Western Refining Southwest LLC
A subsidiary of Marathon Petroleum Corporation
I-40 Exit 39
Jamestown, NM 87347

September 28, 2021

Mr. Kevin Pierard, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

RE: Sour Naphtha Release Investigation Work Plan
Marathon Gallup Refinery
(dba Western Refining Southwest LLC)
EPA ID# NMD000333211

Dear Mr. Pierard,

Attached please find the Investigation Work Plan for the Sour Naphtha Release as requested in the New Mexico Environment Department (NMED) Approval with Modifications, Response Action Report Sour Naphtha Release, dated October 13, 2020.

If you have any questions or comments regarding the information contained herein, please do not hesitate to contact John Moore at (505) 879-7643.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction of supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,
Western Refining Southwest LLC, Marathon Gallup Refinery

Ruth A. Cade

Ruth Cade
Vice-President

Enclosure

cc: D. Cobrain, NMED HWB
T. McDill, OCD
K. Luka, MPC
H. Jones, Trihydro Corporation
M. Suzuki, NMED HWB
G. McCartney, MPC
J. Moore, Gallup Refinery

WESTERN REFINING SOUTHWEST LLC
SOUR NAPHTHA RELEASE
INVESTIGATION WORK PLAN
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO
EPA ID# NMD000333211

SUBMITTED BY: Trihydro Corporation

1252 Commerce Drive, Laramie, WY 82070

Executive Summary

Western Refining Southwest, LLC is submitting this Investigation Work Plan for the investigation of soils in the vicinity and down gradient of a sour naphtha release to determine the extent of hydrocarbon impacts. This Investigation Work Plan was requested by New Mexico Environment Department (NMED) to install soil borings near previous sample locations from the initial investigation.

On March 26, 2017, a release was detected on a service road by an operator. The release was identified as a sour naphtha soil seep with two areas of sour naphtha pooled along the sloped road base. The release was immediately blocked by isolating the leaking line. A corrosion hole was found in a carbon steel pipeline located approximately 4 feet below the ground surface. The estimated volume released was less than 210 gallons.

Following the release, approximately 16 tons of impacted soil were excavated. Samples were collected and submitted for laboratory analysis for waste characterization purposes. One sample was collected for disposal characterization and was analyzed for volatile organic compounds which exhibited elevated benzene, toluene, ethylbenzene, and total xylenes. The area was backfilled with clean soil and the excavated soil was disposed of offsite (MPC 2019).

This Investigation Work Plan proposes collecting soil samples to determine if additional soil excavation is necessary. This investigation will reduce data gaps from previous efforts and will be utilized to determine if additional excavation or further investigation is warranted.

The recently completed laser-induced fluorescence (LIF) study (May 2021) provided data that indicated potential naphtha detections west of the original investigation area. Therefore, in addition to the requested investigation by NMED, the Refinery also proposes to add three soil borings along the road downgradient of the release to evaluate potential sour naphtha occurrences to the west.

In addition to the sour naphtha investigation, the Refinery proposes performing additional drilling to the south to evaluate benzene exceedances in monitoring well MKTF-16. The proximity of MKTF-16 to the sour naphtha release may be the cause for increased detections. Therefore, the Refinery will install six soil borings along the road from the sour naphtha release south to MKTF-16.

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Introduction

The Gallup Refinery (Refinery) is located approximately 17 miles east of Gallup, McKinley County, New Mexico along the north side of Interstate Highway I-40 (Figure 1). The physical address is I-40, Exit #39 Jamestown, New Mexico 87347. The Refinery property covers approximately 810 acres.

Trihydro Corporation has prepared this Investigation Work Plan for the investigation of soils near a sour naphtha release that occurred in 2017. The proposed investigation includes collecting samples to satisfy the comments in the New Mexico Environment Department's (NMED) "Disapproval, Response Action Report Sour Naphtha Release" (NMED 2020). NMED comments #5, 6, and 11 require the Refinery to submit a work plan to delineate the eastern and western extents of the release and to delineate the extent of the surface and subsurface release (NMED 2020). In addition to the requested investigation by NMED, the Refinery proposes to add 3 borings along the road near the west extent of the release in response to data collected during the 2021 Laser Induced Fluorescence Investigation (May 2021).

Western Refining Southwest, LLC also plans to investigate the sour naphtha release as a possible source of benzene exceedances in monitoring well MKTF-16. MKTF-16 is south of the sour naphtha release along an underground sewer corridor. The Refinery proposes to install six soil borings between the sour naphtha release and MKTF-16 to evaluate this potential connection.

Background

The Refinery is a crude oil refinery (currently indefinitely idled) that processes crude oil transported by pipeline or tanker truck from the Four Corners region. Various process units that have operated at the Refinery include crude distillation, reformer, fluidized catalytic cracker, alkylation, sulfur recovery, merox treater, and hydrotreater. Past operations have produced gasoline, diesel fuels, jet fuels, kerosene, propane, butane, and residual fuel.

As detailed in the "Response Action Report, Sour Naphtha Release" (MPC 2019), on March 26, 2017, an operator detected sour naphtha in a saturated soil seep, approximately 4 ft by 4 ft, in a service road. The sour naphtha flowed approximately 332 ft westerly downhill along the middle and sides of the service road (Figure 3). Two areas of sour naphtha pooled at the sloping road base. The leak was immediately isolated by

the operator by blocking valves. The estimated sour naphtha volume released was less than 5 barrels (210 gallons).

The purpose of this Investigation Work Plan is to collect soil samples to delineate the surface and subsurface extent of any remaining contamination and determine if further investigation or remediation is necessary.

Previous Investigation

Following the discovery of the release, impacted soil was excavated. An area approximately 20 ft long (parallel to the pipeline) by 4 ft wide by 4 ft deep was excavated. In addition, the pipe was exposed and repaired. Visibly impacted soil in and around the release area was excavated and placed in 20 cubic yard bins for off-site disposal. Approximately 16 tons of soil were excavated.

On March 30, 2017, a total of six soil samples were collected from excavated soil for waste characterization (Figure 4). Based on analytical results, the 16 tons of soil were treated as hazardous waste and transported offsite for disposal. The excavated area was backfilled with clean soil and the service road was reopened.

Site Conditions

Surface Conditions

Local site topographic features include high ground in the southeast gradually decreasing to a lowland fluvial plain to the northwest. Elevations on the refinery property range from 6,860 ft above mean sea level (amsl) to 7,040 ft amsl. The release area service road elevation is approximately 6,951 ft amsl. The release flowed downhill to the west and collected at the base of the hill. The elevation at the base of the hill is approximately 6,932 ft amsl. In responding to the release, the maintenance department built several berms to contain the sour naphtha release.

Subsurface Conditions

The shallow subsurface soil (alluvium) is comprised of clay and silt with some inter-bedded sand layers. Beneath the alluvium is the Petrified Forest Member of the Chinle Group, which primarily consists of interbedded mudstone, siltstone, and sandstone. The depth of the Alluvium/Chinle interface ranges from 15 to 32 ft bgs.

Scope of Activities

The investigative activities of the sour naphtha release area will be completed in order to delineate horizontal hydrocarbon impacts and collect subsurface soil samples. In addition, surface samples will be collected along the service road. Pending NMED approval, Western Refining Southwest, LLC anticipates the investigation will be completed during 2021.

This investigation includes soil borings directly to the west and east of the release area (Figure 5) and surface samples (1 ft bgs) along the road to the west of the release (Figure 6). Based on the depth of excavation and to evaluate the construction worker exposure, it is anticipated that the depth of the soil borings near the release will be approximately 10 ft.

Soil samples will be collected at the following locations:

- The first soil boring is approximately 15 ft west of sample location #4 from the original investigation (Figure 5). This is the minimum distance to the west of the release where a direct push sample may be collected without intercepting the underground pipelines in the area.
- The second soil boring is approximately 5 ft east of sample location #2 from the original investigation.

Surface samples will be collected at the following locations:

- 11 surface samples collected at 1 ft bgs as indicated in Figure 6.
- One backfill sample from the previous excavation, collected at 2 ft bgs, will be collected as required in comment #4, “Approval with Modifications, Response Action Report Sour Naphtha Release” (MPC 2020).

Based on results from the May 2021 LIF investigation, the Refinery proposes three additional soil borings, collecting samples at depths of 8 to 12 ft bgs along the road to the west of the sour naphtha release (Figure 5). LIF logs for MKTF-LIF-85 and MKTF-LIF-86 (provided in Appendix A) indicated the potential presence of naphtha and the additional borings will further delineate the release.

NMED requested a separate investigation into the Heat Exchanger Bundle Pad area due to benzene exceedances in nearby monitoring well MKTF-16. MKTF-16 is south of the sour naphtha release area and lies along an underground sewer corridor. MKTF-16 has routinely exceeded the benzene standard and increased

following the 2017 sour naphtha release. Based on the proximity to the sour naphtha release, the Refinery plans to collect additional soil samples from borings to the south of the sour naphtha release to evaluate the potential for impacts from the release south toward MKTF-16 as shown on Figure 5.

Field Screening

All soil borings will be continuously logged, and samples will be field screened for evidence of contaminants. Field screening results will be recorded on the exploratory boring logs. Field screening results will be used to aid in the selection of soil samples for laboratory analysis. The primary screening methods include: (1) visual examination, (2) olfactory examination, and (3) headspace vapor screening for volatile organic compounds (VOC). Visual screening includes examination of soil samples for evidence of staining caused by petroleum-related compounds or other substances that may cause staining of soils. Headspace vapor screening targets VOC and involves placing a soil sample in a plastic sample bag and allow the sample to come to temperature. A photo-ionization detector (PID) equipped with a 10.6 or higher electron volt (eV) lamp or a combustible gas indicator will be used for VOC field screening. Vapors present within the sample bag's headspace will then be measured by inserting the probe of the instrument in a small opening in the bag. The result and the ambient air temperature will be recorded on the field boring log for each sample.

The monitoring instruments will be calibrated each day to the manufacturer's standard for instrument operation.

Discrete soil samples will be retained for laboratory analysis from within the following intervals:

- Every 2.5 ft bgs to a depth of 10 ft bgs for the 8 soil borings near the sour naphtha release and to the south toward MKTF-16 (Figure 5).
- Every 2 ft bgs between depths of 8 and 12 ft bgs for the 3 soil borings near the road to the west of the sour naphtha release (Figure 5).
- 1 ft bgs for the 11 soil surface samples (Figure 6).
- 2 ft bgs for the previous excavation backfill sample.

The physical characteristics of the samples, depth where each sample was obtained, method of sample collection, and other observations will be recorded in the field log by qualified field personnel. Additional

information, such as the presence of water-bearing zones and any unusual or noticeable conditions encountered during drilling, will be recorded on the logs.

Sample Collection Procedures

Samples will be collected and screened in accordance with the Standard Operating Procedure provided in Appendix B. Details related to sample collection will be documented on the soil screening field forms which will be included in the Investigation Report.

Surface samples will be collected using a decontaminated dig bar, trowel, or hand auger to reach 1 ft depth (2 ft depth for the backfill sample). The sample will be collected by hand, using nitrile gloves, and placed in a sealable plastic bag for analysis.

Soil boring samples will be collected using direct push sampling techniques to collect sample cores at the predetermined depths. The cores will be logged by qualified field personnel onsite and collected in sealable plastic bags for analysis.

Equipment will be decontaminated before collecting each sample, and equipment decontamination will be noted on the field forms. Upon collection, samples will be placed into jars will be filled, labeled, and placed in a cooler. Before shipment, each cooler will be packed with ice and one temperature blank. A chain of custody (CoC) form will accompany each sample shipment. Coolers will be sealed and delivered to Hall Environmental Analytical Laboratory in Albuquerque, New Mexico.

Laboratory Analysis

Collected samples will be analyzed for hydrocarbon impacts with the following methods:

- Method 8015M/D – total petroleum hydrocarbons-gasoline range organics (TPH-GRO)
- Method 8260B – benzene, ethylbenzene, toluene, and total xylenes (BETX)

In addition, as requested in comment 4, “Approval with Modifications, Response Action Report Sour Naphtha Release” (NMED, 2020), the confirmation sample collected from the previous excavation backfill will also be analyzed for:

- Method 8270 SIMs - polycyclic aromatic hydrocarbons (PAH)
- Method 8015M/D – total petroleum hydrocarbons-diesel range organics (TPH-DRO)

- Method 8015M/D – total petroleum hydrocarbons-motor oil range organics (TPH-MRO)
- EPA Method 6010B/7471 - Resource Conservation and Recovery Act (RCRA) 8 Metals

Data Quality and Validation

Quality assurance/quality control (QA/QC) samples will be collected during sampling to monitor the validity of the sample collection procedures. Field duplicates will be collected at a rate of 10 percent (%) of all samples collected, or at a minimum of one per day. Equipment blanks will be collected from re-usable equipment at a rate of 10%, or at a minimum of one per day. A trip blank will be included in each cooler. The field duplicate and blank samples will be submitted to the laboratory along with the soil samples. QA/QC samples will be recorded on the field forms and CoCs. All data will undergo Tier II data validation.

Data Evaluation

The soil confirmation sampling results will be compared to NMED Construction Worker SSLs to determine if further excavation and/or investigation is necessary. Soil recovered during sampling will be placed in drums, labeled, and stored on the 90 Day Pad to be characterized prior to disposal.

Monitoring and Sampling Program

No groundwater, ambient air, subsurface vapor, remediation systems, engineering controls, or other monitoring and sampling programs are currently being implemented at the sour naphtha release. There are several monitoring wells in the vicinity of the release that are monitored as part of the Refinery's groundwater monitoring program. Data collected from this investigation will be used to evaluate the potential presence of impacted soil, which will allow for planning of future investigation or remediation activities, if needed.

Schedule

Pending NMED approval, the Refinery anticipates the investigation to be completed during 2021. Once the investigation has been completed, the Refinery will submit an investigation report to NMED summarizing the sample results and investigation conclusions within 90 days of the receipt of the analytical data.

References

Marathon Petroleum Company (MPC). 2019. Response Action Report Sour Naphtha, Gallup Refinery Marathon Petroleum Company LP, Gallup, New Mexico, EPA ID# NM000333211, HWB-WRG-20-002. December 20.

New Mexico Environment Department (NMED). 2020. Disapproval, Response Action Report Sour Naphtha Release, Gallup Refinery Marathon Petroleum Company LP, Gallup, New Mexico, EPA ID# NM000333211, HWB-WRG-20-002. February 21.

New Mexico Environment Department (NMED). 2020. Approval with Modifications, Response Action Report Sour Naphtha Release, Gallup Refinery Marathon Petroleum Company LP, Gallup, New Mexico, EPA ID# NM000333211, HWB-WRG-20-002. October 13.

Figures

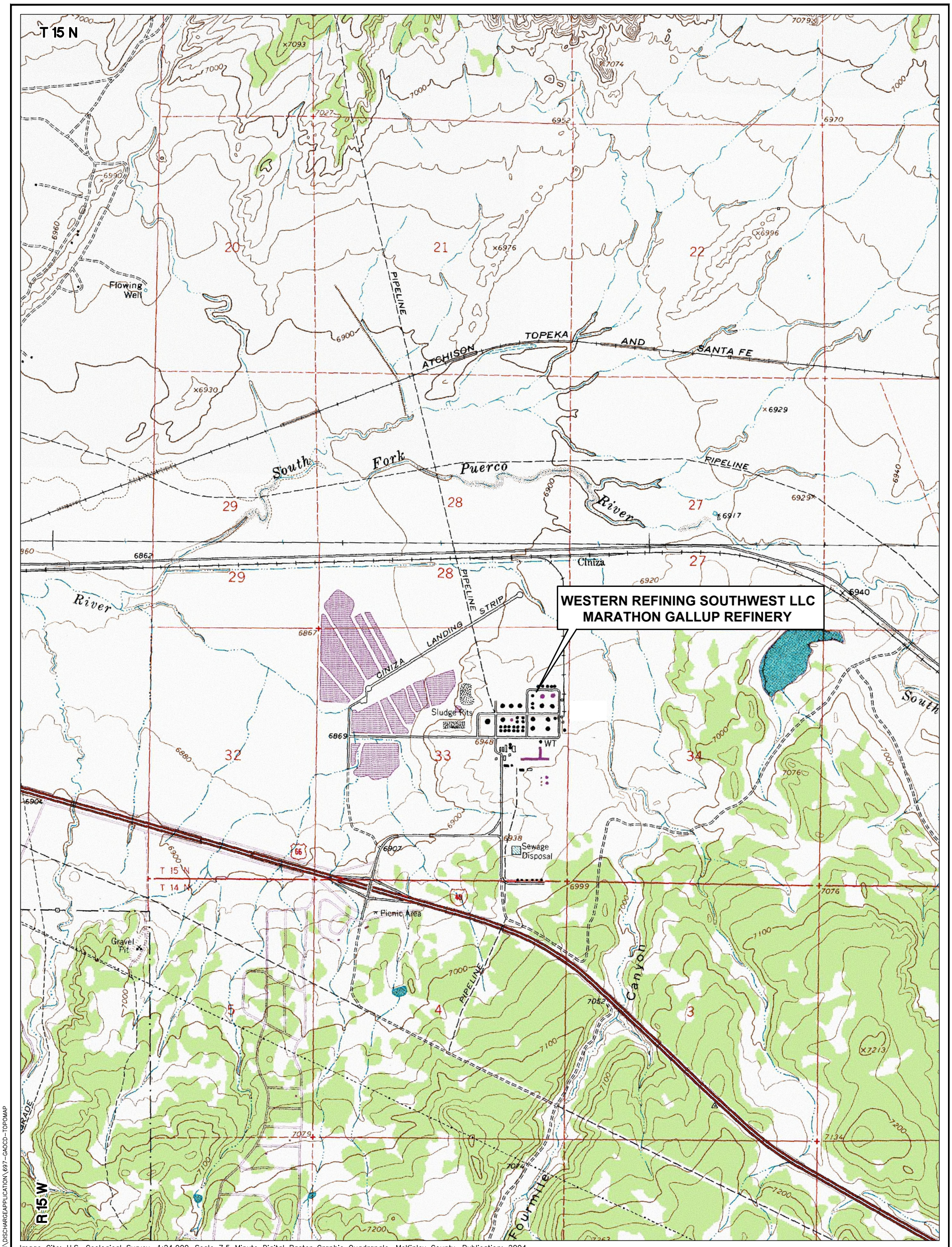

Image Cite: U.S. Geological Survey, 1:24,000–Scale 7.5 Minute Digital Raster Graphic Quadrangle, McKinley County, Publication: 2004

NOTE:

SITE LEGAL DESCRIPTION - TOWNSHIP 15 NORTH, RANGE 15 WEST, SECTION 33, LOWER QUARTER SECTION 28, AND NORTHEAST QUARTER SECTION 4.

QUADRANGLE LOCATION

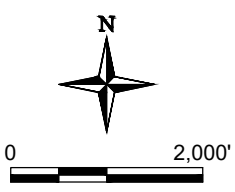

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FIGURE 1

TOPOGRAPHIC MAP

WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: MS	Scale: 1" = 2,000'	Date: 8/17/2021	File: 697-GAOCD-TOPOMAP

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Image Cite: USDA /fsa – Aerial Photography Field Office, NAIP MrSID – Publication: 2014

2 SOUR NAPHTHA RELEASE
SCALE: 1" = 100'

N
0 100'

Image Cite: USDA /fsa – Aerial Photography Field Office, NAIP MrSID – Publication: 2014

1 KEY MAP
SCALE: 1" = 800'

N
0 800'

EXPLANATION

- TANK
- SOUR NAPHTHA RELEASE

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FIGURE 2

SITE LOCATION

WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: PH	Scale: AS SHOWN	Date: 3/8/21	File: 697-SOURNAPHTHARELEASE-202008

Image Cite: USDA /fsa – Aerial Photography Field Office, NAIP MrSID – Publication: 2014

2 SOUR NAPHTHA RELEASE EXCAVATION EXTENT
SCALE: 1" = 20'

N

0 20'

Image Cite: USDA /fsa – Aerial Photography Field Office, NAIP MrSID – Publication: 2014

1 KEY MAP
SCALE: 1" = 800'

N

0 800'

EXPLANATION

- TANK
- SOUR NAPHTHA RELEASE
- UNDERGROUND PRODUCT PIPELINE
- SOUR NAPHTHA RELEASE EXCAVATION EXTENT AREA

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FIGURE 3

EXCAVATION EXTENT

WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: PH	Scale: AS SHOWN	Date: 3/8/21	File: 697-SOURNAPHTHARELEASE-202008

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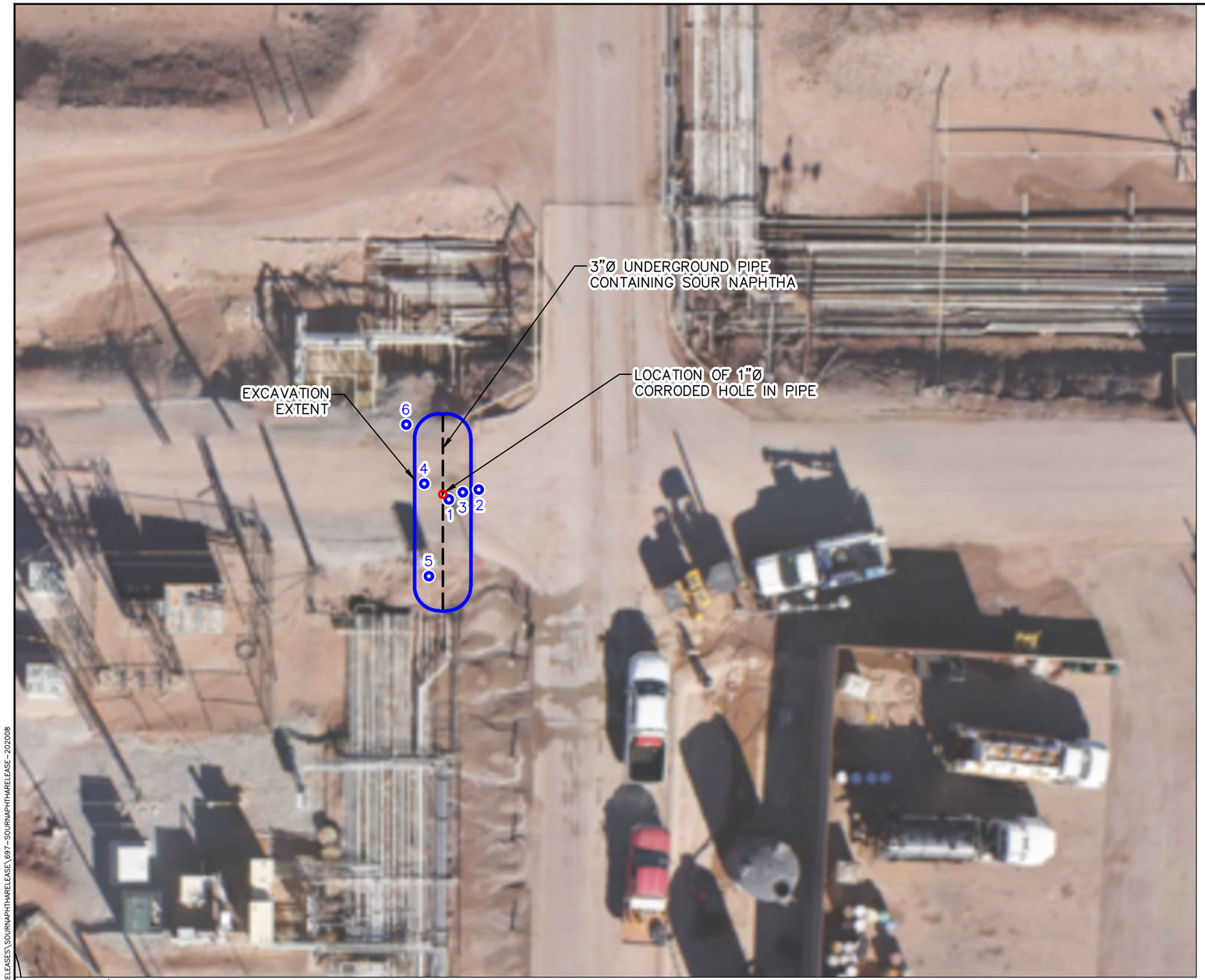

Image Cite: USDA /fsa – Aerial Photography Field Office, NAIP MrSID – Publication: 2014

2 SOUR NAPHTHA RELEASE SOIL SAMPLE LOCATIONS
SCALE: 1" = 20'

N
0 20'

Image Cite: USDA /fsa – Aerial Photography Field Office, NAIP MrSID – Publication: 2014

1 KEY MAP
SCALE: 1" = 800'

N
0 800'

EXPLANATION

- TANK
- SOUR NAPHTHA RELEASE
- UNDERGROUND PRODUCT PIPELINE
- SOUR NAPHTHA RELEASE EXCAVATION EXTENT AREA
- SOIL SAMPLE LOCATION

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FIGURE 4

MARCH 2017
SOIL SAMPLE LOCATIONS

WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: PH	Scale: AS SHOWN	Date: 3/8/21	File: 697-SOURNAPHTHARELEASE-202008

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Image Cite: USDA /fsa – Aerial Photography Field Office, NAIP MrSID – Publication: 2014

2 SOUR NAPHTHA RELEASE MONITORING WELL LOCATIONS
SCALE: 1" = 60'

N
0 60'

Image Cite: USDA /fsa – Aerial Photography Field Office, NAIP MrSID – Publication: 2014

1 KEY MAP
SCALE: 1" = 800'

N
0 800'

EXPLANATION

MKTF–LIF–66	LIF BORING LOCATION AND DESIGNATION
	SOUR NAPHTHA RELEASE
	MONITORING WELL LOCATION
	TANK
LIF	LASER-INDUCED FLORESCENCE

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FIGURE 5

MONITORING WELL LOCATIONS

WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: PH	Scale: AS SHOWN	Date: 3/8/21	File: 697-SOURNAPHTHARELEASE-202008

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Image Cite: USDA /fsa – Aerial Photography Field Office, NAIP MrSID – Publication: 2014

2 PROPOSED SOIL BORING LOCATIONS
SCALE: 1" = 20'

N

0 20'

Image Cite: USDA /fsa – Aerial Photography Field Office, NAIP MrSID – Publication: 2014

1 KEY MAP
SCALE: 1" = 800'

N

0 800'

EXPLANATION

- TANK
- SOUR NAPHTHA RELEASE
- UNDERGROUND PRODUCT PIPELINE
- SOUR NAPHTHA RELEASE EXCAVATION EXTENT AREA
- MKTF-16 CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- SOIL SAMPLE LOCATION
- PROPOSED SOIL BORING LOCATION

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FIGURE 6

PROPOSED SOIL BORING LOCATIONS

WESTERN REFINING SOUTHWEST LLC
MARATHON GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: PH	Scale: AS SHOWN	Date: 3/8/21	File: 697-SOURNAPHTHARELEASE-202008

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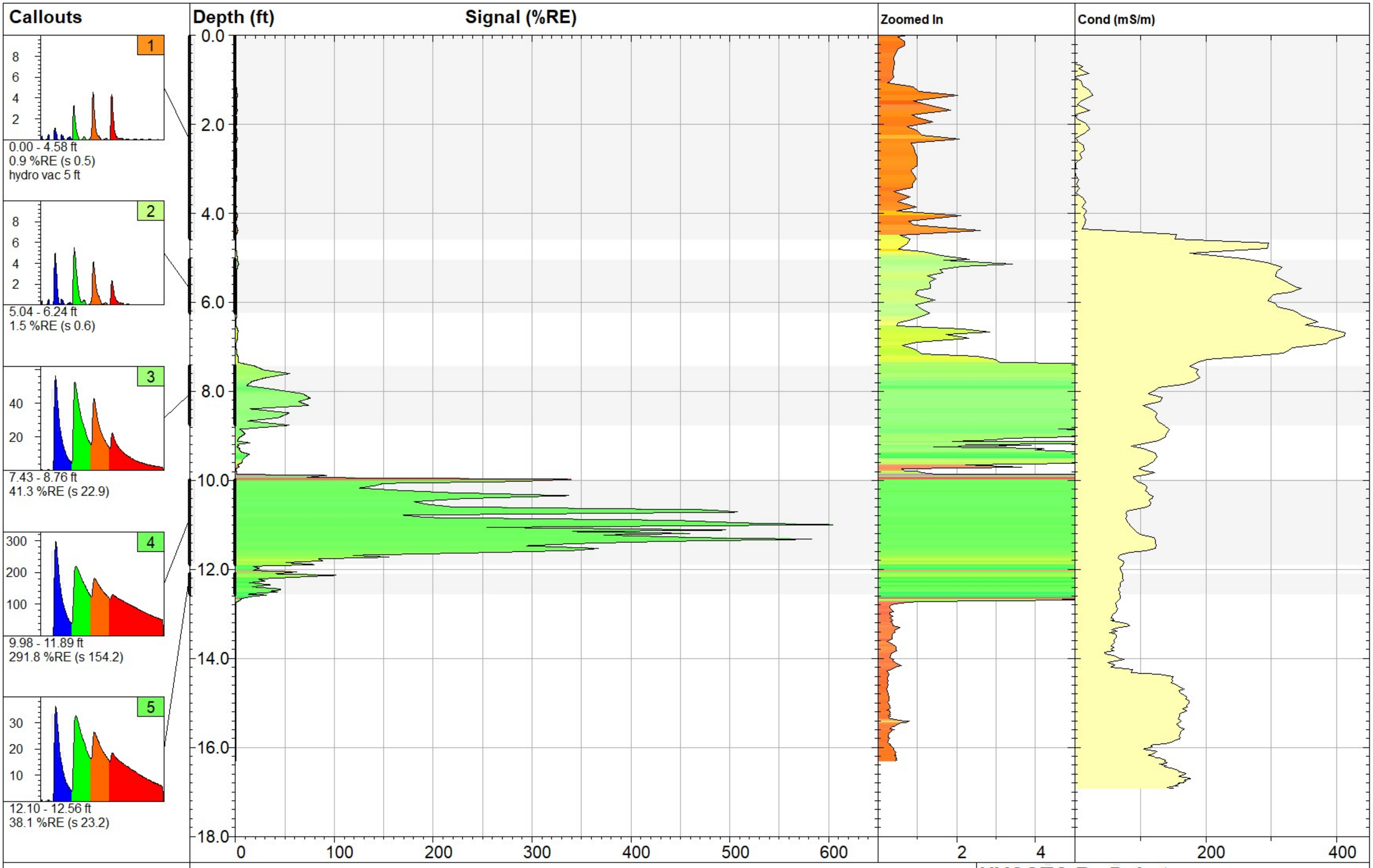
Appendix A - Laser Induced Fluorescence (LIF) Results



DAKOTA TECHNOLOGIES

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MKTF-LIF-85

UVOST® By Dakota
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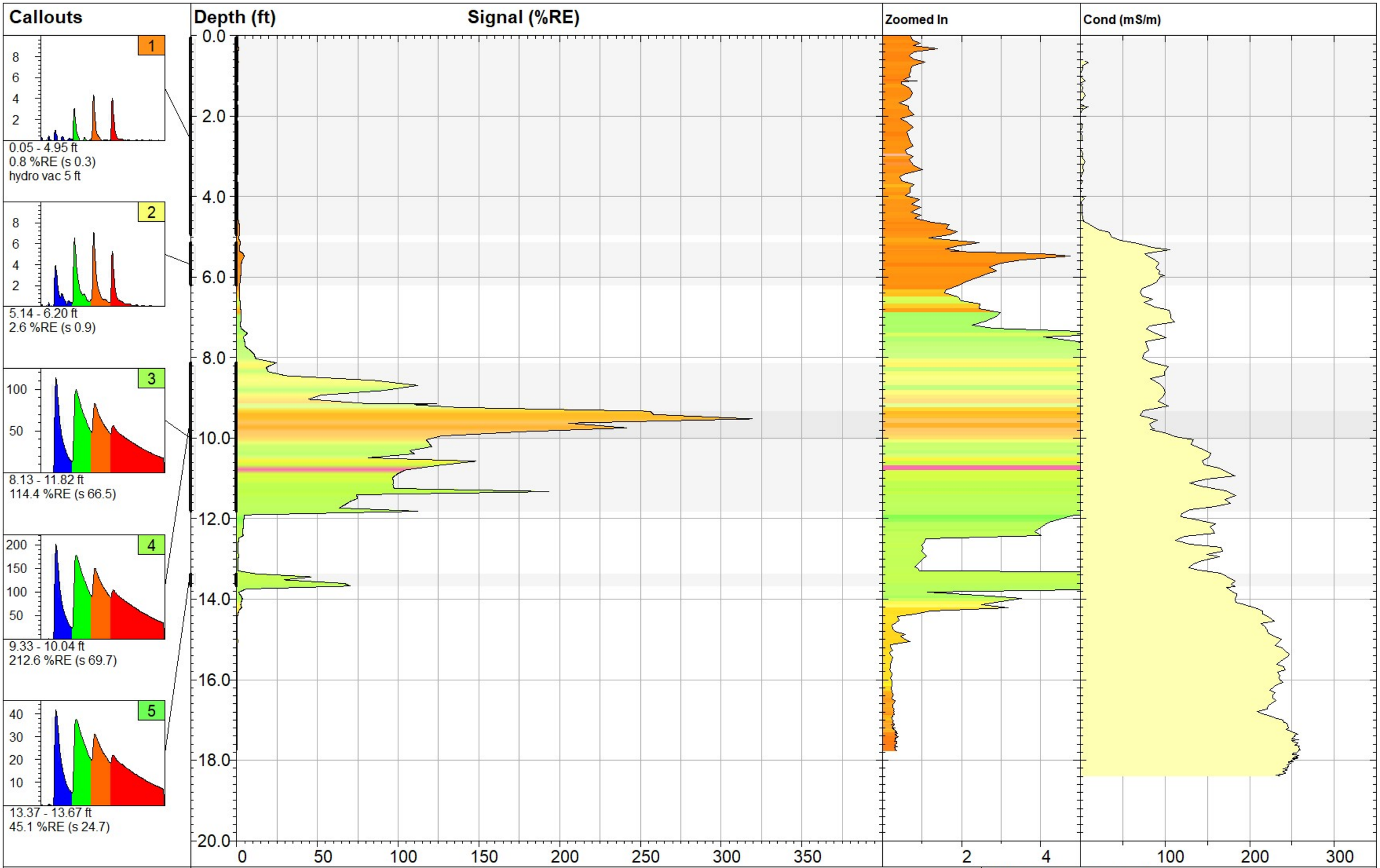
Site: **Marathon Marketing Tank Farm**	Y Coord.(Lat/North): **Unavailable**	Final Depth: **16.30 ft**
Client / Job: **TriHydro / 0049.21**	X Coord.(Long/East): **Unavailable**	Max Signal: **608.7 %RE @ 11.00 ft**
Operator / Unit: **A. Nagle / UVOST1613**	Elevation: **Unavailable**	Date & Time: **2021-02-05 09:48 MST**



MKTF-LIF-86

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Site: **Marathon Marketing Tank Farm**	Y Coord.(Lat/North): **Unavailable**	Final Depth: **17.76 ft**
Client / Job: **TriHydro / 0049.21**	X Coord.(Long/East): **Unavailable**	Max Signal: **319.3 %RE @ 9.52 ft**
Operator / Unit: **A. Nagle / UVOST1613**	Elevation: **Unavailable**	Date & Time: **2021-02-05 09:19 MST**

Appendix B - Standard Operating Procedures

memorandum

To: Sampling Team Members
From: Project Manager
Date: August 23, 2021
Re: Standard Operating Procedure – Soil Sampling

1.0 INTRODUCTION

Soil sampling related to site characterization and site clean-up is expected to involve source sampling of potentially impacted soils for characterization and profiling. Soil sampling is expected to occur around the sour naphtha release area.

All personnel involved in soil sampling projects are required to review this Standard Operating Procedure (SOP) before sampling to ensure the continued generation of reliable data. This SOP is based on experience gained from collecting soil samples and the latest information available in guidance manuals. This SOP may be updated as additional experience and information are acquired.

2.0 PRE-FIELD ACTIVITIES

Several activities will be conducted prior to departure for the project site. A project team will be assigned and the members will begin coordinating the sample collection event with Marathon Petroleum Company. Field equipment will be checked and organized. Access to the areas to be sampled will be checked, and provisions made to pack the necessary equipment for delivery to the project site.

3.0 PREPARATION

The Project Manager will review the current sampling and analysis plans and work plans to determine if any documents need to be brought to the site during monitoring. The Project Manager will also evaluate whether any changes have been made in the sampling and analytical procedures and notify the appropriate personnel.

The Sampling Team Members will review available surface water level data before leaving for the sampling site. This preparation ensures that the proper equipment and personnel are available at the site. All field screening equipment will be inspected prior to departure, ensuring that it is in proper working order. For soil sampling, the only field monitoring equipment used will be a photoionization detector (PID) and it should be calibrated and operated and according to manufacturer's recommendations.

4.0 EQUIPMENT

The following equipment is recommended for soil sampling:

- Required personal protective equipment (PPE), listed in the site-specific health and safety plan (HASP)
- Soil sampling devices (i.e., hand auger)
- Sampling beaker, bottles, labels, and preservatives
- Gloves
- Chain-of-custody/sample-analysis-request forms
- PID
- Global Positioning System (GPS) unit
- Opaque Cooler(s) and bagged ice or frozen Blue Ice
- Detergent or solvent for cleaning monitoring equipment
- Brushes dedicated for decontamination
- Decontamination containers dedicated for wash, rinse 1, and rinse 2
- Paper towels
- Trash bags
- Field logbook

5.0 SAMPLE COLLECTION

A critical aspect of any sampling program is selection and implementation of an appropriate sampling technique. Selection of equipment and technique should be appropriate for the volume of material required and the type of analysis to be performed. In general, the sampling equipment and technique will be chosen to minimize, to the extent possible, the amount of handling a sample will undergo prior to analysis. In many cases, the material to be sampled will be easy to access, and simple "grab" samples collected using a shovel, trowel, or drive sampler are appropriate. In other cases, such as underwater or heavily saturated samples, the soils may be difficult to access, and sampling will involve the use of specialized soil sampling equipment. Specific analytical requirements and sampling frequencies are specified in the work plan.

Soil samples located in dry areas will be collected from representative locations using a decontaminated drive sampler equipped with clean brass or stainless steel sampling rings, a thin-walled tube sampler, or a shovel or hand trowel. The sampling device will be driven completely into the material manually or using a manually operated auger, drive hammer, or mallet. The sampling device will then be extracted from the material using a shovel or trowel as needed. If used, filled sampling rings or the thin walled tube will

then be removed from the sampling device and immediately sealed on both ends with teflon sheeting and plastic caps. Otherwise, the material will placed directly from the trowel or other appropriate sampling device into a clean glass jar. The jar will be filled completely to minimize headspace (by tamping during filling), and immediately sealed with a teflon-lined lid.

If necessary, several cores may be collected from each location to provide adequate sample volume for the laboratory. The sample containers will be labeled with endelible ink. Filled sample containers should be wiped dry and placed in a cooler with ice (or equivalent) for storage at the time of collection. Enough ice and protective packing material should be used to cool the samples to 4°C and ensure that the container remains intact prior to final packing and shipment.

Field screening may involve the use of a PID. In this case, material will be placed from the trowel or other appropriate sampling device into a bad. The PID will be inserted into the bag and the reading taken. All samples shall be screened at as close to the same temperature as possible to obtain consistent results. After collecting the reading, the material will be transferred from the bag into a clean glass jar as described above.

Sampling devices will be decontaminated between sampling locations using a four-stage decontamination system consisting of a two detergent/water washes and two deionized water rinses. Sample locations will be recorded with a GPS unit in order to accurately map the sampling locations.

Field logbooks, Soil Sampling Field Log, and photograph logs will provide a written record of field data gathered, field observations, field equipment calibrations, the samples collected for analysis, and sample custody. Color photographs will be used to substantiate and augment the field notes, if necessary. Field records will be maintained in the project file.

697-076-002

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 52554

CONDITIONS

Operator: Western Refining Southwest LLC 539 South Main Street Findlay, OH 45840	OGRID: 267595
	Action Number: 52554
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
jburdine	Accepted for Record Retention Purposes-Only	11/22/2022