

MARTIN YATES, III

1912-1985

FRANK W. YATES

1936-1986

S.P. YATES

1914-2008



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

JOHN A. YATES  
CHAIRMAN OF THE BOARD

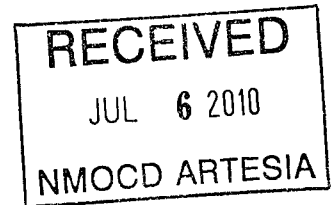
JOHN A. YATES JR.  
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CHIEF OPERATING OFFICER

JOHN D. PERINI  
CHIEF FINANCIAL OFFICER

July 1, 2010



Mr. Mike Bratcher  
NMOCD District II  
1301 West Grand  
Artesia, NM 88210

Re: Serrano Federal #1  
30-015-28166  
Section 11, T19S-R25E  
Eddy County, New Mexico

Dear Mr. Bratcher:

Yates Petroleum Corporation is submitting the enclosed work plan for the above captioned well. The plan is being submitted in response to the C-141 reports dated June 16, 2010 and November 20, 2008.

**If there are no objections with the scope of work described in the plan, Yates will have a contractor begin work on the week of July 19, 2010.**

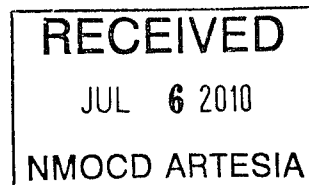
If you have any questions call me at (575) 748-4217

Thank you.

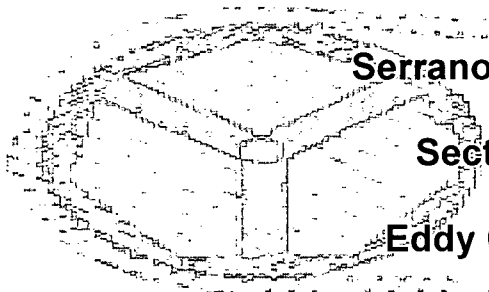
YATES PETROLEUM CORPROATION

Robert Asher  
Environmental Regulatory Agent

Enclosure(s)



**Yates Petroleum Corporation**



**Serrano Federal #1 Work Plan**

**Section 11, T19S-R25E**

**Eddy County, New Mexico**

**July 1, 2010**

**I. Location**

The well is located approximately 20 miles southwest of Artesia, NM and 1.1 miles north of Rocking R Red Road (CR 21), as represented by the attached Dayton, NM, USGS Quadrangle Map.

**II. Background**

On June 16, 2010, Yates submitted to the NMOCD District II office a Form C-141 for releases of 50 B/O & B/PW mix with no oil or produced water recovered. The total affected area is approximately 5 feet by 40 feet and 20 feet by 20 feet areas, contained inside the bermed area (north and northeast side of the battery). Initial delineation samples were taken (6/24/2010) and sent to an NMOCD approved laboratory (6/30/2010 results enclosed). This work plan will also address a release that occurred on November 19, 2008 (2 B/O and 30 B/PW, with 1.5 B/O and 28 B/PW recovered, per the 11/20/2008, Initial C-141). Impacted soils were excavated at a depth of one foot below ground level; impacted soils were removed and taken to an OCD approved facility. Vertical and horizontal delineation was conducted on December 22, 2008 (enclosed diagram and results). A work plan was submitted on January 23, 2009.

**III. Surface and Ground Water**

Area surface geology is Cenozoic. The nearest groundwater of record is listed on the New Mexico Office of the State Engineer shows depth to groundwater approximately 80 feet making the site ranking for this site a ten (10). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is ten (10) based on the as following:

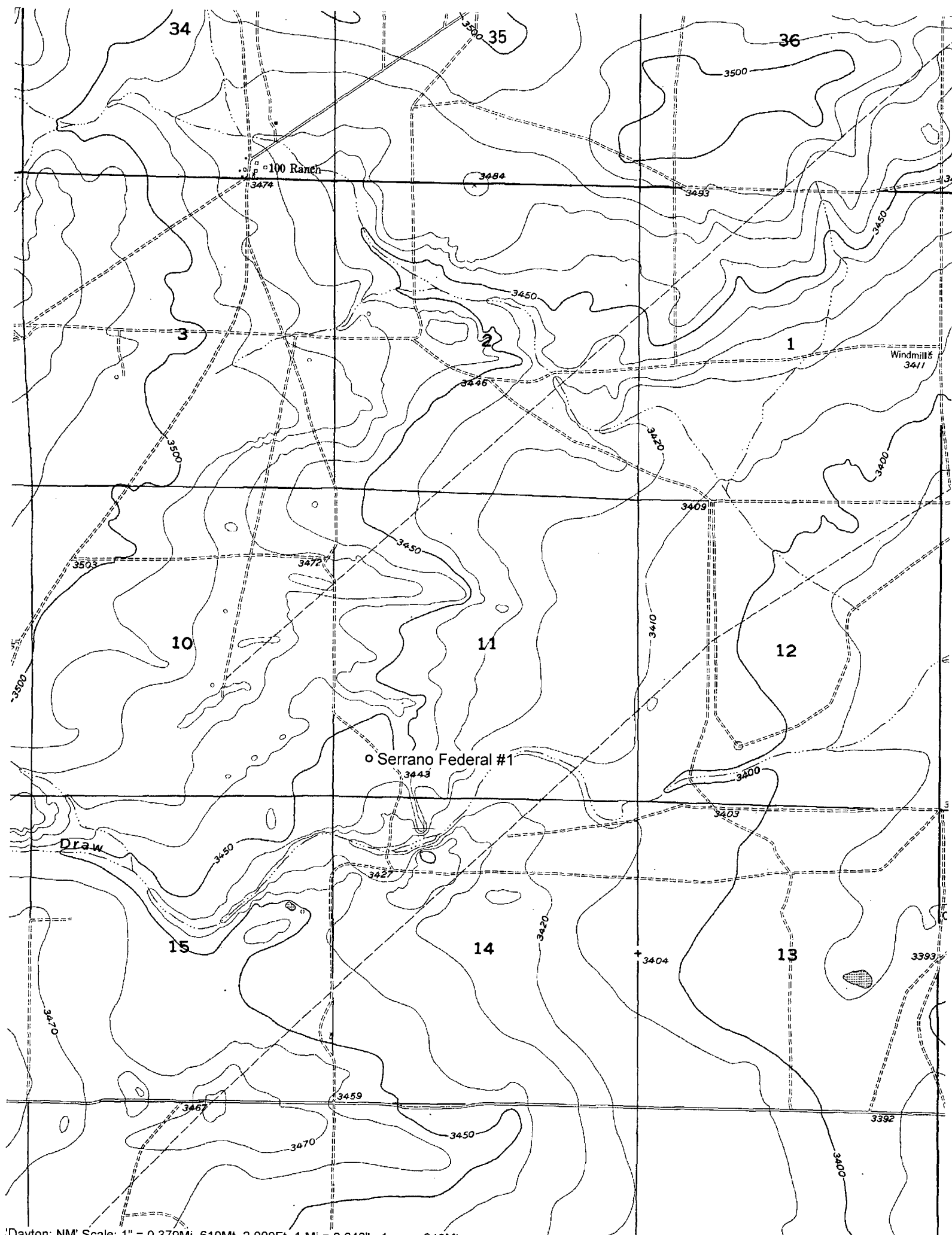
|                                |          |
|--------------------------------|----------|
| Depth to ground water          | 50 - 99' |
| Wellhead Protection Area       | > 1000'  |
| Distance to surface water body | > 1000'  |

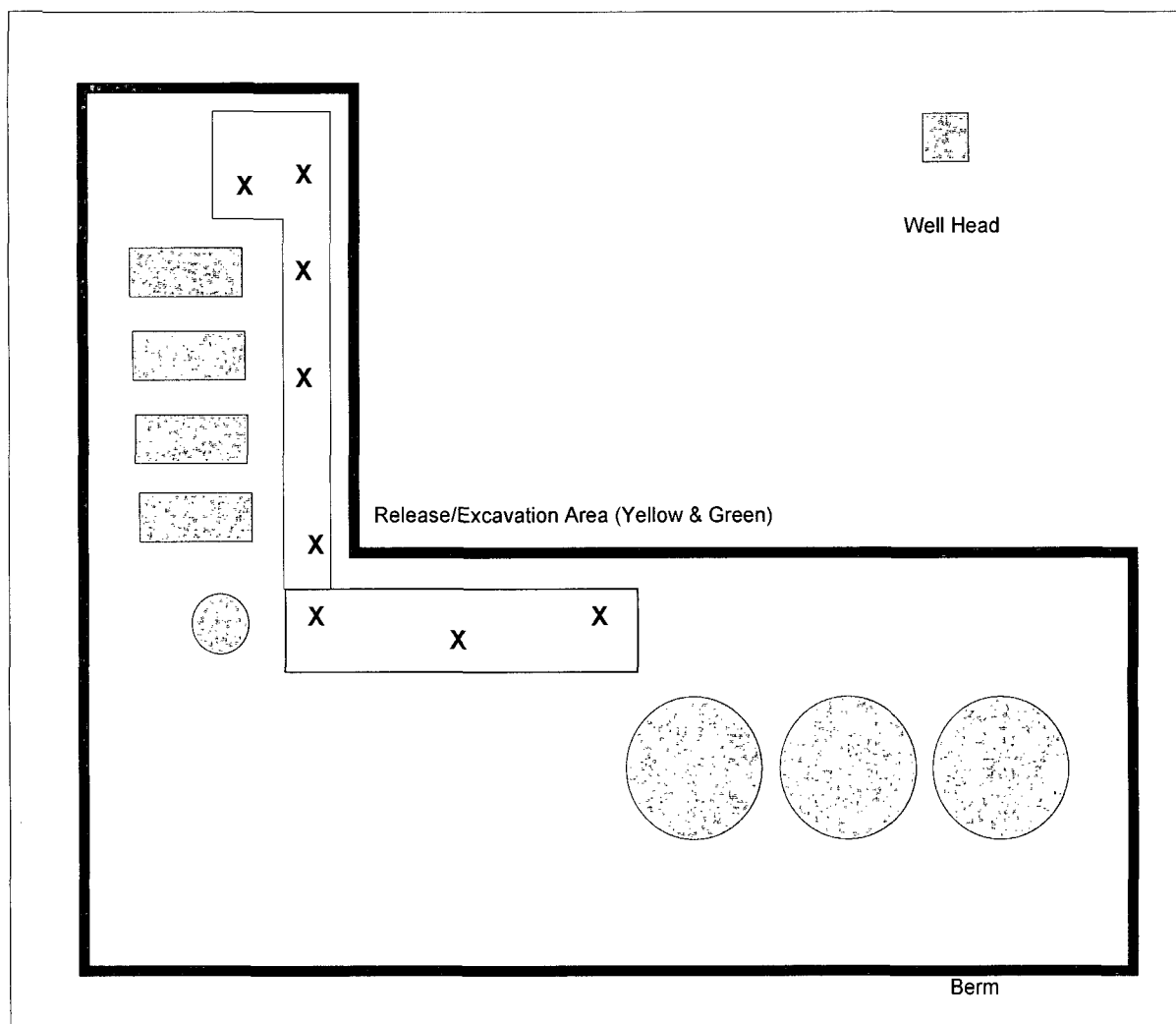
**IV. Soils**

The area consists of soils that are caliche and interspersed with clay seams providing a low permeability barrier to retard vertical percolation of contaminants into the subsurface.

**V. Scope of Work**

Yates Petroleum Corporation will have a contractor excavate an additional one (1) foot of impacted soils (total depth of two (2) feet below the surface). Delineation samples will be taken and sent to an OCD approved laboratory, if analytical results are within the RRAL's for BTEX (50 ppm) and TPH (1000 ppm) with the Total Ranking Score of ten (10), then no further actions will be taken. Based on the 6/30/2010 analytical results for chlorides, no further testing for chlorides will be done. If the RRAL's are above limits additional impacted soils will be excavated and hauled to an NMOCD approved facility. Delineation samples will again be taken. When analytical results are below the RRAL's, Yates Petroleum Corporation will submit a C-141, Final Report, analytical results and a site sample diagram and request closure of the site. Upon Final C-141 approval the excavation will be backfilled with clean, like materials.

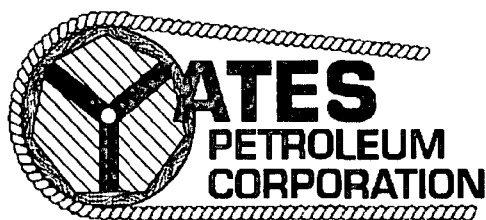




| Sample ID      | Sample Date | Sample Type | Depth | BTEX   | GRO  | DRO   | TPH TOTAL | Chlorides |
|----------------|-------------|-------------|-------|--------|------|-------|-----------|-----------|
| CS-Surface (N) | 6/24/2010   | Comp/Auger  | 2"    | ND     | 160  | 33800 | 33960     | 1060      |
| CS-00.5 (N)    | 6/24/2010   | Comp/Auger  | 6"    | 0.0023 | 70.8 | 2470  | 2540.8    | 195       |
| CS-Surface (E) | 6/24/2010   | Comp/Auger  | 2"    | 0.0010 | 25.6 | 4170  | 4195.6    | 704       |
| CS-00.5 (E)    | 6/24/2010   | Comp/Auger  | 6"    | 7.366  | 379  | 2660  | 3039      | 151       |

**Site Ranking is Ten (10).** Depth to Ground Water 50' - 99' (approx. 80'). All results are ppm.

X - Sample Points taken. Chlorides for documentation.



**Serrano Federal #1**

**30-015-28166**

**Section 11, T19S-R25E**

**Eddy County, NM**

**SAMPLE DIAGRAM (Not to Scale)**

**Xenco Report #: 378890 & 378892**  
**Report Date: 6/30/2010**

**Prepared by Robert Asher**  
**Environmental Regulatory Agent**

# Analytical Report 378890

for

## Yates Petroleum Corporation

**Project Manager: Robert Asher**

**Serrano Federal # 1**

**30-015-28166**

**30-JUN-10**



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

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), 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 (AAL11), 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-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)  
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)



30-JUN-10

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

Reference: XENCO Report No: **378890**  
**Serrano Federal # 1**  
Project Address: Eddy County

**Robert Asher:**

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 378890. 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. 378890 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*

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



## Sample Cross Reference 378890



Yates Petroleum Corporation, Artesia, NM

Serrano Federal # 1

| Sample Id      | Matrix | Date Collected  | Sample Depth | Lab Sample Id |
|----------------|--------|-----------------|--------------|---------------|
| CS-Surface (N) | S      | Jun-24-10 09:15 | 2 - 2 In     | 378890-001    |
| CS-00.5 (N)    | S      | Jun-24-10 09:27 | 6 - 6 In     | 378890-002    |
| CS-Surface (E) | S      | Jun-24-10 09:42 | 2 - 2 In     | 378890-003    |
| CS-00.5 (E)    | S      | Jun-24-10 10:00 | 6 - 6 In     | 378890-004    |





## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*

*Project Name: Serrano Federal # 1*



*Project ID: 30-015-28166*

*Work Order Number: 378890*

*Report Date: 30-JUN-10*

*Date Received: 06/25/2010*

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**Sample receipt non conformances and Comments:**

None

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**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

Batch: LBA-812321 Percent Moisture

None

Batch: LBA-812356 TPH by SW 8015B

SW8015B\_NM

Batch 812356, 1-Chlorooctane, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 378890-001.

Batch: LBA-812379 BTEX by EPA 8021

SW8021BM

Batch 812379, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 378890-002, -003, -001.

The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

SW8021BM

Batch 812379, 4-Bromofluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 378890-001.



## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*

*Project Name: Serrano Federal # 1*



*Project ID: 30-015-28166*  
*Work Order Number: 378890*

*Report Date: 30-JUN-10*  
*Date Received: 06/25/2010*

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*Batch: LBA-812605 BTEX by EPA 8021*  
*SW8021BM*

*Batch 812605, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis*  
*Samples affected are: 378890-004.*

*SW8021BM*

*Batch 812605, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.*  
*Samples affected are: 378890-004.*  
*The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits*

*SW8021BM*

*Batch 812605, Benzene RPD was outside QC limits.*  
*Samples affected are: 378890-004*



# Certificate of Analysis Summary 378890

Yates Petroleum Corporation, Artesia, NM

Project Name: Serrano Federal # 1



Project Id: 30-015-28166

Contact: Robert Asher

Project Location: Eddy County

Date Received in Lab: Fri Jun-25-10 10:01 am

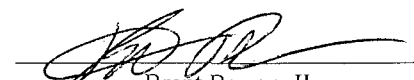
Report Date: 30-JUN-10

Project Manager: Brent Barron, II

| Analysis Requested                 | Lab Id:    | 378890-001      | 378890-002      | 378890-003      | 378890-004      |  |  |
|------------------------------------|------------|-----------------|-----------------|-----------------|-----------------|--|--|
|                                    | Field Id:  | CS-Surface (N)  | CS-00.5 (N)     | CS-Surface (E)  | CS-00.5 (E)     |  |  |
|                                    | Depth:     | 2-2 In          | 6-6 In          | 2-2 In          | 6-6 In          |  |  |
|                                    | Matrix:    | SOIL            | SOIL            | SOIL            | SOIL            |  |  |
|                                    | Sampled:   | Jun-24-10 09:15 | Jun-24-10 09:27 | Jun-24-10 09:42 | Jun-24-10 10:00 |  |  |
| BTEX by EPA 8021                   | Extracted: | Jun-25-10 11:45 | Jun-25-10 11:45 | Jun-25-10 11:45 | Jun-28-10 16:30 |  |  |
|                                    | Analyzed:  | Jun-26-10 03:04 | Jun-25-10 22:57 | Jun-26-10 03:26 | Jun-29-10 08:04 |  |  |
|                                    | Units/RL:  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |  |  |
|                                    |            |                 |                 |                 |                 |  |  |
| Benzene                            |            | ND 0.0010       | ND 0.0011       | ND 0.0010       | ND 0.2185       |  |  |
| Toluene                            |            | ND 0.0021       | ND 0.0022       | ND 0.0021       | ND 0.4370       |  |  |
| Ethylbenzene                       |            | ND 0.0010       | ND 0.0011       | ND 0.0010       | 0.4152 0.2185   |  |  |
| m,p-Xylenes                        |            | ND 0.0021       | 0.0023 0.0022   | ND 0.0021       | 5.421 0.4370    |  |  |
| o-Xylene                           |            | ND 0.0010       | ND 0.0011       | ND 0.0010       | 1.530 0.2185    |  |  |
| Xylenes, Total                     |            | ND 0.0010       | 0.0023 0.0011   | ND 0.0010       | 6.951 0.2185    |  |  |
| Total BTEX                         |            | ND 0.0010       | 0.0023 0.0011   | ND 0.0010       | 7.366 0.2185    |  |  |
| Percent Moisture                   | Extracted: |                 |                 |                 |                 |  |  |
|                                    | Analyzed:  | Jun-26-10 09:30 | Jun-26-10 09:30 | Jun-26-10 09:30 | Jun-26-10 09:30 |  |  |
|                                    | Units/RL:  | % RL            | % RL            | % RL            | % RL            |  |  |
|                                    |            |                 |                 |                 |                 |  |  |
| Percent Moisture                   |            | 4.00 1.00       | 9.71 1.00       | 3.78 1.00       | 8.47 1.00       |  |  |
| TPH by SW 8015B                    | Extracted: | Jun-25-10 12:00 | Jun-25-10 12:00 | Jun-25-10 12:00 | Jun-25-10 12:00 |  |  |
|                                    | Analyzed:  | Jun-25-10 15:58 | Jun-25-10 16:25 | Jun-25-10 16:53 | Jun-25-10 17:20 |  |  |
|                                    | Units/RL:  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |  |  |
|                                    |            |                 |                 |                 |                 |  |  |
| C6-C10 Gasoline Range Hydrocarbons |            | 160 78.2        | 70.8 16.5       | 25.6 15.6       | 379 16.3        |  |  |
| C10-C28 Diesel Range Hydrocarbons  |            | 33800 78.2      | 2470 16.5       | 4170 15.6       | 2660 16.3       |  |  |
| Total TPH                          |            | 33960 78.2      | 2541 16.5       | 4196 15.6       | 3039 16.3       |  |  |

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

### 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:** Robert Asher

**Project Name:** Serrano Federal #1

**Company Name** Yates Petroleum Corporation

Project #: 30-015-28166

Company Address: 105 South 4th Street

**Project Loc:** Eddy County

City/State/Zip: Artesia, NM 88210

PO #: 105632

Telephone No: 575-748-4217

Fax No: 575-748-4662

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

**Sampler Signature:**

e-mail: [boba@yatespetroleum.com](mailto:boba@yatespetroleum.com)

(lab use only)

ORDER #: 378890 / 378892

[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  
Date/Time: 6/25/10 10:01  
Lab ID #: 378890 / 378892  
Initials: SL

**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?            | <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   | lbs          | lbs          | lbs          | lbs          |
| 1.5 °C  | °C           | °C           | °C           | °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 378892

for

## Yates Petroleum Corporation

**Project Manager: Robert Asher**

**Serrano Federal # 1**

**30-015-28166**

**30-JUN-10**



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

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), 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 (AAL11), 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-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)  
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)



30-JUN-10

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

Reference: XENCO Report No: **378892**  
**Serrano Federal # 1**  
Project Address: Eddy County

**Robert Asher:**

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 378892. 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. 378892 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*

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



## Sample Cross Reference 378892



Yates Petroleum Corporation, Artesia, NM

Serrano Federal # 1

| Sample Id      | Matrix | Date Collected  | Sample Depth | Lab Sample Id |
|----------------|--------|-----------------|--------------|---------------|
| CS-Surface (N) | S      | Jun-24-10 09:15 | 2 - 2 In     | 378892-001    |
| CS-00.5 (N)    | S      | Jun-24-10 09:27 | 6 - 6 In     | 378892-002    |
| CS-Surface (E) | S      | Jun-24-10 09:42 | 2 - 2 In     | 378892-003    |
| CS-00.5 (E)    | S      | Jun-24-10 10:00 | 6 - 6 In     | 378892-004    |





## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*

*Project Name: Serrano Federal # 1*



*Project ID: 30-015-28166*

*Work Order Number: 378892*

*Report Date: 30-JUN-10*

*Date Received: 06/25/2010*

---

**Sample receipt non conformances and Comments:**

None

---

**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

Batch: LBA-812321 Percent Moisture

None

Batch: LBA-812545 Inorganic Anions by EPA 300

None



# Certificate of Analysis Summary 378892

Yates Petroleum Corporation, Artesia, NM

Project Name: Serrano Federal # 1



Project Id: 30-015-28166

Contact: Robert Asher

Project Location: Eddy County

Date Received in Lab: Fri Jun-25-10 10:01 am


Report Date: 30-JUN-10

Project Manager: Brent Barron, II

|                                    |                   |                 |                 |                 |                 |  |  |
|------------------------------------|-------------------|-----------------|-----------------|-----------------|-----------------|--|--|
| <b>Analysis Requested</b>          | <b>Lab Id:</b>    | 378892-001      | 378892-002      | 378892-003      | 378892-004      |  |  |
|                                    | <b>Field Id:</b>  | CS-Surface (N)  | CS-00.5 (N)     | CS-Surface (E)  | CS-00.5 (E)     |  |  |
|                                    | <b>Depth:</b>     | 2-2 In          | 6-6 In          | 2-2 In          | 6-6 In          |  |  |
|                                    | <b>Matrix:</b>    | SOIL            | SOIL            | SOIL            | SOIL            |  |  |
|                                    | <b>Sampled:</b>   | Jun-24-10 09:15 | Jun-24-10 09:27 | Jun-24-10 09:42 | Jun-24-10 10:00 |  |  |
| <b>Anions in Soil By EPA 300.0</b> | <b>Extracted:</b> |                 |                 |                 |                 |  |  |
|                                    | <b>Analyzed:</b>  | Jun-28-10 08:38 | Jun-28-10 08:38 | Jun-28-10 08:38 | Jun-28-10 08:38 |  |  |
|                                    | <b>Units/RL:</b>  | mg/kg RL        | mg/kg RL        | mg/kg RL        | mg/kg RL        |  |  |
| Chloride                           |                   | 1060 43.8       | 195 9.30        | 704 21.8        | 151 9.18        |  |  |
| <b>Percent Moisture</b>            | <b>Extracted:</b> |                 |                 |                 |                 |  |  |
|                                    | <b>Analyzed:</b>  | Jun-26-10 09:30 | Jun-26-10 09:30 | Jun-26-10 09:30 | Jun-26-10 09:30 |  |  |
|                                    | <b>Units/RL:</b>  | % RL            | % RL            | % RL            | % RL            |  |  |
| Percent Moisture                   |                   | 4.00 1.00       | 9.71 1.00       | 3.78 1.00       | 8.47 1.00       |  |  |

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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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
- PQL** Practical Quantitation Limit
- \* Outside XENCO's scope of NELAC Accreditation.

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| 9701 Harry Hines Blvd , Dallas, TX 75220    | (214) 902 0300 | (214) 351-9139 |
| 5332 Blackberry Drive, San Antonio TX 78238 | (210) 509-3334 | (210) 509-3335 |
| 2505 North Falkenburg Rd, Tampa, FL 33619   | (813) 620-2000 | (813) 620-2033 |
| 5757 NW 158th St, Miami Lakes, FL 33014     | (305) 823-8500 | (305) 823-8555 |
| 12600 West I-20 East, Odessa, TX 79765      | (432) 563-1800 | (432) 563-1713 |
| 842 Cantwell Lane, Corpus Christi, TX 78408 | (361) 884-0371 | (361) 884-9116 |

## 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:** Robert Asher

Project Name: Serrano Federal #1

Company Name Yates Petroleum Corporation

Project #: 30-015-28166

Company Address: 105 South 4th Street

Project Loc: Eddy CountyCity/State/Zip: Artesia, NM 88210

PO #: 105632

Telephone No: 575-748-4217 Fax No: 575-748-4662

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature:  e-mail: [boba@yatespetroleum.com](mailto:boba@yatespetroleum.com)

e-mail: [boba@yatespetroleum.com](mailto:boba@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  
Date/Time: 6/25/10 10:01  
Lab ID #: 378890 / 378892  
Initials: JK

### 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?            | <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   | lbs          | lbs          | lbs          | lbs          |
| 1.5 °C  | °C           | °C           | °C           | °C           |

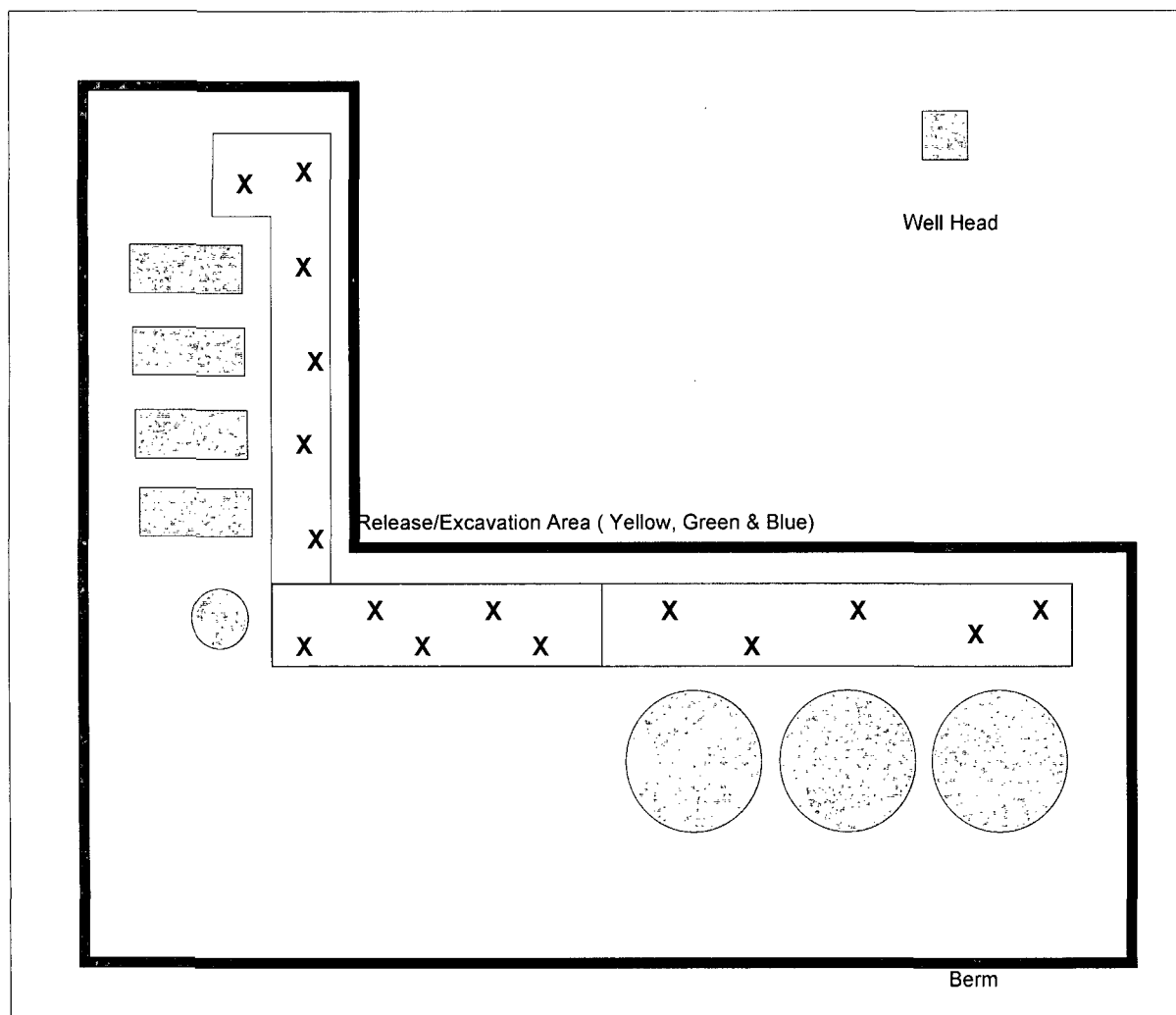
### Nonconformance Documentation

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

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

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

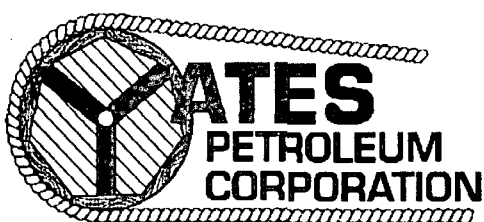
Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.  
☐ Initial and Backup Temperature confirm out of temperature conditions  
☐ Client understands and would like to proceed with analysis



| Sample ID   | Sample Date | Sample Type | Depth  | BTEX   | GRO  | DRO  | TPH TOTAL | Chlorides |
|-------------|-------------|-------------|--------|--------|------|------|-----------|-----------|
| GS/Comp-001 | 12/23/2008  | Grab/Auger  | 8"-12" | 0.5685 | 30.9 | 326  | 356.9     | 194.0     |
| GS/Comp-002 | 12/23/2008  | Grab/Auger  | 8"-12" | 2.8068 | 57.6 | 1670 | 1727.6    | 66.3      |
| GS/Comp-003 | 12/23/2008  | Grab/Auger  | 8"-12" | 0.0205 | 22.6 | 2070 | 2092.6    | 194.0     |

**Site Ranking is Ten (10).** Depth to Ground Water 50' - 99' (approx. 80'). All results are ppm.

X - Sample Points taken. Chlorides for documentation.



**Serrano Federal #1**

**30-015-28166**

**Section 11, T19S-R25E**

**Eddy County, NM**

**SAMPLE DIAGRAM (Not to Scale)**

**Xenco Report #: 320867 & 320870  
Report Date: 12/24/2008**

**Prepared by Robert Asher  
Environmental Regulatory Agent**

# **Analytical Report 320867**

**for**

**Yates Petroleum Corporation**

**Project Manager: Robert Asher**

**Serrano Federal # 1**

**30-015-28166**

**24-DEC-08**



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

**Texas certification numbers:**

**Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX**

**Florida certification numbers:**

**Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675**

**Norcross(Atlanta), GA E87429**

**South Carolina certification numbers:**

**Norcross(Atlanta), GA 98015**

**North Carolina certification numbers:**

**Norcross(Atlanta), GA 483**

**Houston - Dallas - San Antonio - Tampa - Miami - Latin America**

**Midland - Corpus Christi - Atlanta**



24-DEC-08

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

Reference: XENCO Report No: **320867**  
**Serrano Federal # 1**  
Project Address: Eddy County

**Robert Asher:**

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 320867. 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. 320867 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 320867



Yates Petroleum Corporation, Artesia, NM

Serrano Federal # 1

| Sample Id   | Matrix | Date Collected  | Sample Depth | Lab Sample Id |
|-------------|--------|-----------------|--------------|---------------|
| GS/Comp-001 | S      | Dec-18-08 10:48 | 8 - 12 In    | 320867-001    |
| GS/Comp-002 | S      | Dec-18-08 11:08 | 8 - 12 In    | 320867-002    |
| GS/Comp-003 | S      | Dec-18-08 11:29 | 8 - 12 In    | 320867-003    |



# Certificate of Analysis Summary 320867

Yates Petroleum Corporation, Artesia, NM

Project Name: Serrano Federal # 1



Project Id: 30-015-28166

Contact: Robert Asher

Project Location: Eddy County

Date Received in Lab: Fri Dec-19-08 12:00 pm


Report Date: 24-DEC-08

Project Manager: Brent Barron, II

| <i>Analysis Requested</i>          | <i>Lab Id:</i>    | 320867-001      | 320867-002      | 320867-003      |  |  |  |
|------------------------------------|-------------------|-----------------|-----------------|-----------------|--|--|--|
|                                    | <i>Field Id:</i>  | GS/Comp-001     | GS/Comp-002     | GS/Comp-003     |  |  |  |
|                                    | <i>Depth:</i>     | 8-12 In         | 8-12 In         | 8-12 In         |  |  |  |
|                                    | <i>Matrix:</i>    | SOIL            | SOIL            | SOIL            |  |  |  |
|                                    | <i>Sampled:</i>   | Dec-18-08 10:48 | Dec-18-08 11:08 | Dec-18-08 11:29 |  |  |  |
| <b>BTEX by EPA 8021B</b>           | <i>Extracted:</i> | Dec-23-08 14:00 | Dec-22-08 14:00 | Dec-23-08 14:00 |  |  |  |
|                                    | <i>Analyzed:</i>  | Dec-23-08 18:37 | Dec-22-08 22:08 | Dec-23-08 19:01 |  |  |  |
|                                    | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL        | mg/kg RL        |  |  |  |
| Benzene                            |                   | ND 0.0058       | ND 0.0570       | ND 0.0056       |  |  |  |
| Toluene                            |                   | 0.1341 0.0117   | 0.3472 0.1140   | ND 0.0112       |  |  |  |
| Ethylbenzene                       |                   | 0.0224 0.0058   | 0.3113 0.0570   | 0.0063 0.0056   |  |  |  |
| m,p-Xylenes                        |                   | 0.1261 0.0117   | 1.564 0.1140    | 0.0142 0.0112   |  |  |  |
| o-Xylene                           |                   | 0.2859 0.0058   | 0.5843 0.0570   | ND 0.0056       |  |  |  |
| Total Xylenes                      |                   | 0.412 0.0117    | 2.1483 0.1140   | 0.0142 0.0112   |  |  |  |
| Total BTEX                         |                   | 0.5685 0.0058   | 2.8068 0.0570   | 0.0205 0.0056   |  |  |  |
| <b>Percent Moisture</b>            | <i>Extracted:</i> | Dec-19-08 17:00 | Dec-19-08 17:00 | Dec-19-08 17:00 |  |  |  |
|                                    | <i>Analyzed:</i>  | Dec-19-08 17:00 | Dec-19-08 17:00 | Dec-19-08 17:00 |  |  |  |
|                                    | <i>Units/RL:</i>  | % RL            | % RL            | % RL            |  |  |  |
| Percent Moisture                   |                   | 14.48 1.00      | 12.29 1.00      | 10.70 1.00      |  |  |  |
| <b>TPH By SW8015B Mod</b>          | <i>Extracted:</i> | Dec-22-08 09:00 | Dec-22-08 09:00 | Dec-22-08 09:00 |  |  |  |
|                                    | <i>Analyzed:</i>  | Dec-22-08 15:24 | Dec-22-08 15:48 | Dec-22-08 16:13 |  |  |  |
|                                    | <i>Units/RL:</i>  | mg/kg RL        | mg/kg RL        | mg/kg RL        |  |  |  |
| C6-C10 Gasoline Range Hydrocarbons |                   | 30.9 17.5       | 57.6 17.1       | 22.6 16.8       |  |  |  |
| C10-C28 Diesel Range Hydrocarbons  |                   | 326 17.5        | 1670 17.1       | 2070 16.8       |  |  |  |
| Total TPH                          |                   | 356.9 17.5      | 1727.6 17.1     | 2092.6 16.8     |  |  |  |

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Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron  
Odessa Laboratory Director



## 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

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5757 NW 158th St, Miami Lakes, FL 33014  
12600 West I-20 East, Odessa, TX 79765  
842 Cantwell Lane, Corpus Christi, TX 78408

| Phone          | Fax            |
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| (305) 823-8500 | (305) 823-8555 |
| (432) 563-1800 | (432) 563-1713 |
| (361) 884-0371 | (361) 884-9116 |

### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West 1-20 East  
Odessa, Texas 79766

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

Project Manager: Robert Asher

Project Name: Serrano Federal #1

Company Name Yates Petroleum Corporation

Project #: 30-015-28166

Company Address: 105 South 4th Street

Project Loc: Eddy CountyCity/State/Zip: Artesia, NM 88210

PO #: 105632

Telephone No: 505-748-4217

Fax No: 505-748-4662

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: [Signature]

e-mail: [boba@ypcnm.com](mailto:boba@ypcnm.com)

(lab use only)

ORDER #: 320867 320870

[illegible]

Special Instructions: TPH: 8015B, BTEX: 8021B & Chlorides. Please show BTEX results as mg/kg. Thank you.

Laboratory Comments:

[illegible]

**Environmental Lab of Texas**  
Variance/ Corrective Action Report- Sample Log-In

Client: Yates RET.  
Date/ Time: 12-19-05 12:00  
Lab ID #: 320867 / 320870  
Initials: AL

**Sample Receipt Checklist**

|     |  |            |    | Client Initials          |
|-----|--|------------|----|--------------------------|
| #1  | Temperature of container/ cooler?                      | <u>Yes</u> | No | <u>4.5 °C</u>            |
| #2  | Shipping container in good condition?                  | <u>Yes</u> | No |                          |
| #3  | Custody Seals intact on shipping container/ cooler?    | <u>Yes</u> | No | Not Present              |
| #4  | Custody Seals intact on sample bottles/ container?     | <u>Yes</u> | No | Not Present              |
| #5  | Chain of Custody present?                              | <u>Yes</u> | No |                          |
| #6  | Sample instructions complete of Chain of Custody?      | <u>Yes</u> | No |                          |
| #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 | ID written on Cont./ Lid |
| #9  | Container label(s) legible and intact?                 | <u>Yes</u> | No | Not Applicable           |
| #10 | Sample matrix/ properties agree with Chain of Custody? | <u>Yes</u> | No |                          |
| #11 | Containers supplied by ELOT?                           | <u>Yes</u> | No |                          |
| #12 | Samples in proper container/ bottle?                   | <u>Yes</u> | No | See Below                |
| #13 | Samples properly preserved?                            | <u>Yes</u> | No | See Below                |
| #14 | Sample bottles intact?                                 | <u>Yes</u> | No |                          |
| #15 | Preservations documented on Chain of Custody?          | <u>Yes</u> | No |                          |
| #16 | Containers documented on Chain of Custody?             | <u>Yes</u> | No |                          |
| #17 | Sufficient sample amount for indicated test(s)?        | <u>Yes</u> | No | See Below                |
| #18 | All samples received within sufficient hold time?      | <u>Yes</u> | No | See Below                |
| #19 | Subcontract of sample(s)?                              | <u>Yes</u> | No | Not Applicable           |
| #20 | VOC samples have zero headspace?                       | <u>Yes</u> | No | Not Applicable           |

**Variance Documentation**

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

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

Corrective Action Taken:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Check all that Apply:
- ☐ See attached e-mail/ fax
  - ☐ Client understands and would like to proceed with analysis
  - ☐ Cooling process had begun shortly after sampling event

# **Analytical Report 320870**

**for**

## **Yates Petroleum Corporation**

**Project Manager: Robert Asher**

**Serrano Federal # 1**

**30-015-28166**

**22-DEC-08**



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

**Texas certification numbers:**

**Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX**

**Florida certification numbers:**

**Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675  
Norcross(Atlanta), GA E87429**

**South Carolina certification numbers:**

**Norcross(Atlanta), GA 98015**

**North Carolina certification numbers:**

**Norcross(Atlanta), GA 483**

**Houston - Dallas - San Antonio - Tampa - Miami - Latin America  
Midland - Corpus Christi - Atlanta**



22-DEC-08

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

Reference: XENCO Report No: **320870**  
**Serrano Federal # 1**  
Project Address: Eddy County

**Robert Asher:**

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 320870. 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. 320870 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,

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**Brent Barron, II**

Odessa Laboratory Manager

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## Sample Cross Reference 320870



Yates Petroleum Corporation, Artesia, NM  
Serrano Federal # 1

| Sample Id   | Matrix | Date Collected  | Sample Depth | Lab Sample Id |
|-------------|--------|-----------------|--------------|---------------|
| GS/Comp-001 | S      | Dec-18-08 10:48 | 8 - 12 In    | 320870-001    |
| GS/Comp-002 | S      | Dec-18-08 11:08 | 8 - 12 In    | 320870-002    |
| GS/Comp-003 | S      | Dec-18-08 11:29 | 8 - 12 In    | 320870-003    |





# Certificate of Analysis Summary 320870

Yates Petroleum Corporation, Artesia, NM

Project Name: Serrano Federal # 1



Project Id: 30-015-28166

Contact: Robert Asher

Project Location: Eddy County

Date Received in Lab: Fri Dec-19-08 12:00 pm


Report Date: 22-DEC-08

Project Manager: Brent Barron, II

|                           |                   |                 |                 |                 |  |  |  |
|---------------------------|-------------------|-----------------|-----------------|-----------------|--|--|--|
| <b>Analysis Requested</b> | <b>Lab Id:</b>    | 320870-001      | 320870-002      | 320870-003      |  |  |  |
|                           | <b>Field Id:</b>  | GS/Comp-001     | GS/Comp-002     | GS/Comp-003     |  |  |  |
|                           | <b>Depth:</b>     | 8-12 In         | 8-12 In         | 8-12 In         |  |  |  |
|                           | <b>Matrix:</b>    | SOIL            | SOIL            | SOIL            |  |  |  |
|                           | <b>Sampled:</b>   | Dec-18-08 10:48 | Dec-18-08 11:08 | Dec-18-08 11:29 |  |  |  |
| <b>Anions by EPA 300</b>  | <b>Extracted:</b> |                 |                 |                 |  |  |  |
|                           | <b>Analyzed:</b>  | Dec-19-08 23:26 | Dec-19-08 23:26 | Dec-19-08 23:26 |  |  |  |
|                           | <b>Units/RL:</b>  | mg/kg RL        | mg/kg RL        | mg/kg RL        |  |  |  |
| Chloride                  |                   | 194 11.7        | 66.3 11.4       | 194 11.2        |  |  |  |
| <b>Percent Moisture</b>   | <b>Extracted:</b> |                 |                 |                 |  |  |  |
|                           | <b>Analyzed:</b>  | Dec-19-08 17:00 | Dec-19-08 17:00 | Dec-19-08 17:00 |  |  |  |
|                           | <b>Units/RL:</b>  | % RL            | % RL            | % RL            |  |  |  |
| Percent Moisture          |                   | 14.48 1.00      | 12.29 1.00      | 10.70 1.00      |  |  |  |

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  
Odessa Laboratory Director



## 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

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5757 NW 158th St, Miami Lakes, FL 33014  
12600 West I-20 East, Odessa, TX 79765  
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| Phone          | Fax            |
|----------------|----------------|
| (281) 240-4200 | (281) 240-4280 |
| (214) 902 0300 | (214) 351-9139 |
| (210) 509-3334 | (210) 509-3335 |
| (813) 620-2000 | (813) 620-2033 |
| (305) 823-8500 | (305) 823-8555 |
| (432) 563-1800 | (432) 563-1713 |
| (361) 884-0371 | (361) 884-9116 |

# Environmental Lab of Texas

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East  
Odessa, Texas 79766

Phone: 432-663-1800  
Fax: 432-663-1713

Project Manager: Robert Asher

Project Name: Serrano Federal #1

Company Name: Yates Petroleum Corporation

Project #: 30-D15-28166

Company Address: 105 South 4th Street

Project Loc: Eddy County

City/State/Zip: Artesia, NM 88210

PO #: 105632

Telephone No: 505-748-4217

Fax No: 505-748-4662

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: *[Signature]*

e-mail: boba@ypcnm.com

| (lab use only)   |             | Analyze For:  |      |
|--|-------------|---|------|
| LAB # (lab use only)   | FIELD CODE  | TPH   | BTEX |
| 01   | GS/Comp-001 | X   | X    |
| 02   | GS/Comp-002 | X   | X    |
| 03   | GS/Comp-003 | X   | X    |
| PLEASE PUT CHLORIDE RESULTS ON SEPARATE REPORT.  |             |   |      |
| Special Instructions: TPH: 8015B, BTEX: 8021B & Chlorides. Please show BTEX results as mg/kg. Thank you. |             | Laboratory Comments: Sample Containers Intact? VOCs Free of Headspace? Labels on container(s) Custody seals on container(s) Custody seals on cooler(s) Sample Hand Delivered by Sampler/Client Rep? by Courier? UPS DHL FedEx Lone Star Temperature Upon Receipt: 45 °C |      |

| LAB # (lab use only)                     | FIELD CODE  | Beginning Depth | Ending Depth | Date Sampled | Time Sampled | Field Released | Lab # of Containers | Preservation & # of Containers | Matrix | TPH | BTEX | Chlorides | Other (Specify) | Notes |
|--|-------------|-----------------|--------------|--------------|--------------|----------------|---------------------|--------------------------------|--------|-----|------|-----------|-----------------|-------|
| 01                                       | GS/Comp-001 | 8"              | 12"          | 12/18/2008   | 10:48 AM     | 1              | X                   | 1                              | S      | X   | X    | X         |                 |       |
| 02                                       | GS/Comp-002 | 8"              | 12"          | 12/18/2008   | 11:08 AM     | 1              | X                   | 1                              | S      | X   | X    | X         |                 |       |
| 03                                       | GS/Comp-003 | 8"              | 12"          | 12/18/2008   | 11:29 AM     | 1              | X                   | 1                              | S      | X   | X    | X         |                 |       |
| RUSH TAT (Pre-identified) 24, 48, 72 hrs |             |                 |              |              |              |                |                     |                                |        |     |      |           |                 |       |

| Relinquished by: | Date     | Time    | Received by: | Date     | Time  |
|------------------|----------|---------|--------------|----------|-------|
| Robert Asher     | 12/18/08 | 2:58 PM |              |          |       |
| Relinquished by: | Date     | Time    | Received by: | Date     | Time  |
| Fedex            | 12-19-08 |         | Andrea Lam   | 12-19-08 | 12:00 |

**Environmental Lab of Texas**  
Variance/ Corrective Action Report- Sample Log-In

Client: Yates RET.  
Date/ Time: 12-19-05 12:00  
Lab ID #: 320867 / 320870  
Initials: AL

**Sample Receipt Checklist**

|     |  |   |                             | Client Initials          |
|-----|--|---|-----------------------------|--------------------------|
| #1  | Temperature of container/ cooler?                      | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 4.5 °C                   |
| #2  | Shipping container in good condition?                  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |                          |
| #3  | Custody Seals intact on shipping container/ cooler?    | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Not Present              |
| #4  | Custody Seals intact on sample bottles/ container?     | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Not Present              |
| #5  | Chain of Custody present?                              | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |                          |
| #6  | Sample instructions complete of Chain of Custody?      | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |                          |
| #7  | Chain of Custody signed when relinquished/ received?   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |                          |
| #8  | Chain of Custody agrees with sample label(s)?          | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | ID written on Cont./ Lid |
| #9  | Container label(s) legible and intact?                 | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Not Applicable           |
| #10 | Sample matrix/ properties agree with Chain of Custody? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |                          |
| #11 | Containers supplied by ELOT?                           | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |                          |
| #12 | Samples in proper container/ bottle?                   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | See Below                |
| #13 | Samples properly preserved?                            | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | See Below                |
| #14 | Sample bottles intact?                                 | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |                          |
| #15 | Preservations documented on Chain of Custody?          | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |                          |
| #16 | Containers documented on Chain of Custody?             | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |                          |
| #17 | Sufficient sample amount for indicated test(s)?        | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | See Below                |
| #18 | All samples received within sufficient hold time?      | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | See Below                |
| #19 | Subcontract of sample(s)?                              | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Not Applicable           |
| #20 | VOC samples have zero headspace?                       | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Not Applicable           |

**Variance Documentation**

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

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

Corrective Action Taken:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Check all that Apply:
- ☐ See attached e-mail/ fax
  - ☐ Client understands and would like to proceed with analysis
  - ☐ Cooling process had begun shortly after sampling event