WRG 2016
2-19-16

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: Beck Larsen
Address: I-40 / EXIT 39, JAMESTOWN,NM 87347	Telephone No.(505) 722-0258
Facility Name: WESTERN RENINING (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
	28	15 N	15 W					MCKINLEY

Latitude__35° 029' 010"__ Longitude -108° 025' 029"__

NATURE OF RELEASE

Type of Release: FCC FEED (T-714) Tank Overflow	Volume of Release- 300 to 800 bbls (oil) (estimated)	Volume Recovered: 120 bbls Oil/ 600 bbls (water) (YTD)
Source of Release: FCC Feed (Heavy Oil)	Date and Hour of Occurrence 02/5/2016; 0345 hrs	Date and Hour of Discovery 02/5/2015; 0415 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD (C. Chavez) / NMED HWB (Kristen Van Horn)	
By Whom? Beck Larsen	Date and Hour: 2/5/2016 / 0654	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

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

Describe Cause of Problem and Remedial Action Taken.* The FCC Tank (Heavy Oil) (T-714) overflowed on Friday, February5, 2016 in the Hot Oil Tank Farm. The Pumper-gauger made an inspection of the area at 8:00 Pm on Thursday, February 4, 2016 with no indication of issues based on gauge readings. The Pumper-gauger made another early morning rounds at 0415 on February 5 at 0415. At this time T-714 FCC Feed Tank was overflowing due to a possible gauge malfunction. Valves were blocked in and product was rerouted to T-701. The onsite Fire Department, Offsite Supervisors, Process Supervisor, and the Environmental Department was notified of the incident. The onsite Fire Department sprayed a blanket of foam and water over the entire affected area in order to prevent any potential hazards associated with the overflow. The Environmental Department arrived at the scene at about 0615 hours, February 5. A contract vacuum truck began removing liquids until further assessment could be determined. The FCC Feed Product was contained within an earthen dike containment area of the Hot Oil Tank Farm. The exact quantity of release is undetermined at this point due to the uncertainty as to the exact time that the overflowed occurred, the amount of foam/water utilized, and the amount of water/snow melt from previous snow fall. The amount of the FCC Feed product that was released is only an estimate at this point and is under investigation. Records of the amount of cleanup efforts and the amount of material will be utilized at the completion of the project and will be used for the Final C-141 Report.

Describe Area Affected and Cleanup Action Taken.* After assessment of the spilled area, a contract company determined that in-situ solidification of the spilled area would be necessary using non-contaminated dirt. A contract company arrived on Monday, February 8, to begin the solidification process. The in-situ solidification process was deemed futile because the material would not solidify in-situ but would relocate to other areas. Therefore, the cleanup strategy was changed to solidification in roll-off boxes. An initial sample was collected on February 8 under (Laboratory # 1602354, see attached) from 3 roll-off containers (45 cubic yards) and submitted to Hall Environmental Laboratories for analysis. The analysis was received for (Laboratory Report # 1602354) on February 17 that indicated non-detect (ND) for all Environmental constituents. To date the contract company has filled about 30 roll-off boxes with FCC Feed product and dirt mixtures. Redrock Landfill requires analysis for each 100 yards of material. Composite samples were collected from 12 additional roll-off boxes (180 cubic yards) and sent to Hall for analysis. These 15 roll-off box containers will equate to about 225-270 cubic yards of material that will be shipped to Redrock Landfill for landfarming. The most recent sent of analysis is pending and is expected to be finalized early next week. The landfill is requesting additional analysis prior to shipment to determine which area of the landform the material has to be delivered. Attached is a copy of the initial analysis (Lab# 1602354), SDS for the FCC Feed, Map showing the approximate geographical coordinate location, and a sketch of the extent of the material around the FCC Feed Tank (T-714).

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:	**OIL CONSERVATION DIVISION**	
Printed Name: Beck Larsen	Approved by Environmental Specialist:	
Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 7/19/2016 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

McKinley County
NM
35.486207 -108.424535
Imagery ©2016 Google, Map data ©2016 Google
Terms
Privacy
Send feedback
50 ft

T-714
Berm
Berm
South

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

February 17, 2016

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: Tank 714 FCC Feed Spill

OrderNo.: 1602354

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 2 sample(s) on 2/9/2016 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
Project: Tank 714 FCC Feed Spill
Lab ID: 1602354-001 **Matrix:** SOIL

Client Sample ID: Tank 714 FCC Feed Spill
Collection Date: 2/8/2016 1:00:00 PM
Received Date: 2/9/2016 3:22:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
MERCURY, TCLP						Analyst:	pmf
Mercury	ND	0.020		mg/L	1	2/12/2016 10:17:19 AM	23694
EPA METHOD 6010B: TCLP METALS						Analyst:	ELS
Arsenic	ND	5.0		mg/L	1	2/12/2016 9:54:42 AM	23696
Barium	ND	100		mg/L	1	2/12/2016 9:54:42 AM	23696
Cadmium	ND	1.0		mg/L	1	2/12/2016 9:54:42 AM	23696
Chromium	ND	5.0		mg/L	1	2/12/2016 9:54:42 AM	23696
Lead	ND	5.0		mg/L	1	2/12/2016 9:54:42 AM	23696
Selenium	ND	1.0		mg/L	1	2/12/2016 9:54:42 AM	23696
Silver	ND	5.0		mg/L	1	2/12/2016 9:54:42 AM	23696
EPA METHOD 8270C TCLP						Analyst:	DAM
2-Methylphenol	ND	200		mg/L	1	2/16/2016 1:45:28 PM	23755
3+4-Methylphenol	ND	200		mg/L	1	2/16/2016 1:45:28 PM	23755
Phenol	ND	200		mg/L	1	2/16/2016 1:45:28 PM	23755
2,4-Dinitrotoluene	ND	0.13		mg/L	1	2/16/2016 1:45:28 PM	23755
Hexachlorobenzene	ND	0.13		mg/L	1	2/16/2016 1:45:28 PM	23755
Hexachlorobutadiene	ND	0.50		mg/L	1	2/16/2016 1:45:28 PM	23755
Hexachloroethane	ND	3.0		mg/L	1	2/16/2016 1:45:28 PM	23755
Nitrobenzene	ND	2.0		mg/L	1	2/16/2016 1:45:28 PM	23755
Pentachlorophenol	ND	100		mg/L	1	2/16/2016 1:45:28 PM	23755
Pyridine	ND	5.0		mg/L	1	2/16/2016 1:45:28 PM	23755
2,4,5-Trichlorophenol	ND	400		mg/L	1	2/16/2016 1:45:28 PM	23755
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	2/16/2016 1:45:28 PM	23755
Cresols, Total	ND	200		mg/L	1	2/16/2016 1:45:28 PM	23755
Surr: 2-Fluorophenol	77.0	19-121		%Rec	1	2/16/2016 1:45:28 PM	23755
Surr: Phenol-d5	71.7	31.8-117		%Rec	1	2/16/2016 1:45:28 PM	23755
Surr: 2,4,6-Tribromophenol	104	31.3-139		%Rec	1	2/16/2016 1:45:28 PM	23755
Surr: Nitrobenzene-d5	99.0	48.2-128		%Rec	1	2/16/2016 1:45:28 PM	23755
Surr: 2-Fluorobiphenyl	97.8	58.4-114		%Rec	1	2/16/2016 1:45:28 PM	23755
Surr: 4-Terphenyl-d14	98.5	17.4-141		%Rec	1	2/16/2016 1:45:28 PM	23755
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst:	DJF
Benzene	ND	0.50		ppm	10	2/11/2016 1:07:11 PM	23666
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	2/11/2016 1:07:11 PM	23666
2-Butanone	ND	200		ppm	10	2/11/2016 1:07:11 PM	23666
Carbon tetrachloride	ND	0.50		ppm	10	2/11/2016 1:07:11 PM	23666
Chlorobenzene	ND	100		ppm	10	2/11/2016 1:07:11 PM	23666
Chloroform	ND	6.0		ppm	10	2/11/2016 1:07:11 PM	23666
1,4-Dichlorobenzene	ND	7.5		ppm	10	2/11/2016 1:07:11 PM	23666
1,1-Dichloroethene	ND	0.70		ppm	10	2/11/2016 1:07:11 PM	23666

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
Project: Tank 714 FCC Feed Spill
Lab ID: 1602354-001 **Matrix:** SOIL

Client Sample ID: Tank 714 FCC Feed Spill
Collection Date: 2/8/2016 1:00:00 PM
Received Date: 2/9/2016 3:22:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: DJF	
Tetrachloroethene (PCE)	ND	0.70		ppm	10	2/11/2016 1:07:11 PM	23666
Trichloroethene (TCE)	ND	0.50		ppm	10	2/11/2016 1:07:11 PM	23666
Vinyl chloride	ND	0.20		ppm	10	2/11/2016 1:07:11 PM	23666
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%Rec	10	2/11/2016 1:07:11 PM	23666
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	10	2/11/2016 1:07:11 PM	23666
Surr: Dibromofluoromethane	99.5	70-130		%Rec	10	2/11/2016 1:07:11 PM	23666
Surr: Toluene-d8	104	70-130		%Rec	10	2/11/2016 1:07:11 PM	23666

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
Project: Tank 714 FCC Feed Spill
Lab ID: 1602354-002 **Matrix:** SOIL

Client Sample ID: Tank 714 FCC Product
Collection Date: 2/8/2016 4:25:00 PM
Received Date: 2/9/2016 3:22:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
MERCURY, TCLP						Analyst:	pmf
Mercury	ND	0.020		mg/L	1	2/12/2016 10:22:59 AM	23694
EPA METHOD 6010B: TCLP METALS						Analyst:	ELS
Arsenic	ND	5.0		mg/L	1	2/12/2016 9:55:56 AM	23696
Barium	ND	100		mg/L	1	2/12/2016 9:55:56 AM	23696
Cadmium	ND	1.0		mg/L	1	2/12/2016 9:55:56 AM	23696
Chromium	ND	5.0		mg/L	1	2/12/2016 9:55:56 AM	23696
Lead	ND	5.0		mg/L	1	2/12/2016 9:55:56 AM	23696
Selenium	ND	1.0		mg/L	1	2/12/2016 9:55:56 AM	23696
Silver	ND	5.0		mg/L	1	2/12/2016 9:55:56 AM	23696
EPA METHOD 8270C TCLP						Analyst:	DAM
2-Methylphenol	ND	200		mg/L	1	2/16/2016 1:15:23 PM	23755
3+4-Methylphenol	ND	200		mg/L	1	2/16/2016 1:15:23 PM	23755
Phenol	ND	200		mg/L	1	2/16/2016 1:15:23 PM	23755
2,4-Dinitrotoluene	ND	0.13		mg/L	1	2/16/2016 1:15:23 PM	23755
Hexachlorobenzene	ND	0.13		mg/L	1	2/16/2016 1:15:23 PM	23755
Hexachlorobutadiene	ND	0.50		mg/L	1	2/16/2016 1:15:23 PM	23755
Hexachloroethane	ND	3.0		mg/L	1	2/16/2016 1:15:23 PM	23755
Nitrobenzene	ND	2.0		mg/L	1	2/16/2016 1:15:23 PM	23755
Pentachlorophenol	ND	100		mg/L	1	2/16/2016 1:15:23 PM	23755
Pyridine	ND	5.0		mg/L	1	2/16/2016 1:15:23 PM	23755
2,4,5-Trichlorophenol	ND	400		mg/L	1	2/16/2016 1:15:23 PM	23755
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	2/16/2016 1:15:23 PM	23755
Cresols, Total	ND	200		mg/L	1	2/16/2016 1:15:23 PM	23755
Surr: 2-Fluorophenol	77.0	19-121		%Rec	1	2/16/2016 1:15:23 PM	23755
Surr: Phenol-d5	71.4	31.8-117		%Rec	1	2/16/2016 1:15:23 PM	23755
Surr: 2,4,6-Tribromophenol	98.6	31.3-139		%Rec	1	2/16/2016 1:15:23 PM	23755
Surr: Nitrobenzene-d5	88.9	48.2-128		%Rec	1	2/16/2016 1:15:23 PM	23755
Surr: 2-Fluorobiphenyl	89.8	58.4-114		%Rec	1	2/16/2016 1:15:23 PM	23755
Surr: 4-Terphenyl-d14	96.5	17.4-141		%Rec	1	2/16/2016 1:15:23 PM	23755
VOLATILES BY 8260B/1311						Analyst:	DJF
Benzene	ND	0.50		mg/L	1	2/12/2016 2:06:32 PM	23698
2-Butanone	ND	200		mg/L	1	2/12/2016 2:06:32 PM	23698
Carbon Tetrachloride	ND	0.50		mg/L	1	2/12/2016 2:06:32 PM	23698
Chlorobenzene	ND	100		mg/L	1	2/12/2016 2:06:32 PM	23698
Chloroform	ND	6.0		mg/L	1	2/12/2016 2:06:32 PM	23698
1,4-Dichlorobenzene	ND	7.5		mg/L	1	2/12/2016 2:06:32 PM	23698
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	2/12/2016 2:06:32 PM	23698
1,1-Dichloroethene	ND	0.70		mg/L	1	2/12/2016 2:06:32 PM	23698

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
Project: Tank 714 FCC Feed Spill
Lab ID: 1602354-002 **Matrix:** SOIL

Client Sample ID: Tank 714 FCC Product
Collection Date: 2/8/2016 4:25:00 PM
Received Date: 2/9/2016 3:22:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
VOLATILES BY 8260B/1311						Analyst: DJF	
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	2/12/2016 2:06:32 PM	23698
Trichloroethene (TCE)	ND	0.50		mg/L	1	2/12/2016 2:06:32 PM	23698
Vinyl chloride	ND	0.20		mg/L	1	2/12/2016 2:06:32 PM	23698
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%Rec	1	2/12/2016 2:06:32 PM	23698
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	2/12/2016 2:06:32 PM	23698
Surr: Dibromofluoromethane	101	70-130		%Rec	1	2/12/2016 2:06:32 PM	23698
Surr: Toluene-d8	101	70-130		%Rec	1	2/12/2016 2:06:32 PM	23698

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

ENERGY LABORATORIES
Trust our People. Trust our Data.
Billings, MT 800.735.4489 • Casper, WY 888.235.0515
College Station, TX 888.690.2218 • Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B16020920-001
Client Sample ID: 1602354-001B, Tank 714 FCC Feed Spill

Report Date: 02/17/16
Collection Date: 02/08/16 13:00
DateReceived: 02/11/16
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	02/12/16 13:30 / jh
CORROSIVITY							
pH of Soil and Waste	8.1	s.u.		0.1		SW9045D	02/12/16 10:26 / jh
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch 7	02/16/16 16:09 / jpv
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch 7	02/12/16 12:05 / jh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B16020920-002
Client Sample ID: 1602354-002B, Tank 714 FCC Product

Report Date: 02/17/16
Collection Date: 02/08/16 16:25
DateReceived: 02/11/16
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	02/12/16 13:30 / jh
CORROSIVITY							
pH of Soil and Waste	7.2	s.u.		0.1		SW9045D	02/12/16 10:26 / jh
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch 7	02/16/16 16:17 / jpv
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch 7	02/12/16 12:05 / jh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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College Station, TX 800.690.2218 • Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated

Report Date: 02/17/16
Work Order: B16020920

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW1010M									Batch: R256485
Lab ID: LCS-R256485	Laboratory Control Sample				Run: PENSKY MARTEN CLOSED				02/12/16 13:30
Flash Point (Ignitability)	88.0	°F	30	98	98	102			
Lab ID: LCSDUP-R256485	Laboratory Control Sample Duplicate				Run: PENSKY MARTEN CLOSED				02/12/16 13:30
Flash Point (Ignitability)	88.0	°F	30	98	98	102			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated

Report Date: 02/17/16
Work Order: B16020920

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW846 Ch 7									Batch: 96345
Lab ID: LCS-96345	Laboratory Control Sample				Run: REACTIVE SULFIDE/CYANID				01/20/16 15:00
Sulfide, Reactive	34	mg/kg	20	109	70	130			
Lab ID: B16011154-001ADUP	Sample Duplicate				Run: REACTIVE SULFIDE/CYANID				01/20/16 15:00
Sulfide, Reactive	ND	mg/kg	20					10	
Method: SW846 Ch 7									Batch: 96345
Lab ID: MB-96345	Method Blank				Run: REACTIVE SULFIDE/CYANID				02/12/16 12:05
Sulfide, Reactive	ND	mg/kg	10						
Method: SW846 Ch 7									Batch: 96345
Lab ID: MB-96345	Method Blank				Run: SFA-201-B_160216A				02/16/16 16:06
Cyanide, Reactive	ND	mg/kg	0.05						
Lab ID: B16020920-001AMS	Sample Matrix Spike				Run: SFA-201-B_160216A				02/16/16 16:11
Cyanide, Reactive	0.11	mg/kg	0.050	108	80	120			
Lab ID: B16020920-001AMSD	Sample Matrix Spike Duplicate				Run: SFA-201-B_160216A				02/16/16 16:14
Cyanide, Reactive	0.11	mg/kg	0.050	106	80	120	2.2	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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College Station, TX 888.690.2218 • Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated

Report Date: 02/17/16
Work Order: B16020920

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW9045D								Analytical Run: ORION 720A HZW_160212A	
Lab ID: ICV	Initial Calibration Verification Standard								02/12/16 10:26
pH of Soil and Waste	7.96	s.u.	0.10	100	98	102			
Method: SW9045D									Batch: R256459
Lab ID: B16020920-001ADUP	Sample Duplicate				Run: ORION 720A HZW_160212A				02/12/16 10:26
pH of Soil and Waste	8.34	s.u.	0.10				2.6	3	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602354
17-Feb-16

Client: Western Refining Southwest, Gallup
Project: Tank 714 FCC Feed Spill

Sample ID mb-23666 SampType: MBLK TestCode: EPA Method 8260B: TCLP Compounds
Client ID: PBS Batch ID: 23666 RunNo: 32086
Prep Date: 2/10/2016 Analysis Date: 2/11/2016 SeqNo: 980986 Units: ppm

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		86.8	70	130			
Surr: 4-Bromofluorobenzene	0.56		0.5000		112	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.6	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			

Sample ID lcs-23666 SampType: LCS TestCode: EPA Method 8260B: TCLP Compounds
Client ID: LCSS Batch ID: 23666 RunNo: 32086
Prep Date: 2/10/2016 Analysis Date: 2/11/2016 SeqNo: 980987 Units: ppm

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.1	70	130			
Chlorobenzene	1.0	0.050	1.000	0	103	70	130			
1,1-Dichloroethene	0.80	0.050	1.000	0	80.1	70	130			
Trichloroethene (TCE)	0.94	0.050	1.000	0	93.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.3	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		109	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		97.3	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID 1602354-001ams SampType: MS TestCode: EPA Method 8260B: TCLP Compounds
Client ID: Tank 714 FCC Feed Batch ID: 23666 RunNo: 32086
Prep Date: 2/10/2016 Analysis Date: 2/11/2016 SeqNo: 980989 Units: ppm

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.50	1.000	0.2086	91.9	70	130			
Chlorobenzene	0.97	0.50	1.000	0	97.0	70	130			
1,1-Dichloroethene	0.83	0.50	1.000	0	83.0	72.6	149			
Trichloroethene (TCE)	0.94	0.50	1.000	0	94.4	62.4	139			
Surr: 1,2-Dichloroethane-d4	4.8		5.000		95.6	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602354

17-Feb-16

Client: Western Refining Southwest, Gallup

Project: Tank 714 FCC Feed Spill

Sample ID 1602354-001amsd SampType: MSD TestCode: EPA Method 8260B: TCLP Compounds

Client ID: Tank 714 FCC Feed Batch ID: 23666 RunNo: 32086

Prep Date: 2/10/2016 Analysis Date: 2/11/2016 SeqNo: 980990 Units: ppm

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.50	1.000	0.2086	98.7	70	130	5.83	20	
Chlorobenzene	0.96	0.50	1.000	0	96.3	70	130	0.776	20	
1,1-Dichloroethene	0.86	0.50	1.000	0	86.5	72.6	149	4.14	20	
Trichloroethene (TCE)	1.0	0.50	1.000	0	100	62.4	139	6.15	20	
Surr: 1,2-Dichloroethane-d4	4.8		5.000		95.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	5.5		5.000		110	70	130	0	0	
Surr: Dibromofluoromethane	5.0		5.000		100	70	130	0	0	
Surr: Toluene-d8	5.1		5.000		101	70	130	0	0	

Sample ID 1602354-001amsd SampType: MSD TestCode: EPA Method 8260B: TCLP Compounds

Client ID: Tank 714 FCC Feed Batch ID: 23666 RunNo: 32086

Prep Date: 2/10/2016 Analysis Date: 2/11/2016 SeqNo: 980990 Units: ppm

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	5.0		5.000		101	70	130			
Surr: Dibromofluoromethane	5.1		5.000		101	70	130			
Surr: Toluene-d8	5.1		5.000		101	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602354
17-Feb-16

Client: Western Refining Southwest, Gallup
Project: Tank 714 FCC Feed Spill

Sample ID mb-23698 SampType: MBLK TestCode: Volatiles by 8260B/1311
Client ID: PBS Batch ID: 23698 RunNo: 32125
Prep Date: 2/11/2016 Analysis Date: 2/12/2016 SeqNo: 982302 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50								
2-Butanone	ND	200								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	100								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethene	ND	0.70								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.50								
Vinyl chloride	ND	0.20								
Surr: 1,2-Dichloroethane-d4	0.19		0.2000		94.0	70	130			
Surr: 4-Bromofluorobenzene	0.21		0.2000		106	70	130			
Surr: Dibromofluoromethane	0.20		0.2000		98.8	70	130			
Surr: Toluene-d8	0.20		0.2000		99.9	70	130			

Sample ID lcs-23698 SampType: LCS TestCode: Volatiles by 8260B/1311
Client ID: LCSS Batch ID: 23698 RunNo: 32125
Prep Date: 2/11/2016 Analysis Date: 2/12/2016 SeqNo: 982303 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.41	0.30	0.4000	0	104	70	130			
Chlorobenzene	0.42	0.30	0.4000	0	104	70	130			
1,1-Dichloroethene	0.40	0.30	0.4000	0	98.8	63.8	148			
Trichloroethene (TCE)	0.40	0.30	0.4000	0	99.5	70	130			
Surr: 1,2-Dichloroethane-d4	0.19		0.2000		93.0	70	130			
Surr: 4-Bromofluorobenzene	0.21		0.2000		105	70	130			
Surr: Dibromofluoromethane	0.19		0.2000		96.9	70	130			
Surr: Toluene-d8	0.19		0.2000		93.3	70	130			

Sample ID 1602354-002ams SampType: MS TestCode: Volatiles by 8260B/1311
Client ID: Tank 714 FCC Prod Batch ID: 23698 RunNo: 32125
Prep Date: 2/11/2016 Analysis Date: 2/12/2016 SeqNo: 982305 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.45	0.30	0.3998	0	112	70	130			
Chlorobenzene	0.44	0.30	0.3998	0	110	70	130			
1,1-Dichloroethene	0.41	0.30	0.3998	0	101	89	129			
Trichloroethene (TCE)	0.42	0.30	0.3998	0	105	70	130			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602354

17-Feb-16

Client: Western Refining Southwest, Gallup

Project: Tank 714 FCC Feed Spill

Sample ID 1602354-002amsd SampType: MSD TestCode: Volatiles by 8260B/1311

Client ID: Tank 714 FCC Prod Batch ID: 23698 RunNo: 32125

Prep Date: 2/11/2016 Analysis Date: 2/12/2016 SeqNo: 982305 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.19		0.1999		93.8	70	130			
Surr: 4-Bromofluorobenzene	0.21		0.1999		106	70	130			
Surr: Dibromofluoromethane	0.19		0.1999		97.0	70	130			
Surr: Toluene-d8	0.20		0.1999		97.8	70	130			

Sample ID 1602354-002amsd SampType: MSD TestCode: Volatiles by 8260B/1311

Client ID: Tank 714 FCC Prod Batch ID: 23698 RunNo: 32125

Prep Date: 2/11/2016 Analysis Date: 2/12/2016 SeqNo: 982306 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.43	0.30	0.3998	0	107	70	130	4.66	20	
Chlorobenzene	0.43	0.30	0.3998	0	109	70	130	1.64	20	
1,1-Dichloroethene	0.40	0.30	0.3998	0	100	69	129	1.23	20	
Trichloroethene (TCE)	0.41	0.30	0.3998	0	102	70	130	2.52	20	
Surr: 1,2-Dichloroethane-d4	0.18		0.1999		91.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.21		0.1999		105	70	130	0	0	
Surr: Dibromofluoromethane	0.19		0.1999		95.3	70	130	0	0	
Surr: Toluene-d8	0.20		0.1999		101	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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#: 1602354

17-Feb-16

Client: Western Refining Southwest, Gallup

Project: Tank 714 FCC Feed Spill

Sample ID mb-23755 | SampType: MBLK | TestCode: EPA Method 8270C TCLP

Client ID: PBS | Batch ID: 23755 | RunNo: 32177

Prep Date: 2/16/2016 | Analysis Date: 2/16/2016 | SeqNo: 983657 | Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.20		0.2000		98.1	19	121			
Surr: Phenol-d5	0.19		0.2000		95.9	31.8	117			
Surr: 2,4,6-Tribromophenol	0.20		0.2000		99.2	31.3	139			
Surr: Nitrobenzene-d5	0.092		0.1000		92.5	48.2	128			
Surr: 2-Fluorobiphenyl	0.099		0.1000		98.9	58.4	114			
Surr: 4-Terphenyl-d14	0.12		0.1000		116	17.4	141			

Sample ID lcs-23755 | SampType: LCS | TestCode: EPA Method 8270C TCLP

Client ID: LCSS | Batch ID: 23755 | RunNo: 32177

Prep Date: 2/16/2016 | Analysis Date: 2/16/2016 | SeqNo: 983658 | Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.090	0.010	0.1000	0	90.1	37.6	110			
3+4-Methylphenol	0.22	0.010	0.2000	0	110	30.5	149			
2,4-Dinitrotoluene	0.077	0.010	0.1000	0	76.8	24.9	93.7			
Hexachlorobenzene	0.096	0.010	0.1000	0	96.0	40	114			
Hexachlorobutadiene	0.099	0.010	0.1000	0	98.5	37.4	119			
Hexachloroethane	0.087	0.010	0.1000	0	87.4	33.8	105			
Nitrobenzene	0.098	0.010	0.1000	0	98.1	33.4	115			
Pentachlorophenol	0.072	0.010	0.1000	0	72.1	27.9	90.3			
Pyridine	0.083	0.010	0.1000	0	82.9	29.3	105			
2,4,5-Trichlorophenol	0.098	0.010	0.1000	0	98.3	34	118			
2,4,6-Trichlorophenol	0.098	0.010	0.1000	0	98.1	34.1	109			
Cresols, Total	0.31	0.010	0.3000	0	104	30	136			
Surr: 2-Fluorophenol	0.17		0.2000		86.4	19	121			
Surr: Phenol-d5	0.18		0.2000		89.8	31.8	117			

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#: 1602354
17-Feb-16

Client: Western Refining Southwest, Gallup
Project: Tank 714 FCC Feed Spill

Sample ID lcs-23755 SampType: LCS TestCode: EPA Method 8270C TCLP
Client ID: LCSS Batch ID: 23755 RunNo: 32177
Prep Date: 2/16/2016 Analysis Date: 2/16/2016 SeqNo: 983658 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.21		0.2000		104	31.3	139			
Surr: Nitrobenzene-d5	0.094		0.1000		94.2	48.2	128			
Surr: 2-Fluorobiphenyl	0.088		0.1000		87.7	58.4	114			
Surr: 4-Terphenyl-d14	0.090		0.1000		90.0	17.4	141			

Sample ID 1602354-001ams SampType: MS TestCode: EPA Method 8270C TCLP
Client ID: Tank 714 FCC Feed Batch ID: 23755 RunNo: 32177
Prep Date: 2/16/2016 Analysis Date: 2/16/2016 SeqNo: 983661 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.10	0.010	0.1000	0	105	43.1	114			
3+4-Methylphenol	0.25	0.010	0.2000	0	126	37.8	128			
2,4-Dinitrotoluene	0.090	0.010	0.1000	0	90.4	36.5	125			
Hexachlorobenzene	0.11	0.010	0.1000	0	110	41.4	108			S
Hexachlorobutadiene	0.095	0.010	0.1000	0	95.4	30.4	101			
Hexachloroethane	0.091	0.010	0.1000	0	90.9	37.3	115			
Nitrobenzene	0.10	0.010	0.1000	0	102	40.2	132			
Pentachlorophenol	0.082	0.010	0.1000	0	81.6	8.72	103			
Pyridine	0.086	0.010	0.1000	0	86.3	9.36	106			
2,4,5-Trichlorophenol	0.12	0.010	0.1000	0	116	16.5	123			
2,4,6-Trichlorophenol	0.11	0.010	0.1000	0	112	11.3	117			
Cresols, Total	0.36	0.010	0.3000	0	119	23.2	151			
Surr: 2-Fluorophenol	0.18		0.2000		87.6	19	121			
Surr: Phenol-d5	0.16		0.2000		79.1	31.8	117			
Surr: 2,4,6-Tribromophenol	0.24		0.2000		118	31.3	139			
Surr: Nitrobenzene-d5	0.11		0.1000		105	48.2	128			
Surr: 2-Fluorobiphenyl	0.10		0.1000		104	58.4	114			
Surr: 4-Terphenyl-d14	0.12		0.1000		123	17.4	141			

Sample ID 1602354-001amsd SampType: MSD TestCode: EPA Method 8270C TCLP
Client ID: Tank 714 FCC Feed Batch ID: 23755 RunNo: 32177
Prep Date: 2/16/2016 Analysis Date: 2/16/2016 SeqNo: 983662 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.079	0.010	0.1000	0	79.0	43.1	114	28.2	28.4	
3+4-Methylphenol	0.18	0.010	0.2000	0	88.0	37.8	128	35.5	29.4	R
2,4-Dinitrotoluene	0.076	0.010	0.1000	0	76.1	36.5	125	17.2	24.7	
Hexachlorobenzene	0.092	0.010	0.1000	0	91.9	41.4	108	17.7	20	
Hexachlorobutadiene	0.079	0.010	0.1000	0	78.8	30.4	101	19.2	29	
Hexachloroethane	0.073	0.010	0.1000	0	72.8	37.3	115	22.1	25.2	

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602354

17-Feb-16

Client: Western Refining Southwest, Gallup

Project: Tank 714 FCC Feed Spill

Sample ID: 1602354-001amsd SampType: MSD TestCode: EPA Method 8270C TCLP

Client ID: Tank 714 FCC Feed Batch ID: 23755 RunNo: 32177

Prep Date: 2/16/2016 Analysis Date: 2/16/2016 SeqNo: 983562 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	0.082	0.010	0.1000	0	81.8	40.2	132	21.8	26.9	
Pentachlorophenol	ND	0.010	0.1000	0	0	8.72	103	200	59.2	RS
Pyridine	0.063	0.010	0.1000	0	63.2	9.36	106	30.9	48	
2,4,5-Trichlorophenol	0.019	0.010	0.1000	0	18.8	16.5	123	144	70.8	R
2,4,6-Trichlorophenol	ND	0.010	0.1000	0	0	11.3	117	200	78	RS
Cresols, Total	0.26	0.010	0.3000	0	85.0	23.2	151	33.3	30.8	R
Surr: 2-Fluorophenol	0.021		0.2000		10.7	19	121	0	0	S
Surr: Phenol-d5	0.080		0.2000		40.0	31.8	117	0	0	
Surr: 2,4,6-Tribromophenol	0.032		0.2000		16.1	31.3	139	0	0	S
Surr: Nitrobenzene-d5	0.086		0.1000		85.7	46.2	128	0	0	
Surr: 2-Fluorobiphenyl	0.088		0.1000		88.1	58.4	114	0	0	
Surr: 4-Terphenyl-d14	0.10		0.1000		100	17.4	141	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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#: 1602354

17-Feb-16

Client: Western Refining Southwest, Gallup

Project: Tank 714 FCC Feed Spill

Sample ID MB-23694 SampType: MBLK TestCode: MERCURY, TCLP
Client ID: PBW Batch ID: 23694 RunNo: 32124
Prep Date: 2/11/2016 Analysis Date: 2/12/2016 SeqNo: 982123 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID LCS-23694 SampType: LCS TestCode: MERCURY, TCLP
Client ID: LCSW Batch ID: 23694 RunNo: 32124
Prep Date: 2/11/2016 Analysis Date: 2/12/2016 SeqNo: 982124 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	105	80	120			

Sample ID 1602354-001AMS SampType: ms TestCode: MERCURY, TCLP
Client ID: Tank 714 FCC Feed Batch ID: 23694 RunNo: 32124
Prep Date: 2/11/2016 Analysis Date: 2/12/2016 SeqNo: 982126 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	106	75	125			

Sample ID 1602354-001AMSD SampType: msd TestCode: MERCURY, TCLP
Client ID: Tank 714 FCC Feed Batch ID: 23694 RunNo: 32124
Prep Date: 2/11/2016 Analysis Date: 2/12/2016 SeqNo: 982127 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	103	75	125	0	20	

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#: 1602354
17-Feb-16

Client: Western Refining Southwest, Gallup
Project: Tank 714 FCC Feed Spill

Sample ID MB-23696 SampType: MBLK TestCode: EPA Method 6010B: TCLP Metals
Client ID: PBW Batch ID: 23696 RunNo: 32097
Prep Date: 2/11/2016 Analysis Date: 2/12/2016 SeqNo: 981255 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID LCS-23696 SampType: LCS TestCode: EPA Method 6010B: TCLP Metals
Client ID: LCSW Batch ID: 23696 RunNo: 32097
Prep Date: 2/11/2016 Analysis Date: 2/12/2016 SeqNo: 981256 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	110	80	120			
Barium	ND	100	0.5000	0	98.7	80	120			
Cadmium	ND	1.0	0.5000	0	103	80	120			
Chromium	ND	5.0	0.5000	0	99.1	80	120			
Lead	ND	5.0	0.5000	0	101	80	120			
Selenium	ND	1.0	0.5000	0	112	80	120			
Silver	ND	5.0	0.1000	0	106	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

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: 1602354 RcptNo: 1

Received by/date: AG 02/09/16

Logged By: Anne Thorne 2/9/2016 3:22:00 PM

Completed By: Anne Thorne 2/10/2016

Reviewed By: JD 02/10/16

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? Courier

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? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
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? Yes ☑ No ☐
    (If no, notify customer for authorization.)

# 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	4.9	Good	Yes			

Chain-of-Custody Record

Client: Western - Refining

Gallup Refinery

Mailing Address: 92 GIANT CROSSING ROAD

Gallup NM 87301

Phone #: 505 722 3833

email or Fax#: 505 863 0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard ☒ Rush

Project Name: Tank 714 FCC Feed Spill

Project #: Tank 714 FCC Feed Spill

Project Manager: PO # 20825281 Beck Larsen

Sampler: CTI/JG

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.9

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID 02/09/16	Container Type and #	Preservative Type	HEAL No. 1602354	TCLP VOA	TCP SEMI VOA	RCI	RCRA 8 Metals											Air Bubbles (Y or N)
2/8/2016	13:00	Soil	Tank 714 FCC Feed Spill	9 oz -1		001	X	X	X	X											
2/8/2016	13:05		Tank 714 FCC Feed Spill	9 oz -1		001	X	X	X	X											
2/8/2016	13:08		Tank 714 FCC Feed Spill	9 oz -1		001	X	X	X	X											
2/8/2016	13:10		Tank 714 FCC Feed Spill	9 oz -1		001	X	X	X	X											
2/8/2016	13:12		Tank 714 FCC Feed Spill	9 oz -1		001	X	X	X	X											
2/8/2016	13:15		Tank 714 FCC Feed Spill	9 oz -1		001	X	X	X	X											
2/8/2016	16:25	Oil	Tank 714 FCC Product	9 oz -1		002	X	X	X	X											
2/8/2016	16:28		Tank 714 FCC Product	9 oz -1		002	X	X	X	X											
2/8/2016	16:30		Tank 714 FCC Product	9 oz -1		002	X	X	X	X											
2/8/2016	16:32		Tank 714 FCC Product	9 oz -1		002	X	X	X	X											
2/8/2016	16:35		Tank 714 FCC Product	9 oz -1		002	X	X	X	X											
2/8/2016	16:38		Tank 714 FCC Product	9 oz -1		002	X	X	X	X											

Date	Time	Relinquished by	Received by	Date	Time
02-09-16	Time: 14:00			2/9/16	14:00
2/9/16	15:22			02/09/16	1528

Remarks: Per BL 2 Samples 1602354

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.

SAFETY DATA SHEET

Cat Cracked Distillate, Heavy

Section 1. Identification

GHS product identifier : Cat Cracked Distillate, Heavy

Chemical name : Distillates (petroleum),heavy catalytic cracked

Other means of identification : FCC Heavy Cycle Oil, HCO, Cat Cracked Gas Oil, Heavy Cat Gas Oil

Relevant identified uses of the substance or mixture and uses advised against

Not available.

Supplier's details : Western Refining Company LP
123 W. Mills Avenue
El Paso, TX 79901
Tel: 915-534-1488

Emergency telephone number (with hours of operation) : CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3877 (24/7)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 4
CARCINOGENICITY - Category 1B

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Combustible liquid.
May cause cancer.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from flames and hot surfaces. - No smoking.

Response : IF exposed or concerned: Get medical attention.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Chemical name : Distillates (petroleum),heavy catalytic cracked

Other means of identification : FCC Heavy Cycle Oil, HCO, Cat Cracked Gas Oil, Heavy Cat Gas Oil

CAS number/other identifiers

CAS number : 64741-61-3

Product code : Not available.

Ingredient name	%	CAS number
Distillates (petroleum),heavy catalytic cracked	100	64741-61-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

Section 4. First aid measures

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Combustible liquid.

Hazardous thermal decomposition products : No specific data.

Special protective actions for fire-fighters : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures : Appropriate techniques should be used to remove potentially contaminated clothing. IF ON SKIN (or hair): Wash contaminated clothing before reuse.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Brown to black.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : >-10°C (>14°F)

Boiling point : 204.44 to 426.67°C (400 to 800°F)

Flash point : Closed cup: 65.556 to 93.333°C (150 to 200°F)
Open cup: >115.56°C (>240°F) [Cleveland.]

Burning time : Not applicable.

Burning rate : Not applicable.

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1%
Upper: 6%

Vapor pressure : <0.13 kPa (<1 mm Hg) [room temperature]

Vapor density : Not available.

Relative density : 0.97 to 0.99

Solubility : Soluble in hydrocarbon solvents; insoluble in water.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : 371°C (699.8°F)

Decomposition temperature : Not available.

SADT : Not available.

Viscosity : Kinematic (40°C (104°F)): >0.205 cm^2/s (>20.5 cSt)

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Section 10. Stability and reactivity

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

There is no data available.

Irritation/Corrosion

There is no data available.

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Section 11. Toxicological information

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

There is no data available.

Section 12. Ecological information

Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Bioaccumulative potential

There is no data available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : There is no data available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid

Section 13. Disposal considerations

dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	NA1993	Not regulated.	Not regulated.
UN proper shipping name	COMBUSTIBLE LIQUID, N.O.S. (Distillates (petroleum),heavy catalytic cracked)	-	-
Transport hazard class(es)	3	-	-
Packing group	III	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

AERG : 128

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption**: This material is listed or exempted.
United States inventory (TSCA 8b): This material is listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Section 15. Regulatory information

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Distillates (petroleum),heavy catalytic cracked	100	No.	No.	No.	No.	Yes.

State regulations

Massachusetts : This material is not listed.

New York : This material is not listed.

New Jersey : This material is not listed.

Pennsylvania : This material is not listed.

California Prop. 65

No products were found.

International regulations

International lists : **Australia inventory (AICS)**: This material is listed or exempted.
China inventory (IECSC): This material is listed or exempted.
Japan inventory: Not determined.
Korea inventory: This material is listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan inventory (CSNN): Not determined.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

Section 16. Other information

History

Date of issue mm/dd/yyyy : 07/31/2014

Date of previous issue : 05/15/2013

Version : 3

Revised Section(s) : 8, 16.

Prepared by : KMK Regulatory Services Inc.

Section 16. Other information

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.