SITE CHARACTERIZATION REPORT

Former Tank 970 / Artesia Station West
NMOCD Incident No. NCE2003752717
Unit G, Section 28, Township 18S, Range 28E
Latitude 32.71917, Longitude -104.18119
Eddy County, New Mexico
April 2020

Project Number: 390691

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1.0 INTRODUCTION

TRC Environmental Corporation (TRC) has prepared this Site Characterization Report on behalf of Holly Energy Partners – Operating, L.P. (HEP). This document summarizes the environmental investigation performed to date 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) 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

Stained soil was observed under former crude oil Tank 970 during its decommissioning, removal and replacement in December 2019. The hydrocarbon stained soil was observed inside the former tank footprint. There were no free liquids observed at the former location of Tank 970, and there was no liner installed 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 site assessment and delineation activities were conducted on January 22, 2020 to determine if there had been a release from Tank 970, and if so, attempt to determine the nature and extent of soil impacts due to the release. 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 provided below. Figure 2 provides the Site layout and test pit and soil sample locations, as well as soil analytical data.

HEP determined that a release had occurred from Tank 970 based on the results of field screening performed during the January 2020 investigation. 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 4.5.1 of this report. The results of the field screening are provided in Table 1.

HEP notified NMOCD of the release by phone and email on January 23, 2020 and submitted a NMOCD C-141 Form (Release Notification Report) on January 29, 2020. A copy of the completed C-141 Form is provided in Appendix A. The NMOCD accepted the initial notification and C-141 Form by email on February 6, 2020 (also provided in Appendix A), and assigned incident no. NCE2003752717.

This initial Site Characterization Report is being provided within 90 days of reporting the release (i.e., by April 22, 2020) in accordance with NMAC 19.15.29.11. A revised Site Characterization Report will be submitted to NMOCD following completion of additional site investigation activities.

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 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 1000 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 Closure Criteria for the Site. The findings of this evaluation are summarized below.

3.1 Groundwater Evaluation

The exact depth to groundwater beneath the Site is unknown. A review of the New Mexico Office of the State Engineer (NMOSE) records indicated one water well and several other features are located within 2.5 miles of the Site. As shown on the table below, the recorded depth to groundwater for this water well (CP 00478 POD1) was 145 feet below ground surface (bgs).

The other features 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 Other Features 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 09588	0.6 miles to the south	Marathon Oil Company	Well Not Installed	Not Applicable
RA 08238	0.9 miles to the north	Bogle Farms	Livestock Watering	Not Applicable[1]

NMOSE Listed Water Wells and Other Features 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 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	1000 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
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 1000 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 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 by TRC.
- Within 1000 feet of any fresh water well or spring.
    - No fresh water wells or springs located within 1000 feet of the Site appear in any of the records reviewed by TRC.
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
    - Based on the property and other records review by TRC, 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 Currently Assumed Applicable to the Site

Based on this information, the Closure Criteria applicable to the Site will be based on the depth to groundwater, which is anticipated to be deeper than 100 feet based on the nearest water well with available water level data. 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, test pit and 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. A review of the NMOSE water well records indicates the depth to groundwater at the nearest well with known 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.[1] The Rustler

[1] *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.

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 Soil Characteristics

4.5.1 Summary of January 2020 Investigation and Soil Sampling

On January 22, 2020, eight test pits were excavated at the Site using a backhoe to determine if soil beneath former Tank 970 has been impacted, and to determine the lateral and vertical extent of impacts. 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 petroleum hydrocarbon impacts 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. The gravel had previously been located under former Tank 970 and was stockpiled in that location by the tank demolition contractor. The gravel stockpile has since been removed from the Site and disposed. The test pit (TP-6) installed to the east of former Tank 970 was terminated when an abandoned utility line (electrical conduit) was encountered at an approximate depth of 8 inches. After the electrical conduit was observed in the excavation, 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 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 installed at the Site.

Lithology and field observations of potential hydrocarbon impacts, including hydrocarbon odor, staining, and PID readings, were recorded for each test pit. Field measurements using chloride test kits were also conducted of 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.

Discrete soil samples were collected from the test pits either by hand using a shovel or from the backhoe bucket if the depth of the test trench did not allow for safe sampling via 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 impact and PID readings as follows:

- Three soil samples were collected for laboratory analysis from each of test pits TP-1, TP-2, TP-3, and TP-4b. These samples were collected at or near the ground surface, from the interval with the highest PID reading, and from the bottom or near the bottom (from 10 to 12 feet bgs) of each test pit.
- Two soil samples were collected for laboratory analysis from test pits TP-4c and TP-5. At TP-4c, samples were collected at the ground surface and from the base of the test pit at 12 feet bgs. At TP-5, samples were collected for laboratory analysis at the ground surface and at a depth of 10 feet bgs (i.e., 1 foot above the test pit bottom), as this interval had the highest PID measurement recorded in the test pit.
- One soil sample was collected for laboratory analysis from test pit TP-4a at a depth of 6 feet bgs, as this interval had the highest PID measurement recorded in the test pit.
- Samples were not collected from test pit TP-5a. The soil at that location had a strong hydrocarbon odor and was stained to the point of being discolored (the soil was dark gray or black versus the brown soil observed elsewhere at the Site). Due to those observations, a “step out” test pit (TP-5) was completed and sampled further to the south.

The soil samples were submitted to ALS Laboratory in Houston, Texas, for laboratory analysis of total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 8015M; benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method SW8260; and chloride by EPA Method 300.

Following investigation and soil sampling activities, the test pits were backfilled with the originally excavated material. Photographs of the Site and trenching activities are provided in Appendix B.

4.5.2 January 2020 Soil Sample Analytical Results

Laboratory analytical results for each soil sample were compared to the NMOCD Closure Criteria. As previously discussed, the Closure Criteria that appear to apply to the Site are those where groundwater is deeper than 100 feet bgs. 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, while 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 its Closure Criterion is delineated in test pits TP-1 and TP-4b.
- Chloride was not detected in any soil sample above the Closure Criterion of 20,000 mg/kg.
- 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 sampled. The vertical extent of total TPH concentrations above the Closure Criterion is 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 is vertically delineated in test pits TP-1 and TP-2.

In summary, TPH and BTEX have not been laterally or vertically delineated to the Closure Criteria in soil beneath the Site. Chloride and benzene do not exceed the Closure Criteria in soil beneath the Site. The soil sample analytical data and Closure Criteria are presented in Table 2. The laboratory analytical reports are attached as Appendix C.

4.5.3 Laboratory Analytical Data Quality Assurance/Quality Control Results

Data reported in work order HS20011164 generated by ALS Laboratory in Houston, Texas, were reviewed to ensure that reported analytical results met data quality objectives. It was determined by quality control data associated with analytical results that reported concentrations of target analytes were defensible and that measurement data reliability is within the expected limits of sampling and analytical error. The analytical results are usable for characterization of contamination at the Site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions are based on the results of the January 2020 investigation:

- Soil staining was observed underneath former crude oil Tank 970 during tank decommissioning activities suggesting a release occurred. Eight test pits were excavated in January 2020 to determine if there had been a release and, if so, to assess the vertical and lateral extent of potential soil impacts. Soil samples were collected for laboratory analysis from seven of the test pits.
- The applicable NMOCD Closure Criteria appear to be those appropriate for sites where groundwater is deeper than 100 feet. This is based on the nearest water supply well with available water level data. The following summarizes the soil sample analytical data compared to the “groundwater >100 feet bgs” Closure Criteria:
    - TPH and BTEX concentrations above the Closure Criteria have not been laterally or vertically delineated in soil beneath the Site.
    - Chloride and benzene concentrations do not exceed the Closure Criteria in soil beneath the Site.

Based on the above conclusions, it is recommended that additional investigation be conducted to delineate the vertical and lateral extent of BTEX and TPH (and chloride, if groundwater is encountered at a depth of less than 50 feet) in soil. Analysis will determine if concentrations in the soil are above the Closure Criteria and, if necessary based on the depth of soil impacts, determine if groundwater is impacted. TRC proposes to install four air rotary borings and two to four hand auger borings at the Site. The proposed boring locations are depicted on Figure 2.

One air rotary boring will be drilled inside the footprint of former Tank 970 for vertical delineation, and the other three air rotary borings will be drilled in accessible locations surrounding the former tank for vertical and lateral delineation. The total depth of the borings will be determined by the following:

1. The borings will be installed to the depth at which soil impacts are vertically delineated above groundwater. NMOCD Guidance indicates that vertical delineation requires at least 10 vertical feet of soil with constituent concentrations less than the applicable Closure Criteria. TRC will attempt to determine this based on field observations and PID readings.
2. If vertical delineation of soil is not achieved above groundwater, the borings will be installed approximately 10 feet into the uppermost groundwater bearing zone (if one is encountered) and converted to monitoring wells.

Soil intervals to be sampled for laboratory analysis will be determined based on field observations of potential impact, including hydrocarbon odor, staining, and PID readings. If groundwater is encountered prior to achieving vertical delineation of soil impacts, then monitoring wells will be installed and groundwater samples will be collected for laboratory analysis of BTEX, TPH, chloride (if warranted), and total dissolved solids (TDS) using appropriate analytical methods.

Additional lateral delineation of surface soil impacts will be conducted by completing hand auger borings. To delineate surface impacts, hand auger borings will be installed to the north and east in areas where drilling may not be possible due to the presence of utilities. Hand auger borings will also be installed to the south and west of the former Tank 970 location if TRC is unable to delineate shallow soil impacts with the proposed air rotary borings.

The investigation results will be documented in a revised Site Characterization Report and a Remediation Plan will be prepared in accordance with 19.15.29 NMAC for submittal to the NMOCD.

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

Test Pit Number	Location	Depth (feet bgs)	PID Measurement (ppm)	Chloride Test Kit Measurement (ppm)	Sample Submitted to Lab?	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'
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'
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'
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'
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		Light brown/tan well sorted unconsolidated sand. Harder with depth.	Strong petroleum odor.
		6	1920	1224			
		8	5000+	NM	Yes		
		10	4400	NM	Yes	Well cemented tan caliche.	
		12	4003	NM		Tan caliche.	Strong petroleum odor. Refusal at 12'

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

Test Pit Number	Location	Depth (feet bgs)	PID Measurement (ppm)	Chloride Test Kit Measurement (ppm)	Sample Submitted to Lab?	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		Light brown/tan well sorted unconsolidated sand. Harder with depth.	
		8	23.3	NM			
		10	1.7	NM			
		12	1.8	NM	Yes	Tan caliche.	Refusal at 12'
TP-5a	South of Former Tank	0	12.7	NM		Dark brown unconsolidated sand. Damp, well sorted.	No surface staining.
		2	142	NM			Strong petroleum odor and stained/discolored soil suggestive of a historical release.
		4	342	NM		Dark gray/black unconsolidated sand, damp. Harder with depth.	
		6	669	NM			
		8	1960	NM			
		10	1440	NM			
		12	1946	NM		Dark gray caliche.	Strong petroleum odor & staining. Refusal at 12'
TP-5	South of Former Tank	0	2	NM	Yes	Dark brown unconsolidated coarse sand. Damp, well sorted.	No surface staining.
		2	1442	NM			Petroleum odor.
		4	1427	NM			
		6	1581	1503		Light brown/tan well sorted unconsolidated sand. Harder with depth.	
		8	1701	NM			
		10	1766	NM	Yes		
		11	1201	277		Tan caliche.	Petroleum odor. Refusal at 11'
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.

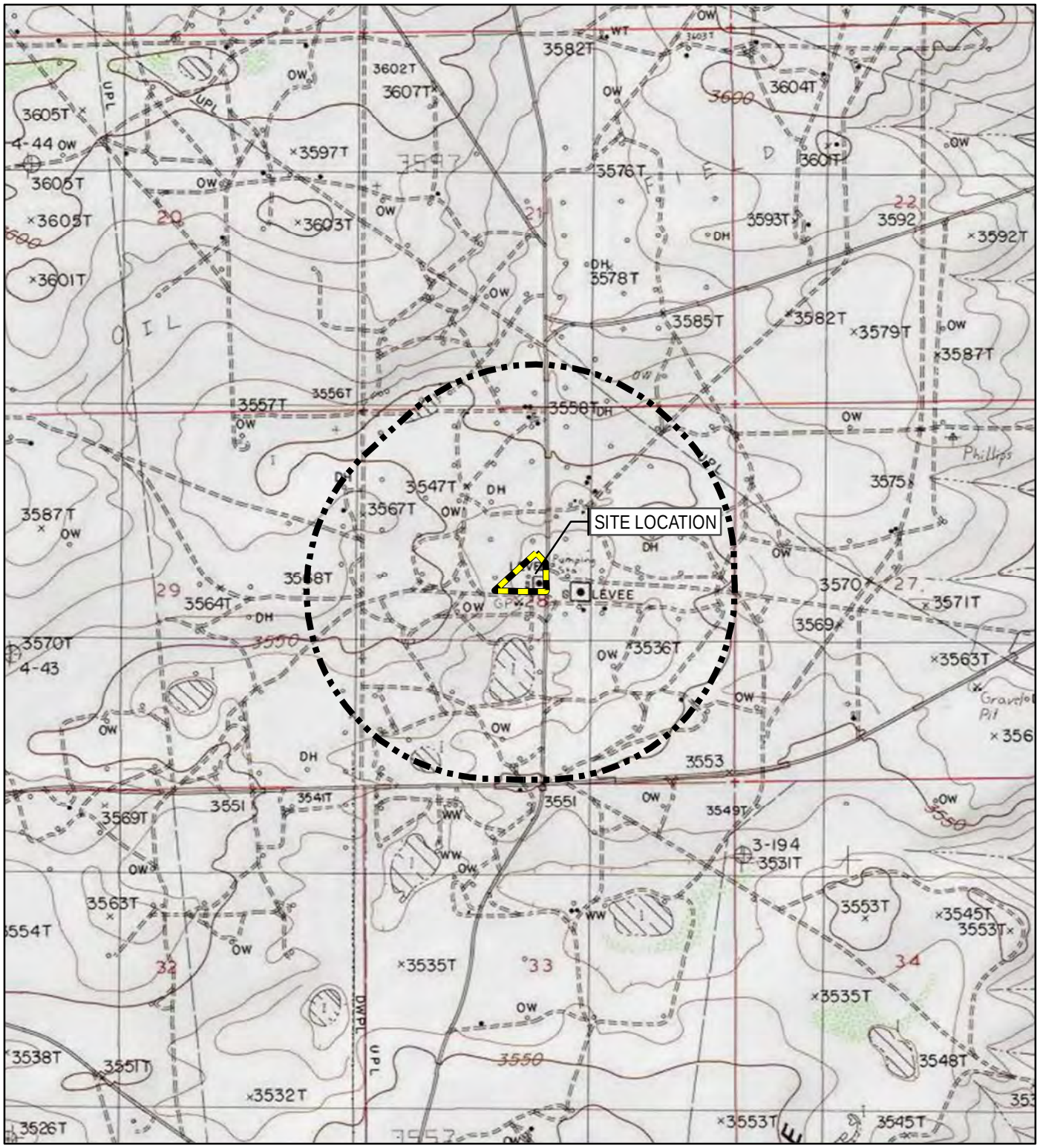
Notes: bgs = below ground surface.
ppm = parts per million.
' = feet
PID = Photo-Ionization Detector
NM = Not Measured
NA = Not Applicable

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

Constituent of Concern			BTEX (mg/Kg)					TPH (mg/Kg)				Chloride (mg/Kg)
			Benzene	Ethyl-benzene	Toluene	Xylenes	Total BTEX	GRO	DRO	MRO	TPH[1]	
NMOCD Closure Criteria	GW >100' bgs		10				50[2]	1000[3]			2500[4]	20000
TANK FOOTPRINT	TP-1-Surface		<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	0.45	43	150	193.45	1200
	TP-1-6'		0.58	23	6.8	56	86.38	1600	7100	5000	13700	3770
	TP-1-12'		<0.0053	0.049	<0.0053	0.15	0.199	80	410	360	850	3850
	TP-2-Surface		<0.0055	0.027	<0.0055	0.073	0.1	1.4	58	250	309.4	16.6
	TP-2-10'		<0.53	3.0	<0.53	8.7	11.7	200	1500	1800	3500	219
	TP-2-12'		<0.0054	0.036	<0.0054	0.1	0.136	56	810	1200	2066	159
	TP-3-Surface		<0.27	16	5.7	43	64.7	1200	9500	7200	17900	1290
	TP-3-6'		1.3	29	19	62	111.3	1600	7600	5600	14800	2960
	TP-3-12'		<0.28	16	6.0	35	57.0	1300	5200	3900	10400	1670
LATERAL DELINEATION	North		No test pit installed to north due to obstructions and utilities.									
	West	TP-4a-6'	0.42	67.0	3.4	130	200.82	450	8200	4200	12850	37.6
		TP-4b-2'	0.36	19.0	9.4	88	116.76	290	6500	4200	10990	1020
		TP-4b-8'	<0.28	18.0	3.3	53	74.3	210	4000	2500	6710	303
		TP-4b-10'	<0.29	5.8	0.68	18	24.48	420	3100	2100	5620	257
		TP-4c-Surface	<0.0057	<0.0057	<0.0057	0.016	0.016	0.15	470	2200	2670.15	309
		TP-4c-12'	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.059	70	8.5	78.5	83
	East	TP-6	Test pit installed to east terminated at 8 inches deep due to underground utilities. No sample collected.									
	South	TP-5a	No sample collected due to apparent historical contamination.									
		TP-5-Surface	0.0096	0.091	0.061	0.15	0.3116	2.0	940	3000	3942	1300
		TP-5-10'	2.3	58	15	120	195.3	2000	6700	3900	12600	998

Notes:

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes by EPA Method 8260.
TPH = Total Petroleum Hydrocarbons by EPA Method 8015.
GRO = Gasoline Range Organics.
DRO = Diesel Range Organics.
MRO = Motor Oil Range Organics.
NMOCD Closure Criteria = New Mexico Oil Conservation Division Closure Criteria for the Site (varies with depth to groundwater).
Blank cells in NMOCD Closure Criteria row indicates that there is no Closure Criterion (a cleanup standard or action level) for that constituent.
GW = Groundwater
[1] = TPH is the combination of GRO + DRO + MRO concentrations.
[2] = This value is compared against the sum of the benzene + toluene + ethylbenzene + total xylenes concentrations.
[3] = This value is compared against the sum of the GRO + DRO concentrations.
[4] = This value is compared against the sum of the GRO + DRO + MRO concentrations.
' = feet.
' bgs = feet below ground suface.
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 feet.



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

N

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

0 2,000 4,000 FEET

LEGEND

SITE BOUNDARY (FENCELINE)

0.5-MILE RADIUS WELLHEAD PROTECTION AREA / WATERCOURSE IDENTIFICATION AREA

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

PROJECT:

TANK 970 / ARTESIA STATION WEST
EDDY COUNTY, NM

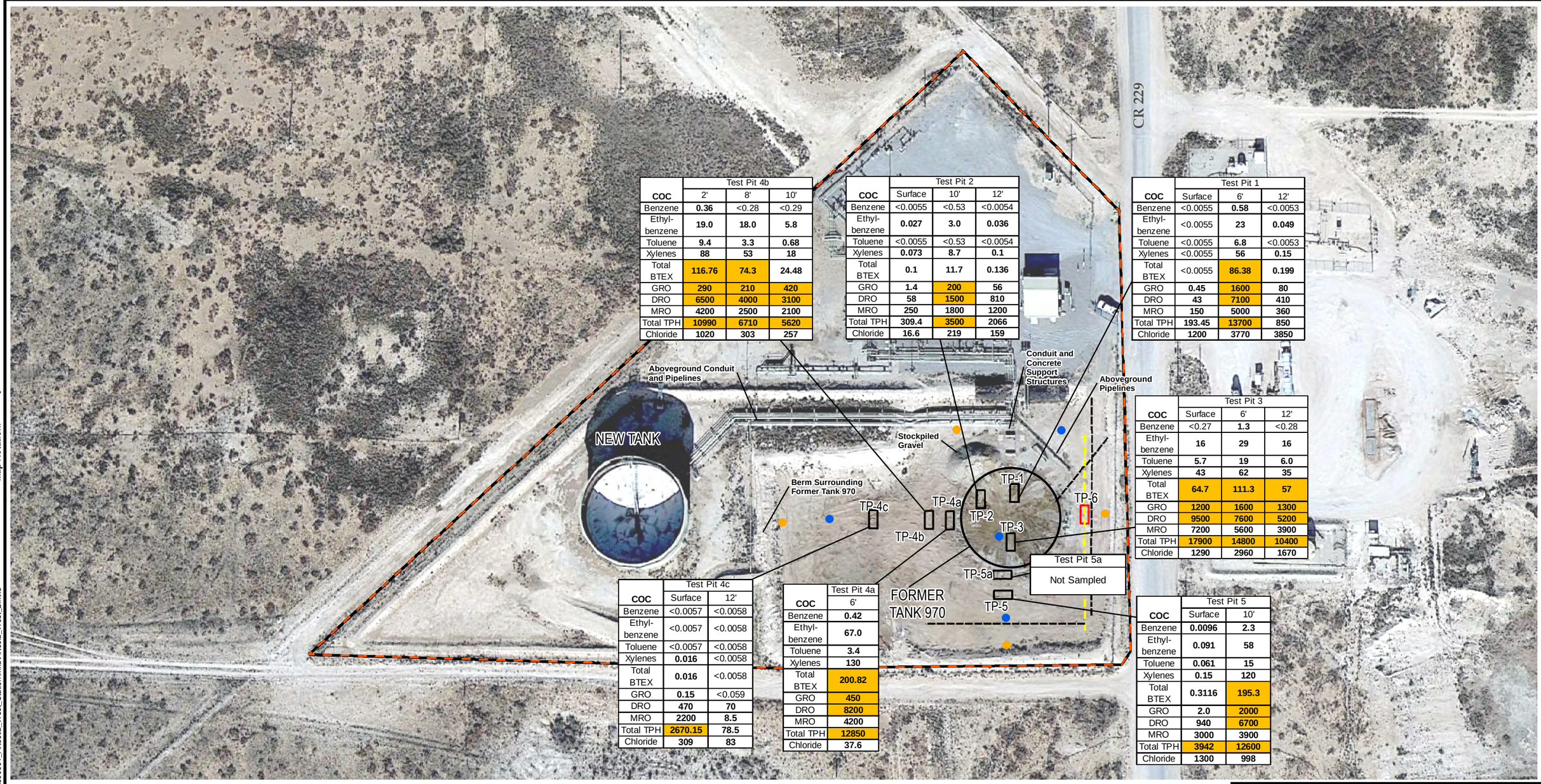
TITLE:

SITE LOCATION MAP

DRAWN BY:	S. RAY
CHECKED BY:	RDV
APPROVED BY:	RDV
DATE:	MARCH 2020
PROJ. NO.:	390691
FILE:	Artesia_West_1.mxd

FIGURE 1

S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\390691_Artestia_West_Station\mxd\Artesia_West_1.mxd -- Saved By: SRAY on 3/30/2020, 14:34:51 PM



COC	Test Pit 4b		
	2'	8'	10'
Benzene	**0.36**	<0.28	<0.29
Ethyl-benzene	**19.0**	**18.0**	**5.8**
Toluene	**9.4**	**3.3**	**0.68**
Xylenes	**88**	**53**	**18**
Total BTEX	**116.76**	**74.3**	**24.48**
GRO	**290**	**210**	**420**
DRO	**6500**	**4000**	**3100**
MRO	**4200**	**2500**	**2100**
Total TPH	**10990**	**6710**	**5620**
Chloride	**1020**	**303**	**257**

COC	Test Pit 2		
	Surface	10'	12'
Benzene	<0.0055	<0.53	<0.0054
Ethyl-benzene	**0.027**	**3.0**	**0.036**
Toluene	<0.0055	<0.53	<0.0054
Xylenes	**0.073**	**8.7**	**0.1**
Total BTEX	**0.1**	**11.7**	**0.136**
GRO	**1.4**	**200**	**56**
DRO	**58**	**1500**	**810**
MRO	**250**	**1800**	**1200**
Total TPH	**309.4**	**3500**	**2066**
Chloride	**16.6**	**219**	**159**

COC	Test Pit 1		
	Surface	6'	12'
Benzene	<0.0055	**0.58**	<0.0053
Ethyl-benzene	<0.0055	**23**	**0.049**
Toluene	<0.0055	**6.8**	<0.0053
Xylenes	<0.0055	**56**	**0.15**
Total BTEX	<0.0055	**86.38**	**0.199**
GRO	**0.45**	**1600**	**80**
DRO	**43**	**7100**	**410**
MRO	**150**	**5000**	**360**
Total TPH	**193.45**	**13700**	**850**
Chloride	**1200**	**3770**	**3850**

COC	Test Pit 3		
	Surface	6'	12'
Benzene	<0.27	**1.3**	<0.28
Ethyl-benzene	**16**	**29**	**16**
Toluene	**5.7**	**19**	**6.0**
Xylenes	**43**	**62**	**35**
Total BTEX	**64.7**	**111.3**	**57**
GRO	**1200**	**1600**	**1300**
DRO	**9500**	**7600**	**5200**
MRO	**7200**	**5600**	**3900**
Total TPH	**17900**	**14800**	**10400**
Chloride	**1290**	**2960**	**1670**

COC	Test Pit 4c	
	Surface	12'
Benzene	<0.0057	<0.0058
Ethyl-benzene	<0.0057	<0.0058
Toluene	<0.0057	<0.0058
Xylenes	**0.016**	<0.0058
Total BTEX	**0.016**	<0.0058
GRO	**0.15**	<0.059
DRO	**470**	**70**
MRO	**2200**	**8.5**
Total TPH	**2670.15**	**78.5**
Chloride	**309**	**83**

COC	Test Pit 4a
	6'
Benzene	**0.42**
Ethyl-benzene	**67.0**
Toluene	**3.4**
Xylenes	**130**
Total BTEX	**200.82**
GRO	**450**
DRO	**8200**
MRO	**4200**
Total TPH	**12850**
Chloride	**37.6**

Test Pit 5a
Not Sampled

COC	Test Pit 5	
	Surface	10'
Benzene	**0.0096**	**2.3**
Ethyl-benzene	**0.091**	**58**
Toluene	**0.061**	**15**
Xylenes	**0.15**	**120**
Total BTEX	**0.3116**	**195.3**
GRO	**2.0**	**2000**
DRO	**940**	**6700**
MRO	**3000**	**3900**
Total TPH	**3942**	**12600**
Chloride	**1300**	**998**

LEGEND

- FENCELINE
- UNMARKED, OUT OF SERVICE UNDERGROUND UTILITY
- FLAGGED UNDERGROUND LINE
- TEST PIT (NOT TO SCALE)
- TEST PIT THAT WAS STOPPED DUE TO UNMARKED UNDERGROUND UTILITY (NOT TO SCALE)
- PROPOSED AIR ROTARY BORING LOCATION
- PROPOSED HAND AUGER BORING LOCATION

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

NOTES:
1. Samples collected on 1/22/2020.
2. COC = Constituent of Concern.
3. Sample Depth provided in feet (').
4. Concentrations provided in mg/Kg.
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.
   GRO = Gasoline Range Organics.
   DRO = Diesel Range Organics.
   MRO = Motor Oil Range Organics.
   Total TPH = Sum of GRO + DRO + MRO.
7. Chloride by EPA Method 300.
8. Orange highlighted values exceed Closure Criteria for sites with groundwater greater than 100 feet deep.

0 85 170 Feet

1 " = 85 '

1:1,020

PROJECT:

TANK 970 / ARTESIA STATION WEST
EDDY COUNTY, NM

TITLE:

SITE AND TEST PIT LOCATION PLAN

DRAWN BY:	S. RAY	PROJ NO.:	390691
CHECKED BY:	RDV		
APPROVED BY:	RDV		
DATE:	APRIL 2020		

FIGURE 2

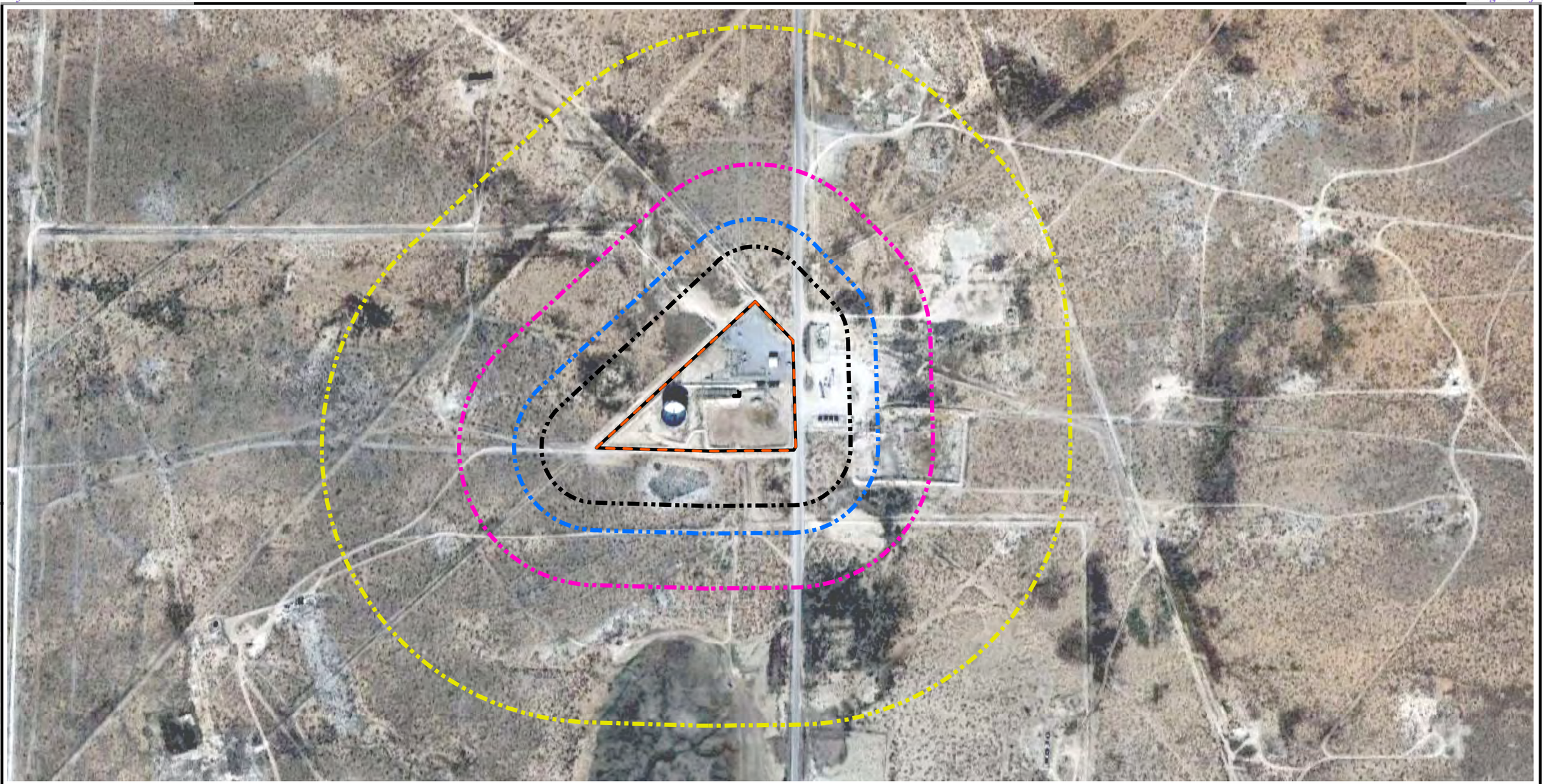
505 East Huntland Drive
Suite #250
Austin, TX 78752
Phone: 512.329.6080

FILE NO.: Artesia_West_2.mxd

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US (Foot US)
Map Rotation: 0
Plot Date: 4/14/2020, 14:42:47 PM by SRAY -- LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\390691_Artesia_West_Station\mxd\Artesia_West_2.mxd

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

Plot Date: 3/30/2020, 11:49:50 AM by SRAY -- LAYOUT: ANSI B(11"x17")
Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\390691_Artesia_West_Station\mxd\Artesia_West_3.mxd



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

CLOSURE CRITERIA MODIFIER APPLIES IF SITE IS LOCATED:

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 WATER COURSE; OR FROM AN OCCUPIED PERMANENT RESIDENCE, SCHOOL, HOSPITAL OR SEARCH.
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.

N

0 350 700 Feet

1 " = 350 '

1:4,200

PROJECT:

TANK 970 / ARTESIA STATION WEST
EDDY COUNTY, NM

TITLE:

CLOSURE CRITERIA MODIFIERS

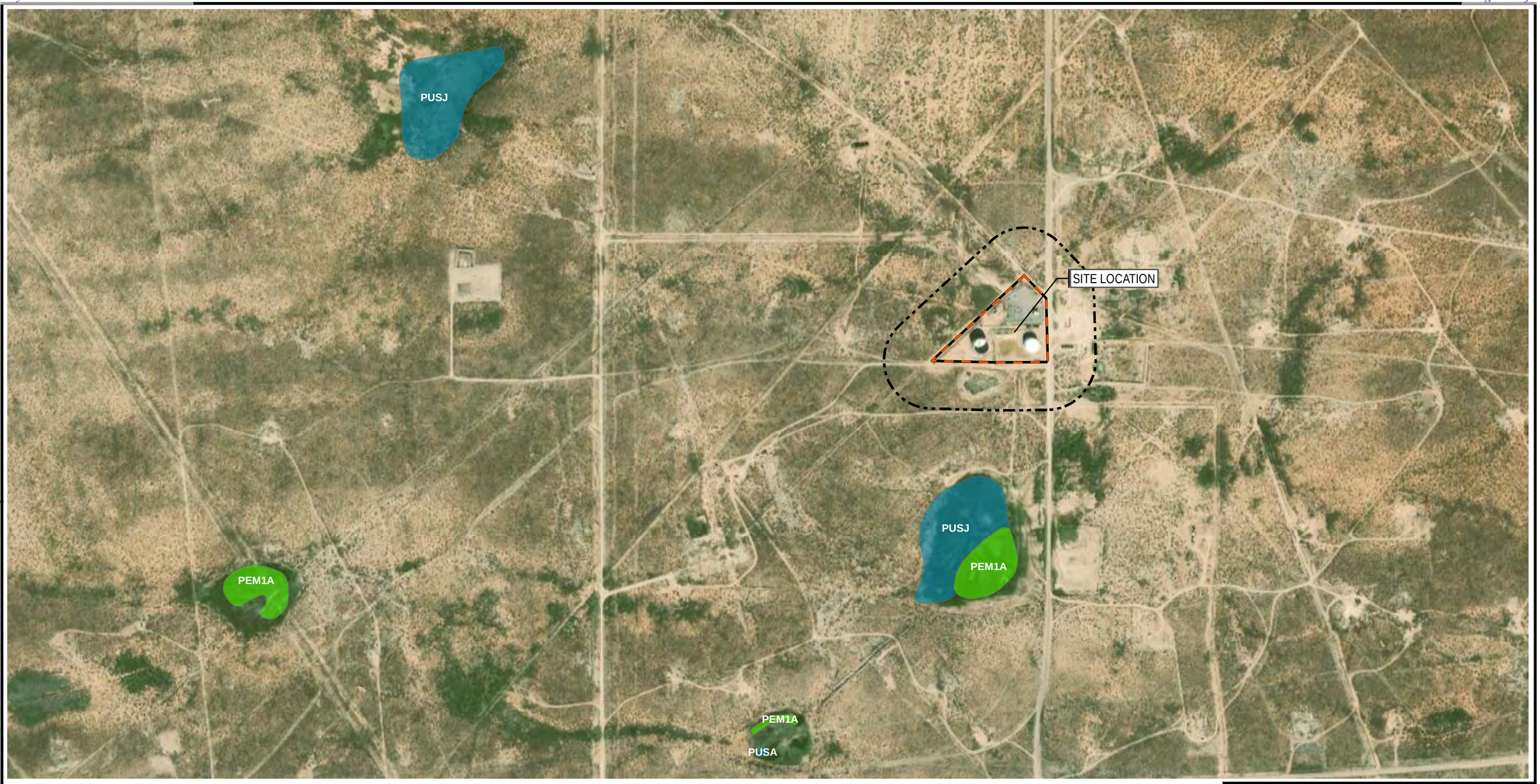
DRAWN BY:	S. RAY	PROJ NO.:	390691
CHECKED BY:	RDV		
APPROVED BY:	RDV		
DATE:	MARCH 2020		

FIGURE 3

TRC

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

FILE NO.: Artesia_West_3.mxd



LEGEND

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

SOURCE: WETLANDS - FISH AND WILDLIFE SERVICE NATIONAL WETLANDS INVENTORY

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. CLOSURE CRITERIA MODIFIER APPLIES IF SITE IS WITHIN 300 FEET OF A WETLAND

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

N

0 600 1,200 Feet

1 " = 600 '
1:7,200

PROJECT:
TANK 970 / ARTESIA STATION WEST
EDDY COUNTY, NM

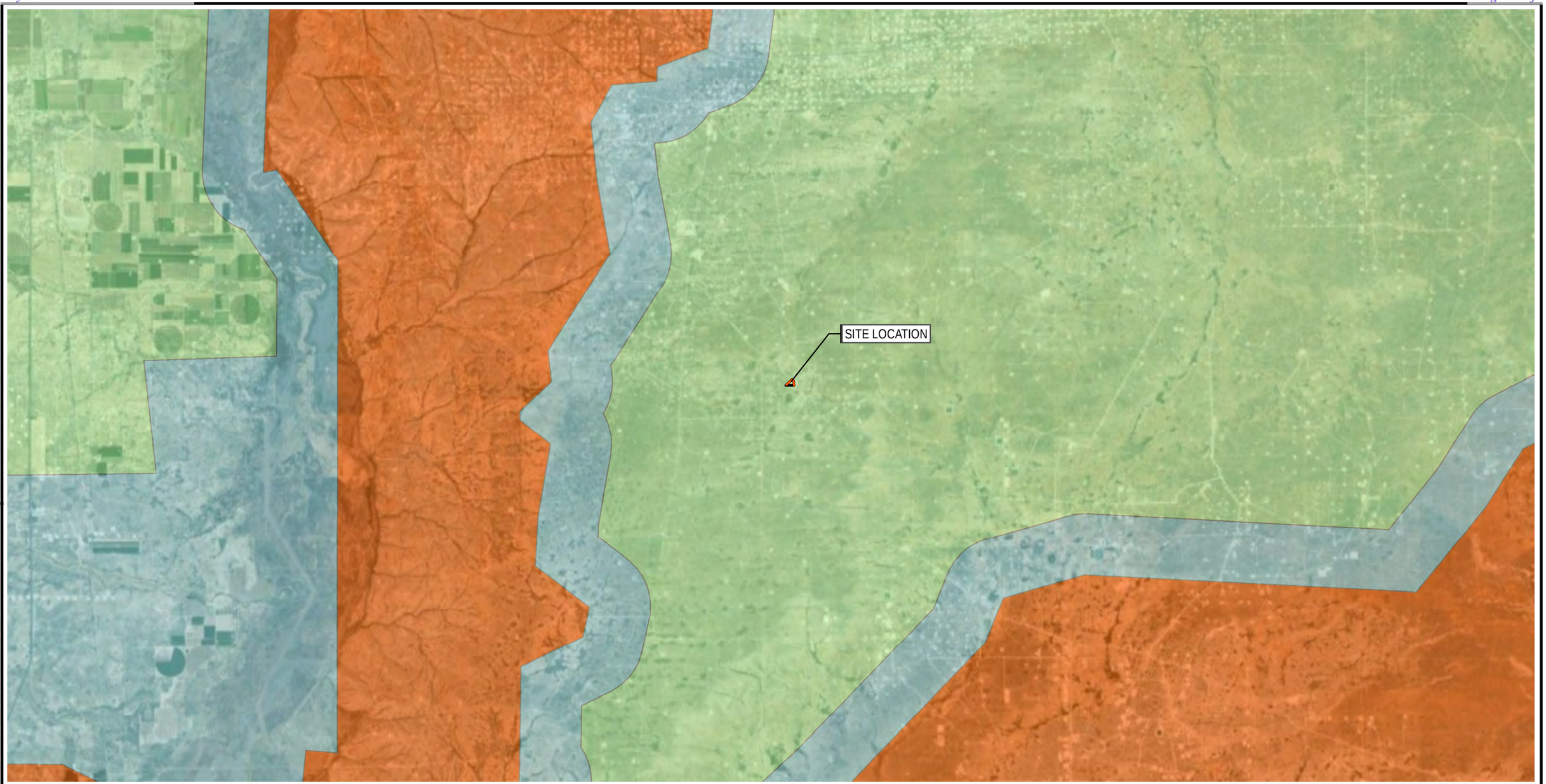
TITLE:
WETLANDS MAP

DRAWN BY:	S. RAY	PROJ NO.:	390691
CHECKED BY:	RDV		
APPROVED BY:	RDV		
DATE:	MARCH 2020		

FIGURE 4

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

FILE NO.: Artesia_West_4.mxd



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

Plot Date: 3/30/2020, 12:29:31 PM by SRAY -- LAYOUT:ANSI B(11"x17")
Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\390691_Artesia_West_Station\mxd\Artesia_West_5.mxd

LEGEND

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

SOURCE: KARST DATA FROM NEW MEXICO BUREAU OF LAND MANAGEMENT; AERIAL IMAGERY - ESRI IMAGERY

N

0 1 2 Miles

1 " = 2 MILES
1:99,960

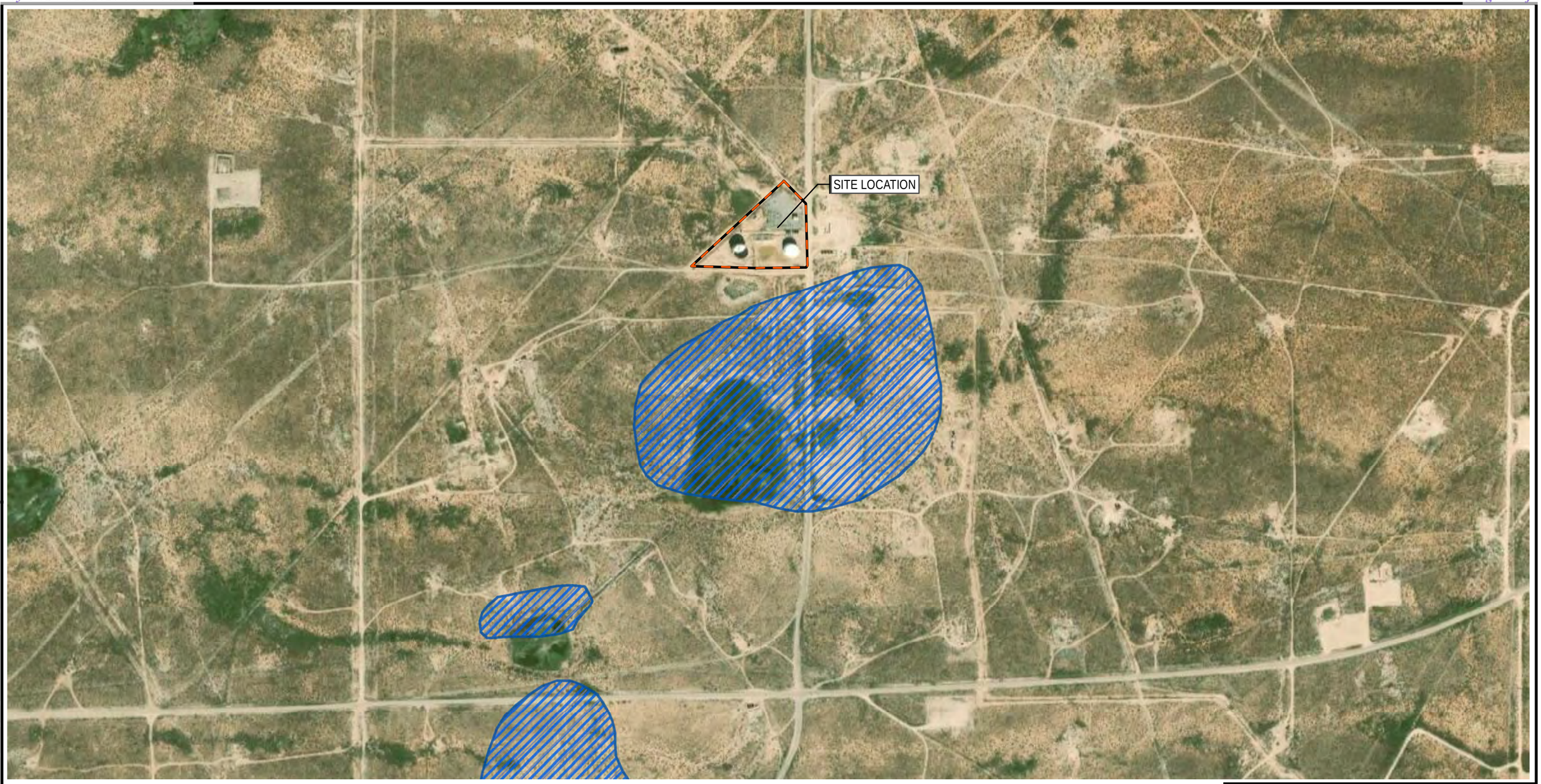
PROJECT:
TANK 970 / ARTESIA STATION WEST
EDDY COUNTY, NM

TITLE:
KARST POTENTIAL MAP

DRAWN BY:	S. RAY	PROJ NO.:	390691
CHECKED BY:	RDV		
APPROVED BY:	RDV		**FIGURE 5**
DATE:	MARCH 2020		

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

FILE NO.: Artesia_West_5.mxd



LEGEND

SITE BOUNDARY (FENCELINE)

AREA INSIDE 100 YEAR FLOODPLAIN

SOURCE: FLOODPLAIN - FEMA FLOOD MAP SERVICE CENTER (MSC); AERIAL IMAGERY - ERSI WORLD IMAGERY

N

0 600 1,200 Feet

1 " = 600 '
1:7,200

PROJECT:

TANK 970 / ARTESIA STATION WEST
EDDY COUNTY, NM

TITLE:

FLOODPLAIN MAP

DRAWN BY:	S. RAY	PROJ NO.:	390691
CHECKED BY:	RDV		
APPROVED BY:	RDV		**FIGURE 6**
DATE:	MARCH 2020		

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

FILE NO.: Artesia_West_6.mxd

Appendix A:
NMOCD Form C-141 and Email Confirmation

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.71917
(NAD 83 in decimal degrees to 5 decimal places)

Longitude -104.18119

Site Name Artesia West Station	Site Type Tank Station
Date Release Discovered 1/22/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
G	28	18S	28E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) Approximately 50	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Discovery of historical release and contamination after the demolition of a crude storage tank at the HEP Artesia West Station.

Form C-141 State of New Mexico
Page 2 Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release exceeding 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, Regulatory Manager – Charles Curl notified Robert Hamlet at the NMOCD District II Office of the discovery by phone on 1/23/20. The phone notification was also followed up by an email notification on 1/23/20 to Robert Hamlet, Mike Bratcher and Victoria Venegas at the District Office.	

Initial Response

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

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: Melanie Nolan Title: Environmental Specialist

Signature: Melanie Nolan Date: 1/29/20

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

OCD Only

Received by: Date:

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

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

Appendix B:
Photograph Log

Appendix B
Photograph Log

Photo 1: View facing north taken from the former tank footprint. Features visible to the north of the former tank include a stockpile of gravel, an aboveground pipeline, a concrete foundation, and conduit.

Photo 2: View looking west from the area immediately to the east/northeast of the former tank footprint. The gravel stockpile, concrete foundation/conduit, and aboveground pipeline noted in Photo 1 are also visible in this photograph. The new crude oil tank (Tank 974) that replaced former Tank 970 is also visible.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	TRC
390691	Ms. Misti Tienert 1/22/2020	1 of 3	HEP	Tank 970 / Artesia Station West, Eddy County, NM	

Appendix B
Photograph Log

Photo 3: View facing south of the excavation of test pit 1.

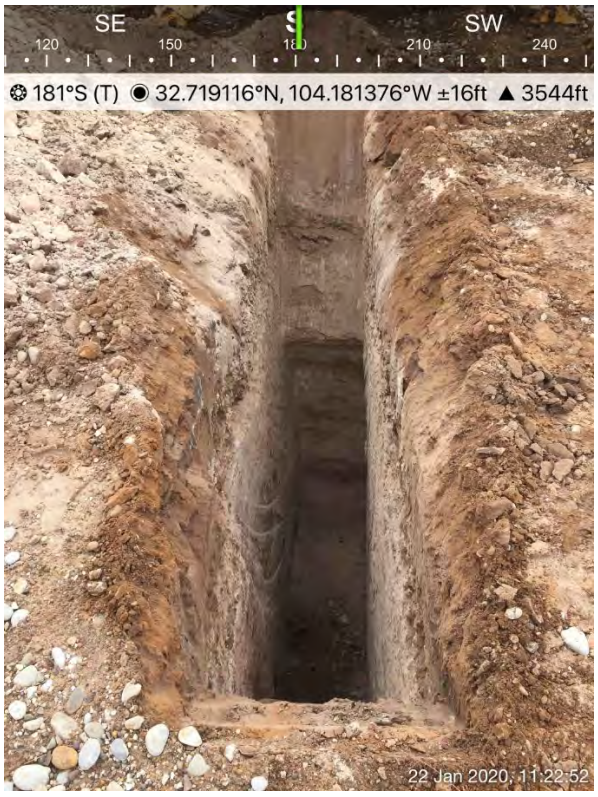


Photo 4: View facing south of test pit 2.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
390691	Ms. Misti Tienert 1/22/2020	2 of 3	HEP	Tank 970 / Artesia Station West, Eddy County, NM	TRC

Appendix B
Photograph Log

Photo 5: View facing south-southwest of test pit 3.

Photo 6: View facing southwest of excavated material from test pit 5.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
390691	Ms. Misti Tienert 1/22/2020	3 of 3	HEP	Tank 970 / Artesia Station West, Eddy County, NM	TRC

Appendix C:
Laboratory Analytical Reports

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

February 06, 2020

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

Work Order: **HS20011164**

Laboratory Results for: **Artesia Station West**

Dear Richard,

ALS Environmental received 22 sample(s) on Jan 24, 2020 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,

Generated By: JUMOKE.LAWAL
RJ Modashia
Project Manager

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Work Order: HS20011164

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS20011164-01	TP-1-Surface	Soil		22-Jan-2020 09:35	24-Jan-2020 08:50	☐
HS20011164-02	TP-1-6'	Soil		22-Jan-2020 09:40	24-Jan-2020 08:50	☐
HS20011164-03	TP-1-12'	Soil		22-Jan-2020 09:45	24-Jan-2020 08:50	☐
HS20011164-04	TP-2-Surface	Soil		22-Jan-2020 09:50	24-Jan-2020 08:50	☐
HS20011164-05	TP-2-10'	Soil		22-Jan-2020 09:55	24-Jan-2020 08:50	☐
HS20011164-06	TP-2-12'	Soil		22-Jan-2020 10:00	24-Jan-2020 08:50	☐
HS20011164-07	TP-3-Surface	Soil		22-Jan-2020 11:30	24-Jan-2020 08:50	☐
HS20011164-08	TP-3-6'	Soil		22-Jan-2020 11:40	24-Jan-2020 08:50	☐
HS20011164-09	TP-3-12'	Soil		22-Jan-2020 11:50	24-Jan-2020 08:50	☐
HS20011164-10	TP-4a-Surface	Soil		22-Jan-2020 13:00	24-Jan-2020 08:50	☑
HS20011164-11	TP-4a-6'	Soil		22-Jan-2020 13:10	24-Jan-2020 08:50	☐
HS20011164-12	TP-4a-12'	Soil		22-Jan-2020 13:20	24-Jan-2020 08:50	☑
HS20011164-13	TP-4b-2'	Soil		22-Jan-2020 15:00	24-Jan-2020 08:50	☐
HS20011164-14	TP-4b-8'	Soil		22-Jan-2020 15:10	24-Jan-2020 08:50	☐
HS20011164-15	TP-4b-10'	Soil		22-Jan-2020 15:20	24-Jan-2020 08:50	☐
HS20011164-16	TP-4C-Surface	Soil		22-Jan-2020 16:00	24-Jan-2020 08:50	☐
HS20011164-17	TP-4c-6'	Soil		22-Jan-2020 16:10	24-Jan-2020 08:50	☑
HS20011164-18	TP-4c-12'	Soil		22-Jan-2020 16:20	24-Jan-2020 08:50	☐
HS20011164-19	TP-5-Surface	Soil		22-Jan-2020 14:15	24-Jan-2020 08:50	☐
HS20011164-20	TP-5-10'	Soil		22-Jan-2020 14:25	24-Jan-2020 08:50	☐
HS20011164-21	TB-CG-121719-220	Water		22-Jan-2020 00:00	24-Jan-2020 08:50	☐
HS20011164-22	TB-CG-121719-217	Water		22-Jan-2020 00:00	24-Jan-2020 08:50	☐

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation **CASE NARRATIVE**
Project: Artesia Station West
Work Order: HS20011164

GC Semivolatiles by Method SW8015M

Batch ID: 150290

Sample ID: TP-4a-6' (HS20011164-11)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-4a-6' (HS20011164-11MS)

- 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.
- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-4a-6' (HS20011164-11MSD)

- 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.
- The RPD between the MS and MSD was outside of the control limit.
- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-4b-10' (HS20011164-15)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-4b-2' (HS20011164-13)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-4b-8' (HS20011164-14)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Batch ID: 150047

Sample ID: TP-1-6' (HS20011164-02)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-1-Surface (HS20011164-01MS)

- 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: TP-1-Surface (HS20011164-01MSD)

- 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.

Sample ID: TP-2-10' (HS20011164-05)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-2-12' (HS20011164-06)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-3-12' (HS20011164-09)

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation **CASE NARRATIVE**
Project: Artesia Station West
Work Order: HS20011164

GC Semivolatiles by Method SW8015M

Batch ID: 150047

• The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-3-6' (HS20011164-08)

• The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-3-Surface (HS20011164-07)

• The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-4C-Surface (HS20011164-16)

• The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-5-10' (HS20011164-20)

• The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: TP-5-Surface (HS20011164-19)

• The surrogate recoveries could not be determined due to dilution below the calibration range.

GC Volatiles by Method SW8015

Batch ID: R355522

Sample ID: TP-4a-6' (HS20011164-11)

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

Sample ID: TP-4b-10' (HS20011164-15)

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

Batch ID: R355242

Sample ID: TP-1-6' (HS20011164-02)

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

Sample ID: TP-5-10' (HS20011164-20)

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

Batch ID: R355303

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

GCMS Volatiles by Method SW8260

Batch ID: R355335

Sample ID: HS20011124-01MS

• MS and MSD are for an unrelated sample

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation **CASE NARRATIVE**
Project: Artesia Station West
Work Order: HS20011164

GCMS Volatiles by Method SW8260

Batch ID: R355354

Sample ID: HS20011182-06MS

- MS and MSD are for an unrelated sample

Batch ID: R355575,R355596

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

WetChemistry by Method SW3550

Batch ID: R355436,R355785

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

WetChemistry by Method E300

Batch ID: 150165

Sample ID: TP-1-Surface (HS20011164-01MS)

- The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. (Chloride)

Batch ID: 150257

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-1-Surface
Collection Date: 22-Jan-2020 09:35

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-01
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	< 0.0055		0.0055	mg/Kg-dry	1	30-Jan-2020 13:36
Ethylbenzene	< 0.0055		0.0055	mg/Kg-dry	1	30-Jan-2020 13:36
Toluene	< 0.0055		0.0055	mg/Kg-dry	1	30-Jan-2020 13:36
Xylenes, Total	< 0.0055		0.0055	mg/Kg-dry	1	30-Jan-2020 13:36
Surr: 1,2-Dichloroethane-d4	*101*		*70-126*	*%REC*	*1*	*30-Jan-2020 13:36*
Surr: 4-Bromofluorobenzene	*99.9*		*70-130*	*%REC*	*1*	*30-Jan-2020 13:36*
Surr: Dibromofluoromethane	*93.1*		*70-130*	*%REC*	*1*	*30-Jan-2020 13:36*
Surr: Toluene-d8	*101*		*70-130*	*%REC*	*1*	*30-Jan-2020 13:36*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**0.45**		**0.053**	**mg/Kg-dry**	1	29-Jan-2020 13:22
Surr: 4-Bromofluorobenzene	*105*		*70-123*	*%REC*	*1*	*29-Jan-2020 13:22*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**43**		**18**	**mg/Kg-dry**	10	29-Jan-2020 17:06
TPH (Motor Oil Range)	**150**	n	**36**	**mg/Kg-dry**	10	29-Jan-2020 17:06
Surr: 2-Fluorobiphenyl	*86.4*		*60-129*	*%REC*	*10*	*29-Jan-2020 17:06*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**1,200**		**53.2**	**mg/Kg-dry**	10	04-Feb-2020 00:33
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**5.22**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-1-6'
Collection Date: 22-Jan-2020 09:40

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-02
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**0.58**		**0.28**	**mg/Kg-dry**	50	30-Jan-2020 12:37
Ethylbenzene	**23**		**2.8**	**mg/Kg-dry**	500	30-Jan-2020 15:57
Toluene	**6.8**		**0.28**	**mg/Kg-dry**	50	30-Jan-2020 12:37
Xylenes, Total	**56**		**2.8**	**mg/Kg-dry**	500	30-Jan-2020 15:57
Surr: 1,2-Dichloroethane-d4	*84.8*		*70-126*	*%REC*	*50*	*30-Jan-2020 12:37*
Surr: 1,2-Dichloroethane-d4	*89.1*		*70-126*	*%REC*	*500*	*30-Jan-2020 15:57*
Surr: 4-Bromofluorobenzene	*82.3*		*70-130*	*%REC*	*50*	*30-Jan-2020 12:37*
Surr: 4-Bromofluorobenzene	*93.6*		*70-130*	*%REC*	*500*	*30-Jan-2020 15:57*
Surr: Dibromofluoromethane	*89.6*		*70-130*	*%REC*	*50*	*30-Jan-2020 12:37*
Surr: Dibromofluoromethane	*92.4*		*70-130*	*%REC*	*500*	*30-Jan-2020 15:57*
Surr: Toluene-d8	*111*		*70-130*	*%REC*	*50*	*30-Jan-2020 12:37*
Surr: Toluene-d8	*101*		*70-130*	*%REC*	*500*	*30-Jan-2020 15:57*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**1,600**		**3.0**	**mg/Kg-dry**	50	28-Jan-2020 22:03
Surr: 4-Bromofluorobenzene	*157*	*S*	*70-123*	*%REC*	*50*	*28-Jan-2020 22:03*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**7,100**		**190**	**mg/Kg-dry**	100	29-Jan-2020 18:19
TPH (Motor Oil Range)	**5,000**	n	**380**	**mg/Kg-dry**	100	29-Jan-2020 18:19
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*100*	*29-Jan-2020 18:19*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**3,770**		**54.4**	**mg/Kg-dry**	10	31-Jan-2020 14:08
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**11.6**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-1-12'
Collection Date: 22-Jan-2020 09:45

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-03
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	< 0.0058		0.0058	mg/Kg-dry	1	30-Jan-2020 14:01
Ethylbenzene	**0.049**		**0.0058**	**mg/Kg-dry**	1	30-Jan-2020 14:01
Toluene	< 0.0058		0.0058	mg/Kg-dry	1	30-Jan-2020 14:01
Xylenes, Total	**0.15**		**0.0058**	**mg/Kg-dry**	1	30-Jan-2020 14:01
Surr: 1,2-Dichloroethane-d4	*101*		*70-126*	*%REC*	*1*	*30-Jan-2020 14:01*
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*1*	*30-Jan-2020 14:01*
Surr: Dibromofluoromethane	*96.4*		*70-130*	*%REC*	*1*	*30-Jan-2020 14:01*
Surr: Toluene-d8	*102*		*70-130*	*%REC*	*1*	*30-Jan-2020 14:01*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**80**		**2.8**	**mg/Kg-dry**	50	28-Jan-2020 19:25
Surr: 4-Bromofluorobenzene	*106*		*70-123*	*%REC*	*50*	*28-Jan-2020 19:25*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**410**		**19**	**mg/Kg-dry**	10	29-Jan-2020 18:44
TPH (Motor Oil Range)	**360**	n	**37**	**mg/Kg-dry**	10	29-Jan-2020 18:44
Surr: 2-Fluorobiphenyl	*117*		*60-129*	*%REC*	*10*	*29-Jan-2020 18:44*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**3,850**		**54.9**	**mg/Kg-dry**	10	31-Jan-2020 14:23
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**8.55**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-2-Surface
Collection Date: 22-Jan-2020 09:50

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-04
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	< 0.0055		0.0055	mg/Kg-dry	1	30-Jan-2020 14:26
Ethylbenzene	**0.027**		**0.0055**	**mg/Kg-dry**	1	30-Jan-2020 14:26
Toluene	< 0.0055		0.0055	mg/Kg-dry	1	30-Jan-2020 14:26
Xylenes, Total	**0.073**		**0.0055**	**mg/Kg-dry**	1	30-Jan-2020 14:26
Surr: 1,2-Dichloroethane-d4	*98.0*		*70-126*	*%REC*	*1*	*30-Jan-2020 14:26*
Surr: 4-Bromofluorobenzene	*96.6*		*70-130*	*%REC*	*1*	*30-Jan-2020 14:26*
Surr: Dibromofluoromethane	*91.9*		*70-130*	*%REC*	*1*	*30-Jan-2020 14:26*
Surr: Toluene-d8	*101*		*70-130*	*%REC*	*1*	*30-Jan-2020 14:26*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**1.4**		**0.053**	**mg/Kg-dry**	1	29-Jan-2020 12:47
Surr: 4-Bromofluorobenzene	*113*		*70-123*	*%REC*	*1*	*29-Jan-2020 12:47*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**58**		**36**	**mg/Kg-dry**	20	30-Jan-2020 08:44
TPH (Motor Oil Range)	**250**	n	**71**	**mg/Kg-dry**	20	30-Jan-2020 08:44
Surr: 2-Fluorobiphenyl	*97.8*		*60-129*	*%REC*	*20*	*30-Jan-2020 08:44*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**16.6**		**5.17**	**mg/Kg-dry**	1	31-Jan-2020 15:07
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**4.76**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-2-10'
Collection Date: 22-Jan-2020 09:55

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-05
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	< 0.53		0.53	mg/Kg-dry	10	30-Jan-2020 12:22
Ethylbenzene	**3.0**		**0.53**	**mg/Kg-dry**	10	30-Jan-2020 12:22
Toluene	< 0.53		0.53	mg/Kg-dry	10	30-Jan-2020 12:22
Xylenes, Total	**8.7**		**0.53**	**mg/Kg-dry**	10	30-Jan-2020 12:22
Surr: 1,2-Dichloroethane-d4	*97.1*		*70-126*	*%REC*	*10*	*30-Jan-2020 12:22*
Surr: 4-Bromofluorobenzene	*98.6*		*70-130*	*%REC*	*10*	*30-Jan-2020 12:22*
Surr: Dibromofluoromethane	*94.2*		*70-130*	*%REC*	*10*	*30-Jan-2020 12:22*
Surr: Toluene-d8	*101*		*70-130*	*%REC*	*10*	*30-Jan-2020 12:22*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**200**		**2.9**	**mg/Kg-dry**	50	28-Jan-2020 21:15
Surr: 4-Bromofluorobenzene	*108*		*70-123*	*%REC*	*50*	*28-Jan-2020 21:15*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**1,500**		**190**	**mg/Kg-dry**	100	29-Jan-2020 19:33
TPH (Motor Oil Range)	**1,800**	n	**380**	**mg/Kg-dry**	100	29-Jan-2020 19:33
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*100*	*29-Jan-2020 19:33*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**219**		**5.57**	**mg/Kg-dry**	1	31-Jan-2020 15:22
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**10.0**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-2-12'
Collection Date: 22-Jan-2020 10:00

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-06
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	< 0.0054		0.0054	mg/Kg-dry	1	30-Jan-2020 14:51
Ethylbenzene	**0.036**		**0.0054**	**mg/Kg-dry**	1	30-Jan-2020 14:51
Toluene	< 0.0054		0.0054	mg/Kg-dry	1	30-Jan-2020 14:51
Xylenes, Total	**0.10**		**0.0054**	**mg/Kg-dry**	1	30-Jan-2020 14:51
Surr: 1,2-Dichloroethane-d4	*99.4*		*70-126*	*%REC*	*1*	*30-Jan-2020 14:51*
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*1*	*30-Jan-2020 14:51*
Surr: Dibromofluoromethane	*95.0*		*70-130*	*%REC*	*1*	*30-Jan-2020 14:51*
Surr: Toluene-d8	*101*		*70-130*	*%REC*	*1*	*30-Jan-2020 14:51*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**56**		**2.8**	**mg/Kg-dry**	50	28-Jan-2020 21:31
Surr: 4-Bromofluorobenzene	*108*		*70-123*	*%REC*	*50*	*28-Jan-2020 21:31*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**810**		**190**	**mg/Kg-dry**	100	29-Jan-2020 19:57
TPH (Motor Oil Range)	**1,200**	n	**370**	**mg/Kg-dry**	100	29-Jan-2020 19:57
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*100*	*29-Jan-2020 19:57*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**159**		**5.36**	**mg/Kg-dry**	1	31-Jan-2020 15:36
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**8.75**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-3-Surface
Collection Date: 22-Jan-2020 11:30

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-07
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	< 0.27		0.27	mg/Kg-dry	50	30-Jan-2020 13:27
Ethylbenzene	**16**		**2.7**	**mg/Kg-dry**	500	30-Jan-2020 16:22
Toluene	**5.7**		**0.27**	**mg/Kg-dry**	50	30-Jan-2020 13:27
Xylenes, Total	**43**		**2.7**	**mg/Kg-dry**	500	30-Jan-2020 16:22
Surr: 1,2-Dichloroethane-d4	*87.4*		*70-126*	*%REC*	*500*	*30-Jan-2020 16:22*
Surr: 1,2-Dichloroethane-d4	*89.7*		*70-126*	*%REC*	*50*	*30-Jan-2020 13:27*
Surr: 4-Bromofluorobenzene	*104*		*70-130*	*%REC*	*500*	*30-Jan-2020 16:22*
Surr: 4-Bromofluorobenzene	*82.5*		*70-130*	*%REC*	*50*	*30-Jan-2020 13:27*
Surr: Dibromofluoromethane	*90.3*		*70-130*	*%REC*	*50*	*30-Jan-2020 13:27*
Surr: Dibromofluoromethane	*91.1*		*70-130*	*%REC*	*500*	*30-Jan-2020 16:22*
Surr: Toluene-d8	*104*		*70-130*	*%REC*	*500*	*30-Jan-2020 16:22*
Surr: Toluene-d8	*108*		*70-130*	*%REC*	*50*	*30-Jan-2020 13:27*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**1,200**		**2.8**	**mg/Kg-dry**	50	28-Jan-2020 22:19
Surr: 4-Bromofluorobenzene	*120*		*70-123*	*%REC*	*50*	*28-Jan-2020 22:19*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**9,500**		**370**	**mg/Kg-dry**	200	30-Jan-2020 09:08
TPH (Motor Oil Range)	**7,200**	n	**730**	**mg/Kg-dry**	200	30-Jan-2020 09:08
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*200*	*30-Jan-2020 09:08*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**1,290**		**53.7**	**mg/Kg-dry**	10	31-Jan-2020 15:51
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**7.60**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-3-6'
Collection Date: 22-Jan-2020 11:40

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-08
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**1.3**		**0.29**	**mg/Kg-dry**	50	30-Jan-2020 13:52
Ethylbenzene	**29**		**5.7**	**mg/Kg-dry**	1000	30-Jan-2020 16:47
Toluene	**19**		**5.7**	**mg/Kg-dry**	1000	30-Jan-2020 16:47
Xylenes, Total	**62**		**5.7**	**mg/Kg-dry**	1000	30-Jan-2020 16:47
Surr: 1,2-Dichloroethane-d4	*81.4*		*70-126*	*%REC*	*50*	*30-Jan-2020 13:52*
Surr: 1,2-Dichloroethane-d4	*86.1*		*70-126*	*%REC*	*1000*	*30-Jan-2020 16:47*
Surr: 4-Bromofluorobenzene	*91.6*		*70-130*	*%REC*	*50*	*30-Jan-2020 13:52*
Surr: 4-Bromofluorobenzene	*99.4*		*70-130*	*%REC*	*1000*	*30-Jan-2020 16:47*
Surr: Dibromofluoromethane	*91.5*		*70-130*	*%REC*	*1000*	*30-Jan-2020 16:47*
Surr: Dibromofluoromethane	*91.1*		*70-130*	*%REC*	*50*	*30-Jan-2020 13:52*
Surr: Toluene-d8	*121*		*70-130*	*%REC*	*50*	*30-Jan-2020 13:52*
Surr: Toluene-d8	*91.1*		*70-130*	*%REC*	*1000*	*30-Jan-2020 16:47*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**1,600**		**2.9**	**mg/Kg-dry**	50	28-Jan-2020 22:34
Surr: 4-Bromofluorobenzene	*76.3*		*70-123*	*%REC*	*50*	*28-Jan-2020 22:34*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**7,600**		**390**	**mg/Kg-dry**	200	30-Jan-2020 09:33
TPH (Motor Oil Range)	**5,600**	n	**770**	**mg/Kg-dry**	200	30-Jan-2020 09:33
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*200*	*30-Jan-2020 09:33*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**2,960**		**57.4**	**mg/Kg-dry**	10	31-Jan-2020 16:06
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**12.7**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-3-12'
Collection Date: 22-Jan-2020 11:50

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-09
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	< 0.28		0.28	mg/Kg-dry	50	30-Jan-2020 14:17
Ethylbenzene	**16**		**2.8**	**mg/Kg-dry**	500	30-Jan-2020 17:12
Toluene	**6.0**		**0.28**	**mg/Kg-dry**	50	30-Jan-2020 14:17
Xylenes, Total	**35**		**2.8**	**mg/Kg-dry**	500	30-Jan-2020 17:12
Surr: 1,2-Dichloroethane-d4	*94.1*		*70-126*	*%REC*	*500*	*30-Jan-2020 17:12*
Surr: 1,2-Dichloroethane-d4	*84.4*		*70-126*	*%REC*	*50*	*30-Jan-2020 14:17*
Surr: 4-Bromofluorobenzene	*78.3*		*70-130*	*%REC*	*50*	*30-Jan-2020 14:17*
Surr: 4-Bromofluorobenzene	*94.9*		*70-130*	*%REC*	*500*	*30-Jan-2020 17:12*
Surr: Dibromofluoromethane	*91.6*		*70-130*	*%REC*	*500*	*30-Jan-2020 17:12*
Surr: Dibromofluoromethane	*88.1*		*70-130*	*%REC*	*50*	*30-Jan-2020 14:17*
Surr: Toluene-d8	*99.7*		*70-130*	*%REC*	*50*	*30-Jan-2020 14:17*
Surr: Toluene-d8	*92.3*		*70-130*	*%REC*	*500*	*30-Jan-2020 17:12*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**1,300**		**2.8**	**mg/Kg-dry**	50	28-Jan-2020 21:47
Surr: 4-Bromofluorobenzene	*117*		*70-123*	*%REC*	*50*	*28-Jan-2020 21:47*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**5,200**		**190**	**mg/Kg-dry**	100	29-Jan-2020 22:00
TPH (Motor Oil Range)	**3,900**	n	**370**	**mg/Kg-dry**	100	29-Jan-2020 22:00
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*100*	*29-Jan-2020 22:00*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**1,670**		**54.8**	**mg/Kg-dry**	10	31-Jan-2020 16:20
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**9.34**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-4a-6'
Collection Date: 22-Jan-2020 13:10

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-11
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**0.42**		**0.30**	**mg/Kg-dry**	50	04-Feb-2020 14:06
Ethylbenzene	**67**		**3.0**	**mg/Kg-dry**	500	04-Feb-2020 15:46
Toluene	**3.4**		**0.30**	**mg/Kg-dry**	50	04-Feb-2020 14:06
Xylenes, Total	**130**		**3.0**	**mg/Kg-dry**	500	04-Feb-2020 15:46
Surr: 1,2-Dichloroethane-d4	*99.1*		*70-126*	*%REC*	*50*	*04-Feb-2020 14:06*
Surr: 1,2-Dichloroethane-d4	*106*		*70-126*	*%REC*	*500*	*04-Feb-2020 15:46*
Surr: 4-Bromofluorobenzene	*98.8*		*70-130*	*%REC*	*500*	*04-Feb-2020 15:46*
Surr: 4-Bromofluorobenzene	*76.1*		*70-130*	*%REC*	*50*	*04-Feb-2020 14:06*
Surr: Dibromofluoromethane	*89.4*		*70-130*	*%REC*	*50*	*04-Feb-2020 14:06*
Surr: Dibromofluoromethane	*96.9*		*70-130*	*%REC*	*500*	*04-Feb-2020 15:46*
Surr: Toluene-d8	*104*		*70-130*	*%REC*	*500*	*04-Feb-2020 15:46*
Surr: Toluene-d8	*126*		*70-130*	*%REC*	*50*	*04-Feb-2020 14:06*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**450**		**0.54**	**mg/Kg-dry**	1	31-Jan-2020 15:11
Surr: 4-Bromofluorobenzene	*130*	*S*	*70-123*	*%REC*	*1*	*31-Jan-2020 15:11*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Feb-2020		Analyst: PVL
TPH (Diesel Range)	**8,200**		**400**	**mg/Kg-dry**	200	05-Feb-2020 08:38
TPH (Motor Oil Range)	**4,200**	n	**790**	**mg/Kg-dry**	200	05-Feb-2020 08:38
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*200*	*05-Feb-2020 08:38*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Feb-2020		Analyst: KMU
Chloride	**37.6**		**5.93**	**mg/Kg-dry**	1	04-Feb-2020 19:23
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**14.7**		**0.0100**	**wt%**	1	05-Feb-2020 11:36

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-4b-2'
Collection Date: 22-Jan-2020 15:00

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-13
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**0.36**		**0.27**	**mg/Kg-dry**	50	04-Feb-2020 13:41
Ethylbenzene	**19**		**2.7**	**mg/Kg-dry**	500	04-Feb-2020 15:21
Toluene	**9.4**		**0.27**	**mg/Kg-dry**	50	04-Feb-2020 13:41
Xylenes, Total	**88**		**2.7**	**mg/Kg-dry**	500	04-Feb-2020 15:21
Surr: 1,2-Dichloroethane-d4	*106*		*70-126*	*%REC*	*500*	*04-Feb-2020 15:21*
Surr: 1,2-Dichloroethane-d4	*94.2*		*70-126*	*%REC*	*50*	*04-Feb-2020 13:41*
Surr: 4-Bromofluorobenzene	*98.3*		*70-130*	*%REC*	*50*	*04-Feb-2020 13:41*
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	*500*	*04-Feb-2020 15:21*
Surr: Dibromofluoromethane	*98.2*		*70-130*	*%REC*	*500*	*04-Feb-2020 15:21*
Surr: Dibromofluoromethane	*93.6*		*70-130*	*%REC*	*50*	*04-Feb-2020 13:41*
Surr: Toluene-d8	*110*		*70-130*	*%REC*	*500*	*04-Feb-2020 15:21*
Surr: Toluene-d8	*121*		*70-130*	*%REC*	*50*	*04-Feb-2020 13:41*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**290**		**0.51**	**mg/Kg-dry**	1	31-Jan-2020 14:54
Surr: 4-Bromofluorobenzene	*93.4*		*70-123*	*%REC*	*1*	*31-Jan-2020 14:54*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Feb-2020		Analyst: PVL
TPH (Diesel Range)	**6,500**		**180**	**mg/Kg-dry**	100	04-Feb-2020 23:05
TPH (Motor Oil Range)	**4,200**	n	**370**	**mg/Kg-dry**	100	04-Feb-2020 23:05
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*100*	*04-Feb-2020 23:05*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Feb-2020		Analyst: KMU
Chloride	**1,020**		**5.15**	**mg/Kg-dry**	1	04-Feb-2020 19:37
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**8.41**		**0.0100**	**wt%**	1	05-Feb-2020 11:36

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-4b-8'
Collection Date: 22-Jan-2020 15:10

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-14
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	< 0.28		0.28	mg/Kg-dry	50	04-Feb-2020 14:56
Ethylbenzene	**18**		**2.9**	**mg/Kg-dry**	500	04-Feb-2020 16:11
Toluene	**3.3**		**0.28**	**mg/Kg-dry**	50	04-Feb-2020 14:56
Xylenes, Total	**53**		**2.9**	**mg/Kg-dry**	500	04-Feb-2020 16:11
Surr: 1,2-Dichloroethane-d4	*100*		*70-126*	*%REC*	*500*	*04-Feb-2020 16:11*
Surr: 1,2-Dichloroethane-d4	*104*		*70-126*	*%REC*	*50*	*04-Feb-2020 14:56*
Surr: 4-Bromofluorobenzene	*91.4*		*70-130*	*%REC*	*50*	*04-Feb-2020 14:56*
Surr: 4-Bromofluorobenzene	*97.4*		*70-130*	*%REC*	*500*	*04-Feb-2020 16:11*
Surr: Dibromofluoromethane	*96.4*		*70-130*	*%REC*	*500*	*04-Feb-2020 16:11*
Surr: Dibromofluoromethane	*92.4*		*70-130*	*%REC*	*50*	*04-Feb-2020 14:56*
Surr: Toluene-d8	*112*		*70-130*	*%REC*	*50*	*04-Feb-2020 14:56*
Surr: Toluene-d8	*103*		*70-130*	*%REC*	*500*	*04-Feb-2020 16:11*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**210**		**0.48**	**mg/Kg-dry**	1	31-Jan-2020 14:38
Surr: 4-Bromofluorobenzene	*110*		*70-123*	*%REC*	*1*	*31-Jan-2020 14:38*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Feb-2020		Analyst: PVL
TPH (Diesel Range)	**4,000**		**190**	**mg/Kg-dry**	100	04-Feb-2020 23:30
TPH (Motor Oil Range)	**2,500**	n	**370**	**mg/Kg-dry**	100	04-Feb-2020 23:30
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*100*	*04-Feb-2020 23:30*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Feb-2020		Analyst: KMU
Chloride	**303**		**5.51**	**mg/Kg-dry**	1	04-Feb-2020 19:52
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**9.58**		**0.0100**	**wt%**	1	05-Feb-2020 11:36

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-4b-10'
Collection Date: 22-Jan-2020 15:20

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-15
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	< 0.29		0.29	mg/Kg-dry	50	04-Feb-2020 14:31
Ethylbenzene	**5.8**		**0.29**	**mg/Kg-dry**	50	04-Feb-2020 14:31
Toluene	**0.68**		**0.29**	**mg/Kg-dry**	50	04-Feb-2020 14:31
Xylenes, Total	**18**		**0.29**	**mg/Kg-dry**	50	04-Feb-2020 14:31
Surr: 1,2-Dichloroethane-d4	*98.8*		*70-126*	*%REC*	*50*	*04-Feb-2020 14:31*
Surr: 4-Bromofluorobenzene	*95.3*		*70-130*	*%REC*	*50*	*04-Feb-2020 14:31*
Surr: Dibromofluoromethane	*92.4*		*70-130*	*%REC*	*50*	*04-Feb-2020 14:31*
Surr: Toluene-d8	*108*		*70-130*	*%REC*	*50*	*04-Feb-2020 14:31*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**420**		**0.49**	**mg/Kg-dry**	1	31-Jan-2020 14:22
Surr: 4-Bromofluorobenzene	*153*	*S*	*70-123*	*%REC*	*1*	*31-Jan-2020 14:22*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Feb-2020		Analyst: PVL
TPH (Diesel Range)	**3,100**		**190**	**mg/Kg-dry**	100	04-Feb-2020 23:54
TPH (Motor Oil Range)	**2,100**	n	**380**	**mg/Kg-dry**	100	04-Feb-2020 23:54
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*100*	*04-Feb-2020 23:54*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Feb-2020		Analyst: KMU
Chloride	**257**		**5.17**	**mg/Kg-dry**	1	04-Feb-2020 20:36
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**10.4**		**0.0100**	**wt%**	1	05-Feb-2020 11:36

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-4C-Surface
Collection Date: 22-Jan-2020 16:00

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-16
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	< 0.0057		0.0057	mg/Kg-dry	1	30-Jan-2020 15:16
Ethylbenzene	< 0.0057		0.0057	mg/Kg-dry	1	30-Jan-2020 15:16
Toluene	< 0.0057		0.0057	mg/Kg-dry	1	30-Jan-2020 15:16
Xylenes, Total	**0.016**		**0.0057**	**mg/Kg-dry**	1	30-Jan-2020 15:16
Surr: 1,2-Dichloroethane-d4	*101*		*70-126*	*%REC*	*1*	*30-Jan-2020 15:16*
Surr: 4-Bromofluorobenzene	*98.7*		*70-130*	*%REC*	*1*	*30-Jan-2020 15:16*
Surr: Dibromofluoromethane	*95.5*		*70-130*	*%REC*	*1*	*30-Jan-2020 15:16*
Surr: Toluene-d8	*102*		*70-130*	*%REC*	*1*	*30-Jan-2020 15:16*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**0.15**		**0.056**	**mg/Kg-dry**	1	29-Jan-2020 11:58
Surr: 4-Bromofluorobenzene	*116*		*70-123*	*%REC*	*1*	*29-Jan-2020 11:58*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**470**		**270**	**mg/Kg-dry**	50	30-Jan-2020 09:57
TPH (Motor Oil Range)	**2,200**	n	**550**	**mg/Kg-dry**	50	30-Jan-2020 09:57
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*50*	*30-Jan-2020 09:57*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**309**		**5.42**	**mg/Kg-dry**	1	31-Jan-2020 16:35
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**7.02**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-4c-12'
Collection Date: 22-Jan-2020 16:20

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-18
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	< 0.0058		0.0058	mg/Kg-dry	1	30-Jan-2020 15:41
Ethylbenzene	< 0.0058		0.0058	mg/Kg-dry	1	30-Jan-2020 15:41
Toluene	< 0.0058		0.0058	mg/Kg-dry	1	30-Jan-2020 15:41
Xylenes, Total	< 0.0058		0.0058	mg/Kg-dry	1	30-Jan-2020 15:41
Surr: 1,2-Dichloroethane-d4	*98.2*		*70-126*	*%REC*	*1*	*30-Jan-2020 15:41*
Surr: 4-Bromofluorobenzene	*97.4*		*70-130*	*%REC*	*1*	*30-Jan-2020 15:41*
Surr: Dibromofluoromethane	*95.3*		*70-130*	*%REC*	*1*	*30-Jan-2020 15:41*
Surr: Toluene-d8	*97.7*		*70-130*	*%REC*	*1*	*30-Jan-2020 15:41*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	< 0.059		0.059	mg/Kg-dry	1	29-Jan-2020 12:14
Surr: 4-Bromofluorobenzene	*119*		*70-123*	*%REC*	*1*	*29-Jan-2020 12:14*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**70**		**1.9**	**mg/Kg-dry**	1	29-Jan-2020 22:49
TPH (Motor Oil Range)	**8.5**	n	**3.8**	**mg/Kg-dry**	1	29-Jan-2020 22:49
Surr: 2-Fluorobiphenyl	*72.2*		*60-129*	*%REC*	*1*	*29-Jan-2020 22:49*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**83.0**		**5.58**	**mg/Kg-dry**	1	31-Jan-2020 16:50
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**9.73**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-5-Surface
Collection Date: 22-Jan-2020 14:15

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-19
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**0.0096**		**0.0053**	**mg/Kg-dry**	1	30-Jan-2020 11:57
Ethylbenzene	**0.091**		**0.0053**	**mg/Kg-dry**	1	30-Jan-2020 11:57
Toluene	**0.061**		**0.0053**	**mg/Kg-dry**	1	30-Jan-2020 11:57
Xylenes, Total	**0.15**		**0.0053**	**mg/Kg-dry**	1	30-Jan-2020 11:57
Surr: 1,2-Dichloroethane-d4	*98.0*		*70-126*	*%REC*	*1*	*30-Jan-2020 11:57*
Surr: 4-Bromofluorobenzene	*96.8*		*70-130*	*%REC*	*1*	*30-Jan-2020 11:57*
Surr: Dibromofluoromethane	*92.9*		*70-130*	*%REC*	*1*	*30-Jan-2020 11:57*
Surr: Toluene-d8	*103*		*70-130*	*%REC*	*1*	*30-Jan-2020 11:57*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**2.0**		**0.056**	**mg/Kg-dry**	1	29-Jan-2020 12:30
Surr: 4-Bromofluorobenzene	*119*		*70-123*	*%REC*	*1*	*29-Jan-2020 12:30*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**940**		**270**	**mg/Kg-dry**	100	29-Jan-2020 23:13
TPH (Motor Oil Range)	**3,000**	n	**540**	**mg/Kg-dry**	100	29-Jan-2020 23:13
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*100*	*29-Jan-2020 23:13*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**1,300**		**26.5**	**mg/Kg-dry**	5	31-Jan-2020 17:05
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**6.44**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TP-5-10'
Collection Date: 22-Jan-2020 14:25

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-20
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**2.3**		**0.28**	**mg/Kg-dry**	50	30-Jan-2020 14:42
Ethylbenzene	**58**		**5.7**	**mg/Kg-dry**	1000	30-Jan-2020 17:37
Toluene	**15**		**5.7**	**mg/Kg-dry**	1000	30-Jan-2020 17:37
Xylenes, Total	**120**		**5.7**	**mg/Kg-dry**	1000	30-Jan-2020 17:37
Surr: 1,2-Dichloroethane-d4	*78.1*		*70-126*	*%REC*	*50*	*30-Jan-2020 14:42*
Surr: 1,2-Dichloroethane-d4	*91.2*		*70-126*	*%REC*	*1000*	*30-Jan-2020 17:37*
Surr: 4-Bromofluorobenzene	*95.8*		*70-130*	*%REC*	*1000*	*30-Jan-2020 17:37*
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	*50*	*30-Jan-2020 14:42*
Surr: Dibromofluoromethane	*93.2*		*70-130*	*%REC*	*1000*	*30-Jan-2020 17:37*
Surr: Dibromofluoromethane	*83.4*		*70-130*	*%REC*	*50*	*30-Jan-2020 14:42*
Surr: Toluene-d8	*100*		*70-130*	*%REC*	*1000*	*30-Jan-2020 17:37*
Surr: Toluene-d8	*120*		*70-130*	*%REC*	*50*	*30-Jan-2020 14:42*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: QX
Gasoline Range Organics	**2,000**		**3.0**	**mg/Kg-dry**	50	28-Jan-2020 22:50
Surr: 4-Bromofluorobenzene	*173*	*S*	*70-123*	*%REC*	*50*	*28-Jan-2020 22:50*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 28-Jan-2020		Analyst: PVL
TPH (Diesel Range)	**6,700**		**190**	**mg/Kg-dry**	100	29-Jan-2020 23:38
TPH (Motor Oil Range)	**3,900**	n	**380**	**mg/Kg-dry**	100	29-Jan-2020 23:38
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-129*	*%REC*	*100*	*29-Jan-2020 23:38*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 30-Jan-2020		Analyst: KMU
Chloride	**998**		**56.8**	**mg/Kg-dry**	10	31-Jan-2020 17:19
MOISTURE		**Method:SW3550**				Analyst: DFF
Percent Moisture	**12.1**		**0.0100**	**wt%**	1	30-Jan-2020 11:12

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TB-CG-121719-220
Collection Date: 22-Jan-2020 00:00

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-21
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	**Method:SW8260**					Analyst: PC
Benzene	< 0.0050		0.0050	mg/L	1	03-Feb-2020 16:42
Ethylbenzene	< 0.0050		0.0050	mg/L	1	03-Feb-2020 16:42
m,p-Xylene	< 0.010		0.010	mg/L	1	03-Feb-2020 16:42
o-Xylene	< 0.0050		0.0050	mg/L	1	03-Feb-2020 16:42
Toluene	< 0.0050		0.0050	mg/L	1	03-Feb-2020 16:42
Xylenes, Total	< 0.0050		0.0050	mg/L	1	03-Feb-2020 16:42
Surr: 1,2-Dichloroethane-d4	*94.0*		*70-126*	*%REC*	*1*	*03-Feb-2020 16:42*
Surr: 4-Bromofluorobenzene	*101*		*82-124*	*%REC*	*1*	*03-Feb-2020 16:42*
Surr: Dibromofluoromethane	*97.6*		*77-123*	*%REC*	*1*	*03-Feb-2020 16:42*
Surr: Toluene-d8	*111*		*82-127*	*%REC*	*1*	*03-Feb-2020 16:42*

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

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Sample ID: TB-CG-121719-217
Collection Date: 22-Jan-2020 00:00

ANALYTICAL REPORT
WorkOrder:HS20011164
Lab ID:HS20011164-22
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	**Method:SW8260**					Analyst: PC
Benzene	< 0.0050		0.0050	mg/L	1	03-Feb-2020 17:06
Ethylbenzene	< 0.0050		0.0050	mg/L	1	03-Feb-2020 17:06
m,p-Xylene	< 0.010		0.010	mg/L	1	03-Feb-2020 17:06
o-Xylene	< 0.0050		0.0050	mg/L	1	03-Feb-2020 17:06
Toluene	< 0.0050		0.0050	mg/L	1	03-Feb-2020 17:06
Xylenes, Total	< 0.0050		0.0050	mg/L	1	03-Feb-2020 17:06
Surr: 1,2-Dichloroethane-d4	*97.3*		*70-126*	*%REC*	*1*	*03-Feb-2020 17:06*
Surr: 4-Bromofluorobenzene	*101*		*82-124*	*%REC*	*1*	*03-Feb-2020 17:06*
Surr: Dibromofluoromethane	*97.6*		*77-123*	*%REC*	*1*	*03-Feb-2020 17:06*
Surr: Toluene-d8	*109*		*82-127*	*%REC*	*1*	*03-Feb-2020 17:06*

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

Weight / Prep Log

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

Batch ID: 3582 **Start Date:** 28 Jan 2020 13:14 **End Date:** 28 Jan 2020 13:14
Method: GASOLINE RANGE ORGANICS BY SW8015C **Prep Code:**

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20011164-01	1	4.98 (g)	5 (mL)	1	Bulk (5030B)
HS20011164-04	1	4.94 (g)	5 (mL)	1.01	Bulk (5030B)
HS20011164-16	1	4.77 (g)	5 (mL)	1.05	Bulk (5030B)
HS20011164-18	1	4.72 (g)	5 (mL)	1.06	Bulk (5030B)
HS20011164-19	1	4.76 (g)	5 (mL)	1.05	Bulk (5030B)

Batch ID: 3583 **Start Date:** 28 Jan 2020 14:16 **End Date:** 28 Jan 2020 14:16
Method: GASOLINE RANGE ORGANICS BY SW8015C **Prep Code:**

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS20011164-02	1	4.71 (g)	5 (mL)	1.06	Bulk (5030B)
HS20011164-03	1	4.95 (g)	5 (mL)	1.01	Bulk (5030B)
HS20011164-05	1	4.8 (g)	5 (mL)	1.04	Bulk (5030B)
HS20011164-06	1	4.89 (g)	5 (mL)	1.02	Bulk (5030B)
HS20011164-07	1	4.79 (g)	5 (mL)	1.04	Bulk (5030B)
HS20011164-08	1	4.87 (g)	5 (mL)	1.03	Bulk (5030B)
HS20011164-09	1	4.93 (g)	5 (mL)	1.01	Bulk (5030B)
HS20011164-11	1	0.54 (g)	0.5 (mL)	0.93	Bulk (5030B)
HS20011164-13	1	0.54 (g)	5 (mL)	9.26	Bulk (5030B)
HS20011164-14	1	0.57 (g)	5 (mL)	8.77	Bulk (5030B)
HS20011164-15	1	0.57 (g)	5 (mL)	8.77	Bulk (5030B)
HS20011164-20	1	4.79 (g)	5 (mL)	1.04	Bulk (5030B)

Batch ID: 3586 **Start Date:** 30 Jan 2020 09:05 **End Date:** 30 Jan 2020 09:05
Method: VOLATILES BY SW8260C

Sample ID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS20011164-01	1	4.829 (g)	5 (mL)	1.04	Bulk (5030B)
HS20011164-03	1	4.715 (g)	5 (mL)	1.06	Bulk (5030B)
HS20011164-04	1	4.794 (g)	5 (mL)	1.04	Bulk (5030B)
HS20011164-05	1	0.522 (g)	5 (mL)	9.58	Bulk (5030B)
HS20011164-06	1	5.096 (g)	5 (mL)	0.98	Bulk (5030B)
HS20011164-16	1	4.737 (g)	5 (mL)	1.06	Bulk (5030B)
HS20011164-18	1	4.806 (g)	5 (mL)	1.04	Bulk (5030B)
HS20011164-19	1	5.046 (g)	5 (mL)	0.99	Bulk (5030B)

Weight / Prep Log

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

Batch ID: 150047 **Start Date:** 28 Jan 2020 08:53 **End Date:** 28 Jan 2020 15:00
Method: SOPREP: 3541 TPH **Prep Code:** 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20011164-01	1	30.03 (g)	1 (mL)	0.0333
HS20011164-02	1	30.05 (g)	1 (mL)	0.03328
HS20011164-03	1	30.11 (g)	1 (mL)	0.03321
HS20011164-04	1	30.02 (g)	1 (mL)	0.03331
HS20011164-05	1	30.09 (g)	1 (mL)	0.03323
HS20011164-06	1	30.04 (g)	1 (mL)	0.03329
HS20011164-07	1	30.1 (g)	1 (mL)	0.03322
HS20011164-08	1	30.17 (g)	1 (mL)	0.03315
HS20011164-09	1	30.13 (g)	1 (mL)	0.03319
HS20011164-16	1	30.06 (g)	3 (mL)	0.0998
HS20011164-18	1	30.11 (g)	1 (mL)	0.03321
HS20011164-19	1	30.23 (g)	1.5 (mL)	0.04962
HS20011164-20	1	30.18 (g)	1 (mL)	0.03313

Batch ID: 150165 **Start Date:** 30 Jan 2020 13:00 **End Date:** 30 Jan 2020 15:40
Method: 300 ANIONS SOIL PREP **Prep Code:** 300_S_PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20011164-01		4.9577 (g)	50 (mL)	10.09
HS20011164-02		5.1996 (g)	50 (mL)	9.616
HS20011164-03		4.98 (g)	50 (mL)	10.04
HS20011164-04		5.0815 (g)	50 (mL)	9.84
HS20011164-05		4.9829 (g)	50 (mL)	10.03
HS20011164-06		5.1121 (g)	50 (mL)	9.781
HS20011164-07		5.0358 (g)	50 (mL)	9.929
HS20011164-08		4.9906 (g)	50 (mL)	10.02
HS20011164-09		5.0313 (g)	50 (mL)	9.938
HS20011164-16		4.9652 (g)	50 (mL)	10.07
HS20011164-18		4.9639 (g)	50 (mL)	10.07
HS20011164-19		5.0367 (g)	50 (mL)	9.927
HS20011164-20		5.0029 (g)	50 (mL)	9.994

Batch ID: 150257 **Start Date:** 04 Feb 2020 12:00 **End Date:** 04 Feb 2020 17:50
Method: 300 ANIONS SOIL PREP **Prep Code:** 300_S_PR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20011164-11		4.9397 (g)	50 (mL)	10.12
HS20011164-13		5.3009 (g)	50 (mL)	9.432
HS20011164-14		5.0155 (g)	50 (mL)	9.969
HS20011164-15		5.3939 (g)	50 (mL)	9.27

Batch ID: 150290 **Start Date:** 04 Feb 2020 10:00 **End Date:** 04 Feb 2020 14:00
Method: SOPREP: 3541 TPH **Prep Code:** 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20011164-11		30.15 (g)	1 (mL)	0.03317
HS20011164-13		30.14 (g)	1 (mL)	0.03318
HS20011164-14		30.11 (g)	1 (mL)	0.03321
HS20011164-15		30.1 (g)	1 (mL)	0.03322

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 150047 (0)	**Test Name :** TPH DRO/ORO BY SW8015C				**Matrix:** Soil	
HS20011164-01	TP-1-Surface	22 Jan 2020 09:35		28 Jan 2020 08:53	29 Jan 2020 17:06	10
HS20011164-02	TP-1-6'	22 Jan 2020 09:40		28 Jan 2020 08:53	29 Jan 2020 18:19	100
HS20011164-03	TP-1-12'	22 Jan 2020 09:45		28 Jan 2020 08:53	29 Jan 2020 18:44	10
HS20011164-04	TP-2-Surface	22 Jan 2020 09:50		28 Jan 2020 08:53	30 Jan 2020 08:44	20
HS20011164-05	TP-2-10'	22 Jan 2020 09:55		28 Jan 2020 08:53	29 Jan 2020 19:33	100
HS20011164-06	TP-2-12'	22 Jan 2020 10:00		28 Jan 2020 08:53	29 Jan 2020 19:57	100
HS20011164-07	TP-3-Surface	22 Jan 2020 11:30		28 Jan 2020 08:53	30 Jan 2020 09:08	200
HS20011164-08	TP-3-6'	22 Jan 2020 11:40		28 Jan 2020 08:53	30 Jan 2020 09:33	200
HS20011164-09	TP-3-12'	22 Jan 2020 11:50		28 Jan 2020 08:53	29 Jan 2020 22:00	100
HS20011164-16	TP-4C-Surface	22 Jan 2020 16:00		28 Jan 2020 08:53	30 Jan 2020 09:57	50
HS20011164-18	TP-4c-12'	22 Jan 2020 16:20		28 Jan 2020 08:53	29 Jan 2020 22:49	1
HS20011164-19	TP-5-Surface	22 Jan 2020 14:15		28 Jan 2020 08:53	29 Jan 2020 23:13	100
HS20011164-20	TP-5-10'	22 Jan 2020 14:25		28 Jan 2020 08:53	29 Jan 2020 23:38	100
Batch ID: 150165 (0)	**Test Name :** ANIONS BY E300.0				**Matrix:** Soil	
HS20011164-01	TP-1-Surface	22 Jan 2020 09:35		30 Jan 2020 13:00	04 Feb 2020 00:33	10
HS20011164-02	TP-1-6'	22 Jan 2020 09:40		30 Jan 2020 13:00	31 Jan 2020 14:08	10
HS20011164-03	TP-1-12'	22 Jan 2020 09:45		30 Jan 2020 13:00	31 Jan 2020 14:23	10
HS20011164-04	TP-2-Surface	22 Jan 2020 09:50		30 Jan 2020 13:00	31 Jan 2020 15:07	1
HS20011164-05	TP-2-10'	22 Jan 2020 09:55		30 Jan 2020 13:00	31 Jan 2020 15:22	1
HS20011164-06	TP-2-12'	22 Jan 2020 10:00		30 Jan 2020 13:00	31 Jan 2020 15:36	1
HS20011164-07	TP-3-Surface	22 Jan 2020 11:30		30 Jan 2020 13:00	31 Jan 2020 15:51	10
HS20011164-08	TP-3-6'	22 Jan 2020 11:40		30 Jan 2020 13:00	31 Jan 2020 16:06	10
HS20011164-09	TP-3-12'	22 Jan 2020 11:50		30 Jan 2020 13:00	31 Jan 2020 16:20	10
HS20011164-16	TP-4C-Surface	22 Jan 2020 16:00		30 Jan 2020 13:00	31 Jan 2020 16:35	1
HS20011164-18	TP-4c-12'	22 Jan 2020 16:20		30 Jan 2020 13:00	31 Jan 2020 16:50	1
HS20011164-19	TP-5-Surface	22 Jan 2020 14:15		30 Jan 2020 13:00	31 Jan 2020 17:05	5
HS20011164-20	TP-5-10'	22 Jan 2020 14:25		30 Jan 2020 13:00	31 Jan 2020 17:19	10
Batch ID: 150257 (0)	**Test Name :** ANIONS BY E300.0				**Matrix:** Soil	
HS20011164-11	TP-4a-6'	22 Jan 2020 13:10		04 Feb 2020 12:00	04 Feb 2020 19:23	1
HS20011164-13	TP-4b-2'	22 Jan 2020 15:00		04 Feb 2020 12:00	04 Feb 2020 19:37	1
HS20011164-14	TP-4b-8'	22 Jan 2020 15:10		04 Feb 2020 12:00	04 Feb 2020 19:52	1
HS20011164-15	TP-4b-10'	22 Jan 2020 15:20		04 Feb 2020 12:00	04 Feb 2020 20:36	1
Batch ID: 150290 (0)	**Test Name :** TPH DRO/ORO BY SW8015C				**Matrix:** Soil	
HS20011164-11	TP-4a-6'	22 Jan 2020 13:10		04 Feb 2020 10:00	05 Feb 2020 08:38	200
HS20011164-13	TP-4b-2'	22 Jan 2020 15:00		04 Feb 2020 10:00	04 Feb 2020 23:05	100
HS20011164-14	TP-4b-8'	22 Jan 2020 15:10		04 Feb 2020 10:00	04 Feb 2020 23:30	100
HS20011164-15	TP-4b-10'	22 Jan 2020 15:20		04 Feb 2020 10:00	04 Feb 2020 23:54	100

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R355242 (0)	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C				**Matrix:** Soil	
HS20011164-02	TP-1-6'	22 Jan 2020 09:40			28 Jan 2020 22:03	50
HS20011164-03	TP-1-12'	22 Jan 2020 09:45			28 Jan 2020 19:25	50
HS20011164-05	TP-2-10'	22 Jan 2020 09:55			28 Jan 2020 21:15	50
HS20011164-06	TP-2-12'	22 Jan 2020 10:00			28 Jan 2020 21:31	50
HS20011164-07	TP-3-Surface	22 Jan 2020 11:30			28 Jan 2020 22:19	50
HS20011164-08	TP-3-6'	22 Jan 2020 11:40			28 Jan 2020 22:34	50
HS20011164-09	TP-3-12'	22 Jan 2020 11:50			28 Jan 2020 21:47	50
HS20011164-20	TP-5-10'	22 Jan 2020 14:25			28 Jan 2020 22:50	50
Batch ID: R355303 (0)	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C				**Matrix:** Soil	
HS20011164-01	TP-1-Surface	22 Jan 2020 09:35			29 Jan 2020 13:22	1
HS20011164-04	TP-2-Surface	22 Jan 2020 09:50			29 Jan 2020 12:47	1
HS20011164-16	TP-4C-Surface	22 Jan 2020 16:00			29 Jan 2020 11:58	1
HS20011164-18	TP-4c-12'	22 Jan 2020 16:20			29 Jan 2020 12:14	1
HS20011164-19	TP-5-Surface	22 Jan 2020 14:15			29 Jan 2020 12:30	1
Batch ID: R355335 (0)	**Test Name :** VOLATILES BY SW8260C				**Matrix:** Soil	
HS20011164-02	TP-1-6'	22 Jan 2020 09:40			30 Jan 2020 15:57	500
HS20011164-02	TP-1-6'	22 Jan 2020 09:40			30 Jan 2020 12:37	50
HS20011164-07	TP-3-Surface	22 Jan 2020 11:30			30 Jan 2020 16:22	500
HS20011164-07	TP-3-Surface	22 Jan 2020 11:30			30 Jan 2020 13:27	50
HS20011164-08	TP-3-6'	22 Jan 2020 11:40			30 Jan 2020 16:47	1000
HS20011164-08	TP-3-6'	22 Jan 2020 11:40			30 Jan 2020 13:52	50
HS20011164-09	TP-3-12'	22 Jan 2020 11:50			30 Jan 2020 17:12	500
HS20011164-09	TP-3-12'	22 Jan 2020 11:50			30 Jan 2020 14:17	50
HS20011164-20	TP-5-10'	22 Jan 2020 14:25			30 Jan 2020 17:37	1000
HS20011164-20	TP-5-10'	22 Jan 2020 14:25			30 Jan 2020 14:42	50
Batch ID: R355354 (0)	**Test Name :** VOLATILES BY SW8260C				**Matrix:** Soil	
HS20011164-01	TP-1-Surface	22 Jan 2020 09:35			30 Jan 2020 13:36	1
HS20011164-03	TP-1-12'	22 Jan 2020 09:45			30 Jan 2020 14:01	1
HS20011164-04	TP-2-Surface	22 Jan 2020 09:50			30 Jan 2020 14:26	1
HS20011164-05	TP-2-10'	22 Jan 2020 09:55			30 Jan 2020 12:22	10
HS20011164-06	TP-2-12'	22 Jan 2020 10:00			30 Jan 2020 14:51	1
HS20011164-16	TP-4C-Surface	22 Jan 2020 16:00			30 Jan 2020 15:16	1
HS20011164-18	TP-4c-12'	22 Jan 2020 16:20			30 Jan 2020 15:41	1
HS20011164-19	TP-5-Surface	22 Jan 2020 14:15			30 Jan 2020 11:57	1

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R355436 (0)	**Test Name :** MOISTURE				**Matrix:** Soil	
HS20011164-01	TP-1-Surface	22 Jan 2020 09:35			30 Jan 2020 11:12	1
HS20011164-02	TP-1-6'	22 Jan 2020 09:40			30 Jan 2020 11:12	1
HS20011164-03	TP-1-12'	22 Jan 2020 09:45			30 Jan 2020 11:12	1
HS20011164-04	TP-2-Surface	22 Jan 2020 09:50			30 Jan 2020 11:12	1
HS20011164-05	TP-2-10'	22 Jan 2020 09:55			30 Jan 2020 11:12	1
HS20011164-06	TP-2-12'	22 Jan 2020 10:00			30 Jan 2020 11:12	1
HS20011164-07	TP-3-Surface	22 Jan 2020 11:30			30 Jan 2020 11:12	1
HS20011164-08	TP-3-6'	22 Jan 2020 11:40			30 Jan 2020 11:12	1
HS20011164-09	TP-3-12'	22 Jan 2020 11:50			30 Jan 2020 11:12	1
HS20011164-16	TP-4C-Surface	22 Jan 2020 16:00			30 Jan 2020 11:12	1
HS20011164-18	TP-4c-12'	22 Jan 2020 16:20			30 Jan 2020 11:12	1
HS20011164-19	TP-5-Surface	22 Jan 2020 14:15			30 Jan 2020 11:12	1
HS20011164-20	TP-5-10'	22 Jan 2020 14:25			30 Jan 2020 11:12	1
Batch ID: R355522 (0)	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C				**Matrix:** Soil	
HS20011164-11	TP-4a-6'	22 Jan 2020 13:10			31 Jan 2020 15:11	1
HS20011164-13	TP-4b-2'	22 Jan 2020 15:00			31 Jan 2020 14:54	1
HS20011164-14	TP-4b-8'	22 Jan 2020 15:10			31 Jan 2020 14:38	1
HS20011164-15	TP-4b-10'	22 Jan 2020 15:20			31 Jan 2020 14:22	1
Batch ID: R355575 (0)	**Test Name :** VOLATILES BY SW8260C				**Matrix:** Soil	
HS20011164-11	TP-4a-6'	22 Jan 2020 13:10			04 Feb 2020 15:46	500
HS20011164-11	TP-4a-6'	22 Jan 2020 13:10			04 Feb 2020 14:06	50
HS20011164-13	TP-4b-2'	22 Jan 2020 15:00			04 Feb 2020 15:21	500
HS20011164-13	TP-4b-2'	22 Jan 2020 15:00			04 Feb 2020 13:41	50
HS20011164-14	TP-4b-8'	22 Jan 2020 15:10			04 Feb 2020 16:11	500
HS20011164-14	TP-4b-8'	22 Jan 2020 15:10			04 Feb 2020 14:56	50
HS20011164-15	TP-4b-10'	22 Jan 2020 15:20			04 Feb 2020 14:31	50
Batch ID: R355596 (0)	**Test Name :** VOLATILES - SW8260C				**Matrix:** Water	
HS20011164-21	TB-CG-121719-220	22 Jan 2020 00:00			03 Feb 2020 16:42	1
HS20011164-22	TB-CG-121719-217	22 Jan 2020 00:00			03 Feb 2020 17:06	1
Batch ID: R355785 (0)	**Test Name :** MOISTURE				**Matrix:** Soil	
HS20011164-11	TP-4a-6'	22 Jan 2020 13:10			05 Feb 2020 11:36	1
HS20011164-13	TP-4b-2'	22 Jan 2020 15:00			05 Feb 2020 11:36	1
HS20011164-14	TP-4b-8'	22 Jan 2020 15:10			05 Feb 2020 11:36	1
HS20011164-15	TP-4b-10'	22 Jan 2020 15:20			05 Feb 2020 11:36	1

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: 150047 (0) **Instrument: FID-7** **Method: TPH DRO/ORO BY SW8015C**

MBLK Sample ID: **MBLK-150047** Units: **mg/Kg** Analysis Date: **29-Jan-2020 16:17**
Client ID: Run ID: **FID-7_355366** SeqNo: **5453500** PrepDate: **28-Jan-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	< 1.7	1.7								
TPH (Motor Oil Range)	< 3.4	3.4								
Surr: 2-Fluorobiphenyl	*2.336*	*0.10*	*3.33*	*0*	*70.2*	*70 - 130*				

LCS Sample ID: **LCS-150047** Units: **mg/Kg** Analysis Date: **29-Jan-2020 16:42**
Client ID: Run ID: **FID-7_355366** SeqNo: **5453501** PrepDate: **28-Jan-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	28.47	1.7	33.33	0	85.4	70 - 130				
TPH (Motor Oil Range)	26.44	3.4	33.33	0	79.3	70 - 130				
Surr: 2-Fluorobiphenyl	*2.541*	*0.10*	*3.33*	*0*	*76.3*	*70 - 130*				

MS Sample ID: **HS20011164-01MS** Units: **mg/Kg** Analysis Date: **29-Jan-2020 17:31**
Client ID: **TP-1-Surface** Run ID: **FID-7_355366** SeqNo: **5453503** PrepDate: **28-Jan-2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	108.8	17	33.24	40.75	205	70 - 130				S
TPH (Motor Oil Range)	244.7	34	33.24	139.4	317	70 - 130				SO
Surr: 2-Fluorobiphenyl	*2.682*	*1.0*	*3.321*	*0*	*80.8*	*60 - 129*				

MSD Sample ID: **HS20011164-01MSD** Units: **mg/Kg** Analysis Date: **29-Jan-2020 17:55**
Client ID: **TP-1-Surface** Run ID: **FID-7_355366** SeqNo: **5453504** PrepDate: **28-Jan-2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	106.3	17	33.32	40.75	197	70 - 130	108.8	2.29	30	S
TPH (Motor Oil Range)	255.4	34	33.32	139.4	348	70 - 130	244.7	4.28	30	SO
Surr: 2-Fluorobiphenyl	*2.934*	*1.0*	*3.329*	*0*	*88.1*	*60 - 129*	*2.682*	*8.97*	*30*	

The following samples were analyzed in this batch:

HS20011164-01	HS20011164-02	HS20011164-03	HS20011164-04
HS20011164-05	HS20011164-06	HS20011164-07	HS20011164-08
HS20011164-09	HS20011164-16	HS20011164-18	HS20011164-19
HS20011164-20			

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: 150290 (0) **Instrument: FID-7** **Method: TPH DRO/ORO BY SW8015C**

MBLK Sample ID: **MBLK-150290** Units: **mg/Kg** Analysis Date: **05-Feb-2020 11:11**
Client ID: Run ID: **FID-7_355685** SeqNo: **5460531** PrepDate: **04-Feb-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	< 1.7	1.7								
TPH (Motor Oil Range)	< 3.4	3.4								
Surr: 2-Fluorobiphenyl	*2.485*	*0.10*	*3.33*	*0*	*74.6*	*70 - 130*				

LCS Sample ID: **LCS-150290** Units: **mg/Kg** Analysis Date: **04-Feb-2020 21:27**
Client ID: Run ID: **FID-7_355685** SeqNo: **5460287** PrepDate: **04-Feb-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	30.81	1.7	33.33	0	92.4	70 - 130				
TPH (Motor Oil Range)	26.44	3.4	33.33	0	79.3	70 - 130				
Surr: 2-Fluorobiphenyl	*2.599*	*0.10*	*3.33*	*0*	*78.0*	*70 - 130*				

MS Sample ID: **HS20011164-11MS** Units: **mg/Kg** Analysis Date: **04-Feb-2020 22:16**
Client ID: **TP-4a-6'** Run ID: **FID-7_355685** SeqNo: **5460289** PrepDate: **04-Feb-2020** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	7388	170	33.29	7271	353	70 - 130				SEO
TPH (Motor Oil Range)	3405	340	33.29	3541	-409	70 - 130				SO
Surr: 2-Fluorobiphenyl	*< 10*	*10*	*3.326*	*0*	*0*	*60 - 129*				JS

MSD Sample ID: **HS20011164-11MSD** Units: **mg/Kg** Analysis Date: **04-Feb-2020 22:41**
Client ID: **TP-4a-6'** Run ID: **FID-7_355685** SeqNo: **5460290** PrepDate: **04-Feb-2020** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	10020	170	33.23	7271	8270	70 - 130	7388	30.2	30	SREO
TPH (Motor Oil Range)	5187	340	33.23	3541	4950	70 - 130	3405	41.5	30	SRO
Surr: 2-Fluorobiphenyl	*< 10*	*10*	*3.32*	*0*	*0*	*60 - 129*	*0*	*0*	*30*	JS

The following samples were analyzed in this batch: HS20011164-11 HS20011164-13 HS20011164-14 HS20011164-15

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355242 (0) **Instrument:** FID-14 **Method:** GASOLINE RANGE ORGANICS BY SW8015C

MBLK Sample ID: **MBLK-2001281** Units: **mg/Kg** Analysis Date: **28-Jan-2020 19:09**
Client ID: Run ID: **FID-14_355242** SeqNo: **5451050** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	< 2.5	2.5								
Surr: 4-Bromofluorobenzene	*5.954*	*0.25*	*5*	*0*	*119*	*75 - 121*				

LCS Sample ID: **LCS-2001281** Units: **mg/Kg** Analysis Date: **28-Jan-2020 18:37**
Client ID: Run ID: **FID-14_355242** SeqNo: **5451048** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.9267	0.050	1	0	92.7	72 - 121				
Surr: 4-Bromofluorobenzene	*0.121*	*0.0050*	*0.1*	*0*	*121*	*75 - 121*				

LCSD Sample ID: **LCSD-2001281** Units: **mg/Kg** Analysis Date: **28-Jan-2020 18:53**
Client ID: Run ID: **FID-14_355242** SeqNo: **5451049** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.9942	0.050	1	0	99.4	70 - 121	0.9267	7.02	30	
Surr: 4-Bromofluorobenzene	*0.1207*	*0.0050*	*0.1*	*0*	*121*	*75 - 121*	*0.121*	*0.219*	*30*	

MS Sample ID: **HS20011164-03MS** Units: **mg/Kg** Analysis Date: **28-Jan-2020 19:41**
Client ID: **TP-1-12'** Run ID: **FID-14_355242** SeqNo: **5451052** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	116.4	2.5	50.5	73.35	85.3	70 - 130				
Surr: 4-Bromofluorobenzene	*5.11*	*0.25*	*5.05*	*0*	*101*	*70 - 123*				

MSD Sample ID: **HS20011164-03MSD** Units: **mg/Kg** Analysis Date: **28-Jan-2020 19:56**
Client ID: **TP-1-12'** Run ID: **FID-14_355242** SeqNo: **5451053** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	117.4	2.5	50.5	73.35	87.3	70 - 130	116.4	0.866	30	
Surr: 4-Bromofluorobenzene	*5.364*	*0.25*	*5.05*	*0*	*106*	*70 - 123*	*5.11*	*4.84*	*30*	

The following samples were analyzed in this batch:

HS20011164-02	HS20011164-03	HS20011164-05	HS20011164-06
HS20011164-07	HS20011164-08	HS20011164-09	HS20011164-20

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355303 (0) **Instrument:** FID-14 **Method:** GASOLINE RANGE ORGANICS BY SW8015C

MBLK Sample ID: **MBLK-200129** Units: **mg/Kg** Analysis Date: **29-Jan-2020 10:35**
Client ID: Run ID: **FID-14_355303** SeqNo: **5452058** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	< 0.050	0.050								
Surr: 4-Bromofluorobenzene	*0.11*	*0.0050*	*0.1*	*0*	*110*	*75 - 121*				

LCS Sample ID: **LCS-200129** Units: **mg/Kg** Analysis Date: **29-Jan-2020 10:18**
Client ID: Run ID: **FID-14_355303** SeqNo: **5452057** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.019	0.050	1	0	102	72 - 121				
Surr: 4-Bromofluorobenzene	*0.08573*	*0.0050*	*0.1*	*0*	*85.7*	*75 - 121*				

MS Sample ID: **HS20011164-18MS** Units: **mg/Kg** Analysis Date: **29-Jan-2020 13:55**
Client ID: **TP-4c-12'** Run ID: **FID-14_355303** SeqNo: **5452064** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.082	0.052	1.03	0	105	70 - 130				
Surr: 4-Bromofluorobenzene	*0.09525*	*0.0052*	*0.103*	*0*	*92.5*	*70 - 123*				

MSD Sample ID: **HS20011164-18MSD** Units: **mg/Kg** Analysis Date: **29-Jan-2020 14:11**
Client ID: **TP-4c-12'** Run ID: **FID-14_355303** SeqNo: **5452065** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.9839	0.052	1.05	0	93.7	70 - 130	1.082	9.52	30	
Surr: 4-Bromofluorobenzene	*0.08535*	*0.0052*	*0.105*	*0*	*81.3*	*70 - 123*	*0.09525*	*11*	*30*	

The following samples were analyzed in this batch: HS20011164-01 HS20011164-04 HS20011164-16 HS20011164-18 HS20011164-19

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355522 (0) **Instrument: FID-14** **Method: GASOLINE RANGE ORGANICS BY SW8015C**

MBLK Sample ID: **MBLK-200131** Units: **mg/Kg** Analysis Date: **31-Jan-2020 10:35**
Client ID: Run ID: **FID-14_355522** SeqNo: **5456812** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	< 0.050	0.050								
Surr: 4-Bromofluorobenzene	*0.1072*	*0.0050*	*0.1*	*0*	*107*	*75 - 121*				

LCS Sample ID: **LCS-200131** Units: **mg/Kg** Analysis Date: **31-Jan-2020 10:19**
Client ID: Run ID: **FID-14_355522** SeqNo: **5456811** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.067	0.050	1	0	107	72 - 121				
Surr: 4-Bromofluorobenzene	*0.0878*	*0.0050*	*0.1*	*0*	*87.8*	*75 - 121*				

MS Sample ID: **HS20011425-01MS** Units: **mg/Kg** Analysis Date: **31-Jan-2020 12:52**
Client ID: Run ID: **FID-14_355522** SeqNo: **5456819** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.071	0.053	1.06	0	101	70 - 130				
Surr: 4-Bromofluorobenzene	*0.08045*	*0.0053*	*0.106*	*0*	*75.9*	*70 - 123*				

MSD Sample ID: **HS20011425-01MSD** Units: **mg/Kg** Analysis Date: **31-Jan-2020 13:08**
Client ID: Run ID: **FID-14_355522** SeqNo: **5456820** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.037	0.052	1.04	0	99.8	70 - 130	1.071	3.15	30	
Surr: 4-Bromofluorobenzene	*0.07748*	*0.0052*	*0.104*	*0*	*74.5*	*70 - 123*	*0.08045*	*3.76*	*30*	

The following samples were analyzed in this batch: HS20011164-11 HS20011164-13 HS20011164-14 HS20011164-15

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355335 (0) **Instrument: VOA8** **Method: VOLATILES BY SW8260C**

MBLK Sample ID: **MBLKW1-013020** Units: **ug/Kg** Analysis Date: **30-Jan-2020 09:17**
Client ID: Run ID: **VOA8_355335** SeqNo: **5453105** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	< 250	250								
Ethylbenzene	< 250	250								
Toluene	< 250	250								
Xylenes, Total	< 250	250								
Surr: 1,2-Dichloroethane-d4	*2241*	*0*	*2500*	*0*	*89.6*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*2276*	*0*	*2500*	*0*	*91.0*	*80 - 120*				
Surr: Dibromofluoromethane	*2334*	*0*	*2500*	*0*	*93.4*	*80 - 119*				
Surr: Toluene-d8	*2403*	*0*	*2500*	*0*	*96.1*	*81 - 118*				

LCS Sample ID: **VLCSW1-013020** Units: **ug/Kg** Analysis Date: **30-Jan-2020 08:27**
Client ID: Run ID: **VOA8_355335** SeqNo: **5453104** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	51.9	5.0	50	0	104	75 - 124				
Ethylbenzene	54.47	5.0	50	0	109	70 - 123				
Toluene	51.67	5.0	50	0	103	76 - 122				
Xylenes, Total	160.1	5.0	150	0	107	77 - 128				
Surr: 1,2-Dichloroethane-d4	*43.83*	*0*	*50*	*0*	*87.7*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*48.74*	*0*	*50*	*0*	*97.5*	*80 - 120*				
Surr: Dibromofluoromethane	*49.12*	*0*	*50*	*0*	*98.2*	*80 - 119*				
Surr: Toluene-d8	*49.69*	*0*	*50*	*0*	*99.4*	*81 - 118*				

MS Sample ID: **HS20011124-01MS** Units: **ug/Kg** Analysis Date: **30-Jan-2020 10:57**
Client ID: Run ID: **VOA8_355335** SeqNo: **5453396** PrepDate: DF: **5000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	251800	24000	245000	695.7	102	70 - 130				
Ethylbenzene	265700	24000	245000	0	108	70 - 130				
Toluene	261400	24000	245000	1423	106	70 - 130				
Xylenes, Total	787400	24000	735000	0	107	70 - 130				
Surr: 1,2-Dichloroethane-d4	*227000*	*0*	*245000*	*0*	*92.6*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*238500*	*0*	*245000*	*0*	*97.3*	*70 - 130*				
Surr: Dibromofluoromethane	*239700*	*0*	*245000*	*0*	*97.8*	*70 - 130*				
Surr: Toluene-d8	*237600*	*0*	*245000*	*0*	*97.0*	*70 - 130*				

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355335 (0) **Instrument: VOA8** **Method: VOLATILES BY SW8260C**

MSD Sample ID: **HS20011124-01MSD** Units: **ug/Kg** Analysis Date: **30-Jan-2020 11:22**
Client ID: Run ID: **VOA8_355335** SeqNo: **5453397** PrepDate: DF: **5000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	343400	24000	245000	695.7	140	70 - 130	251800	30.8	30	SR
Ethylbenzene	365000	24000	245000	0	149	70 - 130	265700	31.5	30	SR
Toluene	357000	24000	245000	1423	145	70 - 130	261400	30.9	30	SR
Xylenes, Total	1105000	24000	735000	0	150	70 - 130	787400	33.6	30	SR
Surr: 1,2-Dichloroethane-d4	*209300*	*0*	*245000*	*0*	*85.4*	*70 - 126*	*227000*	*8.07*	*30*	
Surr: 4-Bromofluorobenzene	*241700*	*0*	*245000*	*0*	*98.7*	*70 - 130*	*238500*	*1.35*	*30*	
Surr: Dibromofluoromethane	*231300*	*0*	*245000*	*0*	*94.4*	*70 - 130*	*239700*	*3.57*	*30*	
Surr: Toluene-d8	*236700*	*0*	*245000*	*0*	*96.6*	*70 - 130*	*237600*	*0.366*	*30*	

The following samples were analyzed in this batch: HS20011164-02 HS20011164-07 HS20011164-08 HS20011164-09 HS20011164-20

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355354 (0) **Instrument: VOA5** **Method: VOLATILES BY SW8260C**

MBLK Sample ID: **VBLKS1-013020** Units: **ug/Kg** Analysis Date: **30-Jan-2020 10:42**
Client ID: Run ID: **VOA5_355354** SeqNo: **5453355** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	< 5.0	5.0								
Ethylbenzene	< 5.0	5.0								
Toluene	< 5.0	5.0								
Xylenes, Total	< 5.0	5.0								
Surr: 1,2-Dichloroethane-d4	*43.94*	*0*	*50*	*0*	*87.9*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*48.4*	*0*	*50*	*0*	*96.8*	*80 - 120*				
Surr: Dibromofluoromethane	*46.25*	*0*	*50*	*0*	*92.5*	*80 - 119*				
Surr: Toluene-d8	*51.08*	*0*	*50*	*0*	*102*	*81 - 118*				

LCS Sample ID: **VLCSS1-013020** Units: **ug/Kg** Analysis Date: **30-Jan-2020 09:52**
Client ID: Run ID: **VOA5_355354** SeqNo: **5453354** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	51.97	5.0	50	0	104	75 - 124				
Ethylbenzene	56.16	5.0	50	0	112	70 - 123				
Toluene	51.9	5.0	50	0	104	76 - 122				
Xylenes, Total	148.9	5.0	150	0	99.3	77 - 128				
Surr: 1,2-Dichloroethane-d4	*49.49*	*0*	*50*	*0*	*99.0*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*50.24*	*0*	*50*	*0*	*100*	*80 - 120*				
Surr: Dibromofluoromethane	*50.05*	*0*	*50*	*0*	*100*	*80 - 119*				
Surr: Toluene-d8	*50.24*	*0*	*50*	*0*	*100*	*81 - 118*				

MS Sample ID: **HS20011182-06MS** Units: **ug/Kg** Analysis Date: **30-Jan-2020 12:46**
Client ID: Run ID: **VOA5_355354** SeqNo: **5454597** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	53.41	5.2	52.5	13.55	75.9	70 - 130				
Ethylbenzene	64.34	5.2	52.5	32.33	61.0	70 - 130				S
Toluene	38.5	5.2	52.5	1.217	71.0	70 - 130				
Xylenes, Total	109.7	5.2	157.5	16.19	59.4	70 - 130				S
Surr: 1,2-Dichloroethane-d4	*53.06*	*0*	*52.5*	*0*	*101*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*56.68*	*0*	*52.5*	*0*	*108*	*70 - 130*				
Surr: Dibromofluoromethane	*52.62*	*0*	*52.5*	*0*	*100*	*70 - 130*				
Surr: Toluene-d8	*58.93*	*0*	*52.5*	*0*	*112*	*70 - 130*				

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355354 (0) **Instrument: VOA5** **Method: VOLATILES BY SW8260C**

MSD Sample ID: **HS20011182-06MSD** Units: **ug/Kg** Analysis Date: **30-Jan-2020 13:11**
Client ID: Run ID: **VOA5_355354** SeqNo: **5454598** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	48.59	5.0	50	13.55	70.1	70 - 130	53.41	9.45	30	
Ethylbenzene	54.88	5.0	50	32.33	45.1	70 - 130	64.34	15.9	30	S
Toluene	38.5	5.0	50	1.217	74.6	70 - 130	38.5	0.00174	30	
Xylenes, Total	101.8	5.0	150	16.19	57.1	70 - 130	109.7	7.44	30	S
Surr: 1,2-Dichloroethane-d4	*50.23*	*0*	*50*	*0*	*100*	*70 - 126*	*53.06*	*5.49*	*30*	
Surr: 4-Bromofluorobenzene	*52.76*	*0*	*50*	*0*	*106*	*70 - 130*	*56.68*	*7.16*	*30*	
Surr: Dibromofluoromethane	*50.14*	*0*	*50*	*0*	*100*	*70 - 130*	*52.62*	*4.84*	*30*	
Surr: Toluene-d8	*52.92*	*0*	*50*	*0*	*106*	*70 - 130*	*58.93*	*10.7*	*30*	

The following samples were analyzed in this batch:

HS20011164-01	HS20011164-03	HS20011164-04	HS20011164-05
HS20011164-06	HS20011164-16	HS20011164-18	HS20011164-19

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355575 (0) **Instrument: VOA8** **Method: VOLATILES BY SW8260C**

MBLK Sample ID: **MBLKW1-020420** Units: **ug/Kg** Analysis Date: **04-Feb-2020 09:06**
Client ID: Run ID: **VOA8_355575** SeqNo: **5457960** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	< 250	250								
Ethylbenzene	< 250	250								
Toluene	< 250	250								
Xylenes, Total	< 250	250								
Surr: 1,2-Dichloroethane-d4	*2445*	*0*	*2500*	*0*	*97.8*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*2510*	*0*	*2500*	*0*	*100*	*80 - 120*				
Surr: Dibromofluoromethane	*2375*	*0*	*2500*	*0*	*95.0*	*80 - 119*				
Surr: Toluene-d8	*2515*	*0*	*2500*	*0*	*101*	*81 - 118*				

LCS Sample ID: **VLCSW1-020420** Units: **ug/Kg** Analysis Date: **04-Feb-2020 08:16**
Client ID: Run ID: **VOA8_355575** SeqNo: **5457959** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	44.29	5.0	50	0	88.6	75 - 124				
Ethylbenzene	45.32	5.0	50	0	90.6	70 - 123				
Toluene	44.84	5.0	50	0	89.7	76 - 122				
Xylenes, Total	135.4	5.0	150	0	90.3	77 - 128				
Surr: 1,2-Dichloroethane-d4	*49.47*	*0*	*50*	*0*	*98.9*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*48.35*	*0*	*50*	*0*	*96.7*	*80 - 120*				
Surr: Dibromofluoromethane	*51.16*	*0*	*50*	*0*	*102*	*80 - 119*				
Surr: Toluene-d8	*49.63*	*0*	*50*	*0*	*99.3*	*81 - 118*				

MS Sample ID: **HS20011164-11MS** Units: **ug/Kg** Analysis Date: **04-Feb-2020 11:36**
Client ID: **TP-4a-6'** Run ID: **VOA8_355575** SeqNo: **5458684** PrepDate: DF: **1000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	58160	5000	50000	144.2	116	70 - 130				
Ethylbenzene	64740	5000	50000	4656	120	70 - 130				
Toluene	60090	5000	50000	413.7	119	70 - 130				
Xylenes, Total	186000	5000	150000	8364	118	70 - 130				
Surr: 1,2-Dichloroethane-d4	*49950*	*0*	*50000*	*0*	*99.9*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*49490*	*0*	*50000*	*0*	*99.0*	*70 - 130*				
Surr: Dibromofluoromethane	*50890*	*0*	*50000*	*0*	*102*	*70 - 130*				
Surr: Toluene-d8	*50730*	*0*	*50000*	*0*	*101*	*70 - 130*				

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355575 (0) **Instrument: VOA8** **Method: VOLATILES BY SW8260C**

MSD Sample ID: **HS20011164-11MSD** Units: **ug/Kg** Analysis Date: **04-Feb-2020 12:01**
Client ID: **TP-4a-6'** Run ID: **VOA8_355575** SeqNo: **5458685** PrepDate: DF: **1000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	59750	5000	50000	144.2	119	70 - 130	58160	2.7	30	
Ethylbenzene	67420	5000	50000	4656	126	70 - 130	64740	4.05	30	
Toluene	62110	5000	50000	413.7	123	70 - 130	60090	3.3	30	
Xylenes, Total	195300	5000	150000	8364	125	70 - 130	186000	4.84	30	
Surr: 1,2-Dichloroethane-d4	*47920*	*0*	*50000*	*0*	*95.8*	*70 - 126*	*49950*	*4.15*	*30*	
Surr: 4-Bromofluorobenzene	*52090*	*0*	*50000*	*0*	*104*	*70 - 130*	*49490*	*5.11*	*30*	
Surr: Dibromofluoromethane	*49800*	*0*	*50000*	*0*	*99.6*	*70 - 130*	*50890*	*2.16*	*30*	
Surr: Toluene-d8	*49780*	*0*	*50000*	*0*	*99.6*	*70 - 130*	*50730*	*1.89*	*30*	

The following samples were analyzed in this batch: HS20011164-11 HS20011164-13 HS20011164-14 HS20011164-15

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355596 (0) **Instrument: VOA6** **Method: VOLATILES - SW8260C**

MBLK Sample ID: **VBLKW-200203** Units: **ug/L** Analysis Date: **03-Feb-2020 12:41**
Client ID: Run ID: **VOA6_355596** SeqNo: **5458368** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	< 5.0	5.0								
Ethylbenzene	< 5.0	5.0								
m,p-Xylene	< 10	10								
o-Xylene	< 5.0	5.0								
Toluene	< 5.0	5.0								
Xylenes, Total	< 5.0	5.0								
Surr: 1,2-Dichloroethane-d4	*47.16*	*0*	*50*	*0*	*94.3*	*70 - 130*				
Surr: 4-Bromofluorobenzene	*51.01*	*0*	*50*	*0*	*102*	*82 - 115*				
Surr: Dibromofluoromethane	*48.5*	*0*	*50*	*0*	*97.0*	*73 - 126*				
Surr: Toluene-d8	*54.55*	*0*	*50*	*0*	*109*	*81 - 120*				

LCS Sample ID: **VLCSW-200203** Units: **ug/L** Analysis Date: **03-Feb-2020 11:53**
Client ID: Run ID: **VOA6_355596** SeqNo: **5458367** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.3	5.0	20	0	102	74 - 120				
Ethylbenzene	20.59	5.0	20	0	103	77 - 117				
m,p-Xylene	40.16	10	40	0	100	77 - 122				
o-Xylene	20.57	5.0	20	0	103	75 - 119				
Toluene	20.71	5.0	20	0	104	77 - 118				
Xylenes, Total	60.73	5.0	60	0	101	75 - 122				
Surr: 1,2-Dichloroethane-d4	*52.68*	*0*	*50*	*0*	*105*	*70 - 130*				
Surr: 4-Bromofluorobenzene	*52.15*	*0*	*50*	*0*	*104*	*82 - 115*				
Surr: Dibromofluoromethane	*52.99*	*0*	*50*	*0*	*106*	*73 - 126*				
Surr: Toluene-d8	*52*	*0*	*50*	*0*	*104*	*81 - 120*				

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355596 (0) **Instrument: VOA6** **Method: VOLATILES - SW8260C**

MS Sample ID: **HS20020034-01MS** Units: **ug/L** Analysis Date: **03-Feb-2020 15:30**
Client ID: Run ID: **VOA6_355596** SeqNo: **5458375** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	25.48	5.0	20	6.729	93.8	70 - 127				
Ethylbenzene	21.67	5.0	20	0.9191	104	70 - 124				
m,p-Xylene	45.22	10	40	4.433	102	70 - 130				
o-Xylene	23.02	5.0	20	2.647	102	70 - 124				
Toluene	21.75	5.0	20	1.475	101	70 - 123				
Xylenes, Total	68.25	5.0	60	7.08	102	70 - 130				
Surr: 1,2-Dichloroethane-d4	*47.7*	*0*	*50*	*0*	*95.4*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*51.43*	*0*	*50*	*0*	*103*	*82 - 124*				
Surr: Dibromofluoromethane	*49.28*	*0*	*50*	*0*	*98.6*	*77 - 123*				
Surr: Toluene-d8	*54.48*	*0*	*50*	*0*	*109*	*82 - 127*				

MSD Sample ID: **HS20020034-01MSD** Units: **ug/L** Analysis Date: **03-Feb-2020 15:54**
Client ID: Run ID: **VOA6_355596** SeqNo: **5458376** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	24.66	5.0	20	6.729	89.7	70 - 127	25.48	3.27	20	
Ethylbenzene	21.36	5.0	20	0.9191	102	70 - 124	21.67	1.46	20	
m,p-Xylene	45.47	10	40	4.433	103	70 - 130	45.22	0.553	20	
o-Xylene	23.46	5.0	20	2.647	104	70 - 124	23.02	1.85	20	
Toluene	21.5	5.0	20	1.475	100	70 - 123	21.75	1.14	20	
Xylenes, Total	68.93	5.0	60	7.08	103	70 - 130	68.25	0.994	20	
Surr: 1,2-Dichloroethane-d4	*47.3*	*0*	*50*	*0*	*94.6*	*70 - 126*	*47.7*	*0.834*	*20*	
Surr: 4-Bromofluorobenzene	*51.45*	*0*	*50*	*0*	*103*	*82 - 124*	*51.43*	*0.0365*	*20*	
Surr: Dibromofluoromethane	*48.11*	*0*	*50*	*0*	*96.2*	*77 - 123*	*49.28*	*2.4*	*20*	
Surr: Toluene-d8	*55.32*	*0*	*50*	*0*	*111*	*82 - 127*	*54.48*	*1.54*	*20*	

The following samples were analyzed in this batch: HS20011164-21 HS20011164-22

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: 150165 (0) **Instrument: ICS2100** **Method: ANIONS BY E300.0**

MBLK Sample ID: **MBLK-150165** Units: **mg/Kg** Analysis Date: **31-Jan-2020 12:11**
Client ID: Run ID: **ICS2100_355560** SeqNo: **5457412** PrepDate: **30-Jan-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 5.00	5.00								

LCS Sample ID: **LCS-150165** Units: **mg/Kg** Analysis Date: **31-Jan-2020 12:26**
Client ID: Run ID: **ICS2100_355560** SeqNo: **5457413** PrepDate: **30-Jan-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	204.4	5.00	200	0	102	90 - 110				

LCSD Sample ID: **LCSD-150165** Units: **mg/Kg** Analysis Date: **31-Jan-2020 12:40**
Client ID: Run ID: **ICS2100_355560** SeqNo: **5457414** PrepDate: **30-Jan-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	205	5.00	200	0	102	90 - 110	204.4	0.293	20	

MS Sample ID: **HS20011314-01MS** Units: **mg/Kg** Analysis Date: **31-Jan-2020 18:18**
Client ID: Run ID: **ICS2100_355560** SeqNo: **5457436** PrepDate: **30-Jan-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	106.8	4.85	97.08	2.816	107	75 - 125				

MS Sample ID: **HS20011164-01MS** Units: **mg/Kg** Analysis Date: **04-Feb-2020 00:48**
Client ID: **TP-1-Surface** Run ID: **ICS2100_355560** SeqNo: **5458125** PrepDate: **30-Jan-2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1203	48.4	96.86	1139	66.1	75 - 125				SO

MSD Sample ID: **HS20011314-01MSD** Units: **mg/Kg** Analysis Date: **31-Jan-2020 18:33**
Client ID: Run ID: **ICS2100_355560** SeqNo: **5457437** PrepDate: **30-Jan-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	107.2	4.91	98.24	2.816	106	75 - 125	106.8	0.363	20	

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: 150165 (0) **Instrument:** ICS2100 **Method:** ANIONS BY E300.0

MSD Sample ID: **HS20011164-01MSD** Units: **mg/Kg** Analysis Date: **04-Feb-2020 01:02**
Client ID: **TP-1-Surface** Run ID: **ICS2100_355560** SeqNo: **5458126** PrepDate: **30-Jan-2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1145	49.8	99.69	1139	5.25	75 - 125	1203	5.01	20	SO

The following samples were analyzed in this batch:

HS20011164-01	HS20011164-02	HS20011164-03	HS20011164-04
HS20011164-05	HS20011164-06	HS20011164-07	HS20011164-08
HS20011164-09	HS20011164-16	HS20011164-18	HS20011164-19
HS20011164-20			

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: 150257 (0) **Instrument: ICS2100** **Method: ANIONS BY E300.0**

MBLK Sample ID: **MBLK-150257** Units: **mg/Kg** Analysis Date: **04-Feb-2020 18:38**
Client ID: Run ID: **ICS2100_355719** SeqNo: **5460827** PrepDate: **04-Feb-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 5.00	5.00								

LCS Sample ID: **LCS-150257** Units: **mg/Kg** Analysis Date: **04-Feb-2020 18:53**
Client ID: Run ID: **ICS2100_355719** SeqNo: **5460828** PrepDate: **04-Feb-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	205.5	5.00	200	0	103	90 - 110				

LCSD Sample ID: **LCSD-150257** Units: **mg/Kg** Analysis Date: **04-Feb-2020 19:08**
Client ID: Run ID: **ICS2100_355719** SeqNo: **5460829** PrepDate: **04-Feb-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	205.8	5.00	200	0	103	90 - 110	205.5	0.146	20	

MS Sample ID: **HS20011523-02MS** Units: **mg/Kg** Analysis Date: **05-Feb-2020 01:44**
Client ID: Run ID: **ICS2100_355719** SeqNo: **5460860** PrepDate: **04-Feb-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	168.4	4.91	98.25	63.73	107	75 - 125				

MS Sample ID: **HS20011164-14MS** Units: **mg/Kg** Analysis Date: **04-Feb-2020 20:07**
Client ID: **TP-4b-8'** Run ID: **ICS2100_355719** SeqNo: **5460833** PrepDate: **04-Feb-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	371.7	4.92	98.38	274.3	99.0	75 - 125				

MSD Sample ID: **HS20011523-02MSD** Units: **mg/Kg** Analysis Date: **05-Feb-2020 01:59**
Client ID: Run ID: **ICS2100_355719** SeqNo: **5460861** PrepDate: **04-Feb-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	165.8	4.78	95.63	63.73	107	75 - 125	168.4	1.51	20	

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: 150257 (0) **Instrument: ICS2100** **Method: ANIONS BY E300.0**

MSD Sample ID: **HS20011164-14MSD** Units: **mg/Kg** Analysis Date: **04-Feb-2020 20:21**
Client ID: **TP-4b-8'** Run ID: **ICS2100_355719** SeqNo: **5460834** PrepDate: **04-Feb-2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	380.2	4.93	98.69	274.3	107	75 - 125	371.7	2.25	20	

The following samples were analyzed in this batch: HS20011164-11 HS20011164-13 HS20011164-14 HS20011164-15

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355436 (0) **Instrument: Balance1** **Method: MOISTURE**

DUP Sample ID: **HS20011248-04DUP** Units: **wt%** Analysis Date: **30-Jan-2020 11:12**
Client ID: Run ID: **Balance1_355436** SeqNo: **5455140** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Moisture	14	0.0100					14.3	2.12	20	

The following samples were analyzed in this batch:

HS20011164-01	HS20011164-02	HS20011164-03	HS20011164-04
HS20011164-05	HS20011164-06	HS20011164-07	HS20011164-08
HS20011164-09	HS20011164-16	HS20011164-18	HS20011164-19
HS20011164-20			

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: HS20011164

QC BATCH REPORT

Batch ID: R355785 (0) **Instrument: Balance1** **Method: MOISTURE**

DUP Sample ID: **HS20011092-01DUP** Units: **wt%** Analysis Date: **05-Feb-2020 11:36**
Client ID: Run ID: **Balance1_355785** SeqNo: **5462253** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Moisture	17	0.0100					18.3	7.37	20	

The following samples were analyzed in this batch: HS20011164-11 HS20011164-13 HS20011164-14 HS20011164-15

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
WorkOrder: **HS20011164**

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 Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/Kg-dry	Milligrams per Kilogram- Dry weight corrected
mg/L	Milligrams per Liter
wt%	

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	19-028-0	27-Mar-2020
California	2919, 2019-2020	30-Apr-2020
Dept of Defense	ANAB L2231 V009	22-Dec-2021
Florida	E87611-28	30-Jun-2020
Illinois	2000322019-2	09-May-2020
Kansas	E-10352 2019-2020	31-Jul-2020
Kentucky	123043, 2019-2020	30-Apr-2020
Louisiana	03087, 2019-2020	30-Jun-2020
Maryland	343, 2019-2020	30-Jun-2020
North Carolina	624-2020	31-Dec-2020
North Dakota	R-193 2019-2020	30-Apr-2020
Oklahoma	2019-067	31-Aug-2020
Texas	T104704231-19-25	30-Apr-2020

ALS Houston, US Date: 06-Feb-20

Client: TRC Corporation
Project: Artesia Station West
Work Order: HS20011164

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS20011164-01	TP-1-Surface	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-01	TP-1-Surface	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-02	TP-1-6'	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-02	TP-1-6'	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-03	TP-1-12'	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-03	TP-1-12'	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-04	TP-2-Surface	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-04	TP-2-Surface	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-05	TP-2-10'	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-05	TP-2-10'	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-06	TP-2-12'	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-06	TP-2-12'	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-07	TP-3-Surface	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-07	TP-3-Surface	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-08	TP-3-6'	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-08	TP-3-6'	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-09	TP-3-12'	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-09	TP-3-12'	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-11	TP-4a-6'	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-11	TP-4a-6'	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-13	TP-4b-2'	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-13	TP-4b-2'	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-14	TP-4b-8'	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-14	TP-4b-8'	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-15	TP-4b-10'	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-15	TP-4b-10'	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-16	TP-4C-Surface	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-16	TP-4C-Surface	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-18	TP-4c-12'	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-18	TP-4c-12'	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-19	TP-5-Surface	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-19	TP-5-Surface	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-20	TP-5-10'	Login	1/24/2020 8:00:03 PM	NDR	VOA030
HS20011164-20	TP-5-10'	Login	1/24/2020 8:00:03 PM	NDR	SPA105
HS20011164-21	TB-CG-121719-220	Login	1/24/2020 8:00:03 PM	NDR	VOA002
HS20011164-22	TB-CG-121719-217	Login	1/24/2020 8:00:03 PM	NDR	VOA002

ALS Houston, US Date: 06-Feb-20

Sample Receipt Checklist

Client Name: TRC-AUS Date/Time Received: **24-Jan-2020 08:50**

Work Order: HS20011164 Received by: **AC**

Checklist completed by: *Nilesh D. Ranchod* 24-Jan-2020
eSignature | Date

Reviewed by: _____
eSignature | Date

Matrices: **Soil** Carrier name: **FedEx Priority Overnight**

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 ☐	2 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:214341/214340
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):	2.1C/2.1C , 3.0C/3.0C UC/C		IR # 25
Cooler(s)/Kit(s):	44965/45055		
Date/Time sample(s) sent to storage:	01/24/2020 19:00		
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: Trip Blanks rec'd not on COC Logged in on Hold

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

ALS

Cincinnati, OH +1 513 733 5336
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Holland, MI +1 616 399 6070

Chain of Custody Form

Page ____ of ____

COC ID: 214341

HS20011164
TRC Corporation
Artesia Station West

ALS Project Manager:

Customer Information		Project Information	
Purchase Order	148576	Project Name	Artesia Station West
Work Order		Project Number	376574 Phase 000001
Company Name	TRC Corporation	Bill To Company	TRC Corporation
Send Report To	Richard (RD) 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	apinvoiceapproval@trcsolutions.com

	Analysis
A	8260_S (BTEX only 8260)
B	300_S (Chloride)
C	8015_GRO_S (GRO)
D	8015M_S_LL (DRO/ORO)
E	MOIST_SW3550 (Percent Moisture)
F	
G	
H	
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	TP-4a-6'	1/22/20	1310	SS		2	X	X	X	X	X						
2	TP-4a-12'	1/22/20	1320	SS		2	↓	↓	↓	↓	↓						X
3	TP-4b-2'	1/22/20	1500	SS		2											X
4	TP-4b-8'	1/22/20	1510	SS		2											X
5	TP-4b-10'	1/22/20	1520	SS		2											X
6	TP-4c-Surface	1/22/20	1600	SS		2											X
7	TP-4c-6'	1/22/20	1610	SS		2											
8	TP-4c-12'	1/22/20	1620	SS		2											X
9	TP-5-Surface	1/22/20	1415	SS		2											
10	TP-5-10'	1/22/20	1425	SS		2	↓	↓	↓	↓	↓						

Sampler(s) Please Print & Sign: Misti Feinert, Misti Feinert

Shipment Method:

Required Turnaround Time: (Check Box) [X] STD 10 Wk Days [ ] 5 Wk Days [ ] 2 Wk Days [ ] 24 Hour [ ] Other ____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date: 1/24/2020	Time: 08:50	Received by (Laboratory): AC
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: Artesia Station West

Cooler ID	Cooler Temp.
	u/c
44965	2.1
45055	3.0
	IR#35 CF=-.c

QC Package: (Check One Box Below)
[X] Level II Std QC
[ ] Level III Std QC/Raw Data
[ ] Level IV SW846/CLP
[ ] Other
[ ] TRRP Checklist
[ ] TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Holland, MI +1 616 399 6070

Chain of Custody Form

Page ____ of ____

COC ID: 214340

HS20011164

TRC Corporation
Artesia Station West

, WV

Customer Information		Project Information		ALS Project Manager:
Purchase Order	146576	Project Name	Artesia Station West	
Work Order		Project Number	376574 Phase 000001	
Company Name	TRC Corporation	Bill To Company	TRC Corporation	
Send Report To	Richard (RD) 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	apinvoiceapproval@trcsolutions.com	

A	8260_S (BTEX only 8260)
B	300_S (Chloride)
C	8015_GRO_S (GRO)
D	8015M_S_LL (DRO/ORO)
E	MOIST_SW3550 (Percent Moisture)
F	
G	
H	
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	TP-1-Surface	1/22/20	0935	SS		2	X	X	X	X	X						
2	TP-1-6'	1/22/20	0940	SS		2											
3	TP-1-12'	1/22/20	0945	SS		2											
4	TP-2-Surface	1/22/20	0950	SS		2											
5	TP-2-10'	1/22/20	0955	SS		2											
6	TP-2-12'	1/22/20	1000	SS		2											
7	TP-3-Surface	1/22/20	1130	SS		2											
8	TP-3-6'	1/22/20	1140	SS		2											
9	TP-3-12'	1/22/20	1150	SS		2											
10	TP-4A-Surface	1/22/20	1300	SS		2											X

Sampler(s) Please Print & Sign: Mishi Teinest Mishi Tent

Shipment Method:

Required Turnaround Time: (Check Box) [X] STD 10 Wk Days [ ] 5 Wk Days [ ] 2 Wk Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by: Date: Time: Received by:

Relinquished by: Date: 1.24.20 Time: 08:50 Received by (Laboratory): AC

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

Notes: Artesia Station West

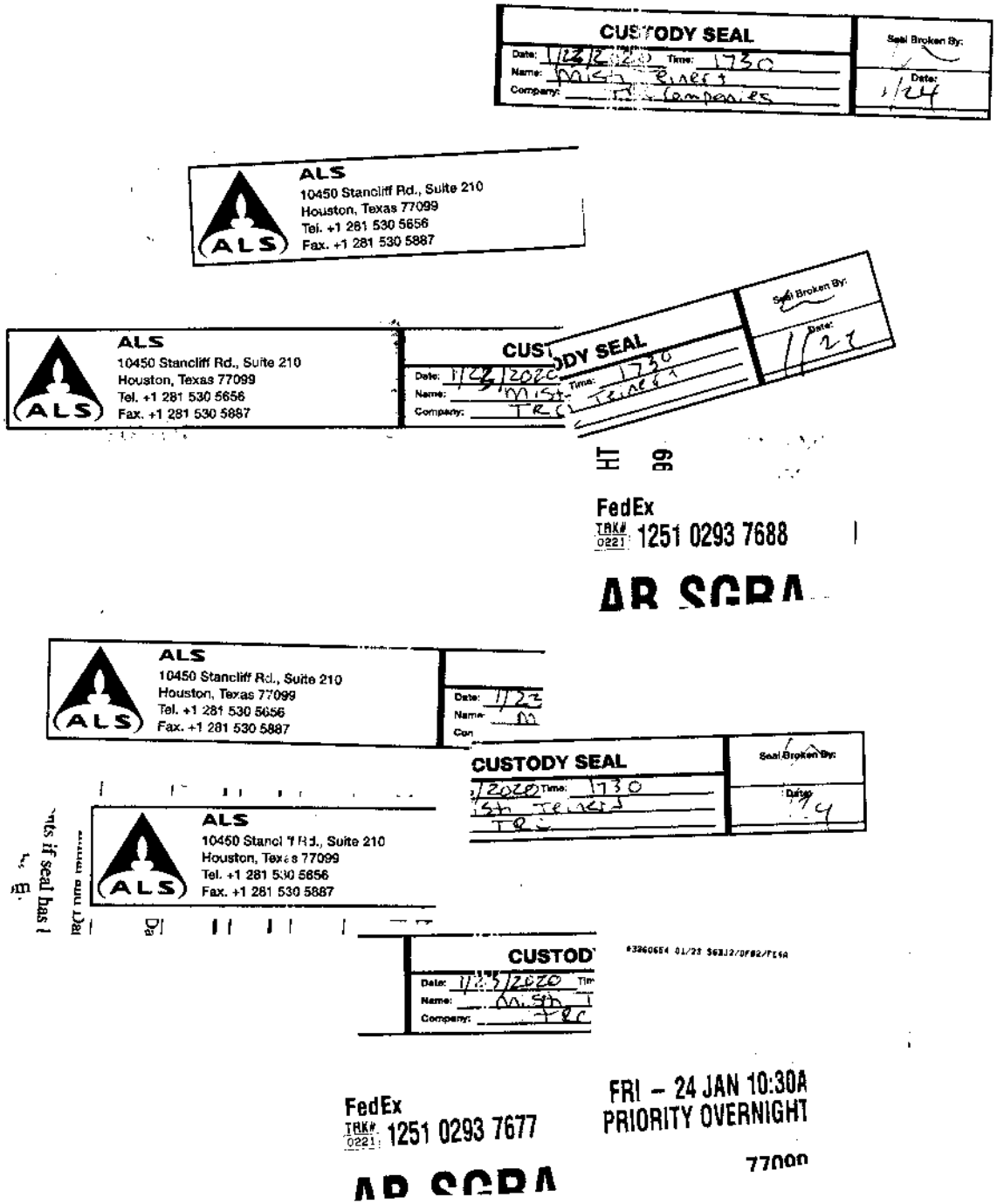
Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)

- [X] Level II Std QC
- [ ] Level III Std QC/Raw Data
- [ ] Level IV SW846/CLP
- [ ] TRRP Checklist
- [ ] TRRP Level IV
- [ ] Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.



Appendix D:
References

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