

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	JR Cone Operating, LLC	Contact	Jim Cone
Address	PO Box 10217, Lubbock, TX 79408	Telephone No.	806-763-8211
Facility Name	Anderson	Facility Type	Production and Gathering
Surface Owner	Private	Mineral Owner	Private
		API No.	30-025-06696

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
1	21	21S	37E					Lea

Latitude 32.46319 Longitude -103.16219 NAD83

NATURE OF RELEASE

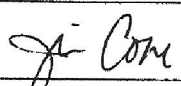

Type of Release	Leak at Battery, Unlined Pit circa 1943	Volume of Release	Volume Recovered
Source of Release	Tank	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?		Date and Hour	
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Describe Area Affected and Cleanup Action Taken.*

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Jim Cone	Approved by Environmental Specialist: 	
Title: Managing Member	Approval Date: 7/31/2018	Expiration Date:
E-mail Address: jcone@conelevator.com	Conditions of Approval: See attached directive	Attached <input checked="" type="checkbox"/>
Date: 7/31/2018	Phone: 512-217-6253	

* Attach Additional Sheets If Necessary

1RP-5140

pCH1821251149

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: JR Cone Operating, LLC	OGRID
Contact Name: Jim Cone (Managing Member)	Contact Telephone: 806-763-8211
Contact email: jcone@coneelevator.com	Incident #: (IRP-5140)
Contact mailing address: P. O. Box 10217, Lubbock, Texas 79408	

Location of Release Source

Latitude 32.46347° Longitude -103.16190° (NAD 83 in decimal degrees to 5 decimal places)

Site Name: (Lease name) : Anderson	Site Type: Historic unlined pit and blowout vent
Date Release Discovered: (by NMOCD staff) July 19, 2018	API# 30-025-06696 (nearest well; not source)

Unit Letter	Section	Township	Range	County
I	21	21S	37E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name:) Robert Gilbert et al (previously Estate of Mary L. Wantz)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls): Unknown	Volume Recovered (bbls): Unknown
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls): Unknown	Volume Recovered (bbls): Unknown
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

Historic unlined pit located ~ 200 ft northeast of Anderson tank battery and 330 ft NNW of Anderson #1 well (30-025-6696). The pit contains unknown volumes of crude oil generated from historical operations on lease. Early indications are such that there are only minor amounts of produced water impact.

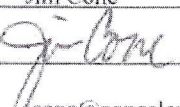
State of New Mexico
Oil Conservation Division

Incident ID	
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Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Release was historical with unknown volume.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? NMOCD responded to a report of a possible release on July 12, 2018. During the inspection, an unauthorized pit was identified northeast of the battery as well as a vent pipe, where the area immediately surrounding it appears to have been impacted. On July 19, 2018, C. Hernandez NMOCD District 1 contacted the operator via email requesting a work plan.	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Jim Cone</u>	Title: <u>Managing Member</u>
Signature: <u></u>	Date: <u>2-12-11</u>
email: <u>jcone@coneelevator.com</u>	Telephone: <u>806-763-8211</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

Incident ID	
District RP	1RP-5140
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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Printed Name: Jim Cone Title: Managing Member
 Signature:  Date: 5-3-2019
 email: jccone@coneelevator.com Telephone: 806-763-8211

OCD Only

Received by: OCD DIII Date: 5/14/19

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

Signature:  Date: 5/17/19

Incident ID	
District RP	IRP-5140
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: Jim Cone Title: Managing Partner


Signature:  Date: 8-20-19

email: jicone@coneelevator.com Telephone: 806-763-8211

OCD Only

Received by: OCD Date: 10/7/19

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: 10/22/19

Printed Name: Cory Title: Environmental Specialist

CLOSURE

Date: August 19, 2019

NMOCD Case No. : 1RP-5140

Site Name: Anderson Lease

Operator: J. R. Cone Operating, LLC (JRCO)

Location: T21S, R37E, SECTION 21, UNIT LETTER I, Eunice, Lea County NM

Remediation Work Performed

Remediation, by in-situ chemical oxidation (ISCO) treatment, of the two excavations at the above-referenced location, was completed on July 3, 2019, in accordance with the NMOCD-approved remediation plan on file. Photographs depicting the various stages of the procedure are included in Attachment A. The excavation was left open for four weeks to allow for residual chemical oxidation to take place. The chemical oxidation treatment activities proceeded successfully and without difficulty. Below is a brief summary of how the chemical oxidation treatment progressed starting with the pit excavation:

- On July 1, 2019, the upper 4-ft of soil in grids M-N-O-P at the south end of the pit excavation were loosened and homogenized with a trackhoe.
- Starting with the first treatment area, one supersack (2,240 lbs) of sodium persulfate ($\text{Na}_2\text{S}_2\text{O}_8$) was placed in the south half of grid cell M, followed by approximately 1,125 lbs of calcium hydroxide ($\text{Ca}(\text{OH})_2$).
- The chemical oxidants were then dry-blended with the upper 4-ft of soil such that it was well homogenized.
- Approximately 1,500 - 2,000 gallons of freshwater was then gradually added into the blend, and again homogenized to maximize contact between the oxidants and the impacted soil.
- The above-described procedure was repeated for each cell until the entire M-N-O-P gridded area was treated over the two day period (July 1-2, 2019).
- A total of 17,920 lbs of sodium persulfate, approximately 9,000 lbs of calcium hydroxide, and 12,000 gal of freshwater were evenly and homogeneously blended within about 8,160 ft^3 of impacted soil at the base of the pit excavation in grid cells M-N-O-P.
- The same basic procedures were performed within the smaller vent excavation on July 3rd, in which a total of 4,480 lbs of sodium persulfate, approximately 3,500 lbs of calcium hydroxide, and 3,000 gal of freshwater were blended within about 3,000 ft^3 of impacted soil at the base of the vent excavation.

- On July 15, 2019, an additional 90 bbls (3,000 gal) was proportionally added to both the vent and pit treated excavations to further aid residual chemical oxidation to take place.
- On August 1, 2019, a five-point composite closure sample was collected from the remediated soils at the base of each excavation and submitted to Permian Basin Environmental Laboratory (Midland TX) for analysis of benzene, BTEX, and TPH, with results summarized below:

Final Closure: Summary of Benzene, BTEX, TPH, and Chloride Concentrations (mg/kg)

Sample ID	Depth BGS (Ft)	Sample Type	Benzene (mg/kg)	BTEX (mg/kg)	GRO C6 C10 (mg/kg)	DRO C10-C28 (mg/kg)	ORO C28-C36 (mg/kg)	GRO+DRO C6-C28 (mg/kg)	TPH C6-C36 (mg/kg)
Vent Excavation (after remediation)	12'-16'	Comp	<0.001	<0.001	<29.4	361	52.0	<390	413
Pit Excavation (after remediation)	15'-19'	Comp	<0.001	<0.001	<29.4	283	38.7	<312	322
<i>Closure Criteria</i>			<i>10</i>	<i>50</i>				<i>1,000</i>	<i>2,500</i>

Laboratory results confirm that the remediated soils meet the NMOCD closure criteria in accordance with Table 1 of 19.15.29.12 NMAC and the agreement with District 1 NMOCD Office in Hobbs. Laboratory analytical reports for the closure samples are included in Attachment B.

Backfill

Both excavations were backfilled with clean native soil obtained from adjacent non-impacted areas of the property, per agreement with the private landowner, and gently sloped towards the east-southeast direction which is consistent and proportional to the pre-existing grade.

Clean top soil containing plenty of grass and seed that had been set aside was applied over the entire excavated area for final cover to re-establish the native vegetation. Photographs of backfilling activities are included at the end of Attachment A.

It is expected that the natural grasses in the final top soil cover will re-establish themselves by the end of Spring 2020. If not, the disturbed area will be seeded with native grass species to restore the land surface to productive vegetative capacity.

Remediation activities for this release have been completed and conditions are protective of the surface vegetation, human health, the environment, and groundwater. JRCO hereby requests NMOCD approval for site closure.

ATTACHMENT A

PHOTOGRAPHS

(IN-SITU CHEMICAL OXIDATION TREATMENT AND BACKFILLING OPERATIONS)

NMOCD Case No. 1RP-5140 • J. R. Cone Operating, LLC • Anderson Lease (Lea County NM) • Chemical Oxidation Treatment



Photo #1: Pit excavation facing southeast prior to addition and mixing of chemical oxidants into grids M-N-O-P (7/1/19)



Photo #2: Addition of sodium persulfate into soil while still in dry state (grid M; 7/1/19)



Photo #3: Adding calcium hydroxide on top of sodium persulfate prior to mixing into soil (grid P; 7/2/19)



Photo #4: Dry-blending chemical oxidants (sodium persulfate and calcium hydroxide) into soil (grid P; 7/2/19)

NMOCD Case No. 1RP-5140 • J. R. Cone Operating, LLC • Anderson Lease (Lea County NM) • Chemical Oxidation Treatment



Photo #5: Blending chemical oxidants (sodium persulfate and calcium hydroxide) and freshwater with soil (grid M; 7/1/19)



Photo #6: Pit excavation facing southeast after completion of chemical oxidation treatment in grids M-N-O-P (7/2/19)



Photo #7: Vent excavation facing south prior to chemical oxidation treatment (01/10/19)



Photo #8: View facing south at vent excavation after completion of chemical oxidation treatment (7/3/19)

NMOCD Case No. 1RP-5140 • J. R. Cone Operating, LLC • Anderson Lease (Lea County NM) • Chemical Oxidation Treatment



Photo #9: View facing northeast showing backfilling clean soil into vent excavation (7/31/19)



Photo #10: View facing southwest showing backfilling clean soil into pit excavation (8/1/19)



Photo #11: Panoramic view facing northeast showing final backfill of both vent and pit excavation areas (8/6/19)

ATTACHMENT B

LABORATORY ANALYTICAL REPORT

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701**



Analytical Report

Prepared for:

Gilbert Vandeventer
Trident Environmental
P.O. Box 12177
Odessa, TX 79768

Project: Anderson Lease (1R-5140)

Project Number: V-274-JRCO

Location: Lea County, NM

Lab Order Number: 9H07024



NELAP/TCEQ # T104704516-18-9

Report Date: 08/14/19

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Anderson Lease (1R-5140)
Project Number: V-274-JRCO
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Pit Excavation(Floor)	9H07024-01	Soil	08/01/19 09:30	08-07-2019 13:43
Vent Excavation(Floor)	9H07024-02	Soil	08/01/19 16:00	08-07-2019 13:43

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Anderson Lease (1R-5140)
Project Number: V-274-JRCO
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

Pit Excavation(Floor)

9H07024-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

Organics by GC

Benzene	ND	0.00100	mg/L	1	P9H0805	08/08/19	08/08/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9H0805	08/08/19	08/08/19	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P9H0805	08/08/19	08/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P9H0805	08/08/19	08/08/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P9H0805	08/08/19	08/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		114 %	80-120		P9H0805	08/08/19	08/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		82.5 %	80-120		P9H0805	08/08/19	08/08/19	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

% Moisture	15.0	0.1	%	1	P9H0901	08/09/19	08/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.4	mg/kg dry	1	P9H0810	08/08/19	08/10/19	TPH 8015M	
>C12-C28	361	29.4	mg/kg dry	1	P9H0810	08/08/19	08/10/19	TPH 8015M	
>C28-C36	52.0	29.4	mg/kg dry	1	P9H0810	08/08/19	08/10/19	TPH 8015M	
Total Hydrocarbon nC6-nC36	413	29.4	mg/kg dry	1	P9H0810	08/08/19	08/10/19	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-130		P9H0810	08/08/19	08/10/19	TPH 8015M	
Surrogate: o-Terphenyl		138 %	70-130		P9H0810	08/08/19	08/10/19	TPH 8015M	S-GC

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Anderson Lease (1R-5140)
Project Number: V-274-JRCO
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

Vent Excavation(Floor)
9H07024-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

Organics by GC

Benzene	ND	0.00100	mg/L	1	P9H0805	08/08/19	08/08/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9H0805	08/08/19	08/08/19	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P9H0805	08/08/19	08/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P9H0805	08/08/19	08/08/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P9H0805	08/08/19	08/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		112 %	80-120		P9H0805	08/08/19	08/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.3 %	80-120		P9H0805	08/08/19	08/08/19	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

% Moisture	15.0	0.1	%	1	P9H0901	08/09/19	08/09/19	ASTM D2216	
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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	29.4	mg/kg dry	1	P9H0810	08/08/19	08/10/19	TPH 8015M	
>C12-C28	283	29.4	mg/kg dry	1	P9H0810	08/08/19	08/10/19	TPH 8015M	
>C28-C36	38.7	29.4	mg/kg dry	1	P9H0810	08/08/19	08/10/19	TPH 8015M	
Total Hydrocarbon nC6-nC36	321	29.4	mg/kg dry	1	P9H0810	08/08/19	08/10/19	TPH 8015M	
Surrogate: 1-Chlorooctane		126 %	70-130		P9H0810	08/08/19	08/10/19	TPH 8015M	
Surrogate: o-Terphenyl		163 %	70-130		P9H0810	08/08/19	08/10/19	TPH 8015M	S-GC

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Anderson Lease (1R-5140)
Project Number: V-274-JRCO
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

Organics by GC - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P9H0805 - General Preparation (GC)

Blank (P9H0805-BLK1)

Prepared & Analyzed: 08/08/19

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.139		"	0.120		116	80-120			
Surrogate: 1,4-Difluorobenzene	0.103		"	0.120		86.0	80-120			

LCS (P9H0805-BS1)

Prepared & Analyzed: 08/08/19

Benzene	0.0925	0.00100	mg/L	0.100		92.5	80-120			
Toluene	0.107	0.00100	"	0.100		107	80-120			
Ethylbenzene	0.111	0.00100	"	0.100		111	80-120			
Xylene (p/m)	0.228	0.00200	"	0.200		114	80-120			
Xylene (o)	0.116	0.00100	"	0.100		116	80-120			
Surrogate: 4-Bromofluorobenzene	0.122		"	0.120		101	80-120			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.7	80-120			

LCS Dup (P9H0805-BSD1)

Prepared & Analyzed: 08/08/19

Benzene	0.0968	0.00100	mg/L	0.100		96.8	80-120	4.53	20	
Toluene	0.120	0.00100	"	0.100		120	80-120	11.0	20	
Ethylbenzene	0.112	0.00100	"	0.100		112	80-120	0.431	20	
Xylene (p/m)	0.236	0.00200	"	0.200		118	80-120	3.46	20	
Xylene (o)	0.117	0.00100	"	0.100		117	80-120	1.00	20	
Surrogate: 4-Bromofluorobenzene	0.133		"	0.120		111	80-120			
Surrogate: 1,4-Difluorobenzene	0.131		"	0.120		109	80-120			

Calibration Blank (P9H0805-CCB1)

Prepared & Analyzed: 08/08/19

Benzene	0.00		mg/L							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.127		"	0.120		106	80-120			
Surrogate: 1,4-Difluorobenzene	0.109		"	0.120		90.6	80-120			

Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Anderson Lease (1R-5140)
Project Number: V-274-JRCO
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

Organics by GC - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P9H0805 - General Preparation (GC)

Calibration Blank (P9H0805-CCB2)

Prepared & Analyzed: 08/08/19

Benzene	0.00		mg/L							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.136		"	0.120		113	80-120			
Surrogate: 1,4-Difluorobenzene	0.0999		"	0.120		83.2	80-120			

Calibration Check (P9H0805-CCV1)

Prepared & Analyzed: 08/08/19

Benzene	0.102	0.00100	mg/L	0.100		102	80-120			
Toluene	0.105	0.00100	"	0.100		105	80-120			
Ethylbenzene	0.103	0.00100	"	0.100		103	80-120			
Xylene (p/m)	0.218	0.00200	"	0.200		109	80-120			
Xylene (o)	0.116	0.00100	"	0.100		116	80-120			
Surrogate: 4-Bromofluorobenzene	0.141		"	0.120		117	80-120			
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	80-120			

Calibration Check (P9H0805-CCV2)

Prepared & Analyzed: 08/08/19

Benzene	0.0960	0.00100	mg/L	0.100		96.0	80-120			
Toluene	0.0963	0.00100	"	0.100		96.3	80-120			
Ethylbenzene	0.0907	0.00100	"	0.100		90.7	80-120			
Xylene (p/m)	0.215	0.00200	"	0.200		107	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.128		"	0.120		107	80-120			
Surrogate: 1,4-Difluorobenzene	0.126		"	0.120		105	80-120			

Matrix Spike (P9H0805-MS1)

Source: 9H08009-01

Prepared & Analyzed: 08/08/19

Benzene	0.0808	0.00100	mg/L	0.100	ND	80.8	80-120			
Toluene	0.0981	0.00100	"	0.100	ND	98.1	80-120			
Ethylbenzene	0.105	0.00100	"	0.100	ND	105	80-120			
Xylene (p/m)	0.225	0.00200	"	0.200	ND	113	80-120			
Xylene (o)	0.104	0.00100	"	0.100	ND	104	80-120			
Surrogate: 4-Bromofluorobenzene	0.143		"	0.120		119	80-120			
Surrogate: 1,4-Difluorobenzene	0.129		"	0.120		107	80-120			

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Organics by GC - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P9H0805 - General Preparation (GC)

Matrix Spike Dup (P9H0805-MSD1)

Source: 9H08009-01

Prepared & Analyzed: 08/08/19

Benzene	0.0755	0.00100	mg/L	0.100	ND	75.5	80-120	6.77	20	QM-07
Toluene	0.0916	0.00100	"	0.100	ND	91.6	80-120	6.77	20	
Ethylbenzene	0.118	0.00100	"	0.100	ND	118	80-120	12.3	20	
Xylene (p/m)	0.215	0.00200	"	0.200	ND	108	80-120	4.52	20	
Xylene (o)	0.0964	0.00100	"	0.100	ND	96.4	80-120	7.84	20	
Surrogate: 4-Bromofluorobenzene	0.144		"	0.120		120	80-120			
Surrogate: 1,4-Difluorobenzene	0.136		"	0.120		113	80-120			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P9H0901 - * DEFAULT PREP *****

Duplicate (P9H0901-DUP1)	Source: 9H07019-01			Prepared & Analyzed: 08/09/19						
% Moisture	8.0	0.1	%		9.0			11.8	20	
Duplicate (P9H0901-DUP2)	Source: 9H07023-03			Prepared & Analyzed: 08/09/19						
% Moisture	7.0	0.1	%		8.0			13.3	20	
Duplicate (P9H0901-DUP3)	Source: 9H08015-01			Prepared & Analyzed: 08/09/19						
% Moisture	ND	0.1	%		ND				20	

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Project: Anderson Lease (1R-5140)
Project Number: V-274-JRCO
Project Manager: Gilbert Vandeventer

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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P9H0810 - * DEFAULT PREP *****

Blank (P9H0810-BLK1)

Prepared: 08/08/19 Analyzed: 08/10/19

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C36	ND	25.0	"							
Total Hydrocarbon nC6-nC36	ND	25.0	"							
Surrogate: 1-Chlorooctane	144		"	120		120	70-130			
Surrogate: o-Terphenyl	66.9		"	60.0		112	70-130			

LCS (P9H0810-BS1)

Prepared: 08/08/19 Analyzed: 08/10/19

C6-C12	846	25.0	mg/kg wet	1000		84.6	75-125			
>C12-C28	895	25.0	"	1000		89.5	75-125			
Surrogate: 1-Chlorooctane	82.7		"	100		82.7	70-130			
Surrogate: o-Terphenyl	43.9		"	50.0		87.9	70-130			

LCS Dup (P9H0810-BSD1)

Prepared: 08/08/19 Analyzed: 08/10/19

C6-C12	820	25.0	mg/kg wet	1000		82.0	75-125	3.12	20	
>C12-C28	907	25.0	"	1000		90.7	75-125	1.36	20	
Surrogate: 1-Chlorooctane	82.6		"	100		82.6	70-130			
Surrogate: o-Terphenyl	43.1		"	50.0		86.2	70-130			

Calibration Blank (P9H0810-CCB2)

Prepared: 08/08/19 Analyzed: 08/10/19

C6-C12	9.57		mg/kg wet							
>C12-C28	12.0		"							
Surrogate: 1-Chlorooctane	88.0		"	100		88.0	70-130			
Surrogate: o-Terphenyl	59.1		"	50.0		118	70-130			

Calibration Check (P9H0810-CCV1)

Prepared: 08/08/19 Analyzed: 08/10/19

C6-C12	485	25.0	mg/kg wet	500		96.9	85-115			
>C12-C28	462	25.0	"	500		92.5	85-115			
Surrogate: 1-Chlorooctane	78.5		"	100		78.5	70-130			
Surrogate: o-Terphenyl	43.1		"	50.0		86.3	70-130			

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Project: Anderson Lease (1R-5140)
Project Number: V-274-JRCO
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Fax: (432) 413-9968

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P9H0810 - * DEFAULT PREP *****

Calibration Check (P9H0810-CCV2)

Prepared: 08/08/19 Analyzed: 08/10/19

C6-C12	489	25.0	mg/kg wet	500		97.9	85-115			
>C12-C28	482	25.0	"	500		96.4	85-115			
Surrogate: 1-Chlorooctane	81.4		"	100		81.4	70-130			
Surrogate: o-Terphenyl	44.6		"	50.0		89.1	70-130			

Calibration Check (P9H0810-CCV3)

Prepared: 08/08/19 Analyzed: 08/10/19

C6-C12	473	25.0	mg/kg wet	500		94.7	85-115			
>C12-C28	446	25.0	"	500		89.1	85-115			
Surrogate: 1-Chlorooctane	83.5		"	100		83.5	70-130			
Surrogate: o-Terphenyl	45.0		"	50.0		90.0	70-130			

Duplicate (P9H0810-DUP1)

Source: 9H07008-05

Prepared: 08/08/19 Analyzed: 08/10/19

C6-C12	ND	26.6	mg/kg dry		ND				20	
>C12-C28	23.1	26.6	"		11.7			65.2	20	
Surrogate: 1-Chlorooctane	104		"	106		97.4	70-130			
Surrogate: o-Terphenyl	68.4		"	53.2		129	70-130			

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
ROI	Received on Ice
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:



Date:

8/14/2019

Brent Barron, Laboratory Director/Technical Director

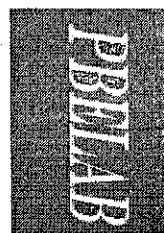
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Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: Anderson Lease (1R-5140)
Project Number: V-274-JRCO
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968



Permian Basin Environmental Lab, LP
1400 S. Rankin Highway
Midland, Texas 79701
Phone: 432-661-4184

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 9407024

Page 1 of 1
COC No.: V-274- 080619

Company Name:

Trident Environmental

BILL TO Company:

Trident Environmental

PO#

Project Manager:

Gil Van Deventer / Trident Environmental

Address: (Street, City, Zip)

PO Box 12177, Odessa TX 79768

Address: (Street, City, Zip)

PO Box 12177, Odessa TX 79768

Phone#:

(432) 638-8740

Fax#:

(432) 638-8740

Phone#:

(432) 638-8740

Email Results To:

gil@trident-environmental.com

Project #:

V-274-JRCO

Project Name:

Anderson Lease (1R-5140)

Sampler Name:

Gil Van Deventer

Project Location:

T21S-R37E, Sec 21, Unit Letter I, Lea County, NM

Gil Van Deventer

LAB #

LAB USE ONLY

(G)rab or (C)omp

C

FIELD CODE

C

Depth (ft)

2

WATER

SOIL

AIR

SLUDGE

HCl (BTEX/TPH)

HNO₃

NaHSO₄

H₂SO₄

ICE

NONE

DATE

8/1/2019

TIME

0930

MTBE 8021B/602

BTEX (8021B)

TPH 8015B (C6 - C36)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Sr 6010B/200.7

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

TCLP Pesticides

RCI

GC/MS Vol. 8260B/624

GC/MS Semi. Vol. 8270C/625

Moisture Content

Cations (Ca, Mg, Na, K)

Anions (Cl, SO₄, CO₃, HCO₃, NO₃)

Total Dissolved Solids (160.1 or SM2540C)

Dissolved Metals (As Ba Cd Cr Fe Mn Pb Sr)

Chloride

RUSH: 24 48 72 Hours or Standard TAT

Relinquished by:

Date

Time

Received by:

Date

Time

Laboratory Comments:

VOCs Free of Headspace?

Custody Seals on Containers?

Sample(s) Hand-delivered?

by Sampler/Client/Representative?

by Courier? UPS DHL FedEx Home St

Temperature Upon Receipt

Received: 57 °C

Adjusted: 67 °C

C Factor

67

67

67

67

Relinquished by:

Date

Time

Received by PBEL:

Date

Time

Laboratory Comments:

VOCs Free of Headspace?

Custody Seals on Containers?

Sample(s) Hand-delivered?

by Sampler/Client/Representative?

by Courier? UPS DHL FedEx Home St

Temperature Upon Receipt

Received: 57 °C

Adjusted: 67 °C

C Factor

67

67

67

67