

**RE: BTA Oil Producers  
Site Activities**

**1RP-5289**

**1RP-5383 (2/8/2019)**

**1RP-5383 (2/9/2019)**

**Mesa 8105 JV-P 13/18 Compressor  
UL-P, Sec. 1 T26S - R32E  
Lea County, NM**

**Nearest Well: Mesa 8105 JV-P #013H  
API #30-025-42849**

**Site Background**

The site is located southwest of Jal in Lea County, NM. According to the New Mexico Office of the State Engineer the minimum depth to water is 110 ft.

**Spill and Response Chronology**

There are three releases associated with this site:

**1RP-5289**

On 11/24/2018, a release of 20-bbls produced water and 10-bbls condensate was reported. A total of 10-bbls was recovered, 5-bbls each of produced water and condensate. The cause of the release was noted as being due to a malfunction on the compressor causing the slop tank to overflow.

Within 24 hours of the release, the material impacted due to the release was excavated down to 6" below ground surface (BGS). The contaminated soil was stockpiled at the site on 6ml plastic to prevent further contamination. The excavated spill area was not backfilled.

Field sampling occurred on 11/25/2018 with two sample locations, SP1 and SP2. Both locations were sampled down to 3' BGS with field screening results using a PID indicating the presence of elevated hydrocarbon concentrations in the soil. At the 3' BGS mark, "Auger Refusal" was hit and sampling was stopped due to the release area being in between two compressors. Soil samples were not taken for lab analysis.

**1RP-5383 (2/8/2019)**

On 2/8/2019, a release of 18-bbls of crude oil was reported with 18-bbls of crude oil recovered by vacuum truck. The cause of the release was due to an equipment failure on the compressor that pushed oil over to the slop tank, which overflowed again.

Following discovery, there was an immediate response to the second release. After recovery of the free product, the former spill area was excavated a second time on 2/8/2019. An additional 6" to 12" of material was removed and stockpiled on location. At that time, the excavated spill area would be characterized as being at a total depth of 1' to 1-½' BGS. The excavated spill area was not backfilled.

#### **1RP-5383 (2/9/2019)**

On 2/9/2019, a release of 18-bbls of crude oil was reported for the second consecutive day. The cause of this third release was the same as the release that occurred the day before: an equipment failure that pushed oil over to the slop tank, causing the slop tank to overflow.

After immediate recovery of the free product, there was a misunderstanding in the communication on the third release to contractors to perform clean-up activities. The contractors thought the call that came in on 2/9/2019 was a mistakenly repeated request, which had already been executed, not realizing that a second release had occurred within a 24-hr. period. After the confusion was sorted out, the area was excavated an additional 6" on 3/1/2019. Presently, the excavated spill area can be characterized as being at a total depth of 2' BGS. The excavated spill area has not been backfilled.

Also, on 3/1/2019, 80 cubic yards of impacted soil were hauled away for disposal at Sundance Services in Eunice, NM. Presently, there is approximately 48 cubic yards of impacted soil stockpiled at the site on 6ml plastic.

#### **Subsequent Sampling**

On 8/23/2019, Expert Environmental went back to the site to delineate the spill area. Field screening of deeper sample points at the sample locations, SP1 and SP2, dropped below regulatory limits at a depth between 3' to 4' BGS. For each sample location, at depths below the sample points where field screening measurements indicated an absence of hydrocarbon concentrations in the soil, two deeper confirmation samples were taken to Cardinal Labs for analysis.

#### **Delineation**

The boundaries of the impacted material due to the releases, summarized above, have been defined. Based on the immediate response to the first two releases, readily identifiable impacted material across the surface in all planar directions was excavated and stockpiled on location. As noted above, the excavation was not backfilled. As the releases occurred, each spill accumulated and was recovered from the excavation. Then, the sampling event conducted on 8/23/2019 provided data from the field screening and lab analyses to show the vertical extent of the spill has been defined.

#### **Backfill Request**

Expert Environmental on behalf of BTA Oil Producers would like to propose the following;

Since the impacted area on this small pad contains two compressors, two vertical separator vessels (knockouts), hard-piped gas meter runs, high-pressure gas lines, and buried electrical lines there is limited area to continue deeper excavation. It is respectfully asserted that the site conditions prevent the further performance of excavation activities in a safe and controlled environment due to the proximity of the production equipment.

It is proposed that area should be limited to the present excavation down to 2' BGS (this may require a little clean out work since rain and cave-ins) and install a 20ml liner around the compressors & installed production equipment and under the lines. There is already a liner under the compressor pad that the compressors sit on, so with the 20ml liner properly seated, it is expected that the liner will:

1. Prevent further contamination from migrating down into lower depths of soil from rain or other releases; and
2. Prevent contamination should another release happen.

Ground water is adequately protected. Ground water is at a minimum depth of 110' ft. The maximum depth of hydrocarbon impacted soil is less than 4' BGS and bounded at its top by the excavation at 2' BGS. The impacted material does not pose an imminent risk to human health, the environment, or groundwater. A deferral is respectfully requested until the equipment is out of use for oil and gas operations. When the site is no longer being used and reclamation takes place, any further environmental issues due to the three releases will be addressed. There will be no seed plan as this release happened on a pad.

Please feel free to contact me with any questions concerning this site activities report.

Sincerely,



Michael Alves  
Expert Environmental  
Mobile: (575)631-4310  
Email: [michael@expertenviroservices.com](mailto:michael@expertenviroservices.com)

Appendix I – C-141's  
Appendix II- Site Map  
Appendix III- Depth to Water  
Appendix IV- Site Photos  
Appendix V- Sample Data/Lab Data

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 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	NCH1835547953
District RP	1RP-5289
Facility ID	
Application ID	pCH1835548758

## Release Notification

### Responsible Party

Responsible Party BTA Oil Producers	OGRID	260297
Contact Name Ben Grimes	Contact Telephone	(432) 682-3753
Contact email bgrimes@btaoil.com	Incident #	NCH1835547953 MESA 8105 JV-P 013H @ 30-025-42849
Contact mailing address 104 S Pecos St, Midland, TX 79701		

### Location of Release Source

Latitude 32.0660734285 Longitude 103.624070083  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Mesa 8105 JV-P 013H (compressor)	Site Type well pad
Date Release Discovered 11/24/2018	API# (if applicable) 30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 20	Volume Recovered (bbls) 5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls) 10	Volume Recovered (bbls) 5
<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  
Malfunction on compressor caused slop tank to overflow.

Incident ID	
District RP	
Facility ID	
Application ID	

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?  Yes 19.15.29.7 (A) defines 25 BBL or more a major release
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?  No	

### 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>Ben Grimes</u> Title: <u>Production Manager</u> Signature: <u>Ben Grimes</u> Date: <u>11/26/2018</u> email: <u>BGrimes@PTAOil.com</u> Telephone: <u>432-682-3753</u>
<b><u>OCD Only</u></b> Received by: _____ Date: _____

Incident ID	NCH1835547953
District RP	1RP-5289
Facility ID	
Application ID	pCH1835548758

## 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?	<u>110</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

Incident ID	NCH1835547953
District RP	1RP-5289
Facility ID	
Application ID	pCH1835548758

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: **Bob Hall**

Title: **Environmental Manager**

Signature: 

Date: **10/22/2019**

email: **bhall@btaoil.com**

Telephone: **432-682-3753**

**OCD Only**

Received by: \_\_\_\_\_

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

Incident ID	NCH1835547953
District RP	IRP-5289
Facility ID	
Application ID	pCH1835548758

## 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.

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: Bob Hall

Title: Environmental Manager

Signature: Bob Hall

Date: 10/22/2019

email: bhall@btaoil.com

Telephone: 432-682-3753

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

- Approved     
  Approved with Attached Conditions of Approval     
  Denied     
  Deferral Approved

Signature: \_\_\_\_\_

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

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 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	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

## Release Notification

### Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: Bob Hall	Contact Telephone: 432-682-3753
Contact email: bhall@btaoil.com	Incident # (assigned by OCD) NAB1906552791
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

### Location of Release Source

Latitude: 32.06584° Longitude: -103.62410°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa 8105 JV-P 13/18 Compressor	Site Type: Well Pad
Date Release Discovered: 2/8/2019	API# (if applicable) Nearest well: Mesa 8195 JV-P #013H API #30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

Surface Owner:  State  Federal  Tribal  Private ( )

### 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) 18 BBL	Volume Recovered (bbls) 18 BBL
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input 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

Due to an equipment failure on the compressor, oil was pushed over to the slop tank, which overflowed. The oil was recovered with a vacuum truck.

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### 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: <b>Bob Hall</b> Title: <b>Environmental Manager</b>  Signature: <u></u> Date: <u>2/22/2018</u>  email: <b>bhall@btaoil.com</b> Telephone: <b>432-682-3753</b>
<b>OCD Only</b> Received by: <u></u> Date: <u>3/06/2019</u>

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

## 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?	<u>110</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 1/2-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

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

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: **Bob Hall**

Title: **Environmental Manager**

Signature: *Bob Hall*

Date: **10/22/2019**

email: **bhall@btaoil.com**

Telephone: **432-682-3753**

**OCD Only**

Received by: \_\_\_\_\_

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

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

## 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.

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: **Bob Hall**

Title: **Environmental Manager**

Signature: Bob Hall

Date: **10/22/2019**

email: **bhall@btaoil.com**

Telephone: **432-682-3753**

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

- Approved     
 Approved with Attached Conditions of Approval     
 Denied     
 Deferral Approved

Signature: \_\_\_\_\_

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

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 Department

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

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

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

## Release Notification

### Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: Bob Hall	Contact Telephone: 432-682-3753
Contact email: bhall@btaoil.com	Incident # (assigned by OCD) NAB1906551740
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

### Location of Release Source

Latitude: 32.06584° Longitude: -103.62410°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa 8105 JV-P 13/18 Compressor	Site Type: Well Pad
Date Release Discovered: 2/9/2019	API# (if applicable) Nearest well: Mesa 8195 JV-P #013H API #30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

Surface Owner:  State  Federal  Tribal  Private ( )

### 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) 18 BBL	Volume Recovered (bbls) 18 BBL
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input 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

The same equipment failure on the compressor, as occurred as a separate event and reported for 2/8/2019, pushed oil over to the slop tank and caused the tank to overflow. The oil was recovered with a vacuum truck.

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### 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: <b>Bob Hall</b> Title: <b>Environmental Manager</b>  Signature:  Date: <b>2/22/2018</b>  email: <b>bhall@btaoil.com</b> Telephone: <b>432-682-3753</b>
<b>OCD Only</b> Received by:  Date: <b>3/6/2019</b>

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

## 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?	110 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

<p><b>Characterization Report Checklist:</b> <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.</li> <li><input checked="" type="checkbox"/> Field data</li> <li><input checked="" type="checkbox"/> Data table of soil contaminant concentration data</li> <li><input checked="" type="checkbox"/> Depth to water determination</li> <li><input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release</li> <li><input type="checkbox"/> Boring or excavation logs</li> <li><input checked="" type="checkbox"/> Photographs including date and GIS information</li> <li><input checked="" type="checkbox"/> Topographic/Aerial maps</li> <li><input checked="" type="checkbox"/> Laboratory data including chain of custody</li> </ul>
--

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

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

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: **Bob Hall**

Title: **Environmental Manager**

Signature: 

Date: **10/22/2019**

email: **bhall@btaoil.com**

Telephone: **432-682-3753**

**OCD Only**

Received by: \_\_\_\_\_

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

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

## 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.

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: Bob Hall

Title: Environmental Manager

Signature: Bob Hall

Date: 10/22/2019

email: bhall@btaoil.com

Telephone: 432-682-3753

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

- Approved     
 Approved with Attached Conditions of Approval     
 Denied     
 Deferral Approved

Signature: \_\_\_\_\_

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

**BTA Oil Producers**

Mesa 8105 JV-P 013H  
UL-P, SEC. 1, T-26S, R-32E  
32.066073285 -103.62070083  
API#30-025-42849  
1RP-5289

**Legend**

- Mesa 13-18 Spill Path
- 1 SP1
- 2 SP2



Google Earth

40 ft





## 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 6	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">C 02273</a>		CUB	LE	1	2	21	26S	33E		634549	3545134*	5851	160	120	40
<a href="#">C 02287</a>		C	LE	3	4	4	03	26S	33E	636427	3548708	6554	220		
<a href="#">C 02286</a>		CUB	LE	3	4	4	03	26S	33E	636470	3548714	6596	220	175	45
<a href="#">C 02290</a>		CUB	LE	4	4	4	03	26S	33E	636538	3548770	6666	200	160	40
<a href="#">C 02289</a>		CUB	LE	4	4	4	03	26S	33E	636612	3548675*	6739	200	160	40
<a href="#">C 02285 POD1</a>		CUB	LE	1	4	4	03	26S	33E	636613	3548855	6742	220	220	0
<a href="#">C 02288</a>		CUB	LE	4	4	4	03	26S	33E	636646	3548758	6773	220	180	40
<a href="#">C 02271</a>	R	CUB	LE	2	3	21	26S	32E		624449	3544111*	7073	150	125	25
<a href="#">C 03595 POD1</a>		CUB	LE	4	2	3	21	26S	32E	624423	3544045	7135	280	180	100
<a href="#">C 02271 POD2</a>		CUB	LE	3	2	3	21	26S	32E	624348	3544010*	7215	270	250	20
<a href="#">C 02323</a>		C	LE	3	2	3	21	26S	32E	624348	3544010*	7215	405	405	0
<a href="#">C 03537 POD1</a>		CUB	LE	3	2	3	21	26S	32E	624250	3543985	7306	850		
<a href="#">C 02294</a>		CUB	LE	4	4	3	11	26S	33E	637465	3547003	7769	200	145	55
<a href="#">C 02293</a>		CUB	LE	2	2	1	14	26S	33E	637501	3546975	7809	200	135	65
<a href="#">C 03577 POD1</a>		CUB	LE	3	3	3	22	26S	33E	636010	3543771	7840	750	110	640
<a href="#">C 03596 POD1</a>		C	LE	3	3	4	22	26S	33E	636017	3543756	7854	225		
<a href="#">C 02313</a>		CUB	LE	2	3	3	26	25S	33E	636971	3552098*	7890	150	110	40
<a href="#">C 02270</a>		CUB	LE	1	1	2	27	26S	33E	636063	3543722	7912	150	125	25

Average Depth to Water: **173 feet**

Minimum Depth: **110 feet**

Maximum Depth: **405 feet**

**Record Count:** 18

**Basin/County Search:**

**Basin:** Carlsbad

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 629873

**Northing (Y):** 3548651

**Radius:** 8045

\*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.

9/23/19 11:28 AM

WATER COLUMN/ AVERAGE DEPTH TO  
WATER



Facing North



Spill Excavated



Digging up release



Spill Excavated



Spill excavated



Aerial View -South View



Facing west



Facing North



Facing South



Facing Northwest





Northeast



Facing West



Facing East



North



South



Spill Area Facing South

Mesa 13/18 Compressor Slop Tank Release - November 24, 2018; February 8, 2019; and February 9, 2019  
 OCD Tracking #: 1RP-5289 and 1RP-5383

Location	Status	Sample Date	Sample Depth (feet BGS)	Field Screening		Laboratory Results											
				PID Result (PPM)	Titration Result (mg/kg)	Chloride (mg/kg)	Total TPH (mg/kg)	TPH GRO + DRO (mg/kg)	BTEX (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH Ext DRO (mg/kg)	
SP1	Removed	11/25/18	Surface	15,000+	149												
SP1	Removed	11/25/18	1	9,800	105												
SP1	In Situ	11/25/18	2	12,300	98												
SP1	In Situ	8/23/19	2			48	22,422	16,532	16.9	0.424	5.36	1.71	9.36	232	16,300	5,890	
SP1	In Situ	11/25/18	3	1,700	174												
SP1	In Situ	8/23/19	4	2.9	98	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SP1	In Situ	8/23/19	7	0	98	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SP2	Removed	11/25/18	Surface	15,000+	1,149												
SP2	Removed	11/25/18	1	8,547	549												
SP2	In Situ	11/25/18	2	8,500	174												
SP2	In Situ	8/23/19	2			16	10,623	7,743	3.47	ND	0.365	0.416	2.69	52.5	7,690	2,880	
SP2	In Situ	11/25/18	3	100	98												
SP2	In Situ	8/23/19	4	1.8	105	ND	10.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.1
SP2	In Situ	8/23/19	5	0	98	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**NMOCD Table 1 - Closure Criteria for Soils Impacted by a Release (19.15.29.12)**

**Minimum Depth to GW less than 10,000 mg/l TDS**

<= 50'	600	100	-	50	10
51' - 100'	10,000	2,500	1,000	50	10
>100'	20,000	2,500	1,000	50	10

**Reporting Limits:**

Chloride: 16.0 mg/kg

Benzene, Toluene, Ethylbenzene: 0.050 mg/kg for each analyte

Total Xylenes: 0.150 mg/kg

Total BTEX: 0.300 mg/kg

GRO (C6 - C10), DRO (>C10 - C28), Ext DRO (>C28 - C36): 10.0 mg/kg for each analyte

August 27, 2019

BOB HALL

BTA Oil Producers

103 South Pecos

Midland, TX 79701

RE: MESA 13 - 18

Enclosed are the results of analyses for samples received by the laboratory on 08/26/19 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 BTA Oil Producers  
 BOB HALL  
 103 South Pecos  
 Midland TX, 79701  
 Fax To: (432) 683-0312

Received:	08/26/2019	Sampling Date:	08/23/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	MESA 13 - 18	Sampling Condition:	Cool & Intact
Project Number:	COMPRESSOR 3 SPILLS	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO		

**Sample ID: SP 1 @ 2' (H902935-01)**

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.424</b>	0.050	08/27/2019	ND	1.69	84.7	2.00	0.243	
<b>Toluene*</b>	<b>5.36</b>	0.050	08/27/2019	ND	1.90	94.9	2.00	0.313	
<b>Ethylbenzene*</b>	<b>1.71</b>	0.050	08/27/2019	ND	2.03	101	2.00	1.70	
<b>Total Xylenes*</b>	<b>9.36</b>	0.150	08/27/2019	ND	6.22	104	6.00	2.17	
<b>Total BTEX</b>	<b>16.9</b>	0.300	08/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	08/27/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10*</b>	<b>232</b>	50.0	08/27/2019	ND	207	103	200	2.02		
<b>DRO &gt;C10-C28*</b>	<b>16300</b>	50.0	08/27/2019	ND	203	101	200	2.56		
<b>EXT DRO &gt;C28-C36</b>	<b>5890</b>	50.0	08/27/2019	ND						

Surrogate: 1-Chlorooctane 127 % 41-142

Surrogate: 1-Chlorooctadecane 916 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BTA Oil Producers  
 BOB HALL  
 103 South Pecos  
 Midland TX, 79701  
 Fax To: (432) 683-0312

Received:	08/26/2019	Sampling Date:	08/23/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	MESA 13 - 18	Sampling Condition:	Cool & Intact
Project Number:	COMPRESSOR 3 SPILLS	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO		

**Sample ID: SP 1 @ 4' (H902935-02)**

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/27/2019	ND	1.69	84.7	2.00	0.243	
Toluene*	<0.050	0.050	08/27/2019	ND	1.90	94.9	2.00	0.313	
Ethylbenzene*	<0.050	0.050	08/27/2019	ND	2.03	101	2.00	1.70	
Total Xylenes*	<0.150	0.150	08/27/2019	ND	6.22	104	6.00	2.17	
Total BTEX	<0.300	0.300	08/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	08/27/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 113 % 41-142

Surrogate: 1-Chlorooctadecane 123 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BTA Oil Producers  
 BOB HALL  
 103 South Pecos  
 Midland TX, 79701  
 Fax To: (432) 683-0312

Received:	08/26/2019	Sampling Date:	08/23/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	MESA 13 - 18	Sampling Condition:	Cool & Intact
Project Number:	COMPRESSOR 3 SPILLS	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO		

**Sample ID: SP 1 @ 7' (H902935-03)**

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/27/2019	ND	1.69	84.7	2.00	0.243		
Toluene*	<0.050	0.050	08/27/2019	ND	1.90	94.9	2.00	0.313		
Ethylbenzene*	<0.050	0.050	08/27/2019	ND	2.03	101	2.00	1.70		
Total Xylenes*	<0.150	0.150	08/27/2019	ND	6.22	104	6.00	2.17		
Total BTEX	<0.300	0.300	08/27/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	08/27/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/27/2019	ND	207	103	200	2.02		
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	203	101	200	2.56		
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND						

Surrogate: 1-Chlorooctane 125 % 41-142

Surrogate: 1-Chlorooctadecane 135 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BTA Oil Producers  
 BOB HALL  
 103 South Pecos  
 Midland TX, 79701  
 Fax To: (432) 683-0312

Received:	08/26/2019	Sampling Date:	08/23/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	MESA 13 - 18	Sampling Condition:	Cool & Intact
Project Number:	COMPRESSOR 3 SPILLS	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO		

**Sample ID: SP 2 @ 2' (H902935-04)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2019	ND	1.69	84.3	2.00	0.552	
<b>Toluene*</b>	<b>0.365</b>	0.050	08/26/2019	ND	1.88	94.0	2.00	1.51	
<b>Ethylbenzene*</b>	<b>0.416</b>	0.050	08/26/2019	ND	1.96	97.9	2.00	1.18	
<b>Total Xylenes*</b>	<b>2.69</b>	0.150	08/26/2019	ND	6.08	101	6.00	1.15	
<b>Total BTEX</b>	<b>3.47</b>	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	08/27/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10*</b>	<b>52.5</b>	10.0	08/27/2019	ND	207	103	200	2.02		
<b>DRO &gt;C10-C28*</b>	<b>7690</b>	10.0	08/27/2019	ND	203	101	200	2.56		
<b>EXT DRO &gt;C28-C36</b>	<b>2880</b>	10.0	08/27/2019	ND						

Surrogate: 1-Chlorooctane 115 % 41-142

Surrogate: 1-Chlorooctadecane 497 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BTA Oil Producers  
 BOB HALL  
 103 South Pecos  
 Midland TX, 79701  
 Fax To: (432) 683-0312

Received:	08/26/2019	Sampling Date:	08/23/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	MESA 13 - 18	Sampling Condition:	Cool & Intact
Project Number:	COMPRESSOR 3 SPILLS	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO		

**Sample ID: SP 2 @ 4' (H902935-05)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/26/2019	ND	1.69	84.3	2.00	0.552		
Toluene*	<0.050	0.050	08/26/2019	ND	1.88	94.0	2.00	1.51		
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.96	97.9	2.00	1.18		
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.08	101	6.00	1.15		
Total BTEX	<0.300	0.300	08/26/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/27/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/27/2019	ND	207	103	200	2.02		
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	203	101	200	2.56		
<b>EXT DRO &gt;C28-C36</b>	<b>10.1</b>	10.0	08/27/2019	ND						

Surrogate: 1-Chlorooctane 115 % 41-142

Surrogate: 1-Chlorooctadecane 126 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BTA Oil Producers  
 BOB HALL  
 103 South Pecos  
 Midland TX, 79701  
 Fax To: (432) 683-0312

Received:	08/26/2019	Sampling Date:	08/23/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	MESA 13 - 18	Sampling Condition:	Cool & Intact
Project Number:	COMPRESSOR 3 SPILLS	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO		

**Sample ID: SP 2 @ 5' (H902935-06)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2019	ND	1.69	84.3	2.00	0.552	
Toluene*	<0.050	0.050	08/26/2019	ND	1.88	94.0	2.00	1.51	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.96	97.9	2.00	1.18	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.08	101	6.00	1.15	
Total BTEX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/27/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 114 % 41-142

Surrogate: 1-Chlorooctadecane 124 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report



---

Celey D. Keene, Lab Director/Quality Manager

