



EOG Resources, Inc.  
Artesia Division Office  
104 S. 4<sup>th</sup> Street  
Artesia, N. M. 88210

January 31, 2022

Bradford Billings  
EMNRD  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Re: Merle BOG State #3  
30-025-37545  
P-14-10S-34E  
Lea County, NM  
1RP-2792  
Incident # nGRL1209340191

Mr. Billings,

EOG Resources, Inc. is submitting the enclosed Closure Report for the above referenced site which currently has an open incident on the NMOCD E-Permitting website. The report is being submitted in reference to Incident # nGRL1209340191 which is associated with 1RP-2792.

Previously EOG had submitted a Closure Report request for Incident # nGRL1209339294 which also relates to 1RP-2792. This Closure Report received approved closure by NMOCD (B. Billings) on 09/21/2021. When the closure report was submitted for this incident (nGRL1209339294), it wasn't known that an additional incident existed on NMOCD E-Permitting for the same release/RP. During investigations related to the possible divestiture of the well, it was discovered that a second incident was created for the same release/RP.

Based on the already approved closure for the previously known incident that relates to 1RP-2792, EOG hereby submits an additional Closure Report for the newly discovered open incident, nGRL1209340191, that is associated with the same RP.

**ALL DOCUMENTS BEYOND THE REVISED C-141 FORM ARE IDENTICAL TO THOSE PREVIOUSLY SUBMITTED FOR nGRL1209339294.**

If you have any questions, feel free to call me at (575) 748-1471.

Respectfully,

*Chase Settle*

Chase Settle  
Rep Safety & Environmental Sr  
EOG Resources, Inc.

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	NGRL1209340191
District RP	1RP-2792
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) NGRL1209340191
Contact mailing address 104 S. 4th Street, Artesia, NM 88210	

### Location of Release Source

Latitude 33.44253 Longitude -103.42887  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Merle State Unit #3	Site Type Well
Date Release Discovered 07/18/2011	API# 30-025-37545

Unit Letter	Section	Township	Range	County
P	14	10S	34E	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 checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 45	Volume Recovered (bbls) 30
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 10	Volume Recovered (bbls) 0
	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-2792 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 type="checkbox"/> Yes <input 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: <u>Chase Settle</u>	Title: <u>Rep Safety &amp; Environmental Sr</u>
Signature: <u></u>	Date: <u>01/31/2022</u>
email: <u>Chase_Settle@eogresources.com</u>	Telephone: <u>575-748-1471</u>
<b><u>OCD Only</u></b> Received by: _____ Date: _____	

State of New Mexico  
Oil Conservation Division

Incident ID	NGRL1209340191
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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?

☐ Yes ☐ No

Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?

☐ Yes ☐ No

Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?

☐ Yes ☐ No

Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?

☐ Yes ☐ No

Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?

☐ Yes ☐ No

Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?

☐ Yes ☐ No

Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?

☐ Yes ☐ No

Are the lateral extents of the release within 300 feet of a wetland?

☐ Yes ☐ No

Are the lateral extents of the release overlying a subsurface mine?

☐ Yes ☐ No

Are the lateral extents of the release overlying an unstable area such as karst geology?

☐ Yes ☐ No

Are the lateral extents of the release within a 100-year floodplain?

☐ Yes ☐ No

Did the release impact areas not on an exploration, development, production, or storage site?

☐ Yes ☐ No

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

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

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

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

State of New Mexico  
Oil Conservation Division

Incident ID	NGRL1209340191
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

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

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

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

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

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

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

**OCD Only**

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

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

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

State of New Mexico  
Oil Conservation Division

Incident ID	NGRL1209340191
District RP	1RP-2792
Facility ID	
Application ID	

## Closure

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

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

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

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

Printed Name: Chase Settle Title: Rep Safety & Environmental Sr

Signature: Chase Settle Date: 01/31/2022

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: Jennifer Nobui Date: 03/24/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A



District I  
1625 N French Dr, Hobbs, NM 88240

District II  
1301 W Grand Avenue, Artesia, NM 88210

District III  
1000 Rio Brazos Road, Aztec, NM 87410

District IV  
1220 S St Francis Dr, Santa Fe, NM 87505

**HOBBS OCD**

**AUG 02 2011**

**RECEIVED**

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

## Release Notification and Corrective Action

### OPERATOR

☒ Initial Report ☐ Final Report


Name of Company Yates Petroleum Corporation	OGRID Number 25575	Contact Jeremy Haass
Address 104 S. 4 <sup>TH</sup> Street	API Number 30-025-37545	Telephone No. 575-748-1471
Facility Name Merle State Unit #3	Facility Type Well	
Surface Owner State	Mineral Owner State	Lease No. VA-1944

### LOCATION OF RELEASE

Unit Letter p	Section 14	Township 10S	Range 34E	Feet from the 990	North/South Line South	Feet from the 990	East/West Line East	County Lea
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Latitude 33.44253 Longitude 103.42887

### NATURE OF RELEASE

Type of Release Crude Oil & Produced Water	Volume of Release 45 B/O 10 B/PW	Volume Recovered 30 B/O
Source of Release Heater Treater	Date and Hour of Occurrence 7/18/2011 AM	Date and Hour of Discovery 7/18/2011 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Maxey Brown, NMOCD	
By Whom? Robert Asher, Yates Petroleum Corporation	Date and Hour 7/19/2011 AM (email)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Hole in the Fire Tube in the North Heater Treater Isolated Heater Treater.		
Describe Area Affected and Cleanup Action Taken * An approximate area of 110' X 10', all on well pad. Vacuum truck called to pick up remaining oil, impacted soils to be scraped up and taken to an NMOCD approved facility. Vertical and horizontal delineation samples will be taken and analysis ran for TPH & BTEX. If initial analytical results for TPH & BTEX are under RRAL's 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 Depth to Ground Water: 50-99' (approximately 50', Section 14-T10S-R34E, per New Mexico Chevron Texaco Trend Map), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 10.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: 		OIL CONSERVATION DIVISION
Printed Name Jeremy Haass		Approved by District Supervisor: <u>4/02/12</u> <b>Accepted for Record Only</b>
Title Environmental Regulatory Agent	Approval Date:	Expiration Date
E-mail Address <u>jhaass@yatespetroleum.com</u>	Conditions of Approval:	Attached <input type="checkbox"/>
Date Friday, July 29, 2011 Phone: 575-748-1471	2RP-	IRP-4-12-2792

\* Attach Additional Sheets If Necessary

APR 02 2012



**Bob Asher**

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**From:** Bob Asher  
**Sent:** Monday, October 13, 2014 1:58 PM  
**To:** (tomas.oberding@state.nm.us)  
**Subject:** Closure Request (Merle State Unit #3)  
**Attachments:** Merle State Unit 3 Final.zip

Doc,

Attached, please find the Final C-141, submitted 1/25/2012 with enclosed sample diagram and analytical results. Impacted soils were excavated and delineation samples taken, based on that the Final C-141, and supporting documentation was submitted. Verbal approval to backfill was granted by Geoff Leking on or around 2/17/2012 but only the Initial C-141 was scanned on OCD Online. The RP Number assigned to this release was 1RP-2792.

Thank you for your time reviewing these documents and if there is anything further you need, please contact me.

**Robert Asher**

**NM Environmental Regulatory Supervisor**

**Yates Petroleum Corporation**

105 S. 4<sup>th</sup> Street  
Artesia, NM 88210  
575-748-4217 (Office)  
575-365-4021 (Cell)

**Jeremy Haass**

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**From:** Jeremy Haass  
**Sent:** Monday, March 04, 2013 2:24 PM  
**To:** Geoffery Leking (geoffreyr.leting@state.nm.us)  
**Cc:** Bob Asher; Katie Parker; Lisa Norton; E. L. Gonzales (elidiol.gonzales@state.nm.us)  
**Subject:** OCD Online Signed Final C-141s

Mr. Leking this email is in response to the fact that I have just checked OCD online and cannot find signed Final C-141s for the following releases. This could very well be my own fault. If they are already online could you tell me how to find and retrieve the PDFs, it would be greatly appreciated.

Lotus 'ALT' State #3	API # 30-025-36005	Closure report hand delivered on 10/12/11
Merle State Unit #3	API # 30-025-37545	Closure report emailed on 10/21/11
Messina 'BHM' Com #1	API # 30-025-37468	Closure report emailed on 12/21/11

I realize that you are a very busy man, but I am in urgent need to close the above releases. Thank you for your time and looking forward to your response.

**Jeremy Haass**

*New Mexico Air Permit Specialist*  
Yates Petroleum Corporation  
Office: (575) 748-4311  
Fax: (575) 748-4131  
Cell: (575) 513-9235

## Jeremy Haass

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**From:** Jeremy Haass  
**Sent:** Monday, April 22, 2013 10:29 AM  
**To:** Geoffery Leking (geoffreyr.leting@state.nm.us)  
**Cc:** Bob Asher; Katie Parker  
**Subject:** Hobbs Spill Status

Geoffery this is just an email confirming that we just spoke over the phone concerning the status of the following spills.

Sombrero 'MS' State #1  
Lotus 'ALT' Unit #3  
Merle State Unit #3  
Messina 'BHM' Com #1

Thanks for your time I know you are swamped.

### **Jeremy Haass**

*New Mexico Air Permit Specialist*  
Yates Petroleum Corporation  
Office: (575) 748-4311  
Fax: (575) 748-4131  
Cell: (575) 513-9235



**Jeremy Haass**

---

**From:** Leking, Geoffrey R, EMNRD <GeoffreyR.Leking@state.nm.us>  
**Sent:** Friday, February 17, 2012 9:32 AM  
**To:** Jeremy Haass  
**Subject:** RE: Lea County Spills

Jeremy

- 1) Messina – Go ahead and back fill
- 2) Lotus State #3 – Define vertical extent of chlorides. Remove or clay line. This is what we are doing at other projects even when ground water is over 300 feet deep.
- 3) Red Hat - Define vertical extent of chlorides. Remove or clay line. This is what we are doing at other projects even when ground water is over 300 feet deep.
- 4) Merle State #3 – It was already agreed that this site could be backfilled.

Let me know if you have any further questions. Thank you.

Geoffrey Leking  
 Environmental Specialist  
 NMOCD-Hobbs  
 1625 N. French Drive  
 Hobbs, NM 88240  
 Office: (575) 393-6161 Ext. 113  
 Cell: (575) 399-2990  
 email: [geoffreyr.leting@state.nm.us](mailto:geoffreyr.leting@state.nm.us)

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**From:** Jeremy Haass [<mailto:Jhaass@yatespetroleum.com>]  
**Sent:** Tuesday, February 14, 2012 3:05 PM  
**To:** Leking, Geoffrey R, EMNRD  
**Subject:** RE: Lea County Spills

I'm checking back in on the approvals I'm waiting for. Thanks for your time.

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**From:** Leking, Geoffrey R, EMNRD [<mailto:GeoffreyR.Leking@state.nm.us>]  
**Sent:** Monday, February 06, 2012 8:56 AM  
**To:** Jeremy Haass  
**Subject:** RE: Lea County Spills

Jeremy

I'll have something for you on Wednesday. Sorry for the wait. Thank you.

Geoffrey Leking  
 Environmental Specialist  
 NMOCD-Hobbs  
 1625 N. French Drive  
 Hobbs, NM 88240

Office: (575) 393-6161 Ext. 113  
Cell: (575) 399-2990  
email: [geoffreyr.leking@state.nm.us](mailto:geoffreyr.leking@state.nm.us)

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**From:** Jeremy Haass [<mailto:Jhaass@yatespetroleum.com>]  
**Sent:** Monday, February 06, 2012 8:45 AM  
**To:** LeKing, Geoffrey R, EMNRD  
**Subject:** Lea County Spills

Hey Geoffery just checking in on the spills that we met over. I have Production all over me to get the excavations closed on these because of the hazard to the pumpers. Looking forward to hearing from you as soon as possible so I can take care of these locations. The following list is all the locations we discussed during our meeting at your office.

Merle State Unit #3  
Messina 'BHM' Com #1  
Lotus 'ALT' State #3  
Red Hat State SWD #1

Thank you!!!

Jeremy Haass  
Environmental Regulatory Agent  
Yates Petroleum Corp.  
105 South 4th St.  
Artesia New Mexico  
575-748-4311 (Office)  
575-513-9235 (Cell)  
575-748-4131 (Fax)

**Jeremy Haass**

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**From:** Leking, Geoffrey R, EMNRD <GeoffreyR.Leking@state.nm.us>  
**Sent:** Friday, December 09, 2011 11:35 AM  
**To:** Jeremy Haass  
**Subject:** RE: Lea County Spills

Jeremy

Comparison of the Lotus 'ALT' State #3 site to other sites of a similar nature indicate that:

Delineation of chlorides should be performed until the 250 ppm threshold is reached.  
 Remediate chloride contamination to between 1000 and 2000 ppm .

Comparison of the Merle State Unit #3 to other sites of a similar nature indicate that:

Due to the shallow depth of ground water, contamination should be delineated and remediated to 100 ppm of Total GRO and DRO TPH.

I am still working on the Red Hat.

Please contact me if you have any questions.

Thank you.

Geoffrey Leking  
 Environmental Specialist  
 NMOCD-Hobbs  
 1625 N. French Drive  
 Hobbs, NM 88240  
 Office: (575) 393-6161 Ext. 113  
 Cell: (575) 399-2990  
 email: [geoffreyr.leking@state.nm.us](mailto:geoffreyr.leking@state.nm.us)

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**From:** Jeremy Haass [mailto:[Jhaass@yatespetroleum.com](mailto:Jhaass@yatespetroleum.com)]  
**Sent:** Monday, October 31, 2011 9:39 AM  
**To:** Leking, Geoffrey R, EMNRD  
**Cc:** Bob Asher; Jerry Fanning  
**Subject:** Lea County Spills

Geoffrey,

I'm checking in on the status of the following wells.

Red Hat State SWD #1 - Mailed Initial C-141 to Maxey Brown on 7/11/11  
 API # 30-025-31110 Emailed Maxey Brown a request for closure on 9/1/11



Lotus 'ALT' State #3 - Mailed Initial C-141 to Maxey Brown on 8/18/11  
API # 30-025-36005 Hand delivered a request for closure on 10/12/11

Merle State Unit #3 - Mailed Initial C-141 to Maxey Brown on 8/1/11  
API # 30-025-37545 Emailed you a request for closure on 10/24/11

I know that the Hobbs OCD is extremely over loaded with work and I understand it takes awhile for this process to unfold. The reason I'm checking in on these releases is because all three releases happened on location and the excavation sites affect the work area and impose a safety risk for Yates employees.

Thanks for your time I look forward to hearing from you.

Jeremy Haass  
Environmental Regulatory Agent  
Yates Petroleum Corp.  
105 South 4th St.  
Artesia New Mexico  
575-748-4311 (Office)  
575-513-9235 (Cell)  
575-748-4131 (Fax)

**Jeremy Haass**

---

**From:** Jeremy Haass  
**Sent:** Friday, October 21, 2011 11:53 AM  
**To:** 'Leking, Geoffrey R, EMNRD'  
**Cc:** Bob Asher; Jerry Fanning  
**Subject:** Requesting Closure for Merle State Unit #3  
Geoffrey,

Attached are all analytical reports, a diagram of the spill with a break down of the results, and the C-141 Final requesting closure for the Merle State Unit #3. Based on the amount of oil recovered and all impacted soils having been dug up and hauled to an NMOCD approved facility, and the attached analytical results Yates Petroleum is requesting closure. With the spill encompassing the wellhead and the dig area being 3' deep for safety reasons I would appreciate it if I could get a quick response on this email so I can close the excavation site.

Thank you

Jeremy Haass  
Environmental Regulatory Agent  
Yates Petroleum Corp.  
105 South 4th St.  
Artesia New Mexico  
575-748-4311 (Office)  
575-513-9235 (Cell)  
575-748-4131 (Fax)

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1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

## Release Notification and Corrective Action

### OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Yates Petroleum Corporation	OGRID Number 25575	Contact Jeremy Haass
Address 104 S. 4 <sup>TH</sup> Street	API Number 30-025-37545	Telephone No. 575-748-1471
Facility Name Merle State Unit #3		Facility Type Well
Surface Owner State	Mineral Owner State	Lease No. VA-1944

### LOCATION OF RELEASE

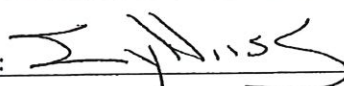
Unit Letter p	Section 14	Township 10S	Range 34E	Feet from the 990	North/South Line South	Feet from the 990	East/West Line East	County Lea
------------------	---------------	-----------------	--------------	----------------------	---------------------------	----------------------	------------------------	---------------

Latitude 33.44253 Longitude 103.42887

### NATURE OF RELEASE

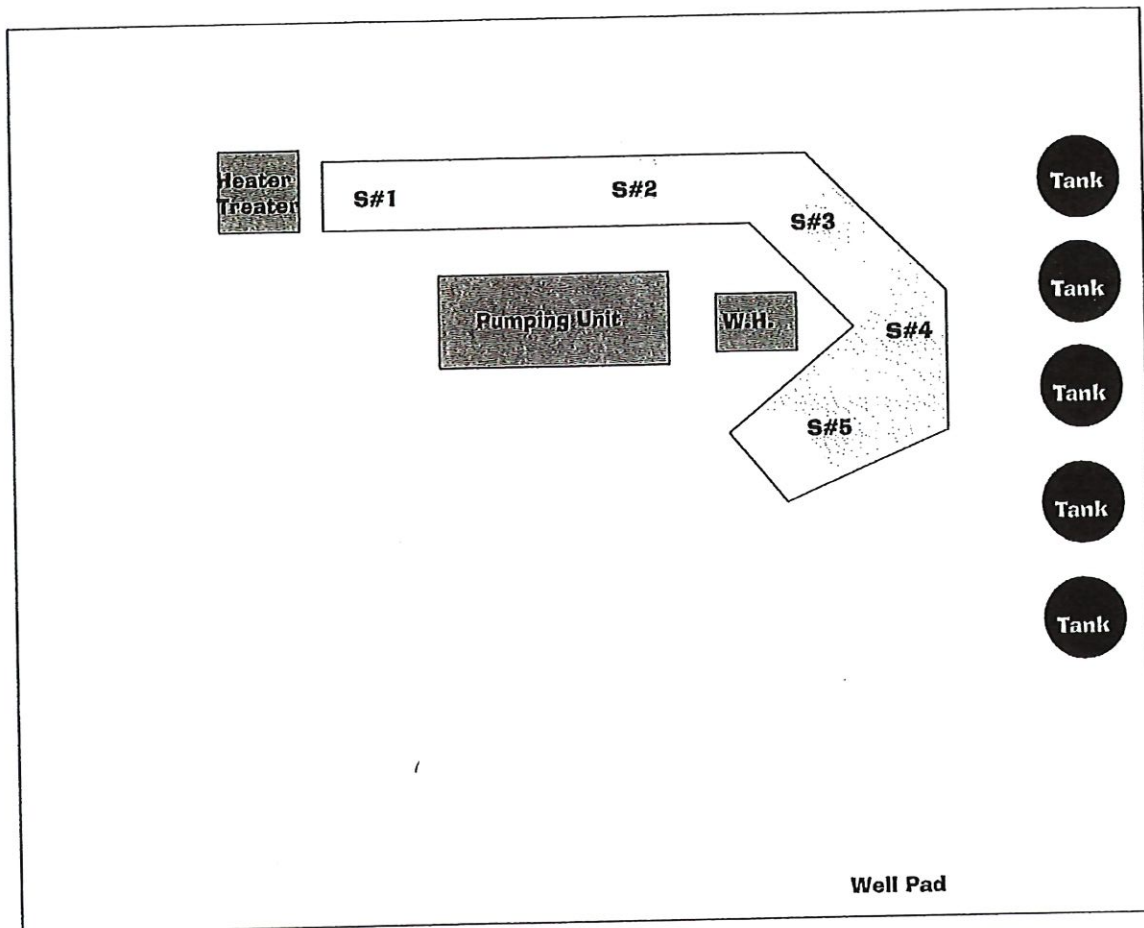
Type of Release Crude Oil & Produced Water	Volume of Release 45 B/O 10 B/PW	Volume Recovered 30 B/O
Source of Release Heater Treater	Date and Hour of Occurrence 7/18/2011 AM	Date and Hour of Discovery 7/18/2011 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Maxey Brown, NMOCD	
By Whom? Robert Asher, Yates Petroleum Corporation	Date and Hour 7/19/2011 AM (email)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Hole in the Fire Tube in the North Heater Treater. Isolated Heater Treater.		
Describe Area Affected and Cleanup Action Taken.* An approximate area of 110' X 10', all on well pad. Vacuum truck called to pick up remaining oil, impacted soils to be scraped up and taken to an NMOCD approved facility. Vertical and horizontal delineation samples will be taken and analysis ran for TPH & BTEX, also Chloride delineation/results in soils are enclosed for documentation. If initial analytical results for TPH & BTEX are under RRAL's a Final Report, C-141 will be submitted to the OCD requesting closure. Depth to Ground Water: 50-99' (approximately 50', Section 14-T10S-R34E, per New Mexico Chevron Texaco Trend Map), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 10. Based on recovered amounts of oil, impacted soils excavated/hailed and enclosed analytical results, Yates Petroleum Corporation requests closure.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		

### OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:	
Printed Name: Jeremy Haass	Approval Date:	Expiration Date:
Title: Environmental Regulatory Agent	Conditions of Approval:	
E-mail Address: <a href="mailto:jhaass@yatespetroleum.com">jhaass@yatespetroleum.com</a>	Attached <input type="checkbox"/>	
Date: Friday, October 21, 2011	Phone: 575-748-1471	2RP-

\* Attach Additional Sheets If Necessary





Merle State Unit #3  
 30-025-37545  
 Section 14, T10S-R34E  
 Lea County, NM

SAMPLE DIAGRAM(Not to Scale)  
 Xenco Laboratories# 426801 & 426802  
 Report Date: 9/08/2011  
 Prepared by Jeremy Haass  
 Environmental Regulatory Agent

Analytical Report- 429365 & 429366	Sample Date	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
Sample #2	10/6/2011	3'	.00236	ND	147	147	ND
Sample #3	10/6/2011	3'	ND	ND	60.9	60.9	ND
Sample #4	10/6/2011	3'	ND	ND	ND	ND	20.2
Sample #5	10/6/2011	3'	ND	ND	301	301	44.9

Site Ranking Is Zero (10). Depth to Ground Water <100' (approx. 50', per Trend Map).

All results are ppm. Chlorides for documentation. S - Sample Points

Released: 10 B/PW & 45 B/O; Recovered: 0 B/PW & 30 B/O. Release Date: 7/18/2011

Analytical Report- 426801 & 426802	Sample Date	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
Sample #1	8/23/2011	1'	.0131	ND	407	407	46.3
Sample #2	8/23/2011	1'	.0587	103	2040	2140	ND
Sample #3	8/23/2011	1'	.117	150	4140	4290	41.8
Sample #4	8/23/2011	1'	.00608	20.9	1280	1300	427
Sample #5	8/23/2011	1'	.00671	17.9	1090	1110	3590

Site Ranking is Zero (10). Depth to Ground Water <100' (approx. 50', per Trend Map).

All results are ppm. Chlorides for documentation. S - Sample Points

Released: 10 B/PW & 45 B/O; Recovered: 0 B/PW & 30 B/O. Release Date: 7/18/2011

# Analytical Report 429366

for

## Yates Petroleum Corporation

Project Manager: Jeremy Haass

Merle State Unit # 3

30-025-37545

19-OCT-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

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Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





19-OCT-11

Project Manager: **Jeremy Haass**  
**Yates Petroleum Corporation**  
105 South Fourth St.  
Artesia, NM 88210

Reference: XENCO Report No: **429366**  
**Merle State Unit # 3**  
Project Address: Lea County

**Jeremy Haass:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 429366. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 429366 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

**Brent Barron II**

Odessa Laboratory Manager

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**Sample Cross Reference 429366****Yates Petroleum Corporation, Artesia, NM****Merle State Unit # 3**

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Sample # 2	S	10-06-11 09:45	3 - 3 ft	429366-001
Sample # 3	S	10-06-11 10:00	3 - 3 ft	429366-002
Sample # 4	S	10-06-11 10:15	3 - 3 ft	429366-003
Sample # 5	S	10-06-11 10:30	3 - 3 ft	429366-004



## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*  
*Project Name: Merle State Unit # 3*



*Project ID: 30-025-37545*  
*Work Order Number: 429366*

*Report Date: 19-OCT-11*  
*Date Received: 10/12/2011*

---

**Sample receipt non conformances and comments:**  
None

---

**Sample receipt non conformances and comments per sample:**

None





# Certificate of Analysis Summary 429366

Yates Petroleum Corporation, Artesia, NM

Project Name: Merle State Unit # 3

Project Id: 30-025-37545

Contact: Jeremy Haass

Project Location: Lea County



Date Received in Lab: Wed Oct-12-11 12:00 pm

Report Date: 19-OCT-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id:		429366-001		429366-002		429366-003		429366-004	
	Field Id:	Depth:	Sample # 2	3-3 ft	Sample # 3	3-3 ft	Sample # 4	3-3 ft	Sample # 5	3-3 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Oct-06-11 09:45	Oct-06-11 10:00	Oct-06-11 10:15	Oct-06-11 10:30	Oct-06-11 10:30	Oct-06-11 10:30	Oct-06-11 10:30	Oct-06-11 10:30	Oct-06-11 10:30
Anions by E300	Extracted:	Oct-13-11 18:03	Oct-13-11 18:03	Oct-13-11 18:03	Oct-13-11 18:03	Oct-13-11 18:03	Oct-13-11 18:03	Oct-13-11 18:03	Oct-13-11 18:03	Oct-13-11 18:03
	Analyzed:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Units/RL:	ND	ND	ND	ND	ND	ND	ND	ND	ND
Percent Moisture	Extracted:	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40
	Analyzed:	%	%	%	%	%	%	%	%	%
	Units/RL:	2.29	2.14	2.32	3.19	4.34	4.34	4.34	4.34	4.34
Percent Moisture	Extracted:	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40
	Analyzed:	%	%	%	%	%	%	%	%	%
	Units/RL:	2.29	2.14	2.32	3.19	4.34	4.34	4.34	4.34	4.34

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

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Brent Barron II  
Odessa Laboratory Manager



## Flagging Criteria

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

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 5332 Blackberry Drive, San Antonio TX 78238  
 2505 North Falkenburg Rd, Tampa, FL 33619  
 5757 NW 158th St, Miami Lakes, FL 33014  
 12600 West I-20 East, Odessa, TX 79765  
 6017 Financial Drive, Norcross, GA 30071  
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(281) 240-4200	(281) 240-4280
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(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



# BS / BSD Recoveries

Project Name: Merle State Unit # 3

Work Order #: 429366  
Analyst: BRB  
Lab Batch ID: 872301  
Sample: 872301-1-BKS  
Date Prepared: 10/13/2011  
Batch #: 1  
Project ID: 30-025-37545  
Date Analyzed: 10/13/2011  
Matrix: Solid

Units: mg/kg

## BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.840	20.0	22.1	111	20.0	22.1	111	0	75-125	20	

Relative Percent Difference  $RPD = 200 * [(C-F)/(C+F)]$   
Blank Spike Recovery  $[D] = 100 * (C/[B])$   
Blank Spike Duplicate Recovery  $[G] = 100 * (F/[E])$   
All results are based on MDL and Validated for QC Purposes





# Form 3 - MS Recoveries

Project Name: Merle State Unit # 3

Project ID: 30-025-37545  
Analyst: BRB

Work Order #: 429366  
Lab Batch #: 872301  
Date Analyzed: 10/13/2011  
QC- Sample ID: 429429-005 S  
Reporting Units: mg/kg

Date Prepared: 10/13/2011  
Batch #: 1

Matrix: Soil

Inorganic Anions by EPA 300		MATRIX / MATRIX SPIKE RECOVERY STUDY				
Analytes		Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R
Chloride		8.66	100	107	98	75-125

Analyst: BRB  
Matrix: Soil

Date Prepared: 10/13/2011  
Batch #: 1

Lab Batch #: 872301  
Date Analyzed: 10/13/2011  
QC- Sample ID: 429439-001 S  
Reporting Units: mg/kg

Inorganic Anions by EPA 300		MATRIX / MATRIX SPIKE RECOVERY STUDY				
Analytes		Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R
Chloride		36.7	110	149	102	75-125

Matrix Spike Percent Recovery [D] =  $100 \times (C-A)/B$   
Relative Percent Difference [E] =  $200 \times (C-A)/(C+B)$   
All Results are based on MDL and Validated for QC Purposes  
BRL - Below Reporting Limit



## Form 2 - Surrogate Recoveries

Project Name: Merle State Unit # 3

Project ID: 30-025-37545

Work Orders : 429365,

Lab Batch #: 872640

Sample: 612867-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/12/11 16:12

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.8	100	81	70-135	
o-Terphenyl	41.3	50.0	83	70-135	

Lab Batch #: 872281

Sample: 612661-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/13/11 11:09

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 872640

Sample: 612867-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/12/11 16:37

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.3	100	76	70-135	
o-Terphenyl	38.0	50.0	76	70-135	

Lab Batch #: 872281

Sample: 612661-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/13/11 11:33

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

\* Surrogate outside of Laboratory QC limits  
 \*\* Surrogates outside limits; data and surrogates confirmed by reanalysis  
 \*\*\* Poor recoveries due to dilution  
 Surrogate Recovery [D] =  $100 \times A / B$   
 All results are based on MDL and validated for QC purposes.



## BS / BSD Recoveries



Project Name: Merle State Unit # 3

Work Order #: 429365

Analyst: ASA

Lab Batch ID: 872281

Sample: 612661-1-BKS

Project ID: 30-025-37545

Date Analyzed: 10/13/2011

Matrix: Solid

Date Prepared: 10/13/2011

Batch #: 1

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Units: mg/kg											
Analytes	BTEX by EPA 8021B										
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	<0.00100	0.100	0.110	110	0.100	0.105	105	5	70-130	35
	Toluene	<0.00200	0.100	0.112	112	0.100	0.107	107	5	70-130	35
	Ethylbenzene	<0.00100	0.100	0.117	117	0.100	0.111	111	5	71-129	35
	m_p-Xylenes	<0.00200	0.200	0.236	118	0.200	0.224	112	5	70-135	35
o-Xylene	<0.00100	0.100	0.117	117	0.100	0.112	112	4	71-133	35	

Date Analyzed: 10/12/2011

Matrix: Solid

Date Prepared: 10/12/2011

Batch #: 1

Analyst: BBH  
Lab Batch ID: 872640  
Sample: 612867-1-BKS

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Units: mg/kg											
TPH By SW8015B Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Analytes										
	C6-C10 Gasoline Range Hydrocarbons	<15.0	1000	730	73	1000	707	71	3	70-135	35
C10-C28 Diesel Range Hydrocarbons	<15.0	1000	873	87	1000	791	79	10	70-135	35	

Relative Percent Difference RPD =  $200 * [(C-F)/(C+F)]$   
Blank Spike Recovery [D] =  $100 * (C/[B])$   
Blank Spike Duplicate Recovery [G] =  $100 * (F/[E])$   
All results are based on MDL and Validated for QC Purposes





# Sample Duplicate Recovery



Project Name: Merle State Unit # 3

Work Order #: 429365

Lab Batch #: 872210

Project ID: 30-025-37545

Date Analyzed: 10/12/2011 13:40

Date Prepared: 10/12/2011

Analyst: BRB

QC- Sample ID: 429365-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.29	2.25	2	20	

Spike Relative Difference RPD  $200 * |(B-A)/(B+A)|$   
 All Results are based on MDL and validated for QC purposes.  
 BRL - Below Reporting Limit

# XENCO-Environmental Lab of Texas

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East  
Odessa, Texas 79765

**Project Manager:** Jeremy Haass

Company Name	Yates Petroleum Corporation
--------------	-----------------------------

Project #: 30-025-37545

Company Address: 105 South 4th Street

Project Loc: Lea County

City/State/Zip: Artesia, NM 88210

PO #: 103-2636

Telephone No: 575-748-4311

**Fax No:**

**Sampler Signature:**

ihaass@vatespetroleum.com

[illegible]





**XENCO Laboratories**  
 Atlanta, Boca Raton, Corpus Christi, Dallas  
 Houston, Miami, Odessa, Philadelphia  
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist  
 Document No.: SYS-SRC  
 Revision/Date: No. 01, 5/27/2010  
 Effective Date: 6/1/2010 Page 1 of 1

### Prelogin / Nonconformance Report - Sample Log-In

Client: Yates Petroleum  
 Date/Time: 10-12-11 12:00  
 Lab ID #: 429565 / 429366  
 Initials: WR/AE

#### Sample Receipt Checklist

1. Samples on ice?	Blue	<del>Water</del>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	Yes	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs 5.1 °C	lbs °C	lbs °C	lbs °C	lbs °C

#### Nonconformance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Regarding: Client did not sign relinquishing samples.

Corrective Action Taken: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.  
☐ Initial and Backup Temperature confirm out of temperature conditions  
☐ Client understands and would like to proceed with analysis



# Analytical Report 429365

for  
Yates Petroleum Corporation

Project Manager: Jeremy Haass

Merle State Unit # 3

30-025-37545

19-OCT-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



19-OCT-11

Project Manager: Jeremy Haass  
Yates Petroleum Corporation  
105 South Fourth St.  
Artesia, NM 88210

Reference: XENCO Report No: 429365  
Merle State Unit # 3  
Project Address: Lea County

**Jeremy Haass:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 429365. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 429365 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

**Brent Barron II**  
Odessa Laboratory Manager

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**Sample Cross Reference 429365**



**Yates Petroleum Corporation, Artesia, NM**  
Merle State Unit # 3

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Sample # 2	S	10-06-11 09:45	3 - 3 ft	429365-001
Sample # 3	S	10-06-11 10:00	3 - 3 ft	429365-002
Sample # 4	S	10-06-11 10:15	3 - 3 ft	429365-003
Sample # 5	S	10-06-11 10:30	3 - 3 ft	429365-004



**CASE NARRATIVE**

*Client Name: Yates Petroleum Corporation*  
*Project Name: Merle State Unit # 3*



*Project ID: 30-025-37545*  
*Work Order Number: 429365*

*Report Date: 19-OCT-11*  
*Date Received: 10/12/2011*

---

**Sample receipt non conformances and comments:**

None

---

**Sample receipt non conformances and comments per sample:**

None

**Analytical non nonformances and comments:**

Batch: LBA-872640 TPH By SW8015B Mod  
SW8015MOD\_NM

Batch 872640, 1-Chlorooctane recovered below QC limits . Matrix interferences is suspected;  
data not confirmed by re-analysis  
Samples affected are: 429365-004, 429365-003.



# Certificate of Analysis Summary 429365

Yates Petroleum Corporation, Artesia, NM



Project Name: Merle State Unit # 3

Project Id: 30-025-37545

Contact: Jeremy Haass

Project Location: Lea County

Date Received in Lab: Wed Oct-12-11 12:00 pm

Report Date: 19-OCT-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id:		429365-001		429365-002		429365-003		429365-004	
	Field Id:	Depth:	Sample # 2	3-3 ft SOIL	Sample # 3	3-3 ft SOIL	Sample # 4	3-3 ft SOIL	Sample # 5	3-3 ft SOIL
	Matrix:		Oct-06-11 09:45	Oct-06-11 10:00	Oct-06-11 10:15	Oct-06-11 10:30	Oct-06-11 10:30	Oct-06-11 10:30	Oct-06-11 10:30	Oct-06-11 10:30
	Sampled:		Oct-13-11 10:33	Oct-13-11 10:33	Oct-13-11 10:33	Oct-13-11 10:33	Oct-13-11 10:33	Oct-13-11 10:33	Oct-13-11 10:33	Oct-13-11 10:33
	Extracted:		Oct-13-11 14:59	Oct-13-11 15:22	Oct-13-11 14:12	Oct-13-11 14:35	Oct-13-11 14:35	Oct-13-11 14:35	Oct-13-11 14:35	Oct-13-11 14:35
	Analyzed:		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Units/RL:		0.00236 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102
Benzene			ND 0.00204	ND 0.00203	ND 0.00204	ND 0.00203	ND 0.00204	ND 0.00203	ND 0.00204	ND 0.00203
Toluene			ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102
Ethylbenzene			ND 0.00204	ND 0.00203	ND 0.00204	ND 0.00203	ND 0.00204	ND 0.00203	ND 0.00204	ND 0.00203
m,p-Xylenes			ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102
o-Xylene			ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102
Total Xylenes			0.00236 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102	ND 0.00102
Total BTEX										
Percent Moisture	Extracted:		Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40	Oct-12-11 13:40
	Analyzed:		% RL	% RL	% RL	% RL	% RL	% RL	% RL	% RL
	Units/RL:		2.29 1.00	2.14 1.00	2.32 1.00	3.19 1.00	3.19 1.00	3.19 1.00	3.19 1.00	3.19 1.00
TPH By SW8015B Mod	Extracted:		Oct-12-11 13:00	Oct-12-11 13:00	Oct-12-11 13:00	Oct-12-11 13:00	Oct-12-11 13:00	Oct-12-11 13:00	Oct-12-11 13:00	Oct-12-11 13:00
	Analyzed:		Oct-12-11 21:08	Oct-12-11 22:20	Oct-12-11 22:44	Oct-12-11 23:08	Oct-12-11 23:08	Oct-12-11 23:08	Oct-12-11 23:08	Oct-12-11 23:08
	Units/RL:		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C10 Gasoline Range Hydrocarbons			ND 15.4	ND 15.3	ND 15.4	ND 15.5	ND 15.4	ND 15.5	ND 15.5	ND 15.5
C10-C28 Diesel Range Hydrocarbons			147 15.4	60.9 15.3	ND 15.4	301 15.5	ND 15.4	301 15.5	301 15.5	301 15.5
Total TPH			147 15.4	60.9 15.3	ND 15.4	301 15.5	ND 15.4	301 15.5	301 15.5	301 15.5

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

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Brent Barron II  
Odessa Laboratory Manager



## Flagging Criteria

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

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2505 North Falkenburg Rd, Tampa, FL 33619  
5757 NW 158th St, Miami Lakes, FL 33014  
12600 West I-20 East, Odessa, TX 79765  
6017 Financial Drive, Norcross, GA 30071  
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(210) 509-3334	(210) 509-3335
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(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	





## Form 2 - Surrogate Recoveries

Project Name: Merle State Unit # 3

Work Orders : 429365,

Project ID: 30-025-37545

Lab Batch #: 872640

Sample: 429365-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/12/11 21:08

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.2	100	82	70-135	
o-Terphenyl	51.2	50.0	102	70-135	

Lab Batch #: 872640

Sample: 429365-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/12/11 22:20

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.9	100	87	70-135	
o-Terphenyl	53.8	50.0	108	70-135	

Lab Batch #: 872640

Sample: 429365-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/12/11 22:44

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	63.4	100	63	70-135	*
o-Terphenyl	41.1	50.0	82	70-135	

Lab Batch #: 872640

Sample: 429365-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/12/11 23:08

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	64.9	100	65	70-135	*
o-Terphenyl	42.7	50.0	85	70-135	

Lab Batch #: 872281

Sample: 429365-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/13/11 14:12

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Merle State Unit # 3

Work Orders : 429365,

Project ID: 30-025-37545

Lab Batch #: 872281

Sample: 429365-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/13/11 14:35

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 872281

Sample: 429365-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/13/11 14:59

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 872281

Sample: 429365-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/13/11 15:22

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0263	0.0300	88	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 872640

Sample: 612867-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/12/11 17:02

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	73.8	100	74	70-135	
o-Terphenyl	42.7	50.0	85	70-135	

Lab Batch #: 872281

Sample: 612661-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/13/11 12:41

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



## Sample Duplicate Recovery



**Project Name: Merle State Unit # 3**

Work Order #: 429366

Lab Batch #: 872301

Project ID: 30-025-37545

Date Analyzed: 10/13/2011 18:03

Date Prepared: 10/13/2011

Analyst: BRB

QC- Sample ID: 429439-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	36.7	35.2	4	20	

Lab Batch #: 872210

Date Analyzed: 10/12/2011 13:40

Date Prepared: 10/12/2011

Analyst: BRB

QC- Sample ID: 429365-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.29	2.25	2	20	

Spike Relative Difference  $RPD = 200 * |(B-A)/(B+A)|$   
 All Results are based on MDL and validated for QC purposes.  
 BRL - Below Reporting Limit



# XENCO-Environmental Lab of Texas

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

12600 West I-20 East  
Odessa, Texas 79765

Phone: 432-563-1800  
Fax: 432-563-1713

Project Manager: Jeremy Haass

Company Name: Yates Petroleum Corporation

Company Address: 105 South 4th Street

City/State/Zip: Artesia, NM 88210

Telephone No: 575-748-4311

Fax No: \_\_\_\_\_

Project Name: Merle State Unit #3

Project #: 30-025-37545

Project Loc: Lea County

PO #: 103-2636

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

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

e-mail: jhaass@yatespetroleum.com

ihass@yatespetroleum.com

[illegible]



**XENCO Laboratories**  
 Atlanta, Boca Raton, Corpus Christi, Dallas  
 Houston, Miami, Odessa, Philadelphia  
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist  
 Document No.: SYS-SRC  
 Revision/Date: No. 01, 5/27/2010  
 Effective Date: 6/1/2010 Page 1 of 1

### Prelogin / Nonconformance Report - Sample Log-In

Client: Yates Petroleum  
 Date/Time: 10.12.11 12:00  
 Lab ID #: 429365 / 429366  
 Initials: WR/AE

### Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	Yes	No	<u>Yes</u>	
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>5.1</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

### Nonconformance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Regarding: Client did not sign relinquishing samples.

Corrective Action Taken: \_\_\_\_\_

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.  
☐ Initial and Backup Temperature confirm out of temperature conditions  
☐ Client understands and would like to proceed with analysis



# Analytical Report 426801

## for Yates Petroleum Corporation

Project Manager: Jeremy Haass

Merle 'BOG' State #3

30-025-37545

08-SEP-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





08-SEP-11

Project Manager: Jeremy Haass  
Yates Petroleum Corporation  
105 South Fourth St.  
Artesia, NM 88210

Reference: XENCO Report No: 426801  
Merle 'BOG' State #3  
Project Address: Lea

Jeremy Haass:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 426801. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 426801 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

**Brent Barron II**

Odessa Laboratory Manager

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**Sample Cross Reference 426801**



**Yates Petroleum Corporation, Artesia, NM**  
Merle 'BOG' State #3

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Sample #1	S	08-23-11 15:35	1 - 1 ft	426801-001
Sample #2	S	08-23-11 15:44	1 - 1 ft	426801-002
Sample #3	S	08-23-11 15:55	1 - 1 ft	426801-003
Sample #4	S	08-23-11 16:10	1 - 1 ft	426801-004
Sample #5	S	08-23-11 16:20	1 - 1 ft	426801-005

**CASE NARRATIVE**

*Client Name: Yates Petroleum Corporation*  
*Project Name: Merle 'BOG' State #3*



*Project ID: 30-025-37545*  
*Work Order Number: 426801*

*Report Date: 08-SEP-11*  
*Date Received: 08/31/2011*

**Sample receipt non conformances and comments:**

*None*

**Sample receipt non conformances and comments per sample:**

*None*

**Analytical non nonformances and comments:**

*Batch: LBA-869210 BTEX by EPA 8021B*  
*SW8021BM*

*Batch 869210, Ethylbenzene, Toluene, m\_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.*

*Samples affected are: 426801-001, -002, -005, -004, -003.*

*The Laboratory Control Sample for Toluene, Ethylbenzene, m\_p-Xylenes , o-Xylene is within laboratory Control Limits*

*SW8021BM*

*Batch 869210, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis*

*Samples affected are: 426801-003, 426801-002.*

*Batch: LBA-869326 TPH By SW8015B Mod*  
*SW8015B\_NM*

*Batch 869326, C6-C10 Gasoline Range Hydrocarbons recovered below QC limits in the Blank Spike Duplicate however was within limits for the Blank Spike, therefore data is reported as is.*

*Samples affected are: 426704-005, -003, -001, -002, -004.*





# Certificate of Analysis Summary 426801

Yates Petroleum Corporation, Artesia, NM

Project Name: Merle 'BOG' State #3

Project Id: 30-025-37545

Contact: Jeremy Haass

Project Location: Lea



Date Received in Lab: Wed Aug-31-11 10:00 am

Report Date: 08-SEP-11

Project Manager: Brent Barron II

Analysis Requested		Lab Id:	426801-001	426801-002	426801-003	426801-004	426801-005
		Field Id:	Sample #1	Sample #2	Sample #3	Sample #4	Sample #5
		Depth:	1-1 ft	1-1 ft	1-1 ft	1-1 ft	1-1 ft
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	Aug-23-11 15:35	Aug-23-11 15:44	Aug-23-11 15:55	Aug-23-11 16:10	Aug-23-11 16:20
BTX by EPA 8021B	Extracted:	Sep-02-11 12:00		Sep-02-11 12:00	Sep-02-11 12:00	Sep-02-11 12:00	Sep-02-11 12:00
	Analyzed:	Sep-03-11 10:47		Sep-03-11 11:09	Sep-03-11 11:35	Sep-03-11 11:57	Sep-03-11 12:20
	Units/RL:	mg/kg RL	ND 0.00100	ND 0.00100	ND 0.000992	ND 0.00101	ND 0.00101
Benzene			ND 0.00200	ND 0.00201	0.00235 0.00198	ND 0.00201	ND 0.00202
Toluene			ND 0.00203	0.00896 0.00100	0.0131 0.000992	0.00102 0.00101	0.00104 0.00101
Ethylbenzene			0.00475 0.00200	0.0274 0.00201	0.0429 0.00198	0.00223 0.00201	0.00326 0.00202
m,p-Xylenes			0.00627 0.00100	0.0223 0.00100	0.0590 0.000992	0.00283 0.00101	0.00241 0.00101
o-Xylene			0.0110 0.00100	0.0497 0.00100	0.102 0.000992	0.00506 0.00101	0.00567 0.00101
Total Xylenes			0.0131 0.00100	0.0587 0.00100	0.117 0.000992	0.00608 0.00101	0.00671 0.00101
Total BTX							
Percent Moisture							
TPH By SW8015B Mod	Extracted:						
	Analyzed:	Aug-31-11 15:45	Aug-31-11 15:45	Aug-31-11 15:45	Aug-31-11 15:55	Aug-31-11 15:55	Aug-31-11 15:55
	Units/RL:	% RL	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
C6-C10 Gasoline Range Hydrocarbons	Extracted:	Sep-01-11 13:40	Sep-01-11 13:40	Sep-01-11 13:40	Sep-01-11 13:40	Sep-01-11 13:40	Sep-01-11 13:40
	Analyzed:	Sep-03-11 06:47	Sep-03-11 07:17	Sep-03-11 07:17	Sep-03-11 08:52	Sep-03-11 09:22	Sep-03-11 10:01
	Units/RL:	mg/kg RL	ND 15.0	103 75.1	150 74.9	20.9 15.1	17.9 15.1
C10-C28 Diesel Range Hydrocarbons			407 15.0	2040 75.1	4140 74.9	1280 15.1	1090 15.1
Total TPH			407 15.0	2140 75.1	4290 74.9	1300 15.1	1110 15.1

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

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Brent Barron II  
Odessa Laboratory Manager



## Flagging Criteria

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

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(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	





## Form 2 - Surrogate Recoveries

Project Name: Merle 'BOG' State #3

Work Orders : 426801,

Project ID: 30-025-37545

Lab Batch #: 869326

Sample: 426801-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 06:47

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.9	102	70-135	
o-Terphenyl	51.8	50.0	104	70-135	

Lab Batch #: 869326

Sample: 426801-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 07:17

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.3	99.6	84	70-135	
o-Terphenyl	39.6	49.8	80	70-135	

Lab Batch #: 869326

Sample: 426801-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 08:52

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	99.8	121	70-135	
o-Terphenyl	57.9	49.9	116	70-135	

Lab Batch #: 869326

Sample: 426801-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 09:22

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.0	100	86	70-135	
o-Terphenyl	41.9	50.0	84	70-135	

Lab Batch #: 869326

Sample: 426801-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 10:01

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.3	99.5	89	70-135	
o-Terphenyl	44.9	49.8	90	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.





## Form 2 - Surrogate Recoveries

Project Name: Merle 'BOG' State #3

Work Orders : 426801,

Project ID: 30-025-37545

Lab Batch #: 869210

Sample: 426801-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 10:47

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

Lab Batch #: 869210

Sample: 426801-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 11:09

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0387	0.0300	129	80-120	*

Lab Batch #: 869210

Sample: 426801-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 11:35

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0644	0.0300	215	80-120	*

Lab Batch #: 869210

Sample: 426801-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 11:57

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 869210

Sample: 426801-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 12:20

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Merle 'BOG' State #3

Work Orders : 426801,

Project ID: 30-025-37545

Lab Batch #: 869326

Sample: 610994-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/03/11 02:06

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.1	100	86	70-135	
o-Terphenyl	44.4	50.0	89	70-135	

Lab Batch #: 869210

Sample: 610920-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/03/11 08:30

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

Lab Batch #: 869326

Sample: 610994-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/03/11 01:03

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	42.9	50.1	86	70-135	

Lab Batch #: 869210

Sample: 610920-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/03/11 06:59

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 869326

Sample: 610994-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/03/11 01:34

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.2	99.9	96	70-135	
o-Terphenyl	40.5	50.0	81	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.





## Form 2 - Surrogate Recoveries

Project Name: Merle 'BOG' State #3

Work Orders : 426801,

Project ID: 30-025-37545

Lab Batch #: 869210

Sample: 610920-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/03/11 07:21

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 869326

Sample: 426704-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 10:32

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	112	101	111	70-135	
o-Terphenyl	46.3	50.3	92	70-135	

Lab Batch #: 869210

Sample: 426978-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 12:43

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 869326

Sample: 426704-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 11:03

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	102	99.5	103	70-135	
o-Terphenyl	40.8	49.8	82	70-135	

Lab Batch #: 869210

Sample: 426978-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/03/11 13:05

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0264	0.0300	88	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.





# BS / BSD Recoveries



Project Name: Merle 'BOG' State #3

Work Order #: 426801

Project ID: 30-025-37545

Analyst: ASA

Date Prepared: 09/02/2011

Date Analyzed: 09/03/2011

Lab Batch ID: 869210

Sample: 610920-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blank Spike Duplicate %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021B											
Benzene	<0.00100	0.100	0.111	111	0.100	0.108	108	3	70-130	35	
Toluene	<0.00200	0.100	0.0974	97	0.100	0.0965	97	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.105	105	0.100	0.104	104	1	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.209	105	0.200	0.209	105	0	70-135	35	
o-Xylene	<0.00100	0.100	0.0980	98	0.100	0.0975	98	1	71-133	35	

Analyst: BBH

Date Prepared: 09/01/2011

Date Analyzed: 09/03/2011

Lab Batch ID: 869326

Sample: 610994-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blank Spike Duplicate %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH By SW8015B Mod											
C6-C10 Gasoline Range Hydrocarbons	<15.0	1000	706	71	999	678	68	4	70-135	35	L
C10-C28 Diesel Range Hydrocarbons	<15.0	1000	814	81	999	784	78	4	70-135	35	

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

All results are based on MDL and Validated for QC Purposes





## Sample Duplicate Recovery



**Project Name: Merle 'BOG' State #3**

Work Order #: 426801

Lab Batch #: 868909

Project ID: 30-025-37545

Date Analyzed: 08/31/2011 14:15

Date Prepared: 08/31/2011

Analyst: BRB

QC- Sample ID: 426780-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	<1.00	<1.00	0	20	

Lab Batch #: 868917

Date Analyzed: 08/31/2011 15:55

Date Prepared: 08/31/2011

Analyst: BRB

QC- Sample ID: 426801-003 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	<1.00	<1.00	0	20	

Spike Relative Difference RPD  $200 * |(B-A)/(B+A)|$   
 All Results are based on MDL and validated for QC purposes.  
 BRL - Below Reporting Limit







**XENCO Laboratories**  
 Atlanta, Boca Raton, Corpus Christi, Dallas  
 Houston, Miami, Odessa, Philadelphia  
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist  
 Document No.: SYS-SRC  
 Revision/Date: No. 01, 5/27/2010  
 Effective Date: 6/1/2010 Page 1 of 1

### Prelogin / Nonconformance Report - Sample Log-In

Client: Yates Petroleum  
 Date/Time: 8-31-11 10:00  
 Lab ID #: 426801/426802-C1  
 Initials: UE

### Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.5</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

### Nonconformance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

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

Corrective Action Taken: \_\_\_\_\_

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.  
☐ Initial and Backup Temperature confirm out of temperature conditions  
☐ Client understands and would like to proceed with analysis



# Analytical Report 426802

for

**Yates Petroleum Corporation**

**Project Manager: Jeremy Haass**

**Merle 'BOG' State #3**

**30-025-37545**

**08-SEP-11**

Collected By: Client



**Celebrating 20 Years of commitment to excellence in Environmental Testing Services**



**12600 West I-20 East Odessa, Texas 79765**

**Xenco-Houston (EPA Lab code: TX00122):**

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
 Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
 New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
 Rhode Island (LAO00312), USDA (S-44102)

**Xenco-Atlanta (EPA Lab Code: GA00046):**

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
 Louisiana (04176), USDA (P330-07-00105)

**Xenco-Miami (EPA Lab code: FL01152):** Florida (E86678), Maryland (330)

**Xenco-Tampa Mobile (EPA Lab code: FL01212):** Florida (E84900)

**Xenco-Odessa (EPA Lab code: TX00158):** Texas (T104704400-TX)

**Xenco-Dallas (EPA Lab code: TX01468):** Texas (T104704295-TX)

**Xenco Phoenix (EPA Lab Code: AZ00901):** Arizona (AZ0757)

**Xenco-Phoenix Mobile (EPA Lab code: AZ00901):** Arizona (AZM757)

**Xenco Tucson (EPA Lab code: AZ000989):** Arizona (AZ0758)





08-SEP-11

Project Manager: Jeremy Haass  
Yates Petroleum Corporation  
105 South Fourth St.  
Artesia, NM 88210

Reference: XENCO Report No: 426802  
Merle 'BOG' State #3  
Project Address: Lea

Jeremy Haass:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 426802. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 426802 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

**Brent Barron II**  
Odessa Laboratory Manager

*Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.  
Certified and approved by numerous States and Agencies.*

*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

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**Sample Cross Reference 426802**

Yates Petroleum Corporation, Artesia, NM  
Merle 'BOG' State #3

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Sample #1	S	08-23-11 15:35	1 - 1 ft	426802-001
Sample #2	S	08-23-11 15:44	1 - 1 ft	426802-002
Sample #3	S	08-23-11 15:55	1 - 1 ft	426802-003
Sample #4	S	08-23-11 16:10	1 - 1 ft	426802-004
Sample #5	S	08-23-11 16:20	1 - 1 ft	426802-005



## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*  
*Project Name: Merle 'BOG' State #3*



*Project ID: 30-025-37545*  
*Work Order Number: 426802*

*Report Date: 08-SEP-11*  
*Date Received: 08/31/2011*

---

**Sample receipt non conformances and comments:**  
*None*

---

**Sample receipt non conformances and comments per sample:**

*None*





# Certificate of Analysis Summary 426802

Yates Petroleum Corporation, Artesia, NM

Project Name: Merle 'BOG' State #3

Project Id: 30-025-37545

Contact: Jeremy Haass

Project Location: Lea



Date Received in Lab: Wed Aug-31-11 10:00 am

Report Date: 08-SEP-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id:	426802-001	426802-002	426802-003	426802-004	426802-005
	Field Id:	Sample #1	Sample #2	Sample #3	Sample #4	Sample #5
	Depth:	1-1 ft	1-1 ft	1-1 ft	1-1 ft	1-1 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Aug-23-11 15:35	Aug-23-11 15:44	Aug-23-11 15:55	Aug-23-11 16:10	Aug-23-11 16:20
Anions by E300	Extracted:					
	Analyzed:	Sep-01-11 08:19	Sep-01-11 08:19	Sep-01-11 08:19	Sep-01-11 08:19	Sep-01-11 08:19
	Units/RL:	mg/kg RL 46.3 4.21	mg/kg RL ND 4.22	mg/kg RL 41.8 4.22	mg/kg RL 427 8.45	mg/kg RL 3590 42.6
Percent Moisture	Extracted:					
	Analyzed:	Aug-31-11 15:45	Aug-31-11 15:45	Aug-31-11 15:55	Aug-31-11 15:55	Aug-31-11 15:55
	Units/RL:	% RL ND 1.00	% RL ND 1.00	% RL ND 1.00	% RL ND 1.00	% RL 1.38 1.00
Percent Moisture						

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

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

Brent Barron II  
Odessa Laboratory Manager



## Flagging Criteria

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

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(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



BS / BSD Recoveries



Project Name: Merle 'BOG' State #3

Work Order #: 426802

Analyst: BRB

Lab Batch ID: 869030

Sample: 869030-1-BKS

Date Prepared: 09/01/2011

Batch #: 1

Project ID: 30-025-37545

Date Analyzed: 09/01/2011

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
	Chloride	<0.840	20.0	22.6	113	20.0	22.4	112	1	75-125	20

Relative Percent Difference RPD =  $200 * [(C-F)/(C+F)]$   
Blank Spike Recovery [D] =  $100 * (C/[B])$   
Blank Spike Duplicate Recovery [G] =  $100 * (F/[E])$   
All results are based on MDL and Validated for QC Purposes





## Form 3 - MS Recoveries



Project Name: Merle 'BOG' State #3

Work Order #: 426802

Lab Batch #: 869030

Date Analyzed: 09/01/2011

QC- Sample ID: 426798-001 S

Reporting Units: mg/kg

Date Prepared: 09/01/2011

Project ID: 30-025-37545

Analyst: BRB

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	382	215	647	123	75-125	

Matrix Spike Percent Recovery [D] =  $100 \times (C-A)/B$   
 Relative Percent Difference [E] =  $200 \times (C-A)/(C+B)$   
 All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



## Sample Duplicate Recovery



**Project Name: Merle 'BOG' State #3**

Work Order #: 426802

Lab Batch #: 869030

Project ID: 30-025-37545

Date Analyzed: 09/01/2011 08:19

Date Prepared: 09/01/2011

Analyst: BRB

QC- Sample ID: 426798-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	382	387	1	20	

Lab Batch #: 868909

Date Analyzed: 08/31/2011 14:15

Date Prepared: 08/31/2011

Analyst: BRB

QC- Sample ID: 426780-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	<1.00	<1.00	0	20	

Lab Batch #: 868917

Date Analyzed: 08/31/2011 15:55

Date Prepared: 08/31/2011

Analyst: BRB

QC- Sample ID: 426801-003 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	<1.00	<1.00	0	20	

Spike Relative Difference RPD  $200 * |(B-A)/(B+A)|$   
 All Results are based on MDL and validated for QC purposes.  
 BRL - Below Reporting Limit







**XENCO Laboratories**  
 Atlanta, Boca Raton, Corpus Christi, Dallas  
 Houston, Miami, Odessa, Philadelphia  
 Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist  
 Document No.: SYS-SRC  
 Revision/Date: No. 01, 5/27/2010  
 Effective Date: 6/1/2010 Page 1 of 1

### Prelogin / Nonconformance Report - Sample Log-In

Client: Yates Petroleum  
 Date/Time: 8.31.11 10:00  
 Lab ID #: 426801/426802-C1  
 Initials: UE

### Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.5</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

### Nonconformance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Regarding: \_\_\_\_\_  
 Corrective Action Taken: \_\_\_\_\_

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.  
☐ Initial and Backup Temperature confirm out of temperature conditions  
☐ Client understands and would like to proceed with analysis

District I  
1625 N French Dr., Hobbs, NM 88240  
District II  
1301 W Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S St Francis Dr., Santa Fe, NM 87505

HOBBS

State of New Mexico  
Energy Minerals and Natural Resources

AUG 02 2011

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

RECEIVED

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

## Release Notification and Corrective Action

## OPERATOR

☒ Initial Report ☐ Final Report


Name of Company Yates Petroleum Corporation	OGRID Number 25575	Contact Jeremy Haass
Address 104 S. 4 <sup>TH</sup> Street	API Number 30-025-37545	Telephone No. 575-748-1471
Facility Name Merlo State Unit #3	Facility Type Well	
Surface Owner State	Mineral Owner State	Lease No. VA-1944

## LOCATION OF RELEASE

Unit Letter p	Section 14	Township 10S	Range 34E	Feet from the 990	North/South Line South	Feet from the 990	East/West Line East	County Lea
------------------	---------------	-----------------	--------------	----------------------	---------------------------	----------------------	------------------------	---------------

Latitude 33.44253 Longitude 103.42887

## NATURE OF RELEASE

Type of Release Crude Oil & Produced Water	Volume of Release 45 B/O 10 B/PW	Volume Recovered 30 B/O
Source of Release Heater Treater	Date and Hour of Occurrence 7/18/2011 AM	Date and Hour of Discovery 7/18/2011 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Maxey Brown, NMOCD	
By Whom? Robert Asher, Yates Petroleum Corporation	Date and Hour 7/19/2011 AM (email)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Hole in the Fire Tube in the North Heater Treater Isolated Heater Treater.		
Describe Area Affected and Cleanup Action Taken * An approximate area of 110' X 10', all on well pad. Vacuum truck called to pick up remaining oil, impacted soils to be scraped up and taken to an NMOCD approved facility. Vertical and horizontal delineation samples will be taken and analysis ran for TPH & BTEX. If initial analytical results for TPH & BTEX are under RRAL's 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 Depth to Ground Water: 50-99' (approximately 50', Section 14-T10S-R34E, per New Mexico Chevron Texaco Trend Map), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 10.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Jeremy Haass	Approved by District Supervisor: 4/02/12 <b>Accepted for Record Only</b>	
Title: Environmental Regulatory Agent	Approval Date:	Expiration Date:
E-mail Address: jhaass@yatespetroleum.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: Friday, July 29, 2011 Phone: 575-748-1471	2RP-	IRP-4-12-2792

\* Attach Additional Sheets If Necessary

APR 02 2012



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Yates Petroleum Corporation	OGRID Number 25575	Contact Jeremy Haass
Address 104 S. 4 <sup>TH</sup> Street	Telephone No. 575-748-1471	
Facility Name Merle State Unit #3	API Number 30-025-37545	Facility Type Well
Surface Owner State	Mineral Owner State	Lease No. VA-1944

#### LOCATION OF RELEASE

Unit Letter p	Section 14	Township 10S	Range 34E	Feet from the 990	North/South Line South	Feet from the 990	East/West Line East	County Lea
------------------	---------------	-----------------	--------------	----------------------	---------------------------	----------------------	------------------------	---------------

Latitude 33.44253 Longitude 103.42887


#### NATURE OF RELEASE

Type of Release Crude Oil & Produced Water	Volume of Release 45 B/O 10 B/PW	Volume Recovered 30 B/O
Source of Release Heater Treater	Date and Hour of Occurrence 7/18/2011 AM	Date and Hour of Discovery 7/18/2011 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Maxey Brown, NMOCD	
By Whom? Robert Asher, Yates Petroleum Corporation	Date and Hour 7/19/2011 AM (email)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Hole in the Fire Tube in the North Heater Treater. Isolated Heater Treater.		

#### Describe Area Affected and Cleanup Action Taken.\*

An approximate area of 110' X 10', all on well pad. Vacuum truck called to pick up remaining oil, impacted soils to be scraped up and taken to an NMOCD approved facility. Vertical and horizontal delineation samples will be taken and analysis ran for TPH & BTEX. If initial analytical results for TPH & BTEX are under RRAL's 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. Depth to Ground Water: 50-99' (approximately 50', Section 14-T10S-R34E, per New Mexico Chevron Texaco Trend Map), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 10.

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: 	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Jeremy Haass	Approved by District Supervisor:	
Title: Environmental Regulatory Agent	Approval Date:	Expiration Date:
E-mail Address: <a href="mailto:jhaass@yatespetroleum.com">jhaass@yatespetroleum.com</a>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: Friday, July 29, 2011 Phone: 575-748-1471	2RP-	

Attach Additional Sheets If Necessary





## BREAKS, SPILLS AND LEAKS REPORT

Person Reporting Juan M. Sarabia

Time Reported: 5:00 p.m. am pm

Person Reported to (Field Supervisor) Noel Gomez

Time Reported: 5:00 p.m. am pm

Environmental Notification Coordinator Bob Asher

Time Reported: 7:00 am pm

### 1. LOCATION:

Name of well or facility: Merle BOG St. # 3 Battery

Location 990'x990' Section 14 Township 10S Range 34 e County: Lea Co.

Surface Owner: \_\_\_\_\_ Mineral Owner: Fee ☐ Federal ☐ State ☒

### 2. TIME OF INCIDENT:

Date: 07/18/11

Time: 5:00 p.m. am pm

3. SOURCE AND CAUSE: hole in the Fire Tube from the North Heater Treater

### 4. TYPE OF DISCHARGE

☒ Crude Oil ☐ Condensate ☐ Produced Water ☐ Gas ☐ Other \_\_\_\_\_

### 5. QUANTITY:

Estimated Volumes Discharged: 45 Barrels of Oil 10 Barrels of Water

Barrels of \_\_\_\_\_

MCF Gas \_\_\_\_\_

Estimated Volumes Recovered: 30 Barrels of Oil 0 Barrels of Water

Barrels of \_\_\_\_\_

### 6. SITE CHARACTERISTICS:

Weather Conditions: DRY 5-10 mph Soil Type and Condition: Caliche Pad

Distance & Direction to fresh water wells or watercourse: 2 miles north

Secondary Containment type & condition: N/A

Miscellaneous: \_\_\_\_\_

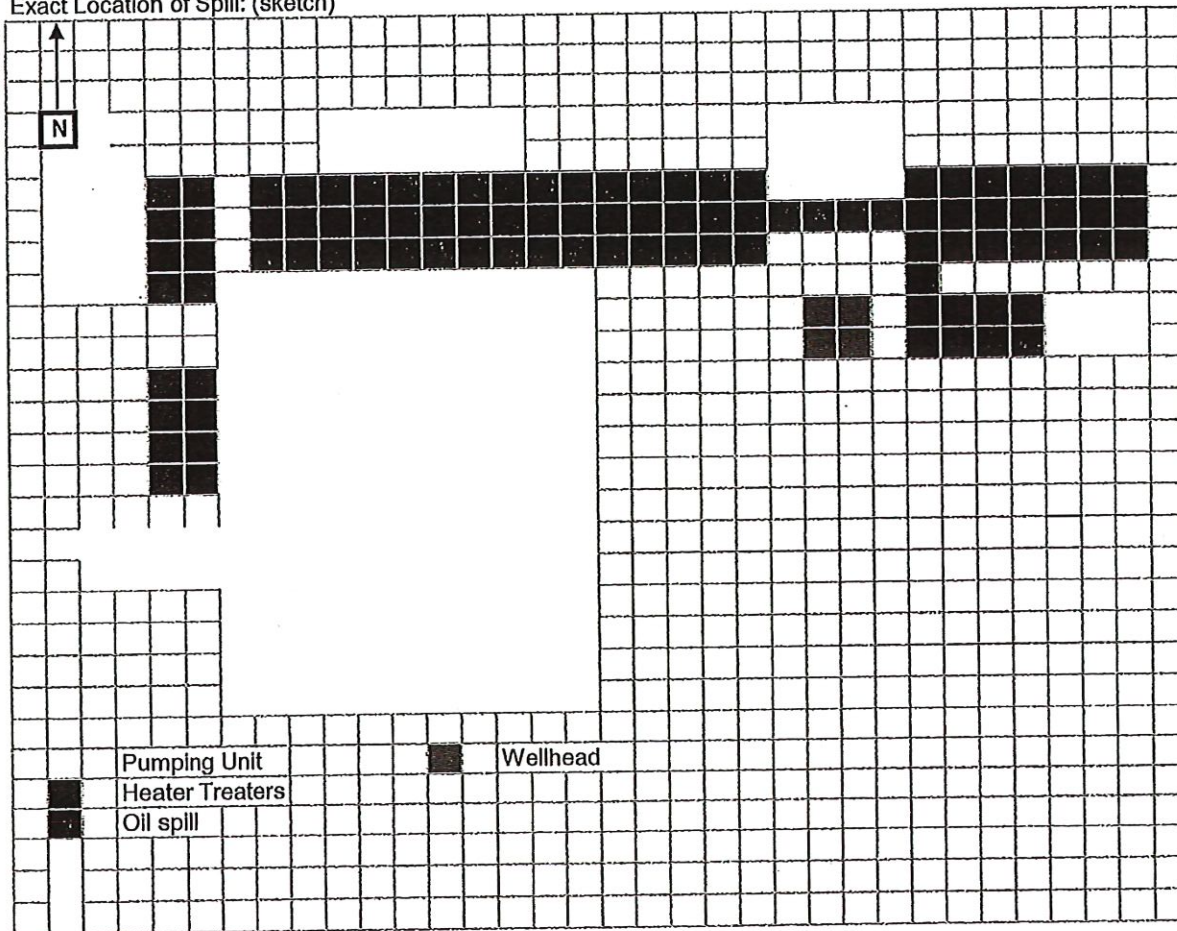
### 7. IMMEDIATE CORRECTIVE ACTION:

Action and time taken to control incident: recover 30 bbls. Of oil , put back in production tank.

# **BREAKS, SPILLS AND LEAKS REPORT**

## **8. SITE ASSESMENT**

Exact Location of Spill: (sketch)



Horizontal Extent: 110 X 10 Estimated Vertical Extent: 3 feet / inches

Degree of Contamination: ☒ Highly Contaminated/Saturated Packed Caliche  
☐ Unsaturated \_\_\_\_\_

## **9. REMEDIAL ACTION:**

- ☐ Excavate, and landfarm on location \_\_\_\_\_
- ☒ Excavate, remove and replace contaminated soil, left excavated for environmental testing
- ☐ Treat in place \_\_\_\_\_

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Date: 7/29/2011  
Time: 2:34 PM**PI/Dwights PLUS on CD Well Summary Report**

<b>General Information</b>			
State	: NEW MEXICO	Final Status	: GAS
County	: LEA	Drill Total Depth	: 12670
Field	: LANE SOUTHEAST	Log Total Depth	:
Operator Name	: YATES PETROLEUM CORP	True Vertical Depth	:
Lease Name	: MERLE STATE UNIT		
Well Number	: 3	Spud Date	: JAN 10, 2006
API Number	: 30025375450000	Comp Date	: MAR 15, 2006
Regulatory API	: 3002537545		
Init Lahee Class	: WO	Hole Direction	: VERTICAL
Final Lahee Class	: WDD	Reference Elevation	: 4190 KB
Permit Number	:	Ground Elevation	: 4173
Geologic Province	: PERMIAN BASIN	KB Elevation	: 4190
Formation at TD	: 352MSSPL		
Oldest Age Pen	: 352		
Producing Formation	: 354ACCL		
Township	: 10 S	Section	: 14 SEC
Range	: 34 E	Spot	: NW SE SE
Base Meridian	: NEW MEXICO		

<b>Additional Location Information</b>			
Footage Location	: 990 FSL 990 FEL CONGRESS SECTION		
Latitude	: 33.4425300	Latitude (Bot)	:
Longitude	: -103.4288700	Longitude (Bot)	:
Lat./Long. Source	: TS		
Location Narrative	: Type	Remark	
	: SCALED_FOOT	REGULATORY	
	: IRREG_SECT	N	
	: DST_TOWN	14.5 MI NW TATUM, NM	
	: DST_FIELD	0.9 MI W X-4 RANCH EAST FLD(ATOKA)	

<b>Initial Potential Tests</b>									
Test	Top Form	Base Form	Top Depth	Base Depth	Choke	GOR	Oil Grav	Prod Method	Test Method
001	354ACCL	354ACCL	12152	12187	24/64			PERF	FLOWING

<b>IP Volume</b>									
Test	Amount	Oil Unit	Desc	Amount	Cond Unit	Desc	Amount	Gas Unit	Wtr Unit
001	1	BPD					1914	MCFD	1 BBL

<b>IP Pressure</b>				
Test	FTP	SITP	FCP	SICP
001	550			

<b>IP Treatment</b>									
Test	Top	Base	Volume	Meas	Amount	T/P	PSI	Inj	Type
001	12152	12187	2500	GAL					ACID

<b>IP Perforation</b>									
Test	Top	Base	Type	Method	Top Form	Base Form	Status	Count	Density
001	12152	12161		PERF	354ACCL	354ACCL		20	
001	12164	12187		PERF	354ACCL	354ACCL		48	

<b>Formations</b>						
Form Code	Form Name	Top Depth	Top TVD	Base Depth	Base TVD	Source
454RSLR	RUSTLER	2174				LOG
453YTES	YATES	2833				LOG



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Date: 7/29/2011

Time: 2:34 PM

**PI/Dwights PLUS on CD Well Summary Report**

453SADR	SAN ANDRES	4090	LOG
453GLRT	GLORIETA	5536	LOG
452TUBB	TUBB	6992	LOG
452ABO	ABO /SH/	7794	LOG
451WFMP	WOLFCAMP	9072	LOG
404STRN	STRAWN	10882	LOG
403ATOK	ATOKA	11489	LOG
402MRRW	MORROW	11966	LOG
354ACCL	AUSTIN CYCLE	12150	LOG
354CRLM	CHESTER LM	12279	LOG
352MSSPL	MISSISSIPPIAN LOWER	12350	LOG

**Log Data**

Run No	Log Type	Top	Base	Log MD	Max Temp
1	TLD				
1	HRLA				
1	BHCS				

**Casing Data**

Size	Base Depth	Cement	Unit
20 IN	40		
13 3/8 IN	376	440	SACK
9 5/8 IN	4110	1575	SACK
7 IN	12670	2380	SACK

**Tubing Data**

Size	Base Depth	Mixed String
2 7/8 IN	12089	

MERLE ST UT #3  
Sec. 14 10S 34E  
990 FSL 330 FWL

GO NORTH OF TATUM, NM TO CROSSROAD, NM. TURN WEST ON CO ROAD (CARROLL ROAD). GO APPROXIMATELY 6.4 MILES. TURN SOUTH THRU THE CATTLE GUARD AND GO APPROXIMATELY 4.2 MILES TO WHERE THE ROAD T'S. TURN EAST AND GO APPROXIMATELY 1.5 MILES. THE NEW ROAD WILL START HERE AND GO SOUGHT FOR APPROXIMATELY ½ MILE.

**Jeremy Haass**

---

**From:** Bob Asher  
**Sent:** Tuesday, July 19, 2011 8:36 AM  
**To:** ' (MaxeyG.Brown@state.nm.us)'  
**Cc:** Jerry Fanning; Lisa Norton; Amanda Trujillo; Amber Cannon; Jeremy Haass  
**Subject:** Release (Merle BOG State #3)

Yates Petroleum Corporation is reporting a release at the following location.

Merle BOG State #3  
30-025-37545  
Section 14, T10S-R34E  
Lea County, New Mexico

Date/Time of Release: 7/19/2011; AM

Released: Approximately 45 B/O & 15 B/PW  
Recovered: Approximately 30 B/O & 0 B/PW

The release was caused from a hole in the fire tube of a heater treater, vacuum truck called.  
Crew called to begin cleanup work.  
A C-141 Initial Report will be submitted with complete details.

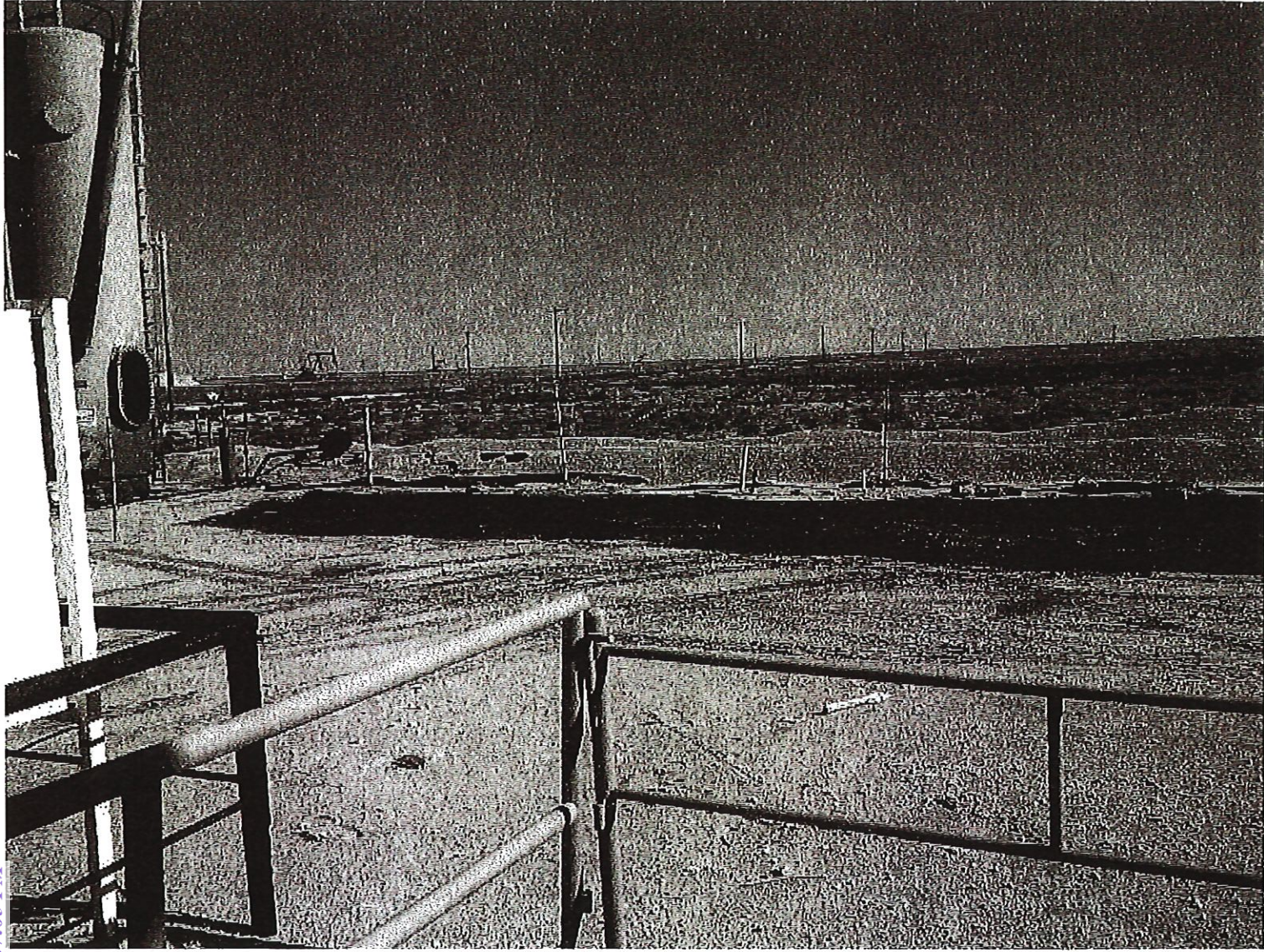
Thank you.

Robert Asher  
Senior Environmental Regulatory Agent  
Yates Petroleum Corporation  
575-748-4217 (Direct)  
575-365-4021 (Cell)  
boba@yatespetroleum.com

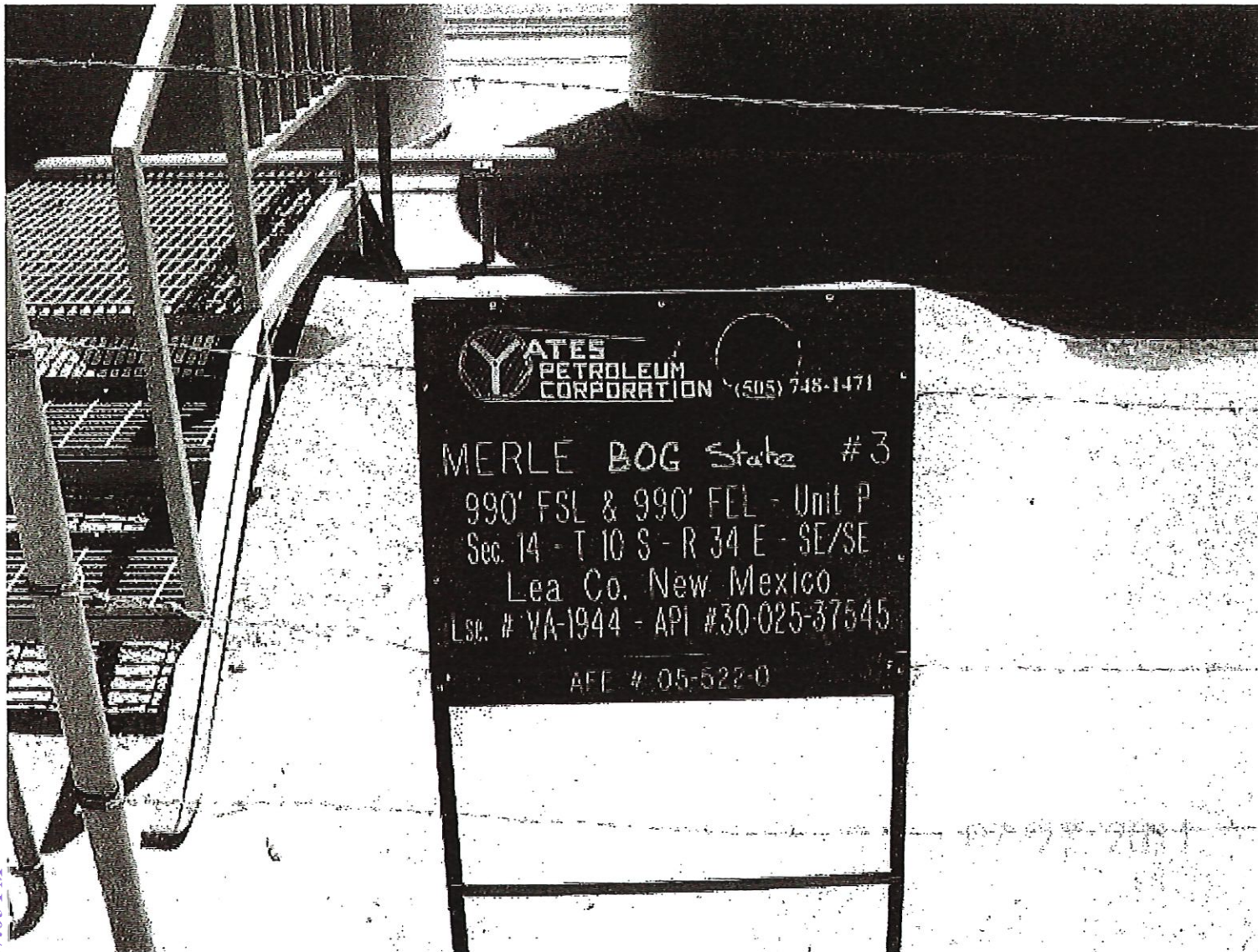




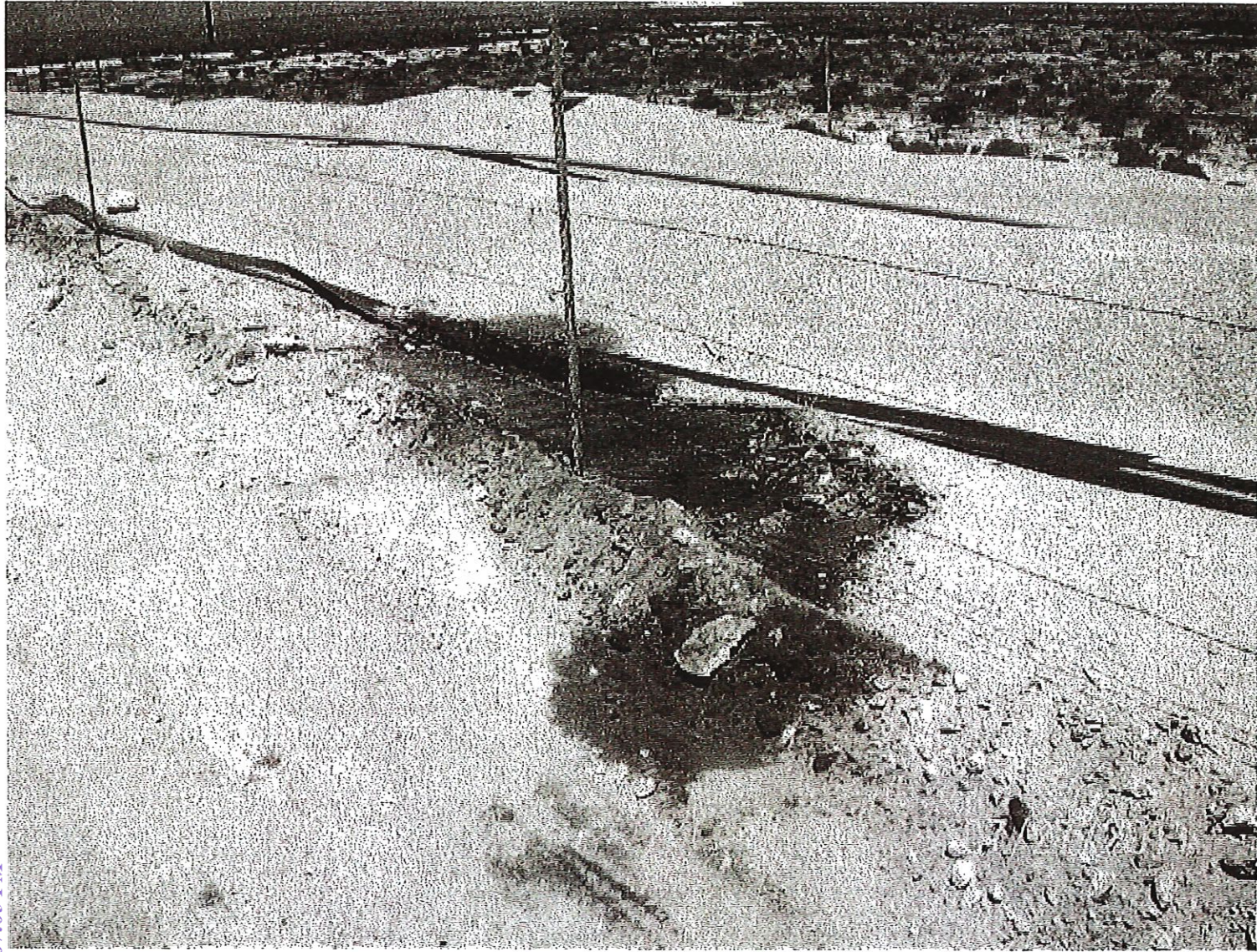




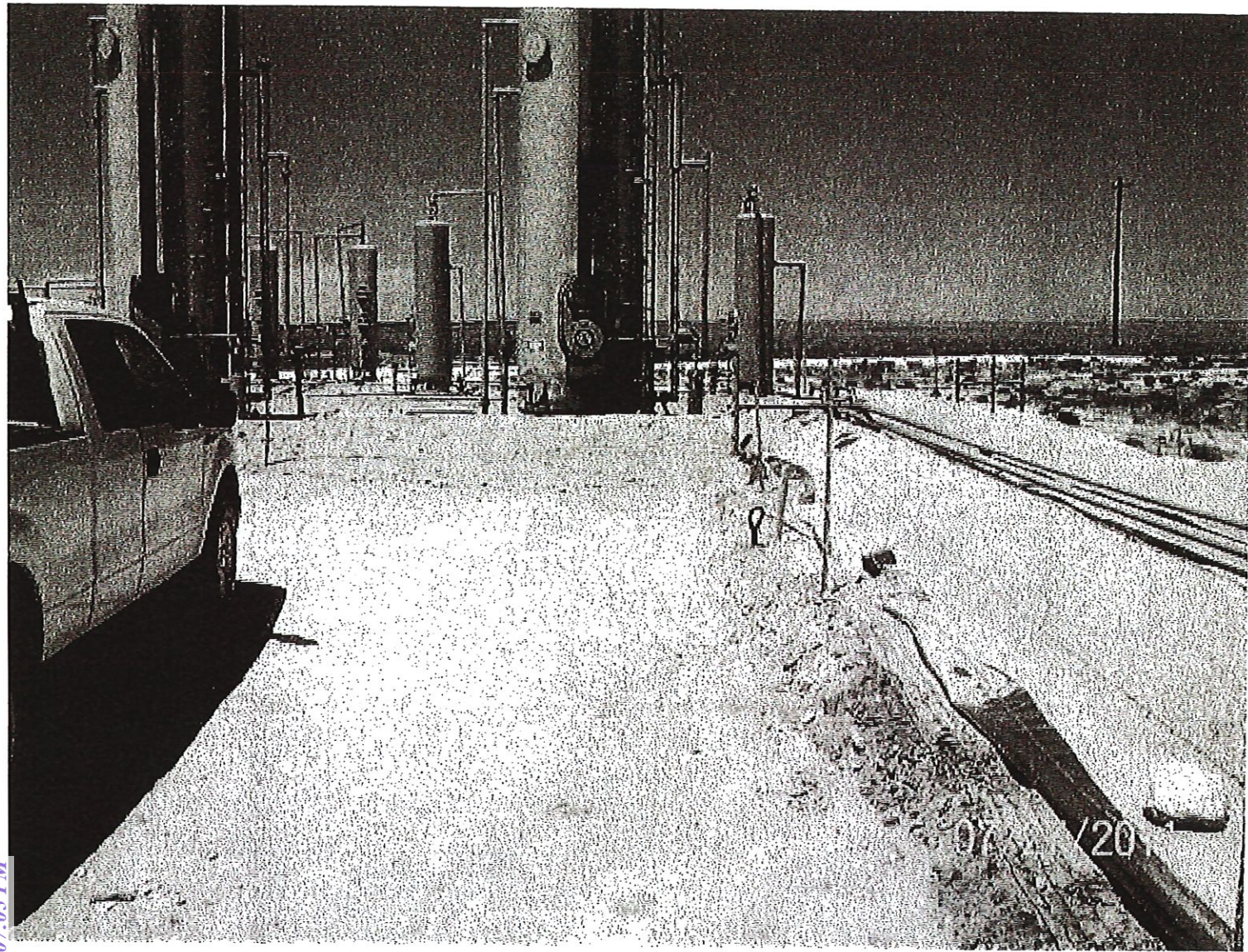




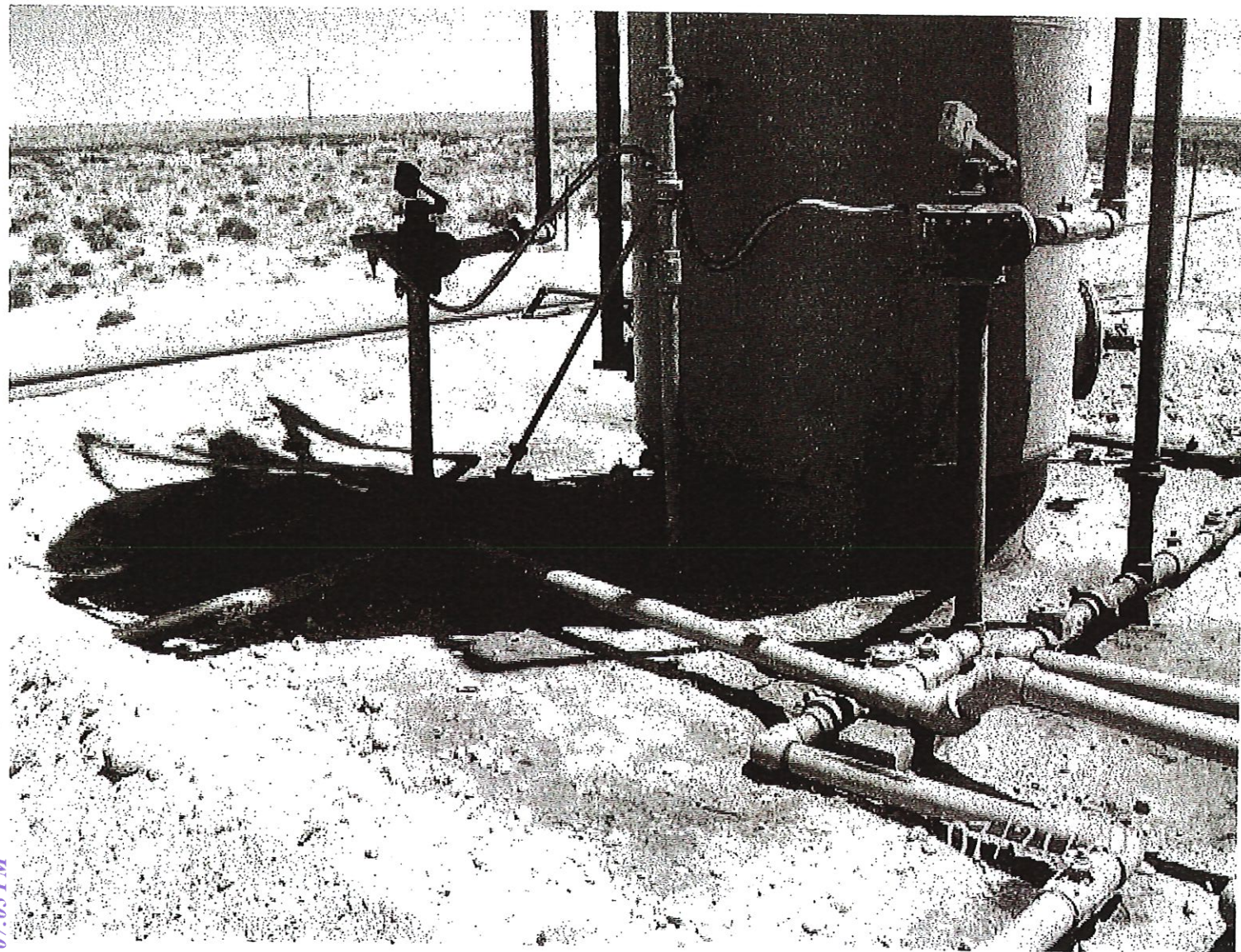








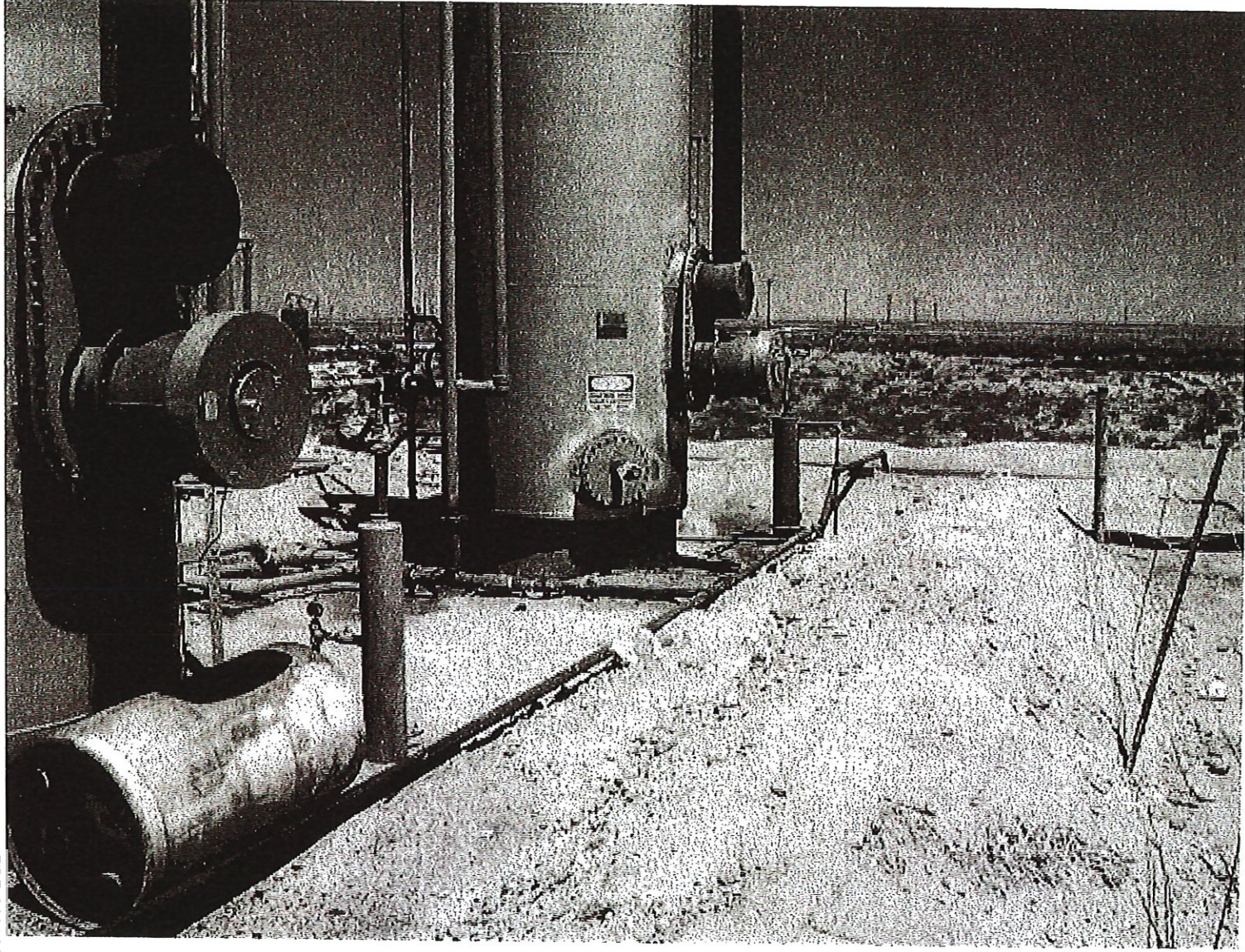




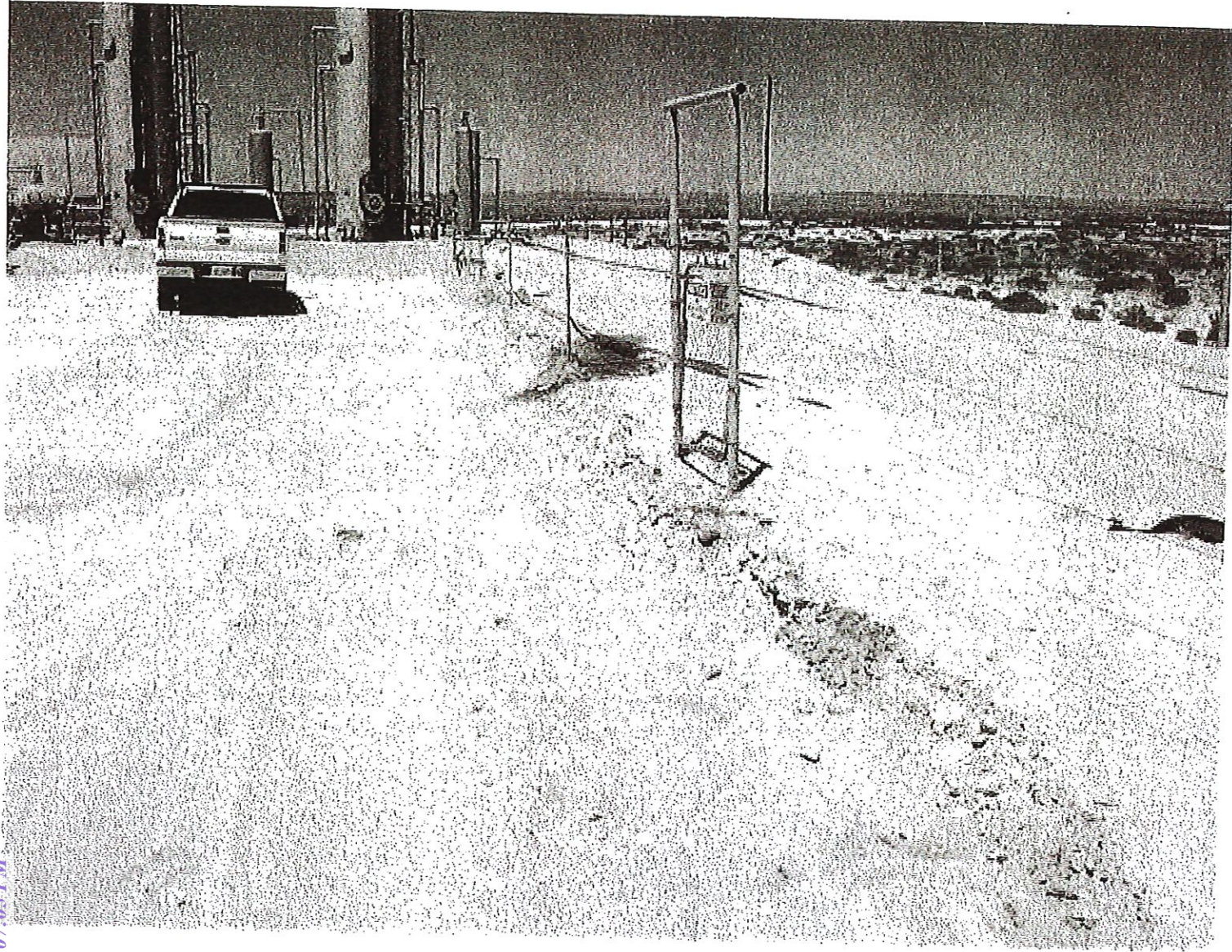












**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District 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 77061

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 77061
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Case Closed. Case identical to nGRL1209339294 closed on 09/21/2021.	3/24/2022