche fragments, poorly graded, sub-rounded, red to tan, loose, dry, no hydrocarbon odor, no staining.
70				PID 1.4 CL NM	[White dotted pattern]	Caliche: Caliche with sand, white caliche with red sand, dry, no hydrocarbon odor, no staining.
75				PID 1.5 CL NM	[Yellow dotted pattern]	SP: Medium to fine sand with caliche fragments, moderately graded, sub-rounded, red, dry, no hydrocarbon odor, no staining.
80				PID <3 CL NM		THIS WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT.
85				*NM - Not measured		



Appendix D: Laboratory Analytical Reports



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 11, 2021

Richard Varnell
TRC Corporation
505 East Huntland Drive
Suite 250
Austin, TX 78752

Work Order: **HS21060237**

Laboratory Results for: **Tank 970**

Dear Richard Varnell,

ALS Environmental received 48 sample(s) on Jun 04, 2021 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ragen Giga'.

Generated By: JUMOKE.LAWAL

Ragen Giga
Project Manager

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
Work Order: HS21060237

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21060237-01	SB-North 0-2	Soil		01-Jun-2021 15:00	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-02	SB-North 5-7	Soil		01-Jun-2021 15:10	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-03	SB-North 10-12	Soil		01-Jun-2021 15:20	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-04	SB-North 15-17	Soil		01-Jun-2021 15:30	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-05	SB-North 20-22	Soil		01-Jun-2021 15:40	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-06	SB-North 30-32	Soil		01-Jun-2021 16:00	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-07	SB-North 35-37	Soil		01-Jun-2021 16:10	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-08	SB-North 40-42	Soil		01-Jun-2021 16:20	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-09	SB-North 50-52	Soil		01-Jun-2021 16:40	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-10	SB-North 55-57	Soil		01-Jun-2021 16:50	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-11	SB-North 60-62	Soil		01-Jun-2021 17:00	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-12	SB-North 70-72	Soil		01-Jun-2021 17:20	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-13	SB-North 75-77	Soil		01-Jun-2021 17:30	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-14	SB-North 80-82	Soil		01-Jun-2021 17:40	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-15	SB-East 0-2	Soil		02-Jun-2021 08:45	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-16	SB-East 5-7	Soil		02-Jun-2021 08:50	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-17	SB-East 10-12	Soil		02-Jun-2021 08:55	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-18	SB-East 20-22	Soil		02-Jun-2021 09:05	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-19	SB-East 25-27	Soil		02-Jun-2021 09:10	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-20	SB-East 30-32	Soil		02-Jun-2021 09:20	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-21	SB-East 40-42	Soil		02-Jun-2021 09:30	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-22	SB-East 50-52	Soil		02-Jun-2021 09:50	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-23	SB-East 55-57	Soil		02-Jun-2021 10:00	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-24	SB-East 60-62	Soil		02-Jun-2021 10:10	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-25	SB-East 70-72	Soil		02-Jun-2021 10:30	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-26	SB-East 75-77	Soil		02-Jun-2021 10:50	04-Jun-2021 09:50	<input type="checkbox"/>

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
Work Order: HS21060237

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21060237-27	SB-East 80-82	Soil		02-Jun-2021 11:10	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-28	SB-East 45-47	Soil		02-Jun-2021 09:40	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-29	SB-South 0-2	Soil		02-Jun-2021 14:00	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-30	SB-South 5-7	Soil		02-Jun-2021 14:10	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-31	SB-South 10-12	Soil		02-Jun-2021 14:20	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-32	SB-South 15-17	Soil		02-Jun-2021 14:30	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-33	SB-South 20-22	Soil		02-Jun-2021 14:40	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-34	SB-South 25-27	Soil		02-Jun-2021 14:50	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-35	SB-South 30-32	Soil		02-Jun-2021 15:00	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-36	SB-South 40-42	Soil		02-Jun-2021 15:20	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-37	SB-South 50-52	Soil		02-Jun-2021 15:40	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-38	SB-South 60-62	Soil		02-Jun-2021 16:00	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-39	SB-South 70-72	Soil		03-Jun-2021 08:30	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-40	SB-South 75-77	Soil		03-Jun-2021 09:00	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-41	SB-South 80-82	Soil		03-Jun-2021 09:30	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-42	EB-01	Water		02-Jun-2021 11:15	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-43	EB-02	Water		03-Jun-2021 10:30	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-44	TB-01	Water	Non-ALS	03-Jun-2021 16:00	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-45	TB-02	Water	Non-ALS	03-Jun-2021 16:00	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-46	Dup-1	Soil		01-Jun-2021 00:00	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-47	Dup-2	Soil		02-Jun-2021 00:00	04-Jun-2021 09:50	<input type="checkbox"/>
HS21060237-48	Dup-3	Soil		02-Jun-2021 00:00	04-Jun-2021 09:50	<input type="checkbox"/>

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
Work Order: HS21060237

CASE NARRATIVE

GC Semivolatiles by Method SW8015M

Batch ID: 166674

Sample ID: SB-East 0-2 (HS21060237-15)

- Surrogate recovery was below acceptance limits. Re-extraction and/or reanalysis confirm low recovery caused by matrix interferences.

Sample ID: SB-East 70-72 (HS21060237-25)

- Surrogate recoveries were outside of the control limits due to matrix interference.

Sample ID: SB-North 70-72 (HS21060237-12MS)

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Sample ID: SB-North 70-72 (HS21060237-12MSD)

- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

Batch ID: 166634

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: 166629,166695

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GC Volatiles by Method SW8015

Batch ID: R385028,R385114,R385115,R385116

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260

Batch ID: R385363

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: R385177,R385189

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method ASTM D2216

Batch ID: R385129,R385130,R385196

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 0-2
 Collection Date: 01-Jun-2021 15:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.053	mg/Kg	1	07-Jun-2021 11:02
Surr: 4-Bromofluorobenzene	99.3		70-123	%REC	1	07-Jun-2021 11:02
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 08-Jun-2021	Analyst: PPM
TPH (Diesel Range)	200		170	mg/Kg	100	09-Jun-2021 04:48
TPH (Motor Oil Range)	1,100		340	mg/Kg	100	09-Jun-2021 04:48
Surr: 2-Fluorobiphenyl	71.8	J	60-129	%REC	100	09-Jun-2021 04:48
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	8.81		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 5-7
 Collection Date: 01-Jun-2021 15:10

ANALYTICAL REPORT
 WorkOrder:HS21060237
 Lab ID:HS21060237-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.049	mg/Kg	1	07-Jun-2021 11:19
Surr: 4-Bromofluorobenzene	101		70-123	%REC	1	07-Jun-2021 11:19
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 08-Jun-2021	Analyst: PPM
TPH (Diesel Range)	110		17	mg/Kg	10	09-Jun-2021 12:56
TPH (Motor Oil Range)	570		34	mg/Kg	10	09-Jun-2021 12:56
Surr: 2-Fluorobiphenyl	62.9		60-129	%REC	10	09-Jun-2021 12:56
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	8.77		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 10-12
 Collection Date: 01-Jun-2021 15:20

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.054	mg/Kg	1	07-Jun-2021 11:35
Surr: 4-Bromofluorobenzene	103		70-123	%REC	1	07-Jun-2021 11:35
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 08-Jun-2021	Analyst: PPM
TPH (Diesel Range)	8.1		1.7	mg/Kg	1	09-Jun-2021 05:37
TPH (Motor Oil Range)	30		3.4	mg/Kg	1	09-Jun-2021 05:37
Surr: 2-Fluorobiphenyl	63.6		60-129	%REC	1	09-Jun-2021 05:37
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	9.47		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 15-17
 Collection Date: 01-Jun-2021 15:30

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-04
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.052	mg/Kg	1	07-Jun-2021 11:51
Surr: 4-Bromofluorobenzene	104		70-123	%REC	1	07-Jun-2021 11:51
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 08-Jun-2021	Analyst: PPM
TPH (Diesel Range)	3.5		1.7	mg/Kg	1	09-Jun-2021 06:02
TPH (Motor Oil Range)	5.9		3.4	mg/Kg	1	09-Jun-2021 06:02
Surr: 2-Fluorobiphenyl	60.2		60-129	%REC	1	09-Jun-2021 06:02
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	8.28		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 20-22
 Collection Date: 01-Jun-2021 15:40

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-05
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.047	mg/Kg	1	07-Jun-2021 12:07
Surr: 4-Bromofluorobenzene	106		70-123	%REC	1	07-Jun-2021 12:07
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 08-Jun-2021		Analyst: PPM
TPH (Diesel Range)	6.5		1.7	mg/Kg	1	09-Jun-2021 06:26
TPH (Motor Oil Range)	9.3		3.4	mg/Kg	1	09-Jun-2021 06:26
Surr: 2-Fluorobiphenyl	69.6		60-129	%REC	1	09-Jun-2021 06:26
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	11.7		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 30-32
 Collection Date: 01-Jun-2021 16:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-06
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.050	mg/Kg	1	07-Jun-2021 12:23
Surr: 4-Bromofluorobenzene	108		70-123	%REC	1	07-Jun-2021 12:23
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 08-Jun-2021	Analyst: PPM
TPH (Diesel Range)	7.7		1.7	mg/Kg	1	09-Jun-2021 06:50
TPH (Motor Oil Range)	13		3.4	mg/Kg	1	09-Jun-2021 06:50
Surr: 2-Fluorobiphenyl	60.3		60-129	%REC	1	09-Jun-2021 06:50
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	4.72		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 35-37
 Collection Date: 01-Jun-2021 16:10

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-07
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.048	mg/Kg	1	07-Jun-2021 14:12
Surr: 4-Bromofluorobenzene	103		70-123	%REC	1	07-Jun-2021 14:12
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 08-Jun-2021	Analyst: PPM
TPH (Diesel Range)	2.3		1.7	mg/Kg	1	09-Jun-2021 07:15
TPH (Motor Oil Range)	4.5		3.4	mg/Kg	1	09-Jun-2021 07:15
Surr: 2-Fluorobiphenyl	64.7		60-129	%REC	1	09-Jun-2021 07:15
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	5.79		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 40-42
 Collection Date: 01-Jun-2021 16:20

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-08
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.049	mg/Kg	1	07-Jun-2021 14:29
Surr: 4-Bromofluorobenzene	105		70-123	%REC	1	07-Jun-2021 14:29
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 08-Jun-2021	Analyst: PPM
TPH (Diesel Range)	3.8		1.7	mg/Kg	1	09-Jun-2021 07:39
TPH (Motor Oil Range)	4.4		3.4	mg/Kg	1	09-Jun-2021 07:39
Surr: 2-Fluorobiphenyl	60.2		60-129	%REC	1	09-Jun-2021 07:39
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	10.9		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 50-52
 Collection Date: 01-Jun-2021 16:40

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-09
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.050	mg/Kg	1	07-Jun-2021 14:45
Surr: 4-Bromofluorobenzene	106		70-123	%REC	1	07-Jun-2021 14:45
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 08-Jun-2021	Analyst: PPM
TPH (Diesel Range)	6.4		1.7	mg/Kg	1	09-Jun-2021 08:52
TPH (Motor Oil Range)	5.4		3.4	mg/Kg	1	09-Jun-2021 08:52
Surr: 2-Fluorobiphenyl	75.0		60-129	%REC	1	09-Jun-2021 08:52
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	14.3		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 55-57
 Collection Date: 01-Jun-2021 16:50

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-10
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.051	mg/Kg	1	07-Jun-2021 15:01
Surr: 4-Bromofluorobenzene	109		70-123	%REC	1	07-Jun-2021 15:01
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 08-Jun-2021	Analyst: PPM
TPH (Diesel Range)	2.6		1.7	mg/Kg	1	09-Jun-2021 17:26
TPH (Motor Oil Range)	4.1		3.4	mg/Kg	1	09-Jun-2021 17:26
Surr: 2-Fluorobiphenyl	61.0		60-129	%REC	1	09-Jun-2021 17:26
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	16.2		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 60-62
 Collection Date: 01-Jun-2021 17:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-11
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.054	mg/Kg	1	07-Jun-2021 15:17
Surr: 4-Bromofluorobenzene	106		70-123	%REC	1	07-Jun-2021 15:17
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 09-Jun-2021	Analyst: PPM
TPH (Diesel Range)	10		1.7	mg/Kg	1	10-Jun-2021 13:07
TPH (Motor Oil Range)	ND		3.4	mg/Kg	1	10-Jun-2021 13:07
Surr: 2-Fluorobiphenyl	64.8		60-129	%REC	1	10-Jun-2021 13:07
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	17.7		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 70-72
 Collection Date: 01-Jun-2021 17:20

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-12
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.051	mg/Kg	1	07-Jun-2021 15:33
Surr: 4-Bromofluorobenzene	109		70-123	%REC	1	07-Jun-2021 15:33
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 09-Jun-2021	Analyst: PPM
TPH (Diesel Range)	10		1.7	mg/Kg	1	10-Jun-2021 13:32
TPH (Motor Oil Range)	9.5		3.4	mg/Kg	1	10-Jun-2021 13:32
Surr: 2-Fluorobiphenyl	64.3		60-129	%REC	1	10-Jun-2021 13:32
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	7.15		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 75-77
 Collection Date: 01-Jun-2021 17:30

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-13
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.054	mg/Kg	1	07-Jun-2021 15:50
Surr: 4-Bromofluorobenzene	105		70-123	%REC	1	07-Jun-2021 15:50
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 09-Jun-2021	Analyst: PPM
TPH (Diesel Range)	2.5		1.7	mg/Kg	1	10-Jun-2021 14:45
TPH (Motor Oil Range)	ND		3.4	mg/Kg	1	10-Jun-2021 14:45
Surr: 2-Fluorobiphenyl	60.3		60-129	%REC	1	10-Jun-2021 14:45
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	8.85		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-North 80-82
 Collection Date: 01-Jun-2021 17:40

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-14
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.050	mg/Kg	1	07-Jun-2021 16:06
Surr: 4-Bromofluorobenzene	104		70-123	%REC	1	07-Jun-2021 16:06
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 09-Jun-2021	Analyst: PPM
TPH (Diesel Range)	5.1		1.7	mg/Kg	1	10-Jun-2021 15:09
TPH (Motor Oil Range)	ND		3.4	mg/Kg	1	10-Jun-2021 15:09
Surr: 2-Fluorobiphenyl	63.3		60-129	%REC	1	10-Jun-2021 15:09
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	19.7		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 0-2
 Collection Date: 02-Jun-2021 08:45

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-15
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0050	mg/Kg	1	11-Jun-2021 00:06
Ethylbenzene	ND		0.0050	mg/Kg	1	11-Jun-2021 00:06
m,p-Xylene	ND		0.010	mg/Kg	1	11-Jun-2021 00:06
o-Xylene	ND		0.0050	mg/Kg	1	11-Jun-2021 00:06
Toluene	ND		0.0050	mg/Kg	1	11-Jun-2021 00:06
Xylenes, Total	ND		0.0050	mg/Kg	1	11-Jun-2021 00:06
Surr: 1,2-Dichloroethane-d4	109		70-126	%REC	1	11-Jun-2021 00:06
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	11-Jun-2021 00:06
Surr: Dibromofluoromethane	96.9		70-130	%REC	1	11-Jun-2021 00:06
Surr: Toluene-d8	103		70-130	%REC	1	11-Jun-2021 00:06
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.050	mg/Kg	1	07-Jun-2021 16:22
Surr: 4-Bromofluorobenzene	102		70-123	%REC	1	07-Jun-2021 16:22
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021 Analyst: PPM		
TPH (Diesel Range)	34		1.7	mg/Kg	1	10-Jun-2021 15:33
TPH (Motor Oil Range)	17		3.4	mg/Kg	1	10-Jun-2021 15:33
Surr: 2-Fluorobiphenyl	46.6	S	60-129	%REC	1	10-Jun-2021 15:33
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	10.2		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 5-7
 Collection Date: 02-Jun-2021 08:50

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-16
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0048	mg/Kg	1	11-Jun-2021 00:28
Ethylbenzene	ND		0.0048	mg/Kg	1	11-Jun-2021 00:28
m,p-Xylene	ND		0.0096	mg/Kg	1	11-Jun-2021 00:28
o-Xylene	ND		0.0048	mg/Kg	1	11-Jun-2021 00:28
Toluene	ND		0.0048	mg/Kg	1	11-Jun-2021 00:28
Xylenes, Total	ND		0.0048	mg/Kg	1	11-Jun-2021 00:28
Surr: 1,2-Dichloroethane-d4	101		70-126	%REC	1	11-Jun-2021 00:28
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	11-Jun-2021 00:28
Surr: Dibromofluoromethane	91.5		70-130	%REC	1	11-Jun-2021 00:28
Surr: Toluene-d8	103		70-130	%REC	1	11-Jun-2021 00:28
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.052	mg/Kg	1	07-Jun-2021 16:38
Surr: 4-Bromofluorobenzene	107		70-123	%REC	1	07-Jun-2021 16:38
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021 Analyst: PPM		
TPH (Diesel Range)	28		1.7	mg/Kg	1	10-Jun-2021 15:58
TPH (Motor Oil Range)	5.1		3.4	mg/Kg	1	10-Jun-2021 15:58
Surr: 2-Fluorobiphenyl	60.5		60-129	%REC	1	10-Jun-2021 15:58
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	6.46		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 10-12
 Collection Date: 02-Jun-2021 08:55

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-17
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0050	mg/Kg	1	11-Jun-2021 00:50
Ethylbenzene	ND		0.0050	mg/Kg	1	11-Jun-2021 00:50
m,p-Xylene	ND		0.0099	mg/Kg	1	11-Jun-2021 00:50
o-Xylene	ND		0.0050	mg/Kg	1	11-Jun-2021 00:50
Toluene	ND		0.0050	mg/Kg	1	11-Jun-2021 00:50
Xylenes, Total	ND		0.0050	mg/Kg	1	11-Jun-2021 00:50
Surr: 1,2-Dichloroethane-d4	109		70-126	%REC	1	11-Jun-2021 00:50
Surr: 4-Bromofluorobenzene	103		70-130	%REC	1	11-Jun-2021 00:50
Surr: Dibromofluoromethane	93.7		70-130	%REC	1	11-Jun-2021 00:50
Surr: Toluene-d8	104		70-130	%REC	1	11-Jun-2021 00:50
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.047	mg/Kg	1	07-Jun-2021 17:43
Surr: 4-Bromofluorobenzene	104		70-123	%REC	1	07-Jun-2021 17:43
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021 Analyst: PPM		
TPH (Diesel Range)	5.9		1.7	mg/Kg	1	11-Jun-2021 00:32
TPH (Motor Oil Range)	ND		3.4	mg/Kg	1	11-Jun-2021 00:32
Surr: 2-Fluorobiphenyl	62.3		60-129	%REC	1	11-Jun-2021 00:32
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	3.65		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 20-22
 Collection Date: 02-Jun-2021 09:05

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-18
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0048	mg/Kg	1	11-Jun-2021 01:12
Ethylbenzene	ND		0.0048	mg/Kg	1	11-Jun-2021 01:12
m,p-Xylene	ND		0.0095	mg/Kg	1	11-Jun-2021 01:12
o-Xylene	ND		0.0048	mg/Kg	1	11-Jun-2021 01:12
Toluene	ND		0.0048	mg/Kg	1	11-Jun-2021 01:12
Xylenes, Total	ND		0.0048	mg/Kg	1	11-Jun-2021 01:12
Surr: 1,2-Dichloroethane-d4	109		70-126	%REC	1	11-Jun-2021 01:12
Surr: 4-Bromofluorobenzene	103		70-130	%REC	1	11-Jun-2021 01:12
Surr: Dibromofluoromethane	94.0		70-130	%REC	1	11-Jun-2021 01:12
Surr: Toluene-d8	104		70-130	%REC	1	11-Jun-2021 01:12
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.049	mg/Kg	1	07-Jun-2021 17:59
Surr: 4-Bromofluorobenzene	105		70-123	%REC	1	07-Jun-2021 17:59
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021		Analyst: PPM
TPH (Diesel Range)	5.0		1.7	mg/Kg	1	11-Jun-2021 00:56
TPH (Motor Oil Range)	3.8		3.4	mg/Kg	1	11-Jun-2021 00:56
Surr: 2-Fluorobiphenyl	60.2		60-129	%REC	1	11-Jun-2021 00:56
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	3.61		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 25-27
 Collection Date: 02-Jun-2021 09:10

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-19
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0050	mg/Kg	1	09-Jun-2021 02:58
Ethylbenzene	ND		0.0050	mg/Kg	1	09-Jun-2021 02:58
m,p-Xylene	ND		0.010	mg/Kg	1	09-Jun-2021 02:58
o-Xylene	ND		0.0050	mg/Kg	1	09-Jun-2021 02:58
Toluene	ND		0.0050	mg/Kg	1	09-Jun-2021 02:58
Xylenes, Total	ND		0.0050	mg/Kg	1	09-Jun-2021 02:58
Surr: 1,2-Dichloroethane-d4	102		70-126	%REC	1	09-Jun-2021 02:58
Surr: 4-Bromofluorobenzene	99.5		70-130	%REC	1	09-Jun-2021 02:58
Surr: Dibromofluoromethane	95.7		70-130	%REC	1	09-Jun-2021 02:58
Surr: Toluene-d8	100		70-130	%REC	1	09-Jun-2021 02:58
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.046	mg/Kg	1	07-Jun-2021 18:16
Surr: 4-Bromofluorobenzene	106		70-123	%REC	1	07-Jun-2021 18:16
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021		Analyst: PPM
TPH (Diesel Range)	23		1.7	mg/Kg	1	11-Jun-2021 01:21
TPH (Motor Oil Range)	ND		3.4	mg/Kg	1	11-Jun-2021 01:21
Surr: 2-Fluorobiphenyl	60.3		60-129	%REC	1	11-Jun-2021 01:21
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	1.70		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 30-32
 Collection Date: 02-Jun-2021 09:20

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-20
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0050	mg/Kg	1	09-Jun-2021 03:21
Ethylbenzene	ND		0.0050	mg/Kg	1	09-Jun-2021 03:21
m,p-Xylene	ND		0.0099	mg/Kg	1	09-Jun-2021 03:21
o-Xylene	ND		0.0050	mg/Kg	1	09-Jun-2021 03:21
Toluene	ND		0.0050	mg/Kg	1	09-Jun-2021 03:21
Xylenes, Total	ND		0.0050	mg/Kg	1	09-Jun-2021 03:21
Surr: 1,2-Dichloroethane-d4	97.9		70-126	%REC	1	09-Jun-2021 03:21
Surr: 4-Bromofluorobenzene	97.0		70-130	%REC	1	09-Jun-2021 03:21
Surr: Dibromofluoromethane	92.6		70-130	%REC	1	09-Jun-2021 03:21
Surr: Toluene-d8	103		70-130	%REC	1	09-Jun-2021 03:21
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.049	mg/Kg	1	07-Jun-2021 18:32
Surr: 4-Bromofluorobenzene	104		70-123	%REC	1	07-Jun-2021 18:32
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 09-Jun-2021	Analyst: PPM
TPH (Diesel Range)	38		1.7	mg/Kg	1	11-Jun-2021 01:45
TPH (Motor Oil Range)	4.6		3.4	mg/Kg	1	11-Jun-2021 01:45
Surr: 2-Fluorobiphenyl	60.4		60-129	%REC	1	11-Jun-2021 01:45
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	3.02		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 40-42
 Collection Date: 02-Jun-2021 09:30

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-21
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0049	mg/Kg	1	09-Jun-2021 03:43
Ethylbenzene	ND		0.0049	mg/Kg	1	09-Jun-2021 03:43
m,p-Xylene	ND		0.0098	mg/Kg	1	09-Jun-2021 03:43
o-Xylene	ND		0.0049	mg/Kg	1	09-Jun-2021 03:43
Toluene	ND		0.0049	mg/Kg	1	09-Jun-2021 03:43
Xylenes, Total	ND		0.0049	mg/Kg	1	09-Jun-2021 03:43
Surr: 1,2-Dichloroethane-d4	96.3		70-126	%REC	1	09-Jun-2021 03:43
Surr: 4-Bromofluorobenzene	95.0		70-130	%REC	1	09-Jun-2021 03:43
Surr: Dibromofluoromethane	90.4		70-130	%REC	1	09-Jun-2021 03:43
Surr: Toluene-d8	98.6		70-130	%REC	1	09-Jun-2021 03:43
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.051	mg/Kg	1	07-Jun-2021 20:09
Surr: 4-Bromofluorobenzene	106		70-123	%REC	1	07-Jun-2021 20:09
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 09-Jun-2021	Analyst: PPM
TPH (Diesel Range)	15		1.7	mg/Kg	1	11-Jun-2021 12:19
TPH (Motor Oil Range)	18		3.4	mg/Kg	1	11-Jun-2021 12:19
Surr: 2-Fluorobiphenyl	60.3		60-129	%REC	1	11-Jun-2021 12:19
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	4.12		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 50-52
 Collection Date: 02-Jun-2021 09:50

ANALYTICAL REPORT
 WorkOrder:HS21060237
 Lab ID:HS21060237-22
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0050	mg/Kg	1	09-Jun-2021 04:05
Ethylbenzene	ND		0.0050	mg/Kg	1	09-Jun-2021 04:05
m,p-Xylene	ND		0.010	mg/Kg	1	09-Jun-2021 04:05
o-Xylene	ND		0.0050	mg/Kg	1	09-Jun-2021 04:05
Toluene	ND		0.0050	mg/Kg	1	09-Jun-2021 04:05
Xylenes, Total	ND		0.0050	mg/Kg	1	09-Jun-2021 04:05
Surr: 1,2-Dichloroethane-d4	96.6		70-126	%REC	1	09-Jun-2021 04:05
Surr: 4-Bromofluorobenzene	95.1		70-130	%REC	1	09-Jun-2021 04:05
Surr: Dibromofluoromethane	91.1		70-130	%REC	1	09-Jun-2021 04:05
Surr: Toluene-d8	100		70-130	%REC	1	09-Jun-2021 04:05
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.054	mg/Kg	1	07-Jun-2021 21:14
Surr: 4-Bromofluorobenzene	105		70-123	%REC	1	07-Jun-2021 21:14
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 09-Jun-2021	Analyst: PPM
TPH (Diesel Range)	6.2		1.7	mg/Kg	1	11-Jun-2021 02:34
TPH (Motor Oil Range)	ND		3.4	mg/Kg	1	11-Jun-2021 02:34
Surr: 2-Fluorobiphenyl	61.0		60-129	%REC	1	11-Jun-2021 02:34
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	9.30		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 55-57
 Collection Date: 02-Jun-2021 10:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-23
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0049	mg/Kg	1	09-Jun-2021 04:27
Ethylbenzene	ND		0.0049	mg/Kg	1	09-Jun-2021 04:27
m,p-Xylene	ND		0.0098	mg/Kg	1	09-Jun-2021 04:27
o-Xylene	ND		0.0049	mg/Kg	1	09-Jun-2021 04:27
Toluene	ND		0.0049	mg/Kg	1	09-Jun-2021 04:27
Xylenes, Total	ND		0.0049	mg/Kg	1	09-Jun-2021 04:27
Surr: 1,2-Dichloroethane-d4	93.4		70-126	%REC	1	09-Jun-2021 04:27
Surr: 4-Bromofluorobenzene	95.9		70-130	%REC	1	09-Jun-2021 04:27
Surr: Dibromofluoromethane	90.0		70-130	%REC	1	09-Jun-2021 04:27
Surr: Toluene-d8	101		70-130	%REC	1	09-Jun-2021 04:27
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.052	mg/Kg	1	07-Jun-2021 19:21
Surr: 4-Bromofluorobenzene	108		70-123	%REC	1	07-Jun-2021 19:21
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021 Analyst: PPM		
TPH (Diesel Range)	14		1.7	mg/Kg	1	10-Jun-2021 14:45
TPH (Motor Oil Range)	4.2		3.4	mg/Kg	1	10-Jun-2021 14:45
Surr: 2-Fluorobiphenyl	60.5		60-129	%REC	1	10-Jun-2021 14:45
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	13.9		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 60-62
 Collection Date: 02-Jun-2021 10:10

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-24
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0046	mg/Kg	1	09-Jun-2021 04:49
Ethylbenzene	ND		0.0046	mg/Kg	1	09-Jun-2021 04:49
m,p-Xylene	ND		0.0093	mg/Kg	1	09-Jun-2021 04:49
o-Xylene	ND		0.0046	mg/Kg	1	09-Jun-2021 04:49
Toluene	ND		0.0046	mg/Kg	1	09-Jun-2021 04:49
Xylenes, Total	ND		0.0046	mg/Kg	1	09-Jun-2021 04:49
Surr: 1,2-Dichloroethane-d4	99.4		70-126	%REC	1	09-Jun-2021 04:49
Surr: 4-Bromofluorobenzene	97.7		70-130	%REC	1	09-Jun-2021 04:49
Surr: Dibromofluoromethane	93.6		70-130	%REC	1	09-Jun-2021 04:49
Surr: Toluene-d8	101		70-130	%REC	1	09-Jun-2021 04:49
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.050	mg/Kg	1	07-Jun-2021 21:30
Surr: 4-Bromofluorobenzene	106		70-123	%REC	1	07-Jun-2021 21:30
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021		Analyst: PPM
TPH (Diesel Range)	5.8		1.7	mg/Kg	1	10-Jun-2021 15:09
TPH (Motor Oil Range)	3.6		3.4	mg/Kg	1	10-Jun-2021 15:09
Surr: 2-Fluorobiphenyl	60.8		60-129	%REC	1	10-Jun-2021 15:09
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	12.1		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 70-72
 Collection Date: 02-Jun-2021 10:30

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-25
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0050	mg/Kg	1	09-Jun-2021 05:12
Ethylbenzene	ND		0.0050	mg/Kg	1	09-Jun-2021 05:12
m,p-Xylene	ND		0.0099	mg/Kg	1	09-Jun-2021 05:12
o-Xylene	ND		0.0050	mg/Kg	1	09-Jun-2021 05:12
Toluene	ND		0.0050	mg/Kg	1	09-Jun-2021 05:12
Xylenes, Total	ND		0.0050	mg/Kg	1	09-Jun-2021 05:12
Surr: 1,2-Dichloroethane-d4	98.1		70-126	%REC	1	09-Jun-2021 05:12
Surr: 4-Bromofluorobenzene	96.9		70-130	%REC	1	09-Jun-2021 05:12
Surr: Dibromofluoromethane	92.0		70-130	%REC	1	09-Jun-2021 05:12
Surr: Toluene-d8	99.9		70-130	%REC	1	09-Jun-2021 05:12
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.052	mg/Kg	1	07-Jun-2021 21:47
Surr: 4-Bromofluorobenzene	106		70-123	%REC	1	07-Jun-2021 21:47
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021 Analyst: PPM		
TPH (Diesel Range)	110		6.7	mg/Kg	4	10-Jun-2021 17:11
TPH (Motor Oil Range)	6.3		3.4	mg/Kg	1	10-Jun-2021 15:33
Surr: 2-Fluorobiphenyl	60.8		60-129	%REC	1	10-Jun-2021 15:33
Surr: 2-Fluorobiphenyl	45.6	S	60-129	%REC	4	10-Jun-2021 17:11
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	14.9		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 75-77
 Collection Date: 02-Jun-2021 10:50

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-26
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0048	mg/Kg	1	09-Jun-2021 05:34
Ethylbenzene	ND		0.0048	mg/Kg	1	09-Jun-2021 05:34
m,p-Xylene	ND		0.0096	mg/Kg	1	09-Jun-2021 05:34
o-Xylene	ND		0.0048	mg/Kg	1	09-Jun-2021 05:34
Toluene	ND		0.0048	mg/Kg	1	09-Jun-2021 05:34
Xylenes, Total	ND		0.0048	mg/Kg	1	09-Jun-2021 05:34
Surr: 1,2-Dichloroethane-d4	96.0		70-126	%REC	1	09-Jun-2021 05:34
Surr: 4-Bromofluorobenzene	98.0		70-130	%REC	1	09-Jun-2021 05:34
Surr: Dibromofluoromethane	93.4		70-130	%REC	1	09-Jun-2021 05:34
Surr: Toluene-d8	102		70-130	%REC	1	09-Jun-2021 05:34
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.048	mg/Kg	1	07-Jun-2021 22:03
Surr: 4-Bromofluorobenzene	107		70-123	%REC	1	07-Jun-2021 22:03
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021 Analyst: PPM		
TPH (Diesel Range)	6.7		1.7	mg/Kg	1	10-Jun-2021 15:58
TPH (Motor Oil Range)	15		3.4	mg/Kg	1	10-Jun-2021 15:58
Surr: 2-Fluorobiphenyl	60.4		60-129	%REC	1	10-Jun-2021 15:58
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	10.6		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 80-82
 Collection Date: 02-Jun-2021 11:10

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-27
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0048	mg/Kg	1	09-Jun-2021 05:56
Ethylbenzene	ND		0.0048	mg/Kg	1	09-Jun-2021 05:56
m,p-Xylene	ND		0.0096	mg/Kg	1	09-Jun-2021 05:56
o-Xylene	ND		0.0048	mg/Kg	1	09-Jun-2021 05:56
Toluene	ND		0.0048	mg/Kg	1	09-Jun-2021 05:56
Xylenes, Total	ND		0.0048	mg/Kg	1	09-Jun-2021 05:56
Surr: 1,2-Dichloroethane-d4	101		70-126	%REC	1	09-Jun-2021 05:56
Surr: 4-Bromofluorobenzene	99.1		70-130	%REC	1	09-Jun-2021 05:56
Surr: Dibromofluoromethane	93.9		70-130	%REC	1	09-Jun-2021 05:56
Surr: Toluene-d8	102		70-130	%REC	1	09-Jun-2021 05:56
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.046	mg/Kg	1	07-Jun-2021 22:19
Surr: 4-Bromofluorobenzene	110		70-123	%REC	1	07-Jun-2021 22:19
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 09-Jun-2021	Analyst: PPM
TPH (Diesel Range)	28		1.7	mg/Kg	1	10-Jun-2021 17:11
TPH (Motor Oil Range)	6.1		3.4	mg/Kg	1	10-Jun-2021 17:11
Surr: 2-Fluorobiphenyl	61.9		60-129	%REC	1	10-Jun-2021 17:11
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	8.67		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-East 45-47
 Collection Date: 02-Jun-2021 09:40

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-28
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0050	mg/Kg	1	09-Jun-2021 06:18
Ethylbenzene	ND		0.0050	mg/Kg	1	09-Jun-2021 06:18
m,p-Xylene	ND		0.0099	mg/Kg	1	09-Jun-2021 06:18
o-Xylene	ND		0.0050	mg/Kg	1	09-Jun-2021 06:18
Toluene	ND		0.0050	mg/Kg	1	09-Jun-2021 06:18
Xylenes, Total	ND		0.0050	mg/Kg	1	09-Jun-2021 06:18
Surr: 1,2-Dichloroethane-d4	98.1		70-126	%REC	1	09-Jun-2021 06:18
Surr: 4-Bromofluorobenzene	94.6		70-130	%REC	1	09-Jun-2021 06:18
Surr: Dibromofluoromethane	91.8		70-130	%REC	1	09-Jun-2021 06:18
Surr: Toluene-d8	101		70-130	%REC	1	09-Jun-2021 06:18
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.050	mg/Kg	1	07-Jun-2021 22:35
Surr: 4-Bromofluorobenzene	108		70-123	%REC	1	07-Jun-2021 22:35
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021 Analyst: PPM		
TPH (Diesel Range)	6.7		1.7	mg/Kg	1	10-Jun-2021 17:36
TPH (Motor Oil Range)	8.7		3.4	mg/Kg	1	10-Jun-2021 17:36
Surr: 2-Fluorobiphenyl	61.4		60-129	%REC	1	10-Jun-2021 17:36
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	5.73		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 0-2
 Collection Date: 02-Jun-2021 14:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-29
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0048	mg/Kg	1	09-Jun-2021 06:41
Ethylbenzene	ND		0.0048	mg/Kg	1	09-Jun-2021 06:41
m,p-Xylene	ND		0.0095	mg/Kg	1	09-Jun-2021 06:41
o-Xylene	ND		0.0048	mg/Kg	1	09-Jun-2021 06:41
Toluene	ND		0.0048	mg/Kg	1	09-Jun-2021 06:41
Xylenes, Total	ND		0.0048	mg/Kg	1	09-Jun-2021 06:41
Surr: 1,2-Dichloroethane-d4	101		70-126	%REC	1	09-Jun-2021 06:41
Surr: 4-Bromofluorobenzene	97.0		70-130	%REC	1	09-Jun-2021 06:41
Surr: Dibromofluoromethane	95.9		70-130	%REC	1	09-Jun-2021 06:41
Surr: Toluene-d8	97.4		70-130	%REC	1	09-Jun-2021 06:41
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.052	mg/Kg	1	07-Jun-2021 22:52
Surr: 4-Bromofluorobenzene	104		70-123	%REC	1	07-Jun-2021 22:52
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021 Analyst: PPM		
TPH (Diesel Range)	33		1.7	mg/Kg	1	10-Jun-2021 18:00
TPH (Motor Oil Range)	4.1		3.4	mg/Kg	1	10-Jun-2021 18:00
Surr: 2-Fluorobiphenyl	60.1		60-129	%REC	1	10-Jun-2021 18:00
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	2.42		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 5-7
 Collection Date: 02-Jun-2021 14:10

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-30
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0050	mg/Kg	1	11-Jun-2021 01:34
Ethylbenzene	ND		0.0050	mg/Kg	1	11-Jun-2021 01:34
m,p-Xylene	ND		0.010	mg/Kg	1	11-Jun-2021 01:34
o-Xylene	ND		0.0050	mg/Kg	1	11-Jun-2021 01:34
Toluene	ND		0.0050	mg/Kg	1	11-Jun-2021 01:34
Xylenes, Total	ND		0.0050	mg/Kg	1	11-Jun-2021 01:34
Surr: 1,2-Dichloroethane-d4	107		70-126	%REC	1	11-Jun-2021 01:34
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	11-Jun-2021 01:34
Surr: Dibromofluoromethane	90.2		70-130	%REC	1	11-Jun-2021 01:34
Surr: Toluene-d8	100.0		70-130	%REC	1	11-Jun-2021 01:34
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.052	mg/Kg	1	07-Jun-2021 23:08
Surr: 4-Bromofluorobenzene	107		70-123	%REC	1	07-Jun-2021 23:08
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021 Analyst: PPM		
TPH (Diesel Range)	7.9		1.7	mg/Kg	1	10-Jun-2021 18:25
TPH (Motor Oil Range)	6.0		3.4	mg/Kg	1	10-Jun-2021 18:25
Surr: 2-Fluorobiphenyl	64.7		60-129	%REC	1	10-Jun-2021 18:25
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	5.05		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 10-12
 Collection Date: 02-Jun-2021 14:20

ANALYTICAL REPORT
 WorkOrder:HS21060237
 Lab ID:HS21060237-31
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0050	mg/Kg	1	11-Jun-2021 01:57
Ethylbenzene	ND		0.0050	mg/Kg	1	11-Jun-2021 01:57
m,p-Xylene	ND		0.010	mg/Kg	1	11-Jun-2021 01:57
o-Xylene	ND		0.0050	mg/Kg	1	11-Jun-2021 01:57
Toluene	ND		0.0050	mg/Kg	1	11-Jun-2021 01:57
Xylenes, Total	ND		0.0050	mg/Kg	1	11-Jun-2021 01:57
Surr: 1,2-Dichloroethane-d4	109		70-126	%REC	1	11-Jun-2021 01:57
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	11-Jun-2021 01:57
Surr: Dibromofluoromethane	91.2		70-130	%REC	1	11-Jun-2021 01:57
Surr: Toluene-d8	105		70-130	%REC	1	11-Jun-2021 01:57
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.050	mg/Kg	1	07-Jun-2021 23:24
Surr: 4-Bromofluorobenzene	104		70-123	%REC	1	07-Jun-2021 23:24
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021		Analyst: PPM
TPH (Diesel Range)	4.6		1.7	mg/Kg	1	09-Jun-2021 17:51
TPH (Motor Oil Range)	ND		3.4	mg/Kg	1	09-Jun-2021 17:51
Surr: 2-Fluorobiphenyl	65.2		60-129	%REC	1	09-Jun-2021 17:51
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	3.65		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 15-17
 Collection Date: 02-Jun-2021 14:30

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-32
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0048	mg/Kg	1	10-Jun-2021 22:59
Ethylbenzene	ND		0.0048	mg/Kg	1	10-Jun-2021 22:59
m,p-Xylene	ND		0.0097	mg/Kg	1	10-Jun-2021 22:59
o-Xylene	ND		0.0048	mg/Kg	1	10-Jun-2021 22:59
Toluene	ND		0.0048	mg/Kg	1	10-Jun-2021 22:59
Xylenes, Total	ND		0.0048	mg/Kg	1	10-Jun-2021 22:59
Surr: 1,2-Dichloroethane-d4	110		70-126	%REC	1	10-Jun-2021 22:59
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	10-Jun-2021 22:59
Surr: Dibromofluoromethane	94.4		70-130	%REC	1	10-Jun-2021 22:59
Surr: Toluene-d8	102		70-130	%REC	1	10-Jun-2021 22:59
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.047	mg/Kg	1	07-Jun-2021 23:41
Surr: 4-Bromofluorobenzene	106		70-123	%REC	1	07-Jun-2021 23:41
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021		Analyst: PPM
TPH (Diesel Range)	1.8		1.7	mg/Kg	1	10-Jun-2021 18:49
TPH (Motor Oil Range)	ND		3.4	mg/Kg	1	10-Jun-2021 18:49
Surr: 2-Fluorobiphenyl	60.1		60-129	%REC	1	10-Jun-2021 18:49
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	6.36		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 20-22
 Collection Date: 02-Jun-2021 14:40

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-33
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0050	mg/Kg	1	11-Jun-2021 02:19
Ethylbenzene	ND		0.0050	mg/Kg	1	11-Jun-2021 02:19
m,p-Xylene	ND		0.010	mg/Kg	1	11-Jun-2021 02:19
o-Xylene	ND		0.0050	mg/Kg	1	11-Jun-2021 02:19
Toluene	ND		0.0050	mg/Kg	1	11-Jun-2021 02:19
Xylenes, Total	ND		0.0050	mg/Kg	1	11-Jun-2021 02:19
Surr: 1,2-Dichloroethane-d4	106		70-126	%REC	1	11-Jun-2021 02:19
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	11-Jun-2021 02:19
Surr: Dibromofluoromethane	92.3		70-130	%REC	1	11-Jun-2021 02:19
Surr: Toluene-d8	104		70-130	%REC	1	11-Jun-2021 02:19
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.048	mg/Kg	1	08-Jun-2021 00:46
Surr: 4-Bromofluorobenzene	95.8		70-123	%REC	1	08-Jun-2021 00:46
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021 Analyst: PPM		
TPH (Diesel Range)	3.3		1.7	mg/Kg	1	10-Jun-2021 19:13
TPH (Motor Oil Range)	4.6		3.4	mg/Kg	1	10-Jun-2021 19:13
Surr: 2-Fluorobiphenyl	60.2		60-129	%REC	1	10-Jun-2021 19:13
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	5.13		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 25-27
 Collection Date: 02-Jun-2021 14:50

ANALYTICAL REPORT
 WorkOrder:HS21060237
 Lab ID:HS21060237-34
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0050	mg/Kg	1	11-Jun-2021 02:41
Ethylbenzene	ND		0.0050	mg/Kg	1	11-Jun-2021 02:41
m,p-Xylene	ND		0.010	mg/Kg	1	11-Jun-2021 02:41
o-Xylene	ND		0.0050	mg/Kg	1	11-Jun-2021 02:41
Toluene	ND		0.0050	mg/Kg	1	11-Jun-2021 02:41
Xylenes, Total	ND		0.0050	mg/Kg	1	11-Jun-2021 02:41
Surr: 1,2-Dichloroethane-d4	99.1		70-126	%REC	1	11-Jun-2021 02:41
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	11-Jun-2021 02:41
Surr: Dibromofluoromethane	89.8		70-130	%REC	1	11-Jun-2021 02:41
Surr: Toluene-d8	104		70-130	%REC	1	11-Jun-2021 02:41
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.048	mg/Kg	1	08-Jun-2021 01:02
Surr: 4-Bromofluorobenzene	103		70-123	%REC	1	08-Jun-2021 01:02
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 09-Jun-2021	Analyst: PPM
TPH (Diesel Range)	7.5		1.7	mg/Kg	1	09-Jun-2021 19:53
TPH (Motor Oil Range)	18		3.4	mg/Kg	1	09-Jun-2021 19:53
Surr: 2-Fluorobiphenyl	60.1		60-129	%REC	1	09-Jun-2021 19:53
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	6.35		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 30-32
 Collection Date: 02-Jun-2021 15:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-35
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0048	mg/Kg	1	11-Jun-2021 03:03
Ethylbenzene	ND		0.0048	mg/Kg	1	11-Jun-2021 03:03
m,p-Xylene	ND		0.0095	mg/Kg	1	11-Jun-2021 03:03
o-Xylene	ND		0.0048	mg/Kg	1	11-Jun-2021 03:03
Toluene	ND		0.0048	mg/Kg	1	11-Jun-2021 03:03
Xylenes, Total	ND		0.0048	mg/Kg	1	11-Jun-2021 03:03
Surr: 1,2-Dichloroethane-d4	100		70-126	%REC	1	11-Jun-2021 03:03
Surr: 4-Bromofluorobenzene	103		70-130	%REC	1	11-Jun-2021 03:03
Surr: Dibromofluoromethane	89.8		70-130	%REC	1	11-Jun-2021 03:03
Surr: Toluene-d8	106		70-130	%REC	1	11-Jun-2021 03:03
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.051	mg/Kg	1	08-Jun-2021 01:18
Surr: 4-Bromofluorobenzene	106		70-123	%REC	1	08-Jun-2021 01:18
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 09-Jun-2021	Analyst: PPM
TPH (Diesel Range)	33		1.7	mg/Kg	1	10-Jun-2021 19:38
TPH (Motor Oil Range)	29		3.4	mg/Kg	1	10-Jun-2021 19:38
Surr: 2-Fluorobiphenyl	60.4		60-129	%REC	1	10-Jun-2021 19:38
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	7.75		0.0100	wt%	1	07-Jun-2021 13:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 40-42
 Collection Date: 02-Jun-2021 15:20

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-36
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.052	mg/Kg	1	08-Jun-2021 01:35
Surr: 4-Bromofluorobenzene	94.7		70-123	%REC	1	08-Jun-2021 01:35
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021		Analyst: PPM
TPH (Diesel Range)	3.2		1.7	mg/Kg	1	09-Jun-2021 20:42
TPH (Motor Oil Range)	5.7		3.4	mg/Kg	1	09-Jun-2021 20:42
Surr: 2-Fluorobiphenyl	65.3		60-129	%REC	1	09-Jun-2021 20:42
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	1.40		0.0100	wt%	1	08-Jun-2021 16:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 50-52
 Collection Date: 02-Jun-2021 15:40

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-37
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.047	mg/Kg	1	08-Jun-2021 01:51
Surr: 4-Bromofluorobenzene	98.2		70-123	%REC	1	08-Jun-2021 01:51
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 09-Jun-2021	Analyst: PPM
TPH (Diesel Range)	8.5		1.7	mg/Kg	1	09-Jun-2021 14:58
TPH (Motor Oil Range)	15		3.4	mg/Kg	1	09-Jun-2021 14:58
Surr: 2-Fluorobiphenyl	60.9		60-129	%REC	1	09-Jun-2021 14:58
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	2.80		0.0100	wt%	1	08-Jun-2021 16:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 60-62
 Collection Date: 02-Jun-2021 16:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-38
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.046	mg/Kg	1	08-Jun-2021 02:07
Surr: 4-Bromofluorobenzene	101		70-123	%REC	1	08-Jun-2021 02:07
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021		Analyst: PPM
TPH (Diesel Range)	4.7		1.7	mg/Kg	1	11-Jun-2021 12:44
TPH (Motor Oil Range)	15		3.4	mg/Kg	1	11-Jun-2021 12:44
Surr: 2-Fluorobiphenyl	61.1		60-129	%REC	1	11-Jun-2021 12:44
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	18.9		0.0100	wt%	1	08-Jun-2021 16:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 70-72
 Collection Date: 03-Jun-2021 08:30

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-39
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.052	mg/Kg	1	08-Jun-2021 02:24
Surr: 4-Bromofluorobenzene	99.5		70-123	%REC	1	08-Jun-2021 02:24
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021		Analyst: PPM
TPH (Diesel Range)	39		1.7	mg/Kg	1	09-Jun-2021 21:31
TPH (Motor Oil Range)	49		3.4	mg/Kg	1	09-Jun-2021 21:31
Surr: 2-Fluorobiphenyl	60.6		60-129	%REC	1	09-Jun-2021 21:31
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	3.74		0.0100	wt%	1	08-Jun-2021 16:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 75-77
 Collection Date: 03-Jun-2021 09:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-40
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.050	mg/Kg	1	08-Jun-2021 02:40
Surr: 4-Bromofluorobenzene	97.3		70-123	%REC	1	08-Jun-2021 02:40
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021		Analyst: PPM
TPH (Diesel Range)	13		1.7	mg/Kg	1	09-Jun-2021 21:56
TPH (Motor Oil Range)	29		3.4	mg/Kg	1	09-Jun-2021 21:56
Surr: 2-Fluorobiphenyl	60.3		60-129	%REC	1	09-Jun-2021 21:56
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	3.97		0.0100	wt%	1	08-Jun-2021 16:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: SB-South 80-82
 Collection Date: 03-Jun-2021 09:30

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-41
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.050	mg/Kg	1	08-Jun-2021 04:18
Surr: 4-Bromofluorobenzene	104		70-123	%REC	1	08-Jun-2021 04:18
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021		Analyst: PPM
TPH (Diesel Range)	7.2		1.7	mg/Kg	1	10-Jun-2021 20:27
TPH (Motor Oil Range)	11		3.4	mg/Kg	1	10-Jun-2021 20:27
Surr: 2-Fluorobiphenyl	60.2		60-129	%REC	1	10-Jun-2021 20:27
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	4.91		0.0100	wt%	1	08-Jun-2021 16:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: EB-01
 Collection Date: 02-Jun-2021 11:15

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-42
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	ND		0.0010	mg/L	1	08-Jun-2021 01:33
Ethylbenzene	ND		0.0010	mg/L	1	08-Jun-2021 01:33
m,p-Xylene	ND		0.0020	mg/L	1	08-Jun-2021 01:33
o-Xylene	ND		0.0010	mg/L	1	08-Jun-2021 01:33
Toluene	ND		0.0010	mg/L	1	08-Jun-2021 01:33
Xylenes, Total	ND		0.0010	mg/L	1	08-Jun-2021 01:33
Surr: 1,2-Dichloroethane-d4	115		70-126	%REC	1	08-Jun-2021 01:33
Surr: 4-Bromofluorobenzene	102		81-113	%REC	1	08-Jun-2021 01:33
Surr: Dibromofluoromethane	107		77-123	%REC	1	08-Jun-2021 01:33
Surr: Toluene-d8	103		82-127	%REC	1	08-Jun-2021 01:33
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.0500	mg/L	1	04-Jun-2021 16:54
Surr: 4-Bromofluorobenzene	117		70-123	%REC	1	04-Jun-2021 16:54
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 08-Jun-2021		Analyst: PPM
TPH (Diesel Range)	ND		0.052	mg/L	1	09-Jun-2021 19:57
TPH (Oil Range)	ND		0.10	mg/L	1	09-Jun-2021 19:57
Surr: 2-Fluorobiphenyl	78.1		60-135	%REC	1	09-Jun-2021 19:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: EB-02
 Collection Date: 03-Jun-2021 10:30

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-43
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	ND		0.0010	mg/L	1	08-Jun-2021 01:54
Ethylbenzene	ND		0.0010	mg/L	1	08-Jun-2021 01:54
m,p-Xylene	ND		0.0020	mg/L	1	08-Jun-2021 01:54
o-Xylene	ND		0.0010	mg/L	1	08-Jun-2021 01:54
Toluene	ND		0.0010	mg/L	1	08-Jun-2021 01:54
Xylenes, Total	ND		0.0010	mg/L	1	08-Jun-2021 01:54
Surr: 1,2-Dichloroethane-d4	115		70-126	%REC	1	08-Jun-2021 01:54
Surr: 4-Bromofluorobenzene	103		81-113	%REC	1	08-Jun-2021 01:54
Surr: Dibromofluoromethane	107		77-123	%REC	1	08-Jun-2021 01:54
Surr: Toluene-d8	102		82-127	%REC	1	08-Jun-2021 01:54
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.0500	mg/L	1	04-Jun-2021 17:10
Surr: 4-Bromofluorobenzene	107		70-123	%REC	1	04-Jun-2021 17:10
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 08-Jun-2021		Analyst: PPM
TPH (Diesel Range)	ND		0.052	mg/L	1	09-Jun-2021 20:26
TPH (Oil Range)	ND		0.10	mg/L	1	09-Jun-2021 20:26
Surr: 2-Fluorobiphenyl	91.9		60-135	%REC	1	09-Jun-2021 20:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: TB-01
 Collection Date: 03-Jun-2021 16:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-44
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260				Analyst: AKP
Benzene	ND		0.0010	mg/L	1	08-Jun-2021 02:15
Ethylbenzene	ND		0.0010	mg/L	1	08-Jun-2021 02:15
m,p-Xylene	ND		0.0020	mg/L	1	08-Jun-2021 02:15
o-Xylene	ND		0.0010	mg/L	1	08-Jun-2021 02:15
Toluene	ND		0.0010	mg/L	1	08-Jun-2021 02:15
Xylenes, Total	ND		0.0010	mg/L	1	08-Jun-2021 02:15
Surr: 1,2-Dichloroethane-d4	116		70-126	%REC	1	08-Jun-2021 02:15
Surr: 4-Bromofluorobenzene	103		81-113	%REC	1	08-Jun-2021 02:15
Surr: Dibromofluoromethane	109		77-123	%REC	1	08-Jun-2021 02:15
Surr: Toluene-d8	103		82-127	%REC	1	08-Jun-2021 02:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: TB-02
 Collection Date: 03-Jun-2021 16:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-45
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260				Analyst: AKP
Benzene	ND		0.0010	mg/L	1	08-Jun-2021 02:36
Ethylbenzene	ND		0.0010	mg/L	1	08-Jun-2021 02:36
m,p-Xylene	ND		0.0020	mg/L	1	08-Jun-2021 02:36
o-Xylene	ND		0.0010	mg/L	1	08-Jun-2021 02:36
Toluene	ND		0.0010	mg/L	1	08-Jun-2021 02:36
Xylenes, Total	ND		0.0010	mg/L	1	08-Jun-2021 02:36
Surr: 1,2-Dichloroethane-d4	114		70-126	%REC	1	08-Jun-2021 02:36
Surr: 4-Bromofluorobenzene	102		81-113	%REC	1	08-Jun-2021 02:36
Surr: Dibromofluoromethane	107		77-123	%REC	1	08-Jun-2021 02:36
Surr: Toluene-d8	103		82-127	%REC	1	08-Jun-2021 02:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: Dup-1
 Collection Date: 01-Jun-2021 00:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-46
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		0.0050	mg/Kg	1	11-Jun-2021 03:25
Ethylbenzene	ND		0.0050	mg/Kg	1	11-Jun-2021 03:25
m,p-Xylene	ND		0.0099	mg/Kg	1	11-Jun-2021 03:25
o-Xylene	ND		0.0050	mg/Kg	1	11-Jun-2021 03:25
Toluene	ND		0.0050	mg/Kg	1	11-Jun-2021 03:25
Xylenes, Total	ND		0.0050	mg/Kg	1	11-Jun-2021 03:25
Surr: 1,2-Dichloroethane-d4	102		70-126	%REC	1	11-Jun-2021 03:25
Surr: 4-Bromofluorobenzene	98.1		70-130	%REC	1	11-Jun-2021 03:25
Surr: Dibromofluoromethane	89.1		70-130	%REC	1	11-Jun-2021 03:25
Surr: Toluene-d8	102		70-130	%REC	1	11-Jun-2021 03:25
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: QX
Gasoline Range Organics	ND		0.051	mg/Kg	1	08-Jun-2021 05:07
Surr: 4-Bromofluorobenzene	97.9		70-123	%REC	1	08-Jun-2021 05:07
TPH DRO/ORO BY SW8015C		Method:SW8015M			Prep:SW3541 / 09-Jun-2021	Analyst: PPM
TPH (Diesel Range)	9.0		1.7	mg/Kg	1	10-Jun-2021 20:51
TPH (Motor Oil Range)	20		3.4	mg/Kg	1	10-Jun-2021 20:51
Surr: 2-Fluorobiphenyl	60.1		60-129	%REC	1	10-Jun-2021 20:51
MOISTURE - ASTM D2216		Method:ASTM D2216				Analyst: JW
Percent Moisture	5.90		0.0100	wt%	1	08-Jun-2021 16:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: Dup-2
 Collection Date: 02-Jun-2021 00:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-47
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0050	mg/Kg	1	11-Jun-2021 03:47
Ethylbenzene	ND		0.0050	mg/Kg	1	11-Jun-2021 03:47
m,p-Xylene	ND		0.010	mg/Kg	1	11-Jun-2021 03:47
o-Xylene	ND		0.0050	mg/Kg	1	11-Jun-2021 03:47
Toluene	ND		0.0050	mg/Kg	1	11-Jun-2021 03:47
Xylenes, Total	ND		0.0050	mg/Kg	1	11-Jun-2021 03:47
Surr: 1,2-Dichloroethane-d4	104		70-126	%REC	1	11-Jun-2021 03:47
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	11-Jun-2021 03:47
Surr: Dibromofluoromethane	93.5		70-130	%REC	1	11-Jun-2021 03:47
Surr: Toluene-d8	103		70-130	%REC	1	11-Jun-2021 03:47
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.052	mg/Kg	1	08-Jun-2021 05:24
Surr: 4-Bromofluorobenzene	101		70-123	%REC	1	08-Jun-2021 05:24
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021 Analyst: PPM		
TPH (Diesel Range)	29		1.7	mg/Kg	1	09-Jun-2021 23:58
TPH (Motor Oil Range)	12		3.4	mg/Kg	1	09-Jun-2021 23:58
Surr: 2-Fluorobiphenyl	60.2		60-129	%REC	1	09-Jun-2021 23:58
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	5.72		0.0100	wt%	1	08-Jun-2021 16:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
 Project: Tank 970
 Sample ID: Dup-3
 Collection Date: 02-Jun-2021 00:00

ANALYTICAL REPORT

WorkOrder:HS21060237
 Lab ID:HS21060237-48
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		0.0048	mg/Kg	1	11-Jun-2021 04:10
Ethylbenzene	ND		0.0048	mg/Kg	1	11-Jun-2021 04:10
m,p-Xylene	ND		0.0097	mg/Kg	1	11-Jun-2021 04:10
o-Xylene	ND		0.0048	mg/Kg	1	11-Jun-2021 04:10
Toluene	ND		0.0048	mg/Kg	1	11-Jun-2021 04:10
Xylenes, Total	ND		0.0048	mg/Kg	1	11-Jun-2021 04:10
Surr: 1,2-Dichloroethane-d4	93.5		70-126	%REC	1	11-Jun-2021 04:10
Surr: 4-Bromofluorobenzene	103		70-130	%REC	1	11-Jun-2021 04:10
Surr: Dibromofluoromethane	87.0		70-130	%REC	1	11-Jun-2021 04:10
Surr: Toluene-d8	105		70-130	%REC	1	11-Jun-2021 04:10
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: QX		
Gasoline Range Organics	ND		0.052	mg/Kg	1	08-Jun-2021 05:40
Surr: 4-Bromofluorobenzene	99.8		70-123	%REC	1	08-Jun-2021 05:40
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3541 / 09-Jun-2021		Analyst: PPM
TPH (Diesel Range)	5.0		1.7	mg/Kg	1	11-Jun-2021 13:08
TPH (Motor Oil Range)	14		3.4	mg/Kg	1	11-Jun-2021 13:08
Surr: 2-Fluorobiphenyl	61.4		60-129	%REC	1	11-Jun-2021 13:08
MOISTURE - ASTM D2216		Method:ASTM D2216		Analyst: JW		
Percent Moisture	5.13		0.0100	wt%	1	08-Jun-2021 16:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jun-21

Weight / Prep Log

Client: TRC Corporation

Project: Tank 970

WorkOrder: HS21060237

Batch ID: 4316

Start Date: 07 Jun 2021 10:17

End Date: 07 Jun 2021 10:17

Method: GASOLINE RANGE ORGANICS BY SW8015C

Prep Code:

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21060237-01	1	4.734 (g)	5 (mL)	1.06	Bulk (5030B)
HS21060237-02	1	5.1 (g)	5 (mL)	0.98	Bulk (5030B)
HS21060237-03	1	4.691 (g)	5 (mL)	1.07	Bulk (5030B)
HS21060237-04	1	4.815 (g)	5 (mL)	1.04	Bulk (5030B)
HS21060237-05	1	5.331 (g)	5 (mL)	0.94	Bulk (5030B)
HS21060237-06	1	5.017 (g)	5 (mL)	1	Bulk (5030B)
HS21060237-07	1	5.21 (g)	5 (mL)	0.96	Bulk (5030B)
HS21060237-08	1	5.105 (g)	5 (mL)	0.98	Bulk (5030B)
HS21060237-09	1	5.057 (g)	5 (mL)	0.99	Bulk (5030B)
HS21060237-10	1	4.905 (g)	5 (mL)	1.02	Bulk (5030B)
HS21060237-11	1	4.63 (g)	5 (mL)	1.08	Bulk (5030B)
HS21060237-12	1	4.905 (g)	5 (mL)	1.02	Bulk (5030B)
HS21060237-13	1	4.641 (g)	5 (mL)	1.08	Bulk (5030B)
HS21060237-14	1	4.967 (g)	5 (mL)	1.01	Bulk (5030B)
HS21060237-15	1	5.028 (g)	5 (mL)	0.99	Bulk (5030B)
HS21060237-16	1	4.818 (g)	5 (mL)	1.04	Bulk (5030B)
HS21060237-17	1	5.333 (g)	5 (mL)	0.94	Bulk (5030B)
HS21060237-18	1	5.105 (g)	5 (mL)	0.98	Bulk (5030B)
HS21060237-19	1	5.516 (g)	5 (mL)	0.91	Bulk (5030B)
HS21060237-20	1	5.117 (g)	5 (mL)	0.98	Bulk (5030B)
HS21060237-21	1	4.913 (g)	5 (mL)	1.02	Bulk (5030B)
HS21060237-22	1	4.653 (g)	5 (mL)	1.07	Bulk (5030B)
HS21060237-23	1	4.782 (g)	5 (mL)	1.05	Bulk (5030B)
HS21060237-24	1	4.99 (g)	5 (mL)	1	Bulk (5030B)
HS21060237-25	1	4.786 (g)	5 (mL)	1.04	Bulk (5030B)
HS21060237-26	1	5.13 (g)	5 (mL)	0.97	Bulk (5030B)
HS21060237-27	1	5.362 (g)	5 (mL)	0.93	Bulk (5030B)
HS21060237-28	1	5.026 (g)	5 (mL)	0.99	Bulk (5030B)
HS21060237-29	1	4.833 (g)	5 (mL)	1.03	Bulk (5030B)
HS21060237-30	1	4.825 (g)	5 (mL)	1.04	Bulk (5030B)
HS21060237-31	1	5.067 (g)	5 (mL)	0.99	Bulk (5030B)
HS21060237-32	1	5.337 (g)	5 (mL)	0.94	Bulk (5030B)
HS21060237-33	1	5.257 (g)	5 (mL)	0.95	Bulk (5030B)
HS21060237-34	1	5.245 (g)	5 (mL)	0.95	Bulk (5030B)
HS21060237-35	1	4.906 (g)	5 (mL)	1.02	Bulk (5030B)
HS21060237-36	1	4.77 (g)	5 (mL)	1.05	Bulk (5030B)
HS21060237-37	1	5.333 (g)	5 (mL)	0.94	Bulk (5030B)
HS21060237-38	1	5.52 (g)	5 (mL)	0.91	Bulk (5030B)
HS21060237-39	1	4.874 (g)	5 (mL)	1.03	Bulk (5030B)
HS21060237-40	1	5.037 (g)	5 (mL)	0.99	Bulk (5030B)
HS21060237-41	1	5.018 (g)	5 (mL)	1	Bulk (5030B)
HS21060237-46	1	4.911 (g)	5 (mL)	1.02	Bulk (5030B)
HS21060237-47	1	4.793 (g)	5 (mL)	1.04	Bulk (5030B)
HS21060237-48	1	4.82 (g)	5 (mL)	1.04	Bulk (5030B)

ALS Houston, US

Date: 11-Jun-21

Weight / Prep Log

Client: TRC Corporation

Project: Tank 970

WorkOrder: HS21060237

Batch ID: 4320

Start Date: 08 Jun 2021 10:06

End Date: 08 Jun 2021 10:06

Method: VOLATILES BY SW8260C

Sample ID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS21060237-15	1	4.945 (g)	5 (mL)	1.01	Bulk (5030B)
HS21060237-16	1	5.182 (g)	5 (mL)	0.96	Bulk (5030B)
HS21060237-17	1	5.065 (g)	5 (mL)	0.99	Bulk (5030B)
HS21060237-18	1	5.247 (g)	5 (mL)	0.95	Bulk (5030B)
HS21060237-19	1	5.014 (g)	5 (mL)	1	Bulk (5030B)
HS21060237-20	1	5.064 (g)	5 (mL)	0.99	Bulk (5030B)
HS21060237-21	1	5.118 (g)	5 (mL)	0.98	Bulk (5030B)
HS21060237-22	1	4.943 (g)	5 (mL)	1.01	Bulk (5030B)
HS21060237-23	1	5.086 (g)	5 (mL)	0.98	Bulk (5030B)
HS21060237-24	1	5.349 (g)	5 (mL)	0.93	Bulk (5030B)
HS21060237-25	1	5.075 (g)	5 (mL)	0.99	Bulk (5030B)
HS21060237-26	1	5.219 (g)	5 (mL)	0.96	Bulk (5030B)
HS21060237-27	1	5.213 (g)	5 (mL)	0.96	Bulk (5030B)
HS21060237-28	1	5.033 (g)	5 (mL)	0.99	Bulk (5030B)
HS21060237-29	1	5.274 (g)	5 (mL)	0.95	Bulk (5030B)
HS21060237-30	1	4.946 (g)	5 (mL)	1.01	Bulk (5030B)
HS21060237-31	1	4.945 (g)	5 (mL)	1.01	Bulk (5030B)
HS21060237-32	1	5.18 (g)	5 (mL)	0.97	Bulk (5030B)
HS21060237-33	1	4.95 (g)	5 (mL)	1.01	Bulk (5030B)
HS21060237-34	1	4.996 (g)	5 (mL)	1	Bulk (5030B)
HS21060237-35	1	5.266 (g)	5 (mL)	0.95	Bulk (5030B)
HS21060237-46	1	5.076 (g)	5 (mL)	0.99	Bulk (5030B)
HS21060237-47	1	4.979 (g)	5 (mL)	1	Bulk (5030B)
HS21060237-48	1	5.175 (g)	5 (mL)	0.97	Bulk (5030B)

Batch ID: 166629

Start Date: 08 Jun 2021 09:01

End Date: 09 Jun 2021 17:00

Method: SW3511

Prep Code: 3511_DRO

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21060237-42		31.88 (mL)	2 (mL)	0.06274	40 mL Amber
HS21060237-43		31.56 (mL)	2 (mL)	0.06337	40 mL Amber

Batch ID: 166634

Start Date: 08 Jun 2021 11:49

End Date: 08 Jun 2021 15:30

Method: SOPREP: 3541 TPH

Prep Code: 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21060237-01		30.24 (g)	1 (mL)	0.03307	4-oz glass, Neat
HS21060237-02		30.31 (g)	1 (mL)	0.03299	4-oz glass, Neat
HS21060237-03		30.29 (g)	1 (mL)	0.03301	4-oz glass, Neat
HS21060237-04		30.26 (g)	1 (mL)	0.03305	4-oz glass, Neat
HS21060237-05		30.18 (g)	1 (mL)	0.03313	4-oz glass, Neat
HS21060237-06		30.01 (g)	1 (mL)	0.03332	4-oz glass, Neat
HS21060237-07		30.17 (g)	1 (mL)	0.03315	4-oz glass, Neat
HS21060237-08		30.33 (g)	1 (mL)	0.03297	4-oz glass, Neat
HS21060237-09		30.25 (g)	1 (mL)	0.03306	4-oz glass, Neat
HS21060237-10		30.17 (g)	1 (mL)	0.03315	4-oz glass, Neat

ALS Houston, US

Date: 11-Jun-21

Weight / Prep Log

Client: TRC Corporation

Project: Tank 970

WorkOrder: HS21060237

Batch ID: 166674

Start Date: 09 Jun 2021 06:30

End Date: 09 Jun 2021 10:00

Method: SOPREP: 3541 TPH

Prep Code: 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21060237-11		30.29 (g)	1 (mL)	0.03301	4-oz glass, Neat
HS21060237-12		30.18 (g)	1 (mL)	0.03313	4-oz glass, Neat
HS21060237-13		30.27 (g)	1 (mL)	0.03304	4-oz glass, Neat
HS21060237-14		30.18 (g)	1 (mL)	0.03313	4-oz glass, Neat
HS21060237-15		30.29 (g)	1 (mL)	0.03301	4-oz glass, Neat
HS21060237-16		30.2 (g)	1 (mL)	0.03311	4-oz glass, Neat
HS21060237-17		30.22 (g)	1 (mL)	0.03309	4-oz glass, Neat
HS21060237-18		30.03 (g)	1 (mL)	0.0333	4-oz glass, Neat
HS21060237-19		30.04 (g)	1 (mL)	0.03329	4-oz glass, Neat
HS21060237-20		30.15 (g)	1 (mL)	0.03317	4-oz glass, Neat
HS21060237-21		30.28 (g)	1 (mL)	0.03303	4-oz glass, Neat
HS21060237-22		30.26 (g)	1 (mL)	0.03305	4-oz glass, Neat
HS21060237-23		30.07 (g)	1 (mL)	0.03326	4-oz glass, Neat
HS21060237-24		30.18 (g)	1 (mL)	0.03313	4-oz glass, Neat
HS21060237-25		30.26 (g)	1 (mL)	0.03305	4-oz glass, Neat
HS21060237-26		30.31 (g)	1 (mL)	0.03299	4-oz glass, Neat
HS21060237-27		30.24 (g)	1 (mL)	0.03307	4-oz glass, Neat
HS21060237-28		30.14 (g)	1 (mL)	0.03318	4-oz glass, Neat
HS21060237-29		30.11 (g)	1 (mL)	0.03321	4-oz glass, Neat
HS21060237-30		30.03 (g)	1 (mL)	0.0333	4-oz glass, Neat

Batch ID: 166695

Start Date: 09 Jun 2021 09:30

End Date: 09 Jun 2021 13:00

Method: SOPREP: 3541 TPH

Prep Code: 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21060237-31		30.22 (g)	1 (mL)	0.03309	4-oz glass, Neat
HS21060237-32		30.14 (g)	1 (mL)	0.03318	4-oz glass, Neat
HS21060237-33		30.03 (g)	1 (mL)	0.0333	4-oz glass, Neat
HS21060237-34		30.42 (g)	1 (mL)	0.03287	4-oz glass, Neat
HS21060237-35		30.29 (g)	1 (mL)	0.03301	4-oz glass, Neat
HS21060237-36		30.37 (g)	1 (mL)	0.03293	4-oz glass, Neat
HS21060237-37		30.14 (g)	1 (mL)	0.03318	4-oz glass, Neat
HS21060237-38		30.09 (g)	1 (mL)	0.03323	4-oz glass, Neat
HS21060237-39		30.18 (g)	1 (mL)	0.03313	4-oz glass, Neat
HS21060237-40		30.26 (g)	1 (mL)	0.03305	4-oz glass, Neat
HS21060237-41		30.33 (g)	1 (mL)	0.03297	4-oz glass, Neat
HS21060237-46		30.25 (g)	1 (mL)	0.03306	4-oz glass, Neat
HS21060237-47		30.39 (g)	1 (mL)	0.03291	4-oz glass, Neat
HS21060237-48		30.42 (g)	1 (mL)	0.03287	4-oz glass, Neat

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 166629 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Water	
HS21060237-42	EB-01	02 Jun 2021 11:15		08 Jun 2021 09:01	09 Jun 2021 19:57	1
HS21060237-43	EB-02	03 Jun 2021 10:30		08 Jun 2021 09:01	09 Jun 2021 20:26	1
Batch ID: 166634 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Soil	
HS21060237-01	SB-North 0-2	01 Jun 2021 15:00		08 Jun 2021 11:49	09 Jun 2021 04:48	100
HS21060237-02	SB-North 5-7	01 Jun 2021 15:10		08 Jun 2021 11:49	09 Jun 2021 12:56	10
HS21060237-03	SB-North 10-12	01 Jun 2021 15:20		08 Jun 2021 11:49	09 Jun 2021 05:37	1
HS21060237-04	SB-North 15-17	01 Jun 2021 15:30		08 Jun 2021 11:49	09 Jun 2021 06:02	1
HS21060237-05	SB-North 20-22	01 Jun 2021 15:40		08 Jun 2021 11:49	09 Jun 2021 06:26	1
HS21060237-06	SB-North 30-32	01 Jun 2021 16:00		08 Jun 2021 11:49	09 Jun 2021 06:50	1
HS21060237-07	SB-North 35-37	01 Jun 2021 16:10		08 Jun 2021 11:49	09 Jun 2021 07:15	1
HS21060237-08	SB-North 40-42	01 Jun 2021 16:20		08 Jun 2021 11:49	09 Jun 2021 07:39	1
HS21060237-09	SB-North 50-52	01 Jun 2021 16:40		08 Jun 2021 11:49	09 Jun 2021 08:52	1
HS21060237-10	SB-North 55-57	01 Jun 2021 16:50		08 Jun 2021 11:49	09 Jun 2021 17:26	1
Batch ID: 166674 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Soil	
HS21060237-11	SB-North 60-62	01 Jun 2021 17:00		09 Jun 2021 06:30	10 Jun 2021 13:07	1
HS21060237-12	SB-North 70-72	01 Jun 2021 17:20		09 Jun 2021 06:30	10 Jun 2021 13:32	1
HS21060237-13	SB-North 75-77	01 Jun 2021 17:30		09 Jun 2021 06:30	10 Jun 2021 14:45	1
HS21060237-14	SB-North 80-82	01 Jun 2021 17:40		09 Jun 2021 06:30	10 Jun 2021 15:09	1
HS21060237-15	SB-East 0-2	02 Jun 2021 08:45		09 Jun 2021 06:30	10 Jun 2021 15:33	1
HS21060237-16	SB-East 5-7	02 Jun 2021 08:50		09 Jun 2021 06:30	10 Jun 2021 15:58	1
HS21060237-17	SB-East 10-12	02 Jun 2021 08:55		09 Jun 2021 06:30	11 Jun 2021 00:32	1
HS21060237-18	SB-East 20-22	02 Jun 2021 09:05		09 Jun 2021 06:30	11 Jun 2021 00:56	1
HS21060237-19	SB-East 25-27	02 Jun 2021 09:10		09 Jun 2021 06:30	11 Jun 2021 01:21	1
HS21060237-20	SB-East 30-32	02 Jun 2021 09:20		09 Jun 2021 06:30	11 Jun 2021 01:45	1
HS21060237-21	SB-East 40-42	02 Jun 2021 09:30		09 Jun 2021 06:30	11 Jun 2021 12:19	1
HS21060237-22	SB-East 50-52	02 Jun 2021 09:50		09 Jun 2021 06:30	11 Jun 2021 02:34	1
HS21060237-23	SB-East 55-57	02 Jun 2021 10:00		09 Jun 2021 06:30	10 Jun 2021 14:45	1
HS21060237-24	SB-East 60-62	02 Jun 2021 10:10		09 Jun 2021 06:30	10 Jun 2021 15:09	1
HS21060237-25	SB-East 70-72	02 Jun 2021 10:30		09 Jun 2021 06:30	10 Jun 2021 17:11	4
HS21060237-25	SB-East 70-72	02 Jun 2021 10:30		09 Jun 2021 06:30	10 Jun 2021 15:33	1
HS21060237-26	SB-East 75-77	02 Jun 2021 10:50		09 Jun 2021 06:30	10 Jun 2021 15:58	1
HS21060237-27	SB-East 80-82	02 Jun 2021 11:10		09 Jun 2021 06:30	10 Jun 2021 17:11	1
HS21060237-28	SB-East 45-47	02 Jun 2021 09:40		09 Jun 2021 06:30	10 Jun 2021 17:36	1
HS21060237-29	SB-South 0-2	02 Jun 2021 14:00		09 Jun 2021 06:30	10 Jun 2021 18:00	1
HS21060237-30	SB-South 5-7	02 Jun 2021 14:10		09 Jun 2021 06:30	10 Jun 2021 18:25	1

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 166695 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Soil	
HS21060237-31	SB-South 10-12	02 Jun 2021 14:20		09 Jun 2021 09:30	09 Jun 2021 17:51	1
HS21060237-32	SB-South 15-17	02 Jun 2021 14:30		09 Jun 2021 09:30	10 Jun 2021 18:49	1
HS21060237-33	SB-South 20-22	02 Jun 2021 14:40		09 Jun 2021 09:30	10 Jun 2021 19:13	1
HS21060237-34	SB-South 25-27	02 Jun 2021 14:50		09 Jun 2021 09:30	09 Jun 2021 19:53	1
HS21060237-35	SB-South 30-32	02 Jun 2021 15:00		09 Jun 2021 09:30	10 Jun 2021 19:38	1
HS21060237-36	SB-South 40-42	02 Jun 2021 15:20		09 Jun 2021 09:30	09 Jun 2021 20:42	1
HS21060237-37	SB-South 50-52	02 Jun 2021 15:40		09 Jun 2021 09:30	09 Jun 2021 14:58	1
HS21060237-38	SB-South 60-62	02 Jun 2021 16:00		09 Jun 2021 09:30	11 Jun 2021 12:44	1
HS21060237-39	SB-South 70-72	03 Jun 2021 08:30		09 Jun 2021 09:30	09 Jun 2021 21:31	1
HS21060237-40	SB-South 75-77	03 Jun 2021 09:00		09 Jun 2021 09:30	09 Jun 2021 21:56	1
HS21060237-41	SB-South 80-82	03 Jun 2021 09:30		09 Jun 2021 09:30	10 Jun 2021 20:27	1
HS21060237-46	Dup-1	01 Jun 2021 00:00		09 Jun 2021 09:30	10 Jun 2021 20:51	1
HS21060237-47	Dup-2	02 Jun 2021 00:00		09 Jun 2021 09:30	09 Jun 2021 23:58	1
HS21060237-48	Dup-3	02 Jun 2021 00:00		09 Jun 2021 09:30	11 Jun 2021 13:08	1
Batch ID: R385028 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Water	
HS21060237-42	EB-01	02 Jun 2021 11:15			04 Jun 2021 16:54	1
HS21060237-43	EB-02	03 Jun 2021 10:30			04 Jun 2021 17:10	1
Batch ID: R385114 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Soil	
HS21060237-01	SB-North 0-2	01 Jun 2021 15:00			07 Jun 2021 11:02	1
HS21060237-02	SB-North 5-7	01 Jun 2021 15:10			07 Jun 2021 11:19	1
HS21060237-03	SB-North 10-12	01 Jun 2021 15:20			07 Jun 2021 11:35	1
HS21060237-04	SB-North 15-17	01 Jun 2021 15:30			07 Jun 2021 11:51	1
HS21060237-05	SB-North 20-22	01 Jun 2021 15:40			07 Jun 2021 12:07	1
HS21060237-06	SB-North 30-32	01 Jun 2021 16:00			07 Jun 2021 12:23	1
HS21060237-07	SB-North 35-37	01 Jun 2021 16:10			07 Jun 2021 14:12	1
HS21060237-08	SB-North 40-42	01 Jun 2021 16:20			07 Jun 2021 14:29	1
HS21060237-09	SB-North 50-52	01 Jun 2021 16:40			07 Jun 2021 14:45	1
HS21060237-10	SB-North 55-57	01 Jun 2021 16:50			07 Jun 2021 15:01	1
HS21060237-11	SB-North 60-62	01 Jun 2021 17:00			07 Jun 2021 15:17	1
HS21060237-12	SB-North 70-72	01 Jun 2021 17:20			07 Jun 2021 15:33	1
HS21060237-13	SB-North 75-77	01 Jun 2021 17:30			07 Jun 2021 15:50	1
HS21060237-14	SB-North 80-82	01 Jun 2021 17:40			07 Jun 2021 16:06	1
HS21060237-15	SB-East 0-2	02 Jun 2021 08:45			07 Jun 2021 16:22	1
HS21060237-16	SB-East 5-7	02 Jun 2021 08:50			07 Jun 2021 16:38	1
HS21060237-17	SB-East 10-12	02 Jun 2021 08:55			07 Jun 2021 17:43	1
HS21060237-18	SB-East 20-22	02 Jun 2021 09:05			07 Jun 2021 17:59	1
HS21060237-19	SB-East 25-27	02 Jun 2021 09:10			07 Jun 2021 18:16	1
HS21060237-20	SB-East 30-32	02 Jun 2021 09:20			07 Jun 2021 18:32	1

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R385115 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Soil	
HS21060237-21	SB-East 40-42	02 Jun 2021 09:30			07 Jun 2021 20:09	1
HS21060237-22	SB-East 50-52	02 Jun 2021 09:50			07 Jun 2021 21:14	1
HS21060237-23	SB-East 55-57	02 Jun 2021 10:00			07 Jun 2021 19:21	1
HS21060237-24	SB-East 60-62	02 Jun 2021 10:10			07 Jun 2021 21:30	1
HS21060237-25	SB-East 70-72	02 Jun 2021 10:30			07 Jun 2021 21:47	1
HS21060237-26	SB-East 75-77	02 Jun 2021 10:50			07 Jun 2021 22:03	1
HS21060237-27	SB-East 80-82	02 Jun 2021 11:10			07 Jun 2021 22:19	1
HS21060237-28	SB-East 45-47	02 Jun 2021 09:40			07 Jun 2021 22:35	1
HS21060237-29	SB-South 0-2	02 Jun 2021 14:00			07 Jun 2021 22:52	1
HS21060237-30	SB-South 5-7	02 Jun 2021 14:10			07 Jun 2021 23:08	1
HS21060237-31	SB-South 10-12	02 Jun 2021 14:20			07 Jun 2021 23:24	1
HS21060237-32	SB-South 15-17	02 Jun 2021 14:30			07 Jun 2021 23:41	1
HS21060237-33	SB-South 20-22	02 Jun 2021 14:40			08 Jun 2021 00:46	1
HS21060237-34	SB-South 25-27	02 Jun 2021 14:50			08 Jun 2021 01:02	1
HS21060237-35	SB-South 30-32	02 Jun 2021 15:00			08 Jun 2021 01:18	1
HS21060237-36	SB-South 40-42	02 Jun 2021 15:20			08 Jun 2021 01:35	1
HS21060237-37	SB-South 50-52	02 Jun 2021 15:40			08 Jun 2021 01:51	1
HS21060237-38	SB-South 60-62	02 Jun 2021 16:00			08 Jun 2021 02:07	1
HS21060237-39	SB-South 70-72	03 Jun 2021 08:30			08 Jun 2021 02:24	1
HS21060237-40	SB-South 75-77	03 Jun 2021 09:00			08 Jun 2021 02:40	1
Batch ID: R385116 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Soil	
HS21060237-41	SB-South 80-82	03 Jun 2021 09:30			08 Jun 2021 04:18	1
HS21060237-46	Dup-1	01 Jun 2021 00:00			08 Jun 2021 05:07	1
HS21060237-47	Dup-2	02 Jun 2021 00:00			08 Jun 2021 05:24	1
HS21060237-48	Dup-3	02 Jun 2021 00:00			08 Jun 2021 05:40	1

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R385129 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS21060237-16	SB-East 5-7	02 Jun 2021 08:50			07 Jun 2021 13:21	1
HS21060237-17	SB-East 10-12	02 Jun 2021 08:55			07 Jun 2021 13:21	1
HS21060237-18	SB-East 20-22	02 Jun 2021 09:05			07 Jun 2021 13:21	1
HS21060237-19	SB-East 25-27	02 Jun 2021 09:10			07 Jun 2021 13:21	1
HS21060237-20	SB-East 30-32	02 Jun 2021 09:20			07 Jun 2021 13:21	1
HS21060237-21	SB-East 40-42	02 Jun 2021 09:30			07 Jun 2021 13:21	1
HS21060237-22	SB-East 50-52	02 Jun 2021 09:50			07 Jun 2021 13:21	1
HS21060237-23	SB-East 55-57	02 Jun 2021 10:00			07 Jun 2021 13:21	1
HS21060237-24	SB-East 60-62	02 Jun 2021 10:10			07 Jun 2021 13:21	1
HS21060237-25	SB-East 70-72	02 Jun 2021 10:30			07 Jun 2021 13:21	1
HS21060237-26	SB-East 75-77	02 Jun 2021 10:50			07 Jun 2021 13:21	1
HS21060237-27	SB-East 80-82	02 Jun 2021 11:10			07 Jun 2021 13:21	1
HS21060237-28	SB-East 45-47	02 Jun 2021 09:40			07 Jun 2021 13:21	1
HS21060237-29	SB-South 0-2	02 Jun 2021 14:00			07 Jun 2021 13:21	1
HS21060237-30	SB-South 5-7	02 Jun 2021 14:10			07 Jun 2021 13:21	1
HS21060237-31	SB-South 10-12	02 Jun 2021 14:20			07 Jun 2021 13:21	1
HS21060237-32	SB-South 15-17	02 Jun 2021 14:30			07 Jun 2021 13:21	1
HS21060237-33	SB-South 20-22	02 Jun 2021 14:40			07 Jun 2021 13:21	1
HS21060237-34	SB-South 25-27	02 Jun 2021 14:50			07 Jun 2021 13:21	1
HS21060237-35	SB-South 30-32	02 Jun 2021 15:00			07 Jun 2021 13:21	1
Batch ID: R385130 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS21060237-01	SB-North 0-2	01 Jun 2021 15:00			07 Jun 2021 13:21	1
HS21060237-02	SB-North 5-7	01 Jun 2021 15:10			07 Jun 2021 13:21	1
HS21060237-03	SB-North 10-12	01 Jun 2021 15:20			07 Jun 2021 13:21	1
HS21060237-04	SB-North 15-17	01 Jun 2021 15:30			07 Jun 2021 13:21	1
HS21060237-05	SB-North 20-22	01 Jun 2021 15:40			07 Jun 2021 13:21	1
HS21060237-06	SB-North 30-32	01 Jun 2021 16:00			07 Jun 2021 13:21	1
HS21060237-07	SB-North 35-37	01 Jun 2021 16:10			07 Jun 2021 13:21	1
HS21060237-08	SB-North 40-42	01 Jun 2021 16:20			07 Jun 2021 13:21	1
HS21060237-09	SB-North 50-52	01 Jun 2021 16:40			07 Jun 2021 13:21	1
HS21060237-10	SB-North 55-57	01 Jun 2021 16:50			07 Jun 2021 13:21	1
HS21060237-11	SB-North 60-62	01 Jun 2021 17:00			07 Jun 2021 13:21	1
HS21060237-12	SB-North 70-72	01 Jun 2021 17:20			07 Jun 2021 13:21	1
HS21060237-13	SB-North 75-77	01 Jun 2021 17:30			07 Jun 2021 13:21	1
HS21060237-14	SB-North 80-82	01 Jun 2021 17:40			07 Jun 2021 13:21	1
HS21060237-15	SB-East 0-2	02 Jun 2021 08:45			07 Jun 2021 13:21	1

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R385177 (0)		Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Water	
HS21060237-42	EB-01	02 Jun 2021 11:15			08 Jun 2021 01:33	1
HS21060237-43	EB-02	03 Jun 2021 10:30			08 Jun 2021 01:54	1
HS21060237-44	TB-01	03 Jun 2021 16:00			08 Jun 2021 02:15	1
HS21060237-45	TB-02	03 Jun 2021 16:00			08 Jun 2021 02:36	1
Batch ID: R385189 (0)		Test Name : VOLATILES BY SW8260C			Matrix: Soil	
HS21060237-19	SB-East 25-27	02 Jun 2021 09:10			09 Jun 2021 02:58	1
HS21060237-20	SB-East 30-32	02 Jun 2021 09:20			09 Jun 2021 03:21	1
HS21060237-21	SB-East 40-42	02 Jun 2021 09:30			09 Jun 2021 03:43	1
HS21060237-22	SB-East 50-52	02 Jun 2021 09:50			09 Jun 2021 04:05	1
HS21060237-23	SB-East 55-57	02 Jun 2021 10:00			09 Jun 2021 04:27	1
HS21060237-24	SB-East 60-62	02 Jun 2021 10:10			09 Jun 2021 04:49	1
HS21060237-25	SB-East 70-72	02 Jun 2021 10:30			09 Jun 2021 05:12	1
HS21060237-26	SB-East 75-77	02 Jun 2021 10:50			09 Jun 2021 05:34	1
HS21060237-27	SB-East 80-82	02 Jun 2021 11:10			09 Jun 2021 05:56	1
HS21060237-28	SB-East 45-47	02 Jun 2021 09:40			09 Jun 2021 06:18	1
HS21060237-29	SB-South 0-2	02 Jun 2021 14:00			09 Jun 2021 06:41	1
Batch ID: R385196 (0)		Test Name : MOISTURE - ASTM D2216			Matrix: Soil	
HS21060237-36	SB-South 40-42	02 Jun 2021 15:20			08 Jun 2021 16:23	1
HS21060237-37	SB-South 50-52	02 Jun 2021 15:40			08 Jun 2021 16:23	1
HS21060237-38	SB-South 60-62	02 Jun 2021 16:00			08 Jun 2021 16:23	1
HS21060237-39	SB-South 70-72	03 Jun 2021 08:30			08 Jun 2021 16:23	1
HS21060237-40	SB-South 75-77	03 Jun 2021 09:00			08 Jun 2021 16:23	1
HS21060237-41	SB-South 80-82	03 Jun 2021 09:30			08 Jun 2021 16:23	1
HS21060237-46	Dup-1	01 Jun 2021 00:00			08 Jun 2021 16:23	1
HS21060237-47	Dup-2	02 Jun 2021 00:00			08 Jun 2021 16:23	1
HS21060237-48	Dup-3	02 Jun 2021 00:00			08 Jun 2021 16:23	1

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R385363 (0)		Test Name : VOLATILES BY SW8260C			Matrix: Soil	
HS21060237-15	SB-East 0-2	02 Jun 2021 08:45			11 Jun 2021 00:06	1
HS21060237-16	SB-East 5-7	02 Jun 2021 08:50			11 Jun 2021 00:28	1
HS21060237-17	SB-East 10-12	02 Jun 2021 08:55			11 Jun 2021 00:50	1
HS21060237-18	SB-East 20-22	02 Jun 2021 09:05			11 Jun 2021 01:12	1
HS21060237-30	SB-South 5-7	02 Jun 2021 14:10			11 Jun 2021 01:34	1
HS21060237-31	SB-South 10-12	02 Jun 2021 14:20			11 Jun 2021 01:57	1
HS21060237-32	SB-South 15-17	02 Jun 2021 14:30			10 Jun 2021 22:59	1
HS21060237-33	SB-South 20-22	02 Jun 2021 14:40			11 Jun 2021 02:19	1
HS21060237-34	SB-South 25-27	02 Jun 2021 14:50			11 Jun 2021 02:41	1
HS21060237-35	SB-South 30-32	02 Jun 2021 15:00			11 Jun 2021 03:03	1
HS21060237-46	Dup-1	01 Jun 2021 00:00			11 Jun 2021 03:25	1
HS21060237-47	Dup-2	02 Jun 2021 00:00			11 Jun 2021 03:47	1
HS21060237-48	Dup-3	02 Jun 2021 00:00			11 Jun 2021 04:10	1

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: 166629 (0)	Instrument: FID-16	Method: TPH DRO/ORO BY SW8015C
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MBLK	Sample ID: MBLK-166629	Units: mg/L	Analysis Date: 09-Jun-2021 18:29							
Client ID:	Run ID: FID-16_385394	SeqNo: 6133039	PrepDate: 08-Jun-2021 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
TPH (Diesel Range)	ND	0.052								
TPH (Oil Range)	ND	0.10								
Surr: 2-Fluorobiphenyl	0.03845	0.0052	0.06199	0	62.0	60 - 135				

LCS	Sample ID: LCS-166629	Units: mg/L	Analysis Date: 09-Jun-2021 18:58							
Client ID:	Run ID: FID-16_385394	SeqNo: 6133040	PrepDate: 08-Jun-2021 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
TPH (Diesel Range)	0.4584	0.051	0.6126	0	74.8	70 - 130				
TPH (Oil Range)	0.5198	0.10	0.6126	0	84.8	70 - 130				
Surr: 2-Fluorobiphenyl	0.06659	0.0051	0.06126	0	109	60 - 135				

LCSD	Sample ID: LCSD-166629	Units: mg/L	Analysis Date: 09-Jun-2021 19:27							
Client ID:	Run ID: FID-16_385394	SeqNo: 6133064	PrepDate: 08-Jun-2021 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
TPH (Diesel Range)	0.45	0.051	0.6098	0	73.8	70 - 130	0.4584	1.85	20	
TPH (Oil Range)	0.5202	0.10	0.6098	0	85.3	70 - 130	0.5198	0.079	20	
Surr: 2-Fluorobiphenyl	0.06723	0.0051	0.06098	0	110	60 - 135	0.06659	0.952	20	

The following samples were analyzed in this batch: HS21060237-42 HS21060237-43

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: 166634 (0)	Instrument: FID-7	Method: TPH DRO/ORO BY SW8015C
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MBLK	Sample ID: MBLK-166634	Units: mg/Kg	Analysis Date: 08-Jun-2021 20:18						
Client ID:	Run ID: FID-7_385240	SeqNo: 6129444	PrepDate: 08-Jun-2021	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
TPH (Diesel Range)	ND	1.7							
TPH (Motor Oil Range)	ND	3.4							
Surr: 2-Fluorobiphenyl	2.69	0.10	3.33	0	80.8	70 - 130			

LCS	Sample ID: LCS-166634	Units: mg/Kg	Analysis Date: 08-Jun-2021 20:42						
Client ID:	Run ID: FID-7_385240	SeqNo: 6129445	PrepDate: 08-Jun-2021	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
TPH (Diesel Range)	30.27	1.7	33.33	0	90.8	70 - 130			
TPH (Motor Oil Range)	30.96	3.4	33.33	0	92.9	70 - 130			
Surr: 2-Fluorobiphenyl	2.764	0.10	3.33	0	83.0	70 - 130			

MS	Sample ID: HS21060126-42MS	Units: mg/Kg	Analysis Date: 08-Jun-2021 23:56						
Client ID:	Run ID: FID-7_385240	SeqNo: 6129449	PrepDate: 08-Jun-2021	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
TPH (Diesel Range)	27.68	1.7	33.16	1.181	79.9	70 - 130			
TPH (Motor Oil Range)	28.4	3.4	33.16	2.306	78.7	70 - 130			
Surr: 2-Fluorobiphenyl	2.396	0.10	3.313	0	72.3	60 - 129			

MSD	Sample ID: HS21060126-42MSD	Units: mg/Kg	Analysis Date: 09-Jun-2021 00:20						
Client ID:	Run ID: FID-7_385240	SeqNo: 6129450	PrepDate: 08-Jun-2021	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
TPH (Diesel Range)	32.62	1.7	33.13	1.181	94.9	70 - 130	27.68	16.4	30
TPH (Motor Oil Range)	37.37	3.4	33.13	2.306	106	70 - 130	28.4	27.3	30
Surr: 2-Fluorobiphenyl	2.526	0.099	3.31	0	76.3	60 - 129	2.396	5.28	30

The following samples were analyzed in this batch:	HS21060237-01	HS21060237-02	HS21060237-03	HS21060237-04
	HS21060237-05	HS21060237-06	HS21060237-07	HS21060237-08
	HS21060237-09	HS21060237-10		

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: 166674 (0)	Instrument: FID-7	Method: TPH DRO/ORO BY SW8015C
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MBLK	Sample ID: MBLK-166674	Units: mg/Kg	Analysis Date: 10-Jun-2021 12:19							
Client ID:	Run ID: FID-7_385383	SeqNo: 6132813	PrepDate: 09-Jun-2021 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
TPH (Diesel Range)	ND	1.7								
TPH (Motor Oil Range)	ND	3.4								
Surr: 2-Fluorobiphenyl	3.729	0.10	3.33	0	112	70 - 130				

LCS	Sample ID: LCS-166674	Units: mg/Kg	Analysis Date: 10-Jun-2021 12:43							
Client ID:	Run ID: FID-7_385383	SeqNo: 6132814	PrepDate: 09-Jun-2021 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
TPH (Diesel Range)	30.5	1.7	33.33	0	91.5	70 - 130				
TPH (Motor Oil Range)	30.53	3.4	33.33	0	91.6	70 - 130				
Surr: 2-Fluorobiphenyl	2.536	0.10	3.33	0	76.2	70 - 130				

MS	Sample ID: HS21060237-12MS	Units: mg/Kg	Analysis Date: 10-Jun-2021 13:56							
Client ID: SB-North 70-72	Run ID: FID-7_385383	SeqNo: 6132817	PrepDate: 09-Jun-2021 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
TPH (Diesel Range)	75.88	1.7	33.31	10.27	197	70 - 130				SE
TPH (Motor Oil Range)	35.12	3.4	33.31	9.455	77.0	70 - 130				
Surr: 2-Fluorobiphenyl	2.968	0.10	3.328	0	89.2	60 - 129				

MSD	Sample ID: HS21060237-12MSD	Units: mg/Kg	Analysis Date: 10-Jun-2021 14:20							
Client ID: SB-North 70-72	Run ID: FID-7_385383	SeqNo: 6132818	PrepDate: 09-Jun-2021 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
TPH (Diesel Range)	94.57	1.7	33.15	10.27	254	70 - 130	75.88	21.9	30	SE
TPH (Motor Oil Range)	29.14	3.4	33.15	9.455	59.4	70 - 130	35.12	18.6	30	S
Surr: 2-Fluorobiphenyl	2.282	0.099	3.312	0	68.9	60 - 129	2.968	26.1	30	

The following samples were analyzed in this batch:

HS21060237-11	HS21060237-12	HS21060237-13	HS21060237-14
HS21060237-15	HS21060237-16	HS21060237-17	HS21060237-18
HS21060237-19	HS21060237-20	HS21060237-21	HS21060237-22
HS21060237-23	HS21060237-24	HS21060237-25	HS21060237-26
HS21060237-27	HS21060237-28	HS21060237-29	HS21060237-30

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: 166695 (0)	Instrument: FID-7	Method: TPH DRO/ORO BY SW8015C
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MBLK	Sample ID: MBLK-166695	Units: mg/Kg	Analysis Date: 09-Jun-2021 14:09							
Client ID:	Run ID: FID-7_385357	SeqNo: 6132094	PrepDate: 09-Jun-2021 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

TPH (Diesel Range)	ND	1.7								
TPH (Motor Oil Range)	ND	3.4								
Surr: 2-Fluorobiphenyl	2.444	0.10	3.33	0	73.4	70 - 130				

LCS	Sample ID: LCS-166695	Units: mg/Kg	Analysis Date: 09-Jun-2021 14:33							
Client ID:	Run ID: FID-7_385357	SeqNo: 6132095	PrepDate: 09-Jun-2021 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

TPH (Diesel Range)	30.09	1.7	33.33	0	90.3	70 - 130				
TPH (Motor Oil Range)	30.22	3.4	33.33	0	90.7	70 - 130				
Surr: 2-Fluorobiphenyl	2.613	0.10	3.33	0	78.5	70 - 130				

MS	Sample ID: HS21060237-37MS	Units: mg/Kg	Analysis Date: 09-Jun-2021 15:22							
Client ID: SB-South 50-52	Run ID: FID-7_385357	SeqNo: 6132092	PrepDate: 09-Jun-2021 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

TPH (Diesel Range)	40.38	1.7	33.25	8.48	95.9	70 - 130				
TPH (Motor Oil Range)	42.18	3.4	33.25	14.71	82.6	70 - 130				
Surr: 2-Fluorobiphenyl	2.72	0.10	3.322	0	81.9	60 - 129				

MSD	Sample ID: HS21060237-37MSD	Units: mg/Kg	Analysis Date: 09-Jun-2021 15:47							
Client ID: SB-South 50-52	Run ID: FID-7_385357	SeqNo: 6132093	PrepDate: 09-Jun-2021 DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

TPH (Diesel Range)	41.91	1.7	33.09	8.48	101	70 - 130	40.38	3.71	30	
TPH (Motor Oil Range)	56.48	3.4	33.09	14.71	126	70 - 130	42.18	29	30	
Surr: 2-Fluorobiphenyl	2.242	0.099	3.306	0	67.8	60 - 129	2.72	19.2	30	

The following samples were analyzed in this batch:	HS21060237-31	HS21060237-32	HS21060237-33	HS21060237-34
	HS21060237-35	HS21060237-36	HS21060237-37	HS21060237-38
	HS21060237-39	HS21060237-40	HS21060237-41	HS21060237-46
	HS21060237-47	HS21060237-48		

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385028 (0)	Instrument: FID-14	Method: GASOLINE RANGE ORGANICS BY SW8015C
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MBLK	Sample ID: MBLK-210604	Units: mg/L	Analysis Date: 04-Jun-2021 12:27							
Client ID:	Run ID: FID-14_385028	SeqNo: 6124055	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Gasoline Range Organics	ND	0.0500								
<i>Surr: 4-Bromofluorobenzene</i>	<i>0.1193</i>	<i>0.00500</i>	<i>0.1</i>	<i>0</i>	<i>119</i>	<i>70 - 121</i>				

LCS	Sample ID: LCS-210604	Units: mg/L	Analysis Date: 04-Jun-2021 11:55							
Client ID:	Run ID: FID-14_385028	SeqNo: 6124053	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Gasoline Range Organics	1.073	0.0500	1	0	107	76 - 124				
<i>Surr: 4-Bromofluorobenzene</i>	<i>0.1153</i>	<i>0.00500</i>	<i>0.1</i>	<i>0</i>	<i>115</i>	<i>52 - 138</i>				

LCSD	Sample ID: LCSD-210604	Units: mg/L	Analysis Date: 04-Jun-2021 12:11							
Client ID:	Run ID: FID-14_385028	SeqNo: 6124054	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Gasoline Range Organics	0.9626	0.0500	1	0	96.3	76 - 124	1.073	10.8	20	
<i>Surr: 4-Bromofluorobenzene</i>	<i>0.1142</i>	<i>0.00500</i>	<i>0.1</i>	<i>0</i>	<i>114</i>	<i>52 - 138</i>	<i>0.1153</i>	<i>0.933</i>	<i>20</i>	

The following samples were analyzed in this batch: HS21060237-42 HS21060237-43

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385114 (0)	Instrument: FID-14	Method: GASOLINE RANGE ORGANICS BY SW8015C
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MBLK	Sample ID: MBLK-210607	Units: mg/Kg	Analysis Date: 07-Jun-2021 10:46							
Client ID:	Run ID: FID-14_385114	SeqNo: 6126323	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	0.08894	0.0050	0.1	0	88.9	75 - 121				

LCS	Sample ID: LCS-210607	Units: mg/Kg	Analysis Date: 07-Jun-2021 10:30							
Client ID:	Run ID: FID-14_385114	SeqNo: 6126322	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Gasoline Range Organics	0.8912	0.050	1	0	89.1	72 - 121				
Surr: 4-Bromofluorobenzene	0.08983	0.0050	0.1	0	89.8	75 - 121				

MS	Sample ID: HS21060237-02MS	Units: mg/Kg	Analysis Date: 07-Jun-2021 12:40							
Client ID: SB-North 5-7	Run ID: FID-14_385114	SeqNo: 6126330	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Gasoline Range Organics	0.8409	0.049	0.98	0	85.8	70 - 130				
Surr: 4-Bromofluorobenzene	0.09649	0.0049	0.098	0	98.5	70 - 123				

MSD	Sample ID: HS21060237-02MSD	Units: mg/Kg	Analysis Date: 07-Jun-2021 12:56							
Client ID: SB-North 5-7	Run ID: FID-14_385114	SeqNo: 6126331	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Gasoline Range Organics	0.8275	0.048	0.97	0	85.3	70 - 130	0.8409	1.61	30	
Surr: 4-Bromofluorobenzene	0.07971	0.0048	0.097	0	82.2	70 - 123	0.09649	19	30	

The following samples were analyzed in this batch:

HS21060237-01	HS21060237-02	HS21060237-03	HS21060237-04
HS21060237-05	HS21060237-06	HS21060237-07	HS21060237-08
HS21060237-09	HS21060237-10	HS21060237-11	HS21060237-12
HS21060237-13	HS21060237-14	HS21060237-15	HS21060237-16
HS21060237-17	HS21060237-18	HS21060237-19	HS21060237-20

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385115 (0)	Instrument: FID-14	Method: GASOLINE RANGE ORGANICS BY SW8015C
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MBLK	Sample ID: MBLK-2106071	Units: mg/Kg	Analysis Date: 07-Jun-2021 19:04							
Client ID:	Run ID: FID-14_385115	SeqNo: 6126355	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	0.1012	0.0050	0.1	0	101	75 - 121				

LCS	Sample ID: LCS-2106071	Units: mg/Kg	Analysis Date: 07-Jun-2021 18:48							
Client ID:	Run ID: FID-14_385115	SeqNo: 6126354	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Gasoline Range Organics	0.8959	0.050	1	0	89.6	72 - 121				
Surr: 4-Bromofluorobenzene	0.09659	0.0050	0.1	0	96.6	75 - 121				

MS	Sample ID: HS21060237-23MS	Units: mg/Kg	Analysis Date: 07-Jun-2021 19:37							
Client ID: SB-East 55-57	Run ID: FID-14_385115	SeqNo: 6126357	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Gasoline Range Organics	0.8688	0.051	1.02	0	85.2	70 - 130				
Surr: 4-Bromofluorobenzene	0.08996	0.0051	0.102	0	88.2	70 - 123				

MSD	Sample ID: HS21060237-23MSD	Units: mg/Kg	Analysis Date: 07-Jun-2021 19:53							
Client ID: SB-East 55-57	Run ID: FID-14_385115	SeqNo: 6126358	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Gasoline Range Organics	0.8998	0.050	0.99	0	90.9	70 - 130	0.8688	3.5	30	
Surr: 4-Bromofluorobenzene	0.08851	0.0050	0.099	0	89.4	70 - 123	0.08996	1.62	30	

The following samples were analyzed in this batch:

HS21060237-21	HS21060237-22	HS21060237-23	HS21060237-24
HS21060237-25	HS21060237-26	HS21060237-27	HS21060237-28
HS21060237-29	HS21060237-30	HS21060237-31	HS21060237-32
HS21060237-33	HS21060237-34	HS21060237-35	HS21060237-36
HS21060237-37	HS21060237-38	HS21060237-39	HS21060237-40

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385116 (0) **Instrument:** FID-14 **Method:** GASOLINE RANGE ORGANICS BY SW8015C

MBLK Sample ID: **MBLK-210608** Units: **mg/Kg** Analysis Date: **08-Jun-2021 04:02**
 Client ID: Run ID: **FID-14_385116** SeqNo: **6126387** PrepDate: DF: **1**
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	0.08558	0.0050	0.1	0	85.6	75 - 121				

LCS Sample ID: **LCS-210608** Units: **mg/Kg** Analysis Date: **08-Jun-2021 03:45**
 Client ID: Run ID: **FID-14_385116** SeqNo: **6126386** PrepDate: DF: **1**
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Gasoline Range Organics	0.8794	0.050	1	0	87.9	72 - 121				
Surr: 4-Bromofluorobenzene	0.08167	0.0050	0.1	0	81.7	75 - 121				

MS Sample ID: **HS21060237-41MS** Units: **mg/Kg** Analysis Date: **08-Jun-2021 04:35**
 Client ID: **SB-South 80-82** Run ID: **FID-14_385116** SeqNo: **6126389** PrepDate: DF: **1**
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Gasoline Range Organics	0.7796	0.046	0.93	0	83.8	70 - 130				
Surr: 4-Bromofluorobenzene	0.07599	0.0046	0.093	0	81.7	70 - 123				

MSD Sample ID: **HS21060237-41MSD** Units: **mg/Kg** Analysis Date: **08-Jun-2021 04:51**
 Client ID: **SB-South 80-82** Run ID: **FID-14_385116** SeqNo: **6126390** PrepDate: DF: **1**
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Gasoline Range Organics	0.8843	0.052	1.03	0	85.9	70 - 130	0.7796	12.6	30	
Surr: 4-Bromofluorobenzene	0.07264	0.0052	0.103	0	70.5	70 - 123	0.07599	4.52	30	

The following samples were analyzed in this batch:

HS21060237-41	HS21060237-46	HS21060237-47	HS21060237-48
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ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385177 (0)	Instrument: VOA7	Method: LOW LEVEL VOLATILES BY SW8260C
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MBLK		Sample ID: VBLKW-210607		Units: ug/L		Analysis Date: 08-Jun-2021 00:09			
Client ID:		Run ID: VOA7_385177		SeqNo: 6127600		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	1.0							
Ethylbenzene	ND	1.0							
m,p-Xylene	ND	2.0							
o-Xylene	ND	1.0							
Toluene	ND	1.0							
Xylenes, Total	ND	1.0							
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>59.05</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>118</i>	<i>70 - 123</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>52.7</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>105</i>	<i>82 - 115</i>			
<i>Surr: Dibromofluoromethane</i>	<i>54.09</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>108</i>	<i>73 - 126</i>			
<i>Surr: Toluene-d8</i>	<i>52.02</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>81 - 120</i>			

LCS		Sample ID: VLCSW-210607		Units: ug/L		Analysis Date: 07-Jun-2021 23:28			
Client ID:		Run ID: VOA7_385177		SeqNo: 6127599		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	19.64	1.0	20	0	98.2	74 - 120			
Ethylbenzene	19.48	1.0	20	0	97.4	77 - 117			
m,p-Xylene	39.56	2.0	40	0	98.9	77 - 122			
o-Xylene	19.53	1.0	20	0	97.6	75 - 119			
Toluene	19.81	1.0	20	0	99.1	77 - 118			
Xylenes, Total	59.09	1.0	60	0	98.5	75 - 122			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>56.83</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>114</i>	<i>70 - 123</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>54.13</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>108</i>	<i>82 - 115</i>			
<i>Surr: Dibromofluoromethane</i>	<i>51.16</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>73 - 126</i>			
<i>Surr: Toluene-d8</i>	<i>51.8</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>104</i>	<i>81 - 120</i>			

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385177 (0) **Instrument:** VOA7 **Method:** LOW LEVEL VOLATILES BY SW8260C

MS		Sample ID: HS21060251-08MS		Units: ug/L		Analysis Date: 08-Jun-2021 04:00			
Client ID:		Run ID: VOA7_385177		SeqNo: 6127611		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	18.17	1.0	20	0	90.9	70 - 127			
Ethylbenzene	17.94	1.0	20	0	89.7	70 - 124			
m,p-Xylene	36.41	2.0	40	0	91.0	70 - 130			
o-Xylene	17.38	1.0	20	0	86.9	70 - 124			
Toluene	18.18	1.0	20	0	90.9	70 - 123			
Xylenes, Total	53.79	1.0	60	0	89.7	70 - 130			
Surr: 1,2-Dichloroethane-d4	58.05	1.0	50	0	116	70 - 126			
Surr: 4-Bromofluorobenzene	53.62	1.0	50	0	107	81 - 113			
Surr: Dibromofluoromethane	52.1	1.0	50	0	104	77 - 123			
Surr: Toluene-d8	51.96	1.0	50	0	104	82 - 127			

MSD		Sample ID: HS21060251-08MSD		Units: ug/L		Analysis Date: 08-Jun-2021 04:21			
Client ID:		Run ID: VOA7_385177		SeqNo: 6127612		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	18.6	1.0	20	0	93.0	70 - 127	18.17	2.35	20
Ethylbenzene	18.96	1.0	20	0	94.8	70 - 124	17.94	5.49	20
m,p-Xylene	38.27	2.0	40	0	95.7	70 - 130	36.41	4.99	20
o-Xylene	18.52	1.0	20	0	92.6	70 - 124	17.38	6.32	20
Toluene	19.05	1.0	20	0	95.3	70 - 123	18.18	4.69	20
Xylenes, Total	56.79	1.0	60	0	94.6	70 - 130	53.79	5.42	20
Surr: 1,2-Dichloroethane-d4	58.83	1.0	50	0	118	70 - 126	58.05	1.33	20
Surr: 4-Bromofluorobenzene	53.44	1.0	50	0	107	81 - 113	53.62	0.32	20
Surr: Dibromofluoromethane	53.3	1.0	50	0	107	77 - 123	52.1	2.27	20
Surr: Toluene-d8	52.47	1.0	50	0	105	82 - 127	51.96	0.966	20

The following samples were analyzed in this batch: HS21060237-42 HS21060237-43 HS21060237-44 HS21060237-45

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385189 (0)	Instrument: VOA5	Method: VOLATILES BY SW8260C
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MBLK	Sample ID: VBLKS2-060821	Units: ug/Kg	Analysis Date: 08-Jun-2021 22:32							
Client ID:	Run ID: VOA5_385189	SeqNo: 6128207	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
o-Xylene	ND	5.0								
Toluene	ND	5.0								
Xylenes, Total	ND	5.0								
Surr: 1,2-Dichloroethane-d4	45.89	0	50	0	91.8	76 - 125				
Surr: 4-Bromofluorobenzene	47.29	0	50	0	94.6	80 - 120				
Surr: Dibromofluoromethane	46.03	0	50	0	92.1	80 - 119				
Surr: Toluene-d8	50.29	0	50	0	101	81 - 118				

LCS	Sample ID: VLCSS2-060821	Units: ug/Kg	Analysis Date: 08-Jun-2021 21:47							
Client ID:	Run ID: VOA5_385189	SeqNo: 6128206	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	48.29	5.0	50	0	96.6	75 - 124				
Ethylbenzene	45.72	5.0	50	0	91.4	70 - 123				
m,p-Xylene	90.49	10	100	0	90.5	77 - 125				
o-Xylene	46.5	5.0	50	0	93.0	78 - 122				
Toluene	47.44	5.0	50	0	94.9	76 - 122				
Xylenes, Total	137	5.0	150	0	91.3	77 - 128				
Surr: 1,2-Dichloroethane-d4	50.4	0	50	0	101	76 - 125				
Surr: 4-Bromofluorobenzene	50.21	0	50	0	100	80 - 120				
Surr: Dibromofluoromethane	50.96	0	50	0	102	80 - 119				
Surr: Toluene-d8	50.88	0	50	0	102	81 - 118				

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385189 (0)	Instrument: VOA5	Method: VOLATILES BY SW8260C
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MS		Sample ID: HS21060190-01MS			Units: ug/Kg		Analysis Date: 08-Jun-2021 23:16			
Client ID:		Run ID: VOA5_385189			SeqNo: 6128209		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	49.69	5.0	50	0	99.4	70 - 130				
Ethylbenzene	46.42	5.0	50	0	92.8	70 - 130				
m,p-Xylene	91.07	10	100	0	91.1	70 - 130				
o-Xylene	46.16	5.0	50	0	92.3	70 - 130				
Toluene	47.71	5.0	50	0	95.4	70 - 130				
Xylenes, Total	137.2	5.0	150	0	91.5	70 - 130				
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51.34</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>70 - 126</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.51</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>70 - 130</i>				
<i>Surr: Dibromofluoromethane</i>	<i>50.54</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>70 - 130</i>				
<i>Surr: Toluene-d8</i>	<i>51.4</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>70 - 130</i>				

MSD		Sample ID: HS21060190-01MSD			Units: ug/Kg		Analysis Date: 08-Jun-2021 23:38			
Client ID:		Run ID: VOA5_385189			SeqNo: 6128210		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	45.25	4.9	49	0	92.4	70 - 130	49.69	9.34	30	
Ethylbenzene	41.69	4.9	49	0	85.1	70 - 130	46.42	10.8	30	
m,p-Xylene	81.15	9.8	98	0	82.8	70 - 130	91.07	11.5	30	
o-Xylene	42.74	4.9	49	0	87.2	70 - 130	46.16	7.69	30	
Toluene	43.09	4.9	49	0	87.9	70 - 130	47.71	10.2	30	
Xylenes, Total	123.9	4.9	147	0	84.3	70 - 130	137.2	10.2	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51.22</i>	<i>0</i>	<i>49</i>	<i>0</i>	<i>105</i>	<i>70 - 126</i>	<i>51.34</i>	<i>0.228</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.17</i>	<i>0</i>	<i>49</i>	<i>0</i>	<i>100</i>	<i>70 - 130</i>	<i>50.51</i>	<i>2.67</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>50.55</i>	<i>0</i>	<i>49</i>	<i>0</i>	<i>103</i>	<i>70 - 130</i>	<i>50.54</i>	<i>0.018</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>50.38</i>	<i>0</i>	<i>49</i>	<i>0</i>	<i>103</i>	<i>70 - 130</i>	<i>51.4</i>	<i>2</i>	<i>30</i>	

The following samples were analyzed in this batch:

HS21060237-19	HS21060237-20	HS21060237-21	HS21060237-22
HS21060237-23	HS21060237-24	HS21060237-25	HS21060237-26
HS21060237-27	HS21060237-28	HS21060237-29	

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385363 (0)	Instrument: VOA5	Method: VOLATILES BY SW8260C
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MBLK	Sample ID: VBLKS2-061021	Units: ug/Kg	Analysis Date: 10-Jun-2021 22:37							
Client ID:	Run ID: VOA5_385363	SeqNo: 6132408	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
o-Xylene	ND	5.0								
Toluene	ND	5.0								
Xylenes, Total	ND	5.0								
Surr: 1,2-Dichloroethane-d4	51.25	0	50	0	102	76 - 125				
Surr: 4-Bromofluorobenzene	50.15	0	50	0	100	80 - 120				
Surr: Dibromofluoromethane	45.45	0	50	0	90.9	80 - 119				
Surr: Toluene-d8	49.76	0	50	0	99.5	81 - 118				

LCS	Sample ID: VLCSS2-061021	Units: ug/Kg	Analysis Date: 10-Jun-2021 21:52							
Client ID:	Run ID: VOA5_385363	SeqNo: 6132407	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	49.62	5.0	50	0	99.2	75 - 124				
Ethylbenzene	50.4	5.0	50	0	101	70 - 123				
m,p-Xylene	102.1	10	100	0	102	77 - 125				
o-Xylene	52.65	5.0	50	0	105	78 - 122				
Toluene	50.19	5.0	50	0	100	76 - 122				
Xylenes, Total	154.7	5.0	150	0	103	77 - 128				
Surr: 1,2-Dichloroethane-d4	53.8	0	50	0	108	76 - 125				
Surr: 4-Bromofluorobenzene	52.94	0	50	0	106	80 - 120				
Surr: Dibromofluoromethane	51.65	0	50	0	103	80 - 119				
Surr: Toluene-d8	52	0	50	0	104	81 - 118				

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385363 (0) **Instrument:** VOA5 **Method:** VOLATILES BY SW8260C

MS		Sample ID: HS21060237-32MS		Units: ug/Kg		Analysis Date: 10-Jun-2021 23:21				
Client ID: SB-South 15-17		Run ID: VOA5_385363		SeqNo: 6132410		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	41.09	4.8	48.5	0	84.7	70 - 130				
Ethylbenzene	41.21	4.8	48.5	0	85.0	70 - 130				
m,p-Xylene	82.29	9.7	97	0	84.8	70 - 130				
o-Xylene	41.41	4.8	48.5	0	85.4	70 - 130				
Toluene	41.07	4.8	48.5	0	84.7	70 - 130				
Xylenes, Total	123.7	4.8	145.5	0	85.0	70 - 130				
Surr: 1,2-Dichloroethane-d4	51.56	0	48.5	0	106	70 - 126				
Surr: 4-Bromofluorobenzene	50.3	0	48.5	0	104	70 - 130				
Surr: Dibromofluoromethane	48.66	0	48.5	0	100	70 - 130				
Surr: Toluene-d8	49.58	0	48.5	0	102	70 - 130				

MSD		Sample ID: HS21060237-32MSD		Units: ug/Kg		Analysis Date: 10-Jun-2021 23:43				
Client ID: SB-South 15-17		Run ID: VOA5_385363		SeqNo: 6132411		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	41.92	4.8	48.5	0	86.4	70 - 130	41.09	2	30	
Ethylbenzene	42.38	4.8	48.5	0	87.4	70 - 130	41.21	2.81	30	
m,p-Xylene	85.51	9.7	97	0	88.2	70 - 130	82.29	3.84	30	
o-Xylene	43.82	4.8	48.5	0	90.4	70 - 130	41.41	5.67	30	
Toluene	42.87	4.8	48.5	0	88.4	70 - 130	41.07	4.3	30	
Xylenes, Total	129.3	4.8	145.5	0	88.9	70 - 130	123.7	4.46	30	
Surr: 1,2-Dichloroethane-d4	55.08	0	48.5	0	114	70 - 126	51.56	6.6	30	
Surr: 4-Bromofluorobenzene	51.89	0	48.5	0	107	70 - 130	50.3	3.11	30	
Surr: Dibromofluoromethane	50.61	0	48.5	0	104	70 - 130	48.66	3.93	30	
Surr: Toluene-d8	49.77	0	48.5	0	103	70 - 130	49.58	0.392	30	

The following samples were analyzed in this batch:

HS21060237-15	HS21060237-16	HS21060237-17	HS21060237-18
HS21060237-30	HS21060237-31	HS21060237-32	HS21060237-33
HS21060237-34	HS21060237-35	HS21060237-46	HS21060237-47
HS21060237-48			

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385129 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS21060237-17DUP	Units: wt%		Analysis Date: 07-Jun-2021 13:21					
Client ID: SB-East 10-12	Run ID: Balance1_385129	SeqNo: 6126714		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Percent Moisture	3.58	0.0100					3.65	1.94	20
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The following samples were analyzed in this batch:

HS21060237-16	HS21060237-17	HS21060237-18	HS21060237-19
HS21060237-20	HS21060237-21	HS21060237-22	HS21060237-23
HS21060237-24	HS21060237-25	HS21060237-26	HS21060237-27
HS21060237-28	HS21060237-29	HS21060237-30	HS21060237-31
HS21060237-32	HS21060237-33	HS21060237-34	HS21060237-35

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385130 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS21060235-03DUP	Units: wt%		Analysis Date: 07-Jun-2021 13:21					
Client ID:	Run ID: Balance1_385130	SeqNo: 6126735		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Percent Moisture	14.1	0.0100					14.3	1.41	20
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The following samples were analyzed in this batch:

HS21060237-01	HS21060237-02	HS21060237-03	HS21060237-04
HS21060237-05	HS21060237-06	HS21060237-07	HS21060237-08
HS21060237-09	HS21060237-10	HS21060237-11	HS21060237-12
HS21060237-13	HS21060237-14	HS21060237-15	

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

QC BATCH REPORT

Batch ID: R385196 (0)		Instrument: Balance1		Method: MOISTURE - ASTM D2216					
DUP	Sample ID: HS21060237-36DUP	Units: wt%		Analysis Date: 08-Jun-2021 16:23					
Client ID: SB-South 40-42	Run ID: Balance1_385196	SeqNo: 6128604		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Percent Moisture	1.34	0.0100					1.4	4.38	20
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The following samples were analyzed in this batch:

HS21060237-36	HS21060237-37	HS21060237-38	HS21060237-39
HS21060237-40	HS21060237-41	HS21060237-46	HS21060237-47
HS21060237-48			

ALS Houston, US

Date: 11-Jun-21

Client: TRC Corporation
Project: Tank 970
WorkOrder: HS21060237

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/Kg	Milligrams per Kilogram
mg/L	Milligrams per Liter

ALS Houston, US

Date: 11-Jun-21

CERTIFICATIONS, ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2020-2021	30-Jun-2021
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022
Utah	TX026932021-10	31-Jul-2021

ALS Houston, US

Date: 11-Jun-21

Sample Receipt Checklist

Work Order ID: HS21060237

Date/Time Received: 04-Jun-2021 09:50

Client Name: TRC-AUS

Received by: Jared R. Makan

Completed By: /S/ Pablo Martinez

04-Jun-2021 12:53

Reviewed by: /S/ Corey Grandits

04-Jun-2021 15:48

eSignature

Date/Time

eSignature

Date/Time

Matrices: SOIL/WATER

Carrier name: ALS.HS

Shipping container/cooler in good condition?

Yes

No

Not Present

Custody seals intact on shipping container/cooler?

Yes

No

Not Present

Custody seals intact on sample bottles?

Yes

No

Not Present

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes

No

Not Present

Chain of custody present?

Yes

No

5 Page(s)

Chain of custody signed when relinquished and received?

Yes

No

COC

IDs:246774/775/776/777/778

Samplers name present on COC?

Yes

No

Chain of custody agrees with sample labels?

Yes

No

Samples in proper container/bottle?

Yes

No

Sample containers intact?

Yes

No

Sufficient sample volume for indicated test?

Yes

No

All samples received within holding time?

Yes

No

Container/Temp Blank temperature in compliance?

Yes

No

Temperature(s)/Thermometer(s):

0.4°C, 1.1°C UC/C

IR 31

Cooler(s)/Kit(s):

42683, 46941

Date/Time sample(s) sent to storage:

Water - VOA vials have zero headspace?

Yes

No

No VOA vials submitted

Water - pH acceptable upon receipt?

Yes

No

N/A

pH adjusted?

Yes

No

N/A

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Empty text box for comments.

Corrective Action:

Empty text box for corrective action.

Chain of Custody Form

HS21060237



Page 1 of 5

COC ID: 246774

TRC Corporation
Tank 970



Customer Information		Project Information		ALS Project Manager:											
Purchase Order	165792	Project Name	Tank 970	A	8260_Soil (8260 BTEX)										
Work Order		Project Number	437929.0000.0000.Phase.2	B	8015_GRO_Soil (8015 GRO)										
Company Name	TRC Corporation	Bill To Company	TRC Corporation	C	8015M_Soil_LL (8015 DRO/DRO)										
Send Report To	Richard Varnell	Invoice Attn	TRC-AP	D	Moist% (if applicable)										
Address	505 East Huntland Drive Suite 250	Address	505 East Huntland Drive Suite 250	E	8260_LL_Water (8260 BTEX)										
City/State/Zip	Austin, TX 78752	City/State/Zip	Austin TX 78752	F	8015_GRO_Water (8015 GRO)										
Phone	(512) 329-6080	Phone	(512) 329-6080	G	8015_DRO_LVI (8015 DRO/DRO)										
Fax	(512) 329-8750	Fax	(512) 329-8750	H											
e-Mail Address	R.Varnell@trccompanies.com	e-Mail Address	ap.invoiceapproval@trcsolutions.com	I											
				J											

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-North 0-2	6/1/21	1500	Soil	None	2		X	X	X							
2	SB-North 5-7		1510					X	X	X							
3	SB-North 10-12		1520					X	X	X							
4	SB-North 15-17		1530					X	X	X							
5	SB-North 20-22		1540					X	X	X							
6	SB-North 30-32		1600					X	X	X							
7	SB-North 35-37		1610					X	X	X							
8	SB-North 40-42		1620					X	X	X							
9	SB-North 50-52		1640					X	X	X							
10	SB-North 55-57		1650					X	X	X							

Sampler(s) Please Print & Sign

Shipment Method: _____ Required Turnaround Time: (Check Box) Other _____ 1-10 Wk Days 3 Wk Days 2 Wk Days 24 Hour

Results Due Date: _____

Relinquished by: *[Signature]* Date: 6/3/21 Time: 1715 Received by: _____

Relinquished by: _____ Date: 6-4-21 Time: 9:50 Received by (Laboratory): *Path [Signature] JM*

Logged by (Laboratory): _____ Date: _____ Time: _____ Checked by (Laboratory): _____

Notes: TRC - Tank 970

Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)
42683	6.9C	<input checked="" type="checkbox"/> 1-10 Wk Days <input type="checkbox"/> 24 Hour
46941	1.1°	<input type="checkbox"/> 1-10 Wk Days <input type="checkbox"/> 24 Hour
1231	6.0	<input type="checkbox"/> 1-10 Wk Days <input type="checkbox"/> 24 Hour

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

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Page 2 of 5

TRC Corporation
Tank 970

COC ID: 246775



ALS Project Manager:

Customer Information		Project Information		ALS Project Manager:	
Purchase Order	166792	Project Name	Tank 970	A	8260_Soil (8260 BTEX)
Work Order		Project Number	437988.0000.0000 Phase 2	B	8015_GRO_Soil (8015 GRO)
Company Name	TRC Corporation	Bill To Company	TRC Corporation	C	8015M_Soil_LL (8015 DRO/ORO)
Send Report To	Richard Varnell	Invoice Attn	TRC-AP	D	Moisture (if applicable)
Address	505 East Huntland Drive Suite 250	Address	505 East Huntland Drive Suite 250	E	8260_LL_Water (8260 BTEX)
City/State/Zip	Austin, TX 78762	City/State/Zip	Austin TX 78752	F	8015_GRC_Water (8015 GRO)
Phone	(512) 329-6080	Phone	(512) 329-6080	G	8015_DRO_LVI (8015 DRO/ORO)
Fax	(512) 329-8750	Fax	(512) 329-8750	H	
e-Mail Address	RVarnell@trccorporation.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-North 60-62	6/1/21	1700	Soil	None	2		X	X	X							
2	SB-North 70-72		1720					X	X	X							
3	SB-North 75-77		1730					X	X	X							
4	SB-North 80-82		1740					X	X	X							
5	SB-East 0-2	6/2/21	0845				X	X	X	X							
6	SB-East 5-7		0850				X	X	X	X							
7	SB-East 10-12		0855				X	X	X	X							
8	SB-East 20-22		0905				X	X	X	X							
9	SB-East 25-27		0910				X	X	X	X							
10	SB-East 30-32		0920				X	X	X	X							

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:	
				<input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input checked="" type="checkbox"/> 72 Hr <input type="checkbox"/> 96 Hr <input type="checkbox"/> 120 Hr					
Relinquished by:	Date: 6/3/21	Time: 1715	Received by:	Notes: TRC - Tank 970					
Relinquished by:	Date: 6/4/21	Time: 9:50	Received by (Laboratory):	Cooler ID: 42683	Cooler Temp: 0.4c	QC Package: (Check One Box Below)			
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	Level 1 - SU GC	Level 2 - SU GC/PAW Date	Level 3 - LAB/CLP	Level 4 - LAB/CLP	TRCF Checklist	TRCF Date
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035				Level 1 - SU GC	Level 2 - SU GC/PAW Date	Level 3 - LAB/CLP	Level 4 - LAB/CLP	TRCF Checklist	TRCF Date

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Chain of Custody Form

HS21060237



COC ID: 246776

TRC Corporation
Tank 970



Customer Information		ALS Project Manager:	
Purchase Order	166792	Project Name	Tank 970
Work Order		Project Number	487988.0000.0000 Phase 2
Company Name	TRC Corporation	Bill To Company	TRC Corporation
Send Report To	Richard Varnell	Invoice Attn	TRC-AP
Address	505 East Huntland Drive Suite 250	Address	505 East Huntland Drive Suite 250
City/State/Zip	Austin, TX 78752	City/State/Zip	Austin TX 78752
Phone	(512) 329-6080	Phone	(512) 329-6080
Fax	(512) 329-8750	Fax	(512) 329-8750
e-Mail Address	RVarnell@trccompanies.com	e-Mail Address	apin.voiceapproval@trcsolutions.com

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-East 40-42	6/2/21	0930	soil	none	2	X	X	X	X							
2	SB-East 50-52		0950				X	X	X	X							
3	SB-East 55-57		1000				X	X	X	X							
4	SB-East 60-62		1010				X	X	X	X							
5	SB-East 70-72		1030				X	X	X	X							
6	SB-East 75-77		1050				X	X	X	X							
7	SB-East 80-82		1110				X	X	X	X							
8	SB-East 45-47		0940				X	X	X	X							
9	SB-South 0-2		1400				X	X	X	X							
10	SB-South 5-7		1410				X	X	X	X							

Sampler(s) Please Print & Sign

Shipment Method

Required Turnaround Time: (Check Box) Other 2-3 Days 3-5 Days 5-7 Days 7-10 Days 2+ Weeks

Results Due Date:

Relinquished by: *[Signature]* Date: 6/3/21 Time: 1715 Received by: *[Signature]* Notes: TRC - Tank 970

Relinquished by: *[Signature]* Date: 6-4-21 Time: 9:50 Received by (Laboratory): *[Signature]*

Logged by (Laboratory): *[Signature]* Date: Time: Checked by (Laboratory): *[Signature]*

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Cooler ID: 42605 Cooler Temp: 0.4C

QC Package: (Check One Box Below) Level - S1000 TRRF - Cooling Level - S1000/aw, Dye TRRF - Level IV Level - S1000/aw, Dye, Dye Level - S1000/aw, Dye, Dye

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Page 4 of 5

COC ID: 248777

HS21060237

TRC Corporation
Tank 970



Customer Information		Project Information		ALS Project Manager:												
Purchase Order	166792	Project Name	Tank 970	A	8260_Soil (8260 BTEX)											
Work Order		Project Number	437988.0000.0000.Phase 2	B	8015_GRO_Soil (8015 GRO)											
Company Name	TRC Corporation	Bill To Company	TRC Corporation	C	8015M_Soil_LL (8015 DRO/DRO)											
Send Report To	Richard Varnell	Invoice Attn	TRC-AP	D	Moist % (if applicable)											
Address	505 East Huntland Drive Suite 250	Address	505 East Huntland Drive Suite 250	E	8260_LL Water (8260 BTEX)											
City/State/Zip	Austin, TX 78752	City/State/Zip	Austin TX 78752	F	8015_GRO Water (8015 GRO)											
Phone	(512) 325-6080	Phone	(512) 329-8760	G	8015_DRO_LVI (8015 DRO/DRO)											
Fax	(512) 329-8760	Fax	(512) 329-8750	H												
e-Mail Address	RVa.nell@trccompanies.com	e-Mail Address	apinvoiceapproval@trcsolutions.com	I												
				J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-South 10-12	6/2/21	1420	soil	none	2	X	X	X	X							
2	SB-South 15-17		1430				X	X	X	X							
3	SB-South 20-22		1440				X	X	X	X							
4	SB-South 25-27		1450				X	X	X	X							
5	SB-South 30-32		1500				X	X	X	X							
6	SB-South 35-37 40-42		1520					X	X	X							
7	SB-South 50-52		1540					X	X	X							
8	SB-South 60-62		1600					X	X	X							
9	SB-South 70-72	6/3/21	0530					X	X	X							
10	SB-South 75-77		0900					X	X	X							

Sampler(s) Please Print & Sign: J. Stoffel

Shipment Method: _____ Required Turnaround Time: (Check Box) Other _____ 5-10 Business Days 1-2 Weeks 2-4 Weeks 2+ Mo.

Results Due Date: _____

Relinquished by: [Signature] Date: 6/3/21 Time: 1715

Received by: _____ Date: 6-4-21 Time: 9:50

Relinquished by: _____ Date: _____ Time: _____

Received by (Laboratory): [Signature] Checked by (Laboratory): _____

Notes: TRC - Tank 970

Logged by (Laboratory): _____ Date: _____ Time: _____

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Cooler ID: 4263 Cooler Temp: 0.4C

QC Package: (Check One Box Below) Level 1 (S.M.C.) Level 2 (S.M.C./Paw.Dan) Level 3 (S.M.C./Paw.Dan) Level 4 (S.M.C./Paw.Dan)

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Chain of Custody Form

Page 5 of 5

COC ID: 246778

HS21060237

TRC Corporation
Tank 970



Customer Information		Project Information		ALS Project Manager:	
Purchase Order	185792	Project Name	Tank 970	A	8260_Soil (8260 BTEX)
Work Order		Project Number	437989.0000.0000 Phase 2	B	8015_GRO_Soil (8015 GRO)
Company Name	TRC Corporation	Bill To Company	TRC Corporation	C	8015M_Soil_LL (8015 DRO/GRO)
Send Report To	Richard Varnell	Invoice Attn	TRC-AP	D	Mols% (if applicable)
Address	505 East Huntland Drive Suite 25C	Address	505 East Huntland Drive Suite 25C	E	8260_LL_Water (8260 BTEX)
City/State/Zip	Austin, TX 78752	City/State/Zip	Austin TX 78752	F	8015_GRO_Water (8015 GRO)
Phone	(512) 329-6080	Phone	(512) 329-6080	G	8015_DFC_LVI (8015 DFC/GRO)
Fax	(512) 329-8750	Fax	(512) 329-8750	H	
e-Mail Address	RVarnell@trccompanies.com	e-Mail Address	apin@ceapproval@trcsolutions.com	I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-SOUTH 80-42	6/3/21	0930	Soil	none	2		X	X	X							
2	EB-01	6/2/21	1115								X	X	X				
3	EB-02	6/3/21	1030								X	X	X				
4	TB-01	6/3/21	1600								X						
5	TB-02	6/3/21	1600								X						
6	Dop-1	6/1/21	-				X	X	X	X							
7	Dop-2	6/2/21	-				X	X	X	X							
8	Dop-3	6/2/21	-				X	X	X	X							
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:	
Relinquished by: <i>[Signature]</i>		Date: 6/3/21	Time: 1715	Received by:		Notes: TRC - Tank 970			
Relinquished by:		Date: 6/4/21	Time: 9:50	Received by (Laboratory): <i>[Signature]</i> SM		Cooler ID: 4265	Cooler Temp: 0.40	QC Package: (Check One Box Below)	
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		1K3L	CFO	<input checked="" type="checkbox"/> USE THIS ONE <input type="checkbox"/> USE THIS ONE ONLY DATE <input type="checkbox"/> USE THIS ONE ONLY	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035									

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Country:			

Initials By: **PH**
6921

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 Fax. +1 281 530 5887

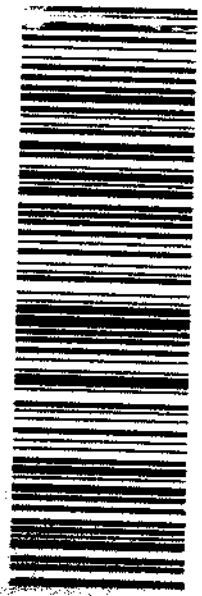
CUSTODY SEAL

Date:	Name:	Time:	Initials:
Country:			

Initials By: **PH**
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FedEx
 9473 0844 1632
 FRI - 04 JUN 10:30A
 PRIORITY OVERNIGHT

AB SGRA 46941
 TX - US



FedEx
 9473 0844 1643
 R.TUPNS MON - SAT
 PRIORITY OVERNIGHT
 FRI - 04 JUN 10:30A
 PRIORITY OVERNIGHT
 TX - US IAH



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Country:			

Initials By: **PH**
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 Fax. +1 281 530 5887

CUSTODY SEAL

Date:	Name:	Time:	Initials:
Country:			

Initials By: **PH**
6431



Appendix E: E-Mail Correspondence and References

Email Thread 1

From: [Hamlet, Robert, EMNRD](#)
To: [Stoffel, Jared](#)
Cc: [Sahba, Arsin M.](#); [Trevor, baird](#); [Melanie Nolan](#); [mark.shemaria](#); [Gilbert, Bryan](#); [Hoover, Shannon](#); [Clark, Darija](#); [Billings, Bradford, EMNRD](#); [Bratcher, Mike, EMNRD](#); [Nobui, Jennifer, EMNRD](#)
Subject: RE: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)
Date: Wednesday, July 13, 2022 10:15:45 AM
Attachments: [image003.png](#)

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Jared,

Please uploaded the report to the payment portal at your earliest convenience. The OCD doesn't pre-review reports. Decisions need to be tracked and logged on the OCD Permitting incident page throughout the incident's life cycle. Additionally, make sure all correspondence is included in the report. Please, attach the email thread with your understanding of expectations that need to be met and Bradford's concurrence.

Regards,

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, July 12, 2022 9:44 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor, baird <Trevor.baird@hollyenergy.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Subject: RE: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan -

Former Tank 970/Artesia Station West (NCE2003752717)

Robert – I wanted to circle back with you and Bradford about this report – have either of you gotten a chance to review? We just wanted to confirm the status and see if there are any questions or concerns that you'd like us to address prior to submittal through the portal. Thanks!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Monday, June 6, 2022 2:38 PM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor.baird <Trevor.baird@hollyenergy.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Subject: RE: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)

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Jared,

Would you send Brad B. and myself a copy of the revised report? We'll both take a look at it and get back to you in the next week or so. Thanks

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Monday, June 6, 2022 12:14 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor.baird <Trevor.baird@hollyenergy.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Subject: RE: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)

Robert,

Thank you for the call last week regarding the draft Revised Site Characterization Report and Remediation Workplan (report) for the Former Tank 970/Artesia Station West site. I would like to clarify my understanding of our discussion – at this time, we are waiting for Bradford’s informal review of the draft report to confirm that our proposed workplan is appropriate prior to submission through the portal to streamline the process. The report was developed in accordance with our discussion on February 21, 2022. Bradford indicated he agreed with our understanding of the discussion on March 14, 2022. I’ve attached the email thread with our understanding and Bradford’s concurrence for your convenience. We would like to ensure we are correct in our understanding that we are still waiting on Bradford’s informal of the draft report review prior to formal submission via the portal. If we are incorrect in this understanding, please let us know and we will submit the final report through the portal – we would just like to confirm our next steps and continue to progress the project forward. Thank you.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | TRCcompanies.com

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Wednesday, April 20, 2022 10:01 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor.baird

<Trevor.baird@hollyenergy.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Subject: RE: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)

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Jared,

This will need to be uploaded to the payment portal. The OCD doesn't pre-review reports. Decisions need to be tracked and logged on the OCD Permitting incident page throughout the life cycle of incident. Additionally, make sure all correspondence is included in the report.

Regards,

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Friday, April 15, 2022 1:36 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Cc: Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor.baird <Trevor.baird@hollyenergy.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>
Subject: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)

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

Robert and Bradford,

Please see the attached Draft Revised Site Characterization Report and Remediation Workplan (Draft Revised SCR and RWP) for the Former Tank 970/Artesia Station West (NCE2003752717). As discussed during our virtual meeting on February 21, 2022 and confirmed in our correspondence on March 14, 2022, the Draft Revised SCR and RWP is submitted for your review prior to submittal of the final Revised SCR and RWP through the portal. We have modified the previously submitted and denied SCR and RWP (denied November 29, 2022) as discussed during the February 2022 virtual meeting. A cover letter outlining revisions from the previously submitted SCR and RWP is provided at the beginning of the document. Note that the updated C-141 in Appendix A will be signed upon submittal of the final Revised SCR and RWP via the portal. Please let us know if you have any questions, concerns, or comments. If you approve the Draft Revised SCR and RWP, please let us know and we will finalize and submit through the NMOCD e-permitting portal.

Thank you for your time and consideration.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752

F: 512 329 8750 | C: 432 238 3003

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Email Thread 2

From: [Stoffel, Jared](#)
To: [Hamlet, Robert, EMNRD](#)
Cc: [Sahba, Arsin M.](#); [Trevor.baird](#); [Melanie Nolan](#); [Gilbert, Bryan](#); [Hoover, Shannon](#); [Clark, Darija](#); [Billings, Bradford, EMNRD](#); [Bratcher, Mike, EMNRD](#); [Nobui, Jennifer, EMNRD](#)
Subject: RE: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)
Date: Monday, June 6, 2022 3:08:00 PM
Attachments: [T970 REVISED SCR and WP Draft to NMOCD 041522.pdf](#)
[image001.png](#)

Robert,

I have attached the revised report for Brad and your review. If you have any questions, comments or concerns please don't hesitate to reach out. Thank you very much!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Monday, June 6, 2022 2:38 PM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor.baird <Trevor.baird@hollyenergy.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Subject: RE: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)

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Jared,

Would you send Brad B. and myself a copy of the revised report? We'll both take a look at it and get back to you in the next week or so. Thanks

Robert Hamlet • Environmental Specialist - Advanced

Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Monday, June 6, 2022 12:14 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor.baird <Trevor.baird@hollyenergy.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Subject: RE: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)

Robert,

Thank you for the call last week regarding the draft Revised Site Characterization Report and Remediation Workplan (report) for the Former Tank 970/Artesia Station West site. I would like to clarify my understanding of our discussion – at this time, we are waiting for Bradford’s informal review of the draft report to confirm that our proposed workplan is appropriate prior to submission through the portal to streamline the process. The report was developed in accordance with our discussion on February 21, 2022. Bradford indicated he agreed with our understanding of the discussion on March 14, 2022. I’ve attached the email thread with our understanding and Bradford’s concurrence for your convenience. We would like to ensure we are correct in our understanding that we are still waiting on Bradford’s informal of the draft report review prior to formal submission via the portal. If we are incorrect in this understanding, please let us know and we will submit the final report through the portal – we would just like to confirm our next steps and continue to progress the project forward. Thank you.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
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From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Wednesday, April 20, 2022 10:01 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor.baird <Trevor.baird@hollyenergy.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Subject: RE: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)

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Jared,

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Regards,

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Friday, April 15, 2022 1:36 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Cc: Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor.baird <Trevor.baird@hollyenergy.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>

Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>

Subject: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)

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Robert and Bradford,

Please see the attached Draft Revised Site Characterization Report and Remediation Workplan (Draft Revised SCR and RWP) for the Former Tank 970/Artesia Station West (NCE2003752717). As discussed during our virtual meeting on February 21, 2022 and confirmed in our correspondence on March 14, 2022, the Draft Revised SCR and RWP is submitted for your review prior to submittal of the final Revised SCR and RWP through the portal. We have modified the previously submitted and denied SCR and RWP (denied November 29, 2022) as discussed during the February 2022 virtual meeting. A cover letter outlining revisions from the previously submitted SCR and RWP is provided at the beginning of the document. Note that the updated C-141 in Appendix A will be signed upon submittal of the final Revised SCR and RWP via the portal. Please let us know if you have any questions, concerns, or comments. If you approve the Draft Revised SCR and RWP, please let us know and we will finalize and submit through the NMOCD e-permitting portal.

Thank you for your time and consideration.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752

F: 512 329 8750 | C: 432 238 3003

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Email Thread 3

From: [Sahba, Arsin](#)
To: [Hamlet, Robert, EMNRD](#); [Stoffel, Jared](#); [Trevor.baird](#); [Bratcher, Mike, EMNRD](#); [Billings, Bradford, EMNRD](#)
Cc: [Melanie Nolan](#); [mark.shemaria](#); [Gilbert, Bryan](#); [Hoover, Shannon](#); [Clark, Darija](#); [Nobui, Jennifer, EMNRD](#)
Subject: RE: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)
Date: Wednesday, April 20, 2022 10:07:23 AM
Attachments: [image002.png](#)

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Robert:

Thanks for the quick response. During our February 2022 meeting, OCD requested that we email a draft version of the report. We are fine submitting through the portal – just wanted to confirm our previous discussion. Is it OK to submit as a Draft Version through the Portal?

We included project correspondence as Appendix E.

Thanks!

Arsin
972-689-8540

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Wednesday, April 20, 2022 10:01 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Sahba, Arsin <Arsin.Sahba@HollyFrontier.com>; Baird, Trevor <Trevor.Baird@hollyenergy.com>; Nolan, Melanie <Melanie.Nolan@hollyenergy.com>; Shemaria, Mark <Mark.Shemaria@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Subject: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)

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Jared,

This will need to be uploaded to the payment portal. The OCD doesn't pre-review reports. Decisions need to be tracked and logged on the OCD Permitting incident page throughout the life cycle of incident. Additionally, make sure all correspondence is included in the report.

Regards,

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Friday, April 15, 2022 1:36 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Cc: Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor.baird <Trevor.baird@hollyenergy.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>
Subject: [EXTERNAL] Draft Revised Site Characterization Report and Remediation Workplan - Former Tank 970/Artesia Station West (NCE2003752717)

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Robert and Bradford,

Please see the attached Draft Revised Site Characterization Report and Remediation Workplan (Draft Revised SCR and RWP) for the Former Tank 970/Artesia Station West (NCE2003752717). As discussed during our virtual meeting on February 21, 2022 and confirmed in our correspondence on March 14, 2022, the Draft Revised SCR and RWP is submitted for your review prior to submittal of the final Revised SCR and RWP through the portal. We have modified the previously submitted and denied SCR and RWP (denied November 29, 2022) as discussed during the February 2022 virtual meeting. A cover letter outlining revisions from the previously submitted SCR and RWP is provided at the beginning of the document. Note that the updated C-141 in Appendix A will be signed upon submittal of the final Revised SCR and RWP via the portal. Please let us know if you have any questions, concerns, or comments. If you approve the Draft Revised SCR and RWP, please let us know and we will finalize and submit through the NMOCD e-permitting portal.

Thank you for your time and consideration.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752

F: 512 329 8750 | C: 432 238 3003

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Email Thread 4

From: [Billings, Bradford, EMNRD](#)
To: [Stoffel, Jared](#); [Hamlet, Robert, EMNRD](#); [Bratcher, Mike, EMNRD](#); [Nobui, Jennifer, EMNRD](#); [Hensley, Chad, EMNRD](#)
Cc: [Sahba, Arsin M.](#); [Trevor.baird](#); [Melanie Nolan](#); [mark.shemaria](#); [Gilbert, Bryan](#); [Hoover, Shannon](#); [Clark, Darija](#); [Varnell, Richard](#); [Pearson, Christopher](#)
Subject: RE: [EXTERNAL] Email memorializing 2/21/2022 NMOCD-HEP Meeting Discussing the Tank 970 Remediation Plan (NCE2003752717)
Date: Monday, March 14, 2022 5:02:09 PM
Attachments: [image001.png](#)

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3/14/2022

Confirm receipt of this email. Represents an accurate detail of issues discussed and paths forward. Other recipients may have additional comment. Thank you.

Bradford Billings
ENRD/OCD

From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Monday, March 14, 2022 3:06 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>
Cc: Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor.baird <Trevor.baird@hollyenergy.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>; Varnell, Richard <RVarnell@trccompanies.com>; Pearson, Christopher <CPearson@trccompanies.com>
Subject: [EXTERNAL] Email memorializing 2/21/2022 NMOCD-HEP Meeting Discussing the Tank 970 Remediation Plan (NCE2003752717)

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

We want to thank you for meeting with us on February 21, 2022, to discuss the Holly Energy Partners – Operating, L.P. (HEP) Tank 970 project (NMOCD Incident #NCE2003752717). The meeting was held at the request of HEP to discuss the path forward following New Mexico Oil Conservation Division’s (NMOCD’s) denial of the August 2021 Remediation Workplan. Meeting participants included NMOCD staff (Mike Bratcher, Bradford Billings, Chad Hensley, and Jennifer Nobui), and the representatives from HEP and TRC Environmental Corporation (TRC) copied on this email. Based on

the meeting, NMOCD has requested that HEP submit a Remediation Workplan Addendum to the NMOCD to include the following:

- Conduct a soil vapor extraction (SVE) pilot test to determine the effective radius of influence to address total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and benzene, toluene, ethylbenzene, and xylenes (BTEX) in soil in approximately the upper 25 feet.
- Conduct excavation of soil with BTEX and/or TPH above Closure Criteria in the accessible portions of the site to a depth of approximately 4.5 feet bgs.
- Install a liner at the base of the excavation and backfill to current grade to inhibit future stormwater infiltration through the affected soil at depth and to also promote lateral air flow through the affected zone targeted by the proposed SVE system.
- TPH diesel range organics (DRO) and motor oil range organics (MRO) in soil at depths greater than approximately 25 feet below ground surface (bgs) do not require additional action based on: (1) removal of the source (Former Tank 970); (2) limited leaching of DRO and MRO from soil to groundwater; (3) presence of the underlying clay layer inhibiting further vertical migration; (4) depth to groundwater (>112 feet bgs); and (5) proposed installation of a liner to prevent stormwater infiltration through the affected soil.

By April 15, 2022, we will submit a draft Remediation Workplan Addendum to Robert and Bradford via email for NMOCD's preliminary review and comment. Once the NMOCD has an opportunity to review the draft Remediation Workplan Addendum, a virtual meeting can be scheduled for further discussion, if needed. Pending NMOCD review and approval of the draft, the final Remediation Workplan Addendum will be submitted via the NMOCD E-permitting portal within 5 business days of draft approval.

Please confirm receipt and concurrence with this summary by return email, or let me or Trevor Baird of HEP know if you have additional comments or proposed revisions to the summary. We appreciate the opportunity to discuss the site and Remediation Workplan with you!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
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Email Thread 5

From: [Hamlet, Robert, EMNRD](#)
To: [Sahba, Arsin M.](#); [Stoffel, Jared](#)
Cc: [melanie.nolan](#); [mark.shemaria](#); [Trevor.baird](#); [Gilbert, Bryan](#); [Hoover, Shannon](#); [Varnell, Richard](#); [Bratcher, Mike, EMNRD](#); [Billings, Bradford, EMNRD](#); [Hensley, Chad, EMNRD](#)
Subject: RE: [EXTERNAL] Request for Meeting - Former Tank 970 (NCE2003752717) Following Denial Letter
Date: Friday, January 28, 2022 9:47:07 AM
Attachments: [image002.png](#)

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Thought I flipped my calendar over to February. Oops! Yeah, Monday morning at 10 or 11 a.m. works for me on February 21st. Guess it depends on everybody's schedule. Maybe shoot for 10 a.m. for now.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Sahba, Arsin <Arsin.Sahba@HollyFrontier.com>
Sent: Friday, January 28, 2022 8:39 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Nolan, Melanie <Melanie.Nolan@hollyenergy.com>; Shemaria, Mark <Mark.Shemaria@hollyenergy.com>; Baird, Trevor <Trevor.Baird@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Varnell, Richard <RVarnell@trccompanies.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>
Subject: RE: [EXTERNAL] Request for Meeting - Former Tank 970 (NCE2003752717) Following Denial Letter

Thanks Robert – we look forward to reviewing the project with NMOCD.

Just one clarification – you indicated Feb 21 but also mentioned Friday morning. Feb 21 is a Monday. So wanted to confirm - would you like Monday Feb 21 in the morning or the preceding Friday Feb 18?

thanks

Arsin
972-689-8540

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Friday, January 28, 2022 9:33 AM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Cc: Nolan, Melanie <Melanie.Nolan@hollyenergy.com>; Sahba, Arsin <Arsin.Sahba@HollyFrontier.com>; Shemaria, Mark <Mark.Shemaria@hollyenergy.com>; Baird, Trevor <Trevor.Baird@hollyenergy.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Varnell, Richard <RVarnell@trccompanies.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>
Subject: [EXTERNAL] Request for Meeting - Former Tank 970 (NCE2003752717) Following Denial Letter

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Jared,

February 21st would probably work the best. Set up a Teams or Zoom call for Friday morning around 10 a.m. if that works? Send invites to myself, Brad Billings, Mike Bratcher, Chad Hensley.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Tuesday, January 25, 2022 10:21 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: melanie.nolan <melanie.nolan@hollyenergy.com>; Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; mark.shemaria <mark.shemaria@hollyenergy.com>; trevor.baird@hollyfrontier.com; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Varnell, Richard <RVarnell@trccompanies.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Subject: [EXTERNAL] Request for Meeting - Former Tank 970 (NCE2003752717) Following Denial

Letter

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Mr. Hamlet:

We have received the NMOCD's rejection notice for the Remediation Workplan submitted for the Former Tank 970 Site (NCE2003752717) and want to follow up on Richard Varnell's email dated 12.20.2021 requesting further discussion about the rejection. We would appreciate the opportunity to discuss your comments regarding the Remediation Workplan. Would you be available for a Teams or Webex meeting regarding this Site the week of either February 14 or February 21? We are also available to meet in person if that is the NMOCD's preference. If so, please provide a few preferred dates and times and I will send you a meeting invite. Thank you.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752

F: 512 329 8750 | C: 432 238 3003

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Email Thread 6

From: [Varnell, Richard](#)
To: [Stoffel, Jared](#)
Subject: FW: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 42119
Date: Tuesday, January 25, 2022 8:48:42 AM
Attachments: [image001.png](#)
[image002.png](#)

From: Varnell, Richard
Sent: Monday, December 20, 2021 1:25 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: mark.shemaria <mark.shemaria@hollyenergy.com>; melanie.nolan <melanie.nolan@hollyenergy.com>; Sahba, Arsin <Arsin.Sahba@HollyFrontier.com>; Gilbert, Bryan <BGilbert@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>; Coupland, Lori <Lori.Coupland@hollyenergy.com>
Subject: FW: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 42119

Mr. Hamlet:

We have received OCD's rejection notice for the Remediation Workplan submitted for the Former Tank 970 Site (NCE2003752717). We would appreciate the opportunity to discuss your comments regarding the Remediation Workplan. Would you be available for a Teams or Webex meeting regarding this Site in early to mid-February? We are also available to meet in person if that is OCD's preference. If so, please provide a few preferred dates and times and I will send you a meeting invite.

Thanks,

-RD Varnell

Richard (RD) Varnell, P.G., P.E.
Senior Project Manager



505 E. Huntland Drive, Suite 250, Austin, TX 78752
T 512.626.3990 | F 512.684.3136 | C 512.297.3019
[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

Please note that my office number has changed.

From: Nolan, Melanie <Melanie.Nolan@hollyenergy.com>
Sent: Monday, November 29, 2021 12:39 PM

To: Coupland, Lori <Lori.Coupland@hollyenergy.com>; Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor.baird <Trevor.baird@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>
Cc: Varnell, Richard <RVarnell@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Gilbert, Bryan <BGilbert@trccompanies.com>
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 42119

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

All,

Please see below concerning the Artesia Tank 970 SCR and Remediation Plan that was submitted to NMOCD.

Unfortunately NMOCD has **rejected** the Remediation Plan based upon the reason stated below.

Melanie Nolan

Environmental Specialist/EHS Department

Holly Energy Partners

O 575-748-8972

M 214-605-8303

Melanie.Nolan@hollyenergy.com

www.hollyenergy.com

1602 W. Main, Artesia, New Mexico, 88210



From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>

Sent: Monday, November 29, 2021 11:22 AM

To: Nolan, Melanie <Melanie.Nolan@hollyenergy.com>

Subject: The Oil Conservation Division (OCD) has rejected the application, Application ID: 42119

CAUTION: This email originated from outside of the HollyFrontier organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

To whom it may concern (c/o Melanie Nolan for HOLLY ENERGY PARTNERS - OPERATING, LP),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nCE2003752717,

for the following reasons:

- **The Remediation Plan is denied. Based on data already obtained, a four feet excavation and liner installation will not be an acceptable remedial proposal for this site. A deeper excavation will likely be required, along with a proposed method for mitigating the deeper impact that may not be practicable to excavate. Of particular concern, is the lighter end hydrocarbons that have been determined to exist at significant depths. I would expect this to be a somewhat longer project than normal, possibly involving Soil Vapor Extraction (SVE) in some locations. A deferral around critical infrastructure will need to be submitted after all possible contaminated soil is removed. Specifying exactly which sample points you are asking for a deferral on and the reason the contaminants cannot be removed. A meeting to discuss the site may be appropriate at some point in the near future. Please, make sure a C-141 page 5 “Remediation Plan” page is signed and filled out at submission of your report.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 42119.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,

Robert Hamlet

575-748-1283

Robert.Hamlet@state.nm.us

New Mexico Energy, Minerals and Natural Resources Department

1220 South St. Francis Drive

Santa Fe, NM 87505

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Email Thread 7

From: [Varnell, Richard](#)
To: [Hamlet, Robert, EMNRD](#)
Cc: [mark.shemaria](#); [melanie.nolan](#); [Sahba, Arsin](#); [Gilbert, Bryan](#); [Hoover, Shannon](#); [Clark, Darija](#); [Coupland, Lori](#)
Subject: FW: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 42119
Date: Monday, December 20, 2021 1:24:00 PM
Attachments: [image001.png](#)
[image002.png](#)

Mr. Hamlet:

We have received OCD's rejection notice for the Remediation Workplan submitted for the Former Tank 970 Site (NCE2003752717). We would appreciate the opportunity to discuss your comments regarding the Remediation Workplan. Would you be available for a Teams or Webex meeting regarding this Site in early to mid-February? We are also available to meet in person if that is OCD's preference. If so, please provide a few preferred dates and times and I will send you a meeting invite.

Thanks,

-RD Varnell

Richard (RD) Varnell, P.G., P.E.
Senior Project Manager



505 E. Huntland Drive, Suite 250, Austin, TX 78752
T 512.626.3990 | F 512.684.3136 | C 512.297.3019
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Please note that my office number has changed.

From: Nolan, Melanie <Melanie.Nolan@hollyenergy.com>
Sent: Monday, November 29, 2021 12:39 PM
To: Coupland, Lori <Lori.Coupland@hollyenergy.com>; Sahba, Arsin M. <arsin.sahba@hollyfrontier.com>; Trevor.baird <Trevor.baird@hollyenergy.com>; mark.shemaria <mark.shemaria@hollyenergy.com>
Cc: Varnell, Richard <RVarnell@trccompanies.com>; Hoover, Shannon <SHoover@trccompanies.com>; Gilbert, Bryan <BGilbert@trccompanies.com>
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 42119

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

All,

Please see below concerning the Artesia Tank 970 SCR and Remediation Plan that was submitted to NMOCD.

Unfortunately NMOCD has **rejected** the Remediation Plan based upon the reason stated below.

Melanie Nolan

Environmental Specialist/EHS Department

Holly Energy Partners

O 575-748-8972

M 214-605-8303

Melanie.Nolan@hollyenergy.com

www.hollyenergy.com

1602 W. Main, Artesia, New Mexico, 88210



From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>

Sent: Monday, November 29, 2021 11:22 AM

To: Nolan, Melanie <Melanie.Nolan@hollyenergy.com>

Subject: The Oil Conservation Division (OCD) has rejected the application, Application ID: 42119

CAUTION: This email originated from outside of the HollyFrontier organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

To whom it may concern (c/o Melanie Nolan for HOLLY ENERGY PARTNERS - OPERATING, LP),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nCE2003752717, for the following reasons:

- **The Remediation Plan is denied. Based on data already obtained, a four feet excavation and liner installation will not be an acceptable remedial proposal for this site. A deeper excavation will likely be required, along with a proposed method for mitigating the deeper impact that may not be practicable to excavate. Of particular concern, is the lighter end hydrocarbons that have been determined to exist at significant depths. I would expect this to be a somewhat longer project than normal, possibly involving Soil Vapor Extraction (SVE) in some locations. A deferral around critical infrastructure will need to be submitted after all possible contaminated soil is removed. Specifying exactly which sample points you are asking for a deferral on and the reason the contaminants cannot be removed. A meeting to discuss the site may be appropriate at some point in the near future.**

Please, make sure a C-141 page 5 “Remediation Plan” page is signed and filled out at submission of your report.

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 42119.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,

Robert Hamlet

575-748-1283

Robert.Hamlet@state.nm.us

New Mexico Energy, Minerals and Natural Resources Department

1220 South St. Francis Drive

Santa Fe, NM 87505

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Email Thread 8

From: [Melanie Nolan](#)
To: [Hoover, Shannon](#); [Sahba, Arsin M.](#); [mark.shemaria](#); [Varnell, Richard](#)
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has approved the application, Application ID: 15561
Date: Tuesday, March 23, 2021 9:26:57 AM

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Please see below for approval of site characterization and work plan for Artesia Tank 970.

Melanie

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Friday, March 19, 2021 11:10 AM
To: Nolan, Melanie <Melanie.Nolan@hollyenergy.com>
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 15561

CAUTION: This email originated from outside of the HollyFrontier organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

To whom it may concern (c/o Melanie Nolan for HOLLY ENERGY PARTNERS),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nCE2003752717, with the following conditions:

- **The site characterization and proposed work plan are approved.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Cristina Eads
Environmental Scientist and Specialist
505-670-5601
Cristina.Eads@state.nm.us

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

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Varnell, Richard

From: Varnell, Richard
Sent: Friday, March 27, 2020 2:42 PM
To: Varnell, Richard
Subject: FW: [EXTERNAL] ARTESIA STATION TANK - FW: [EXTERNAL Email]: New Mexico OCD Application Submission was Approved by the OCD

From: OCDOnline@state.nm.us [<mailto:OCDOnline@state.nm.us>]
Sent: Thursday, February 06, 2020 2:46 PM
To: Nolan, Melanie A.
Subject: [EXTERNAL Email]: New Mexico OCD Application Submission was Approved by the OCD

CAUTION: This email originated from outside of the HollyFrontier organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

The Oil Conservation Division (OCD) has approved the application PO: TSF9G-200129-C-1410.
The original application was submitted by Melanie Nolan for HOLLY ENERGY PARTNERS.

The user added the additional comment:

"To whom it may concern: The NMOCD has accepted the submitted Initial and C-141 and has assigned incident # NCE2003752717. Please retain this incident # as it will be required for all future communication and submittals for this release. Note: As of December 13, 2019, NMOCD has discontinued the use of the "RP" number. Thank you, Cristina Eads Environmental Specialist Cristina.Eads@state.nm.us "

If you are concerned about receiving this email or have any other questions, please feel free to contact our Santa Fe OCD office.

New Mexico Energy, Minerals and Natural Resources Department

1220 South St. Francis Drive
Santa Fe, NM 87505

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REFERENCES

- Bass, D.H. 1993. "Estimation of Effective Cleanup Radius for Soil-Vapor Extraction Systems"; *Journal of Soil Contamination*, 2(2): (1993) Groundwater Technology, Inc., 3 Edgewater Drive, Norwood, MA 0206
- BLM, 2020. Karst potential data for the Site and surrounding area provided by the New Mexico Bureau of Land Management (BLM). Data accessible from https://www.nm.blm.gov/shapeFiles/cfo/carlsbad_spatial_data.html.
- DBSA, 1995. *Comprehensive Review and Model of the Hydrogeology of the Roswell Basin*, Daniel B. Stephens & Associates, Inc., prepared for the New Mexico Office of the State Engineer, Santa Fe, New Mexico, December 21, 1995.
- Eddy County Central Appraisal District, 2020. Property ownership data available from Eddy County, New Mexico Central Appraisal District GIS system accessible at <https://www.co.eddy.nm.us/184/County-Assessor>.
- FEMA 2020. Federal Emergency Management Agency Flood Insurance Rate Map (FIRM) #35015C0600D, effective 6/4/2010, available from <https://msc.fema.gov/portal/home#>.
- Google and their Data Partners, 2020. Aerial photography of the Site accessible through the Google Earth Pro application (<https://www.google.com/earth/>).
- HEP, 2020. Completed C-141 Notification Form, prepared by HEP, dated January 29, 2020.
- New Mexico Bureau of Geology and Mineral Resources, 2003. *Geologic Map of New Mexico*, New Mexico Bureau of Geology and Mineral Resources (published in cooperation with the USGS), dated 2003.
- NMOCD, 2020. Email correspondence from NMOCD to HEP: "New Mexico OCD Application Submission was Approved by the OCD," dated February 6, 2020.
- NMOCD, 2021a. Email correspondence from NMOCD to HEP: "The Oil Conservation Division (OCD) has approved the application, Application ID: 15561," dated March 19, 2021.
- NMOCD, 2021b. Email correspondence from NMOCD to HEP: "The Oil Conservation Division (OCD) has rejected the application, Application ID: 42119," dated November 29, 2021.
- NMOSE, 2020. Data available from the New Mexico Office of the State Engineer Point of Diversion GIS website accessible at https://gis.ose.state.nm.us/gisapps/ose_pod_locations/.
- TRC, 2020. Site Characterization Report, Former Tank 970 / Artesia Station West, NMOCD Incident No NCD2003752717, dated April 2020.
- TRC, 2021a. Site Characterization Report, Former Tank 970 / Artesia Station West, NMOCD Incident No NCD2003752717, dated January 2021.



TRC 2021b. Site Characterization Report and Remediation Workplan, Former Tank 970 / Artesia Station West, NMOCD Incident No NCD2003752717, dated August 2021.

TRC, 2022. Email correspondence from TRC to NMOCD: "Email memorializing 2/21/2022 NMOCD-HEP Meeting Discussing the Tank 970 Remediation Plan (NCE2003752717)," dated March 14, 2022.

USFWS, 2020. Wetlands information available from the United States Fish and Wildlife Service and accessible at <https://www.fws.gov/wetlands/data/mapper.html>.

USGS, 1952 (reprinted 1985). *Ground-Water Report 3, Geology and Ground-Water Resources of Eddy County, New Mexico*, by G. E. Hendrickson and R. S. Jones, United States Geological Survey, dated 1952, reprinted 1985.

USGS, 1985. *Illinois Camp, New Mexico 7.5 Minute Series Quadrangle Topographic Map*, United States Geological Survey, Provisional Edition, 1985.

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

Action 128062

CONDITIONS

Operator: HOLLY ENERGY PARTNERS - OPERATING, LP 1602 W. Main St. Artesia, NM 88210	OGRID: 282505
	Action Number: 128062
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Revised Remediation Plan is Conditionally Approved. The OCD, TRC, and HEP held a meeting on February 21st, 2022 to discuss the path forward on the Former Tank 970 release (NCE2003752717). A follow-up email was sent on 3/14/2022 and acknowledged by the OCD environmental group (Bradford Billings and Robert Hamlet). Please implement the agreed upon steps forward that were discussed in meeting and 3/14/2022 follow-up email. This would include a soil vapor extraction (SVE) pilot test, excavation of soil with BTEX and/or TPH above closure criteria in accessible portions of the site to a depth of approximately 4.5 feet (bgs), liner install at the base of the excavation and backfill to current grade. TPH (DRO) and (MRO) in soil at depths greater than approximately 25 feet below ground surface (bgs) do not require additional action based on the current site status and proposed action plan.	1/17/2023