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	3RP-1068
Facility ID	
Application ID	

Release Notification

RCVD Via Email 6/7/19

Responsible Party

Responsible Party: Western Refining Pipeline, LLC	OGRID
Contact Name: Matthew Krakow	Contact Telephone: 505-632-4169
Contact email: matthew.j.krakow@andeavor.com	Incident # *(assigned by OCD)*
Contact mailing address: 111 CR4990 Bloomfield, NM 87413	nVF1829050741

Location of Release Source

Latitude 35.733235 Longitude -107.747355
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Hospah Station	Site Type: Crude Station
Date Release Discovered: 09/08/2018	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
	1	17N	9W	McKinley

**Deferment approved Addtional Remediation Required at P&A or When area is accesible which ever comes first. **

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

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) 925	Volume Recovered (bbls) 821
☐ 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

Piping component failure caused the release of the crude oil.

Smith, Cory, EMNRD

From: Smith, Cory, EMNRD
Sent: Wednesday, July 3, 2019 2:14 PM
To: 'Krakow, Matthew J'
Cc: Powell, Brandon, EMNRD
Subject: RE: Hospah Station Closure Request

Mr. Krakow,

OCD has reviewed the revised Hospah Station Closure request has approved it with the following conditions of approval

- OCD has Granted Western deferral request for impacts located under the concrete slab in area 2. The operator of the station is to remediate this area either at P&A or if the area becomes available for remediation which ever happens first.
- OCD also approves Westerns variance request for impacts located south of the facility boundary with the data provided the bulk of the contamination appears to be historic in nature and appears to be associated with the neighboring operator equipment/piping no further action is required at this time. However, if Western failed to properly delineate this area additional remediation maybe required in the future.

The incident will remain open In the OCD system until the differed area is remediated if you have any additional questions please give me a call.

The approved deferral will be scanned into 3RP-1068 case file.

NVF1829050741 WESTERN HOSPAH STATION @ FVF1829049195

General Incident InformationEdit

Site Name: WESTERN HOSPAH STATION

Well:

Facility: [fVF1829049195] WESTERN HOSPAH STATION

Operator: [310025] WESTERN REFINING PIPELINE, LLC

Status: Closure Not Approved

Type: Release Other

District: Aztec

Severity: Major

Surface Owner:

County: McKinley (31)

Incident Location: A-01-17N-09W Lot: 0 FNL 0 FEL

Lat/Long: 35.733235,-107.747355 NAD83

Directions:

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Krakow, Matthew J <Matthew.J.Krakow@andeavor.com>
Sent: Monday, June 24, 2019 9:59 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Subject: [EXT] RE: Hospah Station Closure Request

Hi Cory,

Do you have a estimate of when the Hospah Report will be reviewed? Thanks

---

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Tuesday, May 07, 2019 1:46 PM
To: Krakow, Matthew J <Matthew.J.Krakow@andeavor.com>
Cc: Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Subject: [EXTERNAL] RE: Hospah Station Closure Request

Matt,

As discussed the OCD has Reviewed the C-141 request and has determined that the C-141 report in administratively incomplete for the following reasons.

- The C-141 is filled out as an initial, Western/Andeavor needs to complete a new C-141 requesting a deferral please also make sure to fill out the C-141 complete and correctly.
- Executive Summary
    - Western/Andeavor needs to provide more details and reasoning for the impacts on the south and east ends as to why they believe the impacts are not related. Examples Was there a change in composition? Colors? Etc.
    - (Requested not required) it would be helpful to include dates on when each area was being worked on as this would assist in identify samples and their relative location.
- I am having a hard time reviewing Western/Andeavor Data, Sample names are not the same from table 1, to figures 2,3,4 and then they do not match the laboratory samples submitted to the lab.
    - Examples
        - Where is Excavation #1 Bottom sample located?
        - Where is sample Deep well Grab taken? Was it removed?
        - Where is sample North of electrical panel W Secti taken? Was it removed?
        - Where is sample North of electrical Panel E. Section taken?
    - Please review the Table 1, figures and submitted lab results to make sure they are all identified correctly.

- I was able to find the deferral request for the impacts below the 3' concrete pad with the application of oxidizer. I do not see any attachments or approvals from OCD for the following sample locations
    - East of Fence north section

- E. of fence S of deep well
- S wall west section
- S wall east section
- E wall south section

If Western/Andeavor dosnt have an approval from OCD then Western/Andeavor needs to make a variance request for those samples per 19.15.29.14 NMAC Please submit an updated report no later than June 7, 2019 digitally via email is acceptable, or single sided hard copy to if needed.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Krakow, Matthew J <Matthew.J.Krakow@andeavor.com>
Sent: Wednesday, April 24, 2019 1:20 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Subject: [EXT] RE: Hospah Station Closure Request

Cory,

There are areas in the Hospah Closure Request, as we previously discussed, that are over the requirements and will require OCD buy off to get the site closed so we are waiting to backfill until we get approval.

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Wednesday, April 24, 2019 1:10 PM
To: Krakow, Matthew J <Matthew.J.Krakow@andeavor.com>
Cc: Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Subject: [EXTERNAL] RE: Hospah Station Closure Request

Matt,

I have received it.. If you have sent in the final report and all of the samples are below the regulatory requirements (Or you included your approval to defer them) there should be no issues with proceeding to get your station back online.

In terms of timelines OCD has 60 Days to review a closure report before its deemed denied per 19.15.29.12 NMAC.

Thanks,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources

1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Krakow, Matthew J <Matthew.J.Krakow@andeavor.com>
Sent: Wednesday, April 24, 2019 9:20 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Subject: [EXT] FW: Hospah Station Closure Request

Hi Cory,

I just want to confirm that you received the Hospah Station Closure Request? Can you give me an estimated time for the review to be complete? We would like to finish backfilling and getting the permanent facility fence back in place for security purposes as soon as possible. Thanks

---

From: Krakow, Matthew J
Sent: Tuesday, April 16, 2019 10:55 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Powell, Brandon, EMNRD <brandon.powell@state.nm.us>; O'Brien, Jessica L <JOBrien@Marathonpetroleum.com>
Subject: Hospah Station Closure Request

Hi Cory,

Here is the Hospah Station Closure Request. I will stop by your office to deliver the paper copy. Thanks

Matthew Krakow
Environmental Specialist

111 County Road 4990
Bloomfield, NM 87413
Matthew.J.Krakow@andeavor.com
Office: (505) 632-4169|
Fax: (505)-632-4021

Please note: My email address changed to Matthew.J.Krakow@andeavor.com on July 31, 2017. Please update your records.

State of New Mexico
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? Major release defined by the spill volume >25 barrels.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, Matthew Krakow notified Jim Griswold, Vanessa Fields, and Cory Smith by email and left voicemails for Jim Griswold and Vanessa Fields.

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: Matthew Krakow Title: Environmental Specialist

Signature: _____ Date: 9-21-18

email: matthew.j.krakow@andeavor.com Telephone: 505-632-4169

OCD Only

Received by: _____ Date: _____

9/21/2018
Western Refining Pipeline, LLC
111 CR4990, Bloomfield, NM 87413

Current Remediation Actions (Hospah Station)

Western Refining has initiated the remediation process at the Hospah site. The initial actions included isolation of the station and termination of the release of oil, containing the spill, and recovering the free product with vacuum trucks and absorbent materials. Western has continued the remediation efforts by excavating the impacted soils at the site. Western is currently working with the local district office to collect confirmation sampling for the first clean-up area. Impacted soils have been characterized and are being disposed of at Envirotech's land farm. Additional remediation is still required and is ongoing.

Matthew Krakow
Environmental Specialist
505-632-4169

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	450 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☒ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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Application ID	

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

Printed Name: Matthew Krakow Title: HES Professional

Signature: Date: 6/7/19

email: Matthew.J.Krakow@Andeavor.com Telephone: 505-632-4169

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Matthew Kralow Title: HES Professional

Signature: Date: 6/7/19

email: matthew.j.kralow@xtoenergy.com Telephone: 505-632-4169

OCD Only

Received by: ~~OCD~~ Date: ~~9/7/19~~

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

Signature: Date: ~~7/3/19~~

LT Environmental, Inc.
848 East Second Avenue
Durango, Colorado 81301
970.385.1096

June 7, 2019

Mr. Cory Smith
Environmental Specialist
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Hospah Station Deferral Request and Closure Variance Request
Western Refining Pipeline, LLC
Hospah Station
McKinley County, New Mexico

Dear Mr. Smith:

LT Environmental, Inc. (LTE) on behalf of Western Refining Pipeline, LLC (Western), presents the following closure request for remediating impacted soil associated with the failure of an oil transfer pump at the Hospah Station (Site) in Section 1 of Township 17 North, Range 9 West in McKinley County, New Mexico. Remedial activities occurred to the north, east, and west of a newly installed concrete pad that will house oil transfer pumps necessary for facility operations. This document presents information confirming removal of impacted soil and permission to backfill the excavated area. Additional information is presented to supplement a previously approved request to defer remediation of impacted soil under the permanent concrete pad. Finally, Western is requesting a variance to leave in place historically impacted soil encountered in the subsurface of an area affected by misting. The variance request is based on the depth of soil impact, differences in soil sample chromatographic profile, and knowledge of historical release(s) from a neighboring facility.

Please refer to the *Hospah Station Deferment Request* (Deferment Request) document submitted on October 11, 2018, documenting approval by the New Mexico Oil Conservation Division (NMOCD) to leave in place approximately 140 cubic yards of impacted soil beneath a concrete pad until facility closure and deconstruction or when construction activities at the Site allow for access to the impacted soil beneath the concrete pad. Information provided in the Deferment Request is also presented in subsequent sections of this report at the request of the NMOCD.

BACKGROUND

On September 8, 2018, the failure of an oil transfer pump resulted in the release of 925 barrels (bbls) of crude oil at the Site. At the time of the failure, Western was conducting upgrades to existing infrastructure and had open trenches to the immediate south, southwest, and northwest of the oil transfer pumps this allowed free standing oil to flow to these areas. The failure also

resulted in a spray of oil mist that impacted areas to the south, north and east of the oil transfer pumps. In response to the release, Western isolated the station, contained the release, used vacuum trucks to recover free standing oil, and initiated excavation activities. Approximately 821 bbls of crude oil were recovered.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on data for the nearest permitted water well, C-96623, located 2,263 feet to the northwest. Depth to groundwater in the water well is 580 feet bgs and total depth of the water well is 780 feet bgs. The Site is located less than 300 feet from Sandoval Arroyo to the south. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet to a permanent residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within an unstable area, 100-year floodplain, or overlying a subsurface mine. Based on these criteria, the following NMOCD remediation action levels apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX), 100 mg/kg total petroleum hydrocarbons (TPH), and 600 mg/kg chloride.

REMEDIATION ACTIVITIES

On September 9, 2018, Western began excavation activities where impacted soil was observed, starting with the areas closest to the oil transfer pumps and moving outward, excavating around piping and other infrastructure as it was encountered. The excavation extent is represented as Area 1 through Area 3 on Figure 1, on which depths of each area are shown. An approximately 60-foot by 16-foot concrete pad is located in the release footprint, which prevented excavation activities immediately around and under its location (yellow rectangle in Area 2 on Figure 1).

Initially, an area south of the concrete pad was excavated to an average depth of approximately 6 feet bgs Figure 3. A trench north of the concrete pad was excavated to an average depth of approximately 8 feet bgs, represented as North Trench on Figure 2. An area west of the recently installed concrete pad (“Excavated Depression”) was excavated to an approximate depth of 12 feet bgs, between the concrete pad for the oil transfer pumps and a second concrete pad that was the foundation of a former out-building. Although visible on the aerial on Figure 1 and Figure 2, the former out-building concrete pad was removed as part of the excavation activities and soil beneath it has been removed. The excavated area west of the recently installed concrete pad is represented as South Trench Depression Bottom on Figure 2. Excavation near the concrete pad halted for a period while Western requested a deferment to leave impacted soil beneath the concrete pad in place. During this time excavation activities continued in excavation area 1.

Excavation in Area 1 continued north and northeast of the original excavation extent. The excavation depths ranged from 6 feet to 1 feet bgs as the excavation extended laterally. Following completion of excavation activities, 5-point composite confirmation soil samples were collected from the floor and sidewalls of the excavation. The NMOCD was on site during sampling activities

to observe and approve of the composite sample locations. The excavation extent and soil sample locations are depicted on Figure 2.

Following approval of the deferment request excavation in Area 2 continued to the west, northwest, and east of the concrete pad. The average depth of the excavation ranged from 4 feet bgs to the west and 8 feet bgs to the northwest and northeast. Over-excavation occurred below the former outbuilding to a depth of approximately 12 feet bgs where additional impacted soil (likely historical) was encountered. Following completion of excavation activities, 5-point composite confirmation soil samples were collected from the floor and sidewalls of the excavation. The NMOCD was on site during sampling activities to observe and approve of the composite sample locations. The excavation extent and soil sample locations are depicted on Figure 3.

Excavation Area 3 continued to the east of Excavation Area 2 approximately 30 feet beyond the site boundary fence to depths ranging from 2 feet to 6 feet bgs. Following completion of excavation activities, 5-point composite confirmation soil samples were collected from the floor and sidewalls of the excavation. The NMOCD was on site during sampling activities to observe and approve of the composite sample locations. The excavation extent and soil sample locations are depicted on Figure 4.

Representative 5-point composite soil samples were collected during excavation activities to confirm floor and sidewall clearance or to determine if additional excavation activities were necessary. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler, method of analysis, and immediately placed on ice. The soil samples were shipped at 4 degrees Celsius (°C) under strict chain-of-custody procedures to a certified lab for analysis of BTEX by United States Environmental Protection Agency (USEPA) Method 8021B, TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) by USEPA Method 8015M/D, and chloride by USEPA Method 300.0.

Western excavated approximately 5,430 cubic yards of impacted soil. Figure 1 depicts the horizontal extent of the excavation (Area 1 through Area 3) as of March 25, 2019. Soil was transported offsite and disposed of at the Envirotech Landfarm in Bloomfield, New Mexico.

DEFERMENT REQUEST

A recently installed 3-foot thick reinforced concrete pad is located within the release footprint and impacted soil has been identified beneath it. This recently installed concrete pad is currently empty but is planned to be used for installing an updated and redesigned pump system required for operating the facility. Western has delineated the impacted soil around and beneath the concrete pad (Figure 3 and Table 1). Analytical results from soil sampling indicate that impacted soil is present from directly beneath the concrete pad to a depth of less than 4 feet bgs. Composite soil samples collected from the excavation walls surrounding the concrete pad

indicate the majority of impacted soil from this area has been removed, with small portions still exceeding the NMOCD remediation action levels as indicated by grab samples: S. Trench Sec. 5 East Wall Grab; S. Trench Sec. 2 Under Slab Grab; S. Trench Sec. 2 Under Slab #1; and S. Trench Sec. 2 Under Slab #2 (Highlighted samples on Figure 3. Impacted soil represented by those samples is delineated vertically by deeper samples collected under the slab from 12 inches, 18 inches, and 4 feet bgs. The impacted soil is delineated laterally by the same discrete samples and excavation confirmation composite samples collected from excavation sidewalls and sections of the excavation floor.

In accordance with New Mexico Administrative Code (NMAC) 19.15.29.12 C. (2), Western proposed to leave in place approximately 140 cubic yards of impacted soil beneath the concrete pad until facility closure and deconstruction or when construction activities at the Site allow for access to the impacted soil beneath the concrete pad. Western has excavated as close as possible to the edge of the concrete pad without compromising the structural integrity of the pad. Composite soil samples collected from each excavation sidewall and floor surrounding the concrete pad contain no concentrations of BTEX or TPH exceeding NMOCD standards. Grab samples collected from under the concrete pad via horizontal boring contain concentrations of total BTEX ranging from below laboratory detection limits to 168.72 mg/kg in S. Trench Sec. 2 Under Slab Grab. Concentrations of total TPH in soil samples from under the concrete pad range from below laboratory detection limits to 56,020 mg/kg in S. Trench Sec. 2 Under Slab Grab. To enhance natural attenuation of the impacted soil to be left in place below the concrete pad, Western applied a 3 percent (%) solution of potassium permanganate. The solution was applied to the impacted areas below and surrounding the concrete pad. The Potassium Permanganate Safety Data Sheet (SDS) is included as an attachment.

This information was previously provided to the NMOCD and approved on October 16, 2018. It is presented here at the request of the NMOCD for comprehensive reporting. Based on the approved Deferment Request submitted on October 11, 2018, and in accordance with New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) C. (2), Western received approval to leave in-place the approximately 140 cubic yards of impacted soil beneath the 3-foot thick reinforced concrete pad. The impacted soil will be addressed during facility closure and deconstruction or if construction activities at the Site allow for access to the impacted soil beneath the concrete pad.

ANALYTICAL RESULTS OF FINAL EXCAVATION

Laboratory analytical results of composite soil samples collected from the excavation floor and sidewalls indicate all the impacted soil from Area 1 has been removed. All composite samples within the excavation extent of Area 1 are below laboratory detection limits or within NMOCD remediation action levels (Figure 2 and Table 1).

Laboratory analytical results of composite soil samples collected from the excavation floor and sidewalls indicate all the impacted soil from Area 2 has been removed, with the exception of soil being left in place beneath the concrete pad. All composite soil samples collected within the excavation extent of Area 2 are all below laboratory detection limits. (Figure 3 and Table 1).

Western excavated the impacted soil to the east of the concrete pad defined as excavation extent Area 3. The excavation extent east of the concrete pad was excavated to just east of the property boundary of the Site. Laboratory analytical results of composite soil samples collected from the east excavation walls indicate all of the impacted soil from within Area 3 has been removed, with the exception of the southern, southeastern, and western wall areas which exceed the NMOCD remediation action levels as identified by composite soil samples 'West wall center section', 'S Wall West Section', 'S Wall East Section', and 'E Wall South Section'. Total BTEX for all composite soil samples collected were either below laboratory detection limits or within the NMOCD remediation action levels. Concentrations of total TPH ranged from 155 mg/kg in composite soil sample 'West wall center section' to 1,414.2 mg/kg in 'S Wall West Section'.

Although composite soil sample 'West wall center section' exceeds the NMOCD remediation action level of 100 mg/kg for total TPH, the sample was collected below the east end of the concrete pad; and therefore will be left in place for deferral until facility closure and deconstruction or when construction activities at the Site allow for access to the impacted soil beneath the concrete pad. Western applied a 3 % solution of potassium permanganate to this excavation wall as part of the deferment request described in the previous section.

Additional soil scraping and sampling activities were completed east of the site boundary fence to approximately 2 feet bgs (Area 3). This shallow soil removal addressed soil affected by a mist from the release, where only the top inches of soil would have been impacted. Laboratory analytical results of the composite soil samples collected east of the fence indicate two areas exceed the NMOCD remediation action levels of 100 mg/kg for total TPH with values ranging from 150 mg/kg at composite soil sample location 'East of fence north section' to 520 mg/kg at 'E of Fence S of Deep well'. All other analytes are below laboratory detection limits or within NMOCD remediation action levels (Figure 4 and Table 1) and are therefore compliant with NMOCD remediation action levels.

VARIANCE REQUEST

Impacted soil remains on the south, southeast, north and northeast ends of the east excavation (Area 3) represented by soil samples 'E of Fence S of Deep well', 'East of fence north section', 'S Wall East Section', 'S Wall West Section', and 'E Wall South Section'. The observed impacted soil remaining in these areas does not appear to be associated with the oil transfer pump failure and subsequent release. This area was affected by misting only and is located in close proximity to the adjacent landowner's oil and gas piping infrastructure. When the failure of the oil transfer pumps occurred, it resulted in both a release of free standing oil to the immediate south,

southwest, and northwest of the oil transfer pumps and a spray of oil mist that impacted areas to the south, north and east of the oil transfer pumps. The oil spray was not concentrated enough to impact the subsurface deeper than 1 to 2 inches bgs. The greatest impact in the spray impacted areas was observed at the surface. Historically impacted soil encountered on the south, southeast, north, and northeast portions of Area 3 was encountered at a depth as great as 2 feet bgs, well below the depth misting impacted the surface.

The impacted soil appeared different visually during the excavation and also displayed differences in the laboratory analysis. The impacted soil encountered at 2 feet was darker in color than the soil impacted by mist from the oil transfer pump release. The deeper impacted soil appeared degraded (drier and crumbling). Soil samples from the misted surface and from the subsurface were analyzed using a gas chromatogram (GC) and the response curves are included as Attachment 1. The chromatograms included are results from the recent misted release sample (W of Panel West Side), two samples from the deeper historically impacted soil (S Wall East Section and S Wall West Section), and a laboratory standard of the n-alkanes (straight chained carbon molecules). According to the Interstate Technology Regulatory Council (ITRC) guidance document *TPH Risk Evaluation at Petroleum-Contaminated Sites* Appendix A.5 *Chromatograms a Wealth of Information*, 'the chromatographic profile changes with environmental weathering of petroleum mixtures, but in predictable ways. In general, under aerobic conditions, n-alkanes are relatively easy to biodegrade. In most crude oils, n-alkanes are the most predominant features.' While all the sample chromatograms appear to have the same general shape, there is a striking difference between the recent misted sample and the historical release samples. The recent misted release sample (W of Panel West Side) has a series of spikes from 7 minutes to 12 minutes. A majority of the spikes are the n-alkanes which tend to be the predominant feature in crude oil. The n-alkanes have degraded in the historical release samples leading to a smoother GC response curve. To note is the predominant spike at approximately 10 minutes in the recent spray sample. From the laboratory standard chromatogram, we can deduce that this is the C24 n-alkane, which has all but disappeared in the historical spill samples due to weathering. The general shape of the curve 'hump' is largely composed of branched alkanes, cycloalkanes, and naphthene aromatics which are less readily available for biodegradation. The similarities between all samples indicate that the source is similar, but have varying degrees of weathering which support two separate release events.

Based on discussions between long-term facility personnel and NMOCD personnel, there is knowledge of historical release(s) at the adjacent property. The subsurface impacted soil is presumed to be historic and the result of the adjacent property owners' operations and was not remediated as part of the excavation activities associated with Western's oil transfer pump failure. As such, Western requests a variance to the requirement to remediate all impacted soil and permission to leave the historic impacts in place to be addressed by the appropriate third party.

Based on the remediation information presented, including information presented in the approved Deferment Request submitted on October 11, 2018, LTE, on behalf Western, respectfully requests to defer remediation of soil beneath the concrete pad, backfill the excavation, and leave historic impacts east of the facility to be addressed by the neighboring operator.

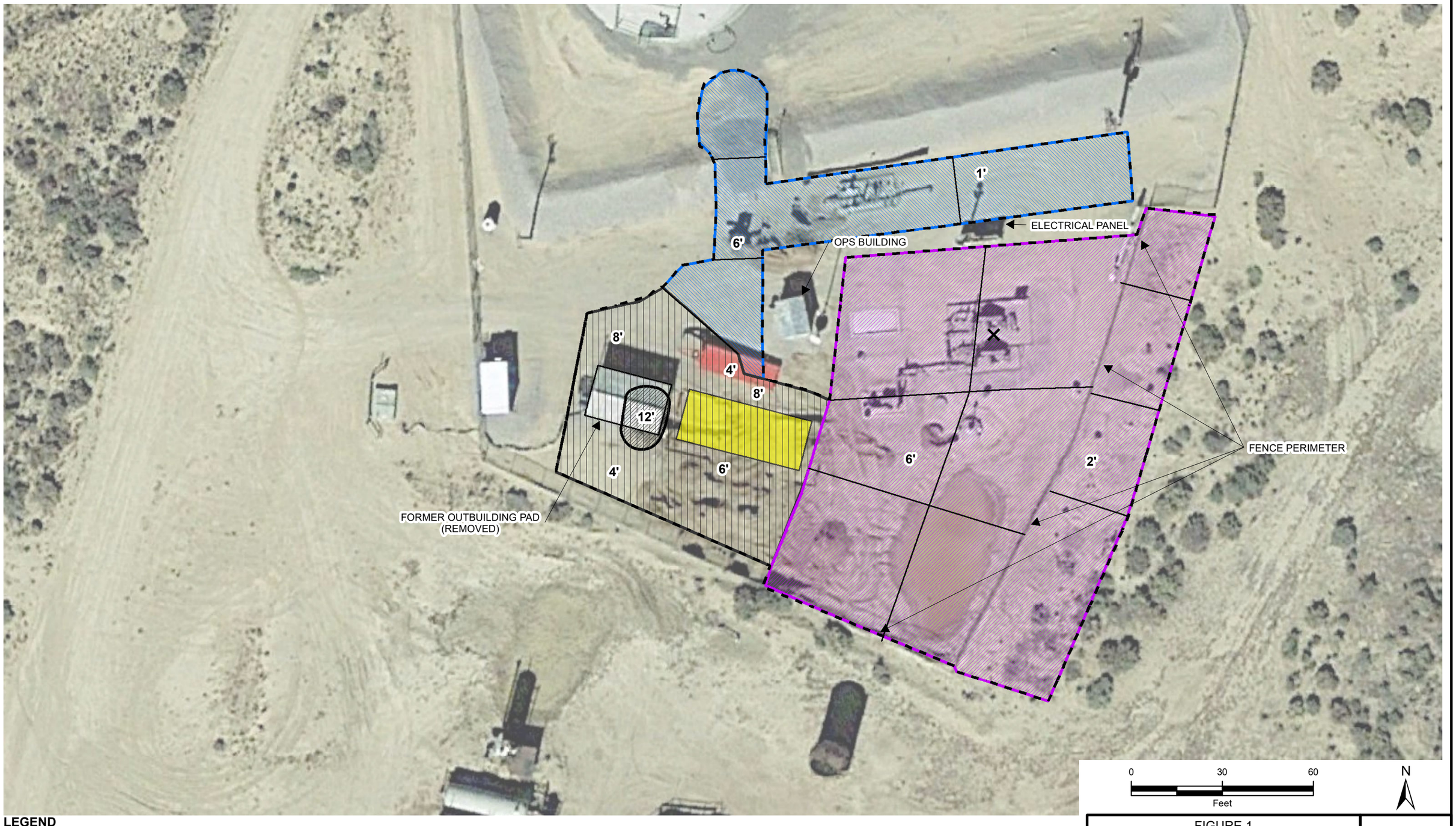
Sincerely,

LT ENVIRONMENTAL, INC.

Devin Hencmann
Project Geologist

Attachments:

Figure 1	Excavation Extent Areas
Figure 2	Soil Sample Locations Area 1
Figure 3	Soil Sample Locations Area 2
Figure 4	Soil Sample Locations Area 3
Table 1	Soil Analytical Results
Attachment 1	Chromatogram Response Curves
Attachment 2	Photo Log
Attachment 3	Laboratory Analytical Reports
Attachment 4	Potassium Permanganate SDS



0 30 60

Feet

N

LEGEND

- ALL EXCAVATIONS
- CONCRETE PAD FOR OIL TRANSFER PUMPS (IMPACTED SOIL LEFT IN PLACE AS APPROVED IN DEFERMENT REQUEST)
- EXCAVATED DEPRESSION
- EXCAVATION AREA 1
- EXCAVATION AREA 2
- EXCAVATION AREA 3

IMAGE COURTESY OF GOOGLE EARTH 2017

FIGURE 1
EXCAVATION EXTENT AREAS AND DEPTHS
HOSPAH STATION
SENW SEC 1 T17N R9W
MCKINLEY COUNTY, NEW MEXICO
WESTERN REFINING PIPELINE, LLC

P:\Western Refining\GIS\MXD\029518019_HOSPAH STATION\029518019_FIG01_ALL EXC AREAS_2019_11X17.mxd

LEGEND

- 5-POINT COMPOSITE SAMPLE
- EXCAVATION EXTENT NORTH

0 10 20
Feet

N

IMAGE COURTESY OF GOOGLE EARTH 2017

FIGURE 2
SOIL SAMPLE LOCATIONS AREA 1
HOSPAH STATION
SENW SEC 1 T17N R9W
MCKINLEY COUNTY, NEW MEXICO
WESTERN REFINING PIPELINE, LLC

P:\Western Refining\GIS\MXD\029518019_HOSPAH STATION\029518019_FIG02_SOIL_2019_11X17_NW.mxd

LEGEND

- 5-POINT COMPOSITE BOTTOM SAMPLE (9/13/18 & 9/20/18)
- 5-POINT COMPOSITE WALL SAMPLE (9/13/2018)
- 5-POINT COMPOSITE WALL SAMPLE (9/20/18)
- GRAB SAMPLE COLLECTED FROM EXCAVATION WALL (9/13/18)
- GRAB SAMPLE COLLECTED FROM UNDER SLAB (9/20/18)
- GRAB SAMPLE COLLECTED FROM UNDER SLAB (10/4/18)
- CONCRETE PAD FOR OIL TRANSFER PUMPS (IMPACTED SOIL LEFT IN PLACE AS APPROVED IN DEFERMENT REQUEST)
- EXCAVATED DEPRESSION
- EXCAVATION EXTENT

IMAGE COURTESY OF GOOGLE EARTH 2017

0 15 30
Feet

N

FIGURE 3
SOIL SAMPLE LOCATIONS AREA 2
HOSPAH STATION
SENW SEC 1 T17N R9W
MCKINLEY COUNTY, NEW MEXICO
WESTERN REFINING PIPELINE, LLC

P:\Western Refining\GIS\MXD\029518019_HOSPAH STATION\029518019_FIG03_SAMPLE_LOC_EXC_EXTENT_2019_11X17.mxd

0 20 40

Feet

N

LEGEND

- 5-POINT COMPOSITE SAMPLE
- EXCAVATION EXTENT-EAST
- CONCRETE PAD FOR OIL TRANSFER PUMPS (IMPACTED SOIL LEFT IN PLACE AS APPROVED IN DEFERMENT REQUEST)

IMAGE COURTESY OF GOOGLE EARTH 2017

FIGURE 4
SOIL SAMPLE LOCATIONS AREA 3
HOSPAH STATION
SENW SEC 1 T17N R9W
MCKINLEY COUNTY, NEW MEXICO
WESTERN REFINING PIPELINE, LLC

P:\Western Refining\GIS\MXD\029518019_HOSPAH STATION\029518019_FIG04_AREA 3_2019_EAST_EXC_11X17.mxd

TABLE 1
CLOSURE SOIL ANALYTICAL RESULTS

HOSPAH STATION
MCKINLEY COUNTY, NEW MEXICO
WESTERN REFINING, INC.

Sample Name	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	C6-C10 Gasoline Range Organics (mg/kg)	C10-C28 Diesel Range Organics (mg/kg)	C28-C40 Motor Oil Range Organics (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
S. Trench Sec. 1 Bottom	9/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	30.5	<50.0	30.5	<20.0
S. Trench Sec. 2 Bottom	9/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 1 Wall	9/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 2 Wall	9/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 1 Under Slab	9/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 2 Under Slab	9/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 1 Under Slab Grab	9/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 2 Under Slab Grab	9/13/2018	4.72	40.9	17.1	106	**168.72**	1,010	47,400	7,610	**56,020**	<20.0
S. Trench Sec. 3 Bottom	9/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	76.3	<50.0	76.3	<20.0
S. Trench Sec. 4 Bottom	9/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 3 Wall	9/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	40.1	<50.0	40.1	<20.0
S. Trench Sec. 4 Wall	9/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 5 E. Wall	9/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 5 E. Wall Grab	9/13/2018	0.166	3.56	2.7	17.6	24.026	207	5,260	786	**6,253**	<20.0
S. Trench Sec. 1 Under Slab #1 (18" bgs)	9/20/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 1 Under Slab #2 (18" bgs)	9/20/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 1 Under Slab Grab @ 4'	9/20/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 2 Under Slab #1 (8" bgs)	9/20/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	422	350	**772**	<20.0
S. Trench Sec. 2 Under Slab #2 (8" bgs)	9/20/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	157	187	**344**	<20.0
N. Trench Under Slab Composite	9/20/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
N. Trench Bottom	9/20/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
N. Trench Under Slab #1 (12" bgs)	9/20/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
N. Trench Under Slab #2 (12" bgs)	9/20/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
N.Trench Under Slab #3 (12" bgs)	9/20/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
N.Trench Under Slab #4 (12" bgs)	9/20/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
Excavation #1 W. Wall	9/27/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	32.5	<50.0	32.5	<20.0
Excavation #1 Bottom	9/27/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
Excavation #1 E. Wall	9/27/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
N. Trench Wall	9/27/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<50.0	<100.0	<100.0	<20.0
Excavation #2 W. Wall	9/27/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	66.1
Excavation #2 S. Wall	9/27/2018	<0.1	<0.1	<0.1	<0.1	<0.1	<20.0	<25.0	<50.0	<50.0	<20.0
S. Trench Sec. 2 Under Slab #2-3 (3' bgs)	10/4/2018	<0.022	<0.044	<0.044	<0.088	<0.088	<4.4	<10	<50	<50	<30
S. Trench Sec. 2 Under Slab # 1-4 (4' bgs)	10/4/2018	<0.021	<0.041	<0.041	<0.082	<0.082	<4.1	<9.7	<48	<48	<30
Excavation 1 Shelf +12''	10/11/2018	<0.019	<0.037	<0.037	<0.074	<0.074	<3.7	<10	<50	<50	<30
South Trench Depression South	10/11/2018	<0.015	<0.031	<0.031	<0.061	<0.061	<3.1	<9.3	<47	<47	<30
South Trench Depression North	10/11/2018	<0.017	<0.033	<0.033	<0.066	<0.066	<3.3	<9.6	<48	<48	<30
West Wall 1	10/11/2018	<0.019	<0.038	<0.038	<0.076	<0.076	<3.8	<10	<50	<50	<30
West Wall 2	10/11/2018	<0.020	<0.040	<0.040	<0.080	<0.080	<4.0	<10	<50	<50	<30
South Trench Depression Bottom	10/11/2018	<0.023	<0.046	<0.046	<0.091	<0.091	<4.6	<9.9	<50	<50	<30
Ex 2 N Wall	11/16/2018	<0.020	<0.040	<0.040	<0.081	<0.081	<4.0	<9.8	<49	<49	<30
West Wall	11/16/2018	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<10	<50	<50	87
East Wall	11/16/2018	<0.020	<0.039	<0.039	<0.079	<0.079	<3.9	<10	<50	<50	53
Bottom	11/16/2018	<0.018	<0.035	<0.035	<0.070	<0.070	<3.5	<9.8	<49	<49	35
Bottom 2	11/16/2018	<0.020	<0.040	<0.040	<0.081	<0.081	<4.0	<10	<50	<50	<30
Trench Ramp	11/16/2018	<0.021	<0.043	<0.043	<0.086	<0.086	<4.3	<9.7	<48	<48	<30
Trench #2 +2'	11/20/2018	<0.1	<0.1	<0.1	<0.2	<0.2	<20.0	<25.0	<50.0	<50.0	<20.0
Northeast	1/25/2019	<0.020	<0.039	<0.039	<0.079	<0.079	<3.9	<9.3	<47	<47	<30
West N. End	1/25/2019	<0.021	<0.041	<0.041	<0.083	<0.083	<4.1	<9.1	<46	<46	<30
Northwest	1/25/2019	<0.019	<0.037	<0.037	<0.074	<0.074	<3.7	27	61	88	<30
West Bottom N. End	1/25/2019	<0.022	<0.044	<0.044	<0.088	<0.088	<4.4	<9.5	<47	<47	<30
East Bottom N. Side	1/25/2019	<0.021	<0.042	<0.042	<0.084	<0.084	<4.2	49	<51	49	<30
West Floor Center Section	2/1/2019	<0.023	<0.046	<0.046	<0.093	<0.093	<4.6	13	<50	13	<60
East Floor Center Section	2/1/2019	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	17	<49	17	<60
East Wall Center Section	2/1/2019	<0.019	<0.038	<0.038	<0.076	<0.076	<3.8	<10	<50	<50	<60
West bottom south section	2/7/2019	<0.025	<0.051	<0.051	<0.10	<0.10	<5.1	<9.9	<49	<49	<60
East bottom south section	2/7/2019	<0.020	<0.040	<0.040	<0.080	<0.080	<4.0	<9.5	<48	<48	<60
East of fence center section	2/7/2019	<0.022	<0.044	<0.044	<0.088	<0.088	<4.4	<10	<50	<50	<60
East of fence north section	2/7/2019	<0.023	<0.045	<0.045	<0.090	<0.090	<4.5	40	110	**150**	<60
E of Fence S of Deep well	2/7/2019	<0.026	<0.052	<0.052	<0.10	<0.10	<5.2	140	380	**520**	<60
West wall center section	2/7/2019	<0.020	<0.040	<0.040	<0.080	<0.080	<4.0	75	100	**175**	<60
W Wall South Section	3/19/2019	<0.017	<0.034	<0.034	<0.068	<0.068	<3.4	<10	<50	<50	<30
S Wall West Section	3/19/2019	<0.021	<0.041	<0.041	<0.083	<0.083	4.2	610	1,200	**1,814.2**	<30
S Wall East Section	3/19/2019	<0.026	<0.053	<0.053	0.11	0.11	<5.3	230	680	**910**	<30
E Wall South Section	3/19/2019	<0.019	<0.038	<0.038	<0.075	<0.075	<3.8	83	140	**223**	<30
N of Panel East Side	3/25/2019	<0.020	<0.040	<0.040	<0.079	<0.079	<4.0	<9.4	<47	<47	<60
N of Panel West Side	3/25/2019	<0.019	<0.038	<0.038	<0.076	<0.076	<3.8	<10	<51	<51	<60
East of Fence South Section	3/25/2019	<0.021	<0.043	<0.043	<0.085	<0.085	<4.3	16	<50	16	<60
NMOCD Remediation Action Levels		**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100**	**600**

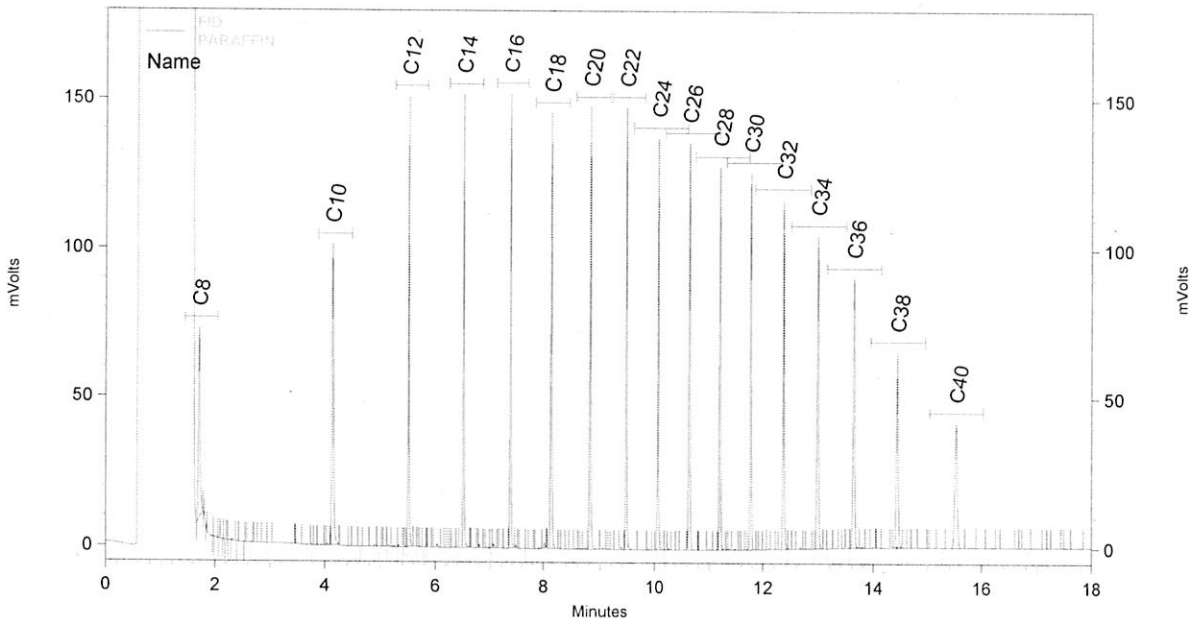
Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
mg/kg - milligrams per kilogram
NE - not established
NMOCD - New Mexico Oil Conservation Division
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds NMOCD remediation action level
< - indicates result is below laboratory reporting limits

Instrument: **Dante (Offline)** Vial #: **2** User: **System**
Sample ID: **PARAFFIN** Data Description: **SV195-3212**

Method: H:\EZsemi\8015dro\DATA\Dante\Method\052319.met
File: H:\EZsemi\8015dro\DATA\Dante\Data\Data 2019\March 2019\032019\PARAFFIN 3-20-2019 7-46-29 AM.dat
Aquired: 3/20/2019 7:52:27 AM

LABORATORY N-ALKANE STANDARD



FID Results

Name	Retention Time	Area	ug/ml
C8	1.707	125579	0.000
C10	4.128	196064	0.000
C12	5.504	198846	0.000
C14	6.507	199040	0.000
C16	7.365	198116	0.000
C18	8.128	193091	0.000
C20	8.827	196666	0.000
C22	9.467	198859	0.000
C24	10.064	196799	0.000
C26	10.635	199686	0.000
C28	11.200	194243	0.000
C30	11.771	193118	0.000
C32	12.363	192278	0.000
C34	12.981	184938	0.000
C36	13.632	176200	0.000
C38	14.437	153931	0.000
C40	15.520	132894	0.000

Analyst _____

Reviewed By _____

Instrument: **Dante (Offline)** Vial #: **12** User: **System**
Sample ID: **19033896-006A** Data Description: **SOIL RUSH SAME DAY X1 RE-RUN**

Method: H:\EZsemi\8015dro\DATA\Dante\Method\052319.met
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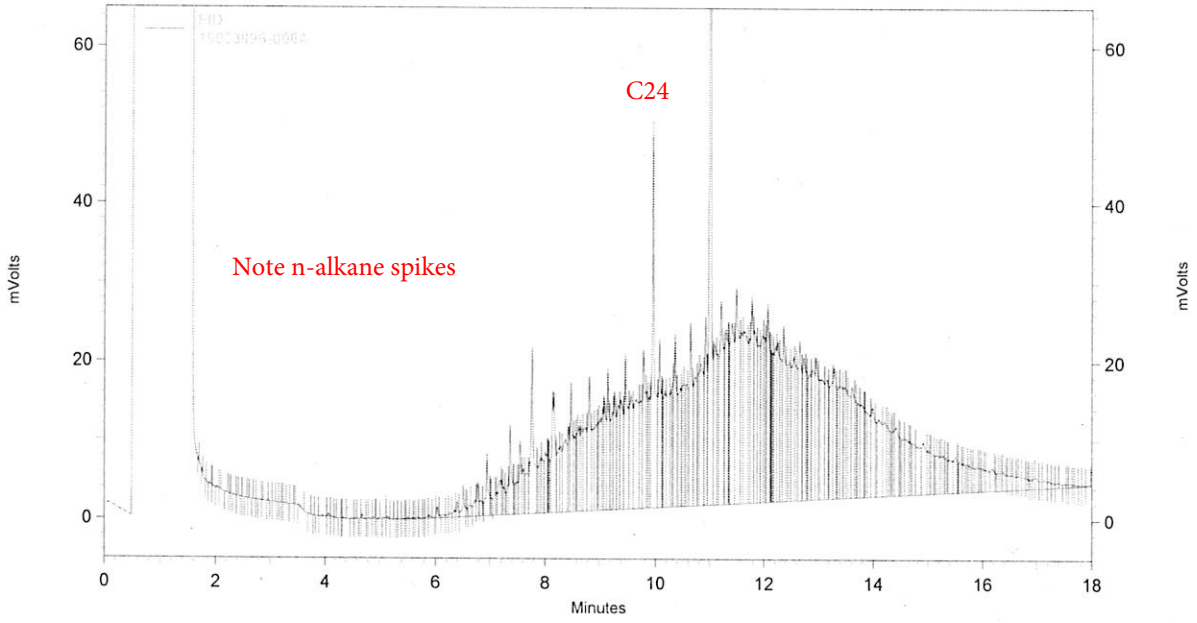
Aquired: 3/20/2019 12:46:50 PM

W PANEL WEST SIDE - RECENT RELEASE



FID Results

Name	Retention Time	Area	ug/ml
DNOP	11.003	406013	13.633
DRO		2292748	75.619
MRO		3413420	139.843

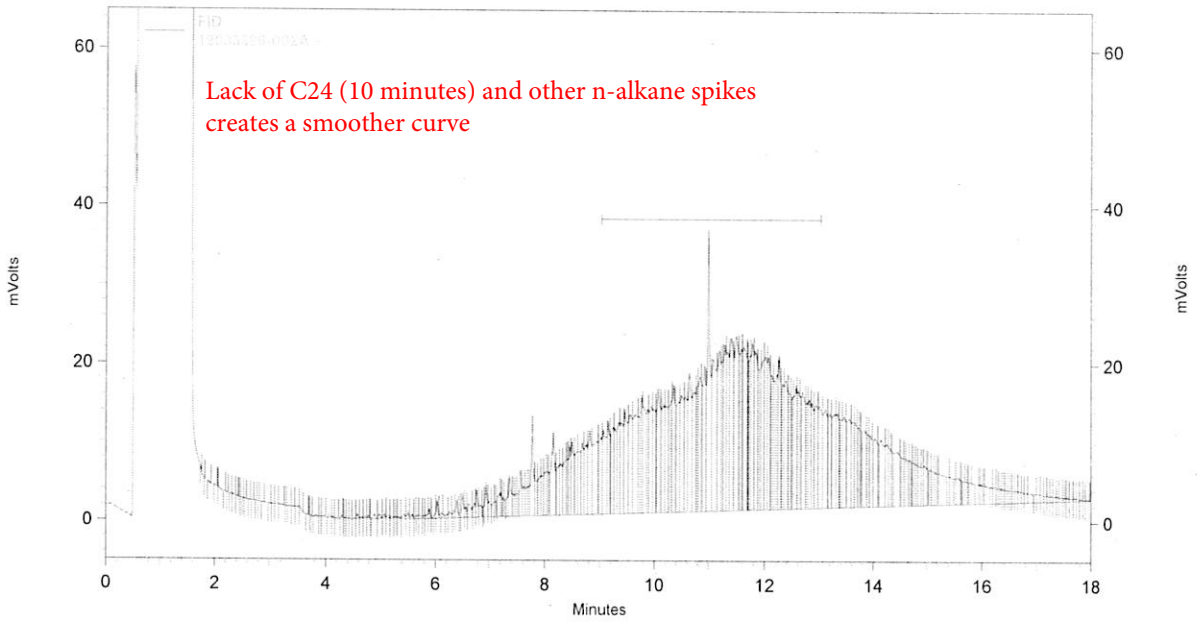
Analyst _____

Reviewed By _____

Instrument: **Dante (Offline)** Vial #: **8** User: **System**
Sample ID: **19033896-002A** Data Description: **SOIL RUSH SAME DAY X10**

Method: H:\EZsemi\8015dro\DATA\Dante\Method\052319.met
File: H:\EZsemi\8015dro\DATA\Dante\Data\Data 2019\March 2019\032019\1903896-002A X10 3-20-2019 11-04-13 AM.dat
Aquired: 3/20/2019 11:10:10 AM

S WALL WEST SECTION - HISTORICAL RELEASE



FID Results

Name	Retention Time	Area	ug/ml
DNOP	10.997	129156	4.397
DRO		1850793	61.042
MRO		2927368	119.819

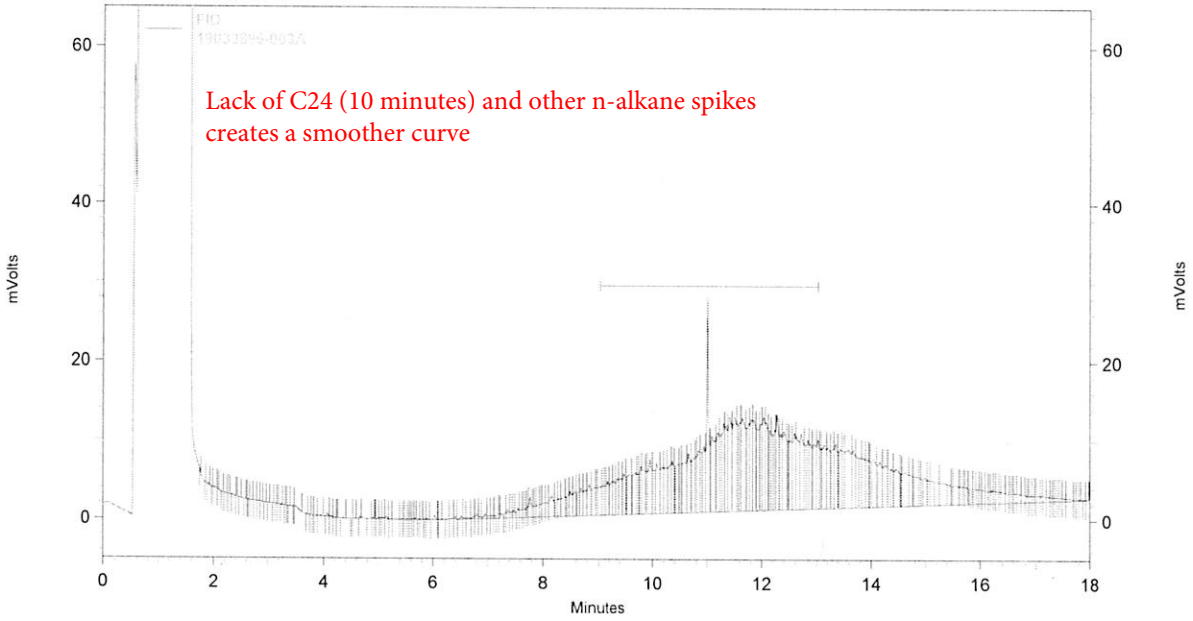
Analyst _____

Reviewed By _____

Instrument: **Dante (Offline)** Vial #: **9** User: **System**
Sample ID: **19033896-003A** Data Description: **SOIL RUSH SAME DAY X10**

Method: H:\EZsemi\8015dro\DATA\Dante\Method\052319.met
File: H:\EZsemi\8015dro\DATA\Dante\Data\Data 2019\March 2019\032019\1903896-003A X10 3-20-2019 11-28-19 AM.dat
Aquired: 3/20/2019 11:34:25 AM

S WALL EAST SECTION - HISTORICAL RELEASE



FID Results

Name	Retention Time	Area	ug/ml
DNOP	11.008	77049	2.670
DRO		718141	23.719
MRO		1715217	69.882

Analyst _____

Reviewed By _____

East side of area 1 inside of tank berm looking west (Figure 2).

East side of excavated area 1 just inside tank berm looking west (Figure 2)

Southwest corner of excavation looking northeast (Figure 3).

Scraped Area on north side of excavation looking east (Figure 2).

South-east edge of excavation looking south toward adjacent operators equipment and pipeline (Figure 4).

North-east edge of excavation looking south (Figure 4).

East edge of excavation looking south-west (Figure 4).

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Western Refining Wholesale

Chain Of Custody Number:

Samples Received: 9/13/2018 4:58:00PM

Job Number: 07232-0026

Work Order: P809027

Project Name/Location: Hospah

Report Reviewed By: _____ Date: 9/18/18

Walter Hinchman, Laboratory Director

_____ Date: 9/18/18

Tim Cain, Project Manager

NELAP ACCREDITED TNI LABORATORY

Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
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Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

envirotech
Analytical Laboratory

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S. Trench Sec. 1 Bottom	P809027-01A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 2 Bottom	P809027-02A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 1 Wall	P809027-03A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 2 Wall	P809027-04A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 1 Under Slab	P809027-05A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 2 Under Slab	P809027-06A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 2 Under Slab Grab	P809027-07A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 1 Under Slab Grab	P809027-08A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 3 Bottom	P809027-09A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 4 Bottom	P809027-10A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 3 Wall	P809027-11A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 4 Wall	P809027-12A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 3-4 Under Slab	P809027-13A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 3-4 Under Slab Grab	P809027-14A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 5 E. Wall	P809027-15A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 5 W. Wall	P809027-16A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 5 Bottom	P809027-17A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 5 E. Wall Grab	P809027-18A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.
S. Trench Sec. 5 W. Wall Grab	P809027-19A	Soil	09/13/18	09/13/18	Glass Jar, 4 oz.

envirotech
Analytical Laboratory

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 1 Bottom

P809027-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.2 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/14/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**30.5**	25.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.5 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Surrogate: n-Nonane		*109 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/14/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 2 Bottom

P809027-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*97.3 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/14/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.4 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Surrogate: n-Nonane		*107 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/14/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 1 Wall

P809027-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*98.8 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/14/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.2 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Surrogate: n-Nonane		*110 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/14/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 2 Wall

P809027-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.7 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/14/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1837034	09/14/18	09/17/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/17/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.8 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Surrogate: n-Nonane		*118 %*		*50-200*	*1837034*	*09/14/18*	*09/17/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/14/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 1 Under Slab

P809027-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.9 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/14/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.0 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Surrogate: n-Nonane		*112 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/14/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 2 Under Slab

P809027-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/14/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*100 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/14/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*94.2 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Surrogate: n-Nonane		*109 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/14/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 2 Under Slab Grab

P809027-07 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	**4720**	1000	ug/kg	10	1837029	09/14/18	09/14/18	EPA 8021B	
Toluene	**40900**	1000	ug/kg	10	1837029	09/14/18	09/14/18	EPA 8021B	
Ethylbenzene	**17100**	1000	ug/kg	10	1837029	09/14/18	09/14/18	EPA 8021B	
p,m-Xylene	**76300**	2000	ug/kg	10	1837029	09/14/18	09/14/18	EPA 8021B	
o-Xylene	**29600**	1000	ug/kg	10	1837029	09/14/18	09/14/18	EPA 8021B	
Total Xylenes	**106000**	1000	ug/kg	10	1837029	09/14/18	09/14/18	EPA 8021B	
Total BTEX	**169000**	1000	ug/kg	10	1837029	09/14/18	09/14/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**1010**	200	mg/kg	10	1837029	09/14/18	09/14/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**47400**	500	mg/kg	20	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**7610**	1000	mg/kg	20	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*101 %*		*50-150*	*1837029*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Surrogate: n-Nonane		*1010 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	*Surr2*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 1 Under Slab Grab

P809027-08 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.3 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/15/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*94.9 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Surrogate: n-Nonane		*110 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 3 Bottom

P809027-09 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/15/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**76.3**	25.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*98.3 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Surrogate: n-Nonane		*110 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 4 Bottom

P809027-10 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/15/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.1 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Surrogate: n-Nonane		*106 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 3 Wall
P809027-11 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/15/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**40.1**	25.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.0 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Surrogate: n-Nonane		*110 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 4 Wall

P809027-12 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/15/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*94.4 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Surrogate: n-Nonane		*108 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 3-4 Under Slab

P809027-13 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/15/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**52.4**	25.0	mg/kg	1	1837034	09/14/18	09/17/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/17/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.4 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Surrogate: n-Nonane		*112 %*		*50-200*	*1837034*	*09/14/18*	*09/17/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Soil From Sample Location Removed

envirotech
Analytical Laboratory

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 3-4 Under Slab Grab

P809027-14 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	**6520**	1000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
Toluene	**56200**	1000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
Ethylbenzene	**26200**	1000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
p,m-Xylene	**116000**	2000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
o-Xylene	**40100**	1000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
Total Xylenes	**156000**	1000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
Total BTEX	**245000**	1000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*96.6 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**1720**	200	mg/kg	10	1837029	09/14/18	09/15/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**60000**	1250	mg/kg	50	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**6130**	2500	mg/kg	50	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*105 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Surrogate: n-Nonane		*1590 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	*Surr2*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 5 E. Wall

P809027-15 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/15/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/14/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.3 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Surrogate: n-Nonane		*105 %*		*50-200*	*1837034*	*09/14/18*	*09/14/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 5 W. Wall
P809027-16 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/15/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**190**	25.0	mg/kg	1	1837034	09/14/18	09/15/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**199**	50.0	mg/kg	1	1837034	09/14/18	09/15/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*94.1 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Surrogate: n-Nonane		*124 %*		*50-200*	*1837034*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 5 Bottom
P809027-17 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1837029	09/14/18	09/15/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1837034	09/14/18	09/15/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1837034	09/14/18	09/15/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*94.9 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Surrogate: n-Nonane		*111 %*		*50-200*	*1837034*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 5 E. Wall Grab

P809027-18 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	**166**	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Toluene	**3560**	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Ethylbenzene	**2700**	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
p,m-Xylene	**12800**	200	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
o-Xylene	**4830**	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total Xylenes	**17600**	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Total BTEX	**24000**	100	ug/kg	1	1837029	09/14/18	09/15/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*98.3 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**207**	20.0	mg/kg	1	1837029	09/14/18	09/15/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**5260**	125	mg/kg	5	1837034	09/14/18	09/15/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**786**	250	mg/kg	5	1837034	09/14/18	09/15/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*119 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Surrogate: n-Nonane		*220 %*		*50-200*	*1837034*	*09/14/18*	*09/15/18*	*EPA 8015D*	*Surr2*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

S. Trench Sec. 5 W. Wall Grab
P809027-19 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	**1730**	1000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
Toluene	**28200**	1000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
Ethylbenzene	**14900**	1000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
p,m-Xylene	**68600**	2000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
o-Xylene	**26400**	1000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
Total Xylenes	**95100**	1000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
Total BTEX	**140000**	1000	ug/kg	10	1837029	09/14/18	09/15/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**853**	200	mg/kg	10	1837029	09/14/18	09/15/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**20000**	500	mg/kg	20	1837034	09/14/18	09/15/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**2630**	1000	mg/kg	20	1837034	09/14/18	09/15/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.2 %*		*50-150*	*1837029*	*09/14/18*	*09/15/18*	*EPA 8015D*	
Surrogate: n-Nonane		*752 %*		*50-200*	*1837034*	*09/14/18*	*09/15/18*	*EPA 8015D*	*Surr2*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1837033	09/14/18	09/15/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1837029 - Purge and Trap EPA 5030A										
Blank (1837029-BLK1)				Prepared: 09/14/18 0 Analyzed: 09/14/18 1						
Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	*7860*		*"*	*8000*		*98.2*	*50-150*			
LCS (1837029-BS1)				Prepared: 09/14/18 0 Analyzed: 09/14/18 1						
Benzene	4110	100	ug/kg	5000		82.2	70-130			
Toluene	4230	100	"	5000		84.5	70-130			
Ethylbenzene	4310	100	"	5000		86.1	70-130			
p,m-Xylene	8890	200	"	10000		88.9	70-130			
o-Xylene	4350	100	"	5000		87.0	70-130			
Total Xylenes	13200	100	"	15000		88.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7830*		*"*	*8000*		*97.8*	*50-150*			
Matrix Spike (1837029-MS1)		**Source: P809027-01**		Prepared: 09/14/18 0 Analyzed: 09/14/18 1						
Benzene	4970	100	ug/kg	5000	ND	99.4	54.3-133			
Toluene	5090	100	"	5000	ND	102	61.4-130			
Ethylbenzene	5170	100	"	5000	ND	103	61.4-133			
p,m-Xylene	10600	200	"	10000	ND	106	63.3-131			
o-Xylene	5130	100	"	5000	ND	103	63.3-131			
Total Xylenes	15800	100	"	15000	ND	105	63.3-131			
Matrix Spike Dup (1837029-MSD1)		**Source: P809027-01**		Prepared: 09/14/18 0 Analyzed: 09/14/18 1						
Benzene	4690	100	ug/kg	5000	ND	93.8	54.3-133	5.77	20	
Toluene	4810	100	"	5000	ND	96.3	61.4-130	5.49	20	
Ethylbenzene	4910	100	"	5000	ND	98.3	61.4-133	5.16	20	
p,m-Xylene	10100	200	"	10000	ND	101	63.3-131	5.02	20	
o-Xylene	4900	100	"	5000	ND	98.1	63.3-131	4.47	20	
Total Xylenes	15000	100	"	15000	ND	100	63.3-131	4.84	20	
Surrogate: 4-Bromochlorobenzene-PID	*8010*		*"*	*8000*		*100*	*50-150*			

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1837029 - Purge and Trap EPA 5030A										
Blank (1837029-BLK1)				Prepared: 09/14/18 0 Analyzed: 09/14/18 1						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.53*		*"*	*8.00*		*94.2*	*50-150*			
LCS (1837029-BS2)				Prepared: 09/14/18 0 Analyzed: 09/14/18 1						
Gasoline Range Organics (C6-C10)	47.9	20.0	mg/kg	50.0		95.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.68*		*"*	*8.00*		*96.0*	*50-150*			
Matrix Spike (1837029-MS2)		**Source: P809027-01**		Prepared: 09/14/18 0 Analyzed: 09/14/18 2						
Gasoline Range Organics (C6-C10)	31.8	20.0	mg/kg	50.0	ND	63.7	70-130			D1, SPK1
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.88*		*"*	*8.00*		*98.5*	*50-150*			
Matrix Spike Dup (1837029-MSD2)		**Source: P809027-01**		Prepared: 09/14/18 0 Analyzed: 09/14/18 2						
Gasoline Range Organics (C6-C10)	47.0	20.0	mg/kg	50.0	ND	93.9	70-130	38.4	20	D1
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.86*		*"*	*8.00*		*98.3*	*50-150*			

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1837034 - DRO Extraction EPA 3570										
Blank (1837034-BLK1)				Prepared & Analyzed: 09/14/18 1						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	*59.8*		*"*	*50.0*		*120*	*50-200*			
LCS (1837034-BS1)				Prepared & Analyzed: 09/14/18 1						
Diesel Range Organics (C10-C28)	464	25.0	mg/kg	500		92.7	38-132			
Surrogate: n-Nonane	*57.0*		*"*	*50.0*		*114*	*50-200*			
Matrix Spike (1837034-MS1)		**Source: P809027-01**		Prepared & Analyzed: 09/14/18 1						
Diesel Range Organics (C10-C28)	551	25.0	mg/kg	500	30.5	104	38-132			
Surrogate: n-Nonane	*59.0*		*"*	*50.0*		*118*	*50-200*			
Matrix Spike Dup (1837034-MSD1)		**Source: P809027-01**		Prepared & Analyzed: 09/14/18 1						
Diesel Range Organics (C10-C28)	560	25.0	mg/kg	500	30.5	106	38-132	1.52	20	
Surrogate: n-Nonane	*56.7*		*"*	*50.0*		*113*	*50-200*			

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1837033 - Anion Extraction EPA 300.0/9056A										
Blank (1837033-BLK1)				Prepared: 09/14/18 0 Analyzed: 09/14/18 2						
Chloride	ND	20.0	mg/kg							
LCS (1837033-BS1)				Prepared: 09/14/18 0 Analyzed: 09/14/18 2						
Chloride	254	20.0	mg/kg	250		102	90-110			
Matrix Spike (1837033-MS1)		**Source: P809027-01**		Prepared: 09/14/18 0 Analyzed: 09/14/18 2						
Chloride	257	20.0	mg/kg	250	ND	103	80-120			
Matrix Spike Dup (1837033-MSD1)		**Source: P809027-01**		Prepared: 09/14/18 0 Analyzed: 09/14/18 2						
Chloride	258	20.0	mg/kg	250	ND	103	80-120	0.124	20	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/18/18 12:01

Notes and Definitions

Surr2	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
SPK1	The spike recovery is outside of quality control limits.
D1	Duplicates or Matrix Spike Duplicates or Laboratory Control Sample Duplicates Relative Percent Difference is outside of control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
**	Methods marked with ** are non-accredited methods.

Project Information

Chain of Custody

Client: western wholesale
Project: Hay park
Project Manager: Felipe
Address:
City, State, Zip
Phone:
Email: Esaac / Felipe

Report Attention
Report due by:
Attention:
Address:
City, State, Zip
Phone:
Email:

Lab Use Only
Lab WO# P809027
Job Number 07852-0026

TAT: 1D X, 3D

EPA Program: RCRA X, CWA, SDWA

State: NM X, CO, UT, AZ

Analysis and Method

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks
9:56	9/13/18	S	1	S. Trench Sec. 1 Bottom	1	X	X	X			X		
10:01	"	"	"	S. Trench Sec. 2 Bottom	2	"	"	"			"		
10:04	"	"	"	S. Trench Sec 1 wall	3	"	"	"			"		
10:08	"	"	"	S. Trench Sec. 2 wall	4	"	"	"			"		
10:13	"	"	"	S. Trench Sec. 1 under slab	5	"	"	"			"		
10:15	"	"	"	S. Trench Sec. 2. Under Slab	6	"	"	"			"		
10:18	"	"	"	S. Trench Sec 2 under slab Grab	7	"	"	"			"		
10:22	"	"	"	S. Trench Sec 1 under Slab Grab	8	"	"	"			"		
10:28	"	"	"	S. Trench Sec. 3 Bottom	9	"	"	"			"		
10:32	"	"	"	S. Trench Sec. 4. Bottom	10	"	"	"			"		

Additional Instructions: Vis ice in cooler -yg Chlorides standard Turn around

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Esaac Gomez

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	9/13/18	16:56	[signature]	09-13-18	16:58
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4.0

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above boratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech Analytical Laboratory
5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
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laboratory@envirotech-inc.com

Project Information | Chain of Custody | Page 2 of 2

Client:	Western Wholesale
Project:	Haspah
Project Manager:	Felipe
Address:	
City, State, Zip	
Phone:	
Email:	Cisaac / felipe

Report Attention

Report due by:	
Attention:	
Address:	
City, State, Zip	
Phone:	
Email:	

Lab Use Only

Lab WO#	Job Number
P809027	02232-0026

TAT

1D	3D
X	

EPA Program

RCRA	CWA	SDWA
X		

State

NM	CO	UT	AZ
X			

Analysis and Method

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks
10:36	9/13/18	S	1	S. Trench Sec. 3 Wall	11	X	X	X			X		
10:40				S. Trench Sec 4 wall	12								
10:47				S. Trench Sec 3-4 Under Slab	13								
10:54				S. Trench Sec 3-4 Under Slab Grab	14								
11:04				S. Trench Sec 5 E. Wall	15								
11:08				S. Trench Sec. 5 W. Wall	16								
11:11				S. Trench Sec 5 Bottom	17								
11:14				S. Trench Sec 5 E. Wall Grab	18								
11:17				S. Trench Sec 5. W. Wall Grab	19								

Additional Instructions: Vis ice in cooler -Hg

Chlorides standard Turn around

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Cisaac Gomez

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	9/13/18	16:56		9-13-18	16:58
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only

Received on ice: Y / N

T1 ____ T2 ____ T3 ____

AVG Temp °C 4.0

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other ____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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envirotech-inc.com

laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Western Refining Wholesale

Chain Of Custody Number:

Samples Received: 9/21/2018 9:13:00AM

Job Number: 07232-0026

Work Order: P809046

Project Name/Location: Hospah

Report Reviewed By: _____ Date: 9/24/18

Walter Hinchman, Laboratory Director

_____ Date: 9/24/18

Tim Cain, Project Manager

NELAP ACCREDITED TNI LABORATORY

Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.
Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S. Trench Sec. 1 Under Slab Grab @ 4'	P809046-01A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
S. Trench Sec. 1 Under Slab #1	P809046-02A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
S. Trench Sec. 1 Under Slab #2	P809046-03A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
S. Trench Sec. 2 Under Slab #1	P809046-04A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
S. Trench Sec. 2 Under Slab #2	P809046-05A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
S. Trench Sec. 5 W. Wall	P809046-06A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
S. Trench Sec. 3-4 Under Slab #1	P809046-07A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
S. Trench Sec. 3-4 Under Slab #2	P809046-08A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
S. Trench Sec. 3-4 Under Slab #3	P809046-09A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
N. Trench Under Slab Composite	P809046-10A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
N. Trench Bottom	P809046-11A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
N. Trench Under Slab #1	P809046-12A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
N. Trench Under Slab #2	P809046-13A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
N. Trench Under Slab #3	P809046-14A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.
N. Trench Under Slab #4	P809046-15A	Soil	09/20/18	09/21/18	Glass Jar, 4 oz.

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

S. Trench Sec. 1 Under Slab Grab @ 4'

P809046-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1838021	09/21/18	09/21/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1838021	09/21/18	09/21/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*97.1 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*110 %*		*50-200*	*1838021*	*09/21/18*	*09/21/18*	*EPA 8015D*	*CV4*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

S. Trench Sec. 1 Under Slab #1

P809046-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1838021	09/21/18	09/21/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1838021	09/21/18	09/21/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*98.7 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*107 %*		*50-200*	*1838021*	*09/21/18*	*09/21/18*	*EPA 8015D*	*CV4*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

S. Trench Sec. 1 Under Slab #2

P809046-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*100 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1838021	09/21/18	09/21/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1838021	09/21/18	09/21/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*98.6 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*109 %*		*50-200*	*1838021*	*09/21/18*	*09/21/18*	*EPA 8015D*	*CV4*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

S. Trench Sec. 2 Under Slab #1

P809046-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**422**	25.0	mg/kg	1	1838021	09/21/18	09/21/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**350**	50.0	mg/kg	1	1838021	09/21/18	09/21/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.0 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*126 %*		*50-200*	*1838021*	*09/21/18*	*09/21/18*	*EPA 8015D*	*CV2*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

S. Trench Sec. 2 Under Slab #2

P809046-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**157**	25.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**187**	50.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.6 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*128 %*		*50-200*	*1838021*	*09/21/18*	*09/22/18*	*EPA 8015D*	*CV2*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

S. Trench Sec. 5 W. Wall
P809046-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**309**	25.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**296**	50.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.8 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*129 %*		*50-200*	*1838021*	*09/21/18*	*09/22/18*	*EPA 8015D*	*CV2*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Soil From Sample Location Removed

envirotech
Analytical Laboratory

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

S. Trench Sec. 3-4 Under Slab #1

P809046-07 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.8 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*112 %*		*50-200*	*1838021*	*09/21/18*	*09/22/18*	*EPA 8015D*	*CV4*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

S. Trench Sec. 3-4 Under Slab #2

P809046-08 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.1 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*109 %*		*50-200*	*1838021*	*09/21/18*	*09/22/18*	*EPA 8015D*	*CV4*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

S. Trench Sec. 3-4 Under Slab #3

P809046-09 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*103 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**789**	125	mg/kg	5	1838021	09/21/18	09/22/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**804**	250	mg/kg	5	1838021	09/21/18	09/22/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.2 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*127 %*		*50-200*	*1838021*	*09/21/18*	*09/22/18*	*EPA 8015D*	*CV2*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

N. Trench Under Slab Composite

P809046-10 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.5 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*115 %*		*50-200*	*1838021*	*09/21/18*	*09/22/18*	*EPA 8015D*	*CV4*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

N. Trench Bottom

P809046-11 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.1 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*111 %*		*50-200*	*1838021*	*09/21/18*	*09/22/18*	*EPA 8015D*	*CV4*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

N. Trench Under Slab #1

P809046-12 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*97.3 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*112 %*		*50-200*	*1838021*	*09/21/18*	*09/22/18*	*EPA 8015D*	*CV4*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

N. Trench Under Slab #2

P809046-13 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.1 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*113 %*		*50-200*	*1838021*	*09/21/18*	*09/22/18*	*EPA 8015D*	*CV4*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

N. Trench Under Slab #3

P809046-14 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.3 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*113 %*		*50-200*	*1838021*	*09/21/18*	*09/22/18*	*EPA 8015D*	*CV4*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

N. Trench Under Slab #4

P809046-15 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1838020	09/21/18	09/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*100 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1838020	09/21/18	09/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1838021	09/21/18	09/22/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.0 %*		*50-150*	*1838020*	*09/21/18*	*09/22/18*	*EPA 8015D*	
Surrogate: n-Nonane		*124 %*		*50-200*	*1838021*	*09/21/18*	*09/22/18*	*EPA 8015D*	*CV4*
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1838022	09/21/18	09/21/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1838020 - Purge and Trap EPA 5030A										
Blank (1838020-BLK1)				Prepared: 09/21/18 0 Analyzed: 09/21/18 1						
Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	*8090*		*"*	*8000*		*101*	*50-150*			
LCS (1838020-BS1)				Prepared: 09/21/18 0 Analyzed: 09/21/18 2						
Benzene	4790	100	ug/kg	5000		95.7	70-130			
Toluene	4950	100	"	5000		99.0	70-130			
Ethylbenzene	5050	100	"	5000		101	70-130			
p,m-Xylene	10400	200	"	10000		104	70-130			
o-Xylene	5000	100	"	5000		99.9	70-130			
Total Xylenes	15400	100	"	15000		102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*8100*		*"*	*8000*		*101*	*50-150*			
Matrix Spike (1838020-MS1)		**Source: P809045-01**		Prepared: 09/21/18 0 Analyzed: 09/21/18 2						
Benzene	4760	100	ug/kg	5000	ND	95.2	54.3-133			
Toluene	4970	100	"	5000	ND	99.3	61.4-130			
Ethylbenzene	5090	100	"	5000	ND	102	61.4-133			
p,m-Xylene	10400	200	"	10000	ND	104	63.3-131			
o-Xylene	5040	100	"	5000	ND	101	63.3-131			
Total Xylenes	15500	100	"	15000	ND	103	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	*8070*		*"*	*8000*		*101*	*50-150*			
Matrix Spike Dup (1838020-MSD1)		**Source: P809045-01**		Prepared: 09/21/18 0 Analyzed: 09/21/18 2						
Benzene	4790	100	ug/kg	5000	ND	95.8	54.3-133	0.672	20	
Toluene	5000	100	"	5000	ND	99.9	61.4-130	0.615	20	
Ethylbenzene	5120	100	"	5000	ND	102	61.4-133	0.658	20	
p,m-Xylene	10500	200	"	10000	ND	105	63.3-131	0.614	20	
o-Xylene	5080	100	"	5000	ND	102	63.3-131	0.784	20	
Total Xylenes	15600	100	"	15000	ND	104	63.3-131	0.669	20	
Surrogate: 4-Bromochlorobenzene-PID	*8150*		*"*	*8000*		*102*	*50-150*			

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1838020 - Purge and Trap EPA 5030A										
Blank (1838020-BLK1)				Prepared: 09/21/18 0 Analyzed: 09/21/18 1						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.80*		*"*	*8.00*		*97.5*	*50-150*			
LCS (1838020-BS2)				Prepared: 09/21/18 0 Analyzed: 09/21/18 2						
Gasoline Range Organics (C6-C10)	49.7	20.0	mg/kg	50.0		99.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.86*		*"*	*8.00*		*98.3*	*50-150*			
Matrix Spike (1838020-MS2)		**Source: P809045-01**		Prepared: 09/21/18 0 Analyzed: 09/21/18 2						
Gasoline Range Organics (C6-C10)	50.0	20.0	mg/kg	50.0	ND	100	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.84*		*"*	*8.00*		*98.0*	*50-150*			
Matrix Spike Dup (1838020-MSD2)		**Source: P809045-01**		Prepared: 09/21/18 0 Analyzed: 09/21/18 2						
Gasoline Range Organics (C6-C10)	49.6	20.0	mg/kg	50.0	ND	99.1	70-130	0.847	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.86*		*"*	*8.00*		*98.3*	*50-150*			

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1838021 - DRO Extraction EPA 3570										
Blank (1838021-BLK1)				Prepared & Analyzed: 09/21/18 1						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	*55.5*		*"*	*50.0*		*111*	*50-200*			*CV4*
LCS (1838021-BS1)				Prepared & Analyzed: 09/21/18 1						
Diesel Range Organics (C10-C28)	444	25.0	mg/kg	500		88.8	38-132			
Surrogate: n-Nonane	*56.2*		*"*	*50.0*		*112*	*50-200*			*CV2*
Matrix Spike (1838021-MS1)	**Source: P809045-01**			Prepared & Analyzed: 09/21/18 1						
Diesel Range Organics (C10-C28)	448	25.0	mg/kg	500	ND	89.5	38-132			
Surrogate: n-Nonane	*56.7*		*"*	*50.0*		*113*	*50-200*			*CV2*
Matrix Spike Dup (1838021-MSD1)	**Source: P809045-01**			Prepared & Analyzed: 09/21/18 1						
Diesel Range Organics (C10-C28)	440	25.0	mg/kg	500	ND	88.0	38-132	1.69	20	
Surrogate: n-Nonane	*57.6*		*"*	*50.0*		*115*	*50-200*			*CV2*

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1838022 - Anion Extraction EPA 300.0/9056A										
Blank (1838022-BLK1)				Prepared & Analyzed: 09/21/18 1						
Chloride	ND	20.0	mg/kg							
LCS (1838022-BS1)				Prepared & Analyzed: 09/21/18 1						
Chloride	258	20.0	mg/kg	250		103	90-110			
Matrix Spike (1838022-MS1)		**Source: P809046-01**		Prepared & Analyzed: 09/21/18 1						
Chloride	259	20.0	mg/kg	250	ND	103	80-120			
Matrix Spike Dup (1838022-MSD1)		**Source: P809046-01**		Prepared & Analyzed: 09/21/18 1						
Chloride	261	20.0	mg/kg	250	ND	104	80-120	0.942	20	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	09/24/18 15:38

Notes and Definitions

CV4	CV recovery was above quality control limits. This target analyte was not detected in the sample.
CV2	CV recovery was above quality control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
**	Methods marked with ** are non-accredited methods.

Project Information | Chain of Custody | Page 1 of 2

Client:	Western Wholesale
Project:	Maspath
Project Manager:	Felipe
Address:	
City, State, Zip	
Phone:	
Email:	Isaac / Felipe

Report Attention

Report due by:	
Attention:	
Address:	
City, State, Zip	
Phone:	
Email:	

Lab Use Only

Lab WO#	Job Number
P809046	07232-0026

TAT: 1D X | 3D

EPA Program: RCRA X | CWA | SDW

State: NM X | CO | UT | AZ

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks
10:01	9/20/18	S	1	S. Trench Sec. 1 Under Slab grab @ 4'	1	X	X	X			X		
10:24				S. Trench Sec. 1 Under Slab #1	2								
10:37				S. Trench Sec 1 Under Slab #2	3								
10:46				S. Trench Sec. 2 Under Slab #1	4								
10:59				S. Trench Sec. 2 Under Slab #2	5								
11:05				S. Trench Sec. 5 W. Wall	6								3-day Rush
11:14				S. Trench Sec. 3-4 Under Slab #1	7								
11:19				S. Trench Sec. 3-4 Under Slab #2	8								
11:44				S. Trench Sec. 3-4 Under Slab #3	9								
11:54				N. Trench Under Slab Composite	10								3-day Rush

Additional Instructions: vis. ice in cooler-MJ

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Isaac Garcia

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Isaac Garcia	9/21/18	9:08	[signature]	9-21-18	9:13
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only

Received on ice: (Y) / N

T1 | T2 | T3

AVG Temp °C 4.0

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above boratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech Analytical Laboratory
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Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 | Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

Project Information | Chain of Custody | Page 2 of 2

Client:	Western Wholesale
Project:	Haspah
Project Manager:	Felipe
Address:	
City, State, Zip	
Phone:	
Email:	Oscar / Felipe

Report Attention

Report due by:	
Attention:	
Address:	
City, State, Zip	
Phone:	
Email:	

Lab Use Only

Lab WO#	Job Number
P809046	07832-0026

TAT: 1D X | 3D

EPA Program: RCRA X | CWA | SDW

State: NM X | CO | UT | A

Analysis and Method

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks
11:59	9/20/18	S	1	N. Trench Bottom	11	X	X	X			X		3-day Rush
12:08	"	"	"	N. Trench Under Slab #1	12	"	"	"			"		
12:16	"	"	"	N. Trench Under Slab #2	13	"	"	"			"		
12:24	"	"	"	N. Trench Under Slab #3	14	"	"	"			"		
12:32	"	"	"	N. Trench Under Slab #4	15	"	"	"			"		

Additional Instructions: vis. ice in cooler -mj

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Oscar Garcia

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	9/21/18	9:08		09-21-18	9:13
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4.0

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above boratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Western Refining Wholesale

Chain Of Custody Number:

Samples Received: 9/27/2018 4:15:00PM

Job Number: 07232-0026

Work Order: P809065

Project Name/Location: Hospah

Report Reviewed By: _____ Date: 10/1/18

Walter Hinchman, Laboratory Director

_____ Date: 10/1/18

Tim Cain, Project Manager

NELAP ACCREDITED TNI LABORATORY

Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.
Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

envirotech
Analytical Laboratory

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Excavation #1 W. Wall	P809065-01A	Soil	09/27/18	09/27/18	Glass Jar, 4 oz.
Excavation #1 Bottom	P809065-02A	Soil	09/27/18	09/27/18	Glass Jar, 4 oz.
Excavation #1 N. Wall	P809065-03A	Soil	09/27/18	09/27/18	Glass Jar, 4 oz.
Excavation #1 E. Wall	P809065-04A	Soil	09/27/18	09/27/18	Glass Jar, 4 oz.
Excavation #1 Shelf	P809065-05A	Soil	09/27/18	09/27/18	Glass Jar, 4 oz.
N. Trench Wall	P809065-06A	Soil	09/27/18	09/27/18	Glass Jar, 4 oz.
S. Trench Sec. 2 Under Slab #2-2	P809065-07A	Soil	09/27/18	09/27/18	Glass Jar, 4 oz.
S. Trench Sec. 2 Under Slab #1-2	P809065-08A	Soil	09/27/18	09/27/18	Glass Jar, 4 oz.
S. Trench Sec. 3-4 Under Slab #3-2	P809065-09A	Soil	09/27/18	09/27/18	Glass Jar, 4 oz.
Excavation #2 Bottom	P809065-10A	Soil	09/27/18	09/27/18	Glass Jar, 4 oz.
Excavation #2 W. Wall	P809065-11A	Soil	09/27/18	09/27/18	Glass Jar, 4 oz.
Excavation #2 S. Wall	P809065-12A	Soil	09/27/18	09/27/18	Glass Jar, 4 oz.

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Excavation #1 W. Wall

P809065-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1839021	09/28/18	09/28/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**32.5**	25.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.7 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Surrogate: n-Nonane		*98.0 %*		*50-200*	*1839023*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1839024	09/28/18	09/28/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Excavation #1 Bottom

P809065-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1839021	09/28/18	09/28/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.9 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Surrogate: n-Nonane		*98.2 %*		*50-200*	*1839023*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1839024	09/28/18	09/28/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Excavation #1 N. Wall
P809065-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1839021	09/28/18	09/28/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.9 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Surrogate: n-Nonane		*96.8 %*		*50-200*	*1839023*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1839024	09/28/18	09/28/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Excavation #1 E. Wall

P809065-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1839021	09/28/18	09/28/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.0 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Surrogate: n-Nonane		*98.6 %*		*50-200*	*1839023*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1839024	09/28/18	09/28/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Excavation #1 Shelf

P809065-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1839021	09/28/18	09/28/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**122**	25.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**63.0**	50.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*98.9 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Surrogate: n-Nonane		*97.6 %*		*50-200*	*1839023*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1839024	09/28/18	09/28/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

N. Trench Wall

P809065-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.9 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1839021	09/28/18	09/28/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	50.0	mg/kg	2	1839023	09/28/18	09/28/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	100	mg/kg	2	1839023	09/28/18	09/28/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.9 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Surrogate: n-Nonane		*93.1 %*		*50-200*	*1839023*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1839024	09/28/18	09/28/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

S. Trench Sec. 2 Under Slab #2-2

P809065-07 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.6 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1839021	09/28/18	09/28/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**499**	25.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**612**	50.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*98.3 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Surrogate: n-Nonane		*119 %*		*50-200*	*1839023*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1839024	09/28/18	09/28/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

S. Trench Sec. 2 Under Slab #1-2

P809065-08 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*98.3 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1839021	09/28/18	09/28/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**2090**	25.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**2500**	50.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*97.2 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Surrogate: n-Nonane		*117 %*		*50-200*	*1839023*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1839024	09/28/18	09/28/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

S. Trench Sec. 3-4 Under Slab #3-2

P809065-09 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.3 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1839021	09/28/18	09/28/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**1830**	50.0	mg/kg	2	1839023	09/28/18	09/28/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**2110**	100	mg/kg	2	1839023	09/28/18	09/28/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.3 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Surrogate: n-Nonane		*113 %*		*50-200*	*1839023*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1839024	09/28/18	09/28/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Excavation #2 Bottom
P809065-10 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.9 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1839021	09/28/18	09/28/18	EPA 8015D	
Diesel Range Organics (C10-C28)	**72.0**	25.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Oil Range Organics (C28-C40+)	**90.5**	50.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*97.9 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Surrogate: n-Nonane		*99.1 %*		*50-200*	*1839023*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**33.9**	20.0	mg/kg	1	1839024	09/28/18	09/28/18	EPA 300.0/9056A	

Soil From Sample Location Removed

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Excavation #2 W. Wall

P809065-11 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*100 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1839021	09/28/18	09/28/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.4 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Surrogate: n-Nonane		*98.7 %*		*50-200*	*1839023*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	**66.1**	20.0	mg/kg	1	1839024	09/28/18	09/28/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Excavation #2 S. Wall

P809065-12 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1839021	09/28/18	09/28/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1839021	09/28/18	09/28/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1839023	09/28/18	09/28/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*97.7 %*		*50-150*	*1839021*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Surrogate: n-Nonane		*102 %*		*50-200*	*1839023*	*09/28/18*	*09/28/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1839024	09/28/18	09/28/18	EPA 300.0/9056A	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1839021 - Purge and Trap EPA 5030A										
Blank (1839021-BLK1)				Prepared: 09/28/18 0 Analyzed: 09/28/18 2						
Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	*8040*		*"*	*8000*		*101*	*50-150*			
LCS (1839021-BS1)				Prepared: 09/28/18 0 Analyzed: 09/28/18 2						
Benzene	4810	100	ug/kg	5000		96.2	70-130			
Toluene	4830	100	"	5000		96.6	70-130			
Ethylbenzene	4860	100	"	5000		97.1	70-130			
p,m-Xylene	9950	200	"	10000		99.5	70-130			
o-Xylene	4830	100	"	5000		96.6	70-130			
Total Xylenes	14800	100	"	15000		98.5	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*8120*		*"*	*8000*		*102*	*50-150*			
Matrix Spike (1839021-MS1)		**Source: P809065-01**		Prepared: 09/28/18 0 Analyzed: 09/28/18 2						
Benzene	5110	100	ug/kg	5000	ND	102	54.3-133			
Toluene	5120	100	"	5000	ND	102	61.4-130			
Ethylbenzene	5150	100	"	5000	ND	103	61.4-133			
p,m-Xylene	10500	200	"	10000	ND	105	63.3-131			
o-Xylene	5110	100	"	5000	ND	102	63.3-131			
Total Xylenes	15600	100	"	15000	ND	104	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	*8170*		*"*	*8000*		*102*	*50-150*			
Matrix Spike Dup (1839021-MSD1)		**Source: P809065-01**		Prepared: 09/28/18 0 Analyzed: 09/28/18 2						
Benzene	5210	100	ug/kg	5000	ND	104	54.3-133	2.01	20	
Toluene	5230	100	"	5000	ND	105	61.4-130	2.08	20	
Ethylbenzene	5280	100	"	5000	ND	106	61.4-133	2.38	20	
p,m-Xylene	10800	200	"	10000	ND	108	63.3-131	2.33	20	
o-Xylene	5210	100	"	5000	ND	104	63.3-131	2.09	20	
Total Xylenes	16000	100	"	15000	ND	107	63.3-131	2.25	20	
Surrogate: 4-Bromochlorobenzene-PID	*8150*		*"*	*8000*		*102*	*50-150*			

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1839021 - Purge and Trap EPA 5030A										
Blank (1839021-BLK1)				Prepared: 09/28/18 0 Analyzed: 09/28/18 2						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.91*		*"*	*8.00*		*98.8*	*50-150*			
LCS (1839021-BS2)				Prepared: 09/28/18 0 Analyzed: 09/28/18 2						
Gasoline Range Organics (C6-C10)	43.9	20.0	mg/kg	50.0		87.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.02*		*"*	*8.00*		*100*	*50-150*			
Matrix Spike (1839021-MS2)		**Source: P809065-01**		Prepared: 09/28/18 0 Analyzed: 09/29/18 0						
Gasoline Range Organics (C6-C10)	46.8	20.0	mg/kg	50.0	ND	93.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.94*		*"*	*8.00*		*99.2*	*50-150*			
Matrix Spike Dup (1839021-MSD2)		**Source: P809065-01**		Prepared: 09/28/18 0 Analyzed: 09/29/18 0						
Gasoline Range Organics (C6-C10)	46.4	20.0	mg/kg	50.0	ND	92.8	70-130	0.890	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.92*		*"*	*8.00*		*99.0*	*50-150*			

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1839023 - DRO Extraction EPA 3570										
Blank (1839023-BLK1)				Prepared: 09/28/18 0 Analyzed: 09/28/18 1						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	*48.7*		*"*	*50.0*		*97.4*	*50-200*			
LCS (1839023-BS1)				Prepared: 09/28/18 0 Analyzed: 09/28/18 1						
Diesel Range Organics (C10-C28)	438	25.0	mg/kg	500		87.7	38-132			
Surrogate: n-Nonane	*48.4*		*"*	*50.0*		*96.8*	*50-200*			
Matrix Spike (1839023-MS1)	**Source: P809065-01**			Prepared: 09/28/18 0 Analyzed: 09/28/18 1						
Diesel Range Organics (C10-C28)	480	25.0	mg/kg	500	32.5	89.6	38-132			
Surrogate: n-Nonane	*50.3*		*"*	*50.0*		*101*	*50-200*			
Matrix Spike Dup (1839023-MSD1)	**Source: P809065-01**			Prepared: 09/28/18 0 Analyzed: 09/28/18 1						
Diesel Range Organics (C10-C28)	453	25.0	mg/kg	500	32.5	84.1	38-132	5.93	20	
Surrogate: n-Nonane	*49.6*		*"*	*50.0*		*99.2*	*50-200*			

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1839024 - Anion Extraction EPA 300.0/9056A										
Blank (1839024-BLK1)				Prepared: 09/28/18 0 Analyzed: 09/28/18 1						
Chloride	ND	20.0	mg/kg							
LCS (1839024-BS1)				Prepared: 09/28/18 0 Analyzed: 09/28/18 1						
Chloride	257	20.0	mg/kg	250		103	90-110			
Matrix Spike (1839024-MS1)		**Source: P809065-01**		Prepared: 09/28/18 0 Analyzed: 09/28/18 1						
Chloride	260	20.0	mg/kg	250	ND	104	80-120			
Matrix Spike Dup (1839024-MSD1)		**Source: P809065-01**		Prepared: 09/28/18 0 Analyzed: 09/28/18 1						
Chloride	260	20.0	mg/kg	250	ND	104	80-120	0.211	20	

Western Refining Wholesale	Project Name:	Hospah	
PO Box 62558	Project Number:	07232-0026	**Reported:**
Phoenix AZ, 85082	Project Manager:	Felipe Aragon	10/01/18 15:04

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
**	Methods marked with ** are non-accredited methods.

Project Information | Chain of Custody | Page 1 of 2

Project Information	Report Attention	Lab Use Only	TAT	EPA Program
Client: Western Wholesale	Report due by:	Lab WO# P807	Job Number 07232-0026	1D X	3D	RCRA X	CWA	SDW
Project: Haspah	Attention:	P807165		
Project Manager: Felipe	Address:	Analysis and Method	State: NM X	CO	UT	A
Address:	City, State, Zip		
City, State, Zip	Phone:		
Phone:	Email:		
Email: Isaac / Felipe			

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks
10:05	9/27/18	S	1	Excavation #1 W. Wall	1	X	X	X			X		
10:56				Excavation #1 Bottom	2								
11:13				Excavation #1 N. Wall	3								
11:29				Excavation #1 E. Wall	4								
11:33				Excavation #1 Shelf	5								
11:38				N. Trench Wall	6								
11:53				S. Trench Sec. 2 Under Slab #2-2	7								
12:05				S. Trench Sec. 2 Under Slab #1-2	8								
12:16				S. Trench Sec. 3-4 Under Slab #3-2	9								
12:26				Excavation #2 Bottom	10								

Additional Instructions: vis. ice in cooler -ty

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Isaac Gearce

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	9/27/18	16:13	[signature]	09-27-18	16:15
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4.0

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above boratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech Analytical Laboratory
5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

Project Information | Chain of Custody | Page 2 of 2

Client:	Western Wholesale
Project:	Itas peak
Project Manager:	Felipe
Address:	
City, State, Zip	
Phone:	
Email:	Isaac.Felipe

Report Attention

Report due by:	
Attention:	
Address:	
City, State, Zip	
Phone:	
Email:	

Lab Use Only		TAT		EPA Program		
Lab WO#	Job Number	1D	3D	RCRA	CWA	SDW
P809065	07232-0026	X		X		

State			
NM	CO	UT	A
X			

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks
12:34	9/27/18	S	1	Excavation #2 W. Wall	11	X	X	X			X		
12:40	9/27/18	S	1	Excavation #2 S. Wall	12	X	X	X			X		

Additional Instructions: Vis. ice in cooler - ig

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Isaac Garcia

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	9/27/18	16:13		9/27/18	16:15
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4.0

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above boratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

Analytical Report
Lab Order **1810332**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: S Trench Sec 2 under slab #2-3
Project: Hospah
Collection Date: 10/4/2018 10:49:00 AM
Lab ID: 1810332-001 **Matrix:** SOIL
Received Date: 10/5/2018 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	30		mg/Kg	20	10/5/2018 12:00:00 PM	40831
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/5/2018 12:02:51 PM	40834
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/5/2018 12:02:51 PM	40834
Surr: DNOP	129	50.6-138		%Rec	1	10/5/2018 12:02:51 PM	40834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/5/2018 9:40:49 AM	R54661
Surr: BFB	97.9	15-316		%Rec	1	10/5/2018 9:40:49 AM	R54661
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	10/5/2018 9:40:49 AM	R54661
Toluene	ND	0.050		mg/Kg	1	10/5/2018 9:40:49 AM	R54661
Ethylbenzene	ND	0.050		mg/Kg	1	10/5/2018 9:40:49 AM	R54661
Xylenes, Total	ND	0.10		mg/Kg	1	10/5/2018 9:40:49 AM	R54661
Surr: 4-Bromofluorobenzene	94.2	80-120		%Rec	1	10/5/2018 9:40:49 AM	R54661

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: S Trench Sec 2 under slab #1-4
Project: Hospah
Collection Date: 10/4/2018 11:48:00 AM
Lab ID: 1810332-002 **Matrix:** SOIL
Received Date: 10/5/2018 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	30		mg/Kg	20	10/5/2018 12:00:00 PM	40831
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/5/2018 12:24:41 PM	40834
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/5/2018 12:24:41 PM	40834
Surr: DNOP	132	50.6-138		%Rec	1	10/5/2018 12:24:41 PM	40834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/5/2018 10:04:28 AM	R54661
Surr: BFB	96.4	15-316		%Rec	1	10/5/2018 10:04:28 AM	R54661
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	10/5/2018 10:04:28 AM	R54661
Toluene	ND	0.050		mg/Kg	1	10/5/2018 10:04:28 AM	R54661
Ethylbenzene	ND	0.050		mg/Kg	1	10/5/2018 10:04:28 AM	R54661
Xylenes, Total	ND	0.10		mg/Kg	1	10/5/2018 10:04:28 AM	R54661
Surr: 4-Bromofluorobenzene	93.6	80-120		%Rec	1	10/5/2018 10:04:28 AM	R54661

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 15, 2018

Matt Krakow

Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4135
FAX (505) 632-3911

RE: Hospah OrderNo.: 1810739

Dear Matt Krakow:

Hall Environmental Analysis Laboratory received 7 sample(s) on 10/12/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: Exavation 1 Shelf +12"
Project: Hospah
Collection Date: 10/11/2018 9:48:00 AM
Lab ID: 1810739-001
Matrix: MEOH (SOIL)
Received Date: 10/12/2018 8:07:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	10/12/2018 10:48:01 AM	40974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/12/2018 10:12:14 AM	40973
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/12/2018 10:12:14 AM	40973
Surr: DNOP	97.1	50.6-138		%Rec	1	10/12/2018 10:12:14 AM	40973
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	10/12/2018 11:24:30 AM	R54834
Surr: BFB	87.9	15-316		%Rec	1	10/12/2018 11:24:30 AM	R54834
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	10/12/2018 11:24:30 AM	B54834
Toluene	ND	0.037		mg/Kg	1	10/12/2018 11:24:30 AM	B54834
Ethylbenzene	ND	0.037		mg/Kg	1	10/12/2018 11:24:30 AM	B54834
Xylenes, Total	ND	0.074		mg/Kg	1	10/12/2018 11:24:30 AM	B54834
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	10/12/2018 11:24:30 AM	B54834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1810739**
Date Reported: **10/15/2018**

CLIENT: Western Refining Southwest, Inc.
Project: Hospah
Lab ID: 1810739-002 **Matrix:** MEOH (SOIL)

Client Sample ID: South Trench Sec. 5 West
Collection Date: 10/11/2018 9:54:00 AM
Received Date: 10/12/2018 8:07:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	10/12/2018 11:00:26 AM	40974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/12/2018 10:34:24 AM	40973
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/12/2018 10:34:24 AM	40973
Surr: DNOP	96.7	50.6-138		%Rec	1	10/12/2018 10:34:24 AM	40973
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	10/12/2018 11:48:02 AM	R54834
Surr: BFB	86.3	15-316		%Rec	1	10/12/2018 11:48:02 AM	R54834
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.016		mg/Kg	1	10/12/2018 11:48:02 AM	B54834
Toluene	ND	0.032		mg/Kg	1	10/12/2018 11:48:02 AM	B54834
Ethylbenzene	ND	0.032		mg/Kg	1	10/12/2018 11:48:02 AM	B54834
Xylenes, Total	ND	0.064		mg/Kg	1	10/12/2018 11:48:02 AM	B54834
Surr: 4-Bromofluorobenzene	92.7	80-120		%Rec	1	10/12/2018 11:48:02 AM	B54834

Soil From Sample Location Removed

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** South Trench Depression South
Project: Hospah **Collection Date:** 10/11/2018 9:57:00 AM
Lab ID: 1810739-003 **Matrix:** MEOH (SOIL) **Received Date:** 10/12/2018 8:07:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	10/12/2018 11:12:51 AM	40974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/12/2018 10:56:37 AM	40973
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/12/2018 10:56:37 AM	40973
Surr: DNOP	96.0	50.6-138		%Rec	1	10/12/2018 10:56:37 AM	40973
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	10/12/2018 12:11:28 PM	R54834
Surr: BFB	85.2	15-316		%Rec	1	10/12/2018 12:11:28 PM	R54834
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.015		mg/Kg	1	10/12/2018 12:11:28 PM	B54834
Toluene	ND	0.031		mg/Kg	1	10/12/2018 12:11:28 PM	B54834
Ethylbenzene	ND	0.031		mg/Kg	1	10/12/2018 12:11:28 PM	B54834
Xylenes, Total	ND	0.061		mg/Kg	1	10/12/2018 12:11:28 PM	B54834
Surr: 4-Bromofluorobenzene	91.6	80-120		%Rec	1	10/12/2018 12:11:28 PM	B54834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** South Trench Depression North
Project: Hospah **Collection Date:** 10/11/2018 10:00:00 AM
Lab ID: 1810739-004 **Matrix:** MEOH (SOIL) **Received Date:** 10/12/2018 8:07:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	10/12/2018 11:25:15 AM	40974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/12/2018 11:18:35 AM	40973
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/12/2018 11:18:35 AM	40973
Surr: DNOP	97.7	50.6-138		%Rec	1	10/12/2018 11:18:35 AM	40973
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	10/12/2018 12:34:51 PM	R54834
Surr: BFB	85.6	15-316		%Rec	1	10/12/2018 12:34:51 PM	R54834
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.017		mg/Kg	1	10/12/2018 12:34:51 PM	B54834
Toluene	ND	0.033		mg/Kg	1	10/12/2018 12:34:51 PM	B54834
Ethylbenzene	ND	0.033		mg/Kg	1	10/12/2018 12:34:51 PM	B54834
Xylenes, Total	ND	0.066		mg/Kg	1	10/12/2018 12:34:51 PM	B54834
Surr: 4-Bromofluorobenzene	91.4	80-120		%Rec	1	10/12/2018 12:34:51 PM	B54834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** West Wall 1
Project: Hospah **Collection Date:** 10/11/2018 10:10:00 AM
Lab ID: 1810739-005 **Matrix:** MEOH (SOIL) **Received Date:** 10/12/2018 8:07:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	10/12/2018 11:37:40 AM	40974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/12/2018 11:40:40 AM	40973
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/12/2018 11:40:40 AM	40973
Surr: DNOP	102	50.6-138		%Rec	1	10/12/2018 11:40:40 AM	40973
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	10/12/2018 12:58:16 PM	R54834
Surr: BFB	88.0	15-316		%Rec	1	10/12/2018 12:58:16 PM	R54834
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	10/12/2018 12:58:16 PM	B54834
Toluene	ND	0.038		mg/Kg	1	10/12/2018 12:58:16 PM	B54834
Ethylbenzene	ND	0.038		mg/Kg	1	10/12/2018 12:58:16 PM	B54834
Xylenes, Total	ND	0.076		mg/Kg	1	10/12/2018 12:58:16 PM	B54834
Surr: 4-Bromofluorobenzene	93.8	80-120		%Rec	1	10/12/2018 12:58:16 PM	B54834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: West Wall 2
Project: Hospah
Collection Date: 10/11/2018 10:14:00 AM
Lab ID: 1810739-006
Matrix: MEOH (SOIL)
Received Date: 10/12/2018 8:07:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	10/12/2018 11:50:04 AM	40974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/12/2018 12:02:44 PM	40973
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/12/2018 12:02:44 PM	40973
Surr: DNOP	97.6	50.6-138		%Rec	1	10/12/2018 12:02:44 PM	40973
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	10/12/2018 1:21:39 PM	R54834
Surr: BFB	86.5	15-316		%Rec	1	10/12/2018 1:21:39 PM	R54834
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.020		mg/Kg	1	10/12/2018 1:21:39 PM	B54834
Toluene	ND	0.040		mg/Kg	1	10/12/2018 1:21:39 PM	B54834
Ethylbenzene	ND	0.040		mg/Kg	1	10/12/2018 1:21:39 PM	B54834
Xylenes, Total	ND	0.080		mg/Kg	1	10/12/2018 1:21:39 PM	B54834
Surr: 4-Bromofluorobenzene	91.8	80-120		%Rec	1	10/12/2018 1:21:39 PM	B54834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** South Trench Depression Bottom
Project: Hospah **Collection Date:** 10/11/2018 12:30:00 PM
Lab ID: 1810739-007 **Matrix:** MEOH (SOIL) **Received Date:** 10/12/2018 8:07:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	10/12/2018 12:02:28 PM	40974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/12/2018 12:24:55 PM	40973
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/12/2018 12:24:55 PM	40973
Surr: DNOP	103	50.6-138		%Rec	1	10/12/2018 12:24:55 PM	40973
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/12/2018 1:45:03 PM	R54834
Surr: BFB	92.3	15-316		%Rec	1	10/12/2018 1:45:03 PM	R54834
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	10/12/2018 1:45:03 PM	B54834
Toluene	ND	0.046		mg/Kg	1	10/12/2018 1:45:03 PM	B54834
Ethylbenzene	ND	0.046		mg/Kg	1	10/12/2018 1:45:03 PM	B54834
Xylenes, Total	ND	0.091		mg/Kg	1	10/12/2018 1:45:03 PM	B54834
Surr: 4-Bromofluorobenzene	94.4	80-120		%Rec	1	10/12/2018 1:45:03 PM	B54834

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1810739**

15-Oct-18

Client: Western Refining Southwest, Inc.

Project: Hospah

Sample ID	**MB-40974**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**40974**	RunNo:	**54842**					
Prep Date:	**10/12/2018**	Analysis Date:	**10/12/2018**	SeqNo:	**1823418**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-40974**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**40974**	RunNo:	**54842**					
Prep Date:	**10/12/2018**	Analysis Date:	**10/12/2018**	SeqNo:	**1823419**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	99.0	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1810739**

15-Oct-18

Client: Western Refining Southwest, Inc.

Project: Hospah

Sample ID	**LCS-40973**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**40973**		RunNo:	**54831**				
Prep Date:	**10/12/2018**	Analysis Date:	**10/12/2018**		SeqNo:	**1821180**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.5	70	130			
Surr: DNOP	4.6		5.000		91.9	50.6	138			

Sample ID	**MB-40973**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**40973**		RunNo:	**54831**				
Prep Date:	**10/12/2018**	Analysis Date:	**10/12/2018**		SeqNo:	**1821181**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		92.3	50.6	138			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1810739**

15-Oct-18

Client: Western Refining Southwest, Inc.

Project: Hospah

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R54834**	RunNo: **54834**
Prep Date:	Analysis Date: **10/12/2018**	SeqNo: **1821213** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	114	75.9	131			
Surr: BFB	1100		1000		110	15	316			

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R54834**	RunNo: **54834**
Prep Date:	Analysis Date: **10/12/2018**	SeqNo: **1822039** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.0	15	316			

Sample ID **1810739-001A MS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Exavation 1 Shelf +**	Batch ID: **R54834**	RunNo: **54834**
Prep Date:	Analysis Date: **10/12/2018**	SeqNo: **1822838** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.7	18.57	0	98.5	77.8	128			
Surr: BFB	760		742.9		103	15	316			

Sample ID **1810739-001A MSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Exavation 1 Shelf +**	Batch ID: **R54834**	RunNo: **54834**
Prep Date:	Analysis Date: **10/12/2018**	SeqNo: **1822839** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.7	18.57	0	98.6	77.8	128	0.0406	20	
Surr: BFB	740		742.9		98.9	15	316	0	0	

Sample ID **LCS-40965**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **40965**	RunNo: **54834**
Prep Date: **10/11/2018**	Analysis Date: **10/12/2018**	SeqNo: **1822840** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		100	15	316			

Sample ID **MB-40965**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **40965**	RunNo: **54834**
Prep Date: **10/11/2018**	Analysis Date: **10/12/2018**	SeqNo: **1822841** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		86.7	15	316			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1810739**

15-Oct-18

Client: Western Refining Southwest, Inc.

Project: Hospah

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B54834**	RunNo: **54834**
Prep Date:	Analysis Date: **10/12/2018**	SeqNo: **1821215** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.4	77.3	128			
Toluene	0.96	0.050	1.000	0	96.4	79.2	125			
Ethylbenzene	0.97	0.050	1.000	0	97.4	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	99.4	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B54834**	RunNo: **54834**
Prep Date:	Analysis Date: **10/12/2018**	SeqNo: **1822043** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		98.7	80	120			

Sample ID **1810739-002A MS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **South Trench Sec. 5**	Batch ID: **B54834**	RunNo: **54834**
Prep Date:	Analysis Date: **10/12/2018**	SeqNo: **1822879** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.56	0.016	0.6431	0	87.0	68.5	133			
Toluene	0.61	0.032	0.6431	0	94.6	75	130			
Ethylbenzene	0.61	0.032	0.6431	0	95.5	79.4	128			
Xylenes, Total	1.9	0.064	1.929	0	97.4	77.3	131			
Surr: 4-Bromofluorobenzene	0.63		0.6431		98.5	80	120			

Sample ID **1810739-002A MSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **South Trench Sec. 5**	Batch ID: **B54834**	RunNo: **54834**
Prep Date:	Analysis Date: **10/12/2018**	SeqNo: **1822880** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.57	0.016	0.6431	0	88.0	68.5	133	1.07	20	
Toluene	0.61	0.032	0.6431	0	94.6	75	130	0.0846	20	
Ethylbenzene	0.61	0.032	0.6431	0	95.5	79.4	128	0.0314	20	
Xylenes, Total	1.9	0.064	1.929	0	96.6	77.3	131	0.900	20	
Surr: 4-Bromofluorobenzene	0.62		0.6431		96.0	80	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1810739**

15-Oct-18

Client: Western Refining Southwest, Inc.

Project: Hospah

Sample ID	**LCS-40965**	SampType:	**LCS**		TestCode:	**EPA Method 8021B: Volatiles**				
Client ID:	**LCSS**	Batch ID:	**40965**		RunNo:	**54834**				
Prep Date:	**10/11/2018**	Analysis Date:	**10/12/2018**		SeqNo:	**1822881**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.96		1.000		96.3	80	120			

Sample ID	**MB-40965**	SampType:	**MBLK**		TestCode:	**EPA Method 8021B: Volatiles**				
Client ID:	**PBS**	Batch ID:	**40965**		RunNo:	**54834**				
Prep Date:	**10/11/2018**	Analysis Date:	**10/12/2018**		SeqNo:	**1822882**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		92.0	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Southw** Work Order Number: **1810739** RcptNo: **1**

Received By: **Victoria Zellar** **10/12/2018 8:07:00 AM** Victoria Zellar

Completed By: **Ashley Gallegos** **10/12/2018 8:29:02 AM**

Reviewed By: JAB 10/12/18 labeled by: TO 10/12/18

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Client		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	TO
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 10/12/18 (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.3	Good	Yes			
2	2.7	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Pipeline LLC

Mailing Address: 111 CR4990
Bloomfield, NM 87413

Phone #: 505-632-4169

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush Same day

Project Name:
Hospah

Project #:
PO# 4500055169

Project Manager:
Matt Krakow

Sampler: Isaac Garcia

On Ice: ☒ Yes ☐ No

Sample Temperature: 7 coolers 3.3 (39-(-0.2)=3.3) (26-33 (26-27)=27)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and # (10/12/18 MeOH Cat)	Preservative Type	HEAL No. 1810739	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride				Air Bubbles (Y or N)
10-11-18	9:48a	Soil	Excavation shelf + 12"	1-4oz Jar	Cool	-001	X		X									X				
"	9:54a	Soil	South trench sec. 5 West	"	"	-002	X		X									X				
"	9:57a	Soil	South trench depression South Wall	"	"	-003	X		X									X				
"	10:00a	Soil	South trench depression North Wall	"	"	-004	X		X									X				
"	10:10a	Soil	West Wall 1	"	"	-005	X		X									X				
"	10:14a	Soil	West Wall 2	"	"	-006	X		X									X				
"	12:30a	Soil	South trench depression bottom	"	"	-007	X		X									X				

Remarks:

Date	Time	Relinquished by:	Received by:	Date	Time
10/11/18	1711			10/11/18	1711
10/11/18	1804		Courier VV2 10112118 8:07	10/12/18	8:07

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 20, 2018

Matt Krakow

Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4135
FAX (505) 632-3911

RE: Hospah Clean Up OrderNo.: 1811939

Dear Matt Krakow:

Hall Environmental Analysis Laboratory received 7 sample(s) on 11/17/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1811939**
Date Reported: **11/20/2018**

CLIENT: Western Refining Southwest, Inc.
Project: Hospah Clean Up
Lab ID: 1811939-001 **Matrix:** SOIL

Client Sample ID: Ex 2 N Wall
Collection Date: 11/16/2018 9:00:00 AM
Received Date: 11/17/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	11/19/2018 10:49:29 AM	41613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/19/2018 10:21:31 AM	41607
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/19/2018 10:21:31 AM	41607
Surr: DNOP	98.8	50.6-138		%Rec	1	11/19/2018 10:21:31 AM	41607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	11/19/2018 9:48:31 AM	41588
Surr: BFB	87.7	73.8-119		%Rec	1	11/19/2018 9:48:31 AM	41588
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	11/19/2018 9:48:31 AM	41588
Toluene	ND	0.040		mg/Kg	1	11/19/2018 9:48:31 AM	41588
Ethylbenzene	ND	0.040		mg/Kg	1	11/19/2018 9:48:31 AM	41588
Xylenes, Total	ND	0.081		mg/Kg	1	11/19/2018 9:48:31 AM	41588
Surr: 4-Bromofluorobenzene	92.4	80-120		%Rec	1	11/19/2018 9:48:31 AM	41588

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: West Wall
Project: Hospah Clean Up
Collection Date: 11/16/2018 9:05:00 AM
Lab ID: 1811939-002 **Matrix:** SOIL
Received Date: 11/17/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	87	30		mg/Kg	20	11/19/2018 11:01:53 AM	41613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/19/2018 10:43:21 AM	41607
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/19/2018 10:43:21 AM	41607
Surr: DNOP	107	50.6-138		%Rec	1	11/19/2018 10:43:21 AM	41607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/19/2018 10:11:10 AM	41588
Surr: BFB	89.0	73.8-119		%Rec	1	11/19/2018 10:11:10 AM	41588
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/19/2018 10:11:10 AM	41588
Toluene	ND	0.048		mg/Kg	1	11/19/2018 10:11:10 AM	41588
Ethylbenzene	ND	0.048		mg/Kg	1	11/19/2018 10:11:10 AM	41588
Xylenes, Total	ND	0.097		mg/Kg	1	11/19/2018 10:11:10 AM	41588
Surr: 4-Bromofluorobenzene	93.2	80-120		%Rec	1	11/19/2018 10:11:10 AM	41588

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: East Wall
Project: Hospah Clean Up
Collection Date: 11/16/2018 9:10:00 AM
Lab ID: 1811939-003 **Matrix:** SOIL
Received Date: 11/17/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	53	30		mg/Kg	20	11/19/2018 11:14:18 AM	41613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/19/2018 11:05:17 AM	41607
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/19/2018 11:05:17 AM	41607
Surr: DNOP	105	50.6-138		%Rec	1	11/19/2018 11:05:17 AM	41607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	11/19/2018 10:33:50 AM	41588
Surr: BFB	89.8	73.8-119		%Rec	1	11/19/2018 10:33:50 AM	41588
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	11/19/2018 10:33:50 AM	41588
Toluene	ND	0.039		mg/Kg	1	11/19/2018 10:33:50 AM	41588
Ethylbenzene	ND	0.039		mg/Kg	1	11/19/2018 10:33:50 AM	41588
Xylenes, Total	ND	0.079		mg/Kg	1	11/19/2018 10:33:50 AM	41588
Surr: 4-Bromofluorobenzene	92.6	80-120		%Rec	1	11/19/2018 10:33:50 AM	41588

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: Bottom
Project: Hospah Clean Up
Collection Date: 11/16/2018 9:15:00 AM
Lab ID: 1811939-004 **Matrix:** SOIL
Received Date: 11/17/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	35	30		mg/Kg	20	11/19/2018 11:26:42 AM	41613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/19/2018 11:27:09 AM	41607
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/19/2018 11:27:09 AM	41607
Surr: DNOP	103	50.6-138		%Rec	1	11/19/2018 11:27:09 AM	41607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	11/19/2018 10:56:33 AM	41588
Surr: BFB	90.1	73.8-119		%Rec	1	11/19/2018 10:56:33 AM	41588
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	11/19/2018 10:56:33 AM	41588
Toluene	ND	0.035		mg/Kg	1	11/19/2018 10:56:33 AM	41588
Ethylbenzene	ND	0.035		mg/Kg	1	11/19/2018 10:56:33 AM	41588
Xylenes, Total	ND	0.070		mg/Kg	1	11/19/2018 10:56:33 AM	41588
Surr: 4-Bromofluorobenzene	92.5	80-120		%Rec	1	11/19/2018 10:56:33 AM	41588

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: Bottom 2
Project: Hospah Clean Up
Collection Date: 11/16/2018 4:15:00 PM
Lab ID: 1811939-005 **Matrix:** SOIL **Received Date:** 11/17/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	11/19/2018 11:39:06 AM	41613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/19/2018 11:49:11 AM	41607
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/19/2018 11:49:11 AM	41607
Surr: DNOP	107	50.6-138		%Rec	1	11/19/2018 11:49:11 AM	41607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	11/19/2018 11:19:13 AM	41588
Surr: BFB	87.2	73.8-119		%Rec	1	11/19/2018 11:19:13 AM	41588
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	11/19/2018 11:19:13 AM	41588
Toluene	ND	0.040		mg/Kg	1	11/19/2018 11:19:13 AM	41588
Ethylbenzene	ND	0.040		mg/Kg	1	11/19/2018 11:19:13 AM	41588
Xylenes, Total	ND	0.081		mg/Kg	1	11/19/2018 11:19:13 AM	41588
Surr: 4-Bromofluorobenzene	89.9	80-120		%Rec	1	11/19/2018 11:19:13 AM	41588

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: Trench Ramp
Project: Hospah Clean Up
Collection Date: 11/16/2018 4:45:00 PM
Lab ID: 1811939-006 **Matrix:** SOIL **Received Date:** 11/17/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	11/19/2018 11:51:31 AM	41613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/19/2018 12:11:08 PM	41607
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/19/2018 12:11:08 PM	41607
Surr: DNOP	108	50.6-138		%Rec	1	11/19/2018 12:11:08 PM	41607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	11/19/2018 11:41:56 AM	41588
Surr: BFB	96.0	73.8-119		%Rec	1	11/19/2018 11:41:56 AM	41588
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.021		mg/Kg	1	11/19/2018 11:41:56 AM	41588
Toluene	ND	0.043		mg/Kg	1	11/19/2018 11:41:56 AM	41588
Ethylbenzene	ND	0.043		mg/Kg	1	11/19/2018 11:41:56 AM	41588
Xylenes, Total	ND	0.086		mg/Kg	1	11/19/2018 11:41:56 AM	41588
Surr: 4-Bromofluorobenzene	91.8	80-120		%Rec	1	11/19/2018 11:41:56 AM	41588

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1811939**
Date Reported: **11/20/2018**

CLIENT: Western Refining Southwest, Inc.
Project: Hospah Clean Up
Lab ID: 1811939-007 **Matrix:** SOIL

Client Sample ID: Bottom 3
Collection Date: 11/16/2018 4:20:00 PM
Received Date: 11/17/2018 10:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	11/19/2018 12:28:45 PM	41613
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	78	9.8		mg/Kg	1	11/19/2018 12:33:07 PM	41607
Motor Oil Range Organics (MRO)	88	49		mg/Kg	1	11/19/2018 12:33:07 PM	41607
Surr: DNOP	104	50.6-138		%Rec	1	11/19/2018 12:33:07 PM	41607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/19/2018 12:04:36 PM	41588
Surr: BFB	95.5	73.8-119		%Rec	1	11/19/2018 12:04:36 PM	41588
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	11/19/2018 12:04:36 PM	41588
Toluene	ND	0.049		mg/Kg	1	11/19/2018 12:04:36 PM	41588
Ethylbenzene	ND	0.049		mg/Kg	1	11/19/2018 12:04:36 PM	41588
Xylenes, Total	ND	0.098		mg/Kg	1	11/19/2018 12:04:36 PM	41588
Surr: 4-Bromofluorobenzene	89.1	80-120		%Rec	1	11/19/2018 12:04:36 PM	41588

Soil From Sample Location Removed

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Southw** Work Order Number: **1811939** RcptNo: **1**

Received By: **Jazzmine Burkhead** **11/17/2018 10:40:00 AM** Jazzmine Burkhead

Completed By: **Anne Thorne** **11/19/2018 7:45:11 AM** Anne Thorne

Reviewed By: JAB 11/19/18
Labeled by: AT 11/19/18

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

AT 11/19/18

15. Was client notified of all discrepancies with this order? Yes ☒ No ☐ ~~NA ☑~~

Person Notified:	MK
By Whom:	AT
Regarding:	Bottom 3 Sample Not on COC
Client Instructions:	Add Bottle 3 to COC

Date: 11/19/18 Via: ☐ eMail ☒ Phone ☐ Fax ☐ In Person

16. Additional remarks: AT 11/19/18

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: 111 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4166

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☒ Rush Same Day

Project Name:
Hospah Clean-Up

Project #:

Project Manager:
Matt Kadlow

Sampler: Brittany Hall

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.1+1.0(cf)=2.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1811939	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride				Air Bubbles (Y or N)
11-6	900	Soil	Ex 2 N. Wall	4 8oz jar	Cold	001	X		X									X				
	905		West Wall	1) 4oz		002	X		X									X				
	910		East Wall			003	X		X									X				
	915		Bottom			004	X		X									X				
	1615		Bottom 2			005	X		X									X				
	1645		Trench Ramp			006	X		X									X				
11/16/18	1620		Bottom 3				X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
11/16/18	1905			11/16/18	1905
11/16/18	1920			11/17/18	10:40

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Andeavor

Chain Of Custody Number:

Samples Received: 11/20/2018 3:52:00PM

Job Number: 07232-0026

Work Order: P811063

Project Name/Location: Haspah

Report Reviewed By: _____ Date: 11/26/18

Walter Hinchman, Laboratory Director

_____ Date: 11/26/18

Tim Cain, Project Manager

NELAP ACCREDITED TNI LABORATORY

Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.
Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

envirotech
Analytical Laboratory

Andeavor	Project Name:	Haspah	
3303 N 1st St	Project Number:	07232-0026	**Reported:**
Bloomfield NM, 87401	Project Manager:	Felipe Aragon	11/26/18 16:48

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Trench #2 + 2'	P811063-01A	Soil	11/20/18	11/20/18	Glass Jar, 4 oz.
	P811063-01B	Soil	11/20/18	11/20/18	Glass Jar, 4 oz.

Andeavor	Project Name:	Haspah	
3303 N 1st St	Project Number:	07232-0026	**Reported:**
Bloomfield NM, 87401	Project Manager:	Felipe Aragon	11/26/18 16:48

Trench #2 + 2'

P811063-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*98.3 %*		*50-150*	*1847017*	*11/20/18*	*11/21/18*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1847017	11/20/18	11/21/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1847021	11/20/18	11/21/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1847021	11/20/18	11/21/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*104 %*		*50-150*	*1847017*	*11/20/18*	*11/21/18*	*EPA 8015D*	
Surrogate: n-Nonane		*93.8 %*		*50-200*	*1847021*	*11/20/18*	*11/21/18*	*EPA 8015D*	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1847023	11/21/18	11/21/18	EPA 300.0/9056A	

Andeavor	Project Name:	Haspah	
3303 N 1st St	Project Number:	07232-0026	**Reported:**
Bloomfield NM, 87401	Project Manager:	Felipe Aragon	11/26/18 16:48

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1847017 - Purge and Trap EPA 5030A										
Blank (1847017-BLK1)				Prepared: 11/20/18 0 Analyzed: 11/20/18 1						
Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	*7900*		*"*	*8000*		*98.8*	*50-150*			
LCS (1847017-BS1)				Prepared: 11/20/18 0 Analyzed: 11/20/18 1						
Benzene	5070	100	ug/kg	5000		101	70-130			
Toluene	5180	100	"	5000		104	70-130			
Ethylbenzene	5260	100	"	5000		105	70-130			
p,m-Xylene	10800	200	"	10000		108	70-130			
o-Xylene	5230	100	"	5000		105	70-130			
Total Xylenes	16000	100	"	15000		107	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7980*		*"*	*8000*		*99.8*	*50-150*			
Matrix Spike (1847017-MS1)		**Source: P811050-01**		Prepared: 11/20/18 0 Analyzed: 11/21/18 0						
Benzene	5370	100	ug/kg	5000	ND	107	54.3-133			
Toluene	5500	100	"	5000	ND	110	61.4-130			
Ethylbenzene	5600	100	"	5000	ND	112	61.4-133			
p,m-Xylene	11400	200	"	10000	ND	114	63.3-131			
o-Xylene	5520	100	"	5000	ND	110	63.3-131			
Total Xylenes	17000	100	"	15000	ND	113	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	*8000*		*"*	*8000*		*100*	*50-150*			
Matrix Spike Dup (1847017-MSD1)		**Source: P811050-01**		Prepared: 11/20/18 0 Analyzed: 11/20/18 2						
Benzene	5270	100	ug/kg	5000	ND	105	54.3-133	1.89	20	
Toluene	5410	100	"	5000	ND	108	61.4-130	1.76	20	
Ethylbenzene	5510	100	"	5000	ND	110	61.4-133	1.54	20	
p,m-Xylene	11300	200	"	10000	ND	113	63.3-131	1.43	20	
o-Xylene	5470	100	"	5000	ND	109	63.3-131	0.982	20	
Total Xylenes	16800	100	"	15000	ND	112	63.3-131	1.28	20	
Surrogate: 4-Bromochlorobenzene-PID	*8130*		*"*	*8000*		*102*	*50-150*			

Andeavor	Project Name:	Haspah	
3303 N 1st St	Project Number:	07232-0026	**Reported:**
Bloomfield NM, 87401	Project Manager:	Felipe Aragon	11/26/18 16:48

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1847017 - Purge and Trap EPA 5030A										
Blank (1847017-BLK1)				Prepared: 11/20/18 0 Analyzed: 11/20/18 1						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.45*		*"*	*8.00*		*106*	*50-150*			
LCS (1847017-BS2)				Prepared: 11/20/18 0 Analyzed: 11/20/18 2						
Gasoline Range Organics (C6-C10)	53.2	20.0	mg/kg	50.0		106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.46*		*"*	*8.00*		*106*	*50-150*			
Matrix Spike (1847017-MS2)		**Source: P811050-01**		Prepared: 11/20/18 0 Analyzed: 11/20/18 2						
Gasoline Range Organics (C6-C10)	53.1	20.0	mg/kg	50.0	ND	106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.37*		*"*	*8.00*		*105*	*50-150*			
Matrix Spike Dup (1847017-MSD2)		**Source: P811050-01**		Prepared: 11/20/18 0 Analyzed: 11/20/18 2						
Gasoline Range Organics (C6-C10)	45.0	20.0	mg/kg	50.0	ND	90.1	70-130	16.4	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.54*		*"*	*8.00*		*107*	*50-150*			

Andeavor	Project Name:	Haspah	
3303 N 1st St	Project Number:	07232-0026	**Reported:**
Bloomfield NM, 87401	Project Manager:	Felipe Aragon	11/26/18 16:48

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1847021 - DRO Extraction EPA 3570										
Blank (1847021-BLK1)				Prepared: 11/20/18 1 Analyzed: 11/21/18 0						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	*44.4*		*"*	*50.0*		*88.8*	*50-200*			
LCS (1847021-BS1)				Prepared: 11/20/18 1 Analyzed: 11/21/18 0						
Diesel Range Organics (C10-C28)	445	25.0	mg/kg	500		89.1	38-132			
Surrogate: n-Nonane	*45.3*		*"*	*50.0*		*90.6*	*50-200*			
Matrix Spike (1847021-MS1)	**Source: P811063-01**			Prepared: 11/20/18 1 Analyzed: 11/21/18 0						
Diesel Range Organics (C10-C28)	491	25.0	mg/kg	500	ND	98.2	38-132			
Surrogate: n-Nonane	*46.1*		*"*	*50.0*		*92.1*	*50-200*			
Matrix Spike Dup (1847021-MSD1)	**Source: P811063-01**			Prepared: 11/20/18 1 Analyzed: 11/21/18 1						
Diesel Range Organics (C10-C28)	477	25.0	mg/kg	500	ND	95.4	38-132	2.89	20	
Surrogate: n-Nonane	*46.2*		*"*	*50.0*		*92.4*	*50-200*			

Andeavor	Project Name:	Haspah	
3303 N 1st St	Project Number:	07232-0026	**Reported:**
Bloomfield NM, 87401	Project Manager:	Felipe Aragon	11/26/18 16:48

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1847023 - Anion Extraction EPA 300.0/9056A										
Blank (1847023-BLK1)				Prepared: 11/21/18 0 Analyzed: 11/21/18 1						
Chloride	ND	20.0	mg/kg							
LCS (1847023-BS1)				Prepared: 11/21/18 0 Analyzed: 11/21/18 1						
Chloride	258	20.0	mg/kg	250		103	90-110			
Matrix Spike (1847023-MS1)		**Source: P811063-01**		Prepared: 11/21/18 0 Analyzed: 11/21/18 1						
Chloride	259	20.0	mg/kg	250	ND	104	80-120			
Matrix Spike Dup (1847023-MSD1)		**Source: P811063-01**		Prepared: 11/21/18 0 Analyzed: 11/21/18 1						
Chloride	262	20.0	mg/kg	250	ND	105	80-120	1.20	20	

Andeavor	Project Name:	Haspah	
3303 N 1st St	Project Number:	07232-0026	**Reported:**
Bloomfield NM, 87401	Project Manager:	Felipe Aragon	11/26/18 16:48

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
**	Methods marked with ** are non-accredited methods.

Project Information | Chain of Custody | Page 1 of 1

Client:	Andarvor
Project:	Haspah
Project Manager:	Felipe Aragon
Address:	
City, State, Zip	
Phone:	
Email:	Esaenz / Felipe

Report Attention

Report due by:	
Attention:	
Address:	
City, State, Zip	
Phone:	
Email:	

Lab Use Only

Lab WO# P84063 | Job Number 07232-0026

TAT		EPA Program		
1D	3D	RCRA	CWA	SDWA
X		X		

State: NM X | CO | UT | AZ

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks
12:41	11/20/18	S	2	Trench #2 +2'	1	X	X	X			X		

Additional Instructions: V:s Ice in cooler

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Esaenz Garcia

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6°C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	11/20/18	15:43		11/20/18	15:52
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other ____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above ...laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech Analytical Laboratory
5796 US Highway 64, Farmington, NM 87401 | Ph (505) 632-0615 Fx 505 632 1865
Three Springs - 65 Mercado Street, Suite 115, Durango CO 81303 | Ph (970) 259 0615 Fr 800 362 1879
envirotech-inc.com
laboratory@envirotech-inc.com

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 29, 2019

Matt Krakow
Andeavor Bloomfield
111 CR 4990
Bloomfield, NM 87413
TEL: (505) 801-5616
FAX

RE: Hospah Spill Clean Up OrderNo.: 1901A29

Dear Matt Krakow:

Hall Environmental Analysis Laboratory received 7 sample(s) on 1/26/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1901A29**
Date Reported: **1/29/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Andeavor Bloomfield
Client Sample ID: Northeast
Project: Hospah Spill Clean Up
Collection Date: 1/25/2019 10:54:00 AM
Lab ID: 1901A29-001 **Matrix:** SOIL
Received Date: 1/26/2019 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	1/26/2019 12:44:33 PM	42826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/26/2019 12:57:13 PM	42825
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/26/2019 12:57:13 PM	42825
Surr: DNOP	86.6	50.6-138		%Rec	1	1/26/2019 12:57:13 PM	42825
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	1/26/2019 1:18:02 PM	G57279
Surr: BFB	96.6	73.8-119		%Rec	1	1/26/2019 1:18:02 PM	G57279
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	1/26/2019 1:18:02 PM	B57279
Toluene	ND	0.039		mg/Kg	1	1/26/2019 1:18:02 PM	B57279
Ethylbenzene	ND	0.039		mg/Kg	1	1/26/2019 1:18:02 PM	B57279
Xylenes, Total	ND	0.079		mg/Kg	1	1/26/2019 1:18:02 PM	B57279
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	1/26/2019 1:18:02 PM	B57279

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Andeavor Bloomfield
Client Sample ID: West N. End
Project: Hospah Spill Clean Up
Collection Date: 1/25/2019 10:59:00 AM
Lab ID: 1901A29-002 **Matrix:** SOIL
Received Date: 1/26/2019 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	1/26/2019 12:56:58 PM	42826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	1/26/2019 2:09:19 PM	42825
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/26/2019 2:09:19 PM	42825
Surr: DNOP	80.7	50.6-138		%Rec	1	1/26/2019 2:09:19 PM	42825
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	1/26/2019 2:28:43 PM	G57279
Surr: BFB	96.6	73.8-119		%Rec	1	1/26/2019 2:28:43 PM	G57279
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.021		mg/Kg	1	1/26/2019 2:28:43 PM	B57279
Toluene	ND	0.041		mg/Kg	1	1/26/2019 2:28:43 PM	B57279
Ethylbenzene	ND	0.041		mg/Kg	1	1/26/2019 2:28:43 PM	B57279
Xylenes, Total	ND	0.083		mg/Kg	1	1/26/2019 2:28:43 PM	B57279
Surr: 4-Bromofluorobenzene	96.6	80-120		%Rec	1	1/26/2019 2:28:43 PM	B57279

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Andeavor Bloomfield
Client Sample ID: Northwest
Project: Hospah Spill Clean Up
Collection Date: 1/25/2019 10:56:00 AM
Lab ID: 1901A29-003 **Matrix:** SOIL
Received Date: 1/26/2019 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	1/26/2019 1:09:23 PM	42826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	27	9.7		mg/Kg	1	1/27/2019 6:21:18 AM	42825
Motor Oil Range Organics (MRO)	61	49		mg/Kg	1	1/27/2019 6:21:18 AM	42825
Surr: DNOP	86.4	50.6-138		%Rec	1	1/27/2019 6:21:18 AM	42825
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	1/26/2019 3:39:20 PM	G57279
Surr: BFB	92.5	73.8-119		%Rec	1	1/26/2019 3:39:20 PM	G57279
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	1/26/2019 3:39:20 PM	B57279
Toluene	ND	0.037		mg/Kg	1	1/26/2019 3:39:20 PM	B57279
Ethylbenzene	ND	0.037		mg/Kg	1	1/26/2019 3:39:20 PM	B57279
Xylenes, Total	ND	0.074		mg/Kg	1	1/26/2019 3:39:20 PM	B57279
Surr: 4-Bromofluorobenzene	92.6	80-120		%Rec	1	1/26/2019 3:39:20 PM	B57279

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Andeavor Bloomfield
Client Sample ID: West Bottom N. End
Project: Hospah Spill Clean Up
Collection Date: 1/25/2019 11:01:00 AM
Lab ID: 1901A29-004 **Matrix:** SOIL
Received Date: 1/26/2019 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	1/26/2019 1:21:48 PM	42826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	1/26/2019 3:21:14 PM	42825
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/26/2019 3:21:14 PM	42825
Surr: DNOP	86.8	50.6-138		%Rec	1	1/26/2019 3:21:14 PM	42825
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	1/26/2019 4:02:32 PM	G57279
Surr: BFB	96.3	73.8-119		%Rec	1	1/26/2019 4:02:32 PM	G57279
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	1/26/2019 4:02:32 PM	B57279
Toluene	ND	0.044		mg/Kg	1	1/26/2019 4:02:32 PM	B57279
Ethylbenzene	ND	0.044		mg/Kg	1	1/26/2019 4:02:32 PM	B57279
Xylenes, Total	ND	0.088		mg/Kg	1	1/26/2019 4:02:32 PM	B57279
Surr: 4-Bromofluorobenzene	95.0	80-120		%Rec	1	1/26/2019 4:02:32 PM	B57279

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Andeavor Bloomfield
Client Sample ID: East Bottom N. Side
Project: Hospah Spill Clean Up
Collection Date: 1/25/2019 11:10:00 AM
Lab ID: 1901A29-005 **Matrix:** SOIL
Received Date: 1/26/2019 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	1/26/2019 1:34:13 PM	42826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	49	10		mg/Kg	1	1/26/2019 3:45:17 PM	42825
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	1/26/2019 3:45:17 PM	42825
Surr: DNOP	90.6	50.6-138		%Rec	1	1/26/2019 3:45:17 PM	42825
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	1/26/2019 4:26:03 PM	G57279
Surr: BFB	96.5	73.8-119		%Rec	1	1/26/2019 4:26:03 PM	G57279
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.021		mg/Kg	1	1/26/2019 4:26:03 PM	B57279
Toluene	ND	0.042		mg/Kg	1	1/26/2019 4:26:03 PM	B57279
Ethylbenzene	ND	0.042		mg/Kg	1	1/26/2019 4:26:03 PM	B57279
Xylenes, Total	ND	0.084		mg/Kg	1	1/26/2019 4:26:03 PM	B57279
Surr: 4-Bromofluorobenzene	94.6	80-120		%Rec	1	1/26/2019 4:26:03 PM	B57279

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Andeavor Bloomfield
Project: Hospah Spill Clean Up
Lab ID: 1901A29-006 **Matrix:** SOIL

Client Sample ID: Deep Well Grab
Collection Date: 1/25/2019 11:20:00 AM
Received Date: 1/26/2019 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	1/26/2019 1:46:38 PM	42826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	10000	480		mg/Kg	50	1/27/2019 7:33:24 AM	42825
Motor Oil Range Organics (MRO)	4900	2400		mg/Kg	50	1/27/2019 7:33:24 AM	42825
Surr: DNOP	0	50.6-138	S	%Rec	50	1/27/2019 7:33:24 AM	42825
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	280	37		mg/Kg	10	1/28/2019 9:26:42 AM	42823
Surr: BFB	331	73.8-119	S	%Rec	10	1/28/2019 9:26:42 AM	42823
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.041	0.019		mg/Kg	1	1/26/2019 4:49:27 PM	B57279
Toluene	1.8	0.037		mg/Kg	1	1/26/2019 4:49:27 PM	B57279
Ethylbenzene	1.6	0.037		mg/Kg	1	1/26/2019 4:49:27 PM	B57279
Xylenes, Total	17	0.74		mg/Kg	10	1/28/2019 9:26:42 AM	42823
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	10	1/28/2019 9:26:42 AM	42823

Soil From Sample Location Removed

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Andeavor Bloomfield
Project: Hospah Spill Clean Up
Lab ID: 1901A29-007 **Matrix:** SOIL

Client Sample ID: Deep Well Bottom
Collection Date: 1/25/2019 11:30:00 AM
Received Date: 1/26/2019 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	30		mg/Kg	20	1/26/2019 1:59:03 PM	42826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	390	9.6		mg/Kg	1	1/26/2019 4:57:23 PM	42825
Motor Oil Range Organics (MRO)	210	48		mg/Kg	1	1/26/2019 4:57:23 PM	42825
Surr: DNOP	98.2	50.6-138		%Rec	1	1/26/2019 4:57:23 PM	42825
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	1/26/2019 5:36:20 PM	G57279
Surr: BFB	97.4	73.8-119		%Rec	1	1/26/2019 5:36:20 PM	G57279
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.020		mg/Kg	1	1/26/2019 5:36:20 PM	B57279
Toluene	ND	0.041		mg/Kg	1	1/26/2019 5:36:20 PM	B57279
Ethylbenzene	ND	0.041		mg/Kg	1	1/26/2019 5:36:20 PM	B57279
Xylenes, Total	ND	0.082		mg/Kg	1	1/26/2019 5:36:20 PM	B57279
Surr: 4-Bromofluorobenzene	93.7	80-120		%Rec	1	1/26/2019 5:36:20 PM	B57279

Soil From Sample Location Removed

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1901A29**

29-Jan-19

Client: Andeavor Bloomfield

Project: Hospah Spill Clean Up

Sample ID	**MB-42826**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**42826**	RunNo:	**57281**					
Prep Date:	**1/26/2019**	Analysis Date:	**1/26/2019**	SeqNo:	**1915958**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-42826**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**42826**	RunNo:	**57281**					
Prep Date:	**1/26/2019**	Analysis Date:	**1/26/2019**	SeqNo:	**1915959**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1901A29**

29-Jan-19

Client: Andeavor Bloomfield

Project: Hospah Spill Clean Up

Sample ID	**MB-42825**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID:	**42825**		RunNo:	**57277**					
Prep Date:	**1/26/2019**	Analysis Date:	**1/26/2019**		SeqNo:	**1915620**	Units:	**mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		ND	10								
Motor Oil Range Organics (MRO)		ND	50								
Surr: DNOP		8.3		10.00		83.4	50.6	138			

Sample ID	**LCS-42825**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**LCSS**	Batch ID:	**42825**		RunNo:	**57277**					
Prep Date:	**1/26/2019**	Analysis Date:	**1/26/2019**		SeqNo:	**1915625**	Units:	**mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		40	10	50.00	0	79.3	63.9	124			
Surr: DNOP		4.2		5.000		84.1	50.6	138			

Sample ID	**1901A29-001AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**Northeast**	Batch ID:	**42825**		RunNo:	**57277**					
Prep Date:	**1/26/2019**	Analysis Date:	**1/26/2019**		SeqNo:	**1915760**	Units:	**mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		42	9.4	47.17	0	88.9	53.5	126			
Surr: DNOP		4.2		4.717		90.0	50.6	138			

Sample ID	**1901A29-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**Northeast**	Batch ID:	**42825**		RunNo:	**57277**					
Prep Date:	**1/26/2019**	Analysis Date:	**1/26/2019**		SeqNo:	**1915761**	Units:	**mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		43	10	49.75	0	86.4	53.5	126	2.50	21.7	
Surr: DNOP		4.6		4.975		91.8	50.6	138	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1901A29**

29-Jan-19

Client: Andeavor Bloomfield

Project: Hospah Spill Clean Up

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G57279**	RunNo: **57279**
Prep Date:	Analysis Date: **1/26/2019**	SeqNo: **1915775** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		98.4	73.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G57279**	RunNo: **57279**
Prep Date:	Analysis Date: **1/26/2019**	SeqNo: **1915776** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	80.1	123			
Surr: BFB	1100		1000		110	73.8	119			

Sample ID **1901A29-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Northeast**	Batch ID: **G57279**	RunNo: **57279**
Prep Date:	Analysis Date: **1/26/2019**	SeqNo: **1915778** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	3.9	19.65	0	105	69.1	142			
Surr: BFB	880		786.2		112	73.8	119			

Sample ID **1901A29-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Northeast**	Batch ID: **G57279**	RunNo: **57279**
Prep Date:	Analysis Date: **1/26/2019**	SeqNo: **1915779** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	3.9	19.65	0	98.8	69.1	142	6.01	20	
Surr: BFB	810		786.2		103	73.8	119	0	0	

Sample ID **MB-42823**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **42823**	RunNo: **57296**
Prep Date: **1/25/2019**	Analysis Date: **1/28/2019**	SeqNo: **1917158** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	970		1000		96.9	73.8	119			

Sample ID **LCS-42823**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **42823**	RunNo: **57296**
Prep Date: **1/25/2019**	Analysis Date: **1/28/2019**	SeqNo: **1917159** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1901A29**

29-Jan-19

Client: Andeavor Bloomfield

Project: Hospah Spill Clean Up

Sample ID	**LCS-42823**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**42823**	RunNo:	**57296**					
Prep Date:	**1/25/2019**	Analysis Date:	**1/28/2019**	SeqNo:	**1917159**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	80.1	123			
Surr: BFB	1100		1000		107	73.8	119			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1901A29**

29-Jan-19

Client: Andeavor Bloomfield

Project: Hospah Spill Clean Up

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B57279**	RunNo: **57279**
Prep Date:	Analysis Date: **1/26/2019**	SeqNo: **1915802** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.0	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B57279**	RunNo: **57279**
Prep Date:	Analysis Date: **1/26/2019**	SeqNo: **1915803** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	1.000	0	84.7	80	120			
Toluene	0.88	0.050	1.000	0	88.2	80	120			
Ethylbenzene	0.89	0.050	1.000	0	89.2	80	120			
Xylenes, Total	2.7	0.10	3.000	0	90.0	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID **1901A29-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **West N. End**	Batch ID: **B57279**	RunNo: **57279**
Prep Date:	Analysis Date: **1/26/2019**	SeqNo: **1915806** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.71	0.021	0.8271	0	86.0	63.9	127			
Toluene	0.75	0.041	0.8271	0	90.1	69.9	131			
Ethylbenzene	0.75	0.041	0.8271	0	91.2	71	132			
Xylenes, Total	2.3	0.083	2.481	0	91.9	71.8	131			
Surr: 4-Bromofluorobenzene	0.82		0.8271		99.1	80	120			

Sample ID **1901A29-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **West N. End**	Batch ID: **B57279**	RunNo: **57279**
Prep Date:	Analysis Date: **1/26/2019**	SeqNo: **1915807** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.021	0.8271	0	85.0	63.9	127	1.17	20	
Toluene	0.74	0.041	0.8271	0	89.1	69.9	131	1.14	20	
Ethylbenzene	0.75	0.041	0.8271	0	90.1	71	132	1.13	20	
Xylenes, Total	2.3	0.083	2.481	0	91.3	71.8	131	0.589	20	
Surr: 4-Bromofluorobenzene	0.80		0.8271		96.2	80	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1901A29**

29-Jan-19

Client: Andeavor Bloomfield

Project: Hospah Spill Clean Up

Sample ID	**MB-42823**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**42823**	RunNo:	**57296**					
Prep Date:	**1/25/2019**	Analysis Date:	**1/28/2019**	SeqNo:	**1917177**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		94.4	80	120			

Sample ID	**LCS-42823**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**42823**	RunNo:	**57296**					
Prep Date:	**1/25/2019**	Analysis Date:	**1/28/2019**	SeqNo:	**1917178**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	2.9	0.10	3.000	0	96.3	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.3	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **ANDEAVOR BLOOMFIEL** Work Order Number: **1901A29** RcptNo: **1**

Received By: **Desiree Dominguez** **1/26/2019 9:45:00 AM** DD

Completed By: **Desiree Dominguez** **1/26/2019 10:11:11 AM** DD

Reviewed By: LB 1/26/19

LABELED BY: DAD 1/26/19

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Approved by client. Samples not frozen. DAD 1/26/19
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: DAD 1/26/19 DAD 1/26/19

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	-0.2	Good	Yes			

Chain-of-Custody Record

Client: Andeavor Logistics
111 CR4990
Mailing Address:
Bloomfield, NM 87413
Phone #: 505-632-4169
email or Fax#:
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[ ] EDD (Type)

Turn-Around Time:
[ ] Standard [X] Rush Same Day
Project Name:
Hospah Spill Clean-Up
Project #:
12623008
Project Manager:
Matt Krakow
Sampler:
On Ice: [X] Yes [ ] No Not Frozen
Sample Temperature: 0.4 - 0.6 = -0.2°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1901A29	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride				Air Bubbles (Y or N)
1-25-19	10:54a	Soil	Northeast	1-4oz jar	Cold	-001	X		X									X				
1-25-19	10:58a	Soil	West N. End	1-4oz jar	Cold	-002	X		X									X				
1-25-19	10:56a	Soil	Northwest	1-4oz jar	Cold	-003	X		X									X				
1-25-19	11:01a	Soil	West Bottom N. End	1-4oz jar	Cold	-004	X		X									X				
1-25-19	11:10a	Soil	East Bottom N. Side	1-4oz jar	Cold	-005	X		X									X				
1-25-19	11:20a	Soil	Deep Well Grab	1-4oz jar	Cold	-006	X		X									X				
1-25-19	11:30a	Soil	Deep Well Bottom	1-4oz jar	cold	-007	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/25/19	1509		Christian Walt	1/25/19	1509
1/25/19	1900	Matt Walt			
			Courier	1/26/19	9:45

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 05, 2019

Matt Krakow

Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4135
FAX (505) 632-3911

RE: Hospah Spill Cleanup OrderNo.: 1902054

Dear Matt Krakow:

Hall Environmental Analysis Laboratory received 4 sample(s) on 2/2/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1902054**
Date Reported: **2/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: West Floor Center Section
Project: Hospah Spill Cleanup
Collection Date: 2/1/2019 11:00:00 AM
Lab ID: 1902054-001 **Matrix:** MEOH (SOIL) **Received Date:** 2/2/2019 10:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	2/4/2019 12:13:01 PM	42945
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	13	10		mg/Kg	1	2/4/2019 10:28:10 AM	42946
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/4/2019 10:28:10 AM	42946
Surr: DNOP	89.2	50.6-138		%Rec	1	2/4/2019 10:28:10 AM	42946
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/4/2019 9:36:24 AM	42936
Surr: BFB	99.6	73.8-119		%Rec	1	2/4/2019 9:36:24 AM	42936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	2/4/2019 9:36:24 AM	42936
Toluene	ND	0.046		mg/Kg	1	2/4/2019 9:36:24 AM	42936
Ethylbenzene	ND	0.046		mg/Kg	1	2/4/2019 9:36:24 AM	42936
Xylenes, Total	ND	0.093		mg/Kg	1	2/4/2019 9:36:24 AM	42936
Surr: 4-Bromofluorobenzene	96.0	80-120		%Rec	1	2/4/2019 9:36:24 AM	42936

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** West Wall Center Section
Project: Hospah Spill Cleanup **Collection Date:** 2/1/2019 11:05:00 AM
Lab ID: 1902054-002 **Matrix:** MEOH (SOIL) **Received Date:** 2/2/2019 10:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	60		mg/Kg	20	2/4/2019 12:25:26 PM	42945
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	70	9.6		mg/Kg	1	2/4/2019 10:50:19 AM	42946
Motor Oil Range Organics (MRO)	170	48		mg/Kg	1	2/4/2019 10:50:19 AM	42946
Surr: DNOP	92.7	50.6-138		%Rec	1	2/4/2019 10:50:19 AM	42946
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	2/4/2019 10:00:02 AM	42936
Surr: BFB	101	73.8-119		%Rec	1	2/4/2019 10:00:02 AM	42936
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.017		mg/Kg	1	2/4/2019 10:00:02 AM	42936
Toluene	ND	0.034		mg/Kg	1	2/4/2019 10:00:02 AM	42936
Ethylbenzene	ND	0.034		mg/Kg	1	2/4/2019 10:00:02 AM	42936
Xylenes, Total	ND	0.068		mg/Kg	1	2/4/2019 10:00:02 AM	42936
Surr: 4-Bromofluorobenzene	96.8	80-120		%Rec	1	2/4/2019 10:00:02 AM	42936

Soil From Sample Location Removed

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** East Floor Center Section
Project: Hospah Spill Cleanup **Collection Date:** 2/1/2019 11:10:00 AM
Lab ID: 1902054-003 **Matrix:** MEOH (SOIL) **Received Date:** 2/2/2019 10:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	2/4/2019 12:37:51 PM	42945
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	17	9.8		mg/Kg	1	2/4/2019 11:12:23 AM	42946
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/4/2019 11:12:23 AM	42946
Surr: DNOP	96.6	50.6-138		%Rec	1	2/4/2019 11:12:23 AM	42946
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/4/2019 10:23:37 AM	42936
Surr: BFB	105	73.8-119		%Rec	1	2/4/2019 10:23:37 AM	42936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/4/2019 10:23:37 AM	42936
Toluene	ND	0.049		mg/Kg	1	2/4/2019 10:23:37 AM	42936
Ethylbenzene	ND	0.049		mg/Kg	1	2/4/2019 10:23:37 AM	42936
Xylenes, Total	ND	0.099		mg/Kg	1	2/4/2019 10:23:37 AM	42936
Surr: 4-Bromofluorobenzene	95.4	80-120		%Rec	1	2/4/2019 10:23:37 AM	42936

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: East Wall Center Section
Project: Hospah Spill Cleanup
Collection Date: 2/1/2019 11:15:00 AM
Lab ID: 1902054-004
Matrix: MEOH (SOIL)
Received Date: 2/2/2019 10:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	2/4/2019 12:50:15 PM	42945
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/4/2019 11:34:31 AM	42946
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/4/2019 11:34:31 AM	42946
Surr: DNOP	96.7	50.6-138		%Rec	1	2/4/2019 11:34:31 AM	42946
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	2/4/2019 10:47:15 AM	42936
Surr: BFB	99.3	73.8-119		%Rec	1	2/4/2019 10:47:15 AM	42936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	2/4/2019 10:47:15 AM	42936
Toluene	ND	0.038		mg/Kg	1	2/4/2019 10:47:15 AM	42936
Ethylbenzene	ND	0.038		mg/Kg	1	2/4/2019 10:47:15 AM	42936
Xylenes, Total	ND	0.076		mg/Kg	1	2/4/2019 10:47:15 AM	42936
Surr: 4-Bromofluorobenzene	95.6	80-120		%Rec	1	2/4/2019 10:47:15 AM	42936

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1902054**
05-Feb-19

Client: Western Refining Southwest, Inc.
Project: Hospah Spill Cleanup

Sample ID	**MB-42945**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**42945**		RunNo:	**57445**					
Prep Date:	**2/4/2019**	Analysis Date:	**2/4/2019**		SeqNo:	**1922413**	Units:	**mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								

Sample ID	**LCS-42945**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**42945**		RunNo:	**57445**					
Prep Date:	**2/4/2019**	Analysis Date:	**2/4/2019**		SeqNo:	**1922414**	Units:	**mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	94.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1902054**

05-Feb-19

Client: Western Refining Southwest, Inc.

Project: Hospah Spill Cleanup

Sample ID **MB-42939**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **42939**	RunNo: **57446**
Prep Date: **2/1/2019**	Analysis Date: **2/4/2019**	SeqNo: **1921757** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.2		10.00		92.4	50.6	138			

Sample ID **LCS-42939**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **42939**	RunNo: **57446**
Prep Date: **2/1/2019**	Analysis Date: **2/4/2019**	SeqNo: **1921758** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.8	50.6	138			

Sample ID **LCS-42946**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **42946**	RunNo: **57446**
Prep Date: **2/4/2019**	Analysis Date: **2/4/2019**	SeqNo: **1921759** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	63.9	124			
Surr: DNOP	4.4		5.000		87.4	50.6	138			

Sample ID **MB-42946**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **42946**	RunNo: **57446**
Prep Date: **2/4/2019**	Analysis Date: **2/4/2019**	SeqNo: **1921760** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.0		10.00		90.5	50.6	138			

Sample ID **1902054-004AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **East Wall Center Se**	Batch ID: **42946**	RunNo: **57446**
Prep Date: **2/4/2019**	Analysis Date: **2/4/2019**	SeqNo: **1921765** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.7	48.69	0	91.3	53.5	126			
Surr: DNOP	4.5		4.869		92.5	50.6	138			

Sample ID **1902054-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **East Wall Center Se**	Batch ID: **42946**	RunNo: **57446**
Prep Date: **2/4/2019**	Analysis Date: **2/4/2019**	SeqNo: **1921766** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.6	48.17	0	99.1	53.5	126	7.15	21.7	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1902054**
05-Feb-19

Client: Western Refining Southwest, Inc.
Project: Hospah Spill Cleanup

Sample ID	**1902054-004AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**East Wall Center Se**	Batch ID:	**42946**		RunNo:	**57446**					
Prep Date:	**2/4/2019**	Analysis Date:	**2/4/2019**		SeqNo:	**1921766**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.7		4.817		97.8	50.6	138	0	0		

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1902054**

05-Feb-19

Client: Western Refining Southwest, Inc.

Project: Hospah Spill Cleanup

Sample ID **MB-42936**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **42936**	RunNo: **57448**
Prep Date: **2/1/2019**	Analysis Date: **2/4/2019**	SeqNo: **1922236** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		102	73.8	119			

Sample ID **LCS-42936**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **42936**	RunNo: **57448**
Prep Date: **2/1/2019**	Analysis Date: **2/4/2019**	SeqNo: **1922237** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	80.1	123			
Surr: BFB	1100		1000		110	73.8	119			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1902054**

05-Feb-19

Client: Western Refining Southwest, Inc.

Project: Hospah Spill Cleanup

Sample ID **MB-42936**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **42936**	RunNo: **57448**
Prep Date: **2/1/2019**	Analysis Date: **2/4/2019**	SeqNo: **1922259** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.3	80	120			

Sample ID **LCS-42936**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **42936**	RunNo: **57448**
Prep Date: **2/1/2019**	Analysis Date: **2/4/2019**	SeqNo: **1922260** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.2	80	120			
Toluene	0.94	0.050	1.000	0	94.1	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.7	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		96.0	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Southw** Work Order Number: **1902054** RcptNo: 1

Received By: **Victoria Zellar** **2/2/2019 10:55:00 AM** Victoria Zellar

Completed By: **Victoria Zellar** **2/2/2019 12:15:14 PM** Victoria Zellar labeled by VVZ 2/2/19

Reviewed By: ENM 2/2/19

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑ VVZ 2/2/19
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: 111 CR4990
Bloomfield, NM 87413

Phone #: 505-632-4169

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☒ Rush Same Day

Project Name:
Hospah Spill Clean-up

Project #:
12623008

Project Manager:
Matt Kraford

Sampler: Britney Hall

On Ice: ☒ Yes ☐ No

Sample Temperature: 20-(-(F)0.4=1.6°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1902054	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
2-1-19	11:00	Soil	West floor center section	1-4oz Jar	Cold	-001	X		X					X								
2-1-19	11:05	Soil	West wall center section	1-4oz Jar	Cold	-002	X		X					X								
2-1-19	11:10	Soil	East floor center section	1-4oz Jar	Cold	-003	X		X					X								
2-1-19	11:15	Soil	East wall center section	1-4oz jar	Cold	-004	X		X					X								

Date	Time	Relinquished by:	Received by:	Date	Time
2/1/19	1421			2/1/19	1421
2/1/19	1630			2/2/19	10:55

Remarks:
Courier - VVZ 2/2/19

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 11, 2019

Matt Krakow

Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4135
FAX (505) 632-3911

RE: Hospah Station Spill Cleanup OrderNo.: 1902341

Dear Matt Krakow:

Hall Environmental Analysis Laboratory received 8 sample(s) on 2/8/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: West bottom south section
Project: Hospah Station Spill Cleanup
Collection Date: 2/7/2019 10:55:00 AM
Lab ID: 1902341-001 **Matrix:** SOIL
Received Date: 2/8/2019 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	2/8/2019 12:08:29 PM	43055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/8/2019 9:48:17 AM	43052
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/8/2019 9:48:17 AM	43052
Surr: DNOP	77.5	50.6-138		%Rec	1	2/8/2019 9:48:17 AM	43052
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.1		mg/Kg	1	2/8/2019 9:38:59 AM	43044
Surr: BFB	102	73.8-119		%Rec	1	2/8/2019 9:38:59 AM	43044
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/8/2019 9:38:59 AM	43044
Toluene	ND	0.051		mg/Kg	1	2/8/2019 9:38:59 AM	43044
Ethylbenzene	ND	0.051		mg/Kg	1	2/8/2019 9:38:59 AM	43044
Xylenes, Total	ND	0.10		mg/Kg	1	2/8/2019 9:38:59 AM	43044
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	2/8/2019 9:38:59 AM	43044

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: East bottom south section
Project: Hospah Station Spill Cleanup
Collection Date: 2/7/2019 11:03:00 AM
Lab ID: 1902341-002 **Matrix:** SOIL
Received Date: 2/8/2019 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	2/8/2019 12:20:53 PM	43055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/8/2019 10:10:31 AM	43052
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/8/2019 10:10:31 AM	43052
Surr: DNOP	89.2	50.6-138		%Rec	1	2/8/2019 10:10:31 AM	43052
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	2/8/2019 10:02:42 AM	43044
Surr: BFB	105	73.8-119		%Rec	1	2/8/2019 10:02:42 AM	43044
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	2/8/2019 10:02:42 AM	43044
Toluene	ND	0.040		mg/Kg	1	2/8/2019 10:02:42 AM	43044
Ethylbenzene	ND	0.040		mg/Kg	1	2/8/2019 10:02:42 AM	43044
Xylenes, Total	ND	0.080		mg/Kg	1	2/8/2019 10:02:42 AM	43044
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	2/8/2019 10:02:42 AM	43044

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: North of electrical panel E sectio
Project: Hospah Station Spill Cleanup
Collection Date: 2/7/2019 11:15:00 AM
Lab ID: 1902341-003 **Matrix:** SOIL **Received Date:** 2/8/2019 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	60		mg/Kg	20	2/8/2019 12:33:17 PM	43055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	30	9.8		mg/Kg	1	2/8/2019 10:32:39 AM	43052
Motor Oil Range Organics (MRO)	55	49		mg/Kg	1	2/8/2019 10:32:39 AM	43052
Surr: DNOP	104	50.6-138		%Rec	1	2/8/2019 10:32:39 AM	43052
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	2/8/2019 10:25:59 AM	43044
Surr: BFB	99.1	73.8-119		%Rec	1	2/8/2019 10:25:59 AM	43044
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.021		mg/Kg	1	2/8/2019 10:25:59 AM	43044
Toluene	ND	0.043		mg/Kg	1	2/8/2019 10:25:59 AM	43044
Ethylbenzene	ND	0.043		mg/Kg	1	2/8/2019 10:25:59 AM	43044
Xylenes, Total	ND	0.086		mg/Kg	1	2/8/2019 10:25:59 AM	43044
Surr: 4-Bromofluorobenzene	98.3	80-120		%Rec	1	2/8/2019 10:25:59 AM	43044

Soil From Sample Location Removed

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: East of fence center section
Project: Hospah Station Spill Cleanup
Collection Date: 2/7/2019 10:16:00 AM
Lab ID: 1902341-004 **Matrix:** SOIL
Received Date: 2/8/2019 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	2/8/2019 12:45:42 PM	43055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/8/2019 10:54:44 AM	43052
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/8/2019 10:54:44 AM	43052
Surr: DNOP	97.4	50.6-138		%Rec	1	2/8/2019 10:54:44 AM	43052
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	2/8/2019 10:49:15 AM	43044
Surr: BFB	93.4	73.8-119		%Rec	1	2/8/2019 10:49:15 AM	43044
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	2/8/2019 10:49:15 AM	43044
Toluene	ND	0.044		mg/Kg	1	2/8/2019 10:49:15 AM	43044
Ethylbenzene	ND	0.044		mg/Kg	1	2/8/2019 10:49:15 AM	43044
Xylenes, Total	ND	0.088		mg/Kg	1	2/8/2019 10:49:15 AM	43044
Surr: 4-Bromofluorobenzene	92.7	80-120		%Rec	1	2/8/2019 10:49:15 AM	43044

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: East of fence north section
Project: Hospah Station Spill Cleanup
Collection Date: 2/7/2019 10:07:00 AM
Lab ID: 1902341-005 **Matrix:** SOIL
Received Date: 2/8/2019 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	2/8/2019 12:58:06 PM	43055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	40	9.8		mg/Kg	1	2/8/2019 11:16:50 AM	43052
Motor Oil Range Organics (MRO)	110	49		mg/Kg	1	2/8/2019 11:16:50 AM	43052
Surr: DNOP	95.2	50.6-138		%Rec	1	2/8/2019 11:16:50 AM	43052
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	2/8/2019 11:12:32 AM	43044
Surr: BFB	94.1	73.8-119		%Rec	1	2/8/2019 11:12:32 AM	43044
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	2/8/2019 11:12:32 AM	43044
Toluene	ND	0.045		mg/Kg	1	2/8/2019 11:12:32 AM	43044
Ethylbenzene	ND	0.045		mg/Kg	1	2/8/2019 11:12:32 AM	43044
Xylenes, Total	ND	0.090		mg/Kg	1	2/8/2019 11:12:32 AM	43044
Surr: 4-Bromofluorobenzene	93.3	80-120		%Rec	1	2/8/2019 11:12:32 AM	43044

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: E of Fence S of Deep well
Project: Hospah Station Spill Cleanup
Collection Date: 2/7/2019 10:25:00 AM
Lab ID: 1902341-006 **Matrix:** SOIL
Received Date: 2/8/2019 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	2/8/2019 1:10:31 PM	43055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	140	9.6		mg/Kg	1	2/8/2019 12:33:21 PM	43052
Motor Oil Range Organics (MRO)	380	48		mg/Kg	1	2/8/2019 12:33:21 PM	43052
Surr: DNOP	94.8	50.6-138		%Rec	1	2/8/2019 12:33:21 PM	43052
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.2		mg/Kg	1	2/8/2019 11:35:47 AM	43044
Surr: BFB	98.1	73.8-119		%Rec	1	2/8/2019 11:35:47 AM	43044
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.026		mg/Kg	1	2/8/2019 11:35:47 AM	43044
Toluene	ND	0.052		mg/Kg	1	2/8/2019 11:35:47 AM	43044
Ethylbenzene	ND	0.052		mg/Kg	1	2/8/2019 11:35:47 AM	43044
Xylenes, Total	ND	0.10		mg/Kg	1	2/8/2019 11:35:47 AM	43044
Surr: 4-Bromofluorobenzene	93.0	80-120		%Rec	1	2/8/2019 11:35:47 AM	43044

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: West wall center section
Project: Hospah Station Spill Cleanup
Collection Date: 2/7/2019 10:33:00 AM
Lab ID: 1902341-007 **Matrix:** SOIL
Received Date: 2/8/2019 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	2/8/2019 1:22:55 PM	43055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	75	9.7		mg/Kg	1	2/8/2019 10:56:08 AM	43052
Motor Oil Range Organics (MRO)	100	48		mg/Kg	1	2/8/2019 10:56:08 AM	43052
Surr: DNOP	99.9	50.6-138		%Rec	1	2/8/2019 10:56:08 AM	43052
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	2/8/2019 11:59:05 AM	43044
Surr: BFB	104	73.8-119		%Rec	1	2/8/2019 11:59:05 AM	43044
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	2/8/2019 11:59:05 AM	43044
Toluene	ND	0.040		mg/Kg	1	2/8/2019 11:59:05 AM	43044
Ethylbenzene	ND	0.040		mg/Kg	1	2/8/2019 11:59:05 AM	43044
Xylenes, Total	ND	0.080		mg/Kg	1	2/8/2019 11:59:05 AM	43044
Surr: 4-Bromofluorobenzene	94.9	80-120		%Rec	1	2/8/2019 11:59:05 AM	43044

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** North of electrical panel W secti
Project: Hospah Station Spill Cleanup **Collection Date:** 2/7/2019 11:29:00 AM
Lab ID: 1902341-008 **Matrix:** SOIL **Received Date:** 2/8/2019 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	60		mg/Kg	20	2/8/2019 1:35:19 PM	43055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	270	9.8		mg/Kg	1	2/8/2019 11:44:46 AM	43052
Motor Oil Range Organics (MRO)	500	49		mg/Kg	1	2/8/2019 11:44:46 AM	43052
Surr: DNOP	97.2	50.6-138		%Rec	1	2/8/2019 11:44:46 AM	43052
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/8/2019 12:22:23 PM	43044
Surr: BFB	93.9	73.8-119		%Rec	1	2/8/2019 12:22:23 PM	43044
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	2/8/2019 12:22:23 PM	43044
Toluene	ND	0.047		mg/Kg	1	2/8/2019 12:22:23 PM	43044
Ethylbenzene	ND	0.047		mg/Kg	1	2/8/2019 12:22:23 PM	43044
Xylenes, Total	ND	0.095		mg/Kg	1	2/8/2019 12:22:23 PM	43044
Surr: 4-Bromofluorobenzene	92.5	80-120		%Rec	1	2/8/2019 12:22:23 PM	43044

Soil From Sample Location Removed

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1902341**
11-Feb-19

Client: Western Refining Southwest, Inc.
Project: Hospah Station Spill Cleanup

Sample ID	**MB-43055**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**43055**		RunNo:	**57577**					
Prep Date:	**2/8/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1927506**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	**LCS-43055**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**43055**		RunNo:	**57577**					
Prep Date:	**2/8/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1927507**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	94.5	90	110				

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1902341**

11-Feb-19

Client: Western Refining Southwest, Inc.

Project: Hospah Station Spill Cleanup

Sample ID	**LCS-43052**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**43052**		RunNo:	**57563**				
Prep Date:	**2/8/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1925478**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.6	63.9	124			
Surr: DNOP	4.3		5.000		86.4	50.6	138			

Sample ID	**MB-43052**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**43052**		RunNo:	**57563**				
Prep Date:	**2/8/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1925481**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		91.8	50.6	138			

Sample ID	**1902341-008AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**North of electrical p**	Batch ID:	**43052**		RunNo:	**57563**				
Prep Date:	**2/8/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1927458**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	410	9.9	49.31	267.5	286	53.5	126			S
Surr: DNOP	4.6		4.931		93.6	50.6	138			

Sample ID	**1902341-008AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**North of electrical p**	Batch ID:	**43052**		RunNo:	**57563**				
Prep Date:	**2/8/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1927459**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	330	9.7	48.26	267.5	127	53.5	126	21.5	21.7	S
Surr: DNOP	4.8		4.826		99.3	50.6	138	0	0	

Sample ID	**MB-43035**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**43035**		RunNo:	**57563**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1927460**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.7		10.00		97.3	50.6	138			

Sample ID	**LCS-43035**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**43035**		RunNo:	**57563**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1927461**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1902341**

11-Feb-19

Client: Western Refining Southwest, Inc.

Project: Hospah Station Spill Cleanup

Sample ID	**LCS-43035**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**43035**		RunNo:	**57563**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1927461**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.2		5.000		105	50.6	138			

Sample ID	**LCS-43047**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**43047**		RunNo:	**57562**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1928020**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9		5.000		78.5	50.6	138			

Sample ID	**MB-43047**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**43047**		RunNo:	**57562**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1928021**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.8		10.00		87.7	50.6	138			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1902341**

11-Feb-19

Client: Western Refining Southwest, Inc.

Project: Hospah Station Spill Cleanup

Sample ID	**MB-43027**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**43027**		RunNo:	**57574**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1926970**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		104	73.8	119			

Sample ID	**LCS-43027**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**43027**		RunNo:	**57574**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1926971**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		113	73.8	119			

Sample ID	**MB-43044**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**43044**		RunNo:	**57574**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1926993**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		94.8	73.8	119			

Sample ID	**LCS-43044**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**43044**		RunNo:	**57574**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1926994**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	106	80.1	123			
Surr: BFB	1100		1000		109	73.8	119			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1902341**

11-Feb-19

Client: Western Refining Southwest, Inc.

Project: Hospah Station Spill Cleanup

Sample ID	**MB-43027**	SampType:	**MBLK**		TestCode:	**EPA Method 8021B: Volatiles**				
Client ID:	**PBS**	Batch ID:	**43027**		RunNo:	**57574**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1927003**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	**LCS-43027**	SampType:	**LCS**		TestCode:	**EPA Method 8021B: Volatiles**				
Client ID:	**LCSS**	Batch ID:	**43027**		RunNo:	**57574**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1927004**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	**MB-43044**	SampType:	**MBLK**		TestCode:	**EPA Method 8021B: Volatiles**				
Client ID:	**PBS**	Batch ID:	**43044**		RunNo:	**57574**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1927022**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		92.9	80	120			

Sample ID	**LCS-43044**	SampType:	**LCS**		TestCode:	**EPA Method 8021B: Volatiles**				
Client ID:	**LCSS**	Batch ID:	**43044**		RunNo:	**57574**				
Prep Date:	**2/7/2019**	Analysis Date:	**2/8/2019**		SeqNo:	**1927023**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.0	80	120			
Toluene	0.93	0.050	1.000	0	92.9	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.3	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.7	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.4	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Southw** Work Order Number: **1902341** RcptNo: 1

Received By: **Anne Thorne** 2/8/2019 7:55:00 AM Anne Thorne

Completed By: **Anne Thorne** 2/8/2019 8:02:13 AM Anne Thorne

Reviewed By: JO 2/8/2019

Labeled by: A 02/08/19

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Project Information | Chain of Custody | Page _____ of _____

Client: Western Refining Southwest, Inc
Project: Hospah Station Spill Cleanup
Project Manager: F.Aragon
Address:
City, State, Zip
Phone:
Email: Gcrabtree Admin Bhall Faragon

Report Attention
Report due by:
Email: Matthew.J.Krakow@andeavor.com
Address: Roger.Ishame andeavor.com
City, State, Zip
Phone:

Lab Use Only: Lab WO# P | Job Number
TAT: 1D X | 3D Same Day
EPA Program: RCRA | CWA | SDWA
State: NM X | CO | UT | AZ

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID 1902341	Lab Number	DRO/GRO/ORO	8021	Chlorides	Remarks
10:55	2/7/2019	S	2	West bottom south section	001	X	X	X	2-4oz jars cool
11:03	2/7/2019	S	2	East bottom south section	002	X	X	X	2-4oz jars cool
11:15	2/7/2019	S	2	North of electrical panel E. section	003	X	X	X	2-4oz jars cool
10:16	2/7/2019	S	2	East of fence center section	004	X	X	X	2-4oz jars cool
10:07	2/7/2019	S	2	East of fence north section	005	X	X	X	2-4oz jars cool
10:25	2/7/2019	S	2	E. of Fence S. of Deep well	006	X	X	X	2-4oz jars cool
10:33	2/7/2019	S	2	West wall center section	007	X	X	X	2-4oz jars cool
11:29	2/7/2019	S	2	North of electrical panel W. section	008	X	X	X	2-4oz jars cool

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Brittany Hall

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Brittany Hall	2/7/19	1621		2/7/19	1621
Monta Wells	2/7/19	1811		02/08/19	0755

Lab Use Only
Received on ice: Y / N
T1 T2 T3
AVG Temp °C 1.0

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____
Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboraotry is limited to the amount paid for on the report.

envirotech Analytical Laboratory
5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

Analytical Report
Lab Order: **1903896**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: W Wall South Section
Project: Hospah Clean Up
Collection Date: 3/19/2019 9:40:00 AM
Lab ID: 1903896-001 **Matrix:** SOIL
Received Date: 3/20/2019 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	3/20/2019 11:00:00 AM	43786
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/20/2019 10:46:06 AM	43785
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/20/2019 10:46:06 AM	43785
Surr: DNOP	87.5	70-130		%Rec	1	3/20/2019 10:46:06 AM	43785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	3/20/2019 8:42:47 AM	R58498
Surr: BFB	108	73.8-119		%Rec	1	3/20/2019 8:42:47 AM	R58498
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.017		mg/Kg	1	3/20/2019 8:42:47 AM	R58498
Toluene	ND	0.034		mg/Kg	1	3/20/2019 8:42:47 AM	R58498
Ethylbenzene	ND	0.034		mg/Kg	1	3/20/2019 8:42:47 AM	R58498
Xylenes, Total	ND	0.068		mg/Kg	1	3/20/2019 8:42:47 AM	R58498
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	3/20/2019 8:42:47 AM	R58498

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at

Analytical Report
Lab Order: **1903896**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: S Wall West Section
Project: Hospah Clean Up
Collection Date: 3/19/2019 9:42:00 AM
Lab ID: 1903896-002 **Matrix:** SOIL
Received Date: 3/20/2019 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	30		mg/Kg	20	3/20/2019 11:00:00 AM	43786
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	610	100		mg/Kg	10	3/20/2019 11:10:10 AM	43785
Motor Oil Range Organics (MRO)	1200	500		mg/Kg	10	3/20/2019 11:10:10 AM	43785
Surr: DNOP	0	70-130	S	%Rec	10	3/20/2019 11:10:10 AM	43785
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	4.2	4.1		mg/Kg	1	3/20/2019 9:06:22 AM	R58498
Surr: BFB	144	73.8-119	S	%Rec	1	3/20/2019 9:06:22 AM	R58498
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.021		mg/Kg	1	3/20/2019 9:06:22 AM	R58498
Toluene	ND	0.041		mg/Kg	1	3/20/2019 9:06:22 AM	R58498
Ethylbenzene	ND	0.041		mg/Kg	1	3/20/2019 9:06:22 AM	R58498
Xylenes, Total	ND	0.083		mg/Kg	1	3/20/2019 9:06:22 AM	R58498
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	3/20/2019 9:06:22 AM	R58498

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at

Analytical Report
Lab Order: **1903896**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: S Wall East Section
Project: Hospah Clean Up
Collection Date: 3/19/2019 9:45:00 AM
Lab ID: 1903896-003 **Matrix:** SOIL
Received Date: 3/20/2019 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	3/20/2019 11:00:00 AM	43786
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	230	97		mg/Kg	10	3/20/2019 11:34:25 AM	43785
Motor Oil Range Organics (MRO)	680	480		mg/Kg	10	3/20/2019 11:34:25 AM	43785
Surr: DNOP	0	70-130	S	%Rec	10	3/20/2019 11:34:25 AM	43785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.3		mg/Kg	1	3/20/2019 9:29:52 AM	R58498
Surr: BFB	95.9	73.8-119		%Rec	1	3/20/2019 9:29:52 AM	R58498
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.026		mg/Kg	1	3/20/2019 9:29:52 AM	R58498
Toluene	ND	0.053		mg/Kg	1	3/20/2019 9:29:52 AM	R58498
Ethylbenzene	ND	0.053		mg/Kg	1	3/20/2019 9:29:52 AM	R58498
Xylenes, Total	ND	0.11		mg/Kg	1	3/20/2019 9:29:52 AM	R58498
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	3/20/2019 9:29:52 AM	R58498

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: E Wall South Section
Project: Hospah Clean Up
Collection Date: 3/19/2019 9:47:00 AM
Lab ID: 1903896-004 **Matrix:** SOIL
Received Date: 3/20/2019 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	3/20/2019 11:00:00 AM	43786
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	83	9.7		mg/Kg	1	3/20/2019 11:58:33 AM	43785
Motor Oil Range Organics (MRO)	140	49		mg/Kg	1	3/20/2019 11:58:33 AM	43785
Surr: DNOP	99.9	70-130		%Rec	1	3/20/2019 11:58:33 AM	43785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/20/2019 9:53:16 AM	R58498
Surr: BFB	103	73.8-119		%Rec	1	3/20/2019 9:53:16 AM	R58498
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	3/20/2019 9:53:16 AM	R58498
Toluene	ND	0.038		mg/Kg	1	3/20/2019 9:53:16 AM	R58498
Ethylbenzene	ND	0.038		mg/Kg	1	3/20/2019 9:53:16 AM	R58498
Xylenes, Total	ND	0.075		mg/Kg	1	3/20/2019 9:53:16 AM	R58498
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	3/20/2019 9:53:16 AM	R58498

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order: **1903896**
Date Reported:

CLIENT: Western Refining Southwest, Inc.
Project: Hospah Clean Up
Lab ID: 1903896-005 **Matrix:** SOIL

Client Sample ID: N of Panel East Side
Collection Date: 3/19/2019 9:50:00 AM
Received Date: 3/20/2019 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	3/20/2019 11:00:00 AM	43786
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	75	9.5		mg/Kg	1	3/20/2019 12:22:54 PM	43785
Motor Oil Range Organics (MRO)	110	47		mg/Kg	1	3/20/2019 12:22:54 PM	43785
Surr: DNOP	103	70-130		%Rec	1	3/20/2019 12:22:54 PM	43785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	3/20/2019 10:16:32 AM	R58498
Surr: BFB	96.1	73.8-119		%Rec	1	3/20/2019 10:16:32 AM	R58498
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	3/20/2019 10:16:32 AM	R58498
Toluene	ND	0.036		mg/Kg	1	3/20/2019 10:16:32 AM	R58498
Ethylbenzene	ND	0.036		mg/Kg	1	3/20/2019 10:16:32 AM	R58498
Xylenes, Total	ND	0.071		mg/Kg	1	3/20/2019 10:16:32 AM	R58498
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	3/20/2019 10:16:32 AM	R58498

Soil From Sample Location Removed

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order: **1903896**
Date Reported:

CLIENT: Western Refining Southwest, Inc.
Client Sample ID: W of Panel West Side
Project: Hospah Clean Up
Collection Date: 3/19/2019 9:52:00 AM
Lab ID: 1903896-006 **Matrix:** SOIL
Received Date: 3/20/2019 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	3/20/2019 11:00:00 AM	43786
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	74	9.8		mg/Kg	1	3/20/2019 12:46:50 PM	43785
Motor Oil Range Organics (MRO)	140	49		mg/Kg	1	3/20/2019 12:46:50 PM	43785
Surr: DNOP	100	70-130		%Rec	1	3/20/2019 12:46:50 PM	43785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	3/20/2019 10:40:01 AM	R58498
Surr: BFB	94.1	73.8-119		%Rec	1	3/20/2019 10:40:01 AM	R58498
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	3/20/2019 10:40:01 AM	R58498
Toluene	ND	0.041		mg/Kg	1	3/20/2019 10:40:01 AM	R58498
Ethylbenzene	ND	0.041		mg/Kg	1	3/20/2019 10:40:01 AM	R58498
Xylenes, Total	ND	0.081		mg/Kg	1	3/20/2019 10:40:01 AM	R58498
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	3/20/2019 10:40:01 AM	R58498

Soil From Sample Location Removed

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at

Analytical Report
Lab Order **1903C52**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Andeavor Bloomfield
Client Sample ID: N of Panel West Side
Project: Hospah Clean Up
Collection Date: 3/25/2019 11:25:00 AM
Lab ID: 1903C52-001
Matrix: MEOH (SOIL)
Received Date: 3/27/2019 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	3/27/2019 1:42:15 PM	43904
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/27/2019 9:54:32 AM	43900
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	3/27/2019 9:54:32 AM	43900
Surr: DNOP	95.7	70-130		%Rec	1	3/27/2019 9:54:32 AM	43900
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/27/2019 11:41:59 AM	R58672
Surr: BFB	89.4	73.8-119		%Rec	1	3/27/2019 11:41:59 AM	R58672
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	3/27/2019 11:41:59 AM	R58672
Toluene	ND	0.038		mg/Kg	1	3/27/2019 11:41:59 AM	R58672
Ethylbenzene	ND	0.038		mg/Kg	1	3/27/2019 11:41:59 AM	R58672
Xylenes, Total	ND	0.076		mg/Kg	1	3/27/2019 11:41:59 AM	R58672
Surr: 4-Bromofluorobenzene	92.2	80-120		%Rec	1	3/27/2019 11:41:59 AM	R58672

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Andeavor Bloomfield
Client Sample ID: N of Panel East Side
Project: Hospah Clean Up
Collection Date: 3/25/2019 11:32:00 AM
Lab ID: 1903C52-002
Matrix: MEOH (SOIL)
Received Date: 3/27/2019 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	3/27/2019 1:54:40 PM	43904
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/27/2019 10:18:38 AM	43900
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/27/2019 10:18:38 AM	43900
Surr: DNOP	94.6	70-130		%Rec	1	3/27/2019 10:18:38 AM	43900
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	3/27/2019 12:05:22 PM	R58672
Surr: BFB	88.0	73.8-119		%Rec	1	3/27/2019 12:05:22 PM	R58672
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	3/27/2019 12:05:22 PM	R58672
Toluene	ND	0.040		mg/Kg	1	3/27/2019 12:05:22 PM	R58672
Ethylbenzene	ND	0.040		mg/Kg	1	3/27/2019 12:05:22 PM	R58672
Xylenes, Total	ND	0.079		mg/Kg	1	3/27/2019 12:05:22 PM	R58672
Surr: 4-Bromofluorobenzene	90.6	80-120		%Rec	1	3/27/2019 12:05:22 PM	R58672

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Andeavor Bloomfield
Client Sample ID: E of Fence South Section
Project: Hospah Clean Up
Collection Date: 3/25/2019 11:38:00 AM
Lab ID: 1903C52-003
Matrix: MEOH (SOIL)
Received Date: 3/27/2019 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	3/27/2019 2:07:05 PM	43904
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	16	9.9		mg/Kg	1	3/27/2019 10:42:45 AM	43900
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/27/2019 10:42:45 AM	43900
Surr: DNOP	95.4	70-130		%Rec	1	3/27/2019 10:42:45 AM	43900
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	3/27/2019 12:52:27 PM	R58672
Surr: BFB	90.4	73.8-119		%Rec	1	3/27/2019 12:52:27 PM	R58672
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.021		mg/Kg	1	3/27/2019 12:52:27 PM	R58672
Toluene	ND	0.043		mg/Kg	1	3/27/2019 12:52:27 PM	R58672
Ethylbenzene	ND	0.043		mg/Kg	1	3/27/2019 12:52:27 PM	R58672
Xylenes, Total	ND	0.085		mg/Kg	1	3/27/2019 12:52:27 PM	R58672
Surr: 4-Bromofluorobenzene	93.4	80-120		%Rec	1	3/27/2019 12:52:27 PM	R58672

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

Univar USA Inc Safety Data Sheet

SDS No:	
Version No:	010 2015-01-29
Order No:	

3075 Highland Pkwy, Ste 200, Downers Grove, IL 60515
(425) 889 3400

Emergency Assistance

For emergency assistance involving chemicals call
Chemtrec - (800) 424-9300

SAFETY DATA SHEET

1. Identification

Product identifier **CAIROX® potassium permanganate**

Other means of identification

SDS number -

Recommended use Potassium Permanganate is an oxidant recommended for applications that require a strong oxidant.

Recommended restrictions Use in accordance with supplier's recommendations.

Manufacturer / Importer / Supplier / Distributor information

Manufacturer/Supplier CARUS CORPORATION

Address 315 Fifth Street,
Peru, IL 61354, USA

Telephone 815 223-1500 - All other non-emergency inquiries about the product should be directed to the company

E-mail salesmkt@caruscorporation.com

Website www.caruscorporation.com

Contact person Dr. Chithambarathanu Pillai

Emergency Telephone For Hazardous Materials [or Dangerous Goods] Incidents ONLY
(spill, leak, fire, exposure or accident), call CHEMTREC at
CHEMTREC®, USA: 001 (800) 424-9300
CHEMTREC®, Mexico (Toll-Free - must be dialed from within country):
01-800-681-9531
CHEMTREC®, Other countries: 001 (703) 527-3887

2. Hazard(s) identification

Physical hazards	Oxidizing solids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 1 (Respiratory System)
	Specific target organ toxicity, repeated exposure	Category 1 (Respiratory System, Central Nervous System)

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement May intensify fire; oxidizer. Harmful if swallowed. Causes severe skin burns and eye damage. Causes damage to organs (Respiratory System). Causes damage to organs (Respiratory System, Central Nervous System) through prolonged or repeated exposure.

Precautionary statement

Prevention Keep away from heat. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Do not breathe dust. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product.

Response In case of fire: Use water for extinction. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. If exposed: Call a poison center/doctor.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)	Not classified.	
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1

Supplemental information

Hazard symbol

Hazard statement Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention Avoid release to the environment.

Response Collect spillage.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
Potassium permanganate		7722-64-7	> 97.5

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Get medical attention immediately.

Skin contact Take off immediately all contaminated clothing. Immediately flush skin with plenty of water. Get medical attention immediately. Wash contaminated clothing before reuse.

Contact with skin may leave a brown stain of insoluble manganese dioxide. This can be easily removed by washing with a mixture of equal volume of household vinegar and 3% hydrogen peroxide, followed by washing with soap and water.

Eye contact Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids wide apart. Continue rinsing. Get medical attention immediately.

Ingestion Immediately rinse mouth and drink plenty of water. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention immediately.

Most important symptoms/effects, acute and delayed Contact with this material will cause burns to the skin, eyes and mucous membranes. Permanent eye damage including blindness could result.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Decomposition products are alkaline. Brown stain is insoluble manganese dioxide.

General information In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. For personal protection, see Section 8 of the SDS. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media Flood with water from a distance, water spray or fog.

Unsuitable extinguishing media The following extinguishing media are ineffective: Dry chemical. Foam. Carbon dioxide (CO2). Halogenated materials.

Specific hazards arising from the chemical May intensify fire; oxidizer. May ignite combustibles (wood, paper, oil, clothing, etc.). Contact with incompatible materials or heat (135 ºC / 275 ºF) could result in violent exothermic chemical reaction. Oxidizing agent, may cause spontaneous ignition of combustible materials. By heating and fire, corrosive vapors/gases may be formed.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire-fighting equipment/instructions	Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Dike fire control water for later disposal. Water runoff can cause environmental damage.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep upwind. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors and contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	Keep combustibles (wood, paper, oil, etc.) away from spilled material. Should not be released into the environment. This product is miscible in water. Stop leak if possible without any risk. Dike the spilled material, where this is possible. Clean up spills immediately by sweeping or shoveling up the material. Do not return spilled material to the original container; transfer to a clean metal or plastic drum. To clean up potassium permanganate solutions, follow either of the following two options: Option # 1: Dilute to approximately 6% with water, and then reduce with sodium thiosulfate, a bisulfite or ferrous salt solution. The bisulfite or ferrous salt may require some dilute sulfuric acid (10% w/w) to promote reduction. Neutralize with sodium carbonate to neutral pH, if acid was used. Decant or filter and deposit sludge in approved landfill. Where permitted, the sludge may be drained into sewer with large quantities of water. Option # 2: Absorb with inert media like diatomaceous earth or inert floor dry, collect into a drum and dispose of properly. Do not use saw dust or other incompatible media. Disposal of all materials shall be in full and strict compliance with all federal, state, and local regulations pertaining to permanganates. To clean contaminated floors, flush with abundant quantities of water into sewer, if permitted by federal, state, and local regulations. If not, collect water and treat as described above. Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.
Environmental precautions	Do not allow to enter drains, sewers or watercourses. Contact local authorities in case of spillage to drain/aquatic environment.

7. Handling and storage

Precautions for safe handling	Take any precaution to avoid mixing with combustibles. Do not get this material in your eyes, on your skin, or on your clothing. Do not breathe dust or mist or vapor of the solution. Use personal protection as recommended in Section 8 of the SDS. If clothing becomes contaminated, remove and wash off immediately. When using, do not eat, drink or smoke. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Avoid release to the environment.
Conditions for safe storage, including any incompatibilities	Store locked up. Keep container tightly closed and in a well-ventilated place. Store in a cool, dry place. Store away from incompatible materials (See Section 10). Store in accordance with NFPA 430 requirements for Class II oxidizers.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Potassium permanganate (CAS 7722-64-7)	Ceiling	5 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Potassium permanganate (CAS 7722-64-7)	TWA	0.1 mg/m3	Inhalable fraction.
		0.02 mg/m3	Respirable fraction.

US NIOSH Pocket Guide to Chemical Hazards: Recommended exposure limit (REL)

Components	Type	Value	Form
Potassium permanganate (CAS 7722-64-7)	TWA	1 mg/m3	Fume.

US NIOSH Pocket Guide to Chemical Hazards: Short Term Exposure Limit (STEL)

Components	Type	Value	Form
Potassium permanganate (CAS 7722-64-7)	STEL	3 mg/m3	Fume.

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines Follow standard monitoring procedures.

Appropriate engineering controls Provide adequate general and local exhaust ventilation. An eye wash and safety shower must be available in the immediate work area.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Wear face shield if there is risk of splashes.

Skin protection

Hand protection Wear chemical-resistant, impervious gloves. Use protective gloves made of: Rubber or plastic. Suitable gloves can be recommended by the glove supplier.

Other Wear appropriate chemical resistant clothing. Rubber or plastic apron.

Respiratory protection In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134.

Measurement Element: Manganese (Mn)
10 mg/m3
Any particulate respirator equipped with an N95, R95, or P95 filter (including N95, R95, and P95 filtering facepieces) except quarter-mask respirators. The following filters may also be used: N99, R99, P99, N100, R100 or P100.
Any supplied-air respirator.

25 mg/m3
Any supplied-air respirator operated in a continuous-flow mode.
Any powered, air-purifying respirator with a high-efficiency particulate filter.

50 mg/m3
Any air-purifying, full-face piece respirator equipped with an N100, R100, or P100 filter.
Any supplied-air respirator with a tight-fitting face piece that is operated in a continuous-flow mode.
Any powered, air-purifying respirator with a tight-fitting face piece and a high-efficiency particulate filter.
Any self-contained breathing apparatus with a full face piece.
Any supplied-air respirator with a full face piece.

500 mg/m3
Any supplied-air respirator operated in a pressure-demand or other positive-pressure mode.

Emergency or planned entry into unknown concentrations or IDLH conditions -
Any self-contained breathing apparatus that has a full face piece and is operated in a pressure-demand or other positive-pressure mode.

Escape
Any air-purifying, full-face piece respirator equipped with an N100, R100, or P100 filter.
Any appropriate escape-type, self-contained breathing apparatus.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using, do not eat, drink or smoke. Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance Dark purple solid with metallic luster.

Physical state Solid.

Form Solid.

Color Dark purple.

Odor Odorless.

Odor threshold Not available.

pH Not applicable.

Melting point/freezing point Starts to decompose with evolution of oxygen (O2) at temperatures above 150 °C. Once initiated, the decomposition is exothermic and self sustaining.

Initial boiling point and boiling range Not applicable.

Flash point Not applicable.

Evaporation rate Not applicable.

Flammability (solid, gas) Non flammable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not applicable.
Flammability limit - upper (%)	Not applicable.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	2.7 (20 °C) (Water = 1)
Solubility(ies)	6 % (20 °C) 20 % (65 °C)
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.

Other information

Explosive properties	Not explosive. Can explode in contact with sulfuric acid, peroxides and metal powders.
Molecular weight	158.03
Oxidizing properties	Strong oxidizing agent.

10. Stability and reactivity

Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Contact with combustible material may cause fire. Can explode in contact with sulfuric acid, peroxides and metal powders. Starts to decompose with evolution of oxygen (O2) at temperatures above 150 °C. Once initiated, the decomposition is exothermic and self sustaining.
Conditions to avoid	Contact with incompatible materials or heat (135 °C / 275 °F) could result in violent exothermic chemical reaction.
Incompatible materials	Acids. Peroxides. Reducing agents. Combustible material. Metal powders. Contact with hydrochloric acid liberates chlorine gas.
Hazardous decomposition products	By heating and fire, corrosive vapors/gases may be formed.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Harmful if swallowed.
Inhalation	May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Symptoms related to the physical, chemical and toxicological characteristics	Contact with this material will cause burns to the skin, eyes and mucous membranes. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity Harmful if swallowed.

Components	Species	Test Results
Potassium permanganate (CAS 7722-64-7)		
Acute		
Dermal		
LD50	Rat	2000 mg/kg
Oral		
LD50	Rat	2000 mg/kg

Skin corrosion/irritation	Causes severe skin burns.
Serious eye damage/eye irritation	Causes serious eye damage.

Respiratory sensitization	Not classified.
Skin sensitization	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
Specific target organ toxicity - single exposure	Causes damage to organs (respiratory system).
Specific target organ toxicity - repeated exposure	Causes damage to organs (respiratory system, central nervous system) through prolonged or repeated exposure.
Aspiration hazard	Not classified.
Chronic effects	May cause damage to respiratory system. Prolonged exposure, usually over many years, to manganese oxide fume/dust can lead to chronic manganese poisoning, chiefly affecting the central nervous system.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Components		Species	Test Results
Potassium permanganate (CAS 7722-64-7)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	2.7 mg/l, 96 hours, static
			2.3 mg/l, 96 hours, flow through
			2.3 mg/l, 96 hours
			1.8 - 5.6 mg/l
		Carp (Cyprinus carpio)	3.16 - 3.77 mg/l, 96 hours
			2.97 - 3.11 mg/l, 96 hours
		Goldfish (Carassius auratus)	3.3 - 3.93 mg/l, 96 hours, static
		Milkfish, salmon-herring (Chanos chanos)	> 1.4 mg/l, 96 hours
		Rainbow trout (Oncorhynchus mykiss)	1.8 mg/l, 96 hours
			1.08 - 1.38 mg/l, 96 hours
			0.77 - 1.27 mg/l, 96 hours
		Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.275 - 0.339 mg/l, 96 hours

Persistence and degradability	Expected to be readily converted by oxidizable materials to insoluble manganese oxide.
Bioaccumulative potential	Potential to bioaccumulate is low.
Mobility in soil	The product is miscible with water. May spread in water systems.
Other adverse effects	None known.

13. Disposal considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazardous waste code	D001: Ignitable waste The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Do not allow this material to drain into sewers/water supplies.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Rinse container at least three times to an absence of pink color before disposing. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1490
UN proper shipping name	Potassium permanganate
Transport hazard class(es)	5.1
Subsidiary class(es)	-
Packing group	II
Environmental hazards	
Marine pollutant	Yes

Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB8, IP2, IP4, T3, TP33
Packaging exceptions	152
Packaging non bulk	212
Packaging bulk	240

IATA

UN number	UN1490
UN proper shipping name	Potassium permanganate
Transport hazard class(es)	5.1
Subsidiary class(es)	-
Packaging group	II
Environmental hazards	Yes
Labels required	5.1
ERG Code	5L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1490
UN proper shipping name	POTASSIUM PERMANGANATE
Transport hazard class(es)	5.1
Subsidiary class(es)	-
Packaging group	II
Environmental hazards	
Marine pollutant	Yes
Labels required	5.1
EmS	F-H, S-Q
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

Drug Enforcement Administration (DEA) (21 CFR 1310.02 (b) 8: List II chemical.

Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (6 CFR 27, Appendix A): Listed.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Potassium permanganate	7722-64-7	> 97.5

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Potassium permanganate (CAS 7722-64-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130) Hazardous substance

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Potassium permanganate (CAS 7722-64-7) 6579

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Potassium permanganate (CAS 7722-64-7) 15 % wt

DEA Exempt Chemical Mixtures Code Number

Potassium permanganate (CAS 7722-64-7) 6579

Food and Drug Administration (FDA) Not regulated.

US state regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

California OSH Hazardous Substance List: Listed.

US. Massachusetts RTK - Substance List

Potassium permanganate (CAS 7722-64-7)

US. New Jersey Worker and Community Right-to-Know Act

Potassium permanganate (CAS 7722-64-7) 500 lbs

US. Pennsylvania RTK - Hazardous Substances

Potassium permanganate (CAS 7722-64-7)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

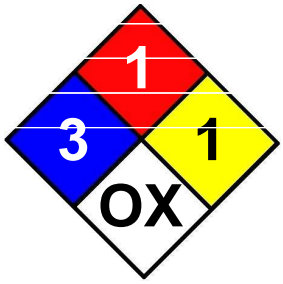
16. Other information, including date of preparation or last revision

Issue date 27-November-2013

Revision date -

Version # 01

NFPA Ratings



List of abbreviations

GHS: Globally Harmonized System of Classification and Labeling of hazardous properties of Chemicals.
TWA: Time weighted average.
LD50: Lethal Dose, 50%.
LC50: Lethal Concentration, 50%.
IMDG: International Maritime Dangerous Goods.
IATA: International Air Transport Association.
MARPOL: International Convention for the Prevention of Pollution from Ships.

References

HSDB® - Hazardous Substances Data Bank
Registry of Toxic Effects of Chemical Substances (RTECS)
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

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This SDS contains revisions in the following section(s):

This safety data sheet contains revisions in the following section(s):

Univar USA Inc Safety Data Sheet

For Additional Information contact SDS Coordinator during business hours, Pacific time: (425) 889-3400

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