

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	NJXK1619335364
District RP	1RP-4342
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party EOG Resources, Inc.	OGRID 7377
Contact Name Chase Settle	Contact Telephone 575-748-1471
Contact email Chase_Settle@eogresources.com	Incident # (assigned by OCD) NJXK1619335364
Contact mailing address 104 S. 4th Street, Artesia, NM 88210	

### Location of Release Source

Latitude 33.3128738 Longitude -103.4417419  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Willie BNW State Com #3	Site Type Well & Tanks
Date Release Discovered 07/03/2016	API# 30-025-36684

Unit Letter	Section	Township	Range	County
A	6	12S	35E	Chaves

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 checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 30	Volume Recovered (bbls) 15
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 15	Volume Recovered (bbls) 5
	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 Please refer to the attached original C-141 form for 1RP-4342 for cause of release and immediate action steps. EOG Resources is submitting for closure via the new form to formally close out this incident. All sampling and correspondence is also attached.

State of New Mexico  
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? <b>Greater than 25 barrels of fluid released.</b>
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? <b>Yes, to Jamie Keyes, 07/03/2016 by email.</b>	

### 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>Chase Settle</u> Signature: <u></u> email: <u>Chase_Settle@eogresources.com</u>	Title: <u>Rep Safety &amp; Environmental Sr</u> Date: <u>09/20/2021</u> Telephone: <u>575-748-1471</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____	

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Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input 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 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 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 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 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 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 type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input 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.

Form C-141

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State of New Mexico  
Oil Conservation Division

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Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

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

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

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

State of New Mexico  
Oil Conservation Division

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## 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: \_\_\_\_\_ Title: \_\_\_\_\_

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

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

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

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

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

Incident ID	NJXK1619335364
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## 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: Chase Settle Title: Rep Safety & Environmental Sr  
Signature:  Date: 09/20/2021  
email: Chase\_Settle@eogresources.com Telephone: 575-748-1471

### OCD Only

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

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

Closure Approved by:  Date: 09/21/2021  
Printed Name: Bradford Billings Title: Envi.Spec.A



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State of New Mexico  
Energy Minerals and Natural Resources

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

**RECEIVED**

By JKeyes at 9:54 am, Jul 11, 2016

Revised August 8, 2011

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

### Release Notification and Corrective Action

<b>OPERATOR</b>		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company Yates Petroleum Corporation	Contact Amber Griffin		
Address 105 S. 4 <sup>th</sup> Street Artesia, NM 88210	Telephone No. 575-748-4111		
Facility Name Willie BNW State #3	Facility Type Well & Tanks		
Surface Owner State	Mineral Owner State	API No. 30-025-36684	

### LOCATION OF RELEASE

Unit Letter A	Section 6	Township 12S	Range 35E	Feet from the 770	North/South Line North	Feet from the 950	East/West Line East	County Lea
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Latitude 33.3128738 Longitude 103.4417419

### NATURE OF RELEASE

Type of Release Produced Water & Crude Oil	Volume of Release 15 B/PW, 30 B/O	Volume Recovered 5 B/PW, 15 B/O
Source of Release Oil tank over flow	Date and Hour of Occurrence 7/3/2016; AM	Date and Hour of Discovery 7/3/2016; AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jamie Keyes	
By Whom? Robert Asher	Date and Hour: 7/3/2016 - 6:02 PM, via email	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

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

Describe Cause of Problem and Remedial Action Taken.\*

The separator dump on location experienced problems and dumped produced water into the crude oil tanks. This resulted in the crude oil tanks overflowing. The well was shut in, vacuum trucks were called, and visibly impacted soils were excavated and hauled to a NMOCD approved facility. The overspray area behind the battery was sprayed with a Micro-Blaze/water mixture.

Describe Area Affected and Cleanup Action Taken:

The affected area is approximately 40' x 70' within an unlined bermed battery. There was also minor overspray behind the tank battery. Vertical delineation samples will be taken from the release area and analysis ran for TPH & BTEX (chlorides for documentation). If initial analytical results for TPH & BTEX are under RRAL's (site ranking is 20) a Final Report, C-141 will be submitted to the OCD requesting closure. If the analytical results are above the RRAL's a work plan will be submitted to the OCD. Depth to Ground Water: <50' per Chevron/Texaco Trend Map, Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 20.

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: <i>Amber Griffin</i>		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Amber Griffin		Approved by Environmental Specialist: <i>Jamie Keyes</i>	
Title: Environmental Representative		Approval Date: 07/11/2016	Expiration Date: 09/11/2016
E-mail Address: <a href="mailto:agriffin@yatespetroleum.com">agriffin@yatespetroleum.com</a>		Conditions of Approval: Discrete samples only. Delineate and remediate per NMOCD guidelines.	
Date: July 8, 2016	Phone: 575-748-4111	Attached <input type="checkbox"/> 1RP 4342	

\* Attach Additional Sheets If Necessary

nJXK1619335364  
pJXK1619335564

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

Form C-141  
Revised August 8, 2011

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

## Release Notification and Corrective Action

### OPERATOR

☐ Initial Report ☒ Final Report

Name of Company EOG Y Resources, Inc.	Contact Amber Griffin
Address 105 S. 4 <sup>th</sup> Street Artesia, NM 88210	Telephone No. 575-748-4111
Facility Name Willie BNW State #3	Facility Type Well & Tanks

Surface Owner State	Mineral Owner State	API No. 30-025-36684
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Unit Letter A	Section 6	Township 12S	Range 35E	Feet from the 770	North/South Line North	Feet from the 950	East/West Line East	County Lea
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Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jamie Keyes	
By Whom? Robert Asher	Date and Hour: 7/3/2016 - 6:02 PM, via email	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

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


Describe Cause of Problem and Remedial Action Taken.\*

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Describe Area Affected and Cleanup Action Taken:

The affected area is approximately 40' x 70' within an unlined bermed battery. There was also minor overspray behind the tank battery. Vertical delineation samples will be taken from the release area and analysis ran for TPH & BTEX (chlorides for documentation). If initial analytical results for TPH & BTEX are under RRAL's (site ranking is 20) a Final Report, C-141 will be submitted to the OCD requesting closure. If the analytical results are above the RRAL's a work plan will be submitted to the OCD. Depth to Ground Water: <50' per Chevron/Texaco Trend Map, Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 20. **EOG Y requests closure as all work was completed as per previously NMOCD/NMSLO approved work plan**

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: 		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Amber Griffin		Approved by Environmental Specialist:	
Title: Rep Safety & Environmental II		Approval Date:	Expiration Date:
E-mail Address: amber_griffin@eogresources.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: April 3, 2017	Phone: 575-748-4111	1RP- <b>4342</b>	

\* Attach Additional Sheets If Necessary



MARTIN YATES, III  
1912-1983  
FRANK W. YATES  
1936-1986  
S.P. YATES  
1914-2008



JOHN A. YATES SR.  
CHAIRMAN EMERITUS  
JOHN A. YATES JR.  
CHAIRMAN OF THE BOARD  
DOUGLAS E. BROOKS  
PRESIDENT / CEO

105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210-2118  
TELEPHONE (575) 748-1471

October 11, 2016

Ms. Kristen Lynch  
NMOCD District I  
1625 N. French Dr.  
Hobbs, NM 88240

**APPROVED** NMOCD WorkPlan  
By Kristen Lynch at 9:54 am, Nov 14, 2016

RE: Willie BNW State #3  
30-025-36684  
Section 6, T12S-R35E  
Lea County, New Mexico


Ms. Lynch,

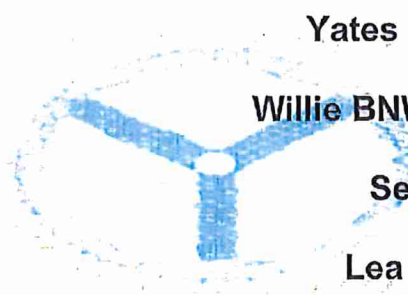
Yates Petroleum Corporation (Yates) would like to submit the attached plan of work to you regarding the release that occurred at the above mentioned facility on July 3, 2016 (1RP-4342).

With NMOCD and NMSLO approval of this work plan, Yates will hold a bid meeting allowing several contractors the opportunity to submit bids on this remediation project. Bids that are received will be forwarded to Yates Management for review. Once Yates Management reviews the bids and gives approval, the remediation project will be awarded to a contractor for work to commence.

If you have any questions or concerns, I can be reached at (575) 748-4111 or by email at [agriffin@yatespetroleum.com](mailto:agriffin@yatespetroleum.com).

Thank You,

  
Amber Griffin  
Environmental Representative  
Yates Petroleum Corporation



**Yates Petroleum Corporation**  
**Willie BNW State Com #3 Work Plan**  
**Section 6, T12S-R35E**  
**Lea County, New Mexico**  
**October 11, 2016**

## I. Location

The well is located approximately 8.6 miles west of Tatum, NM and approximately 1.5 miles north of Highway 380.

## II. Background

On July 3, 2016, Yates had a release of 15 barrels produced water and 30 barrels of crude oil, with 5 barrels produced water and 15 barrels of crude oil recovered. The area affected from this release was within the bermed area of the battery, and there was slight overspray to the west of the tanks outside the bermed area, but all contamination remained on the production pad. Vegetation and grasses that were affected by overspray from the release were treated with a Micro-Blaze/Water mixture. The area within the berm area was scraped to remove all visible contamination.

An initial Form C-141 was submitted, via e-mail, to the NMOCD District I office on July 8, 2016 for this release.

On July 13, 2016 personnel returned to the release area and collected soil samples from the release area. The release area was split into two sections: Pooling and Overspray. The pooling area was the area affected inside the bermed battery. The overspray area was the area affected to the west of the tanks, outside the bermed battery. The pooling area was sampled at the surface and at depths of 1', 2', 3' and 4' below the surface area with a backhoe, because of hard rock that was encountered the backhoe could not successfully grab samples at deeper depths. The overspray area was sampled at the surface. The soil samples were sent to an approved NMOCD laboratory and tested for BTEX 8021B, TPH 8015M, and Chlorides 300.0. Yates received the analytical results on July 25, 2016 (Report 1607710 attached to this work plan). The analytical results showed the following:

- Chlorides were at or near acceptable levels for all samples that were collected in both the pooling and overspray areas.
- The overspray area sample showed that both TPH and BTEX were at levels below NMOCD RRALs.
- The pooling area showed elevated BTEX levels, which delineated to levels below NMOCD RRALs.
- The pooling area also showed elevated TPH levels, which did not delineate to levels below NMOCD RRALs.

On August 23, 2016 personnel returned to the release area and collected further soil samples from the pooling area at depths of 5', 6' and 7' below the surface level with a trackhoe. An impenetrable rock layer was encountered and the trackhoe, after many attempts, was unable to break through the naturally occurring barrier. The soil samples were sent to an approved NMOCD laboratory and tested for TPH 8015M. Yates received the analytical results on September 1, 2016 (Report 1608F06 attached to this work plan). The analytical results showed that TPH levels were still at levels above NMOCD RRALs.

### III. Surface and Ground Water

Area surface geology is Cenozoic. The ChevronTexaco depth to ground water map shows the depth to groundwater to be less than 50 feet, making the site ranking for this site a twenty (20). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is twenty (20) based on the following:

Depth to ground water	<50'
Wellhead Protection Area	> 1000'
Distance to surface water body	> 1000'

### IV. Soils

The area consists of soils that are caliche and other hard rock.

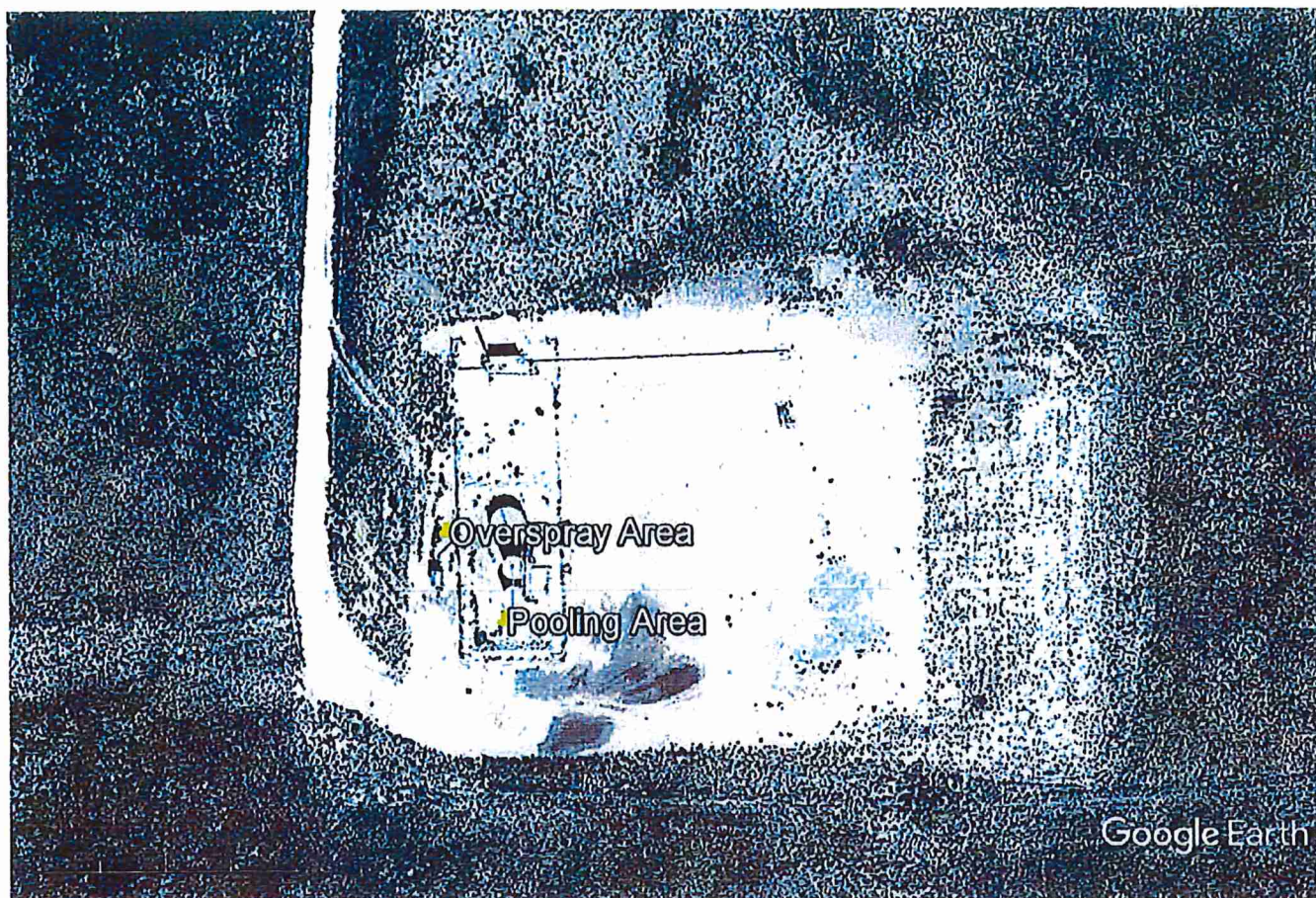
### V. Scope of Work

Based on the enclosed analytical reports and an impermeable, impenetrable rock layer that was encountered, Yates proposes the following excavation work:

- Pooling area – Excavate 4' of soils. Lay a 20 mil liner in the bottom of the excavation. The liner will be cushioned on both the top and bottom with sand. Finish the backfill of the excavation with caliche.
- Contaminated soils that are excavated will be hauled to a NMOCD approved disposal facility.

Once all excavation and backfill work is complete, Yates will submit a Final Form C-141 to NMOCD requesting closure of this release.





Google Earth



## Willie BNW State #3

	Sample Area	Sample Date	Analytical Report	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
Pooling Surface	Release Area	7/13/2016	1607710	Grab/Backhoe	Surface	21	730	5800	6530	530
Pooling 1'	Release Area	7/13/2016	1607710	Grab/Backhoe	1'	390	4100	2600	6700	160
Pooling 2'	Release Area	7/13/2016	1607710	Grab/Backhoe	2'	247	2900	3200	6100	1,400
Pooling 3'	Release Area	7/13/2016	1607710	Grab/Backhoe	3'	54.2	690	700	1390	380
Pooling 4'	Release Area	7/13/2016	1607710	Grab/Backhoe	4'	28.1	740	94	834	180
Pooling 5'	Release Area	8/23/2016	1608F06	Grab/Trackhoe	5'	-	350	1500	1850	-
Pooling 6'	Release Area	8/23/2016	1608F06	Grab/Trackhoe	6'	-	380	1400	1780	-
Pooling 7'	Release Area	8/23/2016	1608F06	Grab/Trackhoe	7'	-	130	590	720	-
Overspray Surface	Release Area	7/13/2016	1607710	Grab/Backhoe	Surface	ND	ND	97	97	97

Site Ranking is Twenty (20). Depth to Ground Water <50' (per Chevron/Texaco Trend Map).

All results are ppm.

Released: 30 B/O, 15 B/PW; Recovered: 15 B/O, 5 B/PW. Release Date: 7/3/2016. 1RP-4342





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

July 25, 2016

Amber Griffin

Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, NM 88210  
TEL: (575) 748-4195  
FAX

RE: Willie BNW State #3

OrderNo.: 1607710

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 6 sample(s) on 7/15/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman'.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order: 1607710

Date Reported: 7/25/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation  
Project: Willie BNW State #3

Lab Order: 1607710

Lab ID: 1607710-001

Collection Date: 7/13/2016 8:24:00 AM

Client Sample ID: Pooling Surface

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	530	30		mg/Kg	20	7/20/2016 2:45:06 AM	26483

Lab ID: 1607710-002

Collection Date: 7/13/2016 8:26:00 AM

Client Sample ID: Pooling 1'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	160	30		mg/Kg	20	7/20/2016 3:22:19 AM	26483

Lab ID: 1607710-003

Collection Date: 7/13/2016 8:29:00 AM

Client Sample ID: Pooling 2'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	1400	75		mg/Kg	60	7/20/2016 6:40:08 PM	26483

Lab ID: 1607710-004

Collection Date: 7/13/2016 8:37:00 AM

Client Sample ID: Pooling 3'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	380	30		mg/Kg	20	7/20/2016 3:47:07 AM	26483

Lab ID: 1607710-005

Collection Date: 7/13/2016 9:00:00 AM

Client Sample ID: Pooling 4'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	180	30		mg/Kg	20	7/20/2016 3:59:32 AM	26483

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	D Sample Diluted Due to Matrix	E Value above quantitation range	
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	Page 1 of 3
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified	



## Analytical Report

Lab Order: 1607710

Date Reported: 7/25/2016

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Yates Petroleum Corporation  
**Project:** Willie BNW State #3

**Lab Order:** 1607710

**Lab ID:** 1607710-006  
**Client Sample ID:** Overspray Surface

**Collection Date:** 7/13/2016 9:04:00 AM  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	85	30		mg/Kg	20	7/20/2016 4:36:46 AM	26483

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

<b>Qualifiers:</b>	<b>*</b> Value exceeds Maximum Contaminant Level.	<b>B</b> Analyte detected in the associated Method Blank	
	<b>D</b> Sample Diluted Due to Matrix	<b>E</b> Value above quantitation range	
	<b>H</b> Holding times for preparation or analysis exceeded	<b>J</b> Analyte detected below quantitation limits	Page 2 of 3
	<b>ND</b> Not Detected at the Reporting Limit	<b>P</b> Sample pH Not In Range	
	<b>R</b> RPD outside accepted recovery limits	<b>RL</b> Reporting Detection Limit	
	<b>S</b> % Recovery outside of range due to dilution or matrix	<b>W</b> Sample container temperature is out of limit as specified	

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607710

25-Jul-16

Client: Yates Petroleum Corporation

Project: Willie BNW State #3

Sample ID	MB-26483	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	26483	RunNo:	35825					
Prep Date:	7/19/2016	Analysis Date:	7/19/2016	SeqNo:	1108921	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-26483	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	26483	RunNo:	35825					
Prep Date:	7/19/2016	Analysis Date:	7/19/2016	SeqNo:	1108922	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	90	110			

## Qualifiers:

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



Hall Environmental Analysis Laboratory  
1901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Yatos Petroleum Corpora Work Order Number: 1607710 RptNo: 1

Received by/date:

Logged By: Lindsay Mangin

7/15/2016 9:30:00 AM

Completed By: Lindsay Mangin

7/15/2016 10:33:18 AM

Reviewed By:

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: (≤2 or ≥12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted? ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by: ☐

### Special Handling (If applicable)

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

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
By Whom: \_\_\_\_\_ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person  
Regarding: \_\_\_\_\_  
Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			







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July 25, 2016

Amber Griffin  
Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, NM 88210  
TEL: (575) 748-4195  
FAX

RE: Willie BNW State #3

OrderNo.: 1607710

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 6 sample(s) on 7/15/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 1607710

Date Reported: 7/25/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: Pooling Surface

Project: Willie BNW State #3

Collection Date: 7/13/2016 8:24:00 AM

Lab ID: 1607710-001

Matrix: SOIL

Received Date: 7/15/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	5800	93		mg/Kg	10	7/20/2016 12:28:27 PM	26444
Surr: DNOP	0	70-130	S	%Rec	10	7/20/2016 12:28:27 PM	26444
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	730	49		mg/Kg	10	7/18/2016 12:17:24 PM	26415
Surr: BFB	418	80-120	S	%Rec	10	7/18/2016 12:17:24 PM	26415
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.24		mg/Kg	10	7/18/2016 12:17:24 PM	26415
Toluene	1.1	0.49		mg/Kg	10	7/18/2016 12:17:24 PM	26415
Ethylbenzene	1.9	0.49		mg/Kg	10	7/18/2016 12:17:24 PM	26415
Xylenes, Total	18	0.98		mg/Kg	10	7/18/2016 12:17:24 PM	26415
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	10	7/18/2016 12:17:24 PM	26415

21

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

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

Page 1 of 9

## Analytical Report

Lab Order 1607710

Date Reported: 7/25/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: Pooling 1'

Project: Willie BNW State #3

Collection Date: 7/13/2016 8:26:00 AM

Lab ID: 1607710-002

Matrix: SOIL

Received Date: 7/15/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	2600	950		mg/Kg	100	7/20/2016 12:56:26 PM	26444
Surr: DNOP	0	70-130	S	%Rec	100	7/20/2016 12:56:26 PM	26444
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	4100	240		mg/Kg	50	7/18/2016 12:41:45 PM	26415
Surr: BFB	279	80-120	S	%Rec	50	7/18/2016 12:41:45 PM	26415
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	1.2		mg/Kg	50	7/18/2016 12:41:45 PM	26415
Toluene	49	2.4		mg/Kg	50	7/18/2016 12:41:45 PM	26415
Ethylbenzene	31	2.4		mg/Kg	50	7/18/2016 12:41:45 PM	26415
Xylenes, Total	310	4.9		mg/Kg	50	7/18/2016 12:41:45 PM	26415
Surr: 4-Bromofluorobenzene	121	80-120	S	%Rec	50	7/18/2016 12:41:45 PM	26415

390

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

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

Page 2 of 9

## Analytical Report

Lab Order 1607710

Date Reported: 7/25/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: Pooling 2'

Project: Willie BNW State #3

Collection Date: 7/13/2016 8:29:00 AM

Lab ID: 1607710-003

Matrix: SOIL

Received Date: 7/15/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	3200	920		mg/Kg	100	7/20/2016 1:24:31 PM	26444
Surr: DNOP	0	70-130	S	%Rec	100	7/20/2016 1:24:31 PM	26444
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2900	500		mg/Kg	100	7/18/2016 1:06:08 PM	26415
Surr: BFB	159	80-120	S	%Rec	100	7/18/2016 1:06:08 PM	26415
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	2.5		mg/Kg	100	7/18/2016 1:06:08 PM	26415
Toluene	44	5.0		mg/Kg	100	7/18/2016 1:06:08 PM	26415
Ethylbenzene	23	5.0		mg/Kg	100	7/18/2016 1:06:08 PM	26415
Xylenes, Total	180	9.9		mg/Kg	100	7/18/2016 1:06:08 PM	26415
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	100	7/18/2016 1:06:08 PM	26415

247

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

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

Page 3 of 9



## Analytical Report

Lab Order 1607710

Date Reported: 7/25/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: Pooling 3'

Project: Willie BNW State #3

Collection Date: 7/13/2016 8:37:00 AM

Lab ID: 1607710-004

Matrix: SOIL

Received Date: 7/15/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	700	95		mg/Kg	10	7/20/2016 1:52:31 PM	26444
Surr: DNOP	0	70-130	S	%Rec	10	7/20/2016 1:52:31 PM	26444
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	690	95		mg/Kg	20	7/18/2016 1:30:27 PM	26415
Surr: BFB	225	80-120	S	%Rec	20	7/18/2016 1:30:27 PM	26415
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.47		mg/Kg	20	7/18/2016 1:30:27 PM	26415
Toluene	4.4	0.95		mg/Kg	20	7/18/2016 1:30:27 PM	26415
Ethylbenzene	4.8	0.95		mg/Kg	20	7/18/2016 1:30:27 PM	26415
Xylenes, Total	45	1.9		mg/Kg	20	7/18/2016 1:30:27 PM	26415
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	20	7/18/2016 1:30:27 PM	26415

51.2

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

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

Page 4 of 9

## Analytical Report

Lab Order 1607710

Date Reported: 7/25/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: Pooling 4'

Project: Willie BNW State #3

Collection Date: 7/13/2016 9:00:00 AM

Lab ID: 1607710-005

Matrix: SOIL

Received Date: 7/15/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	94	9.5		mg/Kg	1	7/20/2016 2:20:35 PM	26444
Surr: DNOP	0	70-130	S	%Rec	1	7/20/2016 2:20:35 PM	26444
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	740	97		mg/Kg	20	7/18/2016 1:54:48 PM	26415
Surr: BFB	347	80-120	S	%Rec	20	7/18/2016 1:54:48 PM	26415
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.49		mg/Kg	20	7/18/2016 1:54:48 PM	26415
Toluene	ND	0.97		mg/Kg	20	7/18/2016 1:54:48 PM	26415
Ethylbenzene	3.1	0.97		mg/Kg	20	7/18/2016 1:54:48 PM	26415
Xylenes, Total	25	1.9		mg/Kg	20	7/18/2016 1:54:48 PM	26415
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	20	7/18/2016 1:54:48 PM	26415

28.1

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

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

Page 5 of 9

## Analytical Report

Lab Order 1607710

Date Reported: 7/25/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: Overspray Surface

Project: Willie BNW State #3

Collection Date: 7/13/2016 9:04:00 AM

Lab ID: 1607710-006

Matrix: SOIL

Received Date: 7/15/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	97	9.9		mg/Kg	1	7/21/2016 8:31:48 PM	26444
Surr: DNOP	110	70-130		%Rec	1	7/21/2016 8:31:48 PM	26444
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/18/2016 2:19:22 PM	26415
Surr: BFB	94.7	80-120		%Rec	1	7/18/2016 2:19:22 PM	26415
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/18/2016 2:19:22 PM	26415
Toluene	ND	0.048		mg/Kg	1	7/18/2016 2:19:22 PM	26415
Ethylbenzene	ND	0.048		mg/Kg	1	7/18/2016 2:19:22 PM	26415
Xylenes, Total	ND	0.096		mg/Kg	1	7/18/2016 2:19:22 PM	26415
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	7/18/2016 2:19:22 PM	26415

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

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

Page 6 of 9

## QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607710

25-Jul-16

Client: Yates Petroleum Corporation

Project: Willie BNW State #3

Sample ID	LCS-26444	SampType	LCS	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	LCSS	Batch ID	26444	RunNo	35794					
Prep Date	7/18/2016	Analysis Date	7/19/2016	SeqNo	1108676	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	98.9	62.6	124			
Surr: DNOP	5.1		5.000		102	70	130			

Sample ID	MB-26444	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	26444	RunNo	35794					
Prep Date	7/18/2016	Analysis Date	7/19/2016	SeqNo	1108679	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		107	70	130			

Sample ID	MB-26465	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	26465	RunNo	35794					
Prep Date	7/19/2016	Analysis Date	7/20/2016	SeqNo	1110143	Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		101	70	130			

Sample ID	LCS-26443	SampType	LCS	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	LCSS	Batch ID	26443	RunNo	35827					
Prep Date	7/18/2016	Analysis Date	7/20/2016	SeqNo	1110532	Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		89.6	70	130			

Sample ID	MB-26443	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	26443	RunNo	35827					
Prep Date	7/18/2016	Analysis Date	7/20/2016	SeqNo	1110534	Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.8		10.00		87.5	70	130			

## Qualifiers:

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

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## QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607710

25-Jul-16

Client: Yates Petroleum Corporation

Project: Willie BNW State #3

Sample ID	MB-26415	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	26415	RunNo:	35780					
Prep Date:	7/15/2016	Analysis Date:	7/16/2016	SeqNo:	1107183	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.6	80	120			

Sample ID	LCS-26415	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	26415	RunNo:	35780					
Prep Date:	7/15/2016	Analysis Date:	7/16/2016	SeqNo:	1107184	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	117	80	120			
Surr: BFB	870		1000		86.6	80	120			

## Qualifiers:

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

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Jerald "Duncan" Whitlock, Jr.  
Bureau of Land Management  
Carlsbad Field Office  
Environmental Protection Specialist  
620 East Greene Street  
Carlsbad, NM. 88220  
Office: (575) 234-5926  
Fax: (575) 234-5927  
Cell: (575) 361-2630  
E-mail: [dwhitloc@blm.gov](mailto:dwhitloc@blm.gov)

## QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607710

25-Jul-16

Client: Yates Petroleum Corporation

Project: Willie BNW State #3

Sample ID	MB-26415	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	26415	RunNo:	35780					
Prep Date:	7/15/2016	Analysis Date:	7/18/2016	SeqNo:	1107222	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	LCS-26415	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	26415	RunNo:	35780					
Prep Date:	7/15/2016	Analysis Date:	7/18/2016	SeqNo:	1107223	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	98.8	75.3	123			
Toluene	0.85	0.050	1.000	0	85.3	80	124			
Ethylbenzene	0.85	0.050	1.000	0	84.6	82.8	121			
Xylenes, Total	2.6	0.10	3.000	0	86.0	83.9	122			
Surr: 4-Bromofluorobenzene	0.89		1.000		89.3	80	120			

## Qualifiers:

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

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Hall Environmental Analysis Laboratory  
 1901 Hawks NE  
 Albuquerque, NM 87109  
 TEL: 505-345-3975 FAX: 505-345-4107  
 Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Yates Petroleum Corpora Work Order Number: 1607710 RptNo: 1

Received by/date:

Logged By: Lindsay Mangin

7/15/2016 9:30:00 AM

Completed By: Lindsay Mangin

7/15/2016 10:33:19 AM

Reviewed By:

07/15/16

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $\geq 0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: (≤2 or ≥12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted?
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by

### Special Handling (if applicable)

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

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			

## Chain-of-Custody Record

Turn-Around Time:

Client: Yates Petroleum Corporation

X Standard Need by Friday 7/22/2016

Project Name:

Billing Address:

Willie BNW State #3

05 South 4th Street Artesia, NM 88210

Project #:

Phone #: 575-513-8799 or 575-748-4111

1RP-4342

Email or Fax#: aacriffin@yatespetroleum.com

Project Manager:

Amber Griffin

A/QC Package: ☐ Level 4 (Full Validation)

PO # 205-2020

Standard:

Sampler: Amber Griffin

NELAP ☐ Other:On Ice: ☒ Yes ☐ No

Sample Temperature: 2.9

HEAL No. 1107710

EDD (Type):

Container Type and #

Preservative Type

Date Time Matrix Sample Request ID

Air Bubbles (Y or N)

BTEX + MTBE + TMB's (8021)

BTEX + MTBE + TMB's (8021)

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

RCRA 9 Metals

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

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

Date:

Time:

Relinquished by:

Date:

Time:

Relinquished by:

Date:

Time:

Remarks:

TPH: 8015B, BTEX: 8021B. Please show BTEX results as mg/kg. Anions: Chloride Only. Please put chlorides on a separate report. Results needed by Friday, July 22, 2016. Thank you.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This service as notice of this possibility. Any sub-contracted data will be clearly indicated on the analysis report.

## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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





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

September 01, 2016

Amber Griffin  
Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, NM 88210  
TEL: (575) 748-4111  
FAX

RE: Willie BNW State 3

OrderNo.: 1608F06

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 3 sample(s) on 8/25/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 1608F06

Date Reported: 9/1/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Yates Petroleum Corporation**Client Sample ID:** Pooling 5'**Project:** Willie BNW State 3**Collection Date:** 8/23/2016 8:54:00 AM**Lab ID:** 1608F06-001**Matrix:** SOIL**Received Date:** 8/25/2016 9:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	1500	100		mg/Kg	10	8/30/2016 3:36:01 PM	27220
Surr: DNOP	0	70-130	S	%Rec	10	8/30/2016 3:36:01 PM	27220
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	350	98		mg/Kg	20	8/29/2016 6:35:38 PM	27186
Surr: BFB	167	68.3-144	S	%Rec	20	8/29/2016 6:35:38 PM	27186

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

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

Page 1 of 5

## Analytical Report

Lab Order 1608F06

Date Reported: 9/1/2016

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Yates Petroleum Corporation

Client Sample ID: Pooling 6'

Project: Willie BNW State 3

Collection Date: 8/23/2016 9:03:00 AM

Lab ID: 1608F06-002

Matrix: SOIL

Received Date: 8/25/2016 9:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	1400	97		mg/Kg	10	8/31/2016 12:34:37 PM	27220
Surr: DNOP	0	70-130	S	%Rec	10	8/31/2016 12:34:37 PM	27220
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	380	94		mg/Kg	20	8/29/2016 6:58:59 PM	27186
Surr: BFB	216	68.3-144	S	%Rec	20	8/29/2016 6:58:59 PM	27186

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

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

Page 2 of 5

## Analytical Report

Lab Order 1608F06

Date Reported: 9/1/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: Pooling 7'

Project: Willie BNW State 3

Collection Date: 8/23/2016 9:14:00 AM

Lab ID: 1608F06-003

Matrix: SOIL

Received Date: 8/25/2016 9:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	590	100		mg/Kg	10	8/31/2016 12:56:06 PM	27220
Surr: DNOP	0	70-130	S	%Rec	10	8/31/2016 12:56:06 PM	27220
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	130	25		mg/Kg	5	8/29/2016 7:22:26 PM	27186
Surr: BFB	263	68.3-144	S	%Rec	5	8/29/2016 7:22:26 PM	27186

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

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

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# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608F06

01-Sep-16

Client: Yates Petroleum Corporation

Project: Willie BNW State 3

Sample ID	LCS-27220	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	27220	RunNo:	36852					
Prep Date:	8/29/2016	Analysis Date:	8/30/2016	SeqNo:	1142472	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.4	62.6	124			
Surr: DNOP	4.3		5.000		86.1	70	130			

Sample ID	MB-27220	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	27220	RunNo:	36852					
Prep Date:	8/29/2016	Analysis Date:	8/30/2016	SeqNo:	1142473	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		110	70	130			

## Qualifiers:

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608F06

01-Sep-16

Client: Yates Petroleum Corporation

Project: Willie BNW State 3

Sample ID	MB-27186	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	27186	RunNo:	36828					
Prep Date:	8/26/2016	Analysis Date:	8/29/2016	SeqNo:	1141862	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		84.6	68.3	144			

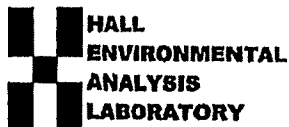
Sample ID	LCS-27186	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	27186	RunNo:	36828					
Prep Date:	8/26/2016	Analysis Date:	8/29/2016	SeqNo:	1141863	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.4	80	120			
Surr: BFB	910		1000		90.7	68.3	144			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
 D Sample Diluted Due to Matrix  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 P Sample pH Not In Range  
 RL Reporting Detection Limit  
 W Sample container temperature is out of limit as specified

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

## Sample Log-In Check List

Client Name: Yates Petroleum Corpora

Work Order Number: 1608F08

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

8/25/2016 9:20:00 AM

Completed By: Ashley Gallegos

8/25/2016 5:51:15 PM

Reviewed By: my

08/26/16

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH:   
Adjusted? ( $<2$  or  $>12$  unless noted)
- Checked by:

### Special Handling (if applicable)

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

Person Notified:

Date

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

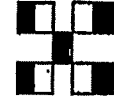
17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.2	Good	Yes			

## Chain-of-Custody Record

Client:	Yates Petroleum Corporation	<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush
Shipping Address:		Project Name:	
		Willie BNW State #3	
35 South 4th Street Artesia, NM 88210		Project #:	
Phone #:	575-513-8799 or 575-748-4111		1RP-4342
Email or Fax#:	agriffin@yatespetroleum.com	Project Manager:	
AQC Package:		Amber Griffin	
<input type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)	PO # 205-2020	
credit card:		Sampler:	Amber Griffin AG
NELAP	<input type="checkbox"/> Other	On Site:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
EDD (Type)		Sample Information:	277-077-927



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

**www.hallenvironmental.com**

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

[illegible]

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any subcontracted data will be clearly noted on the analytical report.

**District I**

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

**District II**

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

**District III**

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

**District IV**

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

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

CONDITIONS

Action 50432

**CONDITIONS**

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 50432
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
bbillings	None	9/21/2021