

# Analytical Report 427326

for  
**Yates Petroleum Corporation**

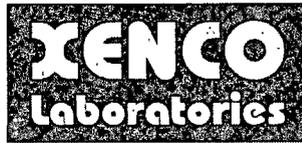
**Project Manager: Jeremy Haass**

**Squires 'ALR' # 2**

**30-015-34246**

**22-SEP-11**

Collected By: Client



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



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

Xenco-Houston (EPA Lab code: TX00122):

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

Xenco-Atlanta (EPA Lab Code: GA00046):

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

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

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

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

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

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

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

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



22-SEP-11

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

Reference: XENCO Report No: **427326**  
**Squires 'ALR' # 2**  
Project Address: Eddy

**Jeremy Haass:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 427326. 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. 427326 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 427326**



**Yates Petroleum Corporation, Artesia, NM**  
Squires 'ALR' # 2

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
Sample # 1	S	09-08-11 09:45	1 - 1 ft	427326-001
Sample # 2	S	09-08-11 10:00	1.5 - 1.5 ft	427326-002
Sample # 3	S	09-08-11 10:15	8 - 8 In	427326-003
Sample # 4	S	09-08-11 10:15	6 - 6 In	427326-004
Sample # 5	S	09-08-11 10:30	1 - 1 ft	427326-005
Sample # 6	S	09-08-11 10:45	1 - 1 ft	427326-006



## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*

*Project Name: Squires 'ALR' # 2*



*Project ID: 30-015-34246*

*Work Order Number: 427326*

*Report Date: 22-SEP-11*

*Date Received: 09/09/2011*

---

**Sample receipt non conformances and comments:**

None

---

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

None



# Certificate of Analysis Summary 427326

Yates Petroleum Corporation, Artesia, NM

Project Name: Squires 'ALR' # 2



Project Id: 30-015-34246

Contact: Jeremy Haass

Project Location: Eddy

Date Received in Lab: Fri Sep-09-11 10:00 am

Report Date: 22-SEP-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	427326-001	427326-002	427326-003	427326-004	427326-005	427326-006
	<i>Field Id:</i>	Sample # 1	Sample # 2	Sample # 3	Sample # 4	Sample # 5	Sample # 6
	<i>Depth:</i>	1-1 ft	1.5-1.5 ft	8-8 In	6-6 In	1-1 ft	1-1 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Sep-08-11 09:45	Sep-08-11 10:00	Sep-08-11 10 15	Sep-08-11 10:15	Sep-08-11 10 30	Sep-08-11 10.45
<b>Anions by E300</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Sep-11-11 19.03	Sep-11-11 19 03	Sep-11-11 19 03	Sep-11-11 19.03	Sep-11-11 19 03	Sep-11-11 19:03
	<i>Units/RL:</i>	mg/kg RL					
Chloride		28600 479	21200 465	32800 461	23300 444	21600 446	25700 460
<b>Percent Moisture</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Sep-09-11 15:12	Scp-09-11 15:12	Sep-09-11 15:12	Sep-09-11 15:30	Sep-09-11 15.30	Sep-09-11 15.30
	<i>Units/RL:</i>	% RL					
Percent Moisture		12.3 1.00	9.68 1 00	8 99 1.00	5.45 1.00	5.89 1.00	8 62 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.

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

  
Brent Barron II  
Odessa Laboratory Manager



# Flagging Criteria

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

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

***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 - Atlanta - Midland/Odessa - Tampa/Lakeland - Miami - Phoenix - Latin America

	Phone	Fax
4143 Greenbriar Dr, Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
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
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave, Phoenix, AZ 85040	(602) 437-0330	



# BS / BSD Recoveries



Project Name: Squires 'ALR' # 2

Work Order #: 427326

Analyst: BRB

Date Prepared: 09/11/2011

Project ID: 30-015-34246

Date Analyzed: 09/11/2011

Lab Batch ID: 869675

Sample: 869675-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

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

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.840	20.0	21.8	109	20.0	22.0	110	1	75-125	20	

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



# Form 3 - MS Recoveries



Project Name: Squires 'ALR' # 2

Work Order #: 427326  
Lab Batch #: 869675  
Date Analyzed: 09/11/2011  
QC- Sample ID: 427326-001 S  
Reporting Units: mg/kg

Date Prepared: 09/11/2011

Project ID: 30-015-34246  
Analyst: BRB

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	28600	11400	41600	114	75-125	

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

BRL - Below Reporting Limit



# Sample Duplicate Recovery



Project Name: Squires 'ALR' # 2

Work Order #: 427326

Lab Batch #: 869675  
Date Analyzed: 09/11/2011 19:03  
QC- Sample ID: 427326-001 D

Date Prepared: 09/11/2011  
Batch #: 1

Project ID: 30-015-34246  
Analyst: BRB  
Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	28600	28800	1	20	

Lab Batch #: 869627  
Date Analyzed: 09/09/2011 11:15  
QC- Sample ID: 427302-002 D  
Reporting Units: %

Date Prepared: 09/09/2011  
Batch #: 1

Analyst: BRB  
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	1.57	1.41	11	20	

Lab Batch #: 869633  
Date Analyzed: 09/09/2011 15:30  
QC- Sample ID: 427325-004 D  
Reporting Units: %

Date Prepared: 09/09/2011  
Batch #: 1

Analyst: BRB  
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	5.46	5.03	8	20	

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





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

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

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

Client: Yaks Petroleum  
 Date/Time: 9-9-11 10:00  
 Lab ID #: 427325 / 427324  
 Initials: AE

**Sample Receipt Checklist**

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