

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

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November 10, 2010

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

Re: Superior KJ Federal #1  
2RP-458  
30-015-22908  
Section 7, T20S-R29E  
Eddy County, New Mexico

Dear Mr. Bratcher,

Enclosed please find a Form C-141, Final Report for the above captioned site regarding the release on February 1, 2010 (126 B/C released with 0 B/C recovered). A C-141 Initial Report was submitted to your office on 2/11/2010. Initial samples were taken on 2/9/2010 and were above limits (TPH <1000 ppm & BTEX <50 PPM) for the site ranking of 10. The impacted soils were excavated to a depth of three (3) feet and taken to an OCD approved facility. Vertical and horizontal delineation samples were taken on 5/4/2010 & 5/12/2010 and sent to an OCD approved laboratory and were still above limits (TPH <1000 ppm & BTEX <50 PPM) for the site ranking of 10. On August 6, 2010 Yates requested Safety and Environmental Solutions, Inc. to measure the water depth of the well located in Section 7, T20S-R29E, depth of the water measured at 65' below ground surface. Based on that information the site ranking remained at a ten (10) and the impacted soils were excavated (9/27/2010 - 10/1/2010) to a depth of twelve (12) feet and taken to an OCD approved facility (total excavation area is approximately 45' wide X 75' long X 12' deep). Vertical and horizontal delineation samples were taken on 11/2/2010 and sent to an OCD approved laboratory and were below RRAL's for the site ranking of 10. Enclosed are the analytical reports and sample diagram. There is currently an open excavation, it is fenced but still poses a threat to livestock, human health, Yates Petroleum Corporation requests closure based on the impacted soils excavated/removed, analytical results and current open excavation risks.

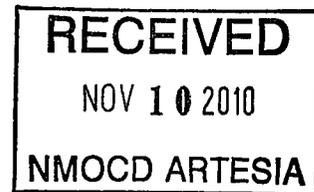
If you have any questions, please call me at 575-748-4217.

Thank you.

YATES PETROLEUM CORPORATION

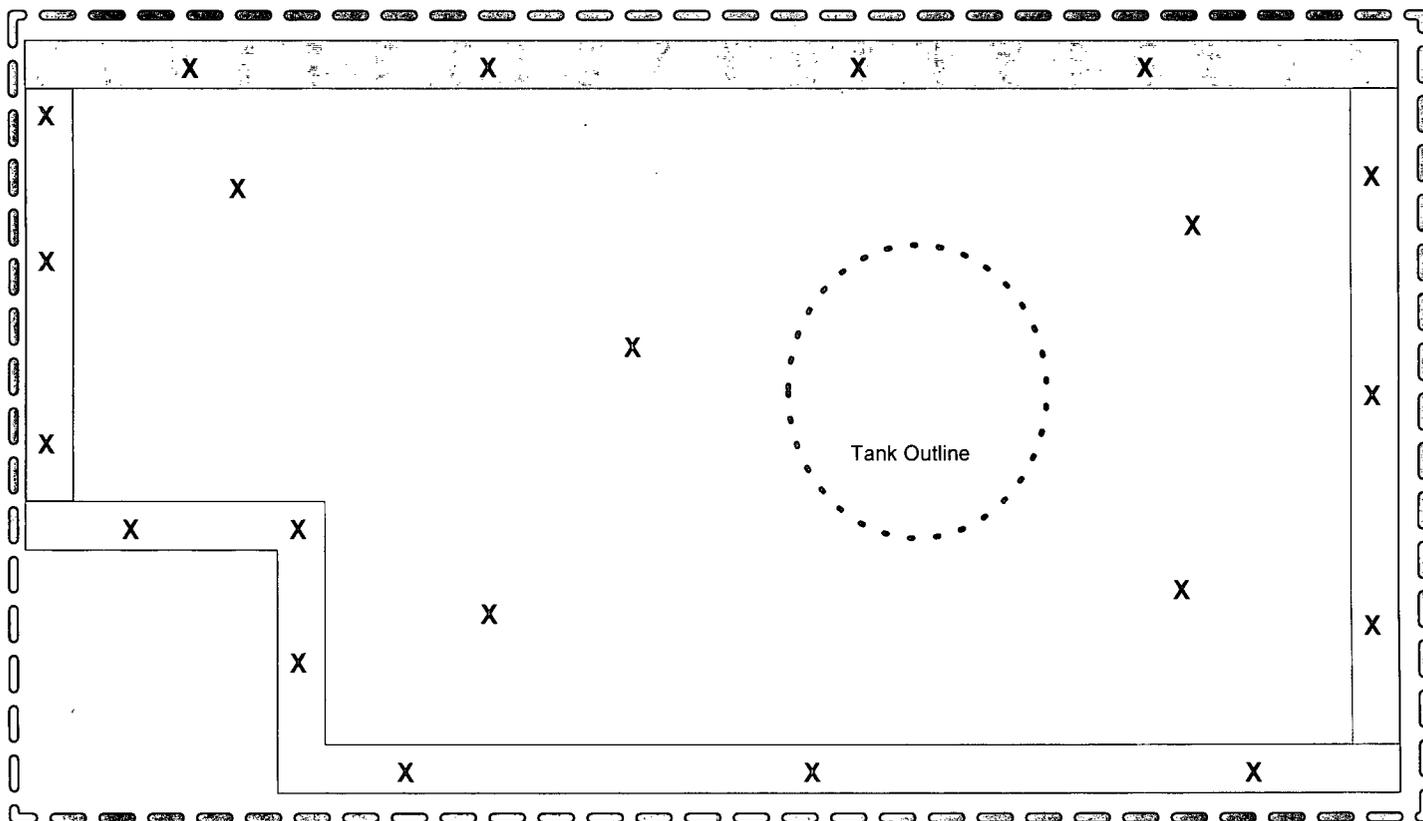
Robert Asher  
Environmental Regulatory Agent

/rca  
Enclosure(s)





Battery Outline



Sample ID	Sample Area	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	TOTAL
Comp-12.0 B	Bottom	11/2/210	Grab/Shovel	12' BSL	0.0029	ND	261	261
Comp-11.0 SSW	South Sidew all	11/2/2010	Grab/Shovel	11' BSL	ND	ND	ND	ND
Comp-11.0 WSW	West Sidew all	11/2/2010	Grab/Shovel	11' BSL	0.1992	26	456	482
Comp-11.0 NSW	North Sidew all	11/2/2010	Grab/Shovel	11' BSL	0.0109	ND	ND	ND
Comp-11.0 ESW	East Sidew all	11/2/2010	Grab/Shovel	11' BSL	0.0718	ND	283	283

Site Ranking is Ten (10). Depth to Ground Water 50-99' (65', Section 7, T20S-R29E). All results are ppm.

X - Sample Points. BSL - Below Surface Level.



Superior KJ Federal #1

30-015-22908

Section 7, T20S-R29E

Eddy County, NM

SAMPLE DIAGRAM (Not to Scale)

Xenco: #395781

Prepared by Robert Asher  
Environmental Regulatory Agent

# Analytical Report 395781

for  
**Yates Petroleum Corporation**

**Project Manager: Robert Asher**

**Superior KJ Federal Com. # 1**

**30-015-22908**

**09-NOV-10**



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

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

Texas (T104704215-10-6-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 (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-Corpus Christi (EPA Lab code: TX02613):** Texas (T104704370)

**Xenco-Boca Raton (EPA Lab Code: FL01273):**

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

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

Arizona(AZ0757), California(06244CA), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

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

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



09-NOV-10

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

Reference: XENCO Report No: **395781**  
**Superior KJ Federal Com. # 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 395781. 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. 395781 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 395781**



**Yates Petroleum Corporation, Artesia, NM**  
Superior KJ Federal Com. # 1

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
Comp-12.0 B	S	Nov-02-10 10:33	12 - 12 ft	395781-001
Comp-11.0 SSW	S	Nov-02-10 10:44	11 - 11 ft	395781-002
Comp-11.0 WSW	S	Nov-02-10 10:53	11 - 11 ft	395781-003
Comp-11.0 NSW	S	Nov-02-10 11:02	11 - 11 ft	395781-004
Comp-11.0 ESW	S	Nov-02-10 11:13	11 - 11 ft	395781-005



# CASE NARRATIVE

Client Name: Yates Petroleum Corporation

Project Name: Superior KJ Federal Com. # 1



Project ID: 30-015-22908  
Work Order Number: 395781

Report Date: 09-NOV-10  
Date Received: 11/03/2010

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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-830447 TPH by SW 8015B  
SW8015B\_NM

Batch 830447, C6-C10 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 395781-004, -001, -005, -003, -002.

The Laboratory Control Sample for C6-C10 Gasoline Range Hydrocarbons is within laboratory Control Limits

Batch: LBA-831077 BTEX by EPA 8021  
SW8021BM

Batch 831077, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 395781-004.

4-Bromofluorobenzene recovered above QC limits. Data not confirmed by re-analysis. Samples affected are: 578178-1-BLK, 395999-004 S, 395999-004 SD, 395781-005, 395781-002, 395781-001, 395781-003.

SW8021BM

Batch 831077, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 395781-004, -001, -005, -003, -002.

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



## Certificate of Analysis Summary 395781

Yates Petroleum Corporation, Artesia, NM

Project Name: Superior KJ Federal Com. # 1



Project Id: 30-015-22908

Contact: Robert Asher

Project Location: Eddy County

Date Received in Lab: Wed Nov-03-10 09:33 am

Report Date: 09-NOV-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	395781-001	395781-002	395781-003	395781-004	395781-005
	<b>Field Id:</b>	Comp-12.0 B	Comp-11.0 SSW	Comp-11.0 WSW	Comp-11.0 NSW	Comp-11.0 ESW
	<b>Depth:</b>	12-12 ft	11-11 ft	11-11 ft	11-11 ft	11-11 ft
	<b>Matrix:</b>	SOIL	SOIL	SOIL	SOIL	SOIL
	<b>Sampled:</b>	Nov-02-10 10:33	Nov-02-10 10:44	Nov-02-10 10:53	Nov-02-10 11:02	Nov-02-10 11:13
<b>BTEX by EPA 8021</b>	<b>Extracted:</b>	Nov-05-10 16:17				
	<b>Analyzed:</b>	Nov-08-10 11:23	Nov-08-10 11:44	Nov-08-10 12:06	Nov-08-10 12:27	Nov-08-10 12:48
	<b>Units/RL:</b>	mg/kg RL				
Benzene		ND 0.0011	ND 0.0012	ND 0.0012	ND 0.0012	ND 0.0011
Toluene		ND 0.0022	ND 0.0024	0.0101 0.0023	ND 0.0023	0.0035 0.0022
Ethylbenzene		ND 0.0011	ND 0.0012	0.0170 0.0012	ND 0.0012	0.0033 0.0011
m,p-Xylenes		ND 0.0022	ND 0.0024	0.0502 0.0023	0.0023 0.0023	0.0158 0.0022
o-Xylene		0.0029 0.0011	ND 0.0012	0.1219 0.0012	0.0086 0.0012	0.0492 0.0011
Xylenes, Total		0.0029 0.0011	ND 0.0012	0.1721 0.0012	0.0109 0.0012	0.0650 0.0011
Total BTEX		0.0029 0.0011	ND 0.0012	0.1992 0.0012	0.0109 0.0012	0.0718 0.0011
<b>Percent Moisture</b>	<b>Extracted:</b>					
	<b>Analyzed:</b>	Nov-04-10 08:15				
	<b>Units/RL:</b>	% RL				
Percent Moisture		10.2 1.00	15.6 1.00	14.3 1.00	13.7 1.00	8.94 1.00
<b>TPH by SW 8015B</b>	<b>Extracted:</b>	Nov-03-10 12:00				
	<b>Analyzed:</b>	Nov-03-10 18:34	Nov-03-10 19:03	Nov-03-10 19:32	Nov-03-10 20:03	Nov-04-10 11:08
	<b>Units/RL:</b>	mg/kg RL				
C6-C10 Gasoline Range Hydrocarbons		ND 16.7	ND 17.7	26.0 17.5	ND 17.5	ND 16.5
C10-C28 Diesel Range Hydrocarbons		261 16.7	ND 17.7	456 17.5	ND 17.5	283 16.5
Total TPH		261 16.7	ND 17.7	482 17.5	ND 17.5	283 16.5

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 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

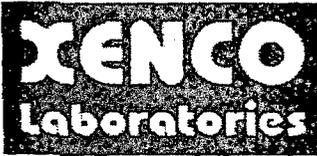
- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the 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





**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 Corporation  
 Date/Time: 11/03/10  
 Lab ID #: 395781  
 Initials: XM

**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	<u>No</u>	N/A	
17. VOC sample have zero head space?	<u>Yes</u>	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs 3.6 °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 372881

for

## Yates Petroleum Corporation

Project Manager: Robert Asher

Superior KJ Federal Com. #1

30-015-22908

24-MAY-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 (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-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)



24-MAY-10

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

Reference: XENCO Report No: **372881**  
**Superior KJ Federal Com. #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 372881. 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. 372881 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 372881



Yates Petroleum Corporation, Artesia, NM  
Superior KJ Federal Com. #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
GS/Comp-006W	S	May-12-10 10:00	6 - 6 ft	372881-001
GS/Comp-008W	S	May-12-10 10:10	8 - 8 ft	372881-002
GS/Comp-006SE	S	May-12-10 10:25	6 - 6 ft	372881-003
GS/Comp-008SE	S	May-12-10 10:35	8 - 8 ft	372881-004
GS/Comp-006NE	S	May-12-10 10:55	6 - 6 ft	372881-005
GS/Comp-008NE	S	May-12-10 11:05	8 - 8 ft	372881-006



## CASE NARRATIVE

Client Name: Yates Petroleum Corporation

Project Name: Superior KJ Federal Com. #1



Project ID: 30-015-22908  
Work Order Number: 372881

Report Date: 24-MAY-10  
Date Received: 05/14/2010

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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-806719 Percent Moisture

None

Batch: LBA-806766 TPH by SW 8015B  
SW8015B\_NM

Batch 806766, 1-Chlorooctane recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis  
Samples affected are: 372881-005 S,372881-001.

SW8015B\_NM

Batch 806766, C6-C10 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike. C10-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 372881-002, -006, -001, -003, -004, -005.

The Laboratory Control Sample for C6-C10 Gasoline Range Hydrocarbons , C10-C28 Diesel Range Hydrocarbons is within laboratory Control Limits

Batch: LBA-807744 BTEX by EPA 8021  
SW8021BM

Batch 807744, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 372881-006 D,372881-003,372881-005,372881-006,372881-002,372881-001.

4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 372881-006 D,372881-002,372881-003,372881-005,372881-006,372881-004.



**Certificate of Analysis Summary 372881**  
**Yates Petroleum Corporation, Artesia, NM**  
**Project Name: Superior KJ Federal Com. #1**



Project Id: 30-015-22908  
 Contact: Robert Asher  
 Project Location: Eddy County

Date Received in Lab: Fri May-14-10 09:40 am  
 Report Date: 24-MAY-10  
 Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	372881-001	372881-002	372881-003	372881-004	372881-005	372881-006
	Field Id:	GS/Comp-006W	GS/Comp-008W	GS/Comp-006SE	GS/Comp-008SE	GS/Comp-006NE	GS/Comp-008NE
	Depth:	6-6 ft	8-8 ft	6-6 ft	8-8 ft	6-6 ft	8-8 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	May-12-10 10:00	May-12-10 10:10	May-12-10 10:25	May-12-10 10:35	May-12-10 10:55	May-12-10 11:05
BTEX by EPA 8021	Extracted:	May-21-10 11:00					
	Analyzed:	May-21-10 17:20	May-21-10 17:42	May-21-10 18:05	May-21-10 18:50	May-21-10 19:12	May-22-10 10:01
	Units/RL:	mg/kg RL					
Benzene		ND 0.1142	ND 0.1182	ND 0.1145	ND 0.2976	ND 0.5988	ND 0.6289
Toluene		3.339 0.2283	3.371 0.2364	0.8751 0.2291	ND 0.5952	15.56 1.198	5.107 1.258
Ethylbenzene		1.018 0.1142	1.245 0.1182	0.4994 0.1145	0.7113 0.2976	8.659 0.5988	5.314 0.6289
m,p-Xylenes		10.76 0.2283	12.69 0.2364	5.678 0.2291	9.164 0.5952	85.40 1.198	52.63 1.258
o-Xylene		2.620 0.1142	3.207 0.1182	1.402 0.1145	3.152 0.2976	22.87 0.5988	14.91 0.6289
Xylenes, Total		13.38 0.1142	15.90 0.1182	7.080 0.1145	12.316 0.2976	108.27 0.5988	67.54 0.6289
Total BTEX		17.74 0.1142	20.51 0.1182	8.455 0.1145	13.027 0.2976	132.49 0.5988	77.96 0.6289
<b>Percent Moisture</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	May-14-10 17:00					
	<b>Units/RL:</b>	% RL					
Percent Moisture		12.4 1.00	15.4 1.00	12.7 1.00	16.0 1.00	16.5 1.00	20.5 1.00
<b>TPH by SW 8015B</b>	<b>Extracted:</b>	May-14-10 13:45					
	<b>Analyzed:</b>	May-14-10 19:12	May-14-10 19:40	May-14-10 20:07	May-14-10 20:34	May-14-10 21:01	May-14-10 21:28
	<b>Units/RL:</b>	mg/kg RL					
C6-C10 Gasoline Range Hydrocarbons		4480 17.2	4210 17.7	2900 17.2	623 17.9	3380 17.9	525 18.9
C10-C28 Diesel Range Hydrocarbons		1540 17.2	942 17.7	827 17.2	283 17.9	1070 17.9	137 18.9
Total TPH		6020 17.2	5152 17.7	3727 17.2	906 17.9	4450 17.9	662 18.9

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

\* Outside XENCO's scope of NELAC Accreditation.

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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

### Variance/ Corrective Action Report- Sample Log-In

Client: Yates  
 Date/ Time: 05/14/10 9:40  
 Lab ID #: 372881  
 Initials: TB

### Sample Receipt Checklist

Client Initials

Question	Yes	No	Notes	Client Initials
#1 Temperature of container/ cooler?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.6 °C	
#2 Shipping container in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
#3 Custody Seals intact on shipping container/ cooler?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Not Present	
#4 Custody Seals intact on sample bottles/ container?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Not Present	
#5 Chain of Custody present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
#6 Sample instructions complete of Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
#7 Chain of Custody signed when relinquished/ received?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
#8 Chain of Custody agrees with sample label(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID written on Cont./ Lid	
#9 Container label(s) legible and intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
#11 Containers supplied by ELOT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
#12 Samples in proper container/ bottle?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Below	
#13 Samples properly preserved?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Below	
#14 Sample bottles intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
#15 Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
#16 Containers documented on Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
#17 Sufficient sample amount for indicated test(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Below	
#18 All samples received within sufficient hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Below	
#19 Subcontract of sample(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Not Applicable	
#20 VOC samples have zero headspace?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 371454

for

## Yates Petroleum Corporation

**Project Manager: Robert Asher**

**Superior KJ Federal Com. # 1**

**30-015-22908**

**10-MAY-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 (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-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)



10-MAY-10

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

Reference: XENCO Report No: **371454**  
**Superior KJ Federal Com. # 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 371454. 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. 371454 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 371454



Yates Petroleum Corporation, Artesia, NM  
Superior KJ Federal Com. # 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
GS/Comp-01.0	S	May-04-10 09:16	4 - 4 ft	371454-001
GS/Comp-02.0	S	May-04-10 09:36	5 - 5 ft	371454-002
GS/Comp-01.0SE	S	May-04-10 09:56	4 - 4 ft	371454-003
GS/Comp-02.0SE	S	May-04-10 10:25	5 - 5 ft	371454-004
GS/Comp-01.0NE	S	May-04-10 10:43	4 - 4 ft	371454-005
GS/Comp-02.0NE	S	May-04-10 11:10	5 - 5 ft	371454-006
GS/Comp-01.0ESW	S	May-04-10 11:22	3 - 3 ft	371454-007
GS/Comp-01.0WSW	S	May-04-10 11:35	3 - 3 ft	371454-008



## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*

*Project Name: Superior KJ Federal Com. # 1*

*Project ID: 30-015-22908*  
*Work Order Number: 371454*

*Report Date: 10-MAY-10*  
*Date Received: 05/05/2010*

---

**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-805324 Percent Moisture

None

Batch: LBA-805325 Percent Moisture

None

Batch: LBA-805414 TPH by SW 8015B  
SW8015B\_NM

Batch 805414, C10-C28 Diesel Range Hydrocarbons, C6-C10 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike.

Samples affected are: 371454-007, -001, -006, -008, -003, -004, -002, -005.

The Laboratory Control Sample for C6-C10 Gasoline Range Hydrocarbons, C10-C28 Diesel Range Hydrocarbons is within laboratory Control Limits

Batch: LBA-805774 BTEX by EPA 8021  
SW8021BM

Batch 805774, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 371454-001 D, 371454-002, 371454-003, 371454-004, 371454-006, 371454-007, 371454-008, 371454-001, 371454-005.

4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 371454-008.



**Certificate of Analysis Summary 371454**  
**Yates Petroleum Corporation, Artesia, NM**  
**Project Name: Superior KJ Federal Com. # 1**

Project Id: 30-015-22908  
 Contact: Robert Asher  
 Project Location: Eddy County

Date Received in Lab: Wed May-05-10 09:35 am  
 Report Date: 10-MAY-10  
 Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	371454-001	371454-002	371454-003	371454-004	371454-005	371454-006
	Field Id:	GS/Comp-01.0	GS/Comp-02.0	GS/Comp-01.0SE	GS/Comp-02.0SE	GS/Comp-01.0NE	GS/Comp-02.0NE
	Depth:	4-4 ft	5-5 ft	4-4 ft	5-5 ft	4-4 ft	5-5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	May-04-10 09:16	May-04-10 09:36	May-04-10 09:56	May-04-10 10:25	May-04-10 10:43	May-04-10 11:10
BTEX by EPA 8021	Extracted:	May-07-10 16:00					
	Analyzed:	May-08-10 01:12	May-08-10 01:35	May-08-10 01:57	May-08-10 02:19	May-08-10 02:42	May-08-10 03:04
	Units/RL:	mg/kg RL					
Benzene		7.330 6.545	1.402 1.208	10.01 6.297	ND 1.227	6.664 6.287	ND 6.110
Toluene		183.5 13.09	62.83 2.417	304.3 12.59	42.27 2.454	229.2 12.57	121.3 12.22
Ethylbenzene		33.57 6.545	15.32 1.208	57.37 6.297	11.10 1.227	47.59 6.287	31.47 6.110
m,p-Xylenes		360.6 13.09	150.7 2.417	564.9 12.59	122.0 2.454	463.4 12.57	306.3 12.22
o-Xylene		88.61 6.545	38.81 1.208	144.3 6.297	31.77 1.227	115.0 6.287	80.10 6.110
Xylenes, Total		449.2 6.545	189.5 1.208	709.2 6.297	153.8 1.227	578.4 6.287	386.4 6.110
Total BTEX		673.6 6.545	269.1 1.208	1080.9 6.297	207.1 1.227	861.9 6.287	539.2 6.110
Percent Moisture	Extracted:						
	Analyzed:	May-05-10 17:00					
	Units/RL:	% RL					
Percent Moisture		23.6 1.00	18.0 1.00	20.6 1.00	18.5 1.00	21.1 1.00	18.0 1.00
TPH by SW 8015B	Extracted:	May-05-10 11:00					
	Analyzed:	May-06-10 01:47	May-06-10 11:12	May-06-10 11:39	May-06-10 03:08	May-06-10 12:06	May-06-10 04:03
	Units/RL:	mg/kg RL					
C6-C10 Gasoline Range Hydrocarbons		6220 19.7	8530 91.5	18700 94.3	4900 18.3	11200 94.7	5990 18.2
C10-C28 Diesel Range Hydrocarbons		1360 19.7	2230 91.5	4440 94.3	1520 18.3	2690 94.7	1740 18.2
Total TPH		7580 19.7	10760 91.5	23140 94.3	6420 18.3	13890 94.7	7730 18.2

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



## Certificate of Analysis Summary 371454

Yates Petroleum Corporation, Artesia, NM

Project Name: Superior KJ Federal Com. # 1

Project Id: 30-015-22908

Contact: Robert Asher

Project Location: Eddy County

Date Received in Lab: Wed May-05-10 09:35 am

Report Date: 10-MAY-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	371454-007	371454-008			
	Field Id:	GS/Comp-01.0ESW	GS/Comp-01.0WSW			
	Depth:	3-3 ft	3-3 ft			
	Matrix:	SOIL	SOIL			
	Sampled:	May-04-10 11:22	May-04-10 11:35			
<b>BTEX by EPA 8021</b>	Extracted:	May-07-10 16:00	May-07-10 16:00			
	Analyzed:	May-08-10 03:27	May-08-10 03:49			
	Units/RL:	mg/kg    RL	mg/kg    RL			
Benzene		ND    6.740	ND    0.5573			
Toluene		265.4    13.48	17.29    1.115			
Ethylbenzene		63.28    6.740	9.781    0.5573			
m,p-Xylenes		633.0    13.48	86.33    1.115			
o-Xylene		160.3    6.740	27.04    0.5573			
Xylenes, Total		793.3    6.740	113.37    0.5573			
Total BTEX		1122.0    6.740	140.44    0.5573			
<b>Percent Moisture</b>	Extracted:					
	Analyzed:	May-05-10 17:00	May-05-10 17:00			
	Units/RL:	%        RL	%        RL			
Percent Moisture		26.4    1.00	11.0    1.00			
<b>TPH by SW 8015B</b>	Extracted:	May-05-10 11:00	May-05-10 11:00			
	Analyzed:	May-06-10 12:33	May-06-10 04:57			
	Units/RL:	mg/kg    RL	mg/kg    RL			
C6-C10 Gasoline Range Hydrocarbons		14600    102	3780    16.9			
C10-C28 Diesel Range Hydrocarbons		3760    102	1460    16.9			
Total TPH		18360    102	5240    16.9			

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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
- \* Outside XENCO's scope of NELAC Accreditation.

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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

### Variance/ Corrective Action Report- Sample Log-In

Client: Yates Petroleum  
 Date/ Time: 5.5.10 9:35  
 Lab ID #: 371454  
 Initials: AL

#### Sample Receipt Checklist

				Client Initials
#1 Temperature of container/ cooler?	(Yes)	No	1.6 °C	
#2 Shipping container in good condition?	(Yes)	No		
#3 Custody Seals intact on shipping container/ cooler?	(Yes)	No	Not Present	
#4 Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5 Chain of Custody present?	(Yes)	No		
#6 Sample instructions complete of Chain of Custody?	(Yes)	No		
#7 Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8 Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9 Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11 Containers supplied by ELOT?	(Yes)	No		
#12 Samples in proper container/ bottle?	(Yes)	No	See Below	
#13 Samples properly preserved?	(Yes)	No	See Below	
#14 Sample bottles intact?	(Yes)	No		
#15 Preservations documented on Chain of Custody?	(Yes)	No		
#16 Containers documented on Chain of Custody?	(Yes)	No		
#17 Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18 All samples received within sufficient hold time?	(Yes)	No	See Below	
#19 Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20 VOC samples have zero headspace?	(Yes)	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 361970

for

## Yates Petroleum Corporation

Project Manager: Robert Asher

Superior KJ Federal Com. # 1

30-015-22908

17-FEB-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 (I1763), 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-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)



17-FEB-10

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

Reference: XENCO Report No: **361970**  
**Superior KJ Federal Com. # 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 361970. 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. 361970 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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*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 361970**



**Yates Petroleum Corporation, Artesia, NM**  
Superior KJ Federal Com. # 1

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
GS/Comp-001	S	Feb-09-10 14:32	3 - 3 ft	361970-001
GS/Comp-002	S	Feb-09-10 14:50	3 - 3 ft	361970-002
GS/Comp-003	S	Feb-09-10 15:09	3 - 3 ft	361970-003



## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*

*Project Name: Superior KJ Federal Com. # 1*

*Project ID: 30-015-22908*

*Work Order Number: 361970*

*Report Date: 17-FEB-10*

*Date Received: 02/11/2010*

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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-793514 Percent Moisture*

*None*

*Batch: LBA-793600 TPH by SW 8015B*

*SW8015B\_NM*

*Batch 793600, C10-C28 Diesel Range Hydrocarbons RPD was outside QC limits.*

*Samples affected are: 361970-001, -003, -002*

*SW8015B\_NM*

*Batch 793600, C10-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike. C6-C10 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike Duplicate. C10-C28 Diesel Range Hydrocarbons recovered above QC limits in the Matrix Spike Duplicate.*

*Samples affected are: 361970-001, -003, -002.*

*The Laboratory Control Sample for C6-C10 Gasoline Range Hydrocarbons , C10-C28 Diesel Range Hydrocarbons is within laboratory Control Limits*



## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*

*Project Name: Superior KJ Federal Com. # 1*

*Project ID: 30-015-22908*  
*Work Order Number: 361970*

*Report Date: 17-FEB-10*  
*Date Received: 02/11/2010*

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*Batch: LBA-794039 BTEX by EPA 8021*  
*SW8021BM*

*Batch 794039, 1,4-Difluorobenzene recovered below QC limits Sample data confirmed by re-analysis, QC data not confirmed. Samples affected are: 550473-1-BLK,362277-002 S,362277-002 SD,361970-003,361970-002,361970-001.*

*4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; Sample data confirmed by re-analysis, QC data not confirmed*  
*Samples affected are: 362277-002 S,362277-002 SD,361970-001,361970-002.*

*SW8021BM*

*Batch 794039, o-Xylene recovered below QC limits in the Matrix Spike. Benzene, Ethylbenzene, Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.*  
*Samples affected are: 361970-001, -003, -002.*

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



## Certificate of Analysis Summary 361970

Yates Petroleum Corporation, Artesia, NM

Project Name: Superior KJ Federal Com. # 1

Project Id: 30-015-22908

Contact: Robert Asher

Project Location: Eddy County

Date Received in Lab: Thu Feb-11-10 10:40 am

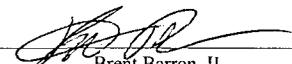
Report Date: 17-FEB-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	361970-001	361970-002	361970-003			
	Field Id:	GS/Comp-001	GS/Comp-002	GS/Comp-003			
	Depth:	3-3 ft	3-3 ft	3-3 ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	Feb-09-10 14:32	Feb-09-10 14:50	Feb-09-10 15:09			
<b>BTEX by EPA 8021</b>	Extracted:	Feb-15-10 16:56	Feb-15-10 16:56	Feb-15-10 16:56			
	Analyzed:	Feb-16-10 12:00	Feb-16-10 12:46	Feb-16-10 13:32			
	Units/RL:	mg/kg    RL	mg/kg    RL	mg/kg    RL			
Benzene		9.688    6.636	12.91    6.758	7.333    6.606			
Toluene		451.6    13.27	447.2    13.52	198.6    13.21			
Ethylbenzene		99.80    6.636	78.86    6.758	36.46    6.606			
m,p-Xylenes		950.4    13.27	838.6    13.52	385.9    13.21			
o-Xylene		259.3    6.636	224.6    6.758	98.63    6.606			
Xylenes, Total		1209.7    6.636	1063.2    6.758	484.5    6.606			
Total BTEX		1770.8    6.636	1602.2    6.758	726.9    6.606			
<b>Percent Moisture</b>	Extracted:	Feb-11-10 17:00	Feb-11-10 17:00	Feb-11-10 17:00			
	Analyzed:	Feb-11-10 17:00	Feb-11-10 17:00	Feb-11-10 17:00			
	Units/RL:	%        RL	%        RL	%        RL			
Percent Moisture		24.7    1.00	26.0    1.00	24.3    1.00			
<b>TPH by SW 8015B</b>	Extracted:	Feb-11-10 13:00	Feb-11-10 13:00	Feb-11-10 13:00			
	Analyzed:	Feb-12-10 12:16	Feb-12-10 12:43	Feb-12-10 13:10			
	Units/RL:	mg/kg    RL	mg/kg    RL	mg/kg    RL			
C6-C10 Gasoline Range Hydrocarbons		32300    198	34100    407	17000    98.9			
C10-C28 Diesel Range Hydrocarbons		7520    198	7030    407	4270    98.9			
Total TPH		39820    198	41130    407	21270    98.9			

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



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

Client: Vates Petroleum  
 Date/ Time: 2-10-11 10:40  
 Lab ID #: 36170  
 Initials: AL

**Sample Receipt Checklist**

Client Initials

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