### **WILLIAMS BATTERY**

Analytical Report 426978	Sample/Area	Sample)Date	Sample Type)	⊬ ∳Depth	BTEX'	GRO	DR0	TOTAL	Chlorides
Comp-#1	Release Area	11/1/2011	Comp/Auger	1'	ND	ND	55.4	55.4	4,480
Comp-#2	Release Area	11/1/2011	Comp/Auger	2'	ND	ND	ND	ND	5,020
Comp-#3/2-#	Release Area	11/1/2011	Comp/Auger	2'	ND	ND	ND	ND	3,760
Comp:#4	Release Area	11/1/2011	Comp/Auger	3'	ND	ND	ND	ND	3,520

Analytical Report	Sample Area	Sample Date	Sample Type	Depth	BTEX GRO DRO TOTAL Chlorides
GrabiS1:4%	Release Area	12/14/2011	Grab/Backhoe	4'	1,470
Grab S1-5	Release Area	12/14/2011	Grab/Backhoe	5'	1,500
Grab;S1;-6	Release Area	12/14/2011	Grab/Backhoe	6'	1,880
Grab S1-7-1	Release Area	12/14/2011	Grab/Backhoe	7'	944
Grab S1+8	Release Area	12/14/2011	Grab/Backhoe	8'	1,490
Cabe1-4	Release Area	12/14/2011	Grab/Backhoe	4'	5,120
Ciab E1-5	Release Area	12/14/2011	Grab/Backhoe	5'	8,130
Gab E1-6	Release Area	12/14/2011	Grab/Backhoe	6'	4,400
GabE1-7	Release Area	12/14/2011	Grab/Backhoe	7'	6,640
Grad E1-8	Release Area	12/14/2011	Grab/Backhoe	8'	6,560
Grab E2-4	Release Area	12/14/2011	Grab/Backhoe	4'	7,200
Grab E2-5	Release Area	12/14/2011	Grab/Backhoe	5'	5,680
Grab E2-6	Release Area	12/14/2011	Grab/Backhoe	6'	5,600
Grab E2-8	Release Area	12/14/2011	Grab/Backhoe	7'	6,080
Grab E2-8	Release Area	12/14/2011	Grab/Backhoe	8'	6,320

Site Ranking is TWENTY (20). Depth to Ground Water <50' (approx. 35', Section 25-18S-26E, per NMOSE).

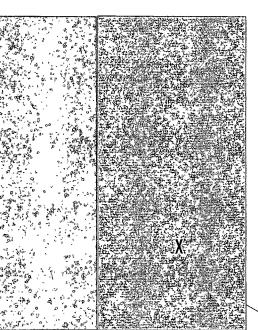
All results are ppm.Chlorides for documentation. X - Sample Points

Released: 189 B/PW; Recovered: 120 B/PW. Release Date: 9/18/2011

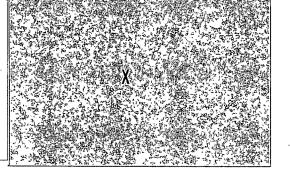




TANK BATTERY



Release/Excavation Area (contamainated soils scraped from surface)





**Williams Battery** 

30-015-24072

Section 25, T18S-R26E

**Eddy County, NM** 

**SAMPLE DIAGRAM(Not to Scale)** 

Xenco Laboratories#H102701 Report Date: 12/17/2011

Prepared by Amber Cannon Environmental Regulatory Agent LEASE ROAD X X X X TANK BATTERY X X X X Release/Excavation Area (contamainated soils scraped from surface)



**Williams Battery** 

30-015-24072

**Section 25, T18S-R26E** 

**Eddy County, NM** 

SAMPLE DIAGRAM(Not to Scale)

Xenco Laboratories# 431073 & 431074 Report Date: 11/21/2011

Prepared by Amber Cannon Environmental Regulatory Agent

### **Analytical Report 431073**

# for Yates Petroleum Corporation

Project Manager: Amber Cannon
Williams Battery
30-015-24072
21-NOV-11

Collected By: Client



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### 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)

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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)



21-NOV-11

Project Manager: Amber Cannon Yates Petroleum Corporation 105 South Fourth St. Artesia, NM 88210

Reference: XENCO Report No: 431073

Williams Battery

Project Address: 25-18S-26E, Eddy County

#### Amber Cannon:

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 431073. 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. 431073 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

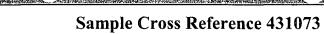
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### Yates Petroleum Corporation, Artesia, NM

Williams Battery

Sample Id	Matrix	<b>Date Collected</b>	Sample Depth	Lab Sample Id
Comp E-1	S	11-01-11 14:20	1 - 1 ft	431073-001
Comp E-2	S	11-01-11 14:40	2 - 2 ft	431073-002
Comp S-2	S	11-01-11 15:30	2 - 2 ft	431073-003
Comp S-3	S	11-01-11 15:45	3 - 3 ft	431073-004

### CASE NARRATIN





Client Name: Yates Petroleum Corporation

Project Name: Williams Battery



Project ID:

30-015-24072

Work Order Number: 431073

Report Date: 21-NOV-11 Date Received: 11/08/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

Analytical non nonformances and comments:

Batch: LBA-874899 BTEX by EPA 8021B

SW8021BM

Batch 874899, Ethylbenzene, o-Xylene recovered below QC limits in the Matrix Spike. Benzene, Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 431073-002, -001, -003, -004.

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

laboratory Control Limits

Batch: LBA-874915 TPH By SW8015B Mod

SW8015B NM

Batch 874915, 1-Chlorooctane recovered above QC limits . Matrix interferences is suspected;

data not confirmed by re-analysis

Samples affected are: 431073-001 S,431073-001 SD,431073-002,431073-001,431073-003. o-Terphenyl recovered above QC limits Data not confirmed by re-analysis. Samples affected are: 614198-1-BLK,431073-001 S,431073-001 SD,431073-003,431073-001,431073-002.



### Certificate of Analysis Summary 431073

### Yates Petroleum Corporation, Artesia, NM



**Project Id:** 30-015-24072

Contact: Amber Cannon

Project Name: Williams Battery

Project Location: 25-18S-26E, Eddy County

Date Received in Lab: Tue Nov-08-11 02:30 pm

Report Date: 21-NOV-11

Project Manager: Brent Barron II

	·,							1 Toject III	inger.	Dieni Barron II	 
	Lab Id:	431073-0	001	431073-0	02	431073-0	003	431073-	004		
Analysis Requested	Field Id:	Comp E	-1	Comp E	-2	Comp S	-2	Comp S	S-3		
Trunysis Requesien	Depth:	1-1 ft		2-2 ft		2-2 ft		3-3 f	t		
	Matrix:	SOLIE	)	SOLID	•	SOLI	)	SOLI	D		
	Sampled:	Nov-01-11	14:20	Nov-01-11	14:40	Nov-01-11	15.30	Nov-01-11	15:45		
BTEX by EPA 8021B	Extracted:	Nov-15-11	12:15	Nov-15-11	12.15	Nov-15-11	12 15	Nov-15-11	12.15		
	Analyzed:	Nov-15-11	14 36	Nov-15-11	14:59	Nov-15-11	15 22	Nov-15-11	15:45		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		 
Benzene		ND	0 00110	ND	0 00111	ND	0.00115	ND			
Toluene		ND	0 00220	ND	0.00222	ND	0 00231	ND	0 00229		
Ethylbenzene		ND	0.00110		0 00111	ND	0 00115	ND	0 00114		
m_p-Xylenes		ND	0 00220	ND	0 00222	ND	0.00231	ND	0 00229		
o-Xylene		ND	0.00110	ND	0 00111	ND	0.00115	ND	0 00114		
Total Xylenes		ND	0 00110	ND	111000	ND	0 00115	ND	0 00114		
Total BTEX		ND	0 00110	ND	0 00111	ND	0 00115	ND	0 00114		
Percent Moisture	Extracted:										
	Analyzed:	Nov-11-11	14.35	Nov-11-11	14.35	Nov-11-11	14.35	Nov-11-11	14.35		
	Units/RL:	%	RL	%	RL	%	RL	%	RL		
Percent Moisture		9.79	1.00	10.1	1.00	13 7	1.00	13 0	1 00		
TPH By SW8015B Mod	Extracted:	Nov-12-11	15.00	Nov-12-11	15:00	Nov-12-11	15.00	Nov-12-11	15:00		
	Analyzed:	Nov-14-11	08 41	Nov-14-11 (	09.12	Nov-14-,11	09:43	Nov-14-11	10:14		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C10 Gasoline Range Hydrocarbons		ND	166	ND	168	ND	17 4	ND	17 2		
C10-C28 Diesel Range Hydrocarbons		55.4	16.6	ND	16.8	ND	17.4	ND	17.2		
Total TPH		55 4	166	ND	16.8	ND	17.4	ND	17.2		

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 hability is limited to the amount involved for this work order unless otherwise agreed to in writing.

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Job R

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 quantiation 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 OA 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.
- \* Surrogate recovered outside laboratory control limit.

**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.

^ NELAC or State program does not offer Accreditation at this time.

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### **XENCO-Environmental Lab of Texas**

### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713

	Project Manager:	Amber Cannon														-	Pro	ject	Nan	ne: _	Nil	liar	ns I	3at	ter	<u>y</u>					
	Company Name	Yates Petroleum Corporat	lion			·										-		Pro	ojec	#: _	<u>30-0</u>	)15-:	2407	<u>′2</u>							
	Company Address:	105 South 4th Street	<del></del>													-	P	roje	ct L	oc: <u>2</u>	<u>?5-1</u> {	8S-2	6E, E	ddy	Cour	nty					
	City/State/Zip:	Artesia, NM 88210														-			PC	#: _1	032	020									
	Telephone No	575,748-4111				Fax No:		<u>575</u>	5-74	<u>8-45</u>	85					_ R	eport	For	mat	: [	ヹs	Stand	iard			TRR	iP		] NF	PDES	ŝ
	Sampler Signature:	Umpe	<u> </u>	a	nnon	e-mail:			<u>ac</u>	anı	non	@	yate	spe	etro	eun	1.co	<u>m</u>					Analy	70 E	or:					<del></del>	1
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ORDER	1#:431073/	431074						ſ	_	Prese	ovatio	n & £	of Co	ntain	ers	Ma	itrix	83			TOTA	-		-						72 h	
AB # (lab use only)		LD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled .	ield Filtered	otal #. of Contamers		HNO <sub>3</sub>			NaOH		( Specify)	SI=Sludge	Specify Other	TPH 418.1 8015M 8015	TPH. TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl. SO4, Alkalinity)	SAR / ESP / CEC	2 2	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M	Chlorides		RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
0		omp E-1	1'	1'	11/1/2011	2:20 PM	1	1	x			T				t	3	х			十	十	$\top$		x		_	х		T	х
02		omp E-2	2'	2'	11/1/2011	2:40 PM	1	1	х	i		T	$\top$	T	$\top$		5	х			1	$\top$	T		x			х		$\Gamma$	х
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04		omp S-3	3'	3'	11/1/2011	3:45 PM	4	1	х	i							3	х							x	$\Box$		х			х
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		RATE REPORT						7	1	$\neg$		1		T						$\top$	T	$\top$	T						T	$\Gamma$	
Special Ir	structions:	TPH: 8015B, BT	EX: 80	21B 8	Chlorides.	Please show	ВТ	ΕX	res	ults	as r	ng/l	kg. 1	Thai	nk ya	ou.							omm			- ,		./3			, 1, 1 ,
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### XENCO Laboratories

Attanta, 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 F

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

Client: Vatts				
Date/Time: 11/8/11 /4:30				
Lab ID#: 131073/431074				
Initials:			,	
Sample Receipt Check	list			
1. Samples on ice?	Blue	Water	No	
2. Shipping container in good condition?	Yes	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	N/A	
4. Chain of Custody present?	Yes	No		
5. Sample instructions complete on chain of custody?	Yes	No		
6. Any missing / extra samples?	Yes	No		
7. Chain of custody signed when relinquished / received?	Yes	No		
8. Chain of custody agrees with sample label(s)?	Yes	No		
9. Container labels legible and intact?	Yes	No		
10. Sample matrix / properties agree with chain of custody?	Yes	No ·		
11. Samples in proper container / bottle?	Yes	No		
12. Samples property preserved?	Yes	No	N/A	
13. Sample container intact?	Yes	No		
14. Sufficient sample amount for indicated test(s)?	Yes	No		
15. All samples received within sufficient hold time?	Yes	No		
16. Subcontract of sample(s)?	Yes	No	(N/A)	
17. VOC sample have zero head space?	Yes	No	N/A	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.	Cooler 4 N	0.	Cooler 5 No.	
lbs 20°C lbs °C lbs °C	C lbs	°c	lbs	°C
Nonconformance Docume	entation			
Contact:Contacted by:		Date/Time:_		
Regarding:				
Corrective Action Taken:				
Check all that apply:   Cooling process has begun shortly after sampling condition acceptable by NELAC 5.5.8.3.1.a.  Initial and Backup Temperature confirm out of ter	Ī.	•	rature	

☐ Client understands and would like to proceed with analysis

## **Analytical Report 431074**

# for Yates Petroleum Corporation

Project Manager: Amber Cannon
Williams Battery
30-015-24072
21-NOV-11

Collected By: Client



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

Xenco-Houston (EPA Lab code: TX00122):

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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)





Project Manager: Amber Cannon Yates Petroleum Corporation 105 South Fourth St. Artesia, NM 88210

Reference: XENCO Report No: 431074

Williams Battery

Project Address: 25-18S-26E, Eddy County

#### Amber Cannon:

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 431074. 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. 431074 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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### Yates Petroleum Corporation, Artesia, NM

Williams Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Comp E-1	S	11-01-11 14:20	1 - 1 ft	431074-001
Comp E-2	S	11-01-11 14:40	2 - 2 ft	431074-002
Comp S-2	S	11-01-11 15:30	2 - 2 ft	431074-003
Comp S-3	S	11-01-11 15:45	3 - 3 ft	431074-004

Page 3 of 11



### CASE NARRATIVE

Client Name: Yates Petroleum Corporation

Project Name: Williams Battery



*Project ID:* 30-015-24072 *Work Order Number:* 431074

Report Date: 21-NOV-11 Date Received: 11/08/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



### Certificate of Analysis Summary 431074

### Yates Petroleum Corporation, Artesia, NM



**Project Id: 30-015-24072** 

Contact: Amber Cannon

Project Location: 25-18S-26E, Eddy County

Project Name: Williams Battery

Date Received in Lab: Tue Nov-08-11 02:30 pm

Report Date: 21-NOV-11

Project Manager: Brent Barron II

								I Toject Ma	nager.	Dient Banon II	
	Lab Id:	431074-0	001	431074-Ó	002	431074-0	03	431074-0	004		
Analysis Requested	Field Id:	Comp E	-1	Comp E	-2	Comp S	-2	Comp S	-3		
Amulysis Kequesieu	Depth:	1-1 ft		2-2 ft	'	2-2 ft		3-3 ft			
	Matrix:	SOLIE	)	SOLIE	)	SOLID	)	SOLIE	)		
	Sampled:	Nov-01-11	14:20	Nov-01-11	14.40	Nov-01-11	15:30	Nov-01-11	15.45		
Anions by E300	Extracted:										
	Analyzed:	Nov-14-11	12.20	Nov-14-11	12.20	Nov-14-11	12:20	Nov-14-11	12.20		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		4480	93.1	5020	93.4	3760	97.3	3520	48.3		
Percent Moisture	Extracted:										
	Analyzed:	Nov-11-11	14.35	Nov-11-11	14:35	Nov-11-11	14:35	Nov-11-11	14.35		
	Units/RL:	%	RL	%	RL	%	RL	%	RL		
Percent Moisture		9.79	1 00	10.1	1.00	13.7	1.00	13.0	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 hability 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

John R



### 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 quantiation 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 OA 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.
- \* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

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

POL 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.

^ NELAC or State program does not offer Accreditation at this time.

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## **XENCO-Environmental Lab of Texas**

### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713

	Project Manager:	Amber Cannon													_	Proj	ect l	lame	: <u>W</u>	/illia	am:	s Ba	atte	ry					
	Company Name	Yates Petroleum Cor	poration												_		Pro.	ect #	: <u>30</u>	0-01	<u>5-24</u>	1072							
	Company Address:	105 South 4th Street				· · · · · · · · · · · · · · · · · · ·							<del></del> -		<del>-</del>	Pr	ojec	t Loc	: <u>25</u>	-18S	-26E	, Edd	ly Co	unty					
	City/State/Zip:	Artesia, NM 88210			·····	· · · · · · · · · · · · · · · · · · ·									-			PO #	: <u>10</u>	3202	0								
	Telephone No:	575 <sub>7</sub> 748-4111				Fax No:		575	748	458	5				_ Re	port	Forn	nat:	×	] Sta	ndar	.q		TF	₹RP	ĺ	Ди	PDES	
	Sampler Signature:	Umi	Jen (	<u>.</u>	1717027	e-mail:			aca	nn	on@	)ya	tesp	etro	leum	.cor	<u>n</u>												
(lab use	only)	/ Chit.														ł			Τ	CLP	An	nalyze	For:	T	$\top$	Т	一	-	1
ORDER	x#:431073/	43/074/						ı	Pr	esen	ation &	# of	Contain	ers	Mat	rix	<b>#</b>	1	TC	TAL.	Se	$\dashv$	-					8, 72 hr	
LAB # (lab use only)		LD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	ICB		HCI H2SO4		ő	Other ( Specify)	DW=Drinking Water SL=Sudge GW = Groundwater S=Soi/Solid		41B 1 8015M	Cations (Ca. Ma Na K)	¥	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg S	Volatiles	Semivolatiles BTEX 80218/5030 or RTEX 8260	RCI	NO.RM	Chiorides		RUSH TAT (Pre-Schedule) 24, 48, 72	Standard TAT
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04	C <sub>C</sub>	omp S-3	3,	3'	11/1/2011	3:45 PM	L	1	X	- -	_	↓_	-	+	s		X.	- -	+	+-	$\vdash$	<del>     </del>	×	4	┼	X		+	Х
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							П	П	T					T									$\top$						
	PLEASE P	UT CHLORIDES_																					I	$\mathbb{L}$					
	ON SEPAR	RATE REPORT																	L				$\bot$					Ш	
Special in	nstructions:	TPH: 8015B				Please show	вт	ΈX	resu	lts a	as mo	g/kg.	Tha					Sa VC	mple Cs I	Cor Free	ntam of H	mmei iers in leadsi	ntact? pace	?	-	3	8	N N	- 1
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### XENCO Laboratories

Atfanta, 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: Vates						•		
Date/Time: 11/8/11	14:30							
Lab ID#: 13107		•						
Initials:								
	······································	Si	ample Receipt C	hecki	ist			
<u></u>								
1. Samples on ice?					Blue	Water	No	
2. Shipping container in	good condition?				Yes	No	None	
3. Custody seals intact of	n shipping contai	ner (co	oler) and bottles?		Yes	No	N/A	
4. Chain of Custody pres	sent?	·			Yes	No		
5. Sample instructions c	omplete on chain	of cust	ody?		Yes	No		
6. Any missing / extra sa	mples?				Yes	(No		
7. Chain of custody sign	ed when relinquis	hed / n	eceived?		(Yes)	No		
8. Chain of custody agre	es with sample la	bel(s)?			Yes	No		
9. Container labels legib	le and intact?				Yes	No		
10. Sample matrix / prop	erties agree with	chain o	f custody?		Yes	No		
11. Samples in proper co	ontainer / bottle?		·		Yes	No		
12. Samples property pr	eserved?				Yes	No	N/A	
13. Sample container int	act?				Yes	No		
14. Sufficient sample an	ount for indicated	test(s	)?		Yes	No		
15. All samples received	within sufficient	hold tir	ne?		Yes	No		
16. Subcontract of samp	ole(s)?				Yes	No	(N/A)	
17. VOC sample have ze	ro head space?				(Yes)	No	N/A	
18. Cooler 1 No.	Cooler 2 No.		Cooler 3 No.		Cooler 4 N	lo.	Cooler 5 No.	
lbs 20°C	lbs	°C	lbs	°C	lbs	°C	lbs	°C
		None	onformance Do	cume	ntation			
Contact:	Conta	cted by	/:			Date/Time:		
						_		
Regarding:				<del> </del>	<del></del>			
Corrective Action Taker	1:							
						<del></del>		
		· · · · · · · · · · · · · · · · · · ·				<del></del>		
							*,	
Check all that apply:	Cooling process	baa b	aren abarthe aftar a				, 	

Page 11 of 11

condition acceptable by NELAC 5.5.8.3.1.a.1.

 $\hfill \Box$  Client understands and would like to proceed with analysis

□ Initial and Backup Temperature confirm out of temperature conditions



December 17, 2011

AMBER CANNON

Yates Energy Petroleum Corp

105 S 4th Street

Artesia, NM 88210

**RE: WILLIAMS BATTERY** 

Enclosed are the results of analyses for samples received by the laboratory on 12/15/11 13:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPÀ 552.2 ——— Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celeg & Keens

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

### Analytical Results For:

Yates Energy Petroleum Corp AMBER CANNON 105 S 4th Street Artesia NM, 88210

Fax To:

(505) 748-4635

Received:

12/15/2011

Sampling Date:

12/14/2011

Reported:

12/17/2011

Sampling Type:

Soil

Project Name:

WILLIAMS BATTERY

Sampling Condition:

\*\* (See Notes)

Project Number:

30-015-24072

Sample Received By:

Jodi Henson

Project Location:

25-18S-26E, EDDY COUNTY

Sample ID: S1-4 (H102701-01)

Chloride,	SM4500CI-B

#### Analyzed By: HM

Analyte

Chloride

Result

1470

Reporting Limit 16.0

Analyzed 12/16/2011

Method Blank ND

432

% Recovery 108

True Value QC 400

RPD 0.00 Qualifier

Sample ID: S1-5 (H102701-02)

Chloride,	SM4500CI-B	

Chloride, Sh	M4500CI-I	B m	g/kg	Analyzed	а ву: нм					
	Analyte	Result	Reporting Limit	Analyzed	Method Blank	^ BS	% Recovery	True Value QC	RPD	Qualifier
Chloride		1500	16.0	12/16/2011	ND	432	108	400	0.00	

### Sample ID: S1-6 (H102701-03)

Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	· Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1880	16.0	12/16/2011	ND	432	108	400	0.00	

#### Sample ID: S1-7 (H102701-04)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	944	16.0	12/17/2011	ND	432	108	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

All claims, including those for negligence and any other cause whatsoever shall be deemed warved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be labble for incidental or consi including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors ansing out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratones

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



### Analytical Results For:

Yates Energy Petroleum Corp AMBER CANNON 105 S 4th Street Artesia NM, 88210

Fax To:

(505) 748-4635

Received:

12/15/2011

Sampling Date:

12/14/2011

Reported:

12/17/2011

Sampling Type:

Project Name:

WILLIAMS BATTERY

Sampling Condition:

\*\* (See Notes)

Project Number:

30-015-24072

Sample Received By:

Jodi Henson

Project Location:

Analyte

25-18S-26E, EDDY COUNTY

Sample ID: S1-8 (H102701-05)

ı

Chloride, SM4500Cl-B

#### mg/kg

#### Analyzed By: HM

Analyzed

Method Blank

BS

BS ----

% Recovery

True Value QC

RPD

Qualifier

Chloride

Chloride

Chloride

Result 1490

5120

Reporting Limit 16.0

Reporting Limit

Reporting Limit

16.0

12/17/2011

ND

432

108

400

0.00

Sample ID: E1-4 (H102701-06)

Analyte	Result	Rep
· ·		

### oorting Limit 16.0

mg/kg

Analyzed 12/16/2011

Analyzed

Method Blank ND

"%"Recovery

% Recovery

108

True Value OC

RPD --0.00

Sample ID: E1-5 (H102701-07)

Chloride,	SM4500CI-B	
		-

mg/	kς
mg/	kς

### Analyzed By: HM

Analyzed By: HM

Result 8130

12/16/2011 16.0

Method Blank

ND

BS 432 True Value QC

400

RPD 0.00

RPD

0.00

Qualifier

Sample ID: E1-6 (H102701-08)

Analyte

Analyte

Chloride.	SM4500CI-B

#### mg/kg

### Analyzed By: HM

Result 4400

Reporting Limit Analyzed 16.0 12/16/2011 Method Blank ND

ND

BS 432

% Recovery 108

108

True Value QC 400

Qualifier

Chloride

Chloride

Sample ID: E1-7 (H102701-09)

Chloride, SM4500CI-B

mg/kg

Result

6640

Analyzed By: HM

Analyzed

Method Blank 12/17/2011

BS 432

True Value QC % Recovery 400

RPD

0.00

Qualifier

Cardinal Laboratories

\*=Accredited Analyte

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Celeg D. Frence

Celey D. Keene, Lab Director/Quality Manager



### Analytical Results For:

Yates Energy Petroleum Corp AMBER CANNON 105 S 4th Street Artesia NM, 88210

Fax To:

(505) 748-4635

Received:

12/15/2011

Sampling Date:

12/14/2011

Reported:

12/17/2011

Sampling Type:

Soil

Project Name:

WILLIAMS BATTERY

Sampling Condition:

\*\* (See Notes)

Project Number:

30-015-24072

Sample Received By:

Jodi Henson

Project Location:

25-18S-26E, EDDY COUNTY

Sample ID: E1-8 (H102701-10)

Chloride, SM4500Cl-B

mg/kg

Analyzed By: HM

Analyte

Reporting Limit

Analyzed

Method Blank

432

BS

% Recovery

True Value QC 400

RPD

Qualifier

Chloride

Result 6560

16.0

Reporting Limit

Reporting Limit

12/17/2011

Analyzed

ND

0.00

Sample ID: E2-4 (H102701-11)

Chloride, SM4500Cl-B Analyte

mg/kg

Analyzed By: HM

BS

% Recovery

108

RPD Oualifier

Chloride

Result 7200

16.0 12/17/2011 Method Blank ND

432

108

True Value OC 400

0.00

Sample ID: E2-5 (H102701-12)

Analyte

Chloride, SM4500Cl-B

mg/kg

Analyzed By: HM

Method Blank

BS

Chloride

Result

True Value QC

RPD

Qualifier

5680

16.0

Analyzed 12/17/2011

ND

432

% Recovery 108

400

0.00

Sample ID: E2-6 (H102701-13)

Chloride, SM4500Cl-B

mg/kg

Analyzed By: HM

Method Blank

Chloride

Chloride

Result 5600

Result

6080

Reporting Limit 16.0

Reporting Limit

16.0

Analyzed 12/17/2011

Analyzed

12/17/2011

ND

Method Blank

ND

BS 432

BS

432

% Recovery 108

% Recovery

108

True Value OC 400

RPD 0.00 Qualifier

Sample ID: E2-7 (H102701-14)

Analyte

Analyte

Chloride, SM4500CI-B

mg/kg

Analyzed By: HM

True Value QC

400

RPD

0.00

Qualifier

Cardinal Laboratories

\*=Accredited Analyte

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Celey & Keens

Celey D. Keene, Lab Director/Quality Manager

Page 4 of 8



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

### Analytical Results For:

Yates Energy Petroleum Corp AMBER CANNON 105 S 4th Street Artesia NM, 88210

Fax To:

(505) 748-4635

Received:

12/15/2011

Sampling Date:

12/14/2011

Reported:

12/17/2011

Sampling Type:

Soil

Sampling Condition:

\*\* (See Notes)

Project Name: Project Number: WILLIAMS BATTERY

30-015-24072

Sample Received By:

Jodi Henson

Project Location:

25-18S-26E, EDDY COUNTY

Reporting Limit

16.0

Sample ID: E2-8 (H102701-15)

Chloride, SM4500Cl-B

Chloride

mg/kg

Analyzed By: HM

Analyte

Result

6320

Analyzed 12/17/2011 Method Blank ND

BS 432 % Recovery 108

True Value QC 400

RPD

0.00

Qualifier

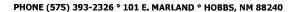
Cardinal Laboratories

\*=Accredited Analyte

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Celing & Keine

Celey D. Keene, Lab Director/Quality Manager





ND

#### **Notes and Definitions**

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500CI-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Analyte NOT DETECTED at or above the reporting limit

Cardinal Laboratories \*=Accredited Analyte

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Celey & Keine

### ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240

### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

(505) 393-2326 FAX (505) 393-2476

	Project Manager:	Amber Cannon					<del></del>		·		· · ·	,	•				_	P	roje	ct Na	me:				_ <u>W</u>	illia	ms l	3all	ery	(p	lof	<u>-2</u> )
	Company Name	Yates Petroleum (	Corporatio	on		v						1					_										15-2					
	Company Address:	105 South 4th Str	reet			· · · · · · · · · · · · · · · · · · ·													Pro	ject	Loc:			25-	-18S	-26	E, E	ddy	Co	unty		
	City/State/Zip:	Artesia, NM 882	10								, ,	·[					_			F	O#:					10	320	20				
	Telephone No:	575-748-4111					Fax No:		575	5-74	8-41	31						Repo	ort Fe	orma	ıt:	×	Star	dard			] TRE	₹P	[	NF	PDES	
	Sampler Signature:	ambu	<u>C</u> a	<u> </u>	181	\	e-mail:		<u>ac</u>	<u>:an</u>	nor	1@	yat	esp	etr	ole	um	.cor	<u>n_</u>													
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.AB # (lab use only)	1102701 FIEL	LD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	aol	HNO <sub>3</sub>	.HCl.	H <sub>2</sub> SO <sub>2</sub>	NaOH.	None	Other ( Specify)	돌	ter S≕Sout	NP=Non-Potable Specify Other TPH 418 1 8015M. P22	TX 1005	Na. K	Anions (Cl. SO4; Alkalinity)	SP/CEC	Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles Semivolatiles	STEX 802 to /5030 or BTEX 8260	.[- ]	NOR:M	Chlorides	SAR	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
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### ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

(505) 393-2326 FAX (505) 393-2476

CHAIN OF CUSTODY	RECORD AND	ANALYSIS	REQUEST

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	Company Address:	105 South 4th Sti	reet											Project Loc:					:: 25-18S-26E, Eddy County														
	City/State/Zip: Artesia, NM 88210														PO#:									0									
	Telephone No:	575-748-4111					Fax No:		575	5-74	8-41	31					R	epor	t Fo	mat	:	× :	Stan	dard			] TE	RRP	,		NPDE	≘S	
	Sampler Signature:	amber	<u>Can</u>	<u>ane</u>	M		e-mail:		<u>ac</u>	an	nor	n(a	)yate	esp	etro	olec	ım.	con								-							
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