



MCollier@H-R_Enterprises.com 575-909-0326

Site Assessment and Closure Report

Marquardt Federal #012H
Incident# nAB1634936868
Eddy County, New Mexico

Prepared For:

Cimarex Energy Co. of Colorado
6001 Deauville Blvd. Suite 300N
Midland, TX 79706

Prepared By:

H&R Enterprises, LLC
5120 W. Kansas St.
Hobbs, New Mexico 88242

January 4, 2024

Mr. Mike Bratcher
NMOCD
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Subject: **Site Assessment and Closure Report**
Marquardt Federal #012H
Eddy County, NM

Dear Mr. Bratcher,

Cimarex Energy Co. of Colorado has contracted H&R Enterprises (H&R) to perform site assessment sampling services at the above-referenced location. The results of our site assessment sampling activities are contained herein.

Site Information

The Marquardt Federal #012H is located approximately 17 miles South of Carlsbad, New Mexico. The legal location for this release is Unit Letter P, Section 12, Township 25 South and Range 26 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.137353 North and -104.237877 West. Site plans are presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Reeves-Gypsum land complex, 0 to 3 percent slopes. The referenced soil data is attached in [Appendix II](#). Drainage courses in this area are typically dry. The project site is located in a high Karst potential area (Karst Map, [Appendix I](#)).

Groundwater and Site Characterization

The New Mexico Office of the State Engineer web site indicates that the nearest reported depth to groundwater is 14-feet below ground surface (BGS). See [Appendix II](#) for the referenced groundwater data.

If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to the groundwater in Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29, NMAC.

Approximate Depth to Groundwater

14 Feet/BGS

☐ Yes ☒ No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
☐ Yes ☒ No	Within 200 feet of any lakebed, sinkhole, or a playa lake
☐ Yes ☒ No	Within 300 feet from an occupied permanent residence, school, hospital, institution, or church
☐ Yes ☒ No	Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes
☐ Yes ☒ No	Within 1000 feet of any freshwater well or spring
☐ Yes ☒ No	Within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
☒ Yes ☐ No	Within 300 feet of a wetland
☐ Yes ☒ No	Within the area overlying a subsurface mine
☒ Yes ☐ No	Within an unstable area
☒ Yes ☐ No	Within a 100-year floodplain

As this is a site assessment in a high karst area, as well as being in an area with a depth to groundwater of less than 50-feet BGS, the closure criteria for this site is as follows:

Table I			
Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride **	EPA 300.0 or SM4500 CIB	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Incident Description

On October 12, 2016, it was discovered that a check valve failed on a poly water transfer line on the right-of-way, resulting in the release of 50 barrels (bbls) of produced water onto the right-of-way. A total of 35 bbls were recovered.

2017 Deferment Report

On September 29, 2017, A deferment report was submitted to NMOCD containing lab data from the sampling activities performed previously for this release. This data showed that the release area was not vertically delineated. Data collected from this sampling event as well as lab data from the current sampling event is presented in Table 1 below. Previous sampling locations are illustrated on the Spill Assessment Map, [Appendix I](#). Current Site Assessment sampling locations are illustrated on Site Assessment Map, [Appendix I](#). Complete laboratory reports from this previous sampling event can be found in [Appendix V](#).

Table 1: 2016-17 and 2023 Spill Assessment Soil Samples Analysis Pg. 1

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	100 mg/kg			100 mg/kg	600 mg/kg
AH-1	11/14/2016	0-0.5'	ND	ND	ND	ND	ND	0	ND
AH-2	11/14/2016	0-1'	ND	ND	ND	ND	ND	0	388
		1-1.5'	ND	ND	ND	ND	ND	0	146
		2-2.5'	ND	ND	ND	ND	ND	0	146
AH-3	11/14/2016	0-0.5'	ND	ND	ND	ND	ND	0	291
AH-4	11/14/2016	0-1'	ND	ND	ND	ND	ND	0	3200
		1-1.5'	ND	ND	ND	ND	ND	0	680
	3/29/2017	0-1'	ND	ND	ND	ND	ND	0	1470
S-1	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	ND
		2'	ND	ND	ND	ND	ND	0	ND
		3' R	ND	ND	ND	ND	ND	0	7.84
AH-5	11/14/2016	0-1'	ND	ND	ND	ND	ND	0	1070
		1-1.5'	ND	ND	ND	ND	ND	0	874
	3/29/2017	0-1'	ND	ND	ND	ND	ND	0	2060
S-2	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	ND
		2'	ND	ND	ND	ND	ND	0	ND
		3' R	ND	ND	ND	ND	ND	0	ND
AH-6	11/14/2016	0-1'	ND	ND	ND	ND	ND	0	1650
	3/29/2017	0-1'	ND	ND	ND	ND	ND	0	1420
		1-1.5'	ND	ND	ND	ND	ND	0	3330
S-3	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	ND
		2'	ND	ND	ND	ND	ND	0	43.4
		3' R	ND	ND	ND	ND	ND	0	ND
AH-7	11/14/2016	0-1'	ND	ND	ND	ND	ND	0	1660
	3/29/2017	0-1'	ND	ND	ND	ND	ND	0	5110
		1-1.5'	ND	ND	ND	ND	ND	0	497
S-4	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	ND
		2'	ND	ND	ND	ND	ND	0	ND
		3' R	ND	ND	ND	ND	ND	0	ND
AH-8	11/14/2016	0-1'	ND	ND	ND	ND	ND	0	4330
		1-1.5'	ND	ND	ND	ND	ND	0	146
	3/29/2017	0-1'	ND	ND	ND	ND	ND	0	123
S-5	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	ND
		2'	ND	ND	ND	56	ND	56	ND
		3' R	ND	ND	ND	ND	ND	0	ND

ND = Analyte Not Detected AH = Hand Auger Sample Point S = Vertical Sample Point

Table 1: 2016-17 and Current Spill Assessment Soil Samples Analysis Pg. 2

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	100 mg/kg			100 mg/kg	600 mg/kg
AH-9	11/14/2016	0-1'	ND	ND	ND	ND	ND	0	146
AH-10	11/14/2016	0-1'	ND	ND	ND	ND	ND	0	292
		1-1.5'	ND	ND	ND	ND	ND	0	ND
AH-11	11/14/2016	0-1'	ND	ND	ND	ND	ND	0	341
S-6	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	ND
		2'	ND	ND	ND	ND	ND	0	ND
		3' R	ND	ND	ND	ND	ND	0	ND
AH-12	11/14/2016	0-1'	ND	ND	ND	ND	ND	0	3700
		1-1.5'	ND	ND	ND	ND	ND	0	3600
		2-2.5'	ND	ND	ND	ND	ND	0	487
	3/29/2017	0-1'	ND	ND	ND	ND	ND	0	3040
		1-1.5'	ND	ND	ND	ND	ND	0	1750
S-7	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	7.88
		2'	ND	ND	ND	ND	ND	0	ND
		3' R	ND	ND	ND	ND	ND	0	ND
AH-13	11/14/2016	0-1'	ND	ND	ND	ND	ND	0	7010
		1-1.5'	ND	ND	ND	ND	ND	0	487
		2-2.5'	ND	ND	ND	ND	ND	0	ND
	3/29/2017	0-1'	ND	ND	ND	ND	ND	0	4870
S-8	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	5.14
		2'	ND	ND	ND	ND	ND	0	ND
		3' R	ND	ND	ND	ND	ND	0	ND
Background	11/14/2016	0-1'	ND	ND	ND	ND	ND	0	146
H-1	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	5.65
H-2	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	ND
H-3	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	5.14
H-4	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	ND
H-5	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	ND
H-6	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	5.11
H-7	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	ND
H-8	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	ND
H-9	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	5.02
H-10	11/14/2023	0-1'	ND	ND	ND	ND	ND	0	8.32

ND = Analyte Not Detected AH = Hand Auger Sample Point S = Vertical Sample Point H = Horizontal Sample Point

H&R personnel returned to the historical release area to delineate the sample point of the historical release area that were not previously delineated in 2016 or 2017. Grab samples were obtained by way of hand auguring the release area. Samples collected were transported to Eurofins Laboratory for analysis.

Closure

Based on the current site assessment sampling results completed for this project, on behalf of Cimarex Energy Co. of Colorado, we request that no further actions be required, and that closure of this incident be granted.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-909-0326.

Respectfully submitted,

H&R Enterprises, LLC

Michael Collier

Michael Collier
Environmental Project Manager

Attachments:

Appendix I Site Maps
Appendix II Soil Survey, Groundwater Data, FEMA Flood Zone
Appendix III Initial and Final C-141
Appendix IV Photographic Documentation
Appendix V Laboratory Reports

APPENDIX I

SITE MAPS

KARST MAP

TOPOGRAPHIC MAP

LOCATOR MAP



Marquardt Federal #012H

Cimarex Energy Co. of Colorado
Incident# nAB1634936868
Eddy County, NM
Site Assessment Map

Legend

- Horizontal Sample Point
- Release Area
- Vertical Sample Point

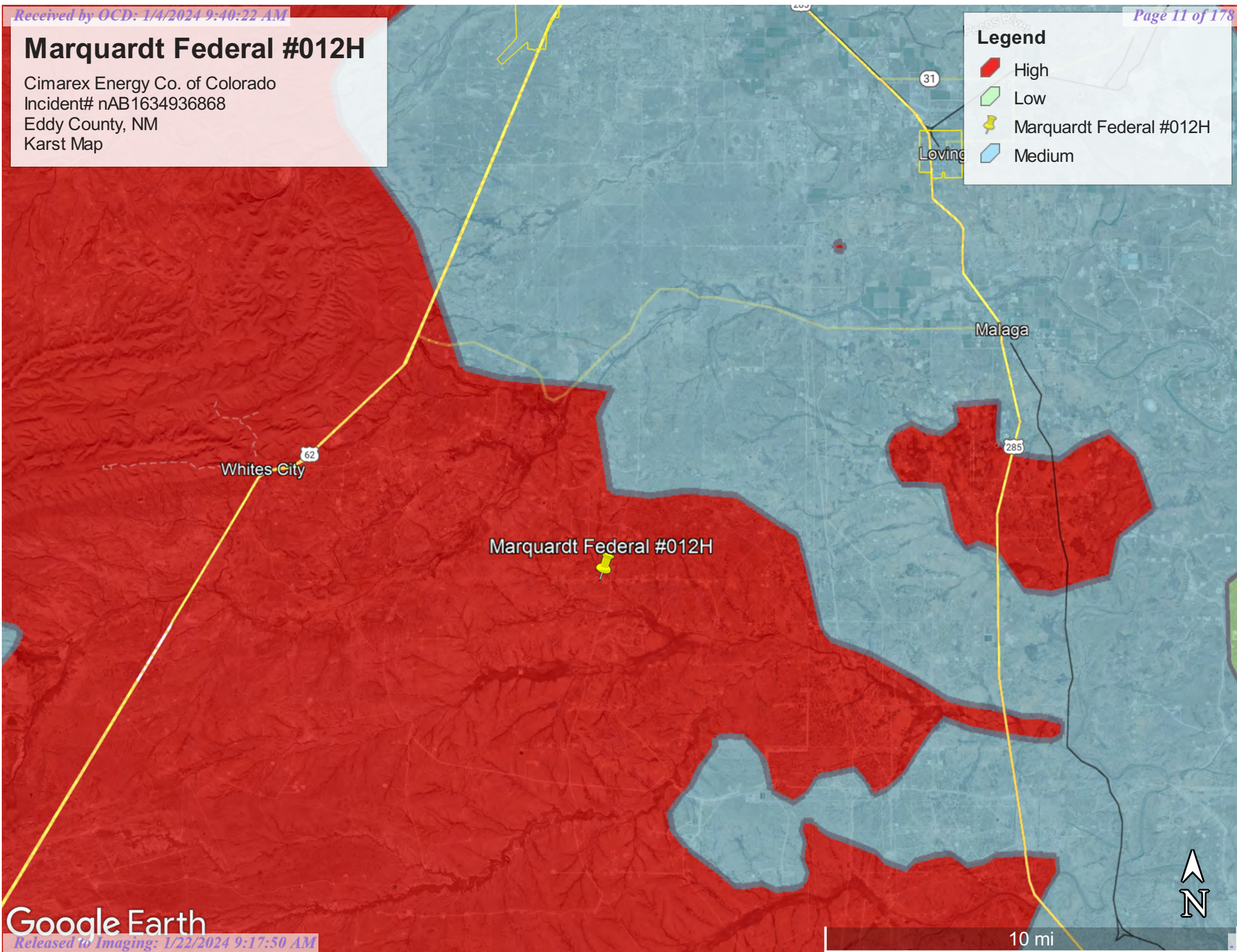


Marquardt Federal #012H

Cimarex Energy Co. of Colorado
Incident# nAB1634936868
Eddy County, NM
Karst Map

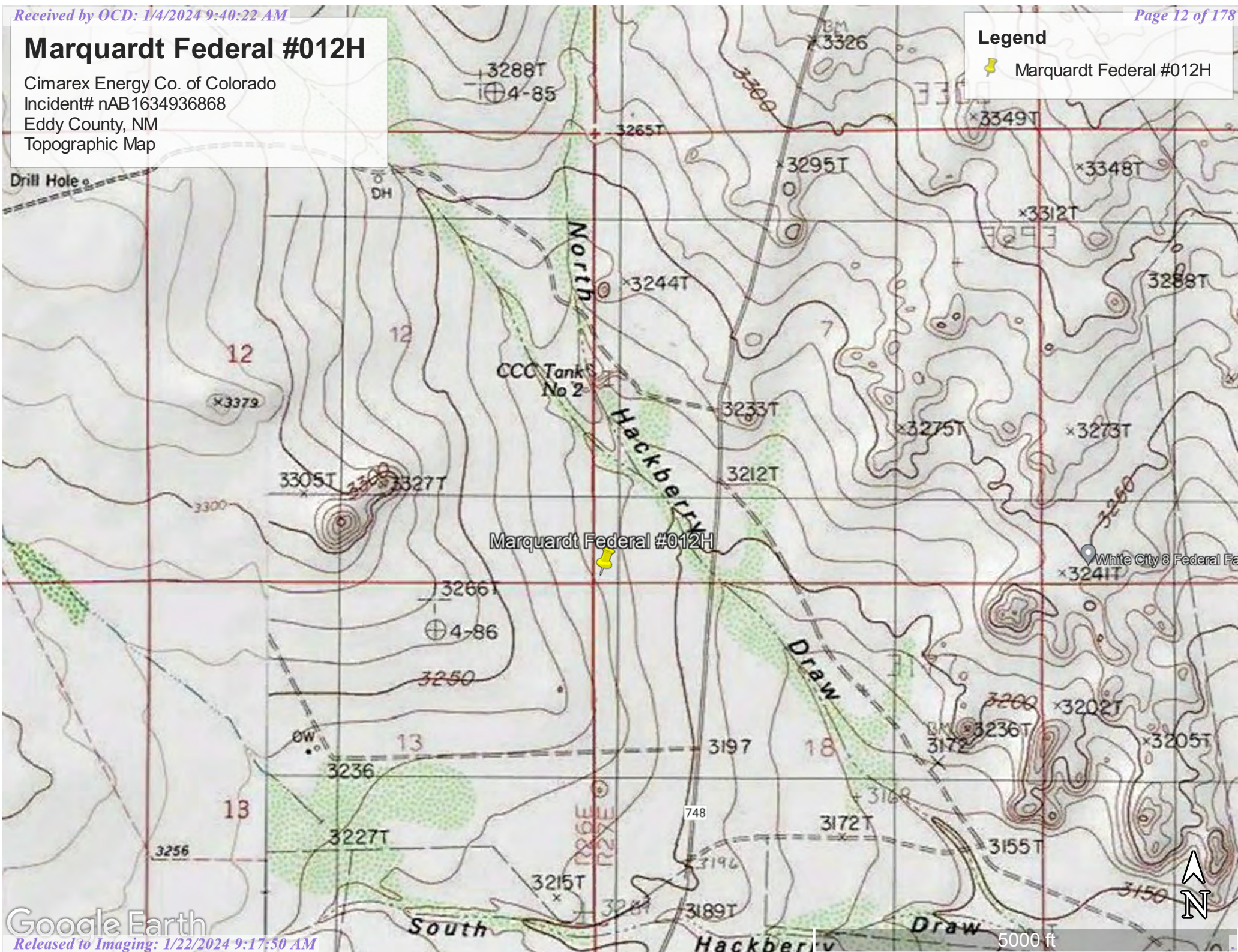
Legend

- High
- Low
- Marquardt Federal #012H
- Medium



Cimarex Energy Co. of Colorado
Incident# nAB1634936868
Eddy County, NM
Topographic Map

 Marquardt Federal #012H

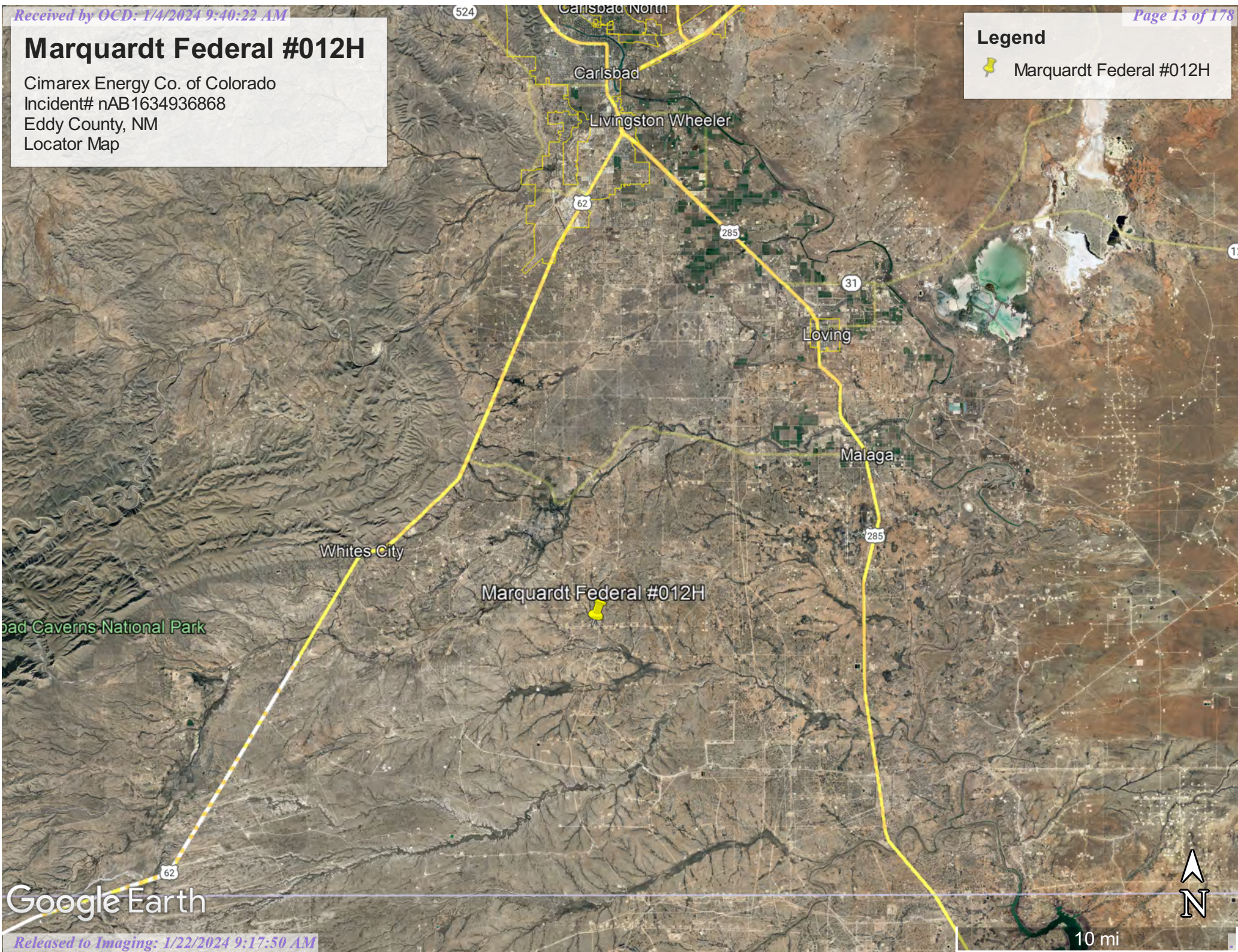


Marquardt Federal #012H

Cimarex Energy Co. of Colorado
Incident# nAB1634936868
Eddy County, NM
Locator Map

Legend

 Marquardt Federal #012H



Google Earth

APPENDIX II

GROUNDWATER DATA

SOIL SURVEY

FEMA FLOOD ZONE

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
C_03654 POD1		CUB	ED	2	3	1	24	25S	26E	570654	3553773	☐	2605		
C_03261 POD1		CUB	ED	3	2	1	20	25S	27E	574007	3554006*	☐	2608	351	
C_03569 POD1		CUB	ED	2	1	1	14	25S	26E	568862	3555746	☐	3331	30	0 30
C_02221		CUB	ED	4	3	2	25	25S	26E	571412	3551961*	☐	3993	35	
C_02220		CUB	ED	3	1	2	26	25S	26E	569598	3552352*	☐	4375	35	
C_01013		C	ED			4	25	25S	26E	571505	3551456*	☐	4474	245	
C_03655 POD3		CUB	ED	1	4	4	22	25S	26E	568458	3553019	☐	4700		
C_04329 POD1		C	ED	2	2	2	27	25S	26E	568577	3552567	☐	4900	57	14 43

Average Depth to Water: 7 feet

Minimum Depth: 0 feet

Maximum Depth: 14 feet

Record Count: 8

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 572190.21 Northing (Y): 3555877.56 Radius: 5000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Map Unit Description: Reeves-Gypsum land complex, 0 to 3 percent slopes---Eddy Area, New Mexico

Eddy Area, New Mexico

RG—Reeves-Gypsum land complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w5f
Elevation: 1,250 to 5,000 feet
Mean annual precipitation: 10 to 25 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 190 to 235 days
Farmland classification: Not prime farmland

Map Unit Composition

Reeves and similar soils: 55 percent
Gypsum land: 30 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reeves

Setting

Landform: Ridges, plains, hills
Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Side slope, head slope, nose slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from gypsum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 32 inches: clay loam
H3 - 32 to 60 inches: gypsiferous material

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Gypsum, maximum content: 80 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Map Unit Description: Reeves-Gypsum land complex, 0 to 3 percent slopes---Eddy Area, New Mexico

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Description of Gypsum Land**Setting**

Landform: Ridges, plains, hills
Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Side slope, head slope, nose slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from gypsum

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components**Reagan**

Percent of map unit: 5 percent
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Largo

Percent of map unit: 5 percent
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Cottonwood

Percent of map unit: 5 percent
Ecological site: R070BC033NM - Salty Bottomland
Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 19, Sep 7, 2023

National Flood Hazard Layer FIRMette



104°14'35"W 32°8'30"N



1:6,000

104°13'58"W 32°7'59"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/28/2023 at 2:40 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX III

INITIAL C-141

FINAL C-141

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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141

Revised August 8, 2011

DEC 12 2016

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

RECEIVED

Release Notification and Corrective Action

NAB1634936868

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Cimarex Energy	Contact Christine Alderman
Address 600 N Marienfeld Ste 600 Midland TX	Telephone No. 432-853-7059
Facility Name Marquardt 12H	Facility Type Production
Surface Owner fed	Mineral Owner
API No. 30-015-41850	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	12	25S	26E	330	S	400	E	Eddy

Latitude 32.13807 Longitude -104.23923

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 50 bbls	Volume Recovered 35 bbls
Source of Release valve	Date and Hour of Occurrence 10/12/2016	Date and Hour of Discovery 10/12/2016
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Shelly Tucker/Heather Patterson	
By Whom? Christine Alderman	Date and Hour 10/13/2016	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.

Describe Cause of Problem and Remedial Action Taken.

A check valve failed on a poly water transfer line on the ROW. All standing fluids were picked up with a vacuum truck.

Describe Area Affected and Cleanup Action Taken.

We will hydro vac the impacted area to try to get the heavily contaminated areas removed and then we will sample.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC 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 NMOC 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, NMOC 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.

OIL CONSERVATION DIVISION

Signature: Christine Alderman

Printed Name: Christine Alderman

Approved by Environmental Specialist:

Title: ESH Supervisor

Approval Date: 12/13/16

Expiration Date: N/A

E-mail Address: calderman@cimarex.com

Conditions of Approval:

Attached ☒

Date: 10/13/2016 Phone: 432-853-7059

* Attach Additional Sheets If Necessary

2RP-4030

***** LIQUID SPILLS - VOLUME CALCULATIONS *****

Location of spill: MARQUARDT FEDERAL #012H

Date of Spill: 10/12/2016

If the leak/spill is associated with production equipment, i.e. - wellhead, stuffing box,
flowline, tank battery, production vessel, transfer pump, or storage tank place an "X" here: ☐

Input Data:

If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here: OIL: 0.0000 BBL WATER: 0.0000 BBL

If "known" spill volumes are given, input data for the following "Area Calculations" is optional. The above will override the calculated volumes.

Total Area Calculations						Standing Liquid Calculations									
Total Surface Area		width	length	wet soil depth	oil (%)	Standing Liquid Area		width	length	liquid depth	oil (%)				
	Rectangle Area #1	1,530 ft	X	4 ft	X	4 in	0%		Rectangle Area #1	0 ft	X	0 ft	X	0 in	0%
	Rectangle Area #2	0 ft	X	0 ft	X	0 in	0%		Rectangle Area #2	0 ft	X	0 ft	X	0 in	0%
	Rectangle Area #3	0 ft	X	0 ft	X	0 in	0%		Rectangle Area #3	0 ft	X	0 ft	X	0 in	0%
	Rectangle Area #4	0 ft	X	0 ft	X	0 in	0%		Rectangle Area #4	0 ft	X	0 ft	X	0 in	0%
	Rectangle Area #5	0 ft	X	0 ft	X	0 in	0%		Rectangle Area #5	0 ft	X	0 ft	X	0 in	0%
	Rectangle Area #6	0 ft	X	0 ft	X	0 in	0%		Rectangle Area #6	0 ft	X	0 ft	X	0 in	0%
	Rectangle Area #7	0 ft	X	0 ft	X	0 in	0%		Rectangle Area #7	0 ft	X	0 ft	X	0 in	0%
	Rectangle Area #8	0 ft	X	0 ft	X	0 in	0%		Rectangle Area #8	0 ft	X	0 ft	X	0 in	0%

<u>Saturated Soil Volume Calculations:</u>				<u>Free Liquid Volume Calculations:</u>			
Total Solid/Liquid Volume:	6,120 sq. ft.	H2O 1,989 cu. ft.	OIL cu. ft.	Total Free Liquid Volume:	sq. ft.	H2O .000 cu. ft.	OIL .000 cu. ft.
<u>Estimated Volumes Spilled</u>				<u>Estimated Production Volumes Lost</u>			
Liquid in Soil:	49.6 BBL	H2O	OIL 0.0 BBL	Estimated Production Spilled:	0.000000 BBL	H2O	OIL 0.000000 BBL
Free Liquid:	0.0 BBL		OIL 0.0 BBL	<u>Estimated Surface Damage</u>			
Totals:	49.592 BBL		0.000 BBL	Surface Area:	6,120 sq. ft.		
Total Liquid Spill Liquid:	49.592 BBL		0.000 BBL	Surface Area:	.1405 acre		
<u>Recovered Volumes</u>				<u>Estimated Weights, and Volumes</u>			
Estimated oil recovered:	0.0 BBL	check - okay		Saturated Soil =	222,768 lbs	1,989 cu.ft.	74 cu.yds.
Estimated water recovered:	0.0 BBL	check - okay		Total Liquid =	50 BBL	2,082.88 gallon	17,330 lbs

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: *[Signature]* Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _____ Title: _____

Signature: *Lac. Lij* Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Ashton Thielke

From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Sent: Friday, December 22, 2023 3:25 PM
To: Ashton Thielke
Cc: Laci Luig
Subject: RE: [EXTERNAL] NAB1634936868 - Marquardt Federal #012H - Variance Request (19.15.29.12.D.1.A-C)

WARNING: This email originated from outside of Coterra Energy. Do not click links or open attachments unless you recognize the sender, are expecting the content and know it is safe.

Ashton,

The variance request for NAB1634936868 - Marquardt Federal #012H is approved.

Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Brittany Hall • Environmental Specialist

Environmental Bureau Projects Group

EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87110

505.517.5333 | Brittany.Hall@emnrd.nm.gov

<http://www.emnrd.nm.gov/ocd/>

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMNRD Website prior to submitting any C-141s. The guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

From: Ashton Thielke <Ashton.Thielke@coterra.com>

Sent: Thursday, December 21, 2023 9:33 AM

To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>

Cc: Laci Luig <Laci.Luig@coterra.com>

Subject: [EXTERNAL] NAB1634936868 - Marquardt Federal #012H - Variance Request (19.15.29.12.D.1.A-C)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning Brittany,

Cimarex Energy Co. of Colorado is requesting a variance to NMAC 19.15.29.12.D.1.A-C for the above mentioned spill incident.

A deferral request was previously submitted in October 2017, but evidence of remediation can be found on historical aerial imagery on google earth occurring shortly after.

An environmental consultant was recently tasked with vertically and horizontally delineating the historical spill area to see if any impact may remain onsite from possible historical remediation efforts. Recent samples were collected in areas that exceeded remediation & reclamation standards found on Table I of 19.15.29.12 NMAC, previously collected during the time of the deferral report. (deferral report can be found on OCD Website)

Those sample areas were sampled to depths deeper than previously collected to determine if any contamination remains onsite and if concentrations were below remediation and reclamation standards found on Table I of 19.15.29.12 NMAC.

The result of the site assessment was that all soil samples collected have concentrations below remediation and reclamation standards found on Table I of 19.15.29.12 NMAC.

Details of the site assessment and findings will be found in the closure report.

Due to the age of the spill and possibility of this remediation taking place before the implementation of the new spill rule defined in 19.15.29.1-16, a variance is requested to NMAC 19.15.29.12.D.1.A-C.

- A. No 2 business day notification for final sampling - due to current rule implementation occurring after possible site remediation
- B. No composite or grab sample plan submitted – due to current rule implementation occurring after possible site remediation
- C. No 200 square foot composite sampling - due to current rule implementation occurring after possible site remediation

The variance is requested due to remediation taking place before the current rule was implemented.

This email and correspondence will be attached in the final closure report, which will be submitted following your response.

Please feel free to give me a call if you have any questions.

Thanks,



Ashton Thielke | PBU - Environmental Consultant

T: 432.813.8988 | M: 281.753.5659 | Ashton.Thielke@coterra.com | www.coterra.com

Coterra Energy Inc. | 6001 Deauville Blvd., Suite 300N | Midland, TX 79706

Coterra Energy Inc. is the result of the merger of Cimarex Energy Co. and Cabot Oil & Gas Corporation on October 1, 2021.

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APPENDIX IV

PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPHIC DOCUMENTATION

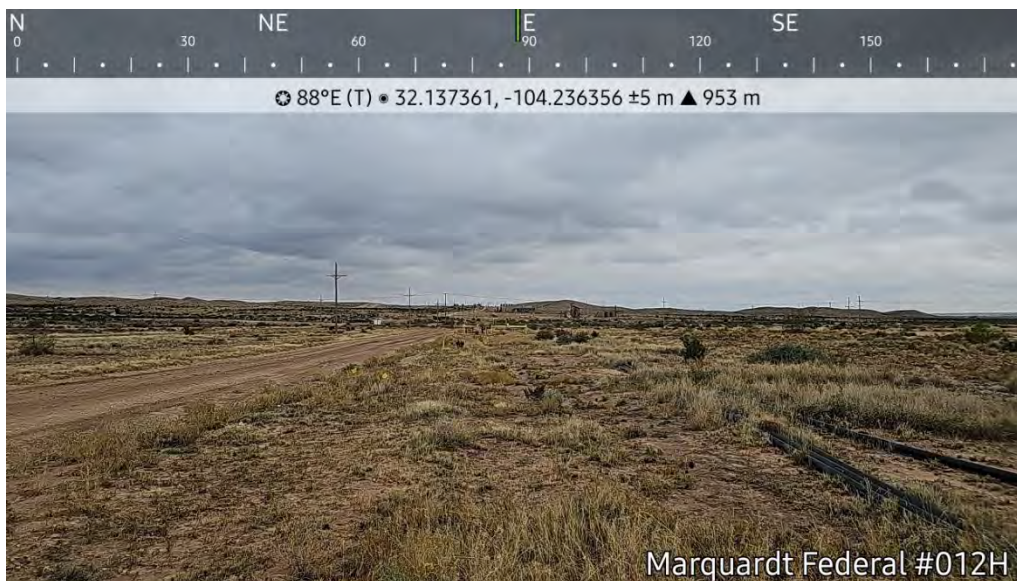
HISTORICAL RELEASE AREA



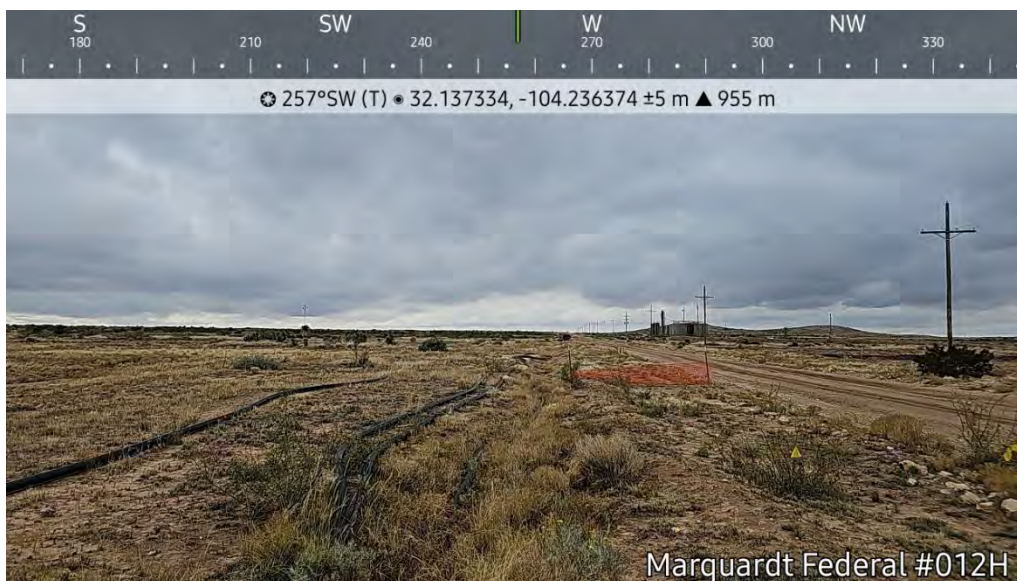
PHOTOGRAPHIC DOCUMENTATION



PHOTOGRAPHIC DOCUMENTATION



PHOTOGRAPHIC DOCUMENTATION



PHOTOGRAPHIC DOCUMENTATION

SAMPLE POINT PHOTOGRAPHS



S-1



H-1

PHOTOGRAPHIC DOCUMENTATION



S-2



H-2

PHOTOGRAPHIC DOCUMENTATION



S-3



H-3

PHOTOGRAPHIC DOCUMENTATION



S-4



H-4

PHOTOGRAPHIC DOCUMENTATION



S-5



H-5

PHOTOGRAPHIC DOCUMENTATION



S-6



H-6

PHOTOGRAPHIC DOCUMENTATION



S-7



H-7

PHOTOGRAPHIC DOCUMENTATION



S-8



H-8

PHOTOGRAPHIC DOCUMENTATION



H-9



H-10

APPENDIX V

LABORATORY REPORTS



TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9	Lubbock, Texas 79424	800-378-1296	806-794-1296	FAX 806-794-1298
200 East Sunset Road, Suite E	El Paso, Texas 79922		915-585-3443	FAX 915-585-4944
5002 Basin Street, Suite A1	Midland, Texas 79703		432-689-6301	FAX 432-689-6313
(BioAquatic) 2501 Mayes Rd., Suite 100	Carrollton, Texas 75006		972-242-7750	
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com				

Certifications

WBE HUB NCTRCA DBE NELAP Kansas Oklahoma

Analytical and Quality Control Report

Ike Tavarez
Tetra Tech
4000 N. Big Spring
Ste. 401
Midland, TX, 79705

Report Date: November 28, 2016

Work Order: 16111601



Project Location: Eddy Co, NM
Project Name: Cimarex- Marquardt 12H
Project Number: 212C-MD-00659

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
432013	AH-1 (0-6")	soil	2016-11-14	00:00	2016-11-15
432014	AH-2 (0-1') (1' BEB)	soil	2016-11-14	00:00	2016-11-15
432015	AH-2 (1-1.5') (1' BEB)	soil	2016-11-14	00:00	2016-11-15
432016	AH-2 (2-2.5') (1' BEB)	soil	2016-11-14	00:00	2016-11-15
432017	AH-3 (0-1') (6" BEB)	soil	2016-11-14	00:00	2016-11-15
432018	AH-4 (0-1') (1' BEB)	soil	2016-11-14	00:00	2016-11-15
432019	AH-4 (0-1.5') (1' BEB)	soil	2016-11-14	00:00	2016-11-15
432020	AH-5 (0-1') (1' BEB)	soil	2016-11-14	00:00	2016-11-15
432021	AH-5 (1-1.5') (1' BEB)	soil	2016-11-14	00:00	2016-11-15
432022	AH-6 (0-1') (1' BEB)	soil	2016-11-14	00:00	2016-11-15
432023	AH-7(0-1') (1' BEB)	soil	2016-11-14	00:00	2016-11-15
432024	AH-8 (0-1')	soil	2016-11-14	00:00	2016-11-15
432025	AH-8 (1-1.5')	soil	2016-11-14	00:00	2016-11-15
432026	AH-9 (0-1') (1' BEB)	soil	2016-11-14	00:00	2016-11-15
432027	AH-10 (0-1')	soil	2016-11-14	00:00	2016-11-15
432028	AH-10 (1-1.5')	soil	2016-11-14	00:00	2016-11-15
432029	AH-11 (0-1') (1' BEB)	soil	2016-11-14	00:00	2016-11-15
432030	AH-12 (0-1')	soil	2016-11-14	00:00	2016-11-15
432031	AH-12 (1-1.5')	soil	2016-11-14	00:00	2016-11-15

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
432032	AH-12 (2-2.5')	soil	2016-11-14	00:00	2016-11-15
432033	AH-13 (0-1')	soil	2016-11-14	00:00	2016-11-15
432034	AH-13 (1-1.5')	soil	2016-11-14	00:00	2016-11-15
432035	AH-13 (2-2.5')	soil	2016-11-14	00:00	2016-11-15
432036	Background (0-1)	soil	2016-11-14	00:00	2016-11-15

Notes

• **Work Order 16111601:** Run deeper samples if benzene exceeds 10mg/kg, total BTEX exceeds 50mg/kg, or TPH exceeds 100mg/kg. Shipping 11/16

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TraceAnalysis, Inc. uses the attached chain of custody (COC) as the laboratory check-in documentation which includes sample receipt, temperature, sample preservation method and condition, collection date and time, testing requested, company, sampler, contacts and any special remarks.

This report consists of a total of 43 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Notes:

For inorganic analyses, the term MQL should actually read PQL.



Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Johnny Grindstaff, Operations Manager

Report Contents

Case Narrative	5
Analytical Report	6
Sample 432013 (AH-1 (0-6"))	6
Sample 432014 (AH-2 (0-1') (1' BEB))	7
Sample 432015 (AH-2 (1-1.5') (1' BEB))	8
Sample 432016 (AH-2 (2-2.5') (1' BEB))	9
Sample 432017 (AH-3 (0-1') (6" BEB))	9
Sample 432018 (AH-4 (0-1') (1' BEB))	10
Sample 432019 (AH-4 (0-1.5') (1' BEB))	12
Sample 432020 (AH-5 (0-1') (1' BEB))	12
Sample 432021 (AH-5 (1-1.5') (1' BEB))	14
Sample 432022 (AH-6 (0-1') (1' BEB))	14
Sample 432023 (AH-7(0-1') (1' BEB))	15
Sample 432024 (AH-8 (0-1'))	17
Sample 432025 (AH-8 (1-1.5'))	18
Sample 432026 (AH-9 (0-1') (1' BEB))	18
Sample 432027 (AH-10 (0-1'))	20
Sample 432028 (AH-10 (1-1.5'))	21
Sample 432029 (AH-11 (0-1') (1' BEB))	22
Sample 432030 (AH-12 (0-1'))	23
Sample 432031 (AH-12 (1-1.5'))	24
Sample 432032 (AH-12 (2-2.5'))	25
Sample 432033 (AH-13 (0-1'))	25
Sample 432034 (AH-13 (1-1.5'))	26
Sample 432035 (AH-13 (2-2.5'))	27
Sample 432036 (Background (0-1))	27
Method Blanks	29
QC Batch 133915 - Method Blank (1)	29
QC Batch 133916 - Method Blank (1)	29
QC Batch 133927 - Method Blank (1)	29
QC Batch 133991 - Method Blank (1)	30
QC Batch 133996 - Method Blank (1)	30
QC Batch 133999 - Method Blank (1)	30
Laboratory Control Spikes	31
QC Batch 133915 - LCS (1)	31
QC Batch 133916 - LCS (1)	31
QC Batch 133927 - LCS (1)	32
QC Batch 133991 - LCS (1)	32
QC Batch 133996 - LCS (1)	32
QC Batch 133999 - LCS (1)	33
Matrix Spikes	34
QC Batch 133915 - MS (1)	34
QC Batch 133916 - MS (1)	34
QC Batch 133927 - MS (1)	35
QC Batch 133991 - MS (1)	35

QC Batch 133996 - MS (1)	35
QC Batch 133999 - MS (1)	36
Calibration Standards	37
QC Batch 133915 - CCV (1)	37
QC Batch 133915 - CCV (2)	37
QC Batch 133915 - CCV (3)	37
QC Batch 133916 - CCV (1)	37
QC Batch 133916 - CCV (2)	38
QC Batch 133916 - CCV (3)	38
QC Batch 133927 - CCV (1)	38
QC Batch 133927 - CCV (2)	38
QC Batch 133991 - ICV (1)	38
QC Batch 133991 - CCV (1)	39
QC Batch 133996 - ICV (1)	39
QC Batch 133996 - CCV (1)	39
QC Batch 133999 - ICV (1)	39
QC Batch 133999 - CCV (1)	40
Limits of Detection (LOD)	41
Appendix	42
Report Definitions	42
Laboratory Certifications	42
Standard Flags	42
Attachments	42

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 5 of 43
Eddy Co, NM

Case Narrative

Samples for project Cimarex- Marquardt 12H were received by TraceAnalysis, Inc. on 2016-11-15 and assigned to work order 16111601. Samples for work order 16111601 were received intact at a temperature of 4.4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	113525	2016-11-16 at 08:09	133915	2016-11-18 at 08:09
Chloride (Titration)	SM 4500-Cl B	113592	2016-11-20 at 10:50	133991	2016-11-22 at 12:00
Chloride (Titration)	SM 4500-Cl B	113596	2016-11-20 at 10:50	133996	2016-11-22 at 12:30
Chloride (Titration)	SM 4500-Cl B	113598	2016-11-20 at 10:50	133999	2016-11-22 at 13:00
TPH DRO	S 8015 D	113536	2016-11-17 at 16:00	133927	2016-11-18 at 11:21
TPH GRO	S 8015 D	113525	2016-11-16 at 08:09	133916	2016-11-18 at 08:12

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 16111601 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 6 of 43
Eddy Co, NM

Analytical Report

Sample: 432013 - AH-1 (0-6")

Laboratory: Midland
Analysis: BTEX
QC Batch: 133915
Prep Batch: 113525

Analytical Method: S 8021B
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-16

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	u	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	u	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	u	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	u	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1.06	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.01	mg/Kg	1.06	2.00	100	70 - 130

Sample: 432013 - AH-1 (0-6")

Laboratory: Lubbock
Analysis: Chloride (Titration)
QC Batch: 133991
Prep Batch: 113592

Analytical Method: SM 4500-Cl B
Date Analyzed: 2016-11-22
Sample Preparation: 2016-11-20

Prep Method: N/A
Analyzed By: RL
Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	u		<104	<250	<104	mg/Kg	5	104	50	20.8

Sample: 432013 - AH-1 (0-6")

Laboratory: Lubbock
Analysis: TPH DRO
QC Batch: 133927
Prep Batch: 113536

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-17

Prep Method: N/A
Analyzed By: HJ
Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	u	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 7 of 43
Eddy Co, NM

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			18.9	mg/Kg	1	20.0	94	70 - 130

Sample: 432013 - AH-1 (0-6")

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 133916

Prep Batch: 113525

Analytical Method: S 8015 D

Date Analyzed: 2016-11-18

Sample Preparation: 2016-11-16

Prep Method: S 5035

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	Q _{r,U}	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	J		2.09	mg/Kg	1.06	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)	J		1.89	mg/Kg	1.06	2.00	94	70 - 130

Sample: 432014 - AH-2 (0-1') (1' BEB)

Laboratory: Midland

Analysis: BTEX

QC Batch: 133915

Prep Batch: 113525

Analytical Method: S 8021B

Date Analyzed: 2016-11-18

Sample Preparation: 2016-11-16

Prep Method: S 5035

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	U	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	U	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	U	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1.06	2.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			2.03	mg/Kg	1.06	2.00	102	70 - 130

Sample: 432014 - AH-2 (0-1') (1' BEB)

Laboratory: Lubbock

Analysis: Chloride (Titration)

Analytical Method: SM 4500-Cl B

Prep Method: N/A

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 8 of 43
Eddy Co, NM

QC Batch: 133991
Prep Batch: 113592

Date Analyzed: 2016-11-22
Sample Preparation: 2016-11-20

Analyzed By: RL
Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	J		388	<500	<208	mg/Kg	10	208	50	20.8

Sample: 432014 - AH-2 (0-1') (1' BEB)

Laboratory: Lubbock
Analysis: TPH DRO
QC Batch: 133927
Prep Batch: 113536

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-17

Prep Method: N/A
Analyzed By: HJ
Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			19.7	mg/Kg	1	20.0	98	70 - 130

Sample: 432014 - AH-2 (0-1') (1' BEB)

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 133916
Prep Batch: 113525

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-16

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	Qr,U	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	J		2.07	mg/Kg	1.06	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)	J		1.86	mg/Kg	1.06	2.00	93	70 - 130

Sample: 432015 - AH-2 (1-1.5') (1' BEB)

Laboratory: Lubbock
Analysis: Chloride (Titration)

Analytical Method: SM 4500-Cl B

Prep Method: N/A

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 9 of 43
Eddy Co, NM

QC Batch: 133991
Prep Batch: 113592

Date Analyzed: 2016-11-22
Sample Preparation: 2016-11-20

Analyzed By: RL
Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	J		146	<250	<104	mg/Kg	5	104	50	20.8

Sample: 432016 - AH-2 (2-2.5') (1' BEB)

Laboratory: Lubbock

Analysis: Chloride (Titration)

Analytical Method: SM 4500-Cl B

Prep Method: N/A

QC Batch: 133991

Date Analyzed: 2016-11-22

Analyzed By: RL

Prep Batch: 113592

Sample Preparation: 2016-11-20

Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	J		146	<250	<104	mg/Kg	5	104	50	20.8

Sample: 432017 - AH-3 (0-1') (6" BEB)

Laboratory: Midland

Analysis: BTEX

Analytical Method: S 8021B

Prep Method: S 5035

QC Batch: 133915

Date Analyzed: 2016-11-18

Analyzed By: AK

Prep Batch: 113525

Sample Preparation: 2016-11-16

Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	U	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	U	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	U	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.02	mg/Kg	1.06	2.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1.06	2.00	100	70 - 130

Sample: 432017 - AH-3 (0-1') (6" BEB)

Laboratory: Lubbock

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 10 of 43
Eddy Co, NM

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	133991	Date Analyzed:	2016-11-22	Analyzed By:	RL
Prep Batch:	113592	Sample Preparation:	2016-11-20	Prepared By:	RL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride	J		291	<500	<208	mg/Kg	10	208	50	20.8

Sample: 432017 - AH-3 (0-1') (6" BEB)

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	133927	Date Analyzed:	2016-11-18	Analyzed By:	HJ
Prep Batch:	113536	Sample Preparation:	2016-11-17	Prepared By:	HJ

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			19.2	mg/Kg	1	20.0	96	70 - 130

Sample: 432017 - AH-3 (0-1') (6" BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	133916	Date Analyzed:	2016-11-18	Analyzed By:	AK
Prep Batch:	113525	Sample Preparation:	2016-11-16	Prepared By:	AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
GRO	Qr,U	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	J		2.14	mg/Kg	1.06	2.00	107	70 - 130
4-Bromofluorobenzene (4-BFB)	J		1.89	mg/Kg	1.06	2.00	94	70 - 130

Sample: 432018 - AH-4 (0-1') (1' BEB)

Laboratory: Midland

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 11 of 43
Eddy Co, NM

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	133915	Date Analyzed:	2016-11-18	Analyzed By:	AK
Prep Batch:	113525	Sample Preparation:	2016-11-16	Prepared By:	AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	u	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	u	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	u	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	u	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.05	mg/Kg	1.06	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			2.08	mg/Kg	1.06	2.00	104	70 - 130

Sample: 432018 - AH-4 (0-1') (1' BEB)

Laboratory:	Lubbock			Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)			Date Analyzed:	2016-11-22	Analyzed By:	RL
QC Batch:	133991			Sample Preparation:	2016-11-20	Prepared By:	RL
Prep Batch:	113592						

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride			3200	3200	<208	mg/Kg	10	208	50	20.8

Sample: 432018 - AH-4 (0-1') (1' BEB)

Laboratory:	Lubbock			Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO			Date Analyzed:	2016-11-18	Analyzed By:	HJ
QC Batch:	133927			Sample Preparation:	2016-11-17	Prepared By:	HJ
Prep Batch:	113536						

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	u	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			21.3	mg/Kg	1	20.0	106	70 - 130

Sample: 432018 - AH-4 (0-1') (1' BEB)

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 12 of 43
Eddy Co, NM

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 133916
Prep Batch: 113525

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-16

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	Q _{r,U}	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	J		2.14	mg/Kg	1.06	2.00	107	70 - 130
4-Bromofluorobenzene (4-BFB)	J		1.89	mg/Kg	1.06	2.00	94	70 - 130

Sample: 432019 - AH-4 (0-1.5') (1' BEB)

Laboratory: Lubbock
Analysis: Chloride (Titration)
QC Batch: 133991
Prep Batch: 113592

Analytical Method: SM 4500-Cl B
Date Analyzed: 2016-11-22
Sample Preparation: 2016-11-20

Prep Method: N/A
Analyzed By: RL
Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride			680	680	<208	mg/Kg	10	208	50	20.8

Sample: 432020 - AH-5 (0-1') (1' BEB)

Laboratory: Midland
Analysis: BTEX
QC Batch: 133915
Prep Batch: 113525

Analytical Method: S 8021B
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-16

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	U	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	U	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	U	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 13 of 43
Eddy Co, NM

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1.06	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1.06	2.00	98	70 - 130

Sample: 432020 - AH-5 (0-1') (1' BEB)

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 133991 Date Analyzed: 2016-11-22 Analyzed By: RL
Prep Batch: 113592 Sample Preparation: 2016-11-20 Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride			1070	1070	<208	mg/Kg	10	208	50	20.8

Sample: 432020 - AH-5 (0-1') (1' BEB)

Laboratory: Lubbock
Analysis: TPH DRO Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 133927 Date Analyzed: 2016-11-18 Analyzed By: HJ
Prep Batch: 113536 Sample Preparation: 2016-11-17 Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			19.1	mg/Kg	1	20.0	96	70 - 130

Sample: 432020 - AH-5 (0-1') (1' BEB)

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 133916 Date Analyzed: 2016-11-18 Analyzed By: AK
Prep Batch: 113525 Sample Preparation: 2016-11-16 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	Qr,U	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 14 of 43
Eddy Co, NM

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	J		2.01	mg/Kg	1.06	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)	J		1.78	mg/Kg	1.06	2.00	89	70 - 130

Sample: 432021 - AH-5 (1-1.5') (1' BEB)

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 133991 Date Analyzed: 2016-11-22 Analyzed By: RL
Prep Batch: 113592 Sample Preparation: 2016-11-20 Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride			874	874	<208	mg/Kg	10	208	50	20.8

Sample: 432022 - AH-6 (0-1') (1' BEB)

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 133915 Date Analyzed: 2016-11-18 Analyzed By: AK
Prep Batch: 113525 Sample Preparation: 2016-11-16 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	U	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	U	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	U	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1.06	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1.06	2.00	98	70 - 130

Sample: 432022 - AH-6 (0-1') (1' BEB)

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 133991 Date Analyzed: 2016-11-22 Analyzed By: RL
Prep Batch: 113592 Sample Preparation: 2016-11-20 Prepared By: RL

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 15 of 43
Eddy Co, NM

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride			1650	1650	<208	mg/Kg	10	208	50	20.8

Sample: 432022 - AH-6 (0-1') (1' BEB)

Laboratory: Lubbock
Analysis: TPH DRO
QC Batch: 133927
Prep Batch: 113536

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-17

Prep Method: N/A
Analyzed By: HJ
Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			18.8	mg/Kg	1	20.0	94	70 - 130

Sample: 432022 - AH-6 (0-1') (1' BEB)

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 133916
Prep Batch: 113525

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-16

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	Qr,U	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1.06	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.78	mg/Kg	1.06	2.00	89	70 - 130

Sample: 432023 - AH-7(0-1') (1' BEB)

Laboratory: Midland
Analysis: BTEX
QC Batch: 133915
Prep Batch: 113525

Analytical Method: S 8021B
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-16

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 16 of 43
Eddy Co, NM

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	u	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	u	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	u	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	u	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1.06	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1.06	2.00	96	70 - 130

Sample: 432023 - AH-7(0-1') (1' BEB)

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 133996 Date Analyzed: 2016-11-22 Analyzed By: RL
 Prep Batch: 113596 Sample Preparation: 2016-11-20 Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride			1660	1660	<208	mg/Kg	10	208	50	20.8

Sample: 432023 - AH-7(0-1') (1' BEB)

Laboratory: Lubbock
 Analysis: TPH DRO Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 133927 Date Analyzed: 2016-11-18 Analyzed By: HJ
 Prep Batch: 113536 Sample Preparation: 2016-11-17 Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	u	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			18.1	mg/Kg	1	20.0	90	70 - 130

Sample: 432023 - AH-7(0-1') (1' BEB)

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 133916 Date Analyzed: 2016-11-18 Analyzed By: AK

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 17 of 43
Eddy Co, NM

Prep Batch: 113525

Sample Preparation: 2016-11-16

Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	Q _{r,U}	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	J		2.04	mg/Kg	1.06	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)	J		1.77	mg/Kg	1.06	2.00	88	70 - 130

Sample: 432024 - AH-8 (0-1')

Laboratory: Midland

Analysis: BTEX

QC Batch: 133915

Prep Batch: 113525

Analytical Method: S 8021B

Date Analyzed: 2016-11-18

Sample Preparation: 2016-11-16

Prep Method: S 5035

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	U	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	U	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	U	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1.06	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	1.06	2.00	98	70 - 130

Sample: 432024 - AH-8 (0-1')

Laboratory: Lubbock

Analysis: Chloride (Titration)

QC Batch: 133996

Prep Batch: 113596

Analytical Method: SM 4500-Cl B

Date Analyzed: 2016-11-22

Sample Preparation: 2016-11-20

Prep Method: N/A

Analyzed By: RL

Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride			4430	4430	<104	mg/Kg	5	104	50	20.8

Sample: 432024 - AH-8 (0-1')

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 18 of 43
Eddy Co, NM

Laboratory: Lubbock
Analysis: TPH DRO
QC Batch: 133927
Prep Batch: 113536

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-17

Prep Method: N/A
Analyzed By: HJ
Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			19.0	mg/Kg	1	20.0	95	70 - 130

Sample: 432024 - AH-8 (0-1')

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 133916
Prep Batch: 113525

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-16

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	Qr,U	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	J		2.02	mg/Kg	1.06	2.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)	J		1.79	mg/Kg	1.06	2.00	90	70 - 130

Sample: 432025 - AH-8 (1-1.5')

Laboratory: Lubbock
Analysis: Chloride (Titration)
QC Batch: 133996
Prep Batch: 113596

Analytical Method: SM 4500-C1 B
Date Analyzed: 2016-11-22
Sample Preparation: 2016-11-20

Prep Method: N/A
Analyzed By: RL
Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	J		146	<250	<104	mg/Kg	5	104	50	20.8

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 19 of 43
Eddy Co, NM

Sample: 432026 - AH-9 (0-1') (1' BEB)

Laboratory: Midland
Analysis: BTEX
QC Batch: 133915
Prep Batch: 113525

Analytical Method: S 8021B
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-16

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	u	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	u	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	u	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	u	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.01	mg/Kg	1.06	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			1.97	mg/Kg	1.06	2.00	98	70 - 130

Sample: 432026 - AH-9 (0-1') (1' BEB)

Laboratory: Lubbock
Analysis: Chloride (Titration)
QC Batch: 133996
Prep Batch: 113596

Analytical Method: SM 4500-Cl B
Date Analyzed: 2016-11-22
Sample Preparation: 2016-11-20

Prep Method: N/A
Analyzed By: RL
Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	J		146	<250	<104	mg/Kg	5	104	50	20.8

Sample: 432026 - AH-9 (0-1') (1' BEB)

Laboratory: Lubbock
Analysis: TPH DRO
QC Batch: 133927
Prep Batch: 113536

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-17

Prep Method: N/A
Analyzed By: HJ
Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	u	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			19.3	mg/Kg	1	20.0	96	70 - 130

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 20 of 43
Eddy Co, NM

Sample: 432026 - AH-9 (0-1') (1' BEB)

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 133916 Date Analyzed: 2016-11-18 Analyzed By: AK
Prep Batch: 113525 Sample Preparation: 2016-11-16 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
GRO	Q _{r,U}	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	J		2.07	mg/Kg	1.06	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)	J		1.80	mg/Kg	1.06	2.00	90	70 - 130

Sample: 432027 - AH-10 (0-1')

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 133915 Date Analyzed: 2016-11-18 Analyzed By: AK
Prep Batch: 113525 Sample Preparation: 2016-11-16 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	U	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	U	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	U	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1.06	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.97	mg/Kg	1.06	2.00	98	70 - 130

Sample: 432027 - AH-10 (0-1')

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 133996 Date Analyzed: 2016-11-22 Analyzed By: RL
Prep Batch: 113596 Sample Preparation: 2016-11-20 Prepared By: RL

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 21 of 43
Eddy Co, NM

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride			292	292	<104	mg/Kg	5	104	50	20.8

Sample: 432027 - AH-10 (0-1')

Laboratory: Lubbock
Analysis: TPH DRO
QC Batch: 133927
Prep Batch: 113536

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-17

Prep Method: N/A
Analyzed By: HJ
Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			20.2	mg/Kg	1	20.0	101	70 - 130

Sample: 432027 - AH-10 (0-1')

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 133916
Prep Batch: 113525

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-16

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	Qr,U	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	J		2.05	mg/Kg	1.06	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)	J		1.80	mg/Kg	1.06	2.00	90	70 - 130

Sample: 432028 - AH-10 (1-1.5')

Laboratory: Lubbock
Analysis: Chloride (Titration)
QC Batch: 133996
Prep Batch: 113596

Analytical Method: SM 4500-Cl B
Date Analyzed: 2016-11-22
Sample Preparation: 2016-11-20

Prep Method: N/A
Analyzed By: RL
Prepared By: RL

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 22 of 43
Eddy Co, NM

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	u		<104	<250	<104	mg/Kg	5	104	50	20.8

Sample: 432029 - AH-11 (0-1') (1' BEB)

Laboratory: Midland
Analysis: BTEX
QC Batch: 133915
Prep Batch: 113525

Analytical Method: S 8021B
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-16

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	u	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	u	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	u	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	u	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1.06	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.94	mg/Kg	1.06	2.00	97	70 - 130

Sample: 432029 - AH-11 (0-1') (1' BEB)

Laboratory: Lubbock
Analysis: Chloride (Titration)
QC Batch: 133996
Prep Batch: 113596

Analytical Method: SM 4500-Cl B
Date Analyzed: 2016-11-22
Sample Preparation: 2016-11-20

Prep Method: N/A
Analyzed By: RL
Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride			341	341	<104	mg/Kg	5	104	50	20.8

Sample: 432029 - AH-11 (0-1') (1' BEB)

Laboratory: Lubbock
Analysis: TPH DRO
QC Batch: 133927
Prep Batch: 113536

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-17

Prep Method: N/A
Analyzed By: HJ
Prepared By: HJ

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 23 of 43
Eddy Co, NM

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			21.5	mg/Kg	1	20.0	108	70 - 130

Sample: 432029 - AH-11 (0-1') (1' BEB)

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 133916
Prep Batch: 113525

Analytical Method: S 8015 D
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-16

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
GRO	Q _{R,U}	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	J		2.06	mg/Kg	1.06	2.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)	J		1.80	mg/Kg	1.06	2.00	90	70 - 130

Sample: 432030 - AH-12 (0-1')

Laboratory: Midland
Analysis: BTEX
QC Batch: 133915
Prep Batch: 113525

Analytical Method: S 8021B
Date Analyzed: 2016-11-18
Sample Preparation: 2016-11-16

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Benzene	u	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	u	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	u	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	u	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1.06	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.99	mg/Kg	1.06	2.00	100	70 - 130

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 24 of 43
Eddy Co, NM

Sample: 432030 - AH-12 (0-1')

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 133996 Date Analyzed: 2016-11-22 Analyzed By: RL
Prep Batch: 113596 Sample Preparation: 2016-11-20 Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride			3700	3700	<208	mg/Kg	10	208	50	20.8

Sample: 432030 - AH-12 (0-1')

Laboratory: Lubbock
Analysis: TPH DRO Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 133927 Date Analyzed: 2016-11-18 Analyzed By: HJ
Prep Batch: 113536 Sample Preparation: 2016-11-17 Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	u	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			20.2	mg/Kg	1	20.0	101	70 - 130

Sample: 432030 - AH-12 (0-1')

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 133916 Date Analyzed: 2016-11-18 Analyzed By: AK
Prep Batch: 113525 Sample Preparation: 2016-11-16 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	Qr,U	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	j		2.10	mg/Kg	1.06	2.00	105	70 - 130
4-Bromofluorobenzene (4-BFB)	j		1.83	mg/Kg	1.06	2.00	92	70 - 130

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 25 of 43
Eddy Co, NM

Sample: 432031 - AH-12 (1-1.5')

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 133996 Date Analyzed: 2016-11-22 Analyzed By: RL
Prep Batch: 113596 Sample Preparation: 2016-11-20 Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride			3600	3600	<208	mg/Kg	10	208	50	20.8

Sample: 432032 - AH-12 (2-2.5')

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 133996 Date Analyzed: 2016-11-22 Analyzed By: RL
Prep Batch: 113596 Sample Preparation: 2016-11-20 Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	J		487	<500	<208	mg/Kg	10	208	50	20.8

Sample: 432033 - AH-13 (0-1')

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 133915 Date Analyzed: 2016-11-18 Analyzed By: AK
Prep Batch: 113525 Sample Preparation: 2016-11-16 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	U	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	U	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	U	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1.06	2.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)			1.88	mg/Kg	1.06	2.00	94	70 - 130

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 26 of 43
Eddy Co, NM

Sample: 432033 - AH-13 (0-1')

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 133999 Date Analyzed: 2016-11-22 Analyzed By: RL
Prep Batch: 113598 Sample Preparation: 2016-11-20 Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride			7010	7010	<208	mg/Kg	10	208	50	20.8

Sample: 432033 - AH-13 (0-1')

Laboratory: Lubbock
Analysis: TPH DRO Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 133927 Date Analyzed: 2016-11-18 Analyzed By: HJ
Prep Batch: 113536 Sample Preparation: 2016-11-17 Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	u	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			20.3	mg/Kg	1	20.0	102	70 - 130

Sample: 432033 - AH-13 (0-1')

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 133916 Date Analyzed: 2016-11-18 Analyzed By: AK
Prep Batch: 113525 Sample Preparation: 2016-11-16 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	Qr,U	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1.06	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.74	mg/Kg	1.06	2.00	87	70 - 130

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 27 of 43
Eddy Co, NM

Sample: 432034 - AH-13 (1-1.5')

Laboratory: Lubbock

Analysis: Chloride (Titration)

QC Batch: 133999

Prep Batch: 113598

Analytical Method: SM 4500-Cl B

Date Analyzed: 2016-11-22

Sample Preparation: 2016-11-20

Prep Method: N/A

Analyzed By: RL

Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	J		487	<500	<208	mg/Kg	10	208	50	20.8

Sample: 432035 - AH-13 (2-2.5')

Laboratory: Lubbock

Analysis: Chloride (Titration)

QC Batch: 133999

Prep Batch: 113598

Analytical Method: SM 4500-Cl B

Date Analyzed: 2016-11-22

Sample Preparation: 2016-11-20

Prep Method: N/A

Analyzed By: RL

Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	u		<104	<250	<104	mg/Kg	5	104	50	20.8

Sample: 432036 - Background (0-1)

Laboratory: Midland

Analysis: BTEX

QC Batch: 133915

Prep Batch: 113525

Analytical Method: S 8021B

Date Analyzed: 2016-11-18

Sample Preparation: 2016-11-16

Prep Method: S 5035

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	u	3	<0.0106	<0.0212	<0.0106	mg/Kg	1.06	0.0106	0.02	0.01
Toluene	u	3	<0.0165	<0.0212	<0.0165	mg/Kg	1.06	0.0165	0.02	0.0156
Ethylbenzene	u	3	<0.0160	<0.0212	<0.0160	mg/Kg	1.06	0.0160	0.02	0.0151
Xylene	u	3	<0.00456	<0.0212	<0.00456	mg/Kg	1.06	0.00456	0.02	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1.06	2.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	1.06	2.00	98	70 - 130

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 28 of 43
Eddy Co, NM

Sample: 432036 - Background (0-1)

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 133999 Date Analyzed: 2016-11-22 Analyzed By: RL
Prep Batch: 113598 Sample Preparation: 2016-11-20 Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	J		146	<250	<104	mg/Kg	5	104	50	20.8

Sample: 432036 - Background (0-1)

Laboratory: Lubbock
Analysis: TPH DRO Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 133927 Date Analyzed: 2016-11-18 Analyzed By: HJ
Prep Batch: 113536 Sample Preparation: 2016-11-17 Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2	<8.47	<50.0	<8.47	mg/Kg	1	8.47	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			20.4	mg/Kg	1	20.0	102	70 - 130

Sample: 432036 - Background (0-1)

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 133916 Date Analyzed: 2016-11-18 Analyzed By: AK
Prep Batch: 113525 Sample Preparation: 2016-11-16 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	Qr,U	3	<1.86	<4.24	<1.86	mg/Kg	1.06	1.86	4	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	J		2.08	mg/Kg	1.06	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)	J		1.80	mg/Kg	1.06	2.00	90	70 - 130

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 29 of 43
Eddy Co, NM

Method Blanks

Method Blank (1)

QC Batch: 133915
Prep Batch: 113525

Date Analyzed: 2016-11-18
QC Preparation: 2016-11-16

Analyzed By: AK
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Benzene		3	<0.0106	mg/Kg	0.01
Toluene		3	<0.0165	mg/Kg	0.0156
Ethylbenzene		3	<0.0160	mg/Kg	0.0151
Xylene		3	<0.00456	mg/Kg	0.0043

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1.06	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.89	mg/Kg	1.06	2.00	94	70 - 130

Method Blank (1)

QC Batch: 133916
Prep Batch: 113525

Date Analyzed: 2016-11-18
QC Preparation: 2016-11-16

Analyzed By: AK
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
GRO		3	<1.86	mg/Kg	1.76

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.17	mg/Kg	1.06	2.00	108	70 - 130
4-Bromofluorobenzene (4-BFB)			1.79	mg/Kg	1.06	2.00	90	70 - 130

Method Blank (1)

QC Batch: 133927
Prep Batch: 113536

Date Analyzed: 2016-11-18
QC Preparation: 2016-11-17

Analyzed By: HJ
Prepared By: HJ

Parameter	F	C	Result	Units	Reporting Limits
DRO		1,2	<8.47	mg/Kg	8.47

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 30 of 43
Eddy Co, NM

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			16.6	mg/Kg	1	20.0	83	70 - 130

Method Blank (1)

QC Batch: 133991
Prep Batch: 113592

Date Analyzed: 2016-11-22
QC Preparation: 2016-11-20

Analyzed By: RL
Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Chloride			<20.8	mg/Kg	20.8

Method Blank (1)

QC Batch: 133996
Prep Batch: 113596

Date Analyzed: 2016-11-22
QC Preparation: 2016-11-20

Analyzed By: RL
Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Chloride			<20.8	mg/Kg	20.8

Method Blank (1)

QC Batch: 133999
Prep Batch: 113598

Date Analyzed: 2016-11-22
QC Preparation: 2016-11-20

Analyzed By: RL
Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Chloride			<20.8	mg/Kg	20.8

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 31 of 43
Eddy Co, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 133915
Prep Batch: 113525

Date Analyzed: 2016-11-18
QC Preparation: 2016-11-16

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		3	1.86	mg/Kg	1.06	2.00	<0.0106	93	70 - 130
Toluene		3	1.95	mg/Kg	1.06	2.00	<0.0165	98	70 - 130
Ethylbenzene		3	1.99	mg/Kg	1.06	2.00	<0.0160	100	70 - 130
Xylene		3	6.00	mg/Kg	1.06	6.00	<0.00456	100	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		3	1.98	mg/Kg	1.06	2.00	<0.0106	99	70 - 130	6	20
Toluene		3	1.86	mg/Kg	1.06	2.00	<0.0165	93	70 - 130	5	20
Ethylbenzene		3	1.85	mg/Kg	1.06	2.00	<0.0160	92	70 - 130	7	20
Xylene		3	5.57	mg/Kg	1.06	6.00	<0.00456	93	70 - 130	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	F	C	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)			2.02	1.92	mg/Kg	1.06	2.00	101	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.05	1.96	mg/Kg	1.06	2.00	102	98	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 133916
Prep Batch: 113525

Date Analyzed: 2016-11-18
QC Preparation: 2016-11-16

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		3	20.7	mg/Kg	1	20.0	<1.76	104	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		3	22.0	mg/Kg	1	20.0	<1.76	110	70 - 130	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 32 of 43
Eddy Co, NM

Surrogate	F	C	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)			2.05	2.03	mg/Kg	1	2.00	102	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.86	1.88	mg/Kg	1	2.00	93	94	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 133927
Prep Batch: 113536

Date Analyzed: 2016-11-18
QC Preparation: 2016-11-17

Analyzed By: HJ
Prepared By: HJ

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1,2	116	mg/Kg	1	100	<8.47	116	68.5 - 136

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1,2	109	mg/Kg	1	100	<8.47	109	68.5 - 136	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	F	C	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane			20.9	20.0	mg/Kg	1	20.0	104	100	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 133991
Prep Batch: 113592

Date Analyzed: 2016-11-22
QC Preparation: 2016-11-20

Analyzed By: RL
Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2720	mg/Kg	5	2500	<104	109	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2620	mg/Kg	5	2500	<104	105	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 33 of 43
Eddy Co, NM

Laboratory Control Spike (LCS-1)

QC Batch: 133996
Prep Batch: 113596

Date Analyzed: 2016-11-22
QC Preparation: 2016-11-20

Analyzed By: RL
Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2630	mg/Kg	5	2500	<104	105	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2630	mg/Kg	5	2500	<104	105	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 133999
Prep Batch: 113598

Date Analyzed: 2016-11-22
QC Preparation: 2016-11-20

Analyzed By: RL
Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2680	mg/Kg	5	2500	<104	107	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2680	mg/Kg	5	2500	<104	107	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 34 of 43
Eddy Co, NM

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 432013

QC Batch: 133915
Prep Batch: 113525

Date Analyzed: 2016-11-18
QC Preparation: 2016-11-16

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		3	1.81	mg/Kg	1.06	2.00	<0.0106	90	70 - 130
Toluene		3	1.80	mg/Kg	1.06	2.00	<0.0165	90	70 - 130
Ethylbenzene		3	1.88	mg/Kg	1.06	2.00	<0.0160	94	70 - 130
Xylene		3	5.63	mg/Kg	1.06	6.00	<0.00456	94	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		3	1.75	mg/Kg	1.06	2.00	<0.0106	88	70 - 130	3	20
Toluene		3	1.76	mg/Kg	1.06	2.00	<0.0165	88	70 - 130	2	20
Ethylbenzene		3	1.91	mg/Kg	1.06	2.00	<0.0160	96	70 - 130	2	20
Xylene		3	5.84	mg/Kg	1.06	6.00	<0.00456	97	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	F	C	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)			2.09	1.99	mg/Kg	1.06	2	104	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.01	2.08	mg/Kg	1.06	2	100	104	70 - 130

Matrix Spike (MS-1) Spiked Sample: 432013

QC Batch: 133916
Prep Batch: 113525

Date Analyzed: 2016-11-18
QC Preparation: 2016-11-16

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		3	17.0	mg/Kg	1	20.0	<1.76	85	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	Qr	3	20.8	mg/Kg	1	20.0	<1.76	104	70 - 130	20	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 35 of 43
Eddy Co, NM

Surrogate	F	C	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)			1.97	2.02	mg/Kg	1	2	98	101	70 - 130
4-Bromofluorobenzene (4-BFB)			1.85	1.88	mg/Kg	1	2	92	94	70 - 130

Matrix Spike (MS-1) Spiked Sample: 432013

QC Batch: 133927
Prep Batch: 113536

Date Analyzed: 2016-11-18
QC Preparation: 2016-11-17

Analyzed By: HJ
Prepared By: HJ

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1,2	125	mg/Kg	1	100	<8.47	125	49.3 - 138

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1,2	125	mg/Kg	1	100	<8.47	125	49.3 - 138	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	F	C	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane			23.0	23.2	mg/Kg	1	20	115	116	70 - 130

Matrix Spike (MS-1) Spiked Sample: 432022

QC Batch: 133991
Prep Batch: 113592

Date Analyzed: 2016-11-22
QC Preparation: 2016-11-20

Analyzed By: RL
Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			4370	mg/Kg	10	2500	1650	109	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			4370	mg/Kg	10	2500	1650	109	80 - 120	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 36 of 43
Eddy Co, NM

Matrix Spike (MS-1) Spiked Sample: 432032

QC Batch: 133996
Prep Batch: 113596

Date Analyzed: 2016-11-22
QC Preparation: 2016-11-20

Analyzed By: RL
Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3020	mg/Kg	10	2500	487	101	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2920	mg/Kg	10	2500	487	97	80 - 120	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 432150

QC Batch: 133999
Prep Batch: 113598

Date Analyzed: 2016-11-22
QC Preparation: 2016-11-20

Analyzed By: RL
Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2920	mg/Kg	5	2500	389	101	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2870	mg/Kg	5	2500	389	99	80 - 120	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 37 of 43
Eddy Co, NM

Calibration Standards

Standard (CCV-1)

QC Batch: 133915

Date Analyzed: 2016-11-18

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		3	mg/kg	0.100	0.0894	89	80 - 120	2016-11-18
Toluene		3	mg/kg	0.100	0.0894	89	80 - 120	2016-11-18
Ethylbenzene		3	mg/kg	0.100	0.0922	92	80 - 120	2016-11-18
Xylene		3	mg/kg	0.300	0.277	92	80 - 120	2016-11-18

Standard (CCV-2)

QC Batch: 133915

Date Analyzed: 2016-11-18

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		3	mg/kg	0.100	0.105	105	80 - 120	2016-11-18
Toluene		3	mg/kg	0.100	0.0991	99	80 - 120	2016-11-18
Ethylbenzene		3	mg/kg	0.100	0.0982	98	80 - 120	2016-11-18
Xylene		3	mg/kg	0.300	0.295	98	80 - 120	2016-11-18

Standard (CCV-3)

QC Batch: 133915

Date Analyzed: 2016-11-18

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		3	mg/kg	0.100	0.103	103	80 - 120	2016-11-18
Toluene		3	mg/kg	0.100	0.104	104	80 - 120	2016-11-18
Ethylbenzene		3	mg/kg	0.100	0.0994	99	80 - 120	2016-11-18
Xylene		3	mg/kg	0.300	0.296	99	80 - 120	2016-11-18

Standard (CCV-1)

QC Batch: 133916

Date Analyzed: 2016-11-18

Analyzed By: AK

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 38 of 43
Eddy Co, NM

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		3	mg/Kg	1.00	1.04	104	80 - 120	2016-11-18

Standard (CCV-2)

QC Batch: 133916

Date Analyzed: 2016-11-18

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		3	mg/Kg	1.00	0.990	99	80 - 120	2016-11-18

Standard (CCV-3)

QC Batch: 133916

Date Analyzed: 2016-11-18

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		3	mg/Kg	1.00	1.17	117	80 - 120	2016-11-18

Standard (CCV-1)

QC Batch: 133927

Date Analyzed: 2016-11-18

Analyzed By: HJ

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1,2	mg/Kg	100	84.4	84	80 - 120	2016-11-18

Standard (CCV-2)

QC Batch: 133927

Date Analyzed: 2016-11-18

Analyzed By: HJ

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1,2	mg/Kg	100	95.3	95	80 - 120	2016-11-18

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 39 of 43
Eddy Co, NM

Standard (ICV-1)

QC Batch: 133991

Date Analyzed: 2016-11-22

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2016-11-22

Standard (CCV-1)

QC Batch: 133991

Date Analyzed: 2016-11-22

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2016-11-22

Standard (ICV-1)

QC Batch: 133996

Date Analyzed: 2016-11-22

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.0	99	85 - 115	2016-11-22

Standard (CCV-1)

QC Batch: 133996

Date Analyzed: 2016-11-22

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2016-11-22

Standard (ICV-1)

QC Batch: 133999

Date Analyzed: 2016-11-22

Analyzed By: RL

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 40 of 43
Eddy Co, NM

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2016-11-22

Standard (CCV-1)

QC Batch: 133999

Date Analyzed: 2016-11-22

Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2016-11-22

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 41 of 43
Eddy Co, NM

Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
BTEX	S 8021B	soil	BTEX-2	Benzene	0.0128	Pass
BTEX	S 8021B	soil	BTEX-2	Toluene	0.0128	Pass
BTEX	S 8021B	soil	BTEX-2	Ethylbenzene	0.0128	Pass
BTEX	S 8021B	soil	BTEX-2	Xylene	0.0128	Pass
Chloride (Titration)	SM 4500-Cl B	soil	N/A	Chloride	50.0	Pass
TPH DRO	S 8015 D	soil	TPH-3	DRO	15.0	Pass
TPH GRO	S 8015 D	soil	BTEX-2	GRO	5.00	Pass

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 42 of 43
Eddy Co, NM

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	Kansas	Kansas E-10317	Lubbock
2	NELAP	T104704219-16-13	Lubbock
3	NELAP	T104704392-14-8	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.

Report Date: November 28, 2016
212C-MD-00659

Work Order: 16111601
Cimarex- Marquardt 12H

Page Number: 43 of 43
Eddy Co, NM

Please note, each attachment may consist of more than one page.

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 3

ANALYSIS REQUEST
(Circle or Specify Method No.)**TETRA TECH**1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: Cimarex SITE MANAGER: Ike Tavaraz

PROJECT NO.: Cimarex PROJECT NAME: Cimarex - Marguardt 12 H Edco Co. NM

LAB I.D. NUMBER DATE TIME MATRIX COMP GRAB SAMPLE IDENTIFICATION

432013 11.14 S X AH-1 (0-6")

014 11.14 S X AH-2 (0-1') (1' BEB)

015 11.14 S X AH-2 (1'-1.5') (1' BEB)

016 11.14 S X AH-2 (2-2.5') (1' BEB)

017 11.14 S X AH-3 (0-1') (6" BEB)

018 11.14 S X AH-4 (0-1') (1' BEB)

019 11.14 S X AH-4 (1-1.5') (1' BEB)

020 11.14 S X AH-5 (0-1') (1' BEB)

021 11.14 S X AH-5 (1-1.5') (1' BEB)

022 11.14 S X AH-6 (0-1') (1' BEB)

PRESERVATIVE METHOD

HCL HNO3 ICE NONE

NUMBER OF CONTAINERS FILTERED (Y/N)

1 N 1 N 1 N 1 N 1 N 1 N 1 N 1 N 1 N 1 N 1 N

BTX 8021B TPH 8015 MOD TX1005 (Ext. to C35)

PAH 8270 RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8240/8260/624

GC/MS Semi. Vol. 8270/625

PCB's 8080/608

Pest. 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature) Date: 11.15 Time: 16:53 RECEIVED BY: (Signature) Date: 11.14 Time: 16:53

RELINQUISHED BY: (Signature) Date: 11.15 Time: 16:53 RECEIVED BY: (Signature) Date: 11.14 Time: 16:53

RELINQUISHED BY: (Signature) Date: 11.15 Time: 16:53 RECEIVED BY: (Signature) Date: 11.14 Time: 16:53

RECEIVING LABORATORY: Tesci ADDRESS: Midland STATE: TX PHONE: ZIP: DATE: 11/15/14 TIME: 16:53

REMARKS: Run deeper samples if benzene exceeds 10 mg/kg, total BTX exceeds 50 mg/kg

Duplicate jars for AH12 1-1.5 and AH12 2-2.5. Clair identified those intended to be AH13 1-1.5 and AH12 2-2.5. Asked to disregard AH12-3-3.5 jar since not listed on COC. 11/16/14 AJ

SAMPLE CONDITION WHEN RECEIVED: Brenda Ward 11/16/14 9:40

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

RUSH Charges Authorized: Yes No

TETRA TECH CONTACT PERSON: Ike Tavaraz

AIRBILL #: OTHER: Results by:

SAMPLE SHIPPED BY: (Circle) FEDEX HAND DELIVERED UPS

SAMPLED BY: (Print & Initial) Date: 11.14 Time: 16:53

Analytical Report 549844

for
Tetra Tech- Midland

Project Manager: Ike Tavarez
Cimarex-Marquardt 12H ROW
212C-MD-00659
07-APR-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



07-APR-17

Project Manager: **Ike Tavarez**

Tetra Tech- Midland

4000 N. Big Spring Suite 401

Midland, TX 79705

Reference: XENCO Report No(s): **549844**

Cimarex-Marquardt 12H ROW

Project Address: Eddy Co NM

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 549844. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 549844 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks

Project Manager

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**Sample Cross Reference 549844****Tetra Tech- Midland, Midland, TX**

Cimarex-Marquardt 12H ROW

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
AH-4 0-1	S	03-29-17 00:00		549844-001
AH-5 0-1	S	03-29-17 00:00		549844-002
AH-6 0-1	S	03-29-17 00:00		549844-003
AH-6 1-1.5	S	03-29-17 00:00		549844-004
AH-7 0-1	S	03-29-17 00:00		549844-005
AH-7 1-1.5	S	03-29-17 00:00		549844-006
AH-8 0-1	S	03-29-17 00:00		549844-007
AH-12 0-1	S	03-29-17 00:00		549844-008
AH-12 1-1.5	S	03-29-17 00:00		549844-009
AH-13 0-1	S	03-29-17 00:00		549844-010



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Cimarex-Marquardt 12H ROW

Project ID: 212C-MD-00659
Work Order Number(s): 549844

Report Date: 07-APR-17
Date Received: 03/30/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3014353 Inorganic Anions by EPA 300/300.1

Lab Sample ID 549845-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 549844-001, -002, -003, -004, -005, -006, -007, -008, -009, -010.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analysis Summary 549844

Tetra Tech- Midland, Midland, TX

Project Name: Cimarex-Marquardt 12H ROW



Project Id: 212C-MD-00659
Contact: Ike Tavaréz
Project Location: Eddy Co NM

Date Received in Lab: Thu Mar-30-17 04:29 pm
Report Date: 07-APR-17
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	549844-001	549844-002	549844-003	549844-004	549844-005	549844-006
	<i>Field Id:</i>	AH-4 0-1	AH-5 0-1	AH-6 0-1	AH-6 1-1.5	AH-7 0-1	AH-7 1-1.5
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-29-17 00:00	Mar-29-17 00:00	Mar-29-17 00:00	Mar-29-17 00:00	Mar-29-17 00:00	Mar-29-17 00:00
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	Apr-06-17 16:02	Apr-06-17 16:02	Apr-06-17 16:02	Apr-06-17 16:02	Apr-06-17 16:02	Apr-06-17 16:02
	<i>Analyzed:</i>	Apr-06-17 17:32	Apr-06-17 17:40	Apr-06-17 17:48	Apr-06-17 17:56	Apr-06-17 18:21	Apr-06-17 17:08
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1470 49.8	2060 48.8	1420 49.8	3330 100	5110 48.7	497 4.88

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager



Certificate of Analysis Summary 549844

Tetra Tech- Midland, Midland, TX

Project Name: Cimarex-Marquardt 12H ROW



Project Id: 212C-MD-00659
Contact: Ike Tavaréz
Project Location: Eddy Co NM

Date Received in Lab: Thu Mar-30-17 04:29 pm
Report Date: 07-APR-17
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	549844-007	549844-008	549844-009	549844-010		
	<i>Field Id:</i>	AH-8 0-1	AH-12 0-1	AH-12 1-1.5	AH-13 0-1		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Mar-29-17 00:00	Mar-29-17 00:00	Mar-29-17 00:00	Mar-29-17 00:00		
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	Apr-06-17 16:02	Apr-06-17 16:02	Apr-06-17 16:02	Apr-06-17 16:02		
	<i>Analyzed:</i>	Apr-06-17 18:29	Apr-06-17 18:37	Apr-06-17 18:45	Apr-06-17 18:53		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		123 24.8	3040 98.2	1750 49.9	4870 98.8		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
 The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
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 Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Kelsey Brooks
Project Manager



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



BS / BSD Recoveries



Project Name: Cimarex-Marquardt 12H ROW

Work Order #: 549844

Project ID: 212C-MD-00659

Analyst: MGO

Date Prepared: 04/06/2017

Date Analyzed: 04/06/2017

Lab Batch ID: 3014353

Sample: 722686-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<4.99	250	239	96	250	234	94	2	90-110	20	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Cimarex-Marquardt 12H ROW

Work Order #: 549844

Project ID: 212C-MD-00659

Lab Batch ID: 3014353

QC- Sample ID: 549844-006 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/06/2017

Date Prepared: 04/06/2017

Analyst: MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	497	244	727	94	244	711	88	2	90-110	20	X

Lab Batch ID: 3014353

QC- Sample ID: 549845-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/06/2017

Date Prepared: 04/06/2017

Analyst: MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1120	249	1280	64	249	1320	80	3	90-110	20	X

Matrix Spike Percent Recovery $[D] = 100 \times (C-A)/B$
 Relative Percent Difference $RPD = 200 \times |(C-F)/(C+F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 \times (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Client: Tetra Tech- Midland

Date/ Time Received: 03/30/2017 04:29:00 PM

Work Order #: 549844

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	20.5	
#2 *Shipping container in good condition?	N/A	
#3 *Samples received on ice?	No	
#4 *Custody Seal present on shipping container/ cooler?	N/A	
#5 *Custody Seals intact on shipping container/ cooler?	N/A	
#6 Custody Seals intact on sample bottles?	N/A	
#7 *Custody Seals Signed and dated?	N/A	
#8 *Chain of Custody present?	Yes	
#9 Sample instructions complete on Chain of Custody?	Yes	
#10 Any missing/extra samples?	No	
#11 Chain of Custody signed when relinquished/ received?	Yes	
#12 Chain of Custody agrees with sample label(s)?	Yes	
#13 Container label(s) legible and intact?	Yes	
#14 Sample matrix/ properties agree with Chain of Custody?	Yes	
#15 Samples in proper container/ bottle?	Yes	
#16 Samples properly preserved?	Yes	
#17 Sample container(s) intact?	Yes	
#18 Sufficient sample amount for indicated test(s)?	Yes	
#19 All samples received within hold time?	Yes	
#20 Subcontract of sample(s)?	Yes	Houston
#21 VOC samples have zero headspace?	N/A	
#22 <2 for all samples preserved with HNO ₃ , HCL, H ₂ SO ₄ ? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	N/A	
#23 >10 for all samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH?	N/A	

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

Jessica Kramer

Date: 03/31/2017

Checklist reviewed by:

Kelsey Brooks

Date: 03/31/2017



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Michael Collier
H & R Enterprises
5120 W Kansas St
Hobbs, New Mexico 88242

Generated 11/27/2023 4:44:09 PM

JOB DESCRIPTION

MARQUARDT FED #12H (MAR)
Eddy

JOB NUMBER

890-5639-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
11/27/2023 4:44:09 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Laboratory Job ID: 890-5639-1
SDG: Eddy

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Surrogate Summary	33
QC Sample Results	36
QC Association Summary	45
Lab Chronicle	53
Certification Summary	64
Method Summary	65
Sample Summary	66
Chain of Custody	67
Receipt Checklists	71

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Definitions/Glossary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Job ID: 890-5639-1

Laboratory: Eurofins Carlsbad

Narrative**Job Narrative
890-5639-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 11/15/2023 2:51 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: S - 1 0-1' (890-5639-1), S - 1 2' (890-5639-2), S - 1 3R (890-5639-3), S - 2 0-1' (890-5639-4), S - 2 2' (890-5639-5), S - 2 3'R (890-5639-6), S - 3 0-1' (890-5639-7), S - 3 2' (890-5639-8), S - 3 3R (890-5639-9), S - 4 0-1' (890-5639-10), S - 4 2' (890-5639-11), S - 4 3'R (890-5639-12), S - 5 0-1' (890-5639-13), S - 5 2' (890-5639-14), S - 5 3'R (890-5639-15), S - 6 0-1' (890-5639-16), S - 6 2' (890-5639-17), S - 6 3R (890-5639-18), S - 7 0-1' (890-5639-19), S - 7 2' (890-5639-20), S - 7 3'R (890-5639-21), S - 8 0-1' (890-5639-22), S - 8 2' (890-5639-23), S - 8 3'R (890-5639-24), H - 1 0-1' (890-5639-25), H - 2 0-1' (890-5639-26), H - 3 0-1' (890-5639-27), H - 4 0-1' (890-5639-28), H - 5 0-1' (890-5639-29), H - 6 0-1' (890-5639-30), H - 7 0-1' (890-5639-31), H - 8 0-1' (890-5639-32), H - 9 0-1' (890-5639-33) and H - 10 0-1' (890-5639-34).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: S - 1 0-1' (890-5639-1), S - 1 2' (890-5639-2), S - 1 3R (890-5639-3), S - 2 0-1' (890-5639-4), S - 2 2' (890-5639-5), S - 2 3'R (890-5639-6), S - 3 0-1' (890-5639-7), S - 3 2' (890-5639-8), S - 3 3R (890-5639-9), S - 4 0-1' (890-5639-10), S - 4 2' (890-5639-11), S - 4 3'R (890-5639-12), S - 5 0-1' (890-5639-13), S - 5 2' (890-5639-14), S - 5 3'R (890-5639-15), S - 6 0-1' (890-5639-16), S - 6 2' (890-5639-17), S - 6 3R (890-5639-18), S - 7 0-1' (890-5639-19), S - 7 2' (890-5639-20), (CCV 880-67345/2), (CCV 880-67345/33), (LCS 880-67306/1-A), (LCSD 880-67306/2-A), (890-5639-A-1-D MS) and (890-5639-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-67306 and analytical batch 880-67345 was outside the upper control limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-67306 and analytical batch 880-67345 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-67330 and analytical batch 880-67637 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: H - 3 0-1' (890-5639-27). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Case Narrative

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Job ID: 890-5639-1 (Continued)**Laboratory: Eurofins Carlsbad (Continued)**

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: S - 7 0-1' (890-5639-19), S - 7 2' (890-5639-20), S - 7 3'R (890-5639-21), S - 8 0-1' (890-5639-22), S - 8 2' (890-5639-23), S - 8 3'R (890-5639-24), H - 1 0-1' (890-5639-25), H - 2 0-1' (890-5639-26), H - 3 0-1' (890-5639-27), H - 4 0-1' (890-5639-28), H - 5 0-1' (890-5639-29), H - 6 0-1' (890-5639-30), H - 7 0-1' (890-5639-31), H - 8 0-1' (890-5639-32), H - 10 0-1' (890-5639-34), (890-5639-A-19-D MS) and (890-5639-A-19-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-67421 and analytical batch 880-67486 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: S - 1 0-1' (890-5639-1), S - 1 2' (890-5639-2), S - 1 3R (890-5639-3), S - 2 0-1' (890-5639-4), S - 2 2' (890-5639-5), S - 2 3'R (890-5639-6) and S - 3 0-1' (890-5639-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-67486 recovered above the upper control limit for Diesel Range Organics (Over C10-C28). Since an acceptable CCV was ran within the 12 hour window, the data has been qualified and reported. The associated sample is impacted: (CCV 880-67486/5).

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: S - 3 2' (890-5639-8), S - 3 3R (890-5639-9), S - 4 0-1' (890-5639-10), S - 4 2' (890-5639-11), S - 4 3'R (890-5639-12), S - 5 0-1' (890-5639-13), S - 6 2' (890-5639-17) and S - 6 3R (890-5639-18). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 1 0-1'

Lab Sample ID: 890-5639-1

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/18/23 18:18	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/18/23 18:18	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/18/23 18:18	1
m-Xylene & p-Xylene	<0.00396	U F1	0.00396		mg/Kg		11/17/23 13:57	11/18/23 18:18	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/18/23 18:18	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/17/23 13:57	11/18/23 18:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	165	S1+	70 - 130	11/17/23 13:57	11/18/23 18:18	1
1,4-Difluorobenzene (Surr)	78		70 - 130	11/17/23 13:57	11/18/23 18:18	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/18/23 18:18	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/21/23 13:52	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/20/23 12:14	11/21/23 13:52	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/20/23 12:14	11/21/23 13:52	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/20/23 12:14	11/21/23 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	147	S1+	70 - 130	11/20/23 12:14	11/21/23 13:52	1
o-Terphenyl	129		70 - 130	11/20/23 12:14	11/21/23 13:52	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.04	U	5.04		mg/Kg			11/18/23 17:34	1

Client Sample ID: S - 1 2'

Lab Sample ID: 890-5639-2

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/18/23 18:45	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/18/23 18:45	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/18/23 18:45	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/17/23 13:57	11/18/23 18:45	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/18/23 18:45	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/17/23 13:57	11/18/23 18:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	188	S1+	70 - 130	11/17/23 13:57	11/18/23 18:45	1
1,4-Difluorobenzene (Surr)	86		70 - 130	11/17/23 13:57	11/18/23 18:45	1

Eurofins Carlsbad

Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 1 2'

Lab Sample ID: 890-5639-2

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/18/23 18:45	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/21/23 14:14	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/20/23 12:14	11/21/23 14:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/20/23 12:14	11/21/23 14:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/20/23 12:14	11/21/23 14:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	138	S1+	70 - 130				11/20/23 12:14	11/21/23 14:14	1
o-Terphenyl	120		70 - 130				11/20/23 12:14	11/21/23 14:14	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99		mg/Kg			11/18/23 17:51	1

Client Sample ID: S - 1 3R

Lab Sample ID: 890-5639-3

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/18/23 19:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/18/23 19:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/18/23 19:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/17/23 13:57	11/18/23 19:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/18/23 19:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/17/23 13:57	11/18/23 19:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	165	S1+	70 - 130				11/17/23 13:57	11/18/23 19:11	1
1,4-Difluorobenzene (Surr)	82		70 - 130				11/17/23 13:57	11/18/23 19:11	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/18/23 19:11	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			11/21/23 14:36	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		11/20/23 12:14	11/21/23 14:36	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		11/20/23 12:14	11/21/23 14:36	1

Eurofins Carlsbad

Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 1 3R

Lab Sample ID: 890-5639-3

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		11/20/23 12:14	11/21/23 14:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	145	S1+	70 - 130				11/20/23 12:14	11/21/23 14:36	1
o-Terphenyl	125		70 - 130				11/20/23 12:14	11/21/23 14:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.84		4.98		mg/Kg			11/18/23 17:57	1

Client Sample ID: S - 2 0-1'

Lab Sample ID: 890-5639-4

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/18/23 19:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/18/23 19:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/18/23 19:38	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/17/23 13:57	11/18/23 19:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/18/23 19:38	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/17/23 13:57	11/18/23 19:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	202	S1+	70 - 130				11/17/23 13:57	11/18/23 19:38	1
1,4-Difluorobenzene (Surr)	77		70 - 130				11/17/23 13:57	11/18/23 19:38	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/18/23 19:38	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			11/21/23 14:58	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		11/20/23 12:14	11/21/23 14:58	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		11/20/23 12:14	11/21/23 14:58	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		11/20/23 12:14	11/21/23 14:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	151	S1+	70 - 130				11/20/23 12:14	11/21/23 14:58	1
o-Terphenyl	128		70 - 130				11/20/23 12:14	11/21/23 14:58	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			11/18/23 18:02	1

Eurofins Carlsbad

Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 2 2'

Lab Sample ID: 890-5639-5

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/18/23 20:04	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/18/23 20:04	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/18/23 20:04	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/17/23 13:57	11/18/23 20:04	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/18/23 20:04	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/17/23 13:57	11/18/23 20:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	214	S1+	70 - 130	11/17/23 13:57	11/18/23 20:04	1
1,4-Difluorobenzene (Surr)	75		70 - 130	11/17/23 13:57	11/18/23 20:04	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/18/23 20:04	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			11/21/23 15:20	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		11/20/23 12:14	11/21/23 15:20	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		11/20/23 12:14	11/21/23 15:20	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		11/20/23 12:14	11/21/23 15:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	151	S1+	70 - 130	11/20/23 12:14	11/21/23 15:20	1
o-Terphenyl	131	S1+	70 - 130	11/20/23 12:14	11/21/23 15:20	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01		mg/Kg			11/18/23 18:08	1

Client Sample ID: S - 2 3'R

Lab Sample ID: 890-5639-6

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/18/23 20:30	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/18/23 20:30	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/18/23 20:30	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/17/23 13:57	11/18/23 20:30	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/18/23 20:30	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/17/23 13:57	11/18/23 20:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	192	S1+	70 - 130	11/17/23 13:57	11/18/23 20:30	1
1,4-Difluorobenzene (Surr)	78		70 - 130	11/17/23 13:57	11/18/23 20:30	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 2 3'R

Lab Sample ID: 890-5639-6

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			11/18/23 20:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			11/21/23 16:04	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		11/20/23 12:14	11/21/23 16:04	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		11/20/23 12:14	11/21/23 16:04	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		11/20/23 12:14	11/21/23 16:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	150	S1+	70 - 130				11/20/23 12:14	11/21/23 16:04	1
o-Terphenyl	130		70 - 130				11/20/23 12:14	11/21/23 16:04	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01		mg/Kg			11/18/23 18:25	1

Client Sample ID: S - 3 0-1'

Lab Sample ID: 890-5639-7

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/17/23 13:57	11/18/23 20:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/17/23 13:57	11/18/23 20:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/17/23 13:57	11/18/23 20:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/17/23 13:57	11/18/23 20:57	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/17/23 13:57	11/18/23 20:57	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/17/23 13:57	11/18/23 20:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	202	S1+	70 - 130				11/17/23 13:57	11/18/23 20:57	1
1,4-Difluorobenzene (Surr)	73		70 - 130				11/17/23 13:57	11/18/23 20:57	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/18/23 20:57	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			11/21/23 16:26	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		11/20/23 12:14	11/21/23 16:26	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		11/20/23 12:14	11/21/23 16:26	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 3 0-1'

Lab Sample ID: 890-5639-7

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		11/20/23 12:14	11/21/23 16:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	142	S1+	70 - 130				11/20/23 12:14	11/21/23 16:26	1
o-Terphenyl	122		70 - 130				11/20/23 12:14	11/21/23 16:26	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			11/18/23 18:30	1

Client Sample ID: S - 3 2'

Lab Sample ID: 890-5639-8

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/18/23 21:23	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/18/23 21:23	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/18/23 21:23	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		11/17/23 13:57	11/18/23 21:23	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/18/23 21:23	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		11/17/23 13:57	11/18/23 21:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	189	S1+	70 - 130				11/17/23 13:57	11/18/23 21:23	1
1,4-Difluorobenzene (Surr)	81		70 - 130				11/17/23 13:57	11/18/23 21:23	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			11/18/23 21:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/21/23 16:49	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/20/23 12:14	11/21/23 16:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/20/23 12:14	11/21/23 16:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/20/23 12:14	11/21/23 16:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	154	S1+	70 - 130				11/20/23 12:14	11/21/23 16:49	1
o-Terphenyl	135	S1+	70 - 130				11/20/23 12:14	11/21/23 16:49	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43.4		5.05		mg/Kg			11/18/23 18:36	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 3 3R

Lab Sample ID: 890-5639-9

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/18/23 21:50	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/18/23 21:50	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/18/23 21:50	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/17/23 13:57	11/18/23 21:50	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/18/23 21:50	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/17/23 13:57	11/18/23 21:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	224	S1+	70 - 130	11/17/23 13:57	11/18/23 21:50	1
1,4-Difluorobenzene (Surr)	80		70 - 130	11/17/23 13:57	11/18/23 21:50	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			11/18/23 21:50	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			11/21/23 17:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		11/20/23 12:14	11/21/23 17:11	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		11/20/23 12:14	11/21/23 17:11	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		11/20/23 12:14	11/21/23 17:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	166	S1+	70 - 130	11/20/23 12:14	11/21/23 17:11	1
o-Terphenyl	141	S1+	70 - 130	11/20/23 12:14	11/21/23 17:11	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99		mg/Kg			11/18/23 18:42	1

Client Sample ID: S - 4 0-1'

Lab Sample ID: 890-5639-10

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/18/23 22:17	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/18/23 22:17	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/18/23 22:17	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/17/23 13:57	11/18/23 22:17	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/18/23 22:17	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/17/23 13:57	11/18/23 22:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	203	S1+	70 - 130	11/17/23 13:57	11/18/23 22:17	1
1,4-Difluorobenzene (Surr)	95		70 - 130	11/17/23 13:57	11/18/23 22:17	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 4 0-1'

Lab Sample ID: 890-5639-10

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/18/23 22:17	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			11/21/23 17:33	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		11/20/23 12:14	11/21/23 17:33	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		11/20/23 12:14	11/21/23 17:33	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		11/20/23 12:14	11/21/23 17:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	149	S1+	70 - 130				11/20/23 12:14	11/21/23 17:33	1
o-Terphenyl	128		70 - 130				11/20/23 12:14	11/21/23 17:33	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			11/18/23 18:47	1

Client Sample ID: S - 4 2'

Lab Sample ID: 890-5639-11

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/19/23 00:01	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/19/23 00:01	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/19/23 00:01	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/17/23 13:57	11/19/23 00:01	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/19/23 00:01	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/17/23 13:57	11/19/23 00:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130				11/17/23 13:57	11/19/23 00:01	1
1,4-Difluorobenzene (Surr)	70		70 - 130				11/17/23 13:57	11/19/23 00:01	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			11/19/23 00:01	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			11/21/23 17:55	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		11/20/23 12:14	11/21/23 17:55	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		11/20/23 12:14	11/21/23 17:55	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 4 2'

Lab Sample ID: 890-5639-11

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		11/20/23 12:14	11/21/23 17:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130				11/20/23 12:14	11/21/23 17:55	1
o-Terphenyl	124		70 - 130				11/20/23 12:14	11/21/23 17:55	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.02	U	5.02		mg/Kg			11/18/23 18:53	1

Client Sample ID: S - 4 3'R

Lab Sample ID: 890-5639-12

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/17/23 13:57	11/19/23 00:26	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/17/23 13:57	11/19/23 00:26	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/17/23 13:57	11/19/23 00:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/17/23 13:57	11/19/23 00:26	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/17/23 13:57	11/19/23 00:26	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/17/23 13:57	11/19/23 00:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	272	S1+	70 - 130				11/17/23 13:57	11/19/23 00:26	1
1,4-Difluorobenzene (Surr)	96		70 - 130				11/17/23 13:57	11/19/23 00:26	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/19/23 00:26	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			11/21/23 18:17	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		11/20/23 12:14	11/21/23 18:17	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		11/20/23 12:14	11/21/23 18:17	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		11/20/23 12:14	11/21/23 18:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	158	S1+	70 - 130				11/20/23 12:14	11/21/23 18:17	1
o-Terphenyl	137	S1+	70 - 130				11/20/23 12:14	11/21/23 18:17	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.03	U	5.03		mg/Kg			11/18/23 19:10	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 5 0-1'

Lab Sample ID: 890-5639-13

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/19/23 00:52	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/19/23 00:52	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/19/23 00:52	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/17/23 13:57	11/19/23 00:52	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/19/23 00:52	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/17/23 13:57	11/19/23 00:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	208	S1+	70 - 130				11/17/23 13:57	11/19/23 00:52	1
1,4-Difluorobenzene (Surr)	73		70 - 130				11/17/23 13:57	11/19/23 00:52	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/19/23 00:52	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			11/21/23 18:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		11/20/23 12:14	11/21/23 18:39	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		11/20/23 12:14	11/21/23 18:39	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		11/20/23 12:14	11/21/23 18:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	149	S1+	70 - 130				11/20/23 12:14	11/21/23 18:39	1
o-Terphenyl	129		70 - 130				11/20/23 12:14	11/21/23 18:39	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01		mg/Kg			11/18/23 19:16	1

Client Sample ID: S - 5 2'

Lab Sample ID: 890-5639-14

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/17/23 13:57	11/19/23 01:18	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/17/23 13:57	11/19/23 01:18	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/17/23 13:57	11/19/23 01:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/17/23 13:57	11/19/23 01:18	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/17/23 13:57	11/19/23 01:18	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/17/23 13:57	11/19/23 01:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	234	S1+	70 - 130				11/17/23 13:57	11/19/23 01:18	1
1,4-Difluorobenzene (Surr)	81		70 - 130				11/17/23 13:57	11/19/23 01:18	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 5 2' Lab Sample ID: 890-5639-14
Date Collected: 11/14/23 00:00 Matrix: Solid
Date Received: 11/15/23 14:51

Method: TAL SOP Total BTEX - Total BTEX Calculation										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/19/23 01:18	1	
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	56.0		49.8		mg/Kg			11/22/23 10:56	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/20/23 15:44	11/22/23 10:56	1	
Diesel Range Organics (Over C10-C28)	56.0		49.8		mg/Kg		11/20/23 15:44	11/22/23 10:56	1	
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/20/23 15:44	11/22/23 10:56	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	128		70 - 130				11/20/23 15:44	11/22/23 10:56	1	
o-Terphenyl	130		70 - 130				11/20/23 15:44	11/22/23 10:56	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<4.98	U	4.98		mg/Kg			11/18/23 19:33	1	

Client Sample ID: S - 5 3'R Lab Sample ID: 890-5639-15
Date Collected: 11/14/23 00:00 Matrix: Solid
Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/19/23 01:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/19/23 01:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/19/23 01:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/17/23 13:57	11/19/23 01:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/19/23 01:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/17/23 13:57	11/19/23 01:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	226	S1+	70 - 130				11/17/23 13:57	11/19/23 01:44	1
1,4-Difluorobenzene (Surr)	100		70 - 130				11/17/23 13:57	11/19/23 01:44	1
Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			11/19/23 01:44	1
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			11/22/23 12:02	1
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		11/20/23 15:44	11/22/23 12:02	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		11/20/23 15:44	11/22/23 12:02	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 5 3'R

Lab Sample ID: 890-5639-15

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		11/20/23 15:44	11/22/23 12:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130				11/20/23 15:44	11/22/23 12:02	1
o-Terphenyl	123		70 - 130				11/20/23 15:44	11/22/23 12:02	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			11/18/23 19:38	1

Client Sample ID: S - 6 0-1'

Lab Sample ID: 890-5639-16

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/19/23 02:10	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/19/23 02:10	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/19/23 02:10	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/17/23 13:57	11/19/23 02:10	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/19/23 02:10	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/17/23 13:57	11/19/23 02:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	176	S1+	70 - 130				11/17/23 13:57	11/19/23 02:10	1
1,4-Difluorobenzene (Surr)	78		70 - 130				11/17/23 13:57	11/19/23 02:10	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/19/23 02:10	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			11/22/23 12:25	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		11/20/23 15:44	11/22/23 12:25	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		11/20/23 15:44	11/22/23 12:25	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		11/20/23 15:44	11/22/23 12:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130				11/20/23 15:44	11/22/23 12:25	1
o-Terphenyl	124		70 - 130				11/20/23 15:44	11/22/23 12:25	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01		mg/Kg			11/18/23 19:44	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 6 2'

Lab Sample ID: 890-5639-17

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/19/23 02:36	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/19/23 02:36	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/19/23 02:36	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/17/23 13:57	11/19/23 02:36	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/17/23 13:57	11/19/23 02:36	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/17/23 13:57	11/19/23 02:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	154	S1+	70 - 130	11/17/23 13:57	11/19/23 02:36	1
1,4-Difluorobenzene (Surr)	71		70 - 130	11/17/23 13:57	11/19/23 02:36	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/19/23 02:36	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/21/23 19:01	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/20/23 12:14	11/21/23 19:01	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/20/23 12:14	11/21/23 19:01	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/20/23 12:14	11/21/23 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	150	S1+	70 - 130	11/20/23 12:14	11/21/23 19:01	1
o-Terphenyl	128		70 - 130	11/20/23 12:14	11/21/23 19:01	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01		mg/Kg			11/18/23 19:49	1

Client Sample ID: S - 6 3R

Lab Sample ID: 890-5639-18

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/19/23 03:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/19/23 03:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/19/23 03:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/17/23 13:57	11/19/23 03:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/19/23 03:02	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/17/23 13:57	11/19/23 03:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	172	S1+	70 - 130	11/17/23 13:57	11/19/23 03:02	1
1,4-Difluorobenzene (Surr)	74		70 - 130	11/17/23 13:57	11/19/23 03:02	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 6 3R

Lab Sample ID: 890-5639-18

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/19/23 03:02	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			11/21/23 19:23	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		11/20/23 12:14	11/21/23 19:23	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		11/20/23 12:14	11/21/23 19:23	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		11/20/23 12:14	11/21/23 19:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	154	S1+	70 - 130				11/20/23 12:14	11/21/23 19:23	1
o-Terphenyl	131	S1+	70 - 130				11/20/23 12:14	11/21/23 19:23	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U	5.05		mg/Kg			11/18/23 19:55	1

Client Sample ID: S - 7 0-1'

Lab Sample ID: 890-5639-19

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/19/23 03:28	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/19/23 03:28	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/19/23 03:28	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/17/23 13:57	11/19/23 03:28	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/17/23 13:57	11/19/23 03:28	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/17/23 13:57	11/19/23 03:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	196	S1+	70 - 130				11/17/23 13:57	11/19/23 03:28	1
1,4-Difluorobenzene (Surr)	78		70 - 130				11/17/23 13:57	11/19/23 03:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/19/23 03:28	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/20/23 21:31	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/20/23 08:27	11/20/23 21:31	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/20/23 08:27	11/20/23 21:31	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 7 0-1'
Date Collected: 11/14/23 00:00
Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-19
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/20/23 08:27	11/20/23 21:31	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	164	S1+	70 - 130				11/20/23 08:27	11/20/23 21:31	1	
o-Terphenyl	136	S1+	70 - 130				11/20/23 08:27	11/20/23 21:31	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	7.88		5.04		mg/Kg			11/18/23 20:01	1	

Client Sample ID: S - 7 2'
Date Collected: 11/14/23 00:00
Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-20
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/19/23 03:54	1	
Toluene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/19/23 03:54	1	
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/19/23 03:54	1	
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/17/23 13:57	11/19/23 03:54	1	
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/17/23 13:57	11/19/23 03:54	1	
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/17/23 13:57	11/19/23 03:54	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	190	S1+	70 - 130				11/17/23 13:57	11/19/23 03:54	1	
1,4-Difluorobenzene (Surr)	79		70 - 130				11/17/23 13:57	11/19/23 03:54	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/19/23 03:54	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.5	U	50.5		mg/Kg			11/20/23 22:37	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		11/20/23 08:27	11/20/23 22:37	1	
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		11/20/23 08:27	11/20/23 22:37	1	
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		11/20/23 08:27	11/20/23 22:37	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	154	S1+	70 - 130				11/20/23 08:27	11/20/23 22:37	1	
o-Terphenyl	130		70 - 130				11/20/23 08:27	11/20/23 22:37	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.02	U	5.02		mg/Kg			11/18/23 20:06	1	

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 7 3'R

Lab Sample ID: 890-5639-21

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U F1	0.00198		mg/Kg		11/17/23 15:41	11/23/23 02:37	1
Toluene	<0.00198	U F1	0.00198		mg/Kg		11/17/23 15:41	11/23/23 02:37	1
Ethylbenzene	<0.00198	U F1	0.00198		mg/Kg		11/17/23 15:41	11/23/23 02:37	1
m-Xylene & p-Xylene	<0.00396	U F1	0.00396		mg/Kg		11/17/23 15:41	11/23/23 02:37	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 02:37	1
Xylenes, Total	<0.00396	U F1	0.00396		mg/Kg		11/17/23 15:41	11/23/23 02:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130				11/17/23 15:41	11/23/23 02:37	1
1,4-Difluorobenzene (Surr)	78		70 - 130				11/17/23 15:41	11/23/23 02:37	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/23/23 02:37	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			11/20/23 22:58	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		11/20/23 08:27	11/20/23 22:58	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		11/20/23 08:27	11/20/23 22:58	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		11/20/23 08:27	11/20/23 22:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130				11/20/23 08:27	11/20/23 22:58	1
o-Terphenyl	111		70 - 130				11/20/23 08:27	11/20/23 22:58	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/17/23 21:30	1

Client Sample ID: S - 8 0-1'

Lab Sample ID: 890-5639-22

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/17/23 15:41	11/23/23 02:57	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/17/23 15:41	11/23/23 02:57	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/17/23 15:41	11/23/23 02:57	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/17/23 15:41	11/23/23 02:57	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/17/23 15:41	11/23/23 02:57	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/17/23 15:41	11/23/23 02:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130				11/17/23 15:41	11/23/23 02:57	1
1,4-Difluorobenzene (Surr)	77		70 - 130				11/17/23 15:41	11/23/23 02:57	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 8 0-1'

Lab Sample ID: 890-5639-22

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: TAL SOP Total BTEX - Total BTEX Calculation										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/23/23 02:57	1	
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.4	U	50.4		mg/Kg			11/20/23 23:19	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		11/20/23 08:27	11/20/23 23:19	1	
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		11/20/23 08:27	11/20/23 23:19	1	
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		11/20/23 08:27	11/20/23 23:19	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	135	S1+	70 - 130				11/20/23 08:27	11/20/23 23:19	1	
o-Terphenyl	112		70 - 130				11/20/23 08:27	11/20/23 23:19	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	5.14		5.01		mg/Kg			11/17/23 21:47	1	

Client Sample ID: S - 8 2'

Lab Sample ID: 890-5639-23

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00202	U	0.00202		mg/Kg		11/17/23 15:41	11/23/23 03:18	1	
Toluene	<0.00202	U	0.00202		mg/Kg		11/17/23 15:41	11/23/23 03:18	1	
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/17/23 15:41	11/23/23 03:18	1	
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/17/23 15:41	11/23/23 03:18	1	
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/17/23 15:41	11/23/23 03:18	1	
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/17/23 15:41	11/23/23 03:18	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	96		70 - 130				11/17/23 15:41	11/23/23 03:18	1	
1,4-Difluorobenzene (Surr)	77		70 - 130				11/17/23 15:41	11/23/23 03:18	1	
Method: TAL SOP Total BTEX - Total BTEX Calculation										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/23/23 03:18	1	
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.7	U	49.7		mg/Kg			11/20/23 23:41	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		11/20/23 08:27	11/20/23 23:41	1	
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		11/20/23 08:27	11/20/23 23:41	1	

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 8 2'

Lab Sample ID: 890-5639-23

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		11/20/23 08:27	11/20/23 23:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	134	S1+	70 - 130				11/20/23 08:27	11/20/23 23:41	1
o-Terphenyl	111		70 - 130				11/20/23 08:27	11/20/23 23:41	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.03	U	5.03		mg/Kg			11/17/23 21:53	1

Client Sample ID: S - 8 3'R

Lab Sample ID: 890-5639-24

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/23 15:41	11/23/23 03:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/23 15:41	11/23/23 03:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/23 15:41	11/23/23 03:38	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/17/23 15:41	11/23/23 03:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/23 15:41	11/23/23 03:38	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/17/23 15:41	11/23/23 03:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130				11/17/23 15:41	11/23/23 03:38	1
1,4-Difluorobenzene (Surr)	81		70 - 130				11/17/23 15:41	11/23/23 03:38	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/23/23 03:38	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/21/23 00:02	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/20/23 08:27	11/21/23 00:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/20/23 08:27	11/21/23 00:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/20/23 08:27	11/21/23 00:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	133	S1+	70 - 130				11/20/23 08:27	11/21/23 00:02	1
o-Terphenyl	110		70 - 130				11/20/23 08:27	11/21/23 00:02	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.02	U	5.02		mg/Kg			11/17/23 21:58	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: H - 1 0-1'

Lab Sample ID: 890-5639-25

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/17/23 15:41	11/23/23 03:59	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/17/23 15:41	11/23/23 03:59	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/17/23 15:41	11/23/23 03:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/17/23 15:41	11/23/23 03:59	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/17/23 15:41	11/23/23 03:59	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/17/23 15:41	11/23/23 03:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130				11/17/23 15:41	11/23/23 03:59	1
1,4-Difluorobenzene (Surr)	71		70 - 130				11/17/23 15:41	11/23/23 03:59	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/23/23 03:59	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			11/21/23 00:22	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		11/20/23 08:27	11/21/23 00:22	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		11/20/23 08:27	11/21/23 00:22	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		11/20/23 08:27	11/21/23 00:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	140	S1+	70 - 130				11/20/23 08:27	11/21/23 00:22	1
o-Terphenyl	115		70 - 130				11/20/23 08:27	11/21/23 00:22	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.65		5.02		mg/Kg			11/17/23 22:04	1

Client Sample ID: H - 2 0-1'

Lab Sample ID: 890-5639-26

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 04:19	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 04:19	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 04:19	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		11/17/23 15:41	11/23/23 04:19	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 04:19	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		11/17/23 15:41	11/23/23 04:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130				11/17/23 15:41	11/23/23 04:19	1
1,4-Difluorobenzene (Surr)	78		70 - 130				11/17/23 15:41	11/23/23 04:19	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: H - 2 0-1'

Lab Sample ID: 890-5639-26

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			11/23/23 04:19	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			11/21/23 00:44	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		11/20/23 08:27	11/21/23 00:44	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		11/20/23 08:27	11/21/23 00:44	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		11/20/23 08:27	11/21/23 00:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	255	S1+	70 - 130				11/20/23 08:27	11/21/23 00:44	1
o-Terphenyl	210	S1+	70 - 130				11/20/23 08:27	11/21/23 00:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/17/23 22:21	1

Client Sample ID: H - 3 0-1'

Lab Sample ID: 890-5639-27

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 04:40	1	
Toluene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 04:40	1	
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 04:40	1	
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/17/23 15:41	11/23/23 04:40	1	
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 04:40	1	
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/17/23 15:41	11/23/23 04:40	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	91		70 - 130				11/17/23 15:41	11/23/23 04:40	1	
1,4-Difluorobenzene (Surr)	55	S1-	70 - 130				11/17/23 15:41	11/23/23 04:40	1	
Method: TAL SOP Total BTEX - Total BTEX Calculation										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/23/23 04:40	1	
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.0	U	50.0		mg/Kg			11/21/23 01:05	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/20/23 08:27	11/21/23 01:05	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/20/23 08:27	11/21/23 01:05	1	

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: H - 3 0-1'
Date Collected: 11/14/23 00:00
Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-27
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/20/23 08:27	11/21/23 01:05	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	153	S1+	70 - 130				11/20/23 08:27	11/21/23 01:05	1	
o-Terphenyl	129		70 - 130				11/20/23 08:27	11/21/23 01:05	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	5.14		4.95		mg/Kg			11/17/23 22:27	1	

Client Sample ID: H - 4 0-1'
Date Collected: 11/14/23 00:00
Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-28
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00202	U	0.00202		mg/Kg		11/17/23 15:41	11/23/23 07:04	1	
Toluene	<0.00202	U	0.00202		mg/Kg		11/17/23 15:41	11/23/23 07:04	1	
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/17/23 15:41	11/23/23 07:04	1	
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/17/23 15:41	11/23/23 07:04	1	
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/17/23 15:41	11/23/23 07:04	1	
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/17/23 15:41	11/23/23 07:04	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	74		70 - 130				11/17/23 15:41	11/23/23 07:04	1	
1,4-Difluorobenzene (Surr)	89		70 - 130				11/17/23 15:41	11/23/23 07:04	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/23/23 07:04	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.3	U	50.3		mg/Kg			11/21/23 01:26	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		11/20/23 08:27	11/21/23 01:26	1	
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		11/20/23 08:27	11/21/23 01:26	1	
Oil Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		11/20/23 08:27	11/21/23 01:26	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	131	S1+	70 - 130				11/20/23 08:27	11/21/23 01:26	1	
o-Terphenyl	108		70 - 130				11/20/23 08:27	11/21/23 01:26	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.01	U	5.01		mg/Kg			11/17/23 22:32	1	

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: H - 5 0-1'

Lab Sample ID: 890-5639-29

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/23 15:41	11/23/23 07:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/23 15:41	11/23/23 07:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/23 15:41	11/23/23 07:25	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/17/23 15:41	11/23/23 07:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/23 15:41	11/23/23 07:25	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/17/23 15:41	11/23/23 07:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	11/17/23 15:41	11/23/23 07:25	1
1,4-Difluorobenzene (Surr)	77		70 - 130	11/17/23 15:41	11/23/23 07:25	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/23/23 07:25	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			11/21/23 02:08	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		11/20/23 08:27	11/21/23 02:08	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		11/20/23 08:27	11/21/23 02:08	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		11/20/23 08:27	11/21/23 02:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	131	S1+	70 - 130	11/20/23 08:27	11/21/23 02:08	1
o-Terphenyl	107		70 - 130	11/20/23 08:27	11/21/23 02:08	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.03	U	5.03		mg/Kg			11/17/23 22:38	1

Client Sample ID: H - 6 0-1'

Lab Sample ID: 890-5639-30

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/17/23 15:41	11/23/23 07:46	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/17/23 15:41	11/23/23 07:46	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/17/23 15:41	11/23/23 07:46	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/17/23 15:41	11/23/23 07:46	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/17/23 15:41	11/23/23 07:46	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/17/23 15:41	11/23/23 07:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	11/17/23 15:41	11/23/23 07:46	1
1,4-Difluorobenzene (Surr)	75		70 - 130	11/17/23 15:41	11/23/23 07:46	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: H - 6 0-1'

Lab Sample ID: 890-5639-30

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			11/23/23 07:46	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			11/21/23 02:29	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		11/20/23 08:27	11/21/23 02:29	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		11/20/23 08:27	11/21/23 02:29	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		11/20/23 08:27	11/21/23 02:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	158	S1+	70 - 130				11/20/23 08:27	11/21/23 02:29	1
o-Terphenyl	133	S1+	70 - 130				11/20/23 08:27	11/21/23 02:29	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.11		5.00		mg/Kg			11/17/23 22:44	1

Client Sample ID: H - 7 0-1'

Lab Sample ID: 890-5639-31

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/17/23 15:41	11/23/23 08:06	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/17/23 15:41	11/23/23 08:06	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/17/23 15:41	11/23/23 08:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/17/23 15:41	11/23/23 08:06	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/17/23 15:41	11/23/23 08:06	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/17/23 15:41	11/23/23 08:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130				11/17/23 15:41	11/23/23 08:06	1
1,4-Difluorobenzene (Surr)	86		70 - 130				11/17/23 15:41	11/23/23 08:06	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/23/23 08:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			11/21/23 02:50	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		11/20/23 08:27	11/21/23 02:50	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		11/20/23 08:27	11/21/23 02:50	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: H - 7 0-1' Lab Sample ID: 890-5639-31
Date Collected: 11/14/23 00:00 Matrix: Solid
Date Received: 11/15/23 14:51

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		11/20/23 08:27	11/21/23 02:50	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	136	S1+	70 - 130				11/20/23 08:27	11/21/23 02:50	1	
o-Terphenyl	111		70 - 130				11/20/23 08:27	11/21/23 02:50	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.00	U	5.00		mg/Kg			11/17/23 22:49	1	

Client Sample ID: H - 8 0-1' Lab Sample ID: 890-5639-32
Date Collected: 11/14/23 00:00 Matrix: Solid
Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 08:27	1	
Toluene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 08:27	1	
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 08:27	1	
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/17/23 15:41	11/23/23 08:27	1	
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/17/23 15:41	11/23/23 08:27	1	
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/17/23 15:41	11/23/23 08:27	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	93		70 - 130				11/17/23 15:41	11/23/23 08:27	1	
1,4-Difluorobenzene (Surr)	77		70 - 130				11/17/23 15:41	11/23/23 08:27	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/23/23 08:27	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.0	U	50.0		mg/Kg			11/21/23 03:11	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/20/23 08:27	11/21/23 03:11	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/20/23 08:27	11/21/23 03:11	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/20/23 08:27	11/21/23 03:11	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	147	S1+	70 - 130				11/20/23 08:27	11/21/23 03:11	1	
o-Terphenyl	121		70 - 130				11/20/23 08:27	11/21/23 03:11	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.02	U	5.02		mg/Kg			11/17/23 23:06	1	

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: H - 9 0-1'

Lab Sample ID: 890-5639-33

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/17/23 15:41	11/23/23 08:47	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/17/23 15:41	11/23/23 08:47	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/17/23 15:41	11/23/23 08:47	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/17/23 15:41	11/23/23 08:47	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/17/23 15:41	11/23/23 08:47	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/17/23 15:41	11/23/23 08:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	11/17/23 15:41	11/23/23 08:47	1
1,4-Difluorobenzene (Surr)	81		70 - 130	11/17/23 15:41	11/23/23 08:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/23/23 08:47	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/21/23 03:32	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/20/23 08:27	11/21/23 03:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/20/23 08:27	11/21/23 03:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/20/23 08:27	11/21/23 03:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130	11/20/23 08:27	11/21/23 03:32	1
o-Terphenyl	108		70 - 130	11/20/23 08:27	11/21/23 03:32	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.02		4.99		mg/Kg			11/17/23 23:12	1

Client Sample ID: H - 10 0-1'

Lab Sample ID: 890-5639-34

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/17/23 15:41	11/23/23 09:08	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/17/23 15:41	11/23/23 09:08	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/17/23 15:41	11/23/23 09:08	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/17/23 15:41	11/23/23 09:08	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/17/23 15:41	11/23/23 09:08	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/17/23 15:41	11/23/23 09:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	11/17/23 15:41	11/23/23 09:08	1
1,4-Difluorobenzene (Surr)	71		70 - 130	11/17/23 15:41	11/23/23 09:08	1

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Client Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: H - 10 0-1'
Date Collected: 11/14/23 00:00
Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-34
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/23/23 09:08	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.8	U	49.8		mg/Kg			11/21/23 03:53	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/20/23 08:27	11/21/23 03:53	1	
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/20/23 08:27	11/21/23 03:53	1	
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/20/23 08:27	11/21/23 03:53	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	131	S1+	70 - 130				11/20/23 08:27	11/21/23 03:53	1	
o-Terphenyl	109		70 - 130				11/20/23 08:27	11/21/23 03:53	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	8.32		4.97		mg/Kg			11/17/23 23:29	1	

Surrogate Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-5639-1	S - 1 0-1'	165 S1+	78
890-5639-1 MS	S - 1 0-1'	204 S1+	84
890-5639-1 MSD	S - 1 0-1'	178 S1+	74
890-5639-2	S - 1 2'	188 S1+	86
890-5639-3	S - 1 3R	165 S1+	82
890-5639-4	S - 2 0-1'	202 S1+	77
890-5639-5	S - 2 2'	214 S1+	75
890-5639-6	S - 2 3'R	192 S1+	78
890-5639-7	S - 3 0-1'	202 S1+	73
890-5639-8	S - 3 2'	189 S1+	81
890-5639-9	S - 3 3R	224 S1+	80
890-5639-10	S - 4 0-1'	203 S1+	95
890-5639-11	S - 4 2'	140 S1+	70
890-5639-12	S - 4 3'R	272 S1+	96
890-5639-13	S - 5 0-1'	208 S1+	73
890-5639-14	S - 5 2'	234 S1+	81
890-5639-15	S - 5 3'R	226 S1+	100
890-5639-16	S - 6 0-1'	176 S1+	78
890-5639-17	S - 6 2'	154 S1+	71
890-5639-18	S - 6 3R	172 S1+	74
890-5639-19	S - 7 0-1'	196 S1+	78
890-5639-20	S - 7 2'	190 S1+	79
890-5639-21	S - 7 3'R	91	78
890-5639-21 MS	S - 7 3'R	118	89
890-5639-21 MSD	S - 7 3'R	115	104
890-5639-22	S - 8 0-1'	90	77
890-5639-23	S - 8 2'	96	77
890-5639-24	S - 8 3'R	95	81
890-5639-25	H - 1 0-1'	94	71
890-5639-26	H - 2 0-1'	96	78
890-5639-27	H - 3 0-1'	91	55 S1-
890-5639-28	H - 4 0-1'	74	89
890-5639-29	H - 5 0-1'	96	77
890-5639-30	H - 6 0-1'	94	75
890-5639-31	H - 7 0-1'	81	86
890-5639-32	H - 8 0-1'	93	77
890-5639-33	H - 9 0-1'	91	81
890-5639-34	H - 10 0-1'	91	71
LCS 880-67306/1-A	Lab Control Sample	170 S1+	71
LCS 880-67330/1-A	Lab Control Sample	127	101
LCSD 880-67306/2-A	Lab Control Sample Dup	180 S1+	82
LCSD 880-67330/2-A	Lab Control Sample Dup	118	87
MB 880-67306/5-A	Method Blank	134 S1+	77
MB 880-67330/5-A	Method Blank	70	87
MB 880-67568/5-A	Method Blank	71	88

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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Surrogate Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-5639-1	S - 1 0-1'	147 S1+	129
890-5639-2	S - 1 2'	138 S1+	120
890-5639-3	S - 1 3R	145 S1+	125
890-5639-4	S - 2 0-1'	151 S1+	128
890-5639-5	S - 2 2'	151 S1+	131 S1+
890-5639-6	S - 2 3R	150 S1+	130
890-5639-7	S - 3 0-1'	142 S1+	122
890-5639-8	S - 3 2'	154 S1+	135 S1+
890-5639-9	S - 3 3R	166 S1+	141 S1+
890-5639-10	S - 4 0-1'	149 S1+	128
890-5639-11	S - 4 2'	144 S1+	124
890-5639-12	S - 4 3R	158 S1+	137 S1+
890-5639-13	S - 5 0-1'	149 S1+	129
890-5639-14	S - 5 2'	128	130
890-5639-14 MS	S - 5 2'	101	92
890-5639-14 MSD	S - 5 2'	102	95
890-5639-15	S - 5 3R	121	123
890-5639-16	S - 6 0-1'	121	124
890-5639-17	S - 6 2'	150 S1+	128
890-5639-18	S - 6 3R	154 S1+	131 S1+
890-5639-19	S - 7 0-1'	164 S1+	136 S1+
890-5639-19 MS	S - 7 0-1'	139 S1+	107
890-5639-19 MSD	S - 7 0-1'	140 S1+	110
890-5639-20	S - 7 2'	154 S1+	130
890-5639-21	S - 7 3R	136 S1+	111
890-5639-22	S - 8 0-1'	135 S1+	112
890-5639-23	S - 8 2'	134 S1+	111
890-5639-24	S - 8 3R	133 S1+	110
890-5639-25	H - 1 0-1'	140 S1+	115
890-5639-26	H - 2 0-1'	255 S1+	210 S1+
890-5639-27	H - 3 0-1'	153 S1+	129
890-5639-28	H - 4 0-1'	131 S1+	108
890-5639-29	H - 5 0-1'	131 S1+	107
890-5639-30	H - 6 0-1'	158 S1+	133 S1+
890-5639-31	H - 7 0-1'	136 S1+	111
890-5639-32	H - 8 0-1'	147 S1+	121
890-5639-33	H - 9 0-1'	129	108
890-5639-34	H - 10 0-1'	131 S1+	109
LCS 880-67370/2-A	Lab Control Sample	91	102
LCS 880-67421/2-A	Lab Control Sample	94	103
LCS 880-67463/2-A	Lab Control Sample	110	121
LCSD 880-67370/3-A	Lab Control Sample Dup	107	113
LCSD 880-67421/3-A	Lab Control Sample Dup	87	95
LCSD 880-67463/3-A	Lab Control Sample Dup	98	105
MB 880-67370/1-A	Method Blank	125	111
MB 880-67421/1-A	Method Blank	136 S1+	126
MB 880-67463/1-A	Method Blank	104	116

Surrogate Legend

1CO = 1-Chlorooctane

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Surrogate Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)
OTPH = o-Terphenyl

Job ID: 890-5639-1
SDG: Eddy

- 1
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QC Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-67306/5-A							Client Sample ID: Method Blank		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 67345							Prep Batch: 67306		
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/18/23 17:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/18/23 17:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/18/23 17:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/17/23 13:57	11/18/23 17:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/23 13:57	11/18/23 17:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/17/23 13:57	11/18/23 17:52	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130				11/17/23 13:57	11/18/23 17:52	1
1,4-Difluorobenzene (Surr)	77		70 - 130				11/17/23 13:57	11/18/23 17:52	1

Lab Sample ID: LCS 880-67306/1-A							Client Sample ID: Lab Control Sample		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 67345							Prep Batch: 67306		
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene		0.100	0.1129		mg/Kg		113	70 - 130	
Toluene		0.100	0.1155		mg/Kg		115	70 - 130	
Ethylbenzene		0.100	0.1073		mg/Kg		107	70 - 130	
m-Xylene & p-Xylene		0.200	0.2262		mg/Kg		113	70 - 130	
o-Xylene		0.100	0.1178		mg/Kg		118	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	170	S1+	70 - 130						
1,4-Difluorobenzene (Surr)	71		70 - 130						

Lab Sample ID: LCSD 880-67306/2-A							Client Sample ID: Lab Control Sample Dup			
Matrix: Solid							Prep Type: Total/NA			
Analysis Batch: 67345							Prep Batch: 67306			
Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene		0.100	0.1220		mg/Kg		122	70 - 130	8	35
Toluene		0.100	0.1266		mg/Kg		127	70 - 130	9	35
Ethylbenzene		0.100	0.1282		mg/Kg		128	70 - 130	18	35
m-Xylene & p-Xylene		0.200	0.2401		mg/Kg		120	70 - 130	6	35
o-Xylene		0.100	0.1163		mg/Kg		116	70 - 130	1	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits							
4-Bromofluorobenzene (Surr)	180	S1+	70 - 130							
1,4-Difluorobenzene (Surr)	82		70 - 130							

Lab Sample ID: 890-5639-1 MS							Client Sample ID: S - 1 0-1'		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 67345							Prep Batch: 67306		
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.0996	0.08307		mg/Kg		83	70 - 130
Toluene	<0.00198	U	0.0996	0.07867		mg/Kg		79	70 - 130

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QC Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-5639-1 MS
Matrix: Solid
Analysis Batch: 67345

Client Sample ID: S - 1 0-1'
Prep Type: Total/NA
Prep Batch: 67306

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U	0.0996	0.07131		mg/Kg		72	70 - 130
m-Xylene & p-Xylene	<0.00396	U F1	0.199	0.1178	F1	mg/Kg		59	70 - 130
o-Xylene	<0.00198	U	0.0996	0.1098		mg/Kg		109	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	204	S1+	70 - 130						
1,4-Difluorobenzene (Surr)	84		70 - 130						

Lab Sample ID: 890-5639-1 MSD
Matrix: Solid
Analysis Batch: 67345

Client Sample ID: S - 1 0-1'
Prep Type: Total/NA
Prep Batch: 67306

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.101	0.08798		mg/Kg		87	70 - 130	6	35
Toluene	<0.00198	U	0.101	0.07738		mg/Kg		77	70 - 130	2	35
Ethylbenzene	<0.00198	U	0.101	0.08571		mg/Kg		85	70 - 130	18	35
m-Xylene & p-Xylene	<0.00396	U F1	0.202	0.1274	F1	mg/Kg		63	70 - 130	8	35
o-Xylene	<0.00198	U	0.101	0.09341		mg/Kg		92	70 - 130	16	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	178	S1+	70 - 130								
1,4-Difluorobenzene (Surr)	74		70 - 130								

Lab Sample ID: MB 880-67330/5-A
Matrix: Solid
Analysis Batch: 67637

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67330

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/23 15:41	11/23/23 02:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/23 15:41	11/23/23 02:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/23 15:41	11/23/23 02:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/17/23 15:41	11/23/23 02:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/23 15:41	11/23/23 02:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/17/23 15:41	11/23/23 02:15	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
4-Bromofluorobenzene (Surr)	70		70 - 130				11/17/23 15:41	11/23/23 02:15	1
1,4-Difluorobenzene (Surr)	87		70 - 130				11/17/23 15:41	11/23/23 02:15	1

Lab Sample ID: LCS 880-67330/1-A
Matrix: Solid
Analysis Batch: 67637

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07494		mg/Kg		75	70 - 130
Toluene	0.100	0.07580		mg/Kg		76	70 - 130
Ethylbenzene	0.100	0.09454		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1869		mg/Kg		93	70 - 130

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QC Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 880-67330/1-A

Matrix: Solid

Analysis Batch: 67637

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 67330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.09147		mg/Kg		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	127		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-67330/2-A

Matrix: Solid

Analysis Batch: 67637

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 67330

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07248		mg/Kg		72	70 - 130	3	35
Toluene	0.100	0.07760		mg/Kg		78	70 - 130	2	35
Ethylbenzene	0.100	0.09465		mg/Kg		95	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.1844		mg/Kg		92	70 - 130	1	35
o-Xylene	0.100	0.09059		mg/Kg		91	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	87		70 - 130

Lab Sample ID: 890-5639-21 MS

Matrix: Solid

Analysis Batch: 67637

Client Sample ID: S - 7 3'R

Prep Type: Total/NA

Prep Batch: 67330

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U F1	0.0990	0.06012	F1	mg/Kg		61	70 - 130
Toluene	<0.00198	U F1	0.0990	0.05516	F1	mg/Kg		56	70 - 130
Ethylbenzene	<0.00198	U F1	0.0990	0.06815	F1	mg/Kg		69	70 - 130
m-Xylene & p-Xylene	<0.00396	U F1	0.198	0.1280	F1	mg/Kg		65	70 - 130
o-Xylene	<0.00198	U	0.0990	0.06916		mg/Kg		70	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 890-5639-21 MSD

Matrix: Solid

Analysis Batch: 67637

Client Sample ID: S - 7 3'R

Prep Type: Total/NA

Prep Batch: 67330

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.101	0.07267		mg/Kg		72	70 - 130	19	35
Toluene	<0.00198	U F1	0.101	0.06297	F1	mg/Kg		62	70 - 130	13	35
Ethylbenzene	<0.00198	U F1	0.101	0.07359		mg/Kg		73	70 - 130	8	35
m-Xylene & p-Xylene	<0.00396	U F1	0.202	0.1399	F1	mg/Kg		69	70 - 130	9	35
o-Xylene	<0.00198	U	0.101	0.07368		mg/Kg		73	70 - 130	6	35

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QC Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-5639-21 MSD
Matrix: Solid
Analysis Batch: 67637

Client Sample ID: S - 7 3'R
Prep Type: Total/NA
Prep Batch: 67330

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: MB 880-67568/5-A
Matrix: Solid
Analysis Batch: 67637

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67568

Analyte	MB	MB							
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/21/23 14:33	11/22/23 15:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/21/23 14:33	11/22/23 15:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/21/23 14:33	11/22/23 15:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/21/23 14:33	11/22/23 15:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/21/23 14:33	11/22/23 15:38	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/21/23 14:33	11/22/23 15:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130				11/21/23 14:33	11/22/23 15:38	1
1,4-Difluorobenzene (Surr)	88		70 - 130				11/21/23 14:33	11/22/23 15:38	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-67370/1-A
Matrix: Solid
Analysis Batch: 67358

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67370

Analyte	MB	MB							
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/20/23 08:27	11/20/23 20:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/20/23 08:27	11/20/23 20:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/20/23 08:27	11/20/23 20:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130				11/20/23 08:27	11/20/23 20:23	1
o-Terphenyl	111		70 - 130				11/20/23 08:27	11/20/23 20:23	1

Lab Sample ID: LCS 880-67370/2-A
Matrix: Solid
Analysis Batch: 67358

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67370

Analyte	Spike	LCS	LCS					%Rec	
	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	1225		mg/Kg		122	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	1038		mg/Kg		104	70 - 130		
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	91		70 - 130						
o-Terphenyl	102		70 - 130						

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QC Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: LCSD 880-67370/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 67358				Prep Batch: 67370							
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1112		mg/Kg		111	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			1000	1074		mg/Kg		107	70 - 130	3	20
LCSD LCSD											
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	107		70 - 130								
o-Terphenyl	113		70 - 130								

Lab Sample ID: 890-5639-19 MS				Client Sample ID: S - 7 0-1'							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 67358				Prep Batch: 67370							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	1274		mg/Kg		124	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	1000	1089		mg/Kg		107	70 - 130		
MS MS											
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	139	S1+	70 - 130								
o-Terphenyl	107		70 - 130								

Lab Sample ID: 890-5639-19 MSD				Client Sample ID: S - 7 0-1'							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 67358				Prep Batch: 67370							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	1274		mg/Kg		124	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.8	U	1000	1125		mg/Kg		110	70 - 130	3	20
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	140	S1+	70 - 130								
o-Terphenyl	110		70 - 130								

Lab Sample ID: MB 880-67421/1-A				Client Sample ID: Method Blank							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 67486				Prep Batch: 67421							
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/20/23 12:14	11/21/23 08:21		1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/20/23 12:14	11/21/23 08:21		1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/20/23 12:14	11/21/23 08:21		1	

QC Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-67421/1-A
Matrix: Solid
Analysis Batch: 67486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67421

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	11/20/23 12:14	11/21/23 08:21	1
o-Terphenyl	126		70 - 130	11/20/23 12:14	11/21/23 08:21	1

Lab Sample ID: LCS 880-67421/2-A
Matrix: Solid
Analysis Batch: 67486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67421

		Spike	LCS	LCS				%Rec	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10		1000	1001		mg/Kg		100	70 - 130	
Diesel Range Organics (Over C10-C28)		1000	991.1		mg/Kg		99	70 - 130	
Surrogate									
	LCS	LCS							
	%Recovery	Qualifier	Limits						
1-Chlorooctane	94		70 - 130						
o-Terphenyl	103		70 - 130						

Lab Sample ID: LCSD 880-67421/3-A
Matrix: Solid
Analysis Batch: 67486

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 67421

		Spike	LCSD	LCSD				%Rec		RPD	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10		1000	1043		mg/Kg		104	70 - 130	4	20	
Diesel Range Organics (Over C10-C28)		1000	1004		mg/Kg		100	70 - 130	1	20	
Surrogate											
	LCSD	LCSD									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	87		70 - 130								
o-Terphenyl	95		70 - 130								

Lab Sample ID: MB 880-67463/1-A
Matrix: Solid
Analysis Batch: 67603

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67463

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/20/23 15:44	11/22/23 08:19	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/20/23 15:44	11/22/23 08:19	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/20/23 15:44	11/22/23 08:19	1	
Surrogate										
	MB	MB								
	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	104		70 - 130				11/20/23 15:44	11/22/23 08:19	1	
o-Terphenyl	116		70 - 130				11/20/23 15:44	11/22/23 08:19	1	

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QC Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-67463/2-A						Client Sample ID: Lab Control Sample						
Matrix: Solid						Prep Type: Total/NA						
Analysis Batch: 67603						Prep Batch: 67463						
Analyte				Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10				1000	1105		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)				1000	1022		mg/Kg		102	70 - 130		

Lab Sample ID: LCSD 880-67463/3-A						Client Sample ID: Lab Control Sample Dup					
Matrix: Solid						Prep Type: Total/NA					
Analysis Batch: 67603						Prep Batch: 67463					
			Spike	LCSD	LCSD				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1084		mg/Kg		108	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	978.3		mg/Kg		98	70 - 130	4	20
		LCSD	LCSD								
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	98		70 - 130								
o-Terphenyl	105		70 - 130								

Lab Sample ID: 890-5639-14 MS								Client Sample ID: S - 5 2'			
Matrix: Solid								Prep Type: Total/NA			
Analysis Batch: 67603								Prep Batch: 67463			
Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
	Result	Qualifier	Added	Result	Qualifier				Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	719.9		mg/Kg		72	70 - 130		
Diesel Range Organics (Over C10-C28)	56.0		1000	827.3		mg/Kg		77	70 - 130		
Surrogate	MS	MS	Limits								
	%Recovery	Qualifier									
1-Chlorooctane	101		70 - 130								
o-Terphenyl	92		70 - 130								

Lab Sample ID: 890-5639-14 MSD							Client Sample ID: S - 5 2'				
Matrix: Solid							Prep Type: Total/NA				
Analysis Batch: 67603							Prep Batch: 67463				
Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	759.1		mg/Kg		76	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	56.0		1000	843.4		mg/Kg		79	70 - 130	2	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	102		70 - 130								

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QC Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-5639-14 MSD
Matrix: Solid
Analysis Batch: 67603

Client Sample ID: S - 5 2'
Prep Type: Total/NA
Prep Batch: 67463

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	95		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-67162/1-A
Matrix: Solid
Analysis Batch: 67333

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB	MB								
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	<5.00	U	5.00		mg/Kg			11/18/23 17:17		1

Lab Sample ID: LCS 880-67162/2-A
Matrix: Solid
Analysis Batch: 67333

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte		Spike	LCS	LCS				%Rec		
		Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride		250	231.2		mg/Kg		92	90 - 110		

Lab Sample ID: LCSD 880-67162/3-A
Matrix: Solid
Analysis Batch: 67333

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte		Spike	LCSD	LCSD				%Rec		RPD
		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride		250	234.5		mg/Kg		94	90 - 110	1	20

Lab Sample ID: 890-5639-1 MS
Matrix: Solid
Analysis Batch: 67333

Client Sample ID: S - 1 0-1'
Prep Type: Soluble

Analyte	Sample	Sample	Spike	MS	MS			%Rec		
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	<5.04	U	252	238.1		mg/Kg		94	90 - 110	

Lab Sample ID: 890-5639-1 MSD
Matrix: Solid
Analysis Batch: 67333

Client Sample ID: S - 1 0-1'
Prep Type: Soluble

Analyte	Sample	Sample	Spike	MSD	MSD			%Rec		RPD
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD
Chloride	<5.04	U	252	239.4		mg/Kg		94	90 - 110	1

Lab Sample ID: 890-5639-11 MS
Matrix: Solid
Analysis Batch: 67333

Client Sample ID: S - 4 2'
Prep Type: Soluble

Analyte	Sample	Sample	Spike	MS	MS			%Rec		
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	<5.02	U	251	238.0		mg/Kg		94	90 - 110	

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QC Sample Results

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-5639-11 MSD

Matrix: Solid

Analysis Batch: 67333

Client Sample ID: S - 4 2'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<5.02	U	251	237.6		mg/Kg		94	90 - 110	0	20

Lab Sample ID: MB 880-67163/1-A

Matrix: Solid

Analysis Batch: 67334

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/17/23 21:13	1

Lab Sample ID: LCS 880-67163/2-A

Matrix: Solid

Analysis Batch: 67334

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	251.2		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-67163/3-A

Matrix: Solid

Analysis Batch: 67334

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	251.7		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 890-5639-21 MS

Matrix: Solid

Analysis Batch: 67334

Client Sample ID: S - 7 3'R

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<5.00	U	250	256.0		mg/Kg		101	90 - 110

Lab Sample ID: 890-5639-21 MSD

Matrix: Solid

Analysis Batch: 67334

Client Sample ID: S - 7 3'R

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<5.00	U	250	257.1		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 890-5639-31 MS

Matrix: Solid

Analysis Batch: 67334

Client Sample ID: H - 7 0-1'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<5.00	U	250	273.9		mg/Kg		108	90 - 110

Lab Sample ID: 890-5639-31 MSD

Matrix: Solid

Analysis Batch: 67334

Client Sample ID: H - 7 0-1'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<5.00	U	250	274.3		mg/Kg		108	90 - 110	0	20

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QC Association Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

GC VOA

Prep Batch: 67306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-1	S - 1 0-1'	Total/NA	Solid	5035	
890-5639-2	S - 1 2'	Total/NA	Solid	5035	
890-5639-3	S - 1 3R	Total/NA	Solid	5035	
890-5639-4	S - 2 0-1'	Total/NA	Solid	5035	
890-5639-5	S - 2 2'	Total/NA	Solid	5035	
890-5639-6	S - 2 3R	Total/NA	Solid	5035	
890-5639-7	S - 3 0-1'	Total/NA	Solid	5035	
890-5639-8	S - 3 2'	Total/NA	Solid	5035	
890-5639-9	S - 3 3R	Total/NA	Solid	5035	
890-5639-10	S - 4 0-1'	Total/NA	Solid	5035	
890-5639-11	S - 4 2'	Total/NA	Solid	5035	
890-5639-12	S - 4 3R	Total/NA	Solid	5035	
890-5639-13	S - 5 0-1'	Total/NA	Solid	5035	
890-5639-14	S - 5 2'	Total/NA	Solid	5035	
890-5639-15	S - 5 3R	Total/NA	Solid	5035	
890-5639-16	S - 6 0-1'	Total/NA	Solid	5035	
890-5639-17	S - 6 2'	Total/NA	Solid	5035	
890-5639-18	S - 6 3R	Total/NA	Solid	5035	
890-5639-19	S - 7 0-1'	Total/NA	Solid	5035	
890-5639-20	S - 7 2'	Total/NA	Solid	5035	
MB 880-67306/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-67306/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-67306/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5639-1 MS	S - 1 0-1'	Total/NA	Solid	5035	
890-5639-1 MSD	S - 1 0-1'	Total/NA	Solid	5035	

Prep Batch: 67330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-21	S - 7 3R	Total/NA	Solid	5035	
890-5639-22	S - 8 0-1'	Total/NA	Solid	5035	
890-5639-23	S - 8 2'	Total/NA	Solid	5035	
890-5639-24	S - 8 3R	Total/NA	Solid	5035	
890-5639-25	H - 1 0-1'	Total/NA	Solid	5035	
890-5639-26	H - 2 0-1'	Total/NA	Solid	5035	
890-5639-27	H - 3 0-1'	Total/NA	Solid	5035	
890-5639-28	H - 4 0-1'	Total/NA	Solid	5035	
890-5639-29	H - 5 0-1'	Total/NA	Solid	5035	
890-5639-30	H - 6 0-1'	Total/NA	Solid	5035	
890-5639-31	H - 7 0-1'	Total/NA	Solid	5035	
890-5639-32	H - 8 0-1'	Total/NA	Solid	5035	
890-5639-33	H - 9 0-1'	Total/NA	Solid	5035	
890-5639-34	H - 10 0-1'	Total/NA	Solid	5035	
MB 880-67330/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-67330/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-67330/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5639-21 MS	S - 7 3R	Total/NA	Solid	5035	
890-5639-21 MSD	S - 7 3R	Total/NA	Solid	5035	

Analysis Batch: 67345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-1	S - 1 0-1'	Total/NA	Solid	8021B	67306

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QC Association Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

GC VOA (Continued)

Analysis Batch: 67345 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-2	S - 1 2'	Total/NA	Solid	8021B	67306
890-5639-3	S - 1 3R	Total/NA	Solid	8021B	67306
890-5639-4	S - 2 0-1'	Total/NA	Solid	8021B	67306
890-5639-5	S - 2 2'	Total/NA	Solid	8021B	67306
890-5639-6	S - 2 3'R	Total/NA	Solid	8021B	67306
890-5639-7	S - 3 0-1'	Total/NA	Solid	8021B	67306
890-5639-8	S - 3 2'	Total/NA	Solid	8021B	67306
890-5639-9	S - 3 3R	Total/NA	Solid	8021B	67306
890-5639-10	S - 4 0-1'	Total/NA	Solid	8021B	67306
890-5639-11	S - 4 2'	Total/NA	Solid	8021B	67306
890-5639-12	S - 4 3'R	Total/NA	Solid	8021B	67306
890-5639-13	S - 5 0-1'	Total/NA	Solid	8021B	67306
890-5639-14	S - 5 2'	Total/NA	Solid	8021B	67306
890-5639-15	S - 5 3'R	Total/NA	Solid	8021B	67306
890-5639-16	S - 6 0-1'	Total/NA	Solid	8021B	67306
890-5639-17	S - 6 2'	Total/NA	Solid	8021B	67306
890-5639-18	S - 6 3R	Total/NA	Solid	8021B	67306
890-5639-19	S - 7 0-1'	Total/NA	Solid	8021B	67306
890-5639-20	S - 7 2'	Total/NA	Solid	8021B	67306
MB 880-67306/5-A	Method Blank	Total/NA	Solid	8021B	67306
LCS 880-67306/1-A	Lab Control Sample	Total/NA	Solid	8021B	67306
LCSD 880-67306/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	67306
890-5639-1 MS	S - 1 0-1'	Total/NA	Solid	8021B	67306
890-5639-1 MSD	S - 1 0-1'	Total/NA	Solid	8021B	67306

Analysis Batch: 67505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-1	S - 1 0-1'	Total/NA	Solid	Total BTEX	
890-5639-2	S - 1 2'	Total/NA	Solid	Total BTEX	
890-5639-3	S - 1 3R	Total/NA	Solid	Total BTEX	
890-5639-4	S - 2 0-1'	Total/NA	Solid	Total BTEX	
890-5639-5	S - 2 2'	Total/NA	Solid	Total BTEX	
890-5639-6	S - 2 3'R	Total/NA	Solid	Total BTEX	
890-5639-7	S - 3 0-1'	Total/NA	Solid	Total BTEX	
890-5639-8	S - 3 2'	Total/NA	Solid	Total BTEX	
890-5639-9	S - 3 3R	Total/NA	Solid	Total BTEX	
890-5639-10	S - 4 0-1'	Total/NA	Solid	Total BTEX	
890-5639-11	S - 4 2'	Total/NA	Solid	Total BTEX	
890-5639-12	S - 4 3'R	Total/NA	Solid	Total BTEX	
890-5639-13	S - 5 0-1'	Total/NA	Solid	Total BTEX	
890-5639-14	S - 5 2'	Total/NA	Solid	Total BTEX	
890-5639-15	S - 5 3'R	Total/NA	Solid	Total BTEX	
890-5639-16	S - 6 0-1'	Total/NA	Solid	Total BTEX	
890-5639-17	S - 6 2'	Total/NA	Solid	Total BTEX	
890-5639-18	S - 6 3R	Total/NA	Solid	Total BTEX	
890-5639-19	S - 7 0-1'	Total/NA	Solid	Total BTEX	
890-5639-20	S - 7 2'	Total/NA	Solid	Total BTEX	
890-5639-21	S - 7 3'R	Total/NA	Solid	Total BTEX	
890-5639-22	S - 8 0-1'	Total/NA	Solid	Total BTEX	
890-5639-23	S - 8 2'	Total/NA	Solid	Total BTEX	
890-5639-24	S - 8 3'R	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

GC VOA (Continued)

Analysis Batch: 67505 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-25	H - 1 0-1'	Total/NA	Solid	Total BTEX	
890-5639-26	H - 2 0-1'	Total/NA	Solid	Total BTEX	
890-5639-27	H - 3 0-1'	Total/NA	Solid	Total BTEX	
890-5639-28	H - 4 0-1'	Total/NA	Solid	Total BTEX	
890-5639-29	H - 5 0-1'	Total/NA	Solid	Total BTEX	
890-5639-30	H - 6 0-1'	Total/NA	Solid	Total BTEX	
890-5639-31	H - 7 0-1'	Total/NA	Solid	Total BTEX	
890-5639-32	H - 8 0-1'	Total/NA	Solid	Total BTEX	
890-5639-33	H - 9 0-1'	Total/NA	Solid	Total BTEX	
890-5639-34	H - 10 0-1'	Total/NA	Solid	Total BTEX	

Prep Batch: 67568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-67568/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 67637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-21	S - 7 3'R	Total/NA	Solid	8021B	67330
890-5639-22	S - 8 0-1'	Total/NA	Solid	8021B	67330
890-5639-23	S - 8 2'	Total/NA	Solid	8021B	67330
890-5639-24	S - 8 3'R	Total/NA	Solid	8021B	67330
890-5639-25	H - 1 0-1'	Total/NA	Solid	8021B	67330
890-5639-26	H - 2 0-1'	Total/NA	Solid	8021B	67330
890-5639-27	H - 3 0-1'	Total/NA	Solid	8021B	67330
890-5639-28	H - 4 0-1'	Total/NA	Solid	8021B	67330
890-5639-29	H - 5 0-1'	Total/NA	Solid	8021B	67330
890-5639-30	H - 6 0-1'	Total/NA	Solid	8021B	67330
890-5639-31	H - 7 0-1'	Total/NA	Solid	8021B	67330
890-5639-32	H - 8 0-1'	Total/NA	Solid	8021B	67330
890-5639-33	H - 9 0-1'	Total/NA	Solid	8021B	67330
890-5639-34	H - 10 0-1'	Total/NA	Solid	8021B	67330
MB 880-67330/5-A	Method Blank	Total/NA	Solid	8021B	67330
MB 880-67568/5-A	Method Blank	Total/NA	Solid	8021B	67568
LCS 880-67330/1-A	Lab Control Sample	Total/NA	Solid	8021B	67330
LCSD 880-67330/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	67330
890-5639-21 MS	S - 7 3'R	Total/NA	Solid	8021B	67330
890-5639-21 MSD	S - 7 3'R	Total/NA	Solid	8021B	67330

GC Semi VOA

Analysis Batch: 67358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-19	S - 7 0-1'	Total/NA	Solid	8015B NM	67370
890-5639-20	S - 7 2'	Total/NA	Solid	8015B NM	67370
890-5639-21	S - 7 3'R	Total/NA	Solid	8015B NM	67370
890-5639-22	S - 8 0-1'	Total/NA	Solid	8015B NM	67370
890-5639-23	S - 8 2'	Total/NA	Solid	8015B NM	67370
890-5639-24	S - 8 3'R	Total/NA	Solid	8015B NM	67370
890-5639-25	H - 1 0-1'	Total/NA	Solid	8015B NM	67370
890-5639-26	H - 2 0-1'	Total/NA	Solid	8015B NM	67370
890-5639-27	H - 3 0-1'	Total/NA	Solid	8015B NM	67370

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QC Association Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

GC Semi VOA (Continued)

Analysis Batch: 67358 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-28	H - 4 0-1'	Total/NA	Solid	8015B NM	67370
890-5639-29	H - 5 0-1'	Total/NA	Solid	8015B NM	67370
890-5639-30	H - 6 0-1'	Total/NA	Solid	8015B NM	67370
890-5639-31	H - 7 0-1'	Total/NA	Solid	8015B NM	67370
890-5639-32	H - 8 0-1'	Total/NA	Solid	8015B NM	67370
890-5639-33	H - 9 0-1'	Total/NA	Solid	8015B NM	67370
890-5639-34	H - 10 0-1'	Total/NA	Solid	8015B NM	67370
MB 880-67370/1-A	Method Blank	Total/NA	Solid	8015B NM	67370
LCS 880-67370/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	67370
LCSD 880-67370/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	67370
890-5639-19 MS	S - 7 0-1'	Total/NA	Solid	8015B NM	67370
890-5639-19 MSD	S - 7 0-1'	Total/NA	Solid	8015B NM	67370

Prep Batch: 67370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-19	S - 7 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-20	S - 7 2'	Total/NA	Solid	8015NM Prep	
890-5639-21	S - 7 3'R	Total/NA	Solid	8015NM Prep	
890-5639-22	S - 8 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-23	S - 8 2'	Total/NA	Solid	8015NM Prep	
890-5639-24	S - 8 3'R	Total/NA	Solid	8015NM Prep	
890-5639-25	H - 1 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-26	H - 2 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-27	H - 3 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-28	H - 4 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-29	H - 5 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-30	H - 6 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-31	H - 7 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-32	H - 8 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-33	H - 9 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-34	H - 10 0-1'	Total/NA	Solid	8015NM Prep	
MB 880-67370/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-67370/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-67370/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5639-19 MS	S - 7 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-19 MSD	S - 7 0-1'	Total/NA	Solid	8015NM Prep	

Prep Batch: 67421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-1	S - 1 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-2	S - 1 2'	Total/NA	Solid	8015NM Prep	
890-5639-3	S - 1 3R	Total/NA	Solid	8015NM Prep	
890-5639-4	S - 2 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-5	S - 2 2'	Total/NA	Solid	8015NM Prep	
890-5639-6	S - 2 3'R	Total/NA	Solid	8015NM Prep	
890-5639-7	S - 3 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-8	S - 3 2'	Total/NA	Solid	8015NM Prep	
890-5639-9	S - 3 3R	Total/NA	Solid	8015NM Prep	
890-5639-10	S - 4 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-11	S - 4 2'	Total/NA	Solid	8015NM Prep	
890-5639-12	S - 4 3'R	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

GC Semi VOA (Continued)

Prep Batch: 67421 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-13	S - 5 0-1'	Total/NA	Solid	8015NM Prep	
890-5639-17	S - 6 2'	Total/NA	Solid	8015NM Prep	
890-5639-18	S - 6 3R	Total/NA	Solid	8015NM Prep	
MB 880-67421/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-67421/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-67421/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 67463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-14	S - 5 2'	Total/NA	Solid	8015NM Prep	
890-5639-15	S - 5 3'R	Total/NA	Solid	8015NM Prep	
890-5639-16	S - 6 0-1'	Total/NA	Solid	8015NM Prep	
MB 880-67463/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-67463/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-67463/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5639-14 MS	S - 5 2'	Total/NA	Solid	8015NM Prep	
890-5639-14 MSD	S - 5 2'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 67486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-1	S - 1 0-1'	Total/NA	Solid	8015B NM	67421
890-5639-2	S - 1 2'	Total/NA	Solid	8015B NM	67421
890-5639-3	S - 1 3R	Total/NA	Solid	8015B NM	67421
890-5639-4	S - 2 0-1'	Total/NA	Solid	8015B NM	67421
890-5639-5	S - 2 2'	Total/NA	Solid	8015B NM	67421
890-5639-6	S - 2 3'R	Total/NA	Solid	8015B NM	67421
890-5639-7	S - 3 0-1'	Total/NA	Solid	8015B NM	67421
890-5639-8	S - 3 2'	Total/NA	Solid	8015B NM	67421
890-5639-9	S - 3 3R	Total/NA	Solid	8015B NM	67421
890-5639-10	S - 4 0-1'	Total/NA	Solid	8015B NM	67421
890-5639-11	S - 4 2'	Total/NA	Solid	8015B NM	67421
890-5639-12	S - 4 3'R	Total/NA	Solid	8015B NM	67421
890-5639-13	S - 5 0-1'	Total/NA	Solid	8015B NM	67421
890-5639-17	S - 6 2'	Total/NA	Solid	8015B NM	67421
890-5639-18	S - 6 3R	Total/NA	Solid	8015B NM	67421
MB 880-67421/1-A	Method Blank	Total/NA	Solid	8015B NM	67421
LCS 880-67421/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	67421
LCSD 880-67421/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	67421

Analysis Batch: 67562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-1	S - 1 0-1'	Total/NA	Solid	8015 NM	
890-5639-2	S - 1 2'	Total/NA	Solid	8015 NM	
890-5639-3	S - 1 3R	Total/NA	Solid	8015 NM	
890-5639-4	S - 2 0-1'	Total/NA	Solid	8015 NM	
890-5639-5	S - 2 2'	Total/NA	Solid	8015 NM	
890-5639-6	S - 2 3'R	Total/NA	Solid	8015 NM	
890-5639-7	S - 3 0-1'	Total/NA	Solid	8015 NM	
890-5639-8	S - 3 2'	Total/NA	Solid	8015 NM	
890-5639-9	S - 3 3R	Total/NA	Solid	8015 NM	
890-5639-10	S - 4 0-1'	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

GC Semi VOA (Continued)

Analysis Batch: 67562 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-11	S - 4 2'	Total/NA	Solid	8015 NM	
890-5639-12	S - 4 3'R	Total/NA	Solid	8015 NM	
890-5639-13	S - 5 0-1'	Total/NA	Solid	8015 NM	
890-5639-14	S - 5 2'	Total/NA	Solid	8015 NM	
890-5639-15	S - 5 3'R	Total/NA	Solid	8015 NM	
890-5639-16	S - 6 0-1'	Total/NA	Solid	8015 NM	
890-5639-17	S - 6 2'	Total/NA	Solid	8015 NM	
890-5639-18	S - 6 3R	Total/NA	Solid	8015 NM	
890-5639-19	S - 7 0-1'	Total/NA	Solid	8015 NM	
890-5639-20	S - 7 2'	Total/NA	Solid	8015 NM	
890-5639-21	S - 7 3'R	Total/NA	Solid	8015 NM	
890-5639-22	S - 8 0-1'	Total/NA	Solid	8015 NM	
890-5639-23	S - 8 2'	Total/NA	Solid	8015 NM	
890-5639-24	S - 8 3'R	Total/NA	Solid	8015 NM	
890-5639-25	H - 1 0-1'	Total/NA	Solid	8015 NM	
890-5639-26	H - 2 0-1'	Total/NA	Solid	8015 NM	
890-5639-27	H - 3 0-1'	Total/NA	Solid	8015 NM	
890-5639-28	H - 4 0-1'	Total/NA	Solid	8015 NM	
890-5639-29	H - 5 0-1'	Total/NA	Solid	8015 NM	
890-5639-30	H - 6 0-1'	Total/NA	Solid	8015 NM	
890-5639-31	H - 7 0-1'	Total/NA	Solid	8015 NM	
890-5639-32	H - 8 0-1'	Total/NA	Solid	8015 NM	
890-5639-33	H - 9 0-1'	Total/NA	Solid	8015 NM	
890-5639-34	H - 10 0-1'	Total/NA	Solid	8015 NM	

Analysis Batch: 67603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-14	S - 5 2'	Total/NA	Solid	8015B NM	67463
890-5639-15	S - 5 3'R	Total/NA	Solid	8015B NM	67463
890-5639-16	S - 6 0-1'	Total/NA	Solid	8015B NM	67463
MB 880-67463/1-A	Method Blank	Total/NA	Solid	8015B NM	67463
LCS 880-67463/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	67463
LCSD 880-67463/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	67463
890-5639-14 MS	S - 5 2'	Total/NA	Solid	8015B NM	67463
890-5639-14 MSD	S - 5 2'	Total/NA	Solid	8015B NM	67463

HPLC/IC

Leach Batch: 67162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-1	S - 1 0-1'	Soluble	Solid	DI Leach	
890-5639-2	S - 1 2'	Soluble	Solid	DI Leach	
890-5639-3	S - 1 3R	Soluble	Solid	DI Leach	
890-5639-4	S - 2 0-1'	Soluble	Solid	DI Leach	
890-5639-5	S - 2 2'	Soluble	Solid	DI Leach	
890-5639-6	S - 2 3'R	Soluble	Solid	DI Leach	
890-5639-7	S - 3 0-1'	Soluble	Solid	DI Leach	
890-5639-8	S - 3 2'	Soluble	Solid	DI Leach	
890-5639-9	S - 3 3R	Soluble	Solid	DI Leach	
890-5639-10	S - 4 0-1'	Soluble	Solid	DI Leach	
890-5639-11	S - 4 2'	Soluble	Solid	DI Leach	

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QC Association Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

HPLC/IC (Continued)

Leach Batch: 67162 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-12	S - 4 3'R	Soluble	Solid	DI Leach	
890-5639-13	S - 5 0-1'	Soluble	Solid	DI Leach	
890-5639-14	S - 5 2'	Soluble	Solid	DI Leach	
890-5639-15	S - 5 3'R	Soluble	Solid	DI Leach	
890-5639-16	S - 6 0-1'	Soluble	Solid	DI Leach	
890-5639-17	S - 6 2'	Soluble	Solid	DI Leach	
890-5639-18	S - 6 3R	Soluble	Solid	DI Leach	
890-5639-19	S - 7 0-1'	Soluble	Solid	DI Leach	
890-5639-20	S - 7 2'	Soluble	Solid	DI Leach	
MB 880-67162/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-67162/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-67162/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5639-1 MS	S - 1 0-1'	Soluble	Solid	DI Leach	
890-5639-1 MSD	S - 1 0-1'	Soluble	Solid	DI Leach	
890-5639-11 MS	S - 4 2'	Soluble	Solid	DI Leach	
890-5639-11 MSD	S - 4 2'	Soluble	Solid	DI Leach	

Leach Batch: 67163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-21	S - 7 3'R	Soluble	Solid	DI Leach	
890-5639-22	S - 8 0-1'	Soluble	Solid	DI Leach	
890-5639-23	S - 8 2'	Soluble	Solid	DI Leach	
890-5639-24	S - 8 3'R	Soluble	Solid	DI Leach	
890-5639-25	H - 1 0-1'	Soluble	Solid	DI Leach	
890-5639-26	H - 2 0-1'	Soluble	Solid	DI Leach	
890-5639-27	H - 3 0-1'	Soluble	Solid	DI Leach	
890-5639-28	H - 4 0-1'	Soluble	Solid	DI Leach	
890-5639-29	H - 5 0-1'	Soluble	Solid	DI Leach	
890-5639-30	H - 6 0-1'	Soluble	Solid	DI Leach	
890-5639-31	H - 7 0-1'	Soluble	Solid	DI Leach	
890-5639-32	H - 8 0-1'	Soluble	Solid	DI Leach	
890-5639-33	H - 9 0-1'	Soluble	Solid	DI Leach	
890-5639-34	H - 10 0-1'	Soluble	Solid	DI Leach	
MB 880-67163/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-67163/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-67163/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5639-21 MS	S - 7 3'R	Soluble	Solid	DI Leach	
890-5639-21 MSD	S - 7 3'R	Soluble	Solid	DI Leach	
890-5639-31 MS	H - 7 0-1'	Soluble	Solid	DI Leach	
890-5639-31 MSD	H - 7 0-1'	Soluble	Solid	DI Leach	

Analysis Batch: 67333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-1	S - 1 0-1'	Soluble	Solid	300.0	67162
890-5639-2	S - 1 2'	Soluble	Solid	300.0	67162
890-5639-3	S - 1 3R	Soluble	Solid	300.0	67162
890-5639-4	S - 2 0-1'	Soluble	Solid	300.0	67162
890-5639-5	S - 2 2'	Soluble	Solid	300.0	67162
890-5639-6	S - 2 3'R	Soluble	Solid	300.0	67162
890-5639-7	S - 3 0-1'	Soluble	Solid	300.0	67162
890-5639-8	S - 3 2'	Soluble	Solid	300.0	67162

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QC Association Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

HPLC/IC (Continued)

Analysis Batch: 67333 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-9	S - 3 3R	Soluble	Solid	300.0	67162
890-5639-10	S - 4 0-1'	Soluble	Solid	300.0	67162
890-5639-11	S - 4 2'	Soluble	Solid	300.0	67162
890-5639-12	S - 4 3'R	Soluble	Solid	300.0	67162
890-5639-13	S - 5 0-1'	Soluble	Solid	300.0	67162
890-5639-14	S - 5 2'	Soluble	Solid	300.0	67162
890-5639-15	S - 5 3'R	Soluble	Solid	300.0	67162
890-5639-16	S - 6 0-1'	Soluble	Solid	300.0	67162
890-5639-17	S - 6 2'	Soluble	Solid	300.0	67162
890-5639-18	S - 6 3R	Soluble	Solid	300.0	67162
890-5639-19	S - 7 0-1'	Soluble	Solid	300.0	67162
890-5639-20	S - 7 2'	Soluble	Solid	300.0	67162
MB 880-67162/1-A	Method Blank	Soluble	Solid	300.0	67162
LCS 880-67162/2-A	Lab Control Sample	Soluble	Solid	300.0	67162
LCSD 880-67162/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	67162
890-5639-1 MS	S - 1 0-1'	Soluble	Solid	300.0	67162
890-5639-1 MSD	S - 1 0-1'	Soluble	Solid	300.0	67162
890-5639-11 MS	S - 4 2'	Soluble	Solid	300.0	67162
890-5639-11 MSD	S - 4 2'	Soluble	Solid	300.0	67162

Analysis Batch: 67334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5639-21	S - 7 3'R	Soluble	Solid	300.0	67163
890-5639-22	S - 8 0-1'	Soluble	Solid	300.0	67163
890-5639-23	S - 8 2'	Soluble	Solid	300.0	67163
890-5639-24	S - 8 3'R	Soluble	Solid	300.0	67163
890-5639-25	H - 1 0-1'	Soluble	Solid	300.0	67163
890-5639-26	H - 2 0-1'	Soluble	Solid	300.0	67163
890-5639-27	H - 3 0-1'	Soluble	Solid	300.0	67163
890-5639-28	H - 4 0-1'	Soluble	Solid	300.0	67163
890-5639-29	H - 5 0-1'	Soluble	Solid	300.0	67163
890-5639-30	H - 6 0-1'	Soluble	Solid	300.0	67163
890-5639-31	H - 7 0-1'	Soluble	Solid	300.0	67163
890-5639-32	H - 8 0-1'	Soluble	Solid	300.0	67163
890-5639-33	H - 9 0-1'	Soluble	Solid	300.0	67163
890-5639-34	H - 10 0-1'	Soluble	Solid	300.0	67163
MB 880-67163/1-A	Method Blank	Soluble	Solid	300.0	67163
LCS 880-67163/2-A	Lab Control Sample	Soluble	Solid	300.0	67163
LCSD 880-67163/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	67163
890-5639-21 MS	S - 7 3'R	Soluble	Solid	300.0	67163
890-5639-21 MSD	S - 7 3'R	Soluble	Solid	300.0	67163
890-5639-31 MS	H - 7 0-1'	Soluble	Solid	300.0	67163
890-5639-31 MSD	H - 7 0-1'	Soluble	Solid	300.0	67163

Eurofins Carlsbad

Lab Chronicle

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 1 0-1'

Lab Sample ID: 890-5639-1

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/18/23 18:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/18/23 18:18	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 13:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 13:52	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 17:34	SMC	EET MID

Client Sample ID: S - 1 2'

Lab Sample ID: 890-5639-2

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/18/23 18:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/18/23 18:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 14:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 14:14	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 17:51	SMC	EET MID

Client Sample ID: S - 1 3R

Lab Sample ID: 890-5639-3

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/18/23 19:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/18/23 19:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 14:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 14:36	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 17:57	SMC	EET MID

Client Sample ID: S - 2 0-1'

Lab Sample ID: 890-5639-4

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/18/23 19:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/18/23 19:38	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 2 0-1'

Lab Sample ID: 890-5639-4

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			67562	11/21/23 14:58	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 14:58	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 18:02	SMC	EET MID

Client Sample ID: S - 2 2'

Lab Sample ID: 890-5639-5

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/18/23 20:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/18/23 20:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 15:20	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 15:20	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 18:08	SMC	EET MID

Client Sample ID: S - 2 3'R

Lab Sample ID: 890-5639-6

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/18/23 20:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/18/23 20:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 16:04	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 16:04	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 18:25	SMC	EET MID

Client Sample ID: S - 3 0-1'

Lab Sample ID: 890-5639-7

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/18/23 20:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/18/23 20:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 16:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 16:26	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 3 0-1'

Lab Sample ID: 890-5639-7

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 18:30	SMC	EET MID

Client Sample ID: S - 3 2'

Lab Sample ID: 890-5639-8

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/18/23 21:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/18/23 21:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 16:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 16:49	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 18:36	SMC	EET MID

Client Sample ID: S - 3 3R

Lab Sample ID: 890-5639-9

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/18/23 21:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/18/23 21:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 17:11	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 17:11	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 18:42	SMC	EET MID

Client Sample ID: S - 4 0-1'

Lab Sample ID: 890-5639-10

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/18/23 22:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/18/23 22:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 17:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 17:33	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 18:47	SMC	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 4 2'

Lab Sample ID: 890-5639-11

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/19/23 00:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/19/23 00:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 17:55	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 17:55	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 18:53	SMC	EET MID

Client Sample ID: S - 4 3'R

Lab Sample ID: 890-5639-12

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/19/23 00:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/19/23 00:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 18:17	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 18:17	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 19:10	SMC	EET MID

Client Sample ID: S - 5 0-1'

Lab Sample ID: 890-5639-13

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/19/23 00:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/19/23 00:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 18:39	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 18:39	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 19:16	SMC	EET MID

Client Sample ID: S - 5 2'

Lab Sample ID: 890-5639-14

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/19/23 01:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/19/23 01:18	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 5 2'

Lab Sample ID: 890-5639-14

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			67562	11/22/23 10:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	67463	11/20/23 15:44	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67603	11/22/23 10:56	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 19:33	SMC	EET MID

Client Sample ID: S - 5 3'R

Lab Sample ID: 890-5639-15

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/19/23 01:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/19/23 01:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/22/23 12:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	67463	11/20/23 15:44	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67603	11/22/23 12:02	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 19:38	SMC	EET MID

Client Sample ID: S - 6 0-1'

Lab Sample ID: 890-5639-16

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/19/23 02:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/19/23 02:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/22/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	67463	11/20/23 15:44	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67603	11/22/23 12:25	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 19:44	SMC	EET MID

Client Sample ID: S - 6 2'

Lab Sample ID: 890-5639-17

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/19/23 02:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/19/23 02:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 19:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 19:01	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 6 2'

Lab Sample ID: 890-5639-17

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 19:49	SMC	EET MID

Client Sample ID: S - 6 3R

Lab Sample ID: 890-5639-18

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/19/23 03:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/19/23 03:02	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 19:23	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 19:23	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 19:55	SMC	EET MID

Client Sample ID: S - 7 0-1'

Lab Sample ID: 890-5639-19

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/19/23 03:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/19/23 03:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/20/23 21:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/20/23 21:31	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 20:01	SMC	EET MID

Client Sample ID: S - 7 2'

Lab Sample ID: 890-5639-20

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	67306	11/17/23 13:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67345	11/19/23 03:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/19/23 03:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/20/23 22:37	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/20/23 22:37	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	67162	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67333	11/18/23 20:06	SMC	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 7 3'R

Date Collected: 11/14/23 00:00

Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-21

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 02:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 02:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/20/23 22:58	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/20/23 22:58	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 21:30	SMC	EET MID

Client Sample ID: S - 8 0-1'

Date Collected: 11/14/23 00:00

Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-22

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 02:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 02:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/20/23 23:19	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/20/23 23:19	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 21:47	SMC	EET MID

Client Sample ID: S - 8 2'

Date Collected: 11/14/23 00:00

Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-23

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 03:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 03:18	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/20/23 23:41	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/20/23 23:41	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 21:53	SMC	EET MID

Client Sample ID: S - 8 3'R

Date Collected: 11/14/23 00:00

Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-24

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 03:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 03:38	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: S - 8 3'R

Date Collected: 11/14/23 00:00

Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-24

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			67562	11/21/23 00:02	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/21/23 00:02	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 21:58	SMC	EET MID

Client Sample ID: H - 1 0-1'

Date Collected: 11/14/23 00:00

Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-25

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 03:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 03:59	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 00:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/21/23 00:22	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 22:04	SMC	EET MID

Client Sample ID: H - 2 0-1'

Date Collected: 11/14/23 00:00

Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-26

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 04:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 04:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 00:44	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/21/23 00:44	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 22:21	SMC	EET MID

Client Sample ID: H - 3 0-1'

Date Collected: 11/14/23 00:00

Date Received: 11/15/23 14:51

Lab Sample ID: 890-5639-27

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 04:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 04:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 01:05	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/21/23 01:05	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: H - 3 0-1'

Lab Sample ID: 890-5639-27

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 22:27	SMC	EET MID

Client Sample ID: H - 4 0-1'

Lab Sample ID: 890-5639-28

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 07:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 07:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 01:26	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/21/23 01:26	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 22:32	SMC	EET MID

Client Sample ID: H - 5 0-1'

Lab Sample ID: 890-5639-29

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 07:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 07:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 02:08	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/21/23 02:08	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 22:38	SMC	EET MID

Client Sample ID: H - 6 0-1'

Lab Sample ID: 890-5639-30

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 07:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 07:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 02:29	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/21/23 02:29	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 22:44	SMC	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: H - 7 0-1'

Lab Sample ID: 890-5639-31

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 08:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 08:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 02:50	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/21/23 02:50	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 22:49	SMC	EET MID

Client Sample ID: H - 8 0-1'

Lab Sample ID: 890-5639-32

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 08:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 08:27	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 03:11	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/21/23 03:11	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 23:06	SMC	EET MID

Client Sample ID: H - 9 0-1'

Lab Sample ID: 890-5639-33

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 08:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 08:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			67562	11/21/23 03:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/21/23 03:32	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 23:12	SMC	EET MID

Client Sample ID: H - 10 0-1'

Lab Sample ID: 890-5639-34

Date Collected: 11/14/23 00:00

Matrix: Solid

Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	67330	11/17/23 15:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67637	11/23/23 09:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67505	11/23/23 09:08	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Client Sample ID: H - 10 0-1' Lab Sample ID: 890-5639-34
Date Collected: 11/14/23 00:00 Matrix: Solid
Date Received: 11/15/23 14:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			67562	11/21/23 03:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	67370	11/20/23 08:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67358	11/21/23 03:53	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	67163	11/16/23 11:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67334	11/17/23 23:29	SMC	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: H & R Enterprises
Project/Site: MARQUARDT FED #12H (MAR)

Job ID: 890-5639-1
SDG: Eddy

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-5639-1	S - 1 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-2	S - 1 2'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-3	S - 1 3R	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-4	S - 2 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-5	S - 2 2'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-6	S - 2 3'R	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-7	S - 3 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-8	S - 3 2'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-9	S - 3 3R	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-10	S - 4 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-11	S - 4 2'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-12	S - 4 3'R	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-13	S - 5 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-14	S - 5 2'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-15	S - 5 3'R	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-16	S - 6 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-17	S - 6 2'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-18	S - 6 3R	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-19	S - 7 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-20	S - 7 2'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-21	S - 7 3'R	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-22	S - 8 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-23	S - 8 2'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-24	S - 8 3'R	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-25	H - 1 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-26	H - 2 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-27	H - 3 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-28	H - 4 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-29	H - 5 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-30	H - 6 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-31	H - 7 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-32	H - 8 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-33	H - 9 0-1'	Solid	11/14/23 00:00	11/15/23 14:51
890-5639-34	H - 10 0-1'	Solid	11/14/23 00:00	11/15/23 14:51

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1256
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Environment Testing

Xenco



Work Order No:

5639

www.xenco.com Page 1 of 4

Project Manager: A. Collier
Company Name: H&R Enterprises
Address: 1214
City, State ZIP: Carlsbad, NM 88502
Phone: 505-988-3199

Bill to: (if different)
Company Name: Cinacrex Energy
Address: Attn: Laci Luig
City, State ZIP: Carlsbad, NM 88502
Email:

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Reporting: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: ☐ EDD ☐ ADAPT ☐ Other:

Project Name: Marquardt Feat #12H
Project Number: 6024
Project Location: Carlsbad
Sampler's Name: R. Bell
PO #:

Temp Blank: Yes ☒ No ☐
Thermometer ID: 110001
Cooler Custody Seals: Yes ☒ No ☐
Sample Custody Seals: Yes ☒ No ☐
Total Containers: 4

Due Date: 11/15/23
TAT starts the day received by the lab, if received by 4:30pm

Wet Ice: Yes ☐ No ☒
Thermometer ID: 110001
Correction Factor: 0.2
Temperature Reading: 5.02
Corrected Temperature: 4.8

Date Sampled: 11/14/23
Time Sampled: 11:15 AM
Grab/Comp: 1
Depth: 0-1'

Sample Identification: S-1 0-1'
S-1 0-2'
S-1 3-2'
S-2 0-1'
S-2 2'
S-2 3-2'
S-3 0-1'
S-3 2'
S-3 3-2'
S-4 0-1'

Matrix: Soil
Date Sampled: 11/14/23
Time Sampled: 11:15 AM
Grab/Comp: 1
Depth: 0-1'

Pres. Code:
Parameters: Chlorides
HTPH
BTX

ANALYSIS REQUEST

Preservative Codes: None: NO DI Water: H₂O
Cool MeOH: Me
IC HNO₃: HN
H₂: NaOH: Na
HP
O₄: NABIS
O₃: NaSO₃
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SACP

890-5639 Chain of Custody

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature) R. Bell Received by: (Signature) S. Sun Date/Time 11-15-23 12:30 PM
3
4
6

Revised Date: 08/25/2020 Rev. 2020.2

pg 1 of 4

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Environment Testing

Xenco



Work Order No:

5639

www.xenco.com Page 2 of 4

Project Manager: M. Callahan
Company Name: Enterprise
Address: 124th St
City, State ZIP: Carlsbad, NM
Phone: 505-231-1234

Bill to: (if different)
Company Name: Carlsbad
Address: 124th St
City, State ZIP: Carlsbad, NM
Email: info@carlsbadnm.gov

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project: ☐ Level I ☐ Level II ☐ Level III ☐ Level IV ☐
Reporting: ☐ Level I ☐ Level II ☐ Level III ☐ Level IV ☐
Deliverables: ☐ EDD ☐ ADAPT ☐ Other: None

Project Name: <u>Marquardt Fed 124 (Mar)</u>		Turn Around		Pres. Code		ANALYSIS REQUEST		Preservative Codes	
Project Number:	Project Location:	Project Name:	Due Date:	Wet Ice:	Yes	No	None	NO	DI Water: H ₂ O
Sampler's Name:	Sampler's Name:	Thermometer ID:	TAT starts the day received by the lab, if received by 4:30pm	Yes	No	Yes	No	Cool: Cool	MeOH: Me
P.O. #:	P.O. #:	Correction Factor:	Corrected Temperature:	Yes	No	Yes	No	HCL: HC	HNO ₃ : HN
SAMPLE RECEIPT		Temp Blank:	Yes	No	Yes	No	Yes	H ₂ SO ₄ : H ₂	NaOH: Na
Samples Received Intact:	Yes	No	Thermometer ID:	Yes	No	Yes	No	H ₃ PO ₄ : HP	NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes	No	Correction Factor:	Yes	No	Yes	No	Na ₂ S ₂ O ₃ : NaSO ₃	Zn Acetate+NaOH: Zn
Sample Custody Seals:	Yes	No	Temperature Reading:	Yes	No	Yes	No	NaOH+Ascorbic Acid: SACP	
Total Containers:	Yes	No	Corrected Temperature:	Yes	No	Yes	No		
S-4 2'	Soil	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23
S-4 3'R	Soil	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23
S-5 0-1'	Soil	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23
S-5 2'	Soil	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23
S-5 3'R	Soil	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23
S-6 0-1'	Soil	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23
S-6 2'	Soil	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23
S-6 3'R	Soil	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23
S-7 0-1'	Soil	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23
S-7 2'	Soil	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23	11/14/23

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>M. Callahan</u>	<u>M. Callahan</u>	11-15 23 / 12:30pm	<u>S. Smith</u>	<u>S. Smith</u>	11-15
					1451

Revised Date: 08/25/2020 Rev. 2020.2

pg 2 of 4

Chain of Custody



Environment Testing

Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 903-0300
 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
 El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No:

www.xenco.com Page 3 of 4

Project Manager: M. Callan
 Company Name: CH2M Hill Enterprises
 Address: COPI
 City, State ZIP:
 Phone:
 Bill to: (if different) Lawburg
 Company Name: Cummins
 Address:
 City, State ZIP:
 Email:

Project Name: Magnum Fed 12H (Hwy)
 Project Number:
 Project Location:
 Sampler's Name:
 PO #:
 Temp Blank: Yes No No Yes
 Samples Received Intact: Yes No No Yes
 Cooler Custody Seals: Yes No No Yes
 Sample Custody Seals: Yes No No Yes
 Total Containers:
 Thermometer ID: Turnout
 Correction Factor: 0.2
 Temperature Reading: 5.03
 Corrected Temperature: 4.8

Project Name: Magnum Fed 12H (Hwy)
 Project Number:
 Project Location:
 Sampler's Name:
 PO #:
 Temp Blank: Yes No No Yes
 Samples Received Intact: Yes No No Yes
 Cooler Custody Seals: Yes No No Yes
 Sample Custody Seals: Yes No No Yes
 Total Containers:
 Thermometer ID: Turnout
 Correction Factor: 0.2
 Temperature Reading: 5.03
 Corrected Temperature: 4.8

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Pres. Code	ANALYSIS REQUEST	Preservative Codes
S-7 3'R	Soil	11/14/23			G	1			None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HC HNO: HN H ₂ SO: H ₂ H ₃ PO: HP NaHSO: NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SACP
S-8 0-1'									
S-8 2'									
S-8 3'R									
H-1 0-1'									
H-2									
H-3									
H-4									
H-5									
H-6									

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be Cd Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>Ray Bell</u>	<u>Yell</u>	<u>11-15-23 / 12:30pm</u>	<u>Sung</u>	<u>11-15</u>	<u>1451</u>

Revised Date: 08/25/2020 Rev. 20202

Pg 3 of 4

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Environment Testing
Xenco



Work Order No:

www.xenco.com Page 4 of 4

Project Manager: M. Collier
Company Name: Enterprise
Address: Carlsbad
City, State ZIP: Carlsbad, NM 88502
Phone: 505 888 3199

Bill to: (if different)
Company Name: Enterprise
Address: Carlsbad
City, State ZIP: Carlsbad, NM 88502
Email: carlsbad@enterprise.com

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Reporting: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: ☐ EDD ☐ ADAPT ☐ Other:

ANALYSIS REQUEST										Preservative Codes	
Project Name:	Project Number:	Project Location:	Sampler's Name:	PO #:	Temp Blank:	Temp Blank:	Temp Blank:	Temp Blank:	Temp Blank:	Preservative Codes	
Enterprise Fed 12H (Mar)					Yes	No	Yes	No	Yes	None: NO	
					Yes	No	Yes	No	Yes	DI Water: H ₂ O	
					Yes	No	Yes	No	Yes	Cool: Cool	
					Yes	No	Yes	No	Yes	MeOH: Me	
					Yes	No	Yes	No	Yes	HNO ₃ : HN	
					Yes	No	Yes	No	Yes	H ₂ SO ₄ : H ₂	
					Yes	No	Yes	No	Yes	NaOH: Na	
					Yes	No	Yes	No	Yes	H ₃ PO ₄ : HP	
					Yes	No	Yes	No	Yes	NaHSO ₄ : NABIS	
					Yes	No	Yes	No	Yes	Na ₂ S ₂ O ₃ : NaSO ₃	
					Yes	No	Yes	No	Yes	Zn Acetate+NaOH: Zn	
					Yes	No	Yes	No	Yes	NaOH+Ascorbic Acid: SAPC	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Sample Comments
H-7 0-1	Soil	11/14/23			6	1	
H-8							
H-9							
H-10							

Total 2007 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
(Circle Method(s) and Metal(s) to be analyzed) TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>M. Collier</u>	<u>M. Collier</u>	11-15-23 12:30 PM	<u>Enterprise</u>	<u>Enterprise</u>	11-15

Revised Date: 08/25/2020 Rev. 2000.2

Pg 4 of 4

Login Sample Receipt Checklist

Client: H & R Enterprises

Job Number: 890-5639-1

SDG Number: Eddy

Login Number: 5639

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: H & R Enterprises

Job Number: 890-5639-1
SDG Number: Eddy

Login Number: 5639
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/17/23 11:08 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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

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

QUESTIONS

Action 299865

QUESTIONS

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID: 162683
	Action Number: 299865
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAB1634936868
Incident Name	NAB1634936868 MARQUARDTFEDERAL #012H @ 30-015-41850
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-41850] MARQUARDT FEDERAL #012H

Location of Release Source	
Please answer all the questions in this group.	
Site Name	MarquardtFederal #012H
Date Release Discovered	10/12/2016
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Valve Produced Water Released: 50 BBL Recovered: 35 BBL Lost: 15 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

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Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS, Page 2

Action 299865

QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID:	162683
	Action Number:	299865
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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

I hereby agree and sign off to the above statement	Name: Laci Luig Title: ES&H Specialist Email: DL_PermianEnvironmental@coterra.com Date: 01/04/2024
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QUESTIONS, Page 3

Action 299865

QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID: 162683
	Action Number: 299865
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Less than or equal 25 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 100 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Zero feet, overlying, or within area
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Zero feet, overlying, or within area
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	7010
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	56
GRO+DRO	(EPA SW-846 Method 8015M)	56
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Benzene	(EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	01/01/2018
On what date will (or did) the final sampling or liner inspection occur	11/14/2023
On what date will (or was) the remediation complete(d)	01/01/2018
What is the estimated surface area (in square feet) that will be reclaimed	28000
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	0
What is the estimated volume (in cubic yards) that will be remediated	0

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 299865

QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID: 162683
	Action Number: 299865
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	<i>Not answered.</i>
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	<i>Not answered.</i>
(In Situ) Soil Vapor Extraction	<i>Not answered.</i>
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	<i>Not answered.</i>
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	<i>Not answered.</i>
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	<i>Not answered.</i>
Ground Water Abatement pursuant to 19.15.30 NMAC	<i>Not answered.</i>
OTHER (Non-listed remedial process)	<i>Yes</i>
Other Non-listed Remedial Process. Please specify	No historical documentation of remediation, most likely dig and haul to Lea Land Landfarm but no evidence on internal servers through filings and invoices, after recent site assessment to search for contamination onsite, no need to remediate. Will reclaim pipeline ROW during P/A per normal operation. Pipeline ROW currently has plant growth.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Laci Luig Title: ES&H Specialist Email: DL_PermianEnvironmental@coterra.com Date: 01/04/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 299865

QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID: 162683
	Action Number: 299865
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
<i>Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 299865

QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID:	162683
	Action Number:	299865
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	299839
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/14/2023
What was the (estimated) number of samples that were to be gathered	18
What was the sampling surface area in square feet	28000

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	0
What was the total volume (cubic yards) remediated	0
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	28000
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	No historical documentation of remediation, most likely dig and haul to Lea Land Landfarm but no evidence on internal servers through filings and invoices, after recent site assessment to search for contamination onsite, no need to remediate. Will reclaim pipeline ROW during P/A per normal operation. Pipeline ROW currently has plant growth.

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Laci Luig Title: ES&H Specialist Email: DL_PermianEnvironmental@coterra.com Date: 01/04/2024
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QUESTIONS, Page 7

Action 299865

QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID: 162683
	Action Number: 299865
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 299865

CONDITIONS

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID:
	162683
	Action Number:
	299865
Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

CONDITIONS

Created By	Condition	Condition Date
bhall	Remediation Closure approved. A complete and accurate reclamation report will need to be submitted. The reclamation report will need to address all of the requirements of 19.15.29.13 NMAC including pictures of the reclaimed area, and a proposed revegetation plan. Subsequent to the approval of a reclamation plan, a revegetation report will need to be submitted, including pictures of the revegetated areas, once the site meets the requirements for vegetation cover found in 19.15.29.13 D.(3) NMAC. Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used as long as the requirements of the surface owner provide equal or better protection of freshwater, human health and the environment.	1/22/2024