

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141  
Revised April 3, 2017

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

### Release Notification and Corrective Action

#### OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Enterprise Field Services, LLC	Contact Alena Miro
Address PO Box 4324, Houston, TX 77210	Telephone No. 575-628-6802
Facility Name South Eddy Cryo Plant	Facility Type Natural Gas Processing Plant

Surface Owner Enterprise Products Operating	Mineral Owner N/A	API No. fAB1629433888
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#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	1	25S	30E	645	North	403	East	Eddy

Latitude 32.161638 Longitude -103.826997 NAD83

#### NATURE OF RELEASE

Type of Release Unused Lube Oil	Volume of Release 13.7 bbl	Volume Recovered >5 bbl
Source of Release Storage Tank	Date and Hour of Occurrence 10/21/2017 12:50	Date and Hour of Discovery 10/21/2017 12:50
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

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



Describe Cause of Problem and Remedial Action Taken.\*

The compressor oil day tank was over-filled causing an oil spill to the ground. Operations personnel minimized the impacted area as much as possible and collected the freestanding oil using a vacuum truck. Further excavation and sampling will be completed following standard one-call.

Describe Area Affected and Cleanup Action Taken.\*

See attached Closure Report for remediation actions taken.

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.

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director-Field Environmental	Approval Date: 4/12/2023	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 11/28/2017 Phone: 713-381-6684		

\* Attach Additional Sheets If Necessary



Souder, Miller & Associates ♦ 201 S. Halagueno St. ♦ Carlsbad, NM 88220  
(575) 689-7040

---

November 3, 2017

SMA #5E26025, BG13

Enterprise Field Services, LLC  
P. O. Box 4324  
Houston, TX 77210  
Attn.: Ms. Alena Miro

**RE: LETTER REPORT SUMMARIZING INITIAL ACTIONS TAKEN REGARDING A  
MINERAL OIL RELEASE AT THE SOUTH EDDY CRYO PLANT, EDDY COUNTY,  
NEW MEXICO, 2RP-4463**

Dear Ms. Miro:

Souder, Miller & Associates (SMA) is pleased to submit this letter report to Enterprise Field Services, LLC (Enterprise) summarizing the initial assessment, and soil sampling at the South Eddy Cryo Plant Teresstic 150 lubrication mineral oil release site. The site is located in the Unit Letter H Section 1, T25S, R30E, Eddy County, New Mexico, on private property. Figure 1 illustrates the sample locations.

**Sample Collection Methodology**

On October 25, 2017, SMA field personnel mobilized to the South Eddy Cryo Plant to assess the mineral oil release that occurred slightly south of the center of the plant. It was determined that approximately 13.7 barrels of clean, Teresstic 150 mineral oil had spilled onto the production pad from an open-top galvanized tub, affecting approximately 1,850 square feet. The SDS for Teresstic 150 is included in Appendix B. The top 3 inches of the south side of the spill area was scraped by Enterprise LLC after the release occurred and affected soils were properly disposed of at an NMOCD-permitted facility. Presence of equipment and safety concerns prevented a scrape of the entire spill area.

Discrete samples were collected by SMA at equally spaced intervals along the spill area. Two samples were collected at the southern border of the spill area at 6 inches and 10 inches below ground surface (bgs), represented by L1 on Figure 1. A sample was collected at 6 inches bgs on the eastern border of the spill area, represented by L2. Finally, two samples were collected approximately 1 foot from where the release occurred at 6 inches and 1-foot bgs, represented by L3. Due to the compacted nature of the caliche pad and the proximity to production equipment, SMA was not able to obtain samples deeper than 1-foot. Figure 1 depicts the sample locations. Upon completion of sampling, the five (5) soil samples were delivered to Hall Environmental Analysis Laboratory for analysis.

**NMOCD Site Ranking**

After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be greater than 100 feet below ground surface (bgs). The Pecos River is 7.5 miles west, and there are no domestic wells within 200 feet of the release. Site ranking is determined to be a 0.

**Analytical Results**

The Enterprise South Eddy soil samples were analyzed utilizing the following methods:

Enterprise Field Services, LLC  
South Eddy Cryo Plant

5E26025 BG13

- **EPA Method 8015** for the detection of Total Petroleum Hydrocarbons (TPH) including gasoline range organics (GRO), diesel-range organics (DRO), and motor-oil range organics (MRO).

SMA received the analytical results from the sampling on November 2, 2017. The results of the analysis are summarized in Table 1 below. A copy of the laboratory report is attached in Appendix A.

**Table 1. Enterprise South Eddy Soil Sample Analysis**

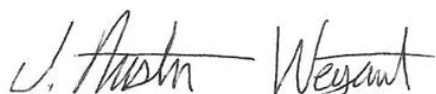
October 25, 2017

Sample ID	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg
L1-0.5'	<4.8	<98	1400
L1-10"	<4.8	<99	620
L2-0.5'	<4.8	<96	1700
L3-0.5'	<4.8	<96	1600
L3-1'	<4.9	<92	1800
NMED Industrial/Occupational TPH Screening Guidelines	3800	3800	3800
NMOCD RRAL's for Site Ranking 0	5000	5000	5000

The discrete samples obtained (L1-L3) did not contain any constituents of concern above the TPH screening guidelines as specified in the New Mexico Environment Department (NMED) *Risk Assessment Guidance for Site Investigations and Remediation* (2015) for a mineral oil release, and in the New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (1993) for TPH. Although this site is within remediation requirements, due to the elevated MRO concentrations, SMA recommends the granular application of a nitrogen-rich fertilizer to aid in the bioremediate of the in-situ TPH and surface staining.

Souder, Miller and Associates appreciates the opportunity to provide environmental services to you. If you have any questions or comments concerning this report, please feel free to call me at 575.689.7040.

Sincerely,  
Souder, Miller & Associates



Austin Weyant  
Project Scientist



Shawna Chubbuck  
Senior Scientist

Enterprise Field Services, LLC  
South Eddy Cryo Plant

5E26025 BG13

**Figures:**

Figure 1: Vicinity and OSE Data Map

Figure 2: Site and Sample Location Map

**Appendices**

Appendix A: Initial and Final C-141

Appendix B: NMOSE Wells Report

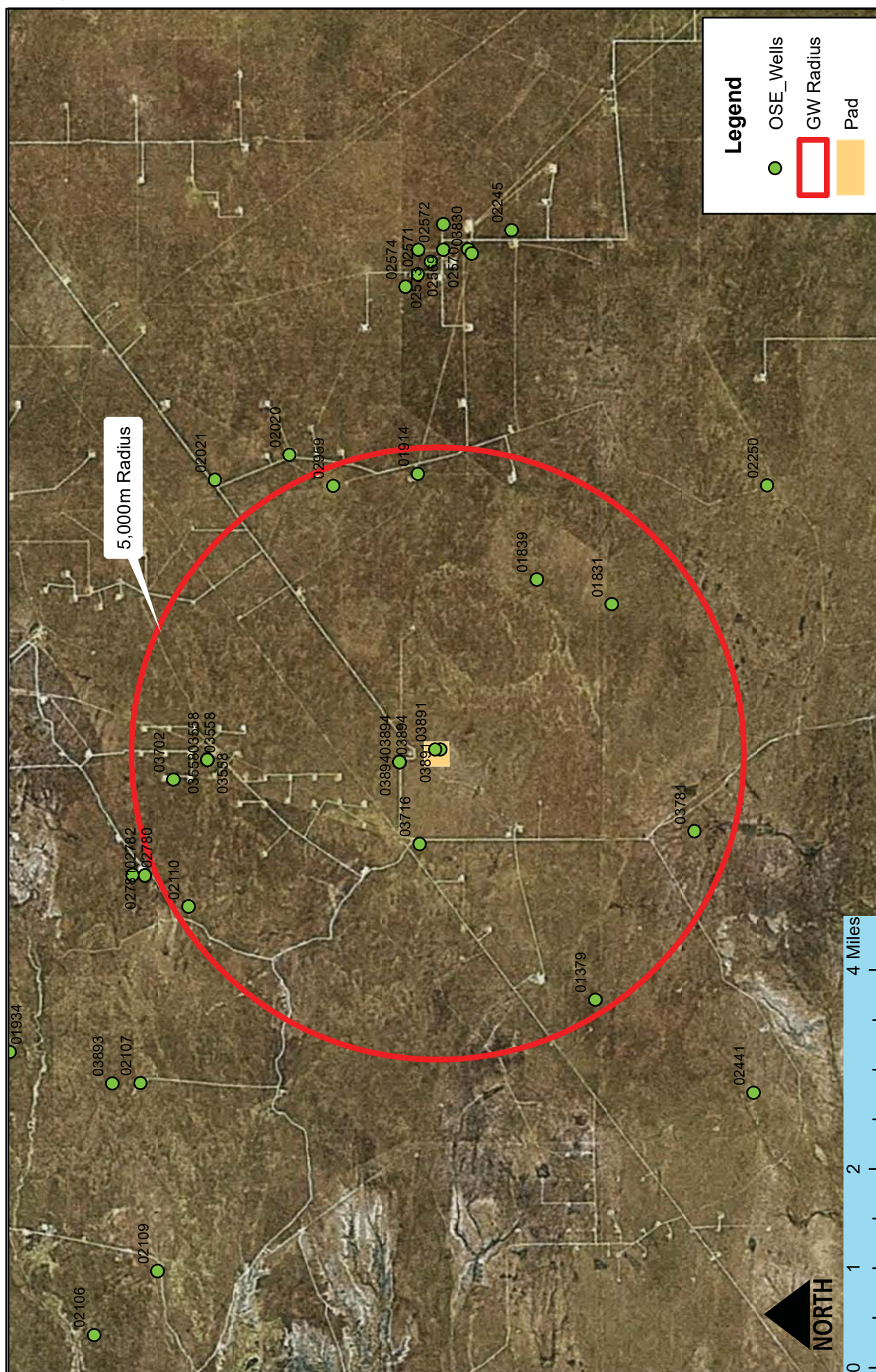
Appendix C: Hall Environmental Analysis Laboratory Report

Enterprise Field Services, LLC  
South Eddy Cryo Plant

5E26025 BG13

**FIGURE 1  
VICINITY AND NMOSE DATA MAP**





Vicinity and OSE Wells Map  
South Eddy-Enterprise  
H Sec 1 T25S R30E, New Mexico

Figure 1

201 South Halaguena Street  
Carlsbad, New Mexico 88221  
(575) 689.7040  
[www.soudermiller.com](http://www.soudermiller.com)  
Serving the Southwest & Rocky Mountains



Lucas Middleton

Drawn  
Checked  
Approved

Revisions

By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

Date Saved: 1/20/2017

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Enterprise Field Services, LLC  
South Eddy Cryo Plant

5E26025 BG13

**FIGURE 2  
SITE AND SAMPLE LOCATION MAP**





Detailed Site and Sample Map  
South Eddy- Enterprise  
H Sec 1 T25S R30E, New Mexico

Figure 2

201 South Halaquena Street  
Carlsbad, New Mexico 88221  
(575) 689-7040  
www.soudermiller.com  
Serving the Southwest & Rocky Mountains



Heather Patterson  
Drawn \_\_\_\_\_  
Checked \_\_\_\_\_  
Approved \_\_\_\_\_

Date Saved: 11/2/2017  
By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_  
By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_  
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Enterprise Field Services, LLC  
South Eddy Cryo Plant

5E26025 BG13

**APPENDIX A  
INITIAL AND FINAL C-141**

## NM OIL CONSERVATION

ARTESIA DISTRICT

OCT 25 2017

Form C-141  
Revised April 3, 2017

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

RECEIVED  
Submit to appropriate District Office in  
accordance with 19.15.29 NMAC.

HAB1629433888

## Release Notification and Corrective Action

NAB1730542781

#70034 OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Enterprise Field Services, LLC	Contact	Dina Ferguson
Address	PO Box 4324, Houston, TX 77210	Telephone No.	210-528-3824
Facility Name	South Eddy Cryo Plant	Facility Type	Natural Gas Processing Plant

Surface Owner	Enterprise Products	Mineral Owner	N/A	API No.	N/A
Operating					

## LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Unit Line	Feet from the	East/West Line	County
H	1	25S	30E	645	North	403	East	Eddy

Latitude N 32.161638

Longitude W -103.826997

NAD83

## NATURE OF RELEASE

Type of Release	Unused Lube Oil	Volume of Release	13.7 bbl	Volume Recovered	> 5 bbl
Source of Release	Storage Tank	Date and Hour of Occurrence	10/21/2017 @ 12:50 MDT	Date and Hour of Discovery	10/21/2017 @ 12:50 MDT

Was Immediate Notice Given?

☐ Yes ☐ No ☒ Not Required

If YES, To Whom?

By Whom?

Date and Hour

Was a Watercourse Reached?

☐ Yes ☒ No

If YES, Volume Impacting the Watercourse.

If a Watercourse was Impacted, Describe Fully.\*

N/A

Describe Cause of Problem and Remedial Action Taken.\*

The compressor oil day tank was over-filled causing an oil spill to the ground. Operations personnel minimized the impacted area as much as possible and collected the freestanding oil using a vacuum truck. Further excavation and sampling will be completed following a standard one-call.

Describe Area Affected and Cleanup Action Taken.\*

Remediation actions will follow the Enterprise Products, General Release Notification, Response and Remediation Plan (March 9, 2015).

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

## OIL CONSERVATION DIVISION

Signature:

Printed Name: Jon E. Fields

Approved by Environmental Specialist:

Title: Director, Field Environmental

Approval Date: 10/31/17

Expiration Date: N/A

E-mail Address: jeffelds@eprod.com

Conditions of Approval:

Date: 10/25/2017

Phone: 713-381-6684

See attached

Attached ☐

200-4463

\* Attach Additional Sheets If Necessary



Operator/Responsible Party,

The OCD has received the form C-141 you provided on 10/25/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number SRP-4463 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

*The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]*

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 11/25/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted



for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

**Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.**

**Jim Griswold**

OCD Environmental Bureau Chief

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

505-476-3465

jim.griswold@state.nm.us



Enterprise Field Services, LLC  
South Eddy Cryo Plant

5E26025 BG13

**APPENDIX B  
NMOSE WELLS REPORT**



# 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	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">C 03891 POD1</a>	CUB	ED	4	4	2	01	25S	30E	610608	3558890		101	635	429	206
<a href="#">C 03716 POD1</a>	CUB	ED	4	2	2	02	25S	30E	609069	3559211		1498	600	425	175
<a href="#">C 03558 POD1</a>	CUB	ED	1	2	2	25	24S	30E	610412	3562651		3814	20	0	20
<a href="#">C 03558 POD2</a>	CUB	ED	1	2	2	25	24S	30E	610412	3562651		3814	20	0	20
<a href="#">C 03558 POD3</a>	CUB	ED	1	2	2	25	24S	30E	610412	3562651		3814	25	0	25
<a href="#">C 03558 POD4</a>	CUB	ED	1	2	2	25	24S	30E	610412	3562651		3814	25	0	25
<a href="#">C 03558 POD5</a>	CUB	ED	1	2	2	25	24S	30E	610412	3562651		3814	30	0	30
<a href="#">C 03781 POD1</a>	CUB	ED	3	3	3	13	25S	30E	609306	3554761		4254	720	325	395
<a href="#">C 03702 POD1</a>	CUB	ED	4	1	4	24	24S	30E	610092	3563204		4386	20		
<a href="#">C 01379</a>	C	ED	4	4	3	10	25S	30E	606571	3556355*		4666	400		
<a href="#">C 02110</a>		ED		4	3	23	24S	30E	608036	3562950*		4803	600	400	200

Average Depth to Water: **175 feet**

Minimum Depth: **0 feet**

Maximum Depth: **429 feet**

Record Count: 11

UTMNAD83 Radius Search (in meters):

**Easting (X):** 610521

**Northing (Y):** 3558839

**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.

1/18/17 11:25 AM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER

Enterprise Field Services, LLC  
South Eddy Cryo Plant

5E26025 BG13

**APPENDIX C**  
**HALL ENVIRONMENTAL ANALYSIS LABORATORY REPORTS**



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

November 02, 2017

Austin Weyant  
Souder, Miller & Associates  
201 S Halagueno  
Carlsbad, NM 88221  
TEL: (575) 689-7040  
FAX

RE: South Eddy Enterprise

OrderNo.: 1710F31

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 5 sample(s) on 10/28/2017 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 1710F31

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: L1-0.5'

Project: South Eddy Enterprise

Collection Date: 10/25/2017 12:26:00 PM

Lab ID: 1710F31-001

Matrix: SOIL

Received Date: 10/28/2017 11:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	98	D	mg/Kg	10	10/31/2017 4:41:32 PM	34713
Motor Oil Range Organics (MRO)	1400	490		mg/Kg	10	10/31/2017 4:41:32 PM	34713
Surr: DNOP	0	70-130	S	%Rec	10	10/31/2017 4:41:32 PM	34713
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/1/2017 9:37:04 PM	34708
Surr: BFB	82.8	15-316		%Rec	1	11/1/2017 9:37:04 PM	34708

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

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

Page 1 of 7

## Analytical Report

Lab Order 1710F31

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: L1-10"

Project: South Eddy Enterprise

Collection Date: 10/25/2017 12:44:00 PM

Lab ID: 1710F31-002

Matrix: SOIL

Received Date: 10/28/2017 11:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	99	D	mg/Kg	10	10/31/2017 5:06:04 PM	34713
Motor Oil Range Organics (MRO)	620	490		mg/Kg	10	10/31/2017 5:06:04 PM	34713
Surr: DNOP	0	70-130	S	%Rec	10	10/31/2017 5:06:04 PM	34713
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/1/2017 10:00:33 PM	34708
Surr: BFB	83.5	15-316		%Rec	1	11/1/2017 10:00:33 PM	34708

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

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

Page 2 of 7

## Analytical Report

Lab Order 1710F31

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: L2-0.5'

Project: South Eddy Enterprise

Collection Date: 10/25/2017 12:52:00 PM

Lab ID: 1710F31-003

Matrix: SOIL

Received Date: 10/28/2017 11:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	96	D	mg/Kg	10	10/31/2017 5:30:26 PM	34713
Motor Oil Range Organics (MRO)	1700	480		mg/Kg	10	10/31/2017 5:30:26 PM	34713
Surr: DNOP	0	70-130	S	%Rec	10	10/31/2017 5:30:26 PM	34713
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/1/2017 10:24:04 PM	34708
Surr: BFB	83.3	15-316		%Rec	1	11/1/2017 10:24:04 PM	34708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 7
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

## Analytical Report

Lab Order 1710F31

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: L3-0.5'

Project: South Eddy Enterprise

Collection Date: 10/25/2017 1:00:00 PM

Lab ID: 1710F31-004

Matrix: SOIL

Received Date: 10/28/2017 11:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	96	D	mg/Kg	10	10/31/2017 5:54:58 PM	34713
Motor Oil Range Organics (MRO)	1600	480		mg/Kg	10	10/31/2017 5:54:58 PM	34713
Surr: DNOP	0	70-130	S	%Rec	10	10/31/2017 5:54:58 PM	34713
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/1/2017 10:47:39 PM	34708
Surr: BFB	82.5	15-316		%Rec	1	11/1/2017 10:47:39 PM	34708

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 7
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	



## Analytical Report

Lab Order 1710F31

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: L3-1'

Project: South Eddy Enterprise

Collection Date: 10/25/2017 1:06:00 PM

Lab ID: 1710F31-005

Matrix: SOIL

Received Date: 10/28/2017 11:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	92	D	mg/Kg	10	10/31/2017 6:19:24 PM	34713
Motor Oil Range Organics (MRO)	1800	460		mg/Kg	10	10/31/2017 6:19:24 PM	34713
Surr: DNOP	0	70-130	S	%Rec	10	10/31/2017 6:19:24 PM	34713
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/1/2017 11:11:01 PM	34708
Surr: BFB	83.0	15-316		%Rec	1	11/1/2017 11:11:01 PM	34708

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 5 of 7
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710F31  
02-Nov-17

Client: Souder, Miller & Associates  
Project: South Eddy Enterprise

Sample ID	LCS-34713		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	34713		RunNo:	46769				
Prep Date:	10/30/2017		Analysis Date:	10/31/2017		SeqNo:	1491233		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	47	10	50.00	0	94.1	73.2	114				
Surr: DNOP	4.0		5.000		79.6	70	130				

Sample ID	MB-34713	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	34713		RunNo:	46769				
Prep Date:	10/30/2017	Analysis Date:	10/31/2017		SeqNo:	1491234	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.1		10.00		91.4	70	130			

Qualifiers:

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

Page 6 of 7

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 1710F31

02-Nov-17

**Client:** Souder, Miller & Associates**Project:** South Eddy Enterprise

Sample ID <b>MB-34708</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>34708</b>		RunNo: <b>46775</b>							
Prep Date: <b>10/30/2017</b>	Analysis Date: <b>10/31/2017</b>		SeqNo: <b>1491523</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		107	15	316			

Sample ID <b>LCS-34708</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>34708</b>		RunNo: <b>46775</b>							
Prep Date: <b>10/30/2017</b>	Analysis Date: <b>10/31/2017</b>		SeqNo: <b>1491525</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	118	75.9	131			
Surr: BFB	1200		1000		119	15	316			

Sample ID <b>MB-34720</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>34720</b>		RunNo: <b>46791</b>							
Prep Date: <b>10/31/2017</b>	Analysis Date: <b>11/1/2017</b>		SeqNo: <b>1492520</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		85.0	15	316			

Sample ID <b>LCS-34720</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>34720</b>		RunNo: <b>46791</b>							
Prep Date: <b>10/31/2017</b>	Analysis Date: <b>11/1/2017</b>		SeqNo: <b>1492521</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		95.1	15	316			

**Qualifiers:**

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



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

## Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1710F31

RcptNo: 1

Received By: Andy Freeman

10/28/2017 11:30:00 AM

Completed By: Erin Melendrez

10/30/2017 8:23:52 AM

Reviewed By:

DDS

10/30/17

Chain of Custody

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

Log In

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

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

Special Handling (if applicable)

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

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.1	Good	Yes			



## Chain-of-Custody Record

Client: Souder Miller & Assoc.Mailing Address: 201 S. HargueneroPhone #: \_\_\_\_\_  
email or Fax#: \_\_\_\_\_QA/QC Package: ☐ Standard ☐ Level 4 (Full Validation)Accreditation ☐ NELAP ☐ Other \_\_\_\_\_☐ EDD (Type) \_\_\_\_\_Sample Temperature: 5.1 °COn Ice: ☒ Yes ☐ No

Container Type and #

Preservative Type

HEAL No.

Date

Time

Matrix

Sample Request ID

Date

Time

Matrix

Sample Request ID

Date

Time

Matrix

Sample Request ID

Date

Time

Matrix

Sample Request ID

Date

Time

Matrix

Sample Request ID

Turn-Around Time:

☐ Standard ☒ Rush 5 day turn

Project Name:

South Eddy-Enterprise

Project #:

Project Manager:

Austin Warrant

Sampler:

HMP/MLRS

Analysis Request

BTEX + MTBE + TMB's (8021)

BTEX + MTBE + TPH (Gas only)

TPH 8015B (GRO / DRO / MRO)

TPH (Method 418.1)

EDB (Method 504.1)

PAH's (8310 or 8270 SIMS)

RCRA 8 Metals

Anions (F, Cl, NO<sub>3</sub>, NO<sub>2</sub>, PO<sub>4</sub>, SO<sub>4</sub>)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

Air Bubbles (Y or N)

Remarks:

Received by:

Date

Time

Received by:

Date

Time

Received by:

Date

Time

Received by:

Date

Time

Received by:

Date

Time

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 206765

CONDITIONS

Operator: ENTERPRISE PRODUCTS OPERATING, LLC P.O. BOX 4324 HOUSTON, TX 77210	OGRID: 374092
	Action Number: 206765
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	4/12/2023