AP-111

AOC-26
PROCESS
UNITS

Western Refining Southwest, Inc.
A subsidiary of Marathon Petroleum Corporation

I-40 Exit 39
Jamestown, NM 87347

November 19, 2020

Mr. Kevin Pierard, Chief
New Mexico Environmental Department 2905 Rodeo Park Drive East, Bldg. 1
Santa Fe, NM 87SOS-6303

RE: Assessment Report for AOC 26 – Process Units
Marathon Petroleum Company LP, Gallup Refinery
(dba Western Refining Southwest, Inc.)
EPA ID# NMD000333211

Dear Mr. Pierard:

Marathon Petroleum Company LP (dba Western Refining Southwest, Inc.) Gallup Refinery is submitting this Assessment Report for the Area of Concern 26 (AOC 26) Process Unit Area required by the Consent Order which specifies that Marathon Petroleum Company submit an Assessment Report for each AOC identified in the Consent Order. If there are any questions, please call John Moore at 505-722-0205.

Certification

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

Sincerely,
Marathon Petroleum Company LP, Gallup Refinery

Robert S. Hanks
Refinery General Manager

Enclosure

cc D. Cobrain, NMED HWB
C. Chavez, NMOCD
G. McCartney, Marathon Petroleum Company
J. Moore, Marathon Gallup Refinery
H. Jones, Trihydro Corporation

AOC 26 – Process Area

Consent Order Assessment Report

(1) Location of unit(s) on a topographic map of appropriate scale, as required under 40 CFR § 270.14(b)(19);

See Figure 1 (AOC 26 – Process Units) for location of Area of Concern (AOC) 26. AOC 26 includes the process units in the southeastern corner of the refinery.

(2) Designation of type and function of unit(s);

The refinery incorporates various processing units that convert crude oil and natural gasoline into finished products. The units are described below:

- *Crude Distillation Unit – separates crude oil into various fractions; including gas, naphtha, light oil, heavy oil, and residuum.*
- *Fluidized Catalytic Cracking Unit (FCCU) – dissociates long-chain hydrocarbon molecules into smaller molecules, and essentially converts heavier oils into naphtha and lighter oils.*
- *Alkylation Unit (Alky) – combines specific types of hydrocarbon molecules into a high octane gasoline blending component.*
- *Reforming Unit (PLAT) – breaks up and reforms low octane naphtha molecules to form high octane naphtha.*
- *Diesel Hydro-Treating Unit (DHT) – removes undesirable sulfur and nitrogen compounds from intermediate feed stocks, and also saturates these feed stocks with hydrogen to make diesel fuel.*
- *Naphtha Hydro-Treating Unit (NHT) - uses hydrogen to remove undesirable sulfur and nitrogen compounds from straight-run naphtha.*
- *Treater Unit (Treater)– removes impurities from various intermediate and blending feed stocks to produce finished products that comply with sales specifications.*
- *Ammonium Thiosulfate Unit (SWATT's) – accepts high H_2S and ammonia containing gas streams from the Amine and the Sour Water Stripper units, and converts these into a useful fertilizer product, ammonium thiosulfate.*
- *Sulfur Recovery Unit (SRU) – converts and recovers various sulfur compounds from the gases and liquids produced in other processing units to create a solid elemental sulfur byproduct.*
- *Saturated Gas Unit (Sats) – collects refinery gas from the various units and separates out the gas liquids. This unit can separate the more valuable components (propane, butane, etc.) for product blending and send methane to the refinery fuel system.*
- *Isomerization Unit (ISOM) - converts linear molecules to higher-octane branched molecules for blending into gasoline or feed to alkylation units.*
- *Blended Gas (BLND GAS) - operation that blends different component streams into various grades of gasoline.*
- *Gas Conditioning (GAS-CON) - to purify fuel gas so that it can be more efficiently utilized*

(3) Dimensions, capacities and structural description of unit(s) (supply any available plans/drawings);

The process unit area is approximately 570 feet by 720 feet. The refinery has a capacity of 28,600 barrels per day.

(4) Dates that the unit(s) was operated;

The process units were constructed in the current location when the refinery was built in the 1950s. Over time additional units have been added in the same general area.

(5) All available site history information;

The refinery began operation in the late 1950s and the refinery property covers an area of approximately 810 acres. The refinery location and the regional vicinity is characterized as high desert plain comprised primarily of public lands used for grazing by cattle and sheep.

The Gallup Refinery generally processes crude oil from the Four Corners area transported to the facility by pipeline or tanker truck. Various process units are operated at the facility, including crude distillation, reforming, fluidized catalytic cracking, alkylation, isomerization, sulfur recovery, merox treater, and hydrotreating. Current and past operations have produced gasoline, diesel fuels, jet fuels, kerosene, propane, butane, and residual fuel.

(6) Specifications of all wastes that have been managed at/in the unit(s) to the extent available. Include any available data on hazardous waste or hazardous constituents in the wastes;

The refinery process units handle all products, byproducts, and intermediate products at the refinery. Discharges from the process units are routed to other process units or to the wastewater treatment plant via the oily water sewer.

(7) All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include ground water data, soil analyses, air, and surface water data).

The following five events were identified by NMED to justify inclusion of the process units as an AOC.

1. *February 24, 2006, approximately 1,680 gallons of slop oil were released from the desalter unit drain pipe during a sewer line excavation. The slop oil was vacuumed up and put back into the refinery process system. An estimated 1,596 gallons was recovered. Samples were taken from the excavation pit and along the side walls. OCD and NMED both approved of backfilling the area in emails dated March 2006.*
2. *October 5, 2006, approximately 34.3 lbs of hydrofluoric acid (HF) was released to sewer from the Alkylation Unit due to a fire. The released HF was drained to the sewer using the fire suppression system applying a large quantity of water (5,000 gallons/minute for 140 minutes). No cleanup was necessary due to the release being contained to the sewer. The estimated concentration of HF to the sewer was approximately 5 parts per million.*
3. *October 19, 2009, approximately 30 barrels (1,200 gallons) of oily water was discovered in a ditch immediately to the north of the process area (Release Notification dated October 20, 2009); Gallup collected water and sludge samples which are provided with this report (Attachment A).*

4. *December 3, 2009, approximately 2 barrels (an estimated 79 gallons) of straight run gasoline was found to have leaked from a product line in the process area (Release Notification dated December 4, 2009). The product was immediately removed and excavation took place on December 4, 2009. Approximately 2 or 3 drums of soil were removed.*
5. *November 30, 2014, a small pinhole was found in the inlet piping to the NHT fin fan. The release was contained to the concrete containment pad and was removed. There were no impacts to the groundwater or soil.*

Additional events have occurred since the 2015 submittal and are summarized below.

1. *July 23, 2016, a release of oil and steam from a PRV was sprayed onto a concrete slab and process equipment in the Gas Con Unit due to a power failure. A PRV was opened for approximately 10 minutes releasing a mixture of oil and steam to the atmosphere. Miscellaneous equipment in the unit were covered with the mixture of oil and steam from the release. An initial investigation of the release is included as Attachment B.*
2. *December 21, 2017, approximately 100 gallons of oily water was released during an excavation north of the Alky Unit. The released oily water was vacuumed out of the excavated area and excavation continued. NMED was notified of the release following excavation and provided details of the location of the leak and the immediate excavation.*

Figure

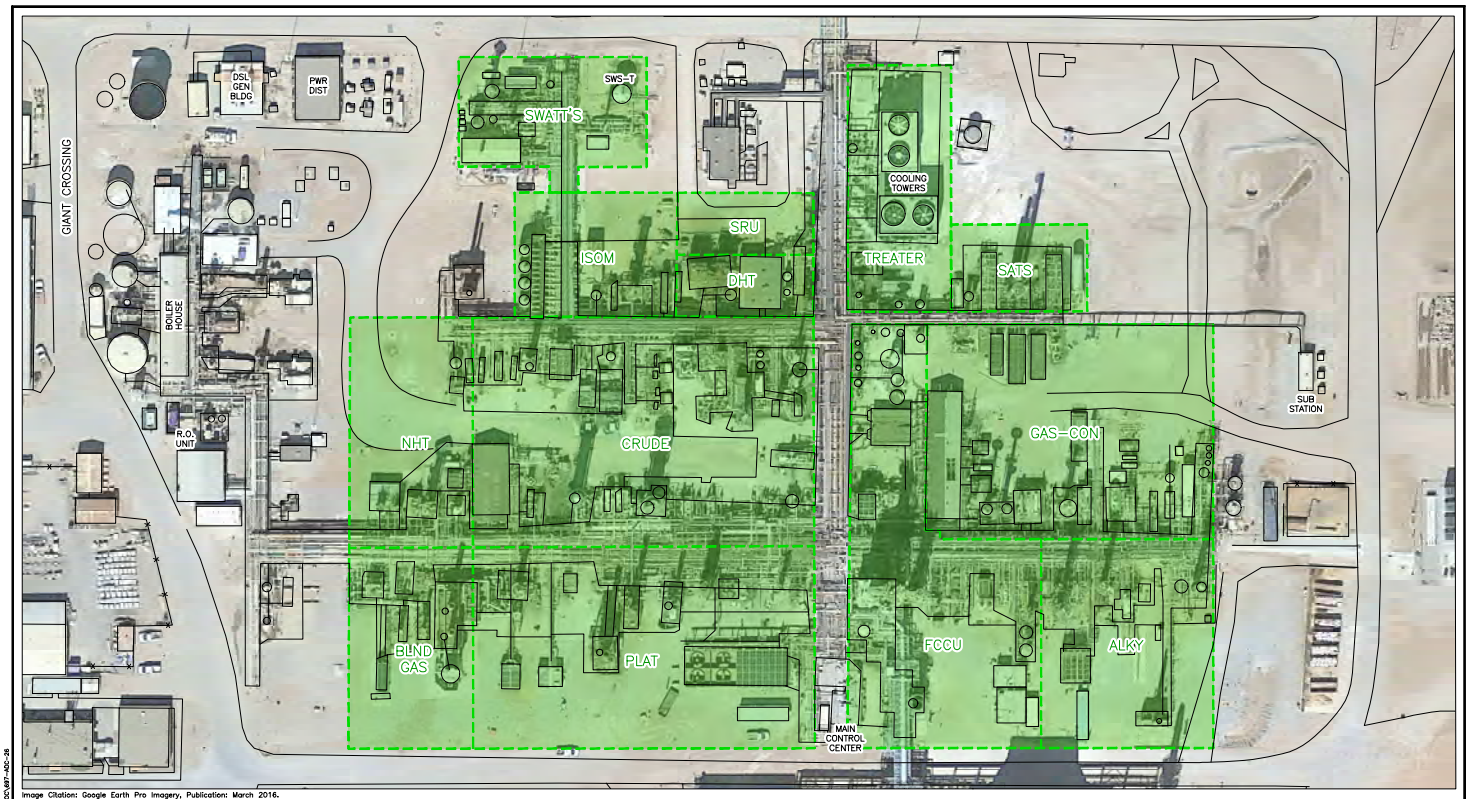


Image Citation: Google Earth Pro Imagery, Publication: March 2016.

EXPLANATION

- FENCE
- BUILDING OR OTHER STRUCTURE
- PROCESS UNIT AREA
- AOC — AREA OF CONCERN

N

0 80'

Trihydro Corporation
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 1

AOC 26 - PROCESS UNITS

MARATHON PETROLEUM CORP.
GALLUP REFINING DIVISION
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: CF	Scale: 1" = 30'	Date: 10/26/20	File: 697-AOC-26

M:\TOM\MARATHON\GIS\GALLUP_REPORTS\AOC\697-AOC-26

Attachments

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, November 04, 2009

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-0227
FAX (505) 722-0210

RE: Ditch N of Hill-NW

Order No.: 0910423

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 10/22/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	DITCH - W1
Lab Order:	0910423	**Collection Date:**	10/20/2009 2:40:00 PM
Project:	Ditch N of Hill-NW	**Date Received:**	10/22/2009
Lab ID:	0910423-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 418.1: TPH						Analyst: **JB**
Petroleum Hydrocarbons, TR	27	1.0		mg/L	1	10/26/2009

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Estimated value
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	DITCH -SS1
Lab Order:	0910423	**Collection Date:**	10/20/2009 2:10:00 PM
Project:	Ditch N of Hill-NW	**Date Received:**	10/22/2009
Lab ID:	0910423-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
MERCURY, TCLP						Analyst: **IC**
Mercury	ND	0.020		mg/L	1	10/29/2009 2:36:05 PM
EPA METHOD 6010B: TCLP METALS						Analyst: **RAGS**
Arsenic	ND	5.0		mg/L	1	10/29/2009 10:31:10 AM
Barium	ND	100		mg/L	10	10/29/2009 11:58:02 AM
Cadmium	ND	1.0		mg/L	1	10/29/2009 10:31:10 AM
Chromium	ND	5.0		mg/L	1	10/29/2009 10:31:10 AM
Lead	ND	5.0		mg/L	1	10/29/2009 10:31:10 AM
Selenium	ND	1.0		mg/L	1	10/29/2009 10:31:10 AM
Silver	ND	5.0		mg/L	1	10/29/2009 10:31:10 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Acenaphthylene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Aniline	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Anthracene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Azobenzene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Benzoic acid	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Carbazole	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	11/3/2009 1:37:00 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Chrysene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Dibenzofuran	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Estimated value
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	DITCH -SS1
Lab Order:	0910423	**Collection Date:**	10/20/2009 2:10:00 PM
Project:	Ditch N of Hill-NW	**Date Received:**	10/22/2009
Lab ID:	0910423-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	11/3/2009 1:37:00 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	11/3/2009 1:37:00 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	11/3/2009 1:37:00 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	11/3/2009 1:37:00 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
Fluoranthene	ND	0.25		mg/Kg	1	11/3/2009 1:37:00 PM
Fluorene	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Hexachloroethane	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	11/3/2009 1:37:00 PM
Isophorone	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
2-Methylnaphthalene	1.1	0.25		mg/Kg	1	11/3/2009 1:37:00 PM
2-Methylphenol	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Naphthalene	1.3	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	11/3/2009 1:37:00 PM
Nitrobenzene	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	11/3/2009 1:37:00 PM
Phenanthrene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Phenol	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Pyrene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Pyridine	ND	0.50		mg/Kg	1	11/3/2009 1:37:00 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	11/3/2009 1:37:00 PM
Surr: 2,4,6-Tribromophenol	75.0	35.5-141		%REC	1	11/3/2009 1:37:00 PM
Surr: 2-Fluorobiphenyl	53.9	30.4-128		%REC	1	11/3/2009 1:37:00 PM
Surr: 2-Fluorophenol	69.5	28.1-129		%REC	1	11/3/2009 1:37:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	DITCH -SS1
Lab Order:	0910423	**Collection Date:**	10/20/2009 2:10:00 PM
Project:	Ditch N of Hill-NW	**Date Received:**	10/22/2009
Lab ID:	0910423-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 4-Terphenyl-d14	43.0	34.6-151		%REC	1	11/3/2009 1:37:00 PM
Surr: Nitrobenzene-d5	55.0	26.5-122		%REC	1	11/3/2009 1:37:00 PM
Surr: Phenol-d5	66.0	37.6-118		%REC	1	11/3/2009 1:37:00 PM
EPA METHOD 418.1: TPH						Analyst: **JB**
Petroleum Hydrocarbons, TR	22	20		mg/Kg	1	10/26/2009

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Estimated value
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	DITCH - W2
Lab Order:	0910423	**Collection Date:**	10/20/2009 2:40:00 PM
Project:	Ditch N of Hill-NW	**Date Received:**	10/22/2009
Lab ID:	0910423-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 418.1: TPH						Analyst: **JB**
Petroleum Hydrocarbons, TR	6.9	1.0		mg/L	1	10/26/2009

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Estimated value
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	DITCH - SS2
Lab Order:	0910423	**Collection Date:**	10/20/2009 2:15:00 PM
Project:	Ditch N of Hill-NW	**Date Received:**	10/22/2009
Lab ID:	0910423-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
MERCURY, TCLP						Analyst: **IC**
Mercury	ND	0.020		mg/L	1	10/29/2009 2:41:25 PM
EPA METHOD 6010B: TCLP METALS						Analyst: **RAGS**
Arsenic	ND	5.0		mg/L	1	10/29/2009 10:33:38 AM
Barium	ND	100		mg/L	20	10/29/2009 12:00:29 PM
Cadmium	ND	1.0		mg/L	1	10/29/2009 10:33:38 AM
Chromium	ND	5.0		mg/L	1	10/29/2009 10:33:38 AM
Lead	ND	5.0		mg/L	1	10/29/2009 10:33:38 AM
Selenium	ND	1.0		mg/L	1	10/29/2009 10:33:38 AM
Silver	ND	5.0		mg/L	1	10/29/2009 10:33:38 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Acenaphthylene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Aniline	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Anthracene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Azobenzene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Benzoic acid	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Carbazole	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	11/3/2009 3:06:41 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Chrysene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Dibenzofuran	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Estimated value
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	DITCH - SS2
Lab Order:	0910423	**Collection Date:**	10/20/2009 2:15:00 PM
Project:	Ditch N of Hill-NW	**Date Received:**	10/22/2009
Lab ID:	0910423-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	11/3/2009 3:06:41 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	11/3/2009 3:06:41 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	11/3/2009 3:06:41 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	11/3/2009 3:06:41 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
Fluoranthene	ND	0.25		mg/Kg	1	11/3/2009 3:06:41 PM
Fluorene	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Hexachloroethane	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	11/3/2009 3:06:41 PM
Isophorone	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
2-Methylnaphthalene	ND	0.25		mg/Kg	1	11/3/2009 3:06:41 PM
2-Methylphenol	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Naphthalene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	11/3/2009 3:06:41 PM
Nitrobenzene	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	11/3/2009 3:06:41 PM
Phenanthrene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Phenol	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Pyrene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Pyridine	ND	0.50		mg/Kg	1	11/3/2009 3:06:41 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	11/3/2009 3:06:41 PM
Surr: 2,4,6-Tribromophenol	85.8	35.5-141		%REC	1	11/3/2009 3:06:41 PM
Surr: 2-Fluorobiphenyl	51.5	30.4-128		%REC	1	11/3/2009 3:06:41 PM
Surr: 2-Fluorophenol	46.2	28.1-129		%REC	1	11/3/2009 3:06:41 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	DITCH - SS2
Lab Order:	0910423	**Collection Date:**	10/20/2009 2:15:00 PM
Project:	Ditch N of Hill-NW	**Date Received:**	10/22/2009
Lab ID:	0910423-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 4-Terphenyl-d14	45.6	34.6-151		%REC	1	11/3/2009 3:06:41 PM
Surr: Nitrobenzene-d5	46.9	26.5-122		%REC	1	11/3/2009 3:06:41 PM
Surr: Phenol-d5	51.5	37.6-118		%REC	1	11/3/2009 3:06:41 PM
EPA METHOD 418.1: TPH						Analyst: **JB**
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	10/26/2009

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	DITCH - W3
Lab Order:	0910423	**Collection Date:**	10/20/2009 2:45:00 PM
Project:	Ditch N of Hill-NW	**Date Received:**	10/22/2009
Lab ID:	0910423-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 418.1: TPH						Analyst: **JB**
Petroleum Hydrocarbons, TR	5.4	1.0		mg/L	1	10/26/2009

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Estimated value
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	DITCH - SS3
Lab Order:	0910423	**Collection Date:**	10/20/2009 2:25:00 PM
Project:	Ditch N of Hill-NW	**Date Received:**	10/22/2009
Lab ID:	0910423-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
MERCURY, TCLP						Analyst: **IC**
Mercury	ND	0.020		mg/L	1	10/29/2009 2:43:13 PM
EPA METHOD 6010B: TCLP METALS						Analyst: **RAGS**
Arsenic	ND	5.0		mg/L	1	10/29/2009 10:38:44 AM
Barium	ND	100		mg/L	10	10/29/2009 12:02:56 PM
Cadmium	ND	1.0		mg/L	1	10/29/2009 10:38:44 AM
Chromium	ND	5.0		mg/L	1	10/29/2009 10:38:44 AM
Lead	ND	5.0		mg/L	1	10/29/2009 10:38:44 AM
Selenium	ND	1.0		mg/L	1	10/29/2009 10:38:44 AM
Silver	ND	5.0		mg/L	1	10/29/2009 10:38:44 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Acenaphthylene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Aniline	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Anthracene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Azobenzene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Benzoic acid	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Carbazole	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	11/3/2009 3:36:50 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Chrysene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Dibenzofuran	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	DITCH - SS3
Lab Order:	0910423	**Collection Date:**	10/20/2009 2:25:00 PM
Project:	Ditch N of Hill-NW	**Date Received:**	10/22/2009
Lab ID:	0910423-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	11/3/2009 3:36:50 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	11/3/2009 3:36:50 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	11/3/2009 3:36:50 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	11/3/2009 3:36:50 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
Fluoranthene	ND	0.25		mg/Kg	1	11/3/2009 3:36:50 PM
Fluorene	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Hexachloroethane	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	11/3/2009 3:36:50 PM
Isophorone	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
2-Methylnaphthalene	ND	0.25		mg/Kg	1	11/3/2009 3:36:50 PM
2-Methylphenol	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Naphthalene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	11/3/2009 3:36:50 PM
Nitrobenzene	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	11/3/2009 3:36:50 PM
Phenanthrene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Phenol	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Pyrene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Pyridine	ND	0.50		mg/Kg	1	11/3/2009 3:36:50 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	11/3/2009 3:36:50 PM
Surr: 2,4,6-Tribromophenol	88.6	35.5-141		%REC	1	11/3/2009 3:36:50 PM
Surr: 2-Fluorobiphenyl	54.4	30.4-128		%REC	1	11/3/2009 3:36:50 PM
Surr: 2-Fluorophenol	52.3	28.1-129		%REC	1	11/3/2009 3:36:50 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Estimated value
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	DITCH - SS3
Lab Order:	0910423	**Collection Date:**	10/20/2009 2:25:00 PM
Project:	Ditch N of Hill-NW	**Date Received:**	10/22/2009
Lab ID:	0910423-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 4-Terphenyl-d14	50.8	34.6-151		%REC	1	11/3/2009 3:36:50 PM
Surr: Nitrobenzene-d5	51.9	26.5-122		%REC	1	11/3/2009 3:36:50 PM
Surr: Phenol-d5	55.4	37.6-118		%REC	1	11/3/2009 3:36:50 PM
EPA METHOD 418.1: TPH						Analyst: **JB**
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	10/26/2009

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Ditch N of Hill-NW **Work Order:** 0910423

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 418.1: TPH											
Sample ID: MB-20407		*MBLK*				Batch ID:	**20407**	Analysis Date:			10/26/2009
Petroleum Hydrocarbons, TR	ND	mg/Kg	20								
Sample ID: LCS-20407		*LCS*				Batch ID:	**20407**	Analysis Date:			10/26/2009
Petroleum Hydrocarbons, TR	108.1	mg/Kg	20	100	0	108	82	114			
Method: EPA Method 418.1: TPH											
Sample ID: MB-20406		*MBLK*				Batch ID:	**20406**	Analysis Date:			10/26/2009
Petroleum Hydrocarbons, TR	ND	mg/L	1.0								
Sample ID: LCS-20406		*LCS*				Batch ID:	**20406**	Analysis Date:			10/26/2009
Petroleum Hydrocarbons, TR	4.610	mg/L	1.0	5	0	92.2	78.5	120			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Ditch N of Hill-NW **Work Order:** 0910423

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-20469		*MBLK*					Batch ID: **20469**		Analysis Date: 11/3/2009 11:51:27 AM		
Acenaphthene	ND	mg/Kg	0.20								
Acenaphthylene	ND	mg/Kg	0.20								
Aniline	ND	mg/Kg	0.20								
Anthracene	ND	mg/Kg	0.20								
Azobenzene	ND	mg/Kg	0.20								
Benz(a)anthracene	ND	mg/Kg	0.20								
Benzo(a)pyrene	ND	mg/Kg	0.20								
Benzo(b)fluoranthene	ND	mg/Kg	0.20								
Benzo(g,h,i)perylene	ND	mg/Kg	0.50								
Benzo(k)fluoranthene	ND	mg/Kg	0.20								
Benzoic acid	ND	mg/Kg	0.50								
Benzyl alcohol	ND	mg/Kg	0.20								
Bis(2-chloroethoxy)methane	ND	mg/Kg	0.20								
Bis(2-chloroethyl)ether	ND	mg/Kg	0.20								
Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.20								
Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.50								
4-Bromophenyl phenyl ether	ND	mg/Kg	0.20								
Butyl benzyl phthalate	ND	mg/Kg	0.20								
Carbazole	ND	mg/Kg	0.20								
4-Chloro-3-methylphenol	ND	mg/Kg	0.50								
4-Chloroaniline	ND	mg/Kg	0.50								
2-Chloronaphthalene	ND	mg/Kg	0.25								
2-Chlorophenol	ND	mg/Kg	0.20								
4-Chlorophenyl phenyl ether	ND	mg/Kg	0.20								
Chrysene	ND	mg/Kg	0.20								
Di-n-butyl phthalate	ND	mg/Kg	0.50								
Di-n-octyl phthalate	ND	mg/Kg	0.20								
Dibenz(a,h)anthracene	ND	mg/Kg	0.20								
Dibenzofuran	ND	mg/Kg	0.20								
1,2-Dichlorobenzene	ND	mg/Kg	0.20								
1,3-Dichlorobenzene	ND	mg/Kg	0.20								
1,4-Dichlorobenzene	ND	mg/Kg	0.20								
3,3'-Dichlorobenzidine	ND	mg/Kg	0.25								
Diethyl phthalate	ND	mg/Kg	0.20								
Dimethyl phthalate	ND	mg/Kg	0.20								
2,4-Dichlorophenol	ND	mg/Kg	0.40								
2,4-Dimethylphenol	ND	mg/Kg	0.30								
4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.50								
2,4-Dinitrophenol	ND	mg/Kg	0.40								
2,4-Dinitrotoluene	ND	mg/Kg	0.50								
2,6-Dinitrotoluene	ND	mg/Kg	0.50								
Fluoranthene	ND	mg/Kg	0.25								
Fluorene	ND	mg/Kg	0.50								
Hexachlorobenzene	ND	mg/Kg	0.20								

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Ditch N of Hill-NW **Work Order:** 0910423

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-20469		*MBLK*				Batch ID:	**20469**	Analysis Date:	11/3/2009 11:51:27 AM		
Hexachlorobutadiene	ND	mg/Kg	0.20								
Hexachlorocyclopentadiene	ND	mg/Kg	0.20								
Hexachloroethane	ND	mg/Kg	0.20								
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.25								
Isophorone	ND	mg/Kg	0.50								
2-Methylnaphthalene	ND	mg/Kg	0.25								
2-Methylphenol	ND	mg/Kg	0.50								
3+4-Methylphenol	ND	mg/Kg	0.20								
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.20								
N-Nitrosodiphenylamine	ND	mg/Kg	0.20								
Naphthalene	ND	mg/Kg	0.20								
2-Nitroaniline	ND	mg/Kg	0.20								
3-Nitroaniline	ND	mg/Kg	0.20								
4-Nitroaniline	ND	mg/Kg	0.25								
Nitrobenzene	ND	mg/Kg	0.50								
2-Nitrophenol	ND	mg/Kg	0.20								
4-Nitrophenol	ND	mg/Kg	0.20								
Pentachlorophenol	ND	mg/Kg	0.40								
Phenanthrene	ND	mg/Kg	0.20								
Phenol	ND	mg/Kg	0.20								
Pyrene	ND	mg/Kg	0.20								
Pyridine	ND	mg/Kg	0.50								
1,2,4-Trichlorobenzene	ND	mg/Kg	0.20								
2,4,5-Trichlorophenol	ND	mg/Kg	0.20								
2,4,6-Trichlorophenol	ND	mg/Kg	0.20								
Sample ID: lcs-20469		*LCS*				Batch ID:	**20469**	Analysis Date:	11/3/2009 1:07:17 PM		
Acenaphthene	1.200	mg/Kg	0.20	1.67	0	71.8	42.5	90			
4-Chloro-3-methylphenol	2.642	mg/Kg	0.50	3.33	0	79.3	39.6	101			
2-Chlorophenol	2.403	mg/Kg	0.20	3.33	0	72.2	40.1	96.7			
1,4-Dichlorobenzene	1.191	mg/Kg	0.20	1.67	0	71.3	34.6	95.3			
2,4-Dinitrotoluene	1.453	mg/Kg	0.50	1.67	0	87.0	37.1	101			
N-Nitrosodi-n-propylamine	1.181	mg/Kg	0.20	1.67	0	70.7	33.3	103			
4-Nitrophenol	2.636	mg/Kg	0.20	3.33	0	79.2	32.7	125			
Pentachlorophenol	2.670	mg/Kg	0.40	3.33	0	80.2	35.5	99.3			
Phenol	2.348	mg/Kg	0.20	3.33	0	70.5	35.5	104			
Pyrene	1.061	mg/Kg	0.20	1.67	0	63.5	34.4	90.6			
1,2,4-Trichlorobenzene	1.217	mg/Kg	0.20	1.67	0	72.9	38.5	95			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Ditch N of Hill-NW **Work Order:** 0910423

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: MERCURY, TCLP											
Sample ID: MB-20461		*MBLK*				Batch ID:	**20461**	Analysis Date:	10/29/2009 2:30:49 PM		
Mercury	ND	mg/L	0.020								
Sample ID: Fluid #1 Check #305		*MBLK*				Batch ID:	**20461**	Analysis Date:	10/29/2009 2:57:49 PM		
Mercury	ND	mg/L	0.020								
Sample ID: LCS-20461		*LCS*				Batch ID:	**20461**	Analysis Date:	10/29/2009 2:32:34 PM		
Mercury	ND	mg/L	0.020	0.005	0	102	80	120			
Method: EPA Method 6010B: TCLP Metals											
Sample ID: MB-20451		*MBLK*				Batch ID:	**20451**	Analysis Date:	10/29/2009 9:54:41 AM		
Arsenic	ND	mg/L	5.0								
Barium	ND	mg/L	100								
Cadmium	ND	mg/L	1.0								
Chromium	ND	mg/L	5.0								
Lead	ND	mg/L	5.0								
Selenium	ND	mg/L	1.0								
Silver	ND	mg/L	5.0								
Sample ID: LCS-20451		*LCS*				Batch ID:	**20451**	Analysis Date:	10/29/2009 9:59:31 AM		
Arsenic	ND	mg/L	5.0	0.5	0	106	80	120			
Barium	ND	mg/L	100	0.5	0.0013	99.4	80	120			
Cadmium	ND	mg/L	1.0	0.5	0	105	80	120			
Chromium	ND	mg/L	5.0	0.5	0	99.1	80	120			
Lead	ND	mg/L	5.0	0.5	0	98.1	80	120			
Selenium	ND	mg/L	1.0	0.5	0	109	80	120			
Silver	ND	mg/L	5.0	0.5	0.0018	106	80	120			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 10/22/2009

Work Order Number 0910423 | Received by: TLS

Checklist completed by: _____ Signature | _____ Date | Sample ID labels checked by: _____ Initials

Matrix: | Carrier name FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐		
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐	
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐		
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐			
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐		
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐		
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐		
Container/Temp Blank temperature?	**3.5°**	*<6° C Acceptable* If given sufficient time to cool.			

Number of preserved bottles checked for pH: 3

(<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN REFINING

Mailing Address: GALLUP REFINERY

Phone #: 505 722 3833

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: DITCH N OF HILL - NW

Project #:

Project Manager: GAURAV RAJEN

Sampler: RAJ/DLUIN

On Ice: ☑ Yes ☐ No

Sample Temperature: 3.5

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. 1001423
10/20	2:40	WATER	DITCH-W1	1x500mL	HCl	-1
10/20	2:10	SOIL	DITCH-SS1	3x4oz		-2
10/20	2:40	WATER	DITCH-W2	1x500mL	HCl	-3
10/20	2:15	SOIL	DITCH-SS2	3x4oz		-4
10/20	2:45	WATER	DITCH-W3	1x500mL	HCl	-5
10/20	2:25	SOIL	DITCH-SS3	3x4oz		-6

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8270C SVOC	TCLP (METALS)			Air Bubbles (Y or N)
			X												
			X								X	X			
			X												
			X								X	X			
			X												
			X								X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10-21-09	1200			10/22/09	919
Date:	Time:	Relinquished by:	Received by:	Date	Time

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.

GASCON RELEASE – CONFIRMATION SAMPLING

The GASCON release occurred on July 23, 2016. On September 16, 2016 two shallow soil samples were collected from the area and submitted to Hall Environmental Analytical Laboratory (HEAL) for analysis. The following items are attached:

- Attachment 1 – Information from Western Refining regarding the release;
- Attachment 2 – Figures depicting the spill location and soil sampling locations;
- Attachment 3 – Field logs documenting the soil sampling;
- Attachment 4 – HEAL Analytical Report;
- Attachment 5 – Table 1 – Soil Analytical Results; and
- Attachment 6 – Proposed Additional Soil Sampling Locations.

As seen on Table 1 the following exceedances were reported at the following sampling locations:

GASCON -1

Diesel Range Organics – 3300 mg/kg (exceeded the Residential Soil Screening Level of 1000 mg/kg);

Motor Oil Range Organics – 9200 mg/kg (exceeded the Residential Soil Screening Level of 1000 mg/kg);

Mercury – 2.1 mg/kg (exceeded the Risk Based SSL for a DAF of 20 – 0.654 mg/kg);

Arsenic – 13 mg/kg (exceeded the Residential Soil Screening Level – 4.25 mg/kg and the Risk Based SSL for a DAF of 20 – 0.299 mg/kg); and

Cyanide – 25.2 mg/kg (exceeded the Residential Soil Screening Level – 11.2 mg/kg and the Risk Based SSL for a DAF of 20 – 0.00522 mg/kg).

GASCON-2

Mercury – 2.2 mg/kg (exceeded the Risk Based SSL for a DAF of 20 – 0.654 mg/kg);

Antimony – 6.7 mg/kg (exceeded the Risk Based SSL for a DAF of 20 – 6.56 mg/kg);

Arsenic – 13 mg/kg (exceeded the Residential Soil Screening Level – 4.25 mg/kg and the Risk Based SSL for a DAF of 20 – 0.299 mg/kg);

Cobalt – 5.5 mg/kg (exceeded the Risk Based SSL for a DAF of 20 – 5.40 mg/kg);

Zinc – 9200 mg/kg (exceeded the Risk Based SSL for a DAF of 20 – 7410 mg/kg); and

Cyanide – 16.1 mg/kg (exceeded the Residential Soil Screening Level – 11.2 mg/kg and the Risk Based SSL for a DAF of 20 – 0.00522 mg/kg).

DiSorbo recommended that the soil in the extent of the release be excavated and confirmation sampling be conducted. Attachment 6 provides the proposed sampling locations. It is recommended that two sampling locations be advanced outside the spill are in order to determine if the exceedances in the metals concentrations in GASCON-1 and GASCON-2 are the result of the spill.

The following samples and analytical suites are recommended to be collected:

GASCON-3 – Collect one sample at the base of the excavation (0-6") and analyze for DRO/GRO/MRO (Method 8015), Mercury (Method 7470), Arsenic (Method 6010B) and Cyanide (Method 335.4).

GASCON-4 – Collect one sample at the base of the excavation (0-6") and analyze for DRO/GRO/MRO (Method 8015), Mercury (Method 7470), Arsenic (Method 6010B) and Cyanide (Method 335.4).

GASCON-5 – Collect one sample at the base of the excavation (0-6") and analyze for Mercury (Method 7470), Antimony, Arsenic, Cobalt, Zinc (Method 6010B) and Cyanide (Method 335.4).

GASCON-6 - Collect one sample (0-6") and analyze for Mercury (Method 7470), Antimony, Arsenic, Cobalt, Zinc (Method 6010B) and Cyanide (Method 335.4).

GASCON-7 - Collect one sample (0-6") and analyze for Mercury (Method 7470), Antimony, Arsenic, Cobalt, Zinc (Method 6010B) and Cyanide (Method 335.4).

Attachment 1

Information from Western Refining

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

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Western Refining	Contact: Alvin Dorsey
Address: 92 Giant Crossing Road	Telephone No.505-722-3833
Facility Name: Gallup Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
								McKinley

Latitude: 35°029'024" Longitude: 108°024'024"

NATURE OF RELEASE

Type of Release: Oil/Steam	Volume of Release: 13 bbls (1.5 bbls of the 13 bbls released contacted soil)	Volume Recovered: Pending
Source of Release: Check valve to 40# Steam to Secondary Column	Date and Hour of Occurrence: 07/23/16 @0410 hrs	Date and Hour of Discovery: 07/23/16 @0410 hrs.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom: OCD – B Powell 07-23-16@0904 hrs; NMED – P Evans 07-23-16@0859 hrs; OCD – C Chavez 7/23/16@0902 hrs.	
By Whom?	Date and Hour07/23/16 (0859, 0902 and 0904 hours)	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.* In the aftermath of the power failure, at approximately 0410 hours on 7/23/16, a check valve on the 40# steam to the secondary column failed in the Gas Con Unit. Failure of check valve caused oil to back into the 40# steam header causing the PRV (pressure relief valve) to open at 49 pounds for approximately 10 minutes, releasing oil/steam mixture into atmosphere over the Gas Con unit. Release of oil/steam mixture from PRV sprayed out over equipment, onto a concrete surface and ground surface. Operator immediately blocked in the 40# steam to the secondary column and the PRV reseated. Fire monitors were started to knock down any vapor created by the oil/steam mixture. There were no injuries or fires that occurred during this incident.

Describe Area Affected and Cleanup Action Taken.*Miscellaneous equipment in the Gas Con area were covered with the release of oil/steam from the PRV. (Alvin – you will need to find out what was done as far as clean up goes and if the vac truck was dispatched to pump out any fluids)

(release volume calculation in pending update to follow)

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Alvin P	OIL CONSERVATION DIVISION	
Printed Name: Alvin Dorsey	Approved by Environmental Specialist:	
Title: Environmental Specialist	Approval Date:	Expiration Date:
E-mail Address: Alvin.Dorsey@wnr.com	Conditions of Approval:	Attached ☐
Date: 07-26-16 Phone: 505-722-0211		

* Attach Additional Sheets If Necessary

Western Refining

Title:	Procedure No:	PSM 511
Attachment 511A – Incident/Near Miss Report	Page:	1 of 1
	Revision:	00
	Effective Date:	03 - 23 - 2009

Instructions: Check ALL that apply **Incident Report #**

NEAR MISS INCIDENTS

☐ NEAR MISS Only (No injury, No illness, No Environmental, No Fire) ☒ EQUIPMENT FAILURE or DAMAGE

PERSONNEL SAFETY *(notify Safety Immediately)*

☐ Injury ☐ Recordable ☐ Lost Work Day

PROCESS SAFETY

☐ Fire ☐ Explosion ☐ Loss of Containment

ENVIRONMENTAL INCIDENTS: *Environmental Dept. Notified of Incident?* ☐ Yes ☐ No

☐ Opacity (visual detection) – Precipitator ☐ Opacity (visual detection) – Flare smoking/other ☐ Opacity – Monitor
☐ H2S Monitor ☐ VRU ☐ API Separator
☐ Bypass/malfunction of air pollution control equipment
☒ Other air release: H2S, hydrocarbon vapor, SO2, etc
☐ Unit Shutdown – Unit
☐ Spill released to Ground Surface

OTHER (explain)
☒ *check valve*

Work Request #

Date of Incident: *7/23/2016* **Time:** *4:10AM* **Unit & Location:** *GAS CON* **Equipment Involved:** *Check valve*
Material Involved & Volume:

Employee's Title/Position: **Injured Body Part (e.g., left leg, right arm, etc.):**

Type Injury: ☐ Contusion/Bruise ☐ Laceration ☐ Fracture ☐ Sprain/Strain ☐ Burn ☐ Other:

DESCRIPTION (Include volume or duration if appropriate): *The Check Valve on the 40# Steam to the Secondary Col. failed. Causing oil to back into the 40# steam header. The 40# steam PRV relieved causing a mixture of oil and steam that was released to atmosphere over the GAS CON unit, at 49 pounds for about 10mins.*

IMMEDIATE CORRECTIVE ACTIONS TAKEN: *Started Fire monitors to knock down any vapor and blocked in the 40# steam to the Secondary Col. the PRV reseated.*

IS POST ACCIDENT DRUG AND ALCOHOL TESTING TO BE COMPLETED? ☐ YES ☐ NO

ROOT CAUSES (CONTRIBUTING FACTORS):

1. *Check valve failed.*
2.
3.

RECOMMENDATIONS/ACTION ITEMS TO PREVENT RECURRENCE ***(to be completed by the Dept. Mgr. and Safety or Environmental***

1.
RESPONSIBILITY: TARGET DATE: **S/E/O:** Recommendation #:
2.
RESPONSIBILITY: TARGET DATE: **S/E/O:** Recommendation #:
3.
RESPONSIBILITY: TARGET DATE: **S/E/O:** Recommendation #:
4.
RESPONSIBILITY: TARGET DATE: **S/E/O:** Recommendation #:

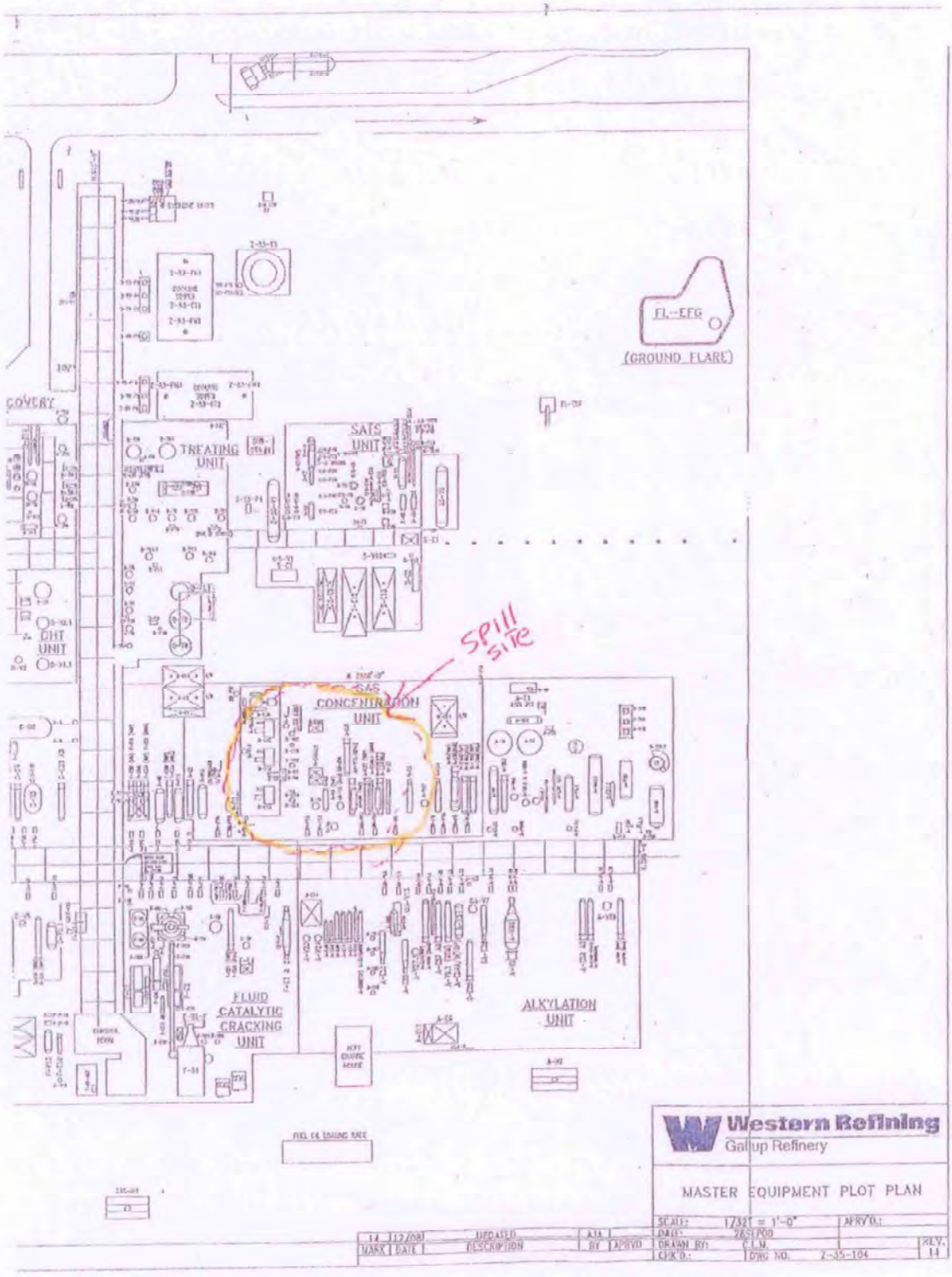
(Note: S=Safety Recommendation, E=Environmental Recommendation O=Operability Recommendation)

INITIAL REPORT COMPLETED BY (SUPERVISOR): *Michael Martinez* **DATE:** *7/23//2016*

REPORT REVIEWED BY (SAFETY DEPARTMENT): **DATE:**

REPORT REVIEWED BY (ENVIRONMENTAL DEPT): **DATE:**

REPORT REVIEWED BY (DEPT MANAGER): **DATE:**

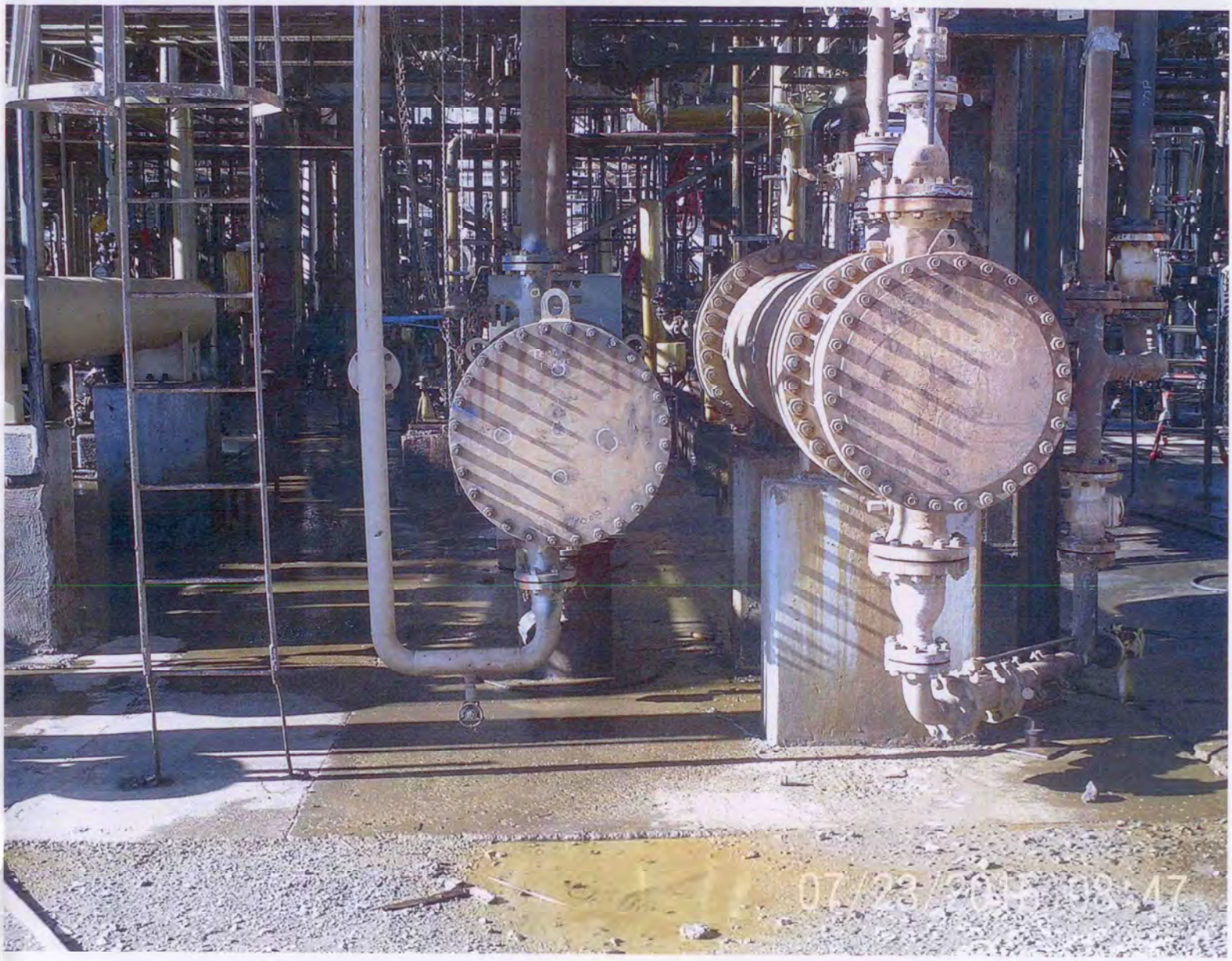

FL.-EFG
(GROUND FLARE)
COVERY
TREATING UNIT
SATS UNIT
DHT UNIT
SPILL SITE
CONCENTRATION UNIT
FLUID CATALYTIC CRACKING UNIT
ALKYLATION UNIT
Western Refining
Gallup Refinery
MASTER EQUIPMENT PLOT PLAN
SCALE: 1/32" = 1'-0"
DATE: 2/27/09
DRAWN BY: C.W.
CHK'D:
DWG NO. Z-35-104
REV. 14
UPDATED
DESCRIPTION
N
W
E
S


07/23/2016 08:47


HOLE
07/23/2016 08:47


NOT ENTER
07/23/2010 08:47


NOT ER

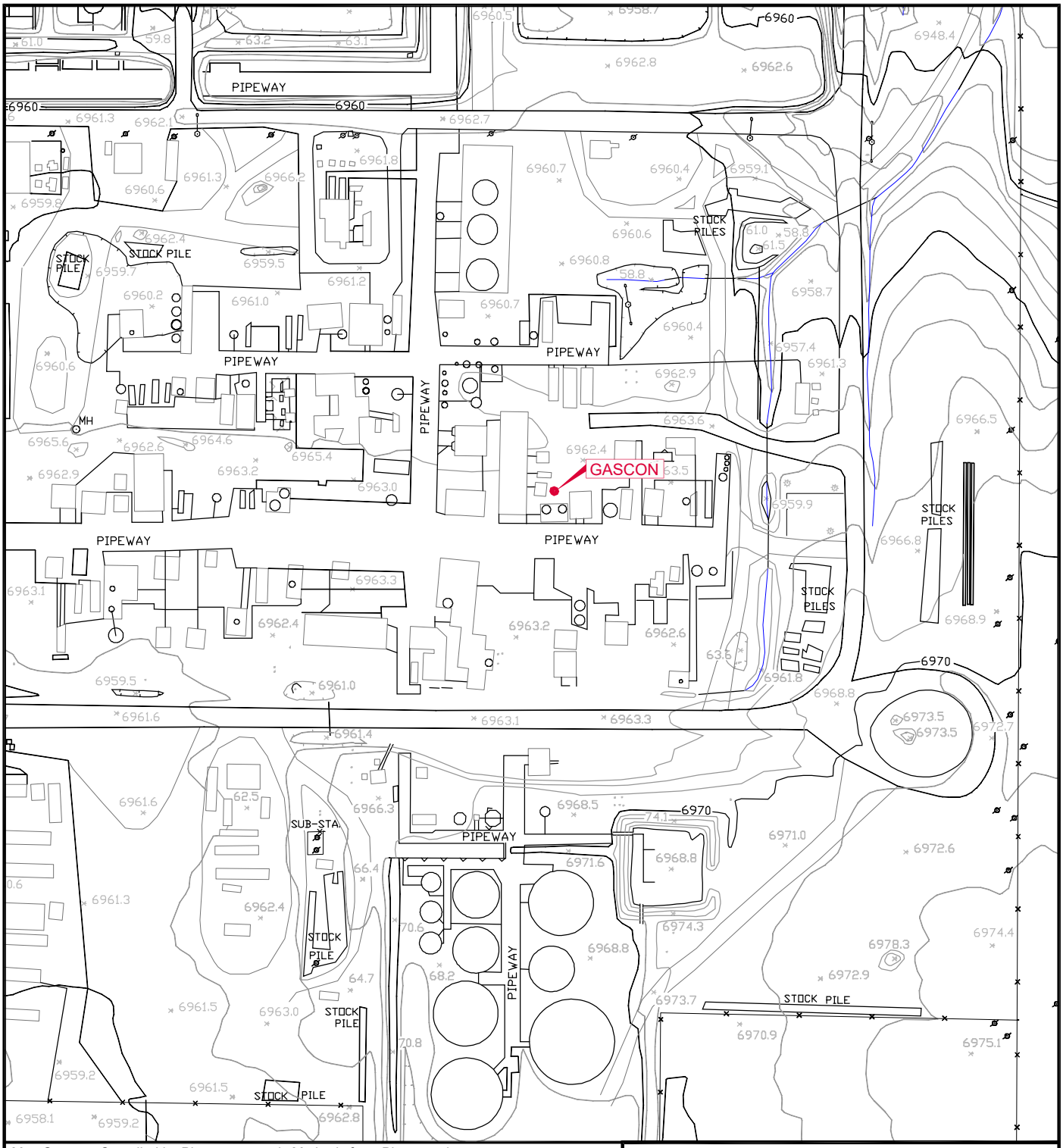



07/23/2016 08:47


GE16
07/23/2016 08:47

Attachment 2

Figures



Map Source: Compiled by Photogrammetric Methods from Photography Acquired on March 1, 1998.

0 150
SCALE IN FEET

NEW MEXICO
QUADRANGLE LOCATION

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:12/05/16	FILE:WestRef-dA82

FIGURE 1
SITE LOCATION MAP
GASCON

DiSorbo
Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

Aerial Source: Google Maps, 03/18/2016

0 200
SCALE IN FEET

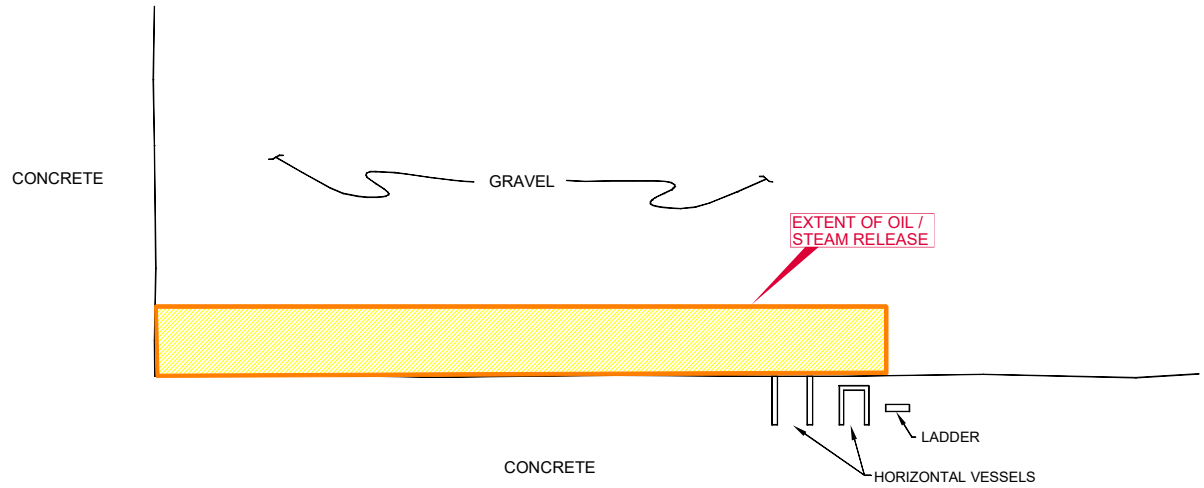
QUADRANGLE LOCATION

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:12/06/16 | FILE:WestRef-dA83

FIGURE 2
AERIAL PHOTO OF
GASCON

DiSorbo
Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759



N

0 10
SCALE IN FEET

LEGEND

EXTENT OF OIL / STEAM RELEASE

QUADRANGLE LOCATION

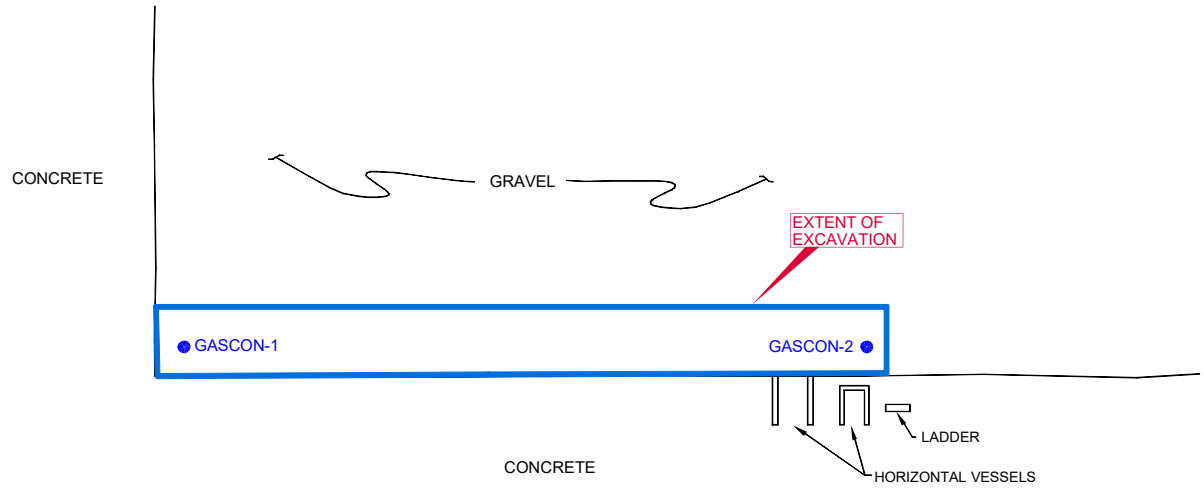
Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:12/06/16	FILE:WestRef-dA84

FIGURE 3

EXTENT OF OIL / STEAM RELEASE
GASCON

DiSorbo
Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759



0 10
SCALE IN FEET

LEGEND

GASCON-1 ● SOIL SAMPLING LOCATION AND IDENTIFICATION NUMBER (SAMPLES TAKEN AT 0-6" ON SEPT 15, 2016)

EXTENT OF EXCAVATION

QUADRANGLE LOCATION

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:12/06/16 | FILE:WestRef-dA85

FIGURE 4
SOIL SAMPLING LOCATIONS
GASCON

DiSorbo Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

Attachment 3

Field Logs

Western Refining SW, Inc. - Gallup Refinery

Project Name	Boring Number	Sample Date	Sample Time	Logged and Sampled By:
GASCON	GASCON-1	9.15.10	1400	TRACY PAYNE

Total Depth	GPS Coordinates
6"	N 35° 29.279' W 108° 25.469'

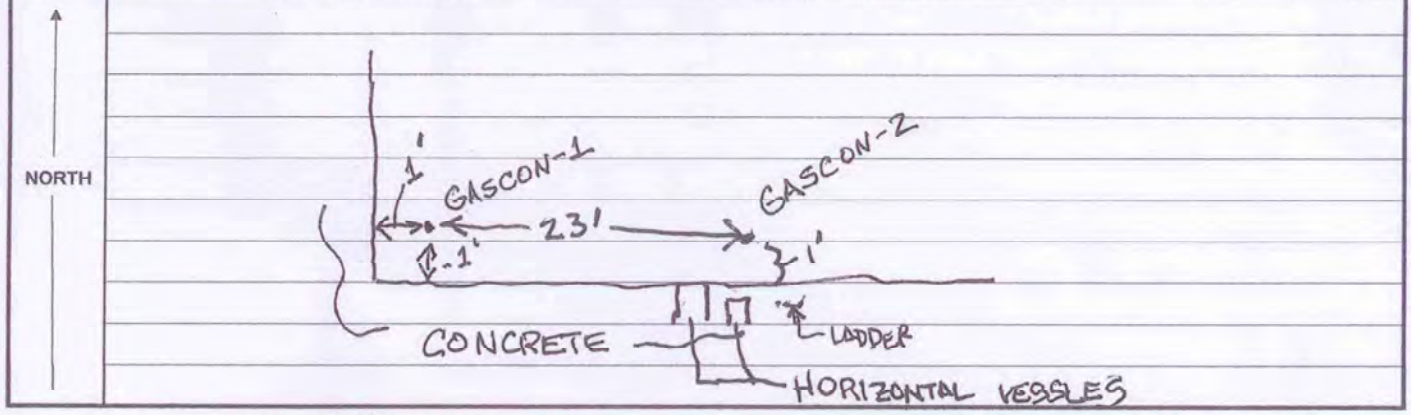
Current Precipitation	Estimated Wind Speed:	Temperature
(None) Drizzle Light Moderate Heavy Continuous Intermittent	Slight (Moderate) Strong Very Strong	75° Clear? / (Cloudy?)

Comments: HAND AUGER

PID Readings		Sample Disposition			Lithologic Interval (feet bgl)	Symbol	% Recovery	Description of Lithology / Sediments
Interval (feet)	Results (ppm)	Sample Depth (feet bgl)	Sample Type	No. & Container Type				
		0-6"	G	3J	0-6"	CL	100	SILTY CLAY - LOW, SOFT, DAMP, BROWN
		1400		4V				

NO.	PHOTO LOG - DESCRIPTION
	NA

FIELD DIAGRAM



Western Refining SW, Inc. - Gallup Refinery

Project Name	Boring Number	Sample Date	Sample Time	Logged and Sampled By:
GASCON	GASCON-2	9.15.16	1425	TRACY PAYNE

Total Depth	GPS Coordinates
6"	N35° 29.275' W108° 25.463'

Current Precipitation	Estimated Wind Speed:	Temperature	Clear? / Cloudy?
(None) Drizzle Light Moderate Heavy Continuous Intermittent	Slight (Moderate) Strong Very Strong	75°	

Comments: HAND AUGER

PID Readings		Sample Disposition			Lithologic Interval (feet bgl)	Symbol	% Recovery	Description of Lithology / Sediments
Interval (feet)	Results (ppm)	Sample Depth (feet bgl)	Sample Type	No. & Container Type				
		0-6"	G	3J	0-6"	SM	100	SILTY SAND- FINE ⇒ MEDIUM, COMPACT
		1425		2V				DAMP, BROWN, NO ODOR

NO.	PHOTO LOG - DESCRIPTION
	NA

FIELD DIAGRAM

NORTH

SEE GASCON-1

Attachment 4

HEAL 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

October 25, 2016

Ed Riege
Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: GASCON OrderNo.: 1609A21

Dear Ed Riege:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/16/2016 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 qualifers 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 #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GASCON-1 (0-6")
Project: GASCON
Collection Date: 9/16/2016 2:00:00 PM
Lab ID: 1609A21-001 **Matrix:** SOIL **Received Date:** 9/16/2016 4:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: **TOM**	
Diesel Range Organics (DRO)	3300	180	960		mg/Kg	100	9/29/2016 12:40:16 PM	27738
Motor Oil Range Organics (MRO)	9200	4800	4800		mg/Kg	100	9/29/2016 12:40:16 PM	27738
Surr: DNOP	0	0	70-130	S	%Rec	100	9/29/2016 12:40:16 PM	27738
EPA METHOD 7471: MERCURY							Analyst: **pmf**	
Mercury	2.1	0.0057	0.33		mg/Kg	10	9/22/2016 2:37:56 PM	27628
EPA METHOD 6010B: SOIL METALS							Analyst: **MED**	
Antimony	ND	1.0	2.5		mg/Kg	1	9/28/2016 5:08:26 PM	27620
Arsenic	13	0.88	2.5		mg/Kg	1	9/23/2016 10:42:39 AM	27620
Barium	580	0.35	0.49		mg/Kg	5	9/28/2016 5:10:04 PM	27620
Beryllium	0.48	0.034	0.15		mg/Kg	1	9/23/2016 10:42:39 AM	27620
Cadmium	0.57	0.063	0.099		mg/Kg	1	9/23/2016 10:42:39 AM	27620
Chromium	30	0.094	0.30		mg/Kg	1	9/23/2016 10:42:39 AM	27620
Cobalt	4.4	0.11	0.30		mg/Kg	1	9/23/2016 10:42:39 AM	27620
Lead	41	0.17	0.25		mg/Kg	1	9/23/2016 10:42:39 AM	27620
Nickel	18	0.15	0.49		mg/Kg	1	9/23/2016 10:42:39 AM	27620
Selenium	ND	1.8	2.5		mg/Kg	1	9/28/2016 5:08:26 PM	27620
Silver	ND	0.062	0.25		mg/Kg	1	9/23/2016 10:42:39 AM	27620
Vanadium	32	0.17	2.5		mg/Kg	1	9/23/2016 10:42:39 AM	27620
Zinc	3600	17	120		mg/Kg	50	9/29/2016 12:06:57 AM	27620
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.1	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Acenaphthylene	ND	2.0	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Aniline	ND	2.4	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Anthracene	ND	1.7	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Azobenzene	ND	3.0	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Benz(a)anthracene	ND	2.1	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Benzo(a)pyrene	ND	1.9	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Benzo(b)fluoranthene	ND	2.3	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Benzo(g,h,i)perylene	ND	2.2	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Benzo(k)fluoranthene	ND	2.2	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Benzoic acid	ND	2.1	12	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Benzyl alcohol	ND	2.0	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Bis(2-chloroethoxy)methane	ND	2.7	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Bis(2-chloroethyl)ether	ND	1.8	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Bis(2-chloroisopropyl)ether	ND	2.2	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Bis(2-ethylhexyl)phthalate	ND	2.0	12	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
4-Bromophenyl phenyl ether	ND	2.4	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Butyl benzyl phthalate	ND	2.2	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700

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
R	RPD outside accepted recovery limits	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, Gallup
Client Sample ID: GASCON-1 (0-6")
Project: GASCON
Collection Date: 9/16/2016 2:00:00 PM
Lab ID: 1609A21-001 **Matrix:** SOIL **Received Date:** 9/16/2016 4:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Carbazole	ND	1.7	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
4-Chloro-3-methylphenol	ND	3.0	12	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
4-Chloroaniline	ND	2.7	12	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2-Chloronaphthalene	ND	2.0	6.2	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2-Chlorophenol	ND	2.0	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
4-Chlorophenyl phenyl ether	ND	2.8	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Chrysene	ND	2.1	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Di-n-butyl phthalate	ND	1.9	10	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Di-n-octyl phthalate	ND	2.1	10	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Dibenz(a,h)anthracene	ND	2.0	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Dibenzofuran	ND	2.5	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
1,2-Dichlorobenzene	ND	1.9	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
1,3-Dichlorobenzene	ND	1.9	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
1,4-Dichlorobenzene	ND	2.1	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
3,3´-Dichlorobenzidine	ND	1.8	6.2	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Diethyl phthalate	ND	2.5	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Dimethyl phthalate	ND	2.4	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2,4-Dichlorophenol	ND	2.3	10	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2,4-Dimethylphenol	ND	2.7	7.5	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
4,6-Dinitro-2-methylphenol	ND	1.5	10	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2,4-Dinitrophenol	ND	1.7	12	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2,4-Dinitrotoluene	ND	2.2	12	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2,6-Dinitrotoluene	ND	2.6	12	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Fluoranthene	ND	1.4	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Fluorene	ND	2.3	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Hexachlorobenzene	ND	2.0	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Hexachlorobutadiene	ND	2.8	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Hexachlorocyclopentadiene	ND	2.8	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Hexachloroethane	ND	2.1	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Indeno(1,2,3-cd)pyrene	ND	1.9	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Isophorone	ND	2.8	10	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
1-Methylnaphthalene	ND	2.5	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2-Methylnaphthalene	ND	3.0	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2-Methylphenol	ND	2.1	10	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
3+4-Methylphenol	ND	1.8	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
N-Nitrosodi-n-propylamine	ND	2.4	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
N-Nitrosodiphenylamine	ND	2.4	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Naphthalene	ND	2.4	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2-Nitroaniline	ND	2.7	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700

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

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GASCON-1 (0-6")
Project: GASCON
Collection Date: 9/16/2016 2:00:00 PM
Lab ID: 1609A21-001 **Matrix:** SOIL **Received Date:** 9/16/2016 4:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
3-Nitroaniline	ND	2.2	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
4-Nitroaniline	ND	1.8	10	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Nitrobenzene	ND	2.6	10	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2-Nitrophenol	ND	2.5	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
4-Nitrophenol	ND	1.9	6.2	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Pentachlorophenol	ND	1.6	10	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Phenanthrene	3.2	1.7	5.0	JD	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Phenol	ND	1.9	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Pyrene	ND	1.9	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Pyridine	ND	2.0	10	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
1,2,4-Trichlorobenzene	ND	2.7	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2,4,5-Trichlorophenol	ND	2.5	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
2,4,6-Trichlorophenol	ND	2.1	5.0	D	mg/Kg	1	9/29/2016 9:12:35 PM	27700
Surr: 2-Fluorophenol	0	0	35-97.9	SD	%Rec	1	9/29/2016 9:12:35 PM	27700
Surr: Phenol-d5	0	0	37.3-105	SD	%Rec	1	9/29/2016 9:12:35 PM	27700
Surr: 2,4,6-Tribromophenol	0	0	35.6-118	SD	%Rec	1	9/29/2016 9:12:35 PM	27700
Surr: Nitrobenzene-d5	0		41.2-107	SD	%Rec	1	9/29/2016 9:12:35 PM	27700
Surr: 2-Fluorobiphenyl	0		41.9-119	SD	%Rec	1	9/29/2016 9:12:35 PM	27700
Surr: 4-Terphenyl-d14	0		15-132	SD	%Rec	1	9/29/2016 9:12:35 PM	27700
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.012	0.015		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Toluene	0.0034	0.0018	0.030	J	mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Ethylbenzene	ND	0.0025	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Methyl tert-butyl ether (MTBE)	ND	0.0096	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,2,4-Trimethylbenzene	ND	0.0022	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,3,5-Trimethylbenzene	ND	0.0022	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,2-Dichloroethane (EDC)	ND	0.0079	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,2-Dibromoethane (EDB)	ND	0.0022	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Naphthalene	ND	0.0048	0.061		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1-Methylnaphthalene	ND	0.0068	0.12		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
2-Methylnaphthalene	ND	0.0065	0.12		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Acetone	ND	0.039	0.46		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Bromobenzene	ND	0.0025	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Bromodichloromethane	ND	0.0018	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Bromoform	ND	0.0037	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Bromomethane	0.024	0.011	0.091	J	mg/Kg	1	9/20/2016 10:05:49 AM	S37308
2-Butanone	ND	0.017	0.30		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Carbon disulfide	ND	0.010	0.30		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Carbon tetrachloride	ND	0.0020	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308

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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
R	RPD outside accepted recovery limits	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, Gallup
Client Sample ID: GASCON-1 (0-6")
Project: GASCON
Collection Date: 9/16/2016 2:00:00 PM
Lab ID: 1609A21-001 **Matrix:** SOIL **Received Date:** 9/16/2016 4:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Chlorobenzene	ND	0.0025	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Chloroethane	ND	0.0061	0.061		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Chloroform	ND	0.0023	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Chloromethane	ND	0.0027	0.091		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
2-Chlorotoluene	ND	0.0022	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
4-Chlorotoluene	ND	0.0027	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
cis-1,2-DCE	ND	0.0018	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
cis-1,3-Dichloropropene	ND	0.0028	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,2-Dibromo-3-chloropropane	ND	0.0093	0.061		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Dibromochloromethane	ND	0.0028	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Dibromomethane	ND	0.0026	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,2-Dichlorobenzene	ND	0.0027	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,3-Dichlorobenzene	ND	0.0025	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,4-Dichlorobenzene	ND	0.0038	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Dichlorodifluoromethane	ND	0.0094	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,1-Dichloroethane	ND	0.0016	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,1-Dichloroethene	ND	0.010	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,2-Dichloropropane	ND	0.0026	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,3-Dichloropropane	ND	0.0035	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
2,2-Dichloropropane	ND	0.0017	0.061		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,1-Dichloropropene	ND	0.0024	0.061		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Hexachlorobutadiene	ND	0.0037	0.061		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
2-Hexanone	ND	0.017	0.30		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Isopropylbenzene	ND	0.0026	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
4-Isopropyltoluene	ND	0.0027	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
4-Methyl-2-pentanone	ND	0.0089	0.30		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Methylene chloride	ND	0.0088	0.091		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
n-Butylbenzene	ND	0.0027	0.091		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
n-Propylbenzene	ND	0.0023	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
sec-Butylbenzene	ND	0.0042	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Styrene	ND	0.0027	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
tert-Butylbenzene	ND	0.0025	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,1,1,2-Tetrachloroethane	ND	0.0029	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,1,2,2-Tetrachloroethane	ND	0.0049	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Tetrachloroethene (PCE)	ND	0.0025	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
trans-1,2-DCE	ND	0.0085	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
trans-1,3-Dichloropropene	ND	0.0045	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,2,3-Trichlorobenzene	ND	0.0046	0.061		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,2,4-Trichlorobenzene	ND	0.0033	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308

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
R	RPD outside accepted recovery limits	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, Gallup
Client Sample ID: GASCON-1 (0-6")
Project: GASCON
Collection Date: 9/16/2016 2:00:00 PM
Lab ID: 1609A21-001
Matrix: SOIL
Received Date: 9/16/2016 4:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1,1-Trichloroethane	ND	0.0019	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,1,2-Trichloroethane	ND	0.0036	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Trichloroethene (TCE)	ND	0.0033	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Trichlorofluoromethane	ND	0.0023	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
1,2,3-Trichloropropane	ND	0.0053	0.061		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Vinyl chloride	ND	0.0025	0.030		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Xylenes, Total	ND	0.0058	0.061		mg/Kg	1	9/20/2016 10:05:49 AM	S37308
Surr: Dibromofluoromethane	116		70-130		%Rec	1	9/20/2016 10:05:49 AM	S37308
Surr: 1,2-Dichloroethane-d4	100		70-130		%Rec	1	9/20/2016 10:05:49 AM	S37308
Surr: Toluene-d8	96.2		70-130		%Rec	1	9/20/2016 10:05:49 AM	S37308
Surr: 4-Bromofluorobenzene	90.0		70-130		%Rec	1	9/20/2016 10:05:49 AM	S37308
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.54	0.46	3.0	J	mg/Kg	1	9/20/2016 10:05:49 AM	W37308
Surr: BFB	105	0	70-130		%Rec	1	9/20/2016 10:05:49 AM	W37308

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
R	RPD outside accepted recovery limits	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, Gallup
Client Sample ID: GASCON-2 (0-6")
Project: GASCON
Collection Date: 9/16/2016 2:25:00 PM
Lab ID: 1609A21-002 **Matrix:** SOIL **Received Date:** 9/16/2016 4:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: **TOM**	
Diesel Range Organics (DRO)	640	18	100		mg/Kg	10	9/29/2016 1:03:26 PM	27738
Motor Oil Range Organics (MRO)	1700	500	500		mg/Kg	10	9/29/2016 1:03:26 PM	27738
Surr: DNOP	0	0	70-130	S	%Rec	10	9/29/2016 1:03:26 PM	27738
EPA METHOD 7471: MERCURY							Analyst: **pmf**	
Mercury	2.2	0.0057	0.33		mg/Kg	10	9/22/2016 2:41:29 PM	27628
EPA METHOD 6010B: SOIL METALS							Analyst: **MED**	
Antimony	6.7	4.9	12	J	mg/Kg	5	10/12/2016 1:48:06 PM	27620
Arsenic	19	0.87	2.4		mg/Kg	1	9/23/2016 10:52:16 AM	27620
Barium	570	0.35	0.49		mg/Kg	5	10/12/2016 1:48:06 PM	27620
Beryllium	0.33	0.034	0.15		mg/Kg	1	9/23/2016 10:52:16 AM	27620
Cadmium	0.20	0.062	0.098		mg/Kg	1	9/23/2016 10:52:16 AM	27620
Chromium	35	0.092	0.29		mg/Kg	1	9/23/2016 10:52:16 AM	27620
Cobalt	5.5	0.11	0.29		mg/Kg	1	9/23/2016 10:52:16 AM	27620
Lead	94	0.85	1.2		mg/Kg	5	10/12/2016 1:48:06 PM	27620
Nickel	31	0.15	0.49		mg/Kg	1	9/23/2016 10:52:16 AM	27620
Selenium	ND	8.9	12		mg/Kg	5	9/28/2016 5:14:39 PM	27620
Silver	ND	0.061	0.24		mg/Kg	1	9/23/2016 10:52:16 AM	27620
Vanadium	24	0.17	2.4		mg/Kg	1	9/23/2016 10:52:16 AM	27620
Zinc	9200	17	120		mg/Kg	50	10/12/2016 1:55:32 PM	27620
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.1	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Acenaphthylene	ND	2.0	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Aniline	ND	2.4	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Anthracene	ND	1.7	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Azobenzene	ND	3.0	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Benz(a)anthracene	ND	2.2	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Benzo(a)pyrene	ND	1.9	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Benzo(b)fluoranthene	ND	2.3	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Benzo(g,h,i)perylene	ND	2.2	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Benzo(k)fluoranthene	ND	2.2	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Benzoic acid	ND	2.1	12	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Benzyl alcohol	ND	2.0	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Bis(2-chloroethoxy)methane	ND	2.7	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Bis(2-chloroethyl)ether	ND	1.8	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Bis(2-chloroisopropyl)ether	ND	2.2	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Bis(2-ethylhexyl)phthalate	ND	2.0	12	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
4-Bromophenyl phenyl ether	ND	2.4	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Butyl benzyl phthalate	ND	2.2	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700

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
R	RPD outside accepted recovery limits	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, Gallup
Client Sample ID: GASCON-2 (0-6")
Project: GASCON
Collection Date: 9/16/2016 2:25:00 PM
Lab ID: 1609A21-002 **Matrix:** SOIL **Received Date:** 9/16/2016 4:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Carbazole	ND	1.7	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
4-Chloro-3-methylphenol	ND	3.0	12	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
4-Chloroaniline	ND	2.7	12	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2-Chloronaphthalene	ND	2.0	6.2	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2-Chlorophenol	ND	2.0	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
4-Chlorophenyl phenyl ether	ND	2.9	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Chrysene	ND	2.1	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Di-n-butyl phthalate	ND	1.9	10	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Di-n-octyl phthalate	ND	2.1	10	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Dibenz(a,h)anthracene	ND	2.0	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Dibenzofuran	ND	2.5	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
1,2-Dichlorobenzene	ND	1.9	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
1,3-Dichlorobenzene	ND	1.9	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
1,4-Dichlorobenzene	ND	2.1	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
3,3´-Dichlorobenzidine	ND	1.8	6.2	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Diethyl phthalate	ND	2.5	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Dimethyl phthalate	ND	2.4	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2,4-Dichlorophenol	ND	2.3	10	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2,4-Dimethylphenol	ND	2.7	7.5	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
4,6-Dinitro-2-methylphenol	ND	1.5	10	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2,4-Dinitrophenol	ND	1.7	12	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2,4-Dinitrotoluene	ND	2.2	12	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2,6-Dinitrotoluene	ND	2.6	12	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Fluoranthene	ND	1.4	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Fluorene	ND	2.3	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Hexachlorobenzene	ND	2.0	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Hexachlorobutadiene	ND	2.8	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Hexachlorocyclopentadiene	ND	2.9	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Hexachloroethane	ND	2.1	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Indeno(1,2,3-cd)pyrene	ND	2.0	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Isophorone	ND	2.8	10	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
1-Methylnaphthalene	ND	2.5	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2-Methylnaphthalene	ND	3.0	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2-Methylphenol	ND	2.1	10	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
3+4-Methylphenol	ND	1.8	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
N-Nitrosodi-n-propylamine	ND	2.4	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
N-Nitrosodiphenylamine	ND	2.4	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Naphthalene	ND	2.4	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2-Nitroaniline	ND	2.7	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700

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
R	RPD outside accepted recovery limits	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, Gallup
Client Sample ID: GASCON-2 (0-6")
Project: GASCON
Collection Date: 9/16/2016 2:25:00 PM
Lab ID: 1609A21-002 **Matrix:** SOIL **Received Date:** 9/16/2016 4:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
3-Nitroaniline	ND	2.2	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
4-Nitroaniline	ND	1.8	10	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Nitrobenzene	ND	2.6	10	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2-Nitrophenol	ND	2.5	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
4-Nitrophenol	ND	1.9	6.2	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Pentachlorophenol	ND	1.6	10	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Phenanthrene	ND	1.7	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Phenol	ND	1.9	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Pyrene	ND	1.9	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Pyridine	ND	2.0	10	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
1,2,4-Trichlorobenzene	ND	2.7	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2,4,5-Trichlorophenol	ND	2.5	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
2,4,6-Trichlorophenol	ND	2.1	5.0	D	mg/Kg	1	9/29/2016 9:40:31 PM	27700
Surr: 2-Fluorophenol	0	0	35-97.9	SD	%Rec	1	9/29/2016 9:40:31 PM	27700
Surr: Phenol-d5	0	0	37.3-105	SD	%Rec	1	9/29/2016 9:40:31 PM	27700
Surr: 2,4,6-Tribromophenol	0	0	35.6-118	SD	%Rec	1	9/29/2016 9:40:31 PM	27700
Surr: Nitrobenzene-d5	0		41.2-107	SD	%Rec	1	9/29/2016 9:40:31 PM	27700
Surr: 2-Fluorobiphenyl	0		41.9-119	SD	%Rec	1	9/29/2016 9:40:31 PM	27700
Surr: 4-Terphenyl-d14	0		15-132	SD	%Rec	1	9/29/2016 9:40:31 PM	27700
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.015	0.019		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Toluene	0.0067	0.0022	0.037	J	mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Ethylbenzene	ND	0.0031	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Methyl tert-butyl ether (MTBE)	ND	0.012	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,2,4-Trimethylbenzene	ND	0.0028	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,3,5-Trimethylbenzene	0.0070	0.0027	0.037	J	mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,2-Dichloroethane (EDC)	ND	0.0098	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,2-Dibromoethane (EDB)	ND	0.0027	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Naphthalene	ND	0.0059	0.075		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1-Methylnaphthalene	0.014	0.0083	0.15	J	mg/Kg	1	9/20/2016 10:34:47 AM	S37308
2-Methylnaphthalene	0.016	0.0080	0.15	J	mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Acetone	ND	0.048	0.56		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Bromobenzene	ND	0.0030	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Bromodichloromethane	ND	0.0022	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Bromoform	ND	0.0046	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Bromomethane	0.026	0.014	0.11	J	mg/Kg	1	9/20/2016 10:34:47 AM	S37308
2-Butanone	ND	0.021	0.37		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Carbon disulfide	ND	0.012	0.37		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Carbon tetrachloride	ND	0.0025	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308

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
R	RPD outside accepted recovery limits
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.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GASCON-2 (0-6")
Project: GASCON
Collection Date: 9/16/2016 2:25:00 PM
Lab ID: 1609A21-002 **Matrix:** SOIL **Received Date:** 9/16/2016 4:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Chlorobenzene	ND	0.0030	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Chloroethane	ND	0.0075	0.075		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Chloroform	ND	0.0028	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Chloromethane	ND	0.0033	0.11		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
2-Chlorotoluene	ND	0.0028	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
4-Chlorotoluene	ND	0.0033	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
cis-1,2-DCE	ND	0.0022	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
cis-1,3-Dichloropropene	ND	0.0035	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,2-Dibromo-3-chloropropane	ND	0.011	0.075		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Dibromochloromethane	ND	0.0034	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Dibromomethane	ND	0.0032	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,2-Dichlorobenzene	ND	0.0033	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,3-Dichlorobenzene	ND	0.0031	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,4-Dichlorobenzene	ND	0.0046	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Dichlorodifluoromethane	ND	0.012	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,1-Dichloroethane	ND	0.0020	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,1-Dichloroethene	ND	0.012	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,2-Dichloropropane	ND	0.0031	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,3-Dichloropropane	ND	0.0042	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
2,2-Dichloropropane	ND	0.0021	0.075		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,1-Dichloropropene	ND	0.0030	0.075		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Hexachlorobutadiene	ND	0.0046	0.075		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
2-Hexanone	ND	0.020	0.37		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Isopropylbenzene	ND	0.0032	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
4-Isopropyltoluene	0.050	0.0034	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
4-Methyl-2-pentanone	ND	0.011	0.37		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Methylene chloride	ND	0.011	0.11		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
n-Butylbenzene	ND	0.0033	0.11		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
n-Propylbenzene	ND	0.0029	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
sec-Butylbenzene	ND	0.0052	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Styrene	ND	0.0033	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
tert-Butylbenzene	ND	0.0031	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,1,1,2-Tetrachloroethane	ND	0.0036	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,1,2,2-Tetrachloroethane	ND	0.0061	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Tetrachloroethene (PCE)	ND	0.0031	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
trans-1,2-DCE	ND	0.010	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
trans-1,3-Dichloropropene	ND	0.0055	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,2,3-Trichlorobenzene	ND	0.0056	0.075		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,2,4-Trichlorobenzene	ND	0.0040	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308

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
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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, Gallup
Client Sample ID: GASCON-2 (0-6")
Project: GASCON
Collection Date: 9/16/2016 2:25:00 PM
Lab ID: 1609A21-002
Matrix: SOIL
Received Date: 9/16/2016 4:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1,1-Trichloroethane	ND	0.0023	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,1,2-Trichloroethane	ND	0.0044	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Trichloroethene (TCE)	ND	0.0040	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Trichlorofluoromethane	ND	0.0028	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
1,2,3-Trichloropropane	ND	0.0065	0.075		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Vinyl chloride	ND	0.0031	0.037		mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Xylenes, Total	0.024	0.0071	0.075	J	mg/Kg	1	9/20/2016 10:34:47 AM	S37308
Surr: Dibromofluoromethane	110		70-130		%Rec	1	9/20/2016 10:34:47 AM	S37308
Surr: 1,2-Dichloroethane-d4	102		70-130		%Rec	1	9/20/2016 10:34:47 AM	S37308
Surr: Toluene-d8	94.3		70-130		%Rec	1	9/20/2016 10:34:47 AM	S37308
Surr: 4-Bromofluorobenzene	87.6		70-130		%Rec	1	9/20/2016 10:34:47 AM	S37308
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	1.6	0.56	3.7	J	mg/Kg	1	9/20/2016 10:34:47 AM	W37308
Surr: BFB	103	0	70-130		%Rec	1	9/20/2016 10:34:47 AM	W37308

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

Qualifiers:

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Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	160921027
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1609A21
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	160921027-001	**Sampling Date**	9/16/2016	**Date/Time Received**	9/21/2016 11:10 AM
Client Sample ID	1609A21-001C / GASCON-1 (0-6)			**Sampling Time**	2:00 PM
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	25.2	mg/Kg	0.251	9/28/2016	MER	EPA 335.4	
%moisture	14.2	Percent		9/26/2016	MER	%moisture	

Sample Number	160921027-002	**Sampling Date**	9/16/2016	**Date/Time Received**	9/21/2016 11:10 AM
Client Sample ID	1609A21-002C / GASCON-2 (0-6)			**Sampling Time**	2:25 PM
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	16.1	mg/Kg	0.235	9/28/2016	MER	EPA 335.4	
%moisture	8.6	Percent		9/26/2016	MER	%moisture	

Authorized Signature

Todd Taruscio, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160921027
Project Name: 1609A21

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.512	mg/kg	0.5	102.4	90-110	9/28/2016	9/28/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160921029-001	Cyanide	ND	14.9	mg/kg	14.6	102.1	70-130	9/28/2016	9/28/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	15.0	mg/kg	14.6	102.7	0.7	0-25	9/28/2016	9/28/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/Kg	5	9/28/2016	9/28/2016

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A21**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: GASCON

Sample ID	**MB-27738**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**27738**		RunNo:	**37494**				
Prep Date:	**9/27/2016**	Analysis Date:	**9/28/2016**		SeqNo:	**1167146**	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	8.7		10.00		87.1	70	130			

Sample ID	**LCS-27738**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**27738**		RunNo:	**37494**				
Prep Date:	**9/27/2016**	Analysis Date:	**9/28/2016**		SeqNo:	**1167147**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.8	62.6	124			
Surr: DNOP	4.6		5.000		91.2	70	130			

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A21**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: GASCON

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS**	Batch ID: **S37308**	RunNo: **37308**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1159371** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.6	70	130			
Toluene	0.97	0.050	1.000	0	96.8	70	130			
Chlorobenzene	0.92	0.050	1.000	0	92.5	70	130			
1,1-Dichloroethene	0.91	0.050	1.000	0	90.9	70	130			
Trichloroethene (TCE)	0.81	0.050	1.000	0	80.8	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.5	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		99.1	70	130			
Surr: Toluene-d8	0.50		0.5000		99.4	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.1	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **S37308**	RunNo: **37308**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1159372** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	0.0049	0.050								J
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A21**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: GASCON

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **S37308**	RunNo: **37308**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1159372** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								

Qualifiers:

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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#: **1609A21**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: GASCON

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **S37308**	RunNo: **37308**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1159372** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.050								
Xylenes, Total	0.011	0.10								J
Surr: Dibromofluoromethane	0.49		0.5000		97.9	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		99.2	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.5	70	130			

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A21**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: GASCON

Sample ID **mb-27700**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **27700**	RunNo: **37545**
Prep Date: **9/26/2016**	Analysis Date: **9/28/2016**	SeqNo: **1168037** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	0.11	0.50								J
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	0.077	0.40								J
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.40								
2,4-Dinitrophenol	ND	0.50								

Qualifiers:

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R	RPD outside accepted recovery limits	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#: **1609A21**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: GASCON

Sample ID **mb-27700**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **27700**	RunNo: **37545**
Prep Date: **9/26/2016**	Analysis Date: **9/28/2016**	SeqNo: **1168037** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.40								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.40								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.40								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.40								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2-Fluorophenol	2.6		3.330		77.4	35	97.9			
Surr: Phenol-d5	2.5		3.330		74.9	37.3	105			
Surr: 2,4,6-Tribromophenol	2.6		3.330		77.8	35.6	118			
Surr: Nitrobenzene-d5	1.0		1.670		62.6	41.2	107			
Surr: 2-Fluorobiphenyl	1.1		1.670		65.3	41.9	119			
Surr: 4-Terphenyl-d14	0.90		1.670		53.9	15	132			

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A21**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: GASCON

Sample ID **lcs-27700**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **27700**	RunNo: **37577**
Prep Date: **9/26/2016**	Analysis Date: **9/29/2016**	SeqNo: **1169435** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.7	0.20	1.670	0	99.8	45.8	99.8			S
4-Chloro-3-methylphenol	3.3	0.50	3.330	0	99.1	51.5	103			
2-Chlorophenol	3.2	0.20	3.330	0	96.3	46.5	105			
1,4-Dichlorobenzene	1.6	0.20	1.670	0	98.8	45.5	103			
2,4-Dinitrotoluene	1.6	0.50	1.670	0	92.9	36	87.2			S
N-Nitrosodi-n-propylamine	1.6	0.20	1.670	0	94.1	47.3	104			
4-Nitrophenol	3.1	0.25	3.330	0	93.5	47.3	95.3			
Pentachlorophenol	3.1	0.40	3.330	0	91.8	38.7	89.3			S
Phenol	3.5	0.20	3.330	0	105	47.8	106			
Pyrene	1.7	0.20	1.670	0	101	33.4	105			
1,2,4-Trichlorobenzene	1.7	0.20	1.670	0	103	50.4	115			
Surr: 2-Fluorophenol	2.8		3.330		84.3	35	97.9			
Surr: Phenol-d5	3.0		3.330		91.3	37.3	105			
Surr: 2,4,6-Tribromophenol	3.0		3.330		91.2	35.6	118			
Surr: Nitrobenzene-d5	1.3		1.670		77.5	41.2	107			
Surr: 2-Fluorobiphenyl	1.3		1.670		78.5	41.9	119			
Surr: 4-Terphenyl-d14	1.2		1.670		68.9	15	132			

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
R	RPD outside accepted recovery limits	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#: **1609A21**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: GASCON

Sample ID	**MB-27628**	SampType:	**MBLK**	TestCode:	**EPA Method 7471: Mercury**					
Client ID:	**PBS**	Batch ID:	**27628**	RunNo:	**37428**					
Prep Date:	**9/21/2016**	Analysis Date:	**9/22/2016**	SeqNo:	**1163395**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	**LCS-27628**	SampType:	**LCS**	TestCode:	**EPA Method 7471: Mercury**					
Client ID:	**LCSS**	Batch ID:	**27628**	RunNo:	**37428**					
Prep Date:	**9/21/2016**	Analysis Date:	**9/22/2016**	SeqNo:	**1163396**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	99.8	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
R	RPD outside accepted recovery limits	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#: **1609A21**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: GASCON

Sample ID	**MB-27620**	SampType:	**MBLK**	TestCode:	**EPA Method 6010B: Soil Metals**
Client ID:	**PBS**	Batch ID:	**27620**	RunNo:	**37419**
Prep Date:	**9/21/2016**	Analysis Date:	**9/23/2016**	SeqNo:	**1163026** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	0.48	2.5								J

Sample ID	**LCS-27620**	SampType:	**LCS**	TestCode:	**EPA Method 6010B: Soil Metals**
Client ID:	**LCSS**	Batch ID:	**27620**	RunNo:	**37419**
Prep Date:	**9/21/2016**	Analysis Date:	**9/23/2016**	SeqNo:	**1163027** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	21	2.5	25.00	0	83.9	80	120			
Arsenic	21	2.5	25.00	0	85.5	80	120			
Barium	21	0.10	25.00	0	84.7	80	120			
Beryllium	22	0.15	25.00	0	88.7	80	120			
Cadmium	21	0.10	25.00	0	84.9	80	120			
Chromium	21	0.30	25.00	0	84.5	80	120			
Cobalt	20	0.30	25.00	0	81.9	80	120			
Lead	21	0.25	25.00	0	82.3	80	120			
Nickel	21	0.50	25.00	0	82.2	80	120			
Selenium	21	2.5	25.00	0	85.8	80	120			
Silver	4.3	0.25	5.000	0	86.3	80	120			
Vanadium	22	2.5	25.00	0	89.5	80	120			
Zinc	21	2.5	25.00	0	82.7	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
R	RPD outside accepted recovery limits	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#: **1609A21**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: GASCON

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **W37308**	RunNo: **37308**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1159468** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.7	62.9	123			
Surr: BFB	490		500.0		97.3	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **W37308**	RunNo: **37308**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1159469** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.93	5.0								J
Surr: BFB	510		500.0		103	70	130			

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
R	RPD outside accepted recovery limits	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 Gallup Work Order Number: 1609A21 RcptNo: 1

Received by/date: AF 09/16/16

Logged By: Anne Thorne 9/16/2016 2:00:00 PM Anne Thorne

Completed By: Anne Thorne 9/19/2016 Anne Thorne

Reviewed By: aJ 09/19/16

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. 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)

16. 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: _____

17. Additional remarks:

18. **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 SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM 87301
Phone #: 505-722-0217
email or Fax#: ED.RIEGE@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: GASCON
Project #:
Project Manager: ED RIEGE
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 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. 1609A21	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)	SKINNER LIST METALS				Air Bubbles (Y or N)
9/16/16	1400	SOIL	GASCON-1 (0-6")	JARS-3	NEAT	-001			✓							✓	✓	✓				
	↓	↓	↓	VIALS-2	MEOH	-001										✓						
	↓	↓	↓	VIALS-2	SOBI	-001										✓						
	1425	SOIL	GASCON-2 (0-6")	JARS-3	NEAT	-002			✓							✓	✓	✓				
	↓	↓	↓	VIALS-2	MEOH	-002										✓						
↓	↓	↓	↓	VIALS-2	SOBI	-002										✓						

Date	Time	Relinquished by:	Received by:	Date	Time
9/16/16	1400			9/16/16	1400
Date:	Time:	Relinquished by:	Received by:	Date	Time

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.

Attachment 5

Table 1 – Soil Analytical Results

Table 1
Soil Analytical Results - September 16, 2016
GASCON Release
Western Refining Southwest - Gallup Refinery

Parameter Name	Residential Soil (mg/kg)	Source	Non-Residential Soil Screening Level (mg/kg)	Source	Risk Based SSL for a DAF of 20 (mg/kg)	Source	GASCON-1 (0-6")	GASCON-2 (0-6")
Hall Environmental Analytical Laboratory ID							1609A18-001	1609A18-001
Sample Date							9/16/2016	9/16/2016
EPA Method 8015D - mg/kg								
Diesel Range Organics (DRO)	1.00E+03	(11)	3.80E+03	(11)	-	-	3300	640
Gasoline Range Organics (GRO)	-	-	-	-	-	-	0.54	1.6
Motor Oil Range Organics (MRO)	1.00E+03	(11)	3.80E+03	(11)	-	-	**9200**	1700
EPA Method 7470 mg/kg								
Mercury	2.38E+01	(1)	2.07E+01	(5)	6.54E-01	(8)	2.1	2.2
EPA Method 6010B Soil Metals - mg/kg								
Antimony	3.13E+01	(1)	1.42E+02	(5)	6.56E+00	(8)	<1.0	6.7
Arsenic	4.25E+00	(1)	2.15E+01	(4)	2.99E-01	(8)	13	19
Barium	1.56E+04	(1)	4.35E+03	(5)	2.70E+03	(8)	580	570
Beryllium	1.56E+02	(1)	1.48E+02	(5)	1.96E+02	(8)	0.48	0.33
Cadmium	7.05E+01	(1)	7.21E+01	(5)	9.39E+00	(8)	0.57	0.20
Chromium	9.66E+01	(1)	1.34E+02	(5)	2.01E+05	(8)	30	35
Cobalt	2.30E+01	(2)	3.50E+02	(6)	5.40E+00	(9)	4.4	5.5
Lead	4.00E+02	(1)	8.00E+02	(4)	2.80E+02	(10)	41	94
Nickel	1.56E+03	(1)	6.19E+03	(5)	4.85E+02	(8)	18	31
Selenium	3.91E+02	(1)	1.75E+03	(5)	1.02E-01	(8)	<1.8	<8.9
Silver	3.91E+02	(1)	1.77E+03	(5)	1.38E+01	(8)	<0.062	<0.061
Vanadium	3.94E+02	(1)	6.14E+02	(5)	1.26E+03	(8)	32	24
Zinc	2.35E+04	(1)	1.06E+05	(5)	7.41E+03	(8)	3600	9200
EPA Method 335.4 - mg/kg								
Cyanide	1.12E+01	(1)	1.21E+01	(5)	0.01	(8)	**25.2**	**16.1**
EPA Method 8260B - mg/kg								
1,1,1,2-Tetrachloroethane	2.81E+01	(1)	1.37E+02	(4)	3.59E-02	(8)	<0.0029	<0.0036
1,1,1-Trichloroethane	1.44E+04	(1)	1.36E+04	(5)	5.11E+01	(8)	<0.0019	<0.0023
1,1,2,2-Tetrachloroethane	7.98E+00	(1)	3.94E+01	(4)	4.80E-03	(8)	<0.0049	<0.0061
1,1,2-Trichloroethane	2.61E+00	(1)	2.30E+00	(5)	2.23E-03	(8)	<0.0036	<0.0044
1,1-Dichloroethane	7.86E+01	(1)	3.83E+02	(4)	1.36E-01	(8)	<0.0016	<0.0020
1,1-Dichloroethene	4.40E+02	(1)	4.24E+02	(5)	1.95E+00	(8)	<0.010	<0.012
1,1-Dichloropropene	-	-	-	-	-	-	<0.0024	<0.0030
1,2,3-Trichlorobenzene	6.30E+01	(2)	9.30E+02	(6)	4.20E-01	(9)	<0.0046	<0.0056
1,2,3-Trichloropropane	5.10E-02	(1)	1.21E+00	(4)	5.21E-05	(8)	<0.0053	<0.0065
1,2,4-Trichlorobenzene	8.29E+01	(1)	7.91E+01	(5)	1.76E-01	(8)	<0.0033	<0.0040
1,2,4-Trimethylbenzene	5.80E+01	(2)	2.40E+02	(6)	4.20E-01	(9)	<0.0022	<0.0028
1,2-Dibromo-3-chloropropane	8.58E-02	(1)	1.18E+00	(4)	2.34E-05	(8)	<0.0093	<0.011
1,2-Dibromoethane (EDB)	6.72E-01	(1)	3.31E+00	(4)	3.52E-04	(8)	<0.0022	<0.0027
1,2-Dichlorobenzene	2.15E+03	(1)	2.50E+03	(5)	4.58E+00	(8)	<0.0027	<0.0033
1,2-Dichloroethane (EDC)	8.32E+00	(1)	4.07E+01	(4)	8.14E-03	(8)	<0.0079	<0.0098
1,2-Dichloropropane	1.78E+01	(1)	2.54E+01	(5)	2.43E-02	(8)	<0.0026	<0.0031
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.20E+04	(6)	3.40E+00	(9)	<0.0022	0.0070 J
1,3-Dichlorobenzene	-	-	-	-	-	-	<0.0025	<0.0031
1,3-Dichloropropane	1.60E+03	(2)	2.30E+04	(6)	2.60E+00	(9)	<0.0035	<0.0042
1,4-Dichlorobenzene	3.28E+01	(1)	1.59E+02	(4)	7.20E-02	(8)	<0.0038	<0.0046
1-Methylnaphthalene	1.80E+02	(3)	7.30E+02	(7)	1.16E-01	(9)	<0.0068	0.014 J
2,2-Dichloropropane	-	-	-	-	-	-	<0.0017	<0.0021
2-Butanone	3.74E+04	(1)	9.17E+04	(5)	2.01E+01	(8)	<0.017	<0.021
2-Chlorotoluene	1.56E+03	(1)	7.08E+03	(5)	3.56E+00	(8)	<0.0022	<0.0028
2-Hexanone	2.00E+02	(2)	1.30E+03	(6)	1.76E-01	(9)	<0.017	<0.020
2-Methylnaphthalene	2.40E+02	(2)	3.00E+03	(6)	3.80E+00	(9)	<0.0065	0.016 J
4-Chlorotoluene	-	-	-	-	-		<0.0027	<0.0033
4-Isopropyltoluene	-	-	-	-	-	-	<0.0027	0.050
4-Methyl-2-pentanone	5.81E+03	(1)	2.02E+04	(5)	4.80E+00	(8)	<0.0089	<0.011

Table 1
Soil Analytical Results - September 16, 2016
GASCON Release
Western Refining Southwest - Gallup Refinery

Parameter Name	Residential Soil (mg/kg)	Source	Non-Residential Soil Screening Level (mg/kg)	Source	Risk Based SSL for a DAF of 20 (mg/kg)	Source	GASCON-1 (0-6")	GASCON-2 (0-6")
Hall Environmental Analytical Laboratory ID							1609A18-001	1609A18-001
Sample Date							9/16/2016	9/16/2016
Acetone	6.63E+04	(1)	2.42E+05	(5)	4.98E+01	(8)	<0.039	<0.048
Benzene	1.78E+01	(1)	8.72E+01	(4)	3.80E-02	(8)	<0.012	<0.015
Bromobenzene	2.90E+02	(2)	1.80E+03	(6)	8.40E-01	(9)	<0.0025	<0.0030
Bromodichloromethane	6.19E+00	(1)	3.02E+01	(4)	6.21E-03	(8)	<0.0018	<0.0022
Bromoform	6.74E+02	(1)	3.25E+03	(4)	4.11E-01	(8)	<0.0037	<0.0046
Bromomethane	1.77E+01	(1)	1.79E+01	(5)	3.43E-02	(8)	0.024 J	0.026 J
Carbon disulfide	1.55E+03	(1)	1.62E+03	(5)	4.42E+00	(8)	<0.010	<0.012
Carbon tetrachloride	1.07E+01	(1)	5.25E+01	(4)	3.33E-02	(8)	<0.0020	<0.0025
Chlorobenzene	3.78E+02	(1)	4.12E+02	(5)	8.36E-01	(8)	<0.0025	<0.0030
Chloroethane	1.90E+04	(1)	1.66E+04	(5)	1.07E+02	(8)	<0.0061	<0.0075
Chloroform	5.90E+00	(1)	2.87E+01	(4)	1.09E-02	(8)	<0.0023	<0.0028
Chloromethane	4.11E+01	(1)	2.01E+02	(4)	9.51E-02	(8)	<0.0027	<0.0033
cis-1,2-DCE	1.56E+02	(1)	7.08E+02	(5)	1.84E-01	(8)	<0.0018	<0.0022
cis-1,3-Dichloropropene	2.93E+01	(1)	1.30E+02	(5)	2.80E-02	(8)	<0.0028	<0.0035
Dibromochloromethane	1.39E+01	(1)	6.74E+01	(4)	7.54E-03	(8)	<0.0028	<0.0034
Dibromomethane	2.30E+01	(2)	9.80E+01	(6)	4.00E-02	(9)	<0.0026	<0.0032
Dichlorodifluoromethane	1.82E+02	(1)	1.61E+02	(5)	7.23E+00	(8)	<0.0094	<0.012
Ethylbenzene	7.51E+01	(1)	3.68E+02	(4)	2.62E-01	(8)	<0.0025	<0.0031
Hexachlorobutadiene	6.16E+01	(1)	2.69E+02	(5)	8.79E-02	(8)	<0.0037	<0.0046
Isopropylbenzene	2.36E+03	(1)	2.74E+03	(5)	1.14E+01	(8)	<0.0026	<0.0032
Methyl tert-butyl ether (MTBE)	9.75E+02	(1)	4.82E+03	(4)	5.53E-01	(8)	<0.0096	<0.012
Methylene chloride	4.09E+02	(1)	1.21E+03	(5)	4.71E-01	(8)	<0.0088	<0.011
Naphthalene	4.97E+01	(1)	1.59E+02	(5)	8.23E-02	(8)	<0.0048	<0.0059
n-Butylbenzene	3.90E+03	(2)	5.80E+04	(6)	6.40E+01	(9)	<0.0027	<0.0033
n-Propylbenzene	3.80E+03	(2)	2.40E+04	(6)	2.40E+01	(9)	<0.0023	<0.0029
sec-Butylbenzene	7.80E+03	(2)	1.20E+05	(6)	1.18E+02	(9)	<0.0042	<0.0052
Styrene	7.26E+03	(1)	1.02E+04	(5)	2.06E+01	(8)	<0.0027	<0.0033
tert-Butylbenzene	7.80E+03	(2)	1.20E+05	(6)	3.20E+01	(9)	<0.0025	<0.0031
Tetrachloroethene (PCE)	1.11E+02	(1)	1.20E+02	(5)	3.21E-01	(8)	<0.0025	<0.0031
Toluene	5.23E+03	(1)	1.40E+04	(5)	1.21E+01	(8)	0.0034 J	0.0067 J
trans-1,2-DCE	2.95E+02	(1)	3.05E+02	(5)	4.69E-01	(8)	<0.0085	<0.010
trans-1,3-Dichloropropene	2.93E+01	(1)	1.30E+02	(5)	2.80E-02	(8)	<0.0045	<0.0055
Trichloroethene (TCE)	6.77E+00	(1)	6.90E+00	(5)	1.75E-02	(8)	<0.0033	<0.0040
Trichlorofluoromethane	1.23E+03	(1)	1.13E+03	(5)	1.57E+01	(8)	<0.0023	<0.0028
Vinyl chloride	7.42E-01	(1)	2.84E+01	(4)	1.35E-03	(8)	<0.0025	<0.0031
Xylenes, Total	8.71E+02	(1)	7.98E+02	(5)	2.98E+00	(8)	<0.0058	0.024 J
EPA Method 8270C - mg/kg* **								
1,2,4-Trichlorobenzene	8.29E+01	(1)	7.91E+01	(5)	1.76E-01	(8)	<2.7	<2.7
1,2-Dichlorobenzene	2.15E+03	(1)	2.50E+03	(5)	4.58E+00	(8)	<1.9	<1.9
1,3-Dichlorobenzene	-	-	-	-	-	-	<1.9	<1.9
1,4-Dichlorobenzene	3.28E+01	(1)	1.59E+02	(4)	7.20E-02	(8)	<2.1	<2.1
1-Methylnaphthalene	1.80E+02	(3)	7.30E+02	(7)	1.16E-01	(9)	<2.5	<2.5
2,4,5-Trichlorophenol	6.16E+03	(1)	2.69E+04	(5)	6.62E+01	(8)	<2.5	<2.5
2,4,6-Trichlorophenol	6.16E+01	(1)	2.69E+02	(5)	6.74E-01	(8)	<2.1	<2.1
2,4-Dichlorophenol	1.85E+02	(1)	8.07E+02	(5)	8.25E-01	(8)	<2.3	<2.3
2,4-Dimethylphenol	1.23E+03	(1)	5.38E+03	(5)	6.45E+00	(8)	<2.7	<2.7
2,4-Dinitrophenol	1.23E+02	(1)	5.38E+02	(5)	6.71E-01	(8)	<1.7	<1.7
2,4-Dinitrotoluene	1.71E+01	(1)	8.23E+01	(4)	4.91E-02	(8)	<2.2	<2.2
2,6-Dinitrotoluene	3.56E+00	(1)	1.72E+01	(4)	1.02E-02	(8)	<2.6	<2.6
2-Chloronaphthalene	6.26E+03	(1)	2.83E+04	(5)	5.70E+01	(8)	<2.0	<2.0
2-Chlorophenol	3.91E+02	(1)	1.77E+03	(5)	1.15E+00	(8)	<2.0	<2.0
2-Methylnaphthalene	2.40E+02	(2)	3.00E+03	(6)	3.80E+00	(9)	<3.0	<3.0

Table 1
Soil Analytical Results - September 16, 2016
GASCON Release
Western Refining Southwest - Gallup Refinery

Parameter Name	Residential Soil (mg/kg)	Source	Non-Residential Soil Screening Level (mg/kg)	Source	Risk Based SSL for a DAF of 20 (mg/kg)	Source	GASCON-1 (0-6")	GASCON-2 (0-6")
Hall Environmental Analytical Laboratory ID							1609A18-001	1609A18-001
Sample Date							9/16/2016	9/16/2016
'2-Methylphenol (cresol,o-)	3.20E+03	(2)	4.10E+04	(6)	1.50E+01	(9)	<2.1	<2.1
2-Nitroaniline	6.30E+02	(2)	8.00E+03	(6)	1.60E+00	(9)	<2.7	<2.7
2-Nitrophenol	-	-	-	-	-	-	<2.5	<2.5
3,3´-Dichlorobenzidine	1.18E+01	(1)	5.70E+01	(4)	1.23E-01	(8)	<1.8	<1.8
3+4-Methylphenol	-	-	-	-	-	-	<1.8	<1.8
3-Nitroaniline	-	-	-	-	-	-	<2.2	<2.2
4,6-Dinitro-2-methylphenol	4.93E+00	(1)	2.15E+01	(5)	3.94E-02	(8)	<1.5	<1.5
4-Bromophenyl phenyl ether	-	-	-	-	-	-	<2.4	<2.4
4-Chloro-3-methylphenol	-	-	-	-	-	-	<3.0	<3.0
4-Chloroaniline	2.70E+01	(3)	1.10E+02	(7)	3.20E-03	(9)	<2.7	<2.7
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	<2.8	<2.9
4-Nitroaniline	2.70E+02	(3)	1.10E+03	(7)	3.20E-02	(9)	<1.8	<1.8
4-Nitrophenol	-	-	-	-	-	-	<1.9	<1.9
Acenaphthene	3.48E+03	(1)	1.51E+04	(5)	8.25E+01	(8)	<2.1	<2.1
Acenaphthylene	-	-	-	-	-	-	<2.0	<2.0
Aniline	9.50E+02	(3)	4.00E+03	(7)	9.20E-02	(9)	<2.4	<2.4
Anthracene	1.74E+04	(1)	7.53E+04	(5)	8.51E+02	(8)	<1.7	<1.7
Azobenzene	5.60E+01	(3)	2.60E+02	(7)	1.84E+06	(9)	<3.0	<3.0
Benz(a)anthracene	1.53E+00	(1)	3.23E+01	(4)	1.82E+00	(8)	<2.1	<2.2
Benzo(a)pyrene	1.53E-01	(1)	3.23E+00	(4)	6.05E-01	(8)	<1.9	<1.9
Benzo(b)fluoranthene	1.53E+00	(1)	3.23E+01	(4)	6.17E+00	(8)	<2.3	<2.3
Benzo(g,h,i)perylene	-	-	-	-	-	-	<2.2	<2.2
Benzo(k)fluoranthene	1.53E+01	(1)	3.23E+02	(4)	6.05E+01	(8)	<2.2	<2.2
Benzoic acid	2.50E+05	(2)	3.30E+06	(6)	3.60E+02	(9)	<2.1	<2.1
Benzyl alcohol	6.30E+03	(2)	8.20E+04	(6)	9.60E+00	(9)	<2.0	<2.0
Bis(2-chloroethoxy)methane	1.90E+02	(2)	2.50E+03	(6)	2.60E-01	(9)	<2.7	<2.7
Bis(2-chloroethyl)ether	3.11E+00	(1)	1.95E+00	(5)	6.05E-04	(8)	<1.8	<1.8
Bis(2-chloroisopropyl)ether	9.93E+01	(1)	5.19E+02	(4)	4.73E-02	(8)	<2.2	<2.2
Bis(2-ethylhexyl)phthalate	3.80E+02	(1)	1.83E+03	(4)	2.00E+02	(8)	<2.0	<2.0
Butyl benzyl phthalate	2.90E+03	(3)	1.20E+04	(7)	4.60E+00	(9)	<2.2	<2.2
Carbazole	-	-	-	-	-	-	<1.7	<1.7
Chrysene	1.53E+02	(1)	3.23E+03	(4)	1.86E+02	(8)	<2.1	<2.1
Dibenz(a,h)anthracene	1.53E-01	(1)	3.23E+00	(4)	6.11E+00	(8)	<2.0	<2.0
Dibenzofuran	-	-	-	-	-	-	<2.5	<2.5
Diethyl phthalate	4.93E+04	(1)	2.15E+05	(5)	9.79E+01	(8)	<2.5	<2.5
Dimethyl phthalate	6.11E+05	(1)	2.38E+06	(5)	1.61E+03	(8)	<2.4	<2.4
Di-n-butyl phthalate	6.16E+03	(1)	2.69E+04	(5)	3.38E+01	(8)	<1.9	<1.9
Di-n-octyl phthalate	-	-	-	-	-	-	<2.1	<2.1
Fluoranthene	2.32E+03	(1)	1.00E+04	(5)	1.34E+03	(8)	<1.4	<1.4
Fluorene	2.32E+03	(1)	1.00E+04	(5)	8.00E+01	(8)	<2.3	<2.3
Hexachlorobenzene	3.33E+00	(1)	1.60E+01	(4)	9.22E-02	(8)	<2.0	<2.0
Hexachlorobutadiene	6.16E+01	(1)	2.69E+02	(5)	8.79E-02	(8)	<2.8	<2.8
Hexachlorocyclopentadiene	3.70E+02	(1)	8.67E+02	(5)	1.34E+00	(8)	<2.8	<2.9
Hexachloroethane	4.31E+01	(1)	1.88E+02	(5)	6.62E-02	(8)	<2.1	<2.1
Indeno(1,2,3-cd)pyrene	1.53E+00	(1)	3.23E+01	(4)	2.01E+01	(8)	<1.9	<2.0
Isophorone	-	-	-	-	-	-	<2.8	<2.8
Naphthalene	4.97E+01	(1)	1.59E+02	(5)	8.23E-02	(8)	<2.4	<2.4
Nitrobenzene	6.04E+01	(1)	2.93E+02	(4)	1.44E-02	(8)	<2.6	<2.6
N-Nitrosodi-n-propylamine	7.80E-01	(3)	3.30E+00	(7)	1.62E-04	(9)	<2.4	<2.4
N-Nitrosodiphenylamine	7.94E-03	(1)	1.71E-01	(4)	9.84E-06	(8)	<2.4	<2.4
Pentachlorophenol	9.85E+00	(1)	4.45E+01	(4)	6.08E-02	(8)	<1.6	<1.6
Phenanthrene	1.74E+03	(1)	7.53E+03	(5)	8.59E+01	(8)	3.2 J	<1.7

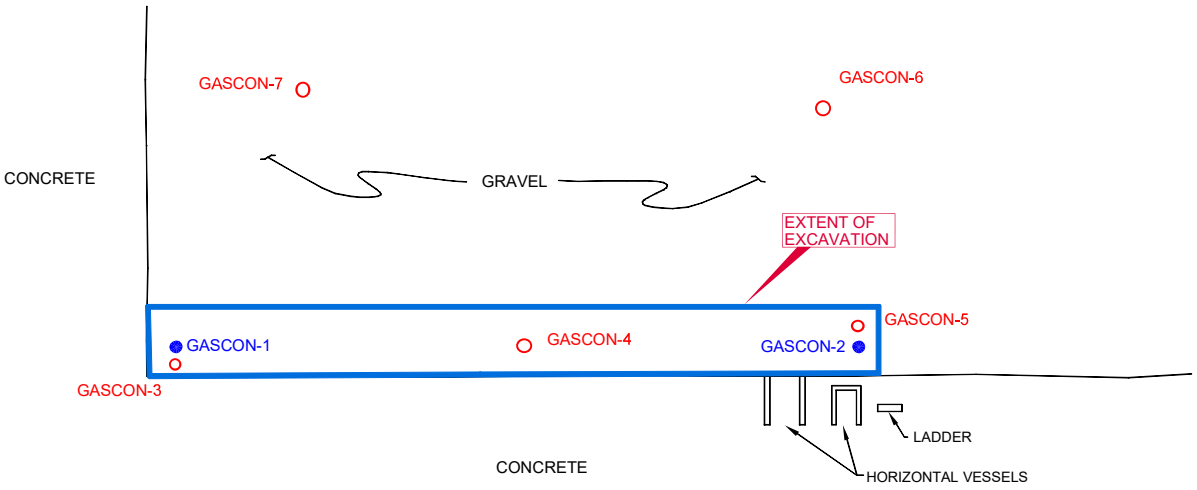
Table 1
Soil Analytical Results - September 16, 2016
GASCON Release
Western Refining Southwest - Gallup Refinery

Parameter Name	Residential Soil (mg/kg)	Source	Non-Residential Soil Screening Level (mg/kg)	Source	Risk Based SSL for a DAF of 20 (mg/kg)	Source	GASCON-1 (0-6")	GASCON-2 (0-6")
Hall Environmental Analytical Laboratory ID							1609A18-001	1609A18-001
Sample Date							9/16/2016	9/16/2016
Phenol	1.83E+04	(1)	7.74E+04	(5)	5.23E+01	(8)	<1.9	<1.9
Pyrene	1.74E+03	(1)	7.53E+03	(5)	1.92E+02	(8)	<1.9	<1.9
Pyridine	7.80E+01	(2)	1.20E+03	(6)	1.36E-01	(9)	<2.0	<2.0

- No screening level or analytical result available
NMED - Risk Assessment Guidance for Site Investigations and Remediation (July 2015)
EPA - Regional Screening Levels (Nov 2015)
(1) NMED Residential Screening Level
(2) EPA Residential Screening Level
(3) EPA Residential - Screening Levels (June 2015) multiplied by 10 pursuant to Section IV.D.2 of the Oct. 31, 2013 RCRA Post-Closure Permit because the constituent is listed as carcinogenic
(4) NMED Industrial Occupational Screening Level
(5) NMED Construction Worker Screening Level
(6) EPA Industrial - Screening Levels (June 2015)
(7) EPA Industrial - Screening Levels June 2015) multiplied by 10 pursuant to Section IV.D.2 of the Oct. 31, 2013 RCRA Post-Closure Permit because the constituent is listed as carcinogenic
(8) SoilGW NMED Dilution Attenuation Factor (DAF) = 20
(9) SoilGW Risk-based EPA DAF = 20
(10) SoilGW MCL-based EPA DAF = 20
Bold represents value above Non-Residential Screening Level
yellow highlight represents value above Leachate (DAF) 20 Screening Level
Bold with yellow highlight value exceeds Non-Residential Screening Level and DAF 20
Laboratory data flags
J - Analyte detected below quantitation limits
EPA Method 8270C - mg/kg *** - All data was flagged with "D" - Sample diluted due to matrix

Attachment 6

Proposed Additional Soil Sampling Locations



GASCON-3 PROPOSED SOIL SAMPLING LOCATION AND IDENTIFICATION NUMBER

LEGEND

GASCON-1 SOIL SAMPLING LOCATION AND IDENTIFICATION NUMBER (SAMPLES TAKEN AT 0-6" ON SEPT 15, 2016)

EXTENT OF EXCAVATION

0 10
SCALE IN FEET

QUADRANGLE LOCATION

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:12/06/16	FILE:WestRef-dA85

PROPOSED
SOIL SAMPLING LOCATIONS
GASCON

DiSorbo Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759