

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

State of New Mexico  
Energy Minerals and Natural Resources

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

**RECEIVED**

By JKeyes at 2:09 pm, Feb 08, 2016

Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

## Release Notification and Corrective Action

### OPERATOR

☒ Initial Report

☒ Final Report

Name of Company Yates Petroleum Corporation	Contact Chase Settle
Address 104 S. 4 <sup>th</sup> Street, Artesia, NM 88210	Telephone No. 575-748-4171
Facility Name Lotus ALT State #9	Facility Type Well

Surface Owner State	Mineral Owner State	API No. 30-025-37661
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### LOCATION OF RELEASE

Unit Letter M	Section 32	Township 22S	Range 32E	Feet from the 480'	North/South Line South	Feet from the 330'	East/West Line West	County Lea
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Latitude 32.34197 Longitude -103.70373

### NATURE OF RELEASE



Type of Release Crude Oil and Produced Water	Volume of Release 5 B/O, 5 B/PW	Volume Recovered 4 B/O, 4 B/PW
Source of Release Flow Line	Date and Hour of Occurrence 1/23/2016; AM	Date and Hour of Discovery 1/23/2016; AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully. * N/A		

Describe Cause of Problem and Remedial Action Taken.\*

Release was caused by an unknown person shooting a bullet through the poly flow line. Well was shut-in, vacuum truck was dispatched to retrieve standing fluid, and a backhoe crew was called to repair the line and excavate impacted soils.

Describe Area Affected and Cleanup Action Taken.\* An approximate area of 208' X 25' was affected on the production pad with an overspray area of approximately 25' X 35' immediately south of the flow line. Well was shut-in, vacuum truck was dispatched to retrieve standing fluid, and a backhoe crew was called to repair the line and excavate impacted soils. Excavated soils will be hauled to an NMOCD approved facility. Vertical and horizontal delineation samples will be taken and analysis ran for TPH & BTEX (chlorides for documentation). If initial analytical results for TPH & BTEX are under RRAL's (site ranking is 0) a Final Report, C-141 will be submitted to the OCD requesting closure. If the analytical results are above the RRAL's a work plan will be submitted to the OCD. **Depth to Ground Water: >100' (approximately 325', Section 32-T22S-R32E, per Trend Map), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 0. Yates Petroleum Corporation requests closure.**

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

Signature: 	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Chase Settle	Approved by Environmental Specialist: 	
Title: NM Environmental Regulatory Agent	Approval Date: <u>02/08/2016</u>	Expiration Date: <u>///</u>
E-mail Address: <u>csettle@yatespetroleum.com</u>	Conditions of Approval: <u>///</u>	Attached <input type="checkbox"/> <u>1RP 4170</u> <u>n)XK1603950602</u> <u>p)XK1603950760</u>
Date: <u>2/5/2016</u> Phone: <u>575-748-4171</u>		

\* Attach Additional Sheets If Necessary



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

February 05, 2016

Chase Settle

Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, NM 88210  
TEL: (575) 748-4195  
FAX

RE: Lotus ALT State #9

OrderNo.: 1601B17

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 6 sample(s) on 1/29/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S1-1'

Project: Lotus ALT State #9

Collection Date: 1/26/2016 8:05:00 AM

Lab ID: 1601B17-001

Matrix: SOIL

Received Date: 1/29/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/1/2016 8:38:36 PM	23515
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/3/2016 4:11:57 PM	23511
Surr: DNOP	121	70-130		%Rec	1	2/3/2016 4:11:57 PM	23511
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/1/2016 8:04:56 PM	23477
Surr: BFB	92.3	66.2-112		%Rec	1	2/1/2016 8:04:56 PM	23477
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	2/2/2016 12:07:49 PM	23477
Benzene	ND	0.047		mg/Kg	1	2/2/2016 12:07:49 PM	23477
Toluene	ND	0.047		mg/Kg	1	2/2/2016 12:07:49 PM	23477
Ethylbenzene	ND	0.047		mg/Kg	1	2/2/2016 12:07:49 PM	23477
Xylenes, Total	ND	0.095		mg/Kg	1	2/2/2016 12:07:49 PM	23477
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	2/2/2016 12:07:49 PM	23477

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1601B17

Date Reported: 2/5/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: S1-2'

Project: Lotus ALT State #9

Collection Date: 1/26/2016 8:10:00 AM

Lab ID: 1601B17-002

Matrix: SOIL

Received Date: 1/29/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/1/2016 8:51:01 PM	23515
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/3/2016 5:16:17 PM	23511
Surr: DNOP	104	70-130		%Rec	1	2/3/2016 5:16:17 PM	23511
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/1/2016 8:28:20 PM	23477
Surr: BFB	93.1	66.2-112		%Rec	1	2/1/2016 8:28:20 PM	23477
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	2/2/2016 12:31:25 PM	23477
Benzene	ND	0.047		mg/Kg	1	2/2/2016 12:31:25 PM	23477
Toluene	ND	0.047		mg/Kg	1	2/2/2016 12:31:25 PM	23477
Ethylbenzene	ND	0.047		mg/Kg	1	2/2/2016 12:31:25 PM	23477
Xylenes, Total	ND	0.094		mg/Kg	1	2/2/2016 12:31:25 PM	23477
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	2/2/2016 12:31:25 PM	23477

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1601B17

Date Reported: 2/5/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: S2-1'

Project: Lotus ALT State #9

Collection Date: 1/26/2016 8:25:00 AM

Lab ID: 1601B17-003

Matrix: SOIL

Received Date: 1/29/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/1/2016 9:03:26 PM	23515
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/3/2016 5:37:30 PM	23511
Surr: DNOP	100	70-130		%Rec	1	2/3/2016 5:37:30 PM	23511
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/1/2016 8:51:49 PM	23477
Surr: BFB	91.0	66.2-112		%Rec	1	2/1/2016 8:51:49 PM	23477
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	2/2/2016 1:18:30 PM	23477
Benzene	ND	0.047		mg/Kg	1	2/2/2016 1:18:30 PM	23477
Toluene	ND	0.047		mg/Kg	1	2/2/2016 1:18:30 PM	23477
Ethylbenzene	ND	0.047		mg/Kg	1	2/2/2016 1:18:30 PM	23477
Xylenes, Total	ND	0.094		mg/Kg	1	2/2/2016 1:18:30 PM	23477
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	2/2/2016 1:18:30 PM	23477

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S2-2'

Project: Lotus ALT State #9

Collection Date: 1/26/2016 8:30:00 AM

Lab ID: 1601B17-004

Matrix: SOIL

Received Date: 1/29/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/1/2016 9:15:51 PM	23515
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/3/2016 5:58:49 PM	23511
Surr: DNOP	101	70-130		%Rec	1	2/3/2016 5:58:49 PM	23511
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/1/2016 9:15:14 PM	23477
Surr: BFB	88.9	66.2-112		%Rec	1	2/1/2016 9:15:14 PM	23477
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.092		mg/Kg	1	2/2/2016 1:42:07 PM	23477
Benzene	ND	0.046		mg/Kg	1	2/2/2016 1:42:07 PM	23477
Toluene	ND	0.046		mg/Kg	1	2/2/2016 1:42:07 PM	23477
Ethylbenzene	ND	0.046		mg/Kg	1	2/2/2016 1:42:07 PM	23477
Xylenes, Total	ND	0.092		mg/Kg	1	2/2/2016 1:42:07 PM	23477
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	2/2/2016 1:42:07 PM	23477

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

## Analytical Report

Lab Order 1601B17

Date Reported: 2/5/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S3-1'

Project: Lotus ALT State #9

Collection Date: 1/26/2016 8:40:00 AM

Lab ID: 1601B17-005

Matrix: SOIL

Received Date: 1/29/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	280	30		mg/Kg	20	2/1/2016 9:28:16 PM	23515
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/3/2016 6:19:50 PM	23511
Surr: DNOP	114	70-130		%Rec	1	2/3/2016 6:19:50 PM	23511
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/1/2016 9:38:43 PM	23477
Surr: BFB	90.3	66.2-112		%Rec	1	2/1/2016 9:38:43 PM	23477
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	2/2/2016 2:05:36 PM	23477
Benzene	ND	0.048		mg/Kg	1	2/2/2016 2:05:36 PM	23477
Toluene	ND	0.048		mg/Kg	1	2/2/2016 2:05:36 PM	23477
Ethylbenzene	ND	0.048		mg/Kg	1	2/2/2016 2:05:36 PM	23477
Xylenes, Total	ND	0.095		mg/Kg	1	2/2/2016 2:05:36 PM	23477
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	2/2/2016 2:05:36 PM	23477

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S3-2'

Project: Lotus ALT State #9

Collection Date: 1/26/2016 8:45:00 AM

Lab ID: 1601B17-006

Matrix: SOIL

Received Date: 1/29/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	280	30		mg/Kg	20	2/1/2016 9:40:42 PM	23515
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/3/2016 6:40:59 PM	23511
Surr: DNOP	110	70-130		%Rec	1	2/3/2016 6:40:59 PM	23511
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/1/2016 10:02:12 PM	23477
Surr: BFB	93.1	66.2-112		%Rec	1	2/1/2016 10:02:12 PM	23477
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	2/2/2016 9:30:24 PM	23477
Benzene	ND	0.047		mg/Kg	1	2/2/2016 9:30:24 PM	23477
Toluene	ND	0.047		mg/Kg	1	2/2/2016 9:30:24 PM	23477
Ethylbenzene	ND	0.047		mg/Kg	1	2/2/2016 9:30:24 PM	23477
Xylenes, Total	ND	0.094		mg/Kg	1	2/2/2016 9:30:24 PM	23477
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	2/2/2016 9:30:24 PM	23477

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B17

05-Feb-16

Client: Yates Petroleum Corporation

Project: Lotus ALT State #9

Sample ID	MB-23515	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	23515	RunNo:	31841					
Prep Date:	2/1/2016	Analysis Date:	2/1/2016	SeqNo:	974435	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-23515	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	23515	RunNo:	31841					
Prep Date:	2/1/2016	Analysis Date:	2/1/2016	SeqNo:	974436	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.1	90	110			

## Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B17

05-Feb-16

Client: Yates Petroleum Corporation

Project: Lotus ALT State #9

Sample ID	MB-23551	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23551	RunNo:	31874					
Prep Date:	2/3/2016	Analysis Date:	2/3/2016	SeqNo:	975374	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.0	70	130			

Sample ID	LCS-23551	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23551	RunNo:	31874					
Prep Date:	2/3/2016	Analysis Date:	2/3/2016	SeqNo:	975375	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		95.3	70	130			

Sample ID	MB-23511	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23511	RunNo:	31874					
Prep Date:	2/1/2016	Analysis Date:	2/3/2016	SeqNo:	975961	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		104	70	130			

Sample ID	LCS-23511	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23511	RunNo:	31874					
Prep Date:	2/1/2016	Analysis Date:	2/3/2016	SeqNo:	975962	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	113	65.8	136			
Surr: DNOP	6.0		5.000		120	70	130			

## Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B17

05-Feb-16

Client: Yates Petroleum Corporation

Project: Lotus ALT State #9

Sample ID	MB-23477	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	23477	RunNo:	31822					
Prep Date:	1/29/2016	Analysis Date:	2/1/2016	SeqNo:	974200	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.1	66.2	112			

Sample ID	LCS-23477	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	23477	RunNo:	31822					
Prep Date:	1/29/2016	Analysis Date:	2/1/2016	SeqNo:	974202	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.9	79.6	122			
Surr: BFB	1000		1000		99.8	66.2	112			

Sample ID	MB-23504	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	23504	RunNo:	31851					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974988	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		93.2	66.2	112			

Sample ID	LCS-23504	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	23504	RunNo:	31851					
Prep Date:	2/1/2016	Analysis Date:	2/2/2016	SeqNo:	974989	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	980		1000		98.0	66.2	112			

### Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B17

05-Feb-16

Client: Yates Petroleum Corporation

Project: Lotus ALT State #9

Sample ID	MB-23477		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	23477		RunNo:	31822			
Prep Date:	1/29/2016		Analysis Date:	2/1/2016		SeqNo:	974231		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	LCS-23477		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	23477		RunNo:	31822			
Prep Date:	1/29/2016		Analysis Date:	2/1/2016		SeqNo:	974232		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.3	0.10	1.000	0	126	67.2	121			S
Benzene	1.1	0.050	1.000	0	113	80	120			
Toluene	1.1	0.050	1.000	0	114	80	120			
Ethylbenzene	1.1	0.050	1.000	0	111	80	120			
Xylenes, Total	3.4	0.10	3.000	0	113	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

Sample ID	MB-23504		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	23504		RunNo:	31851			
Prep Date:	2/1/2016		Analysis Date:	2/2/2016		SeqNo:	975028		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	LCS-23504		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	23504		RunNo:	31851			
Prep Date:	2/1/2016		Analysis Date:	2/2/2016		SeqNo:	975029		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

### Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Yates Petroleum Corpora

Work Order Number: 1601B17

RcptNo. 1

Received by/date:

JA

01/29/16

Logged By: Lindsay Mangin

1/29/2016 9:00:00 AM

*Lindsay Mangin*

Completed By: Lindsay Mangin

1/29/2016 1:38:08 PM

*Lindsay Mangin*

Reviewed By:

JA

01/29/16

### Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐  
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
3. How was the sample delivered? Courier

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐  
6. Sample(s) in proper container(s)? Yes ☒ No ☐  
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒  
11. Were any sample containers received broken? Yes ☐ No ☒  
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: \_\_\_\_\_  
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted? \_\_\_\_\_  
14. Is it clear what analyses were requested? Yes ☒ No ☐  
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

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

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

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

Client Instructions: \_\_\_\_\_

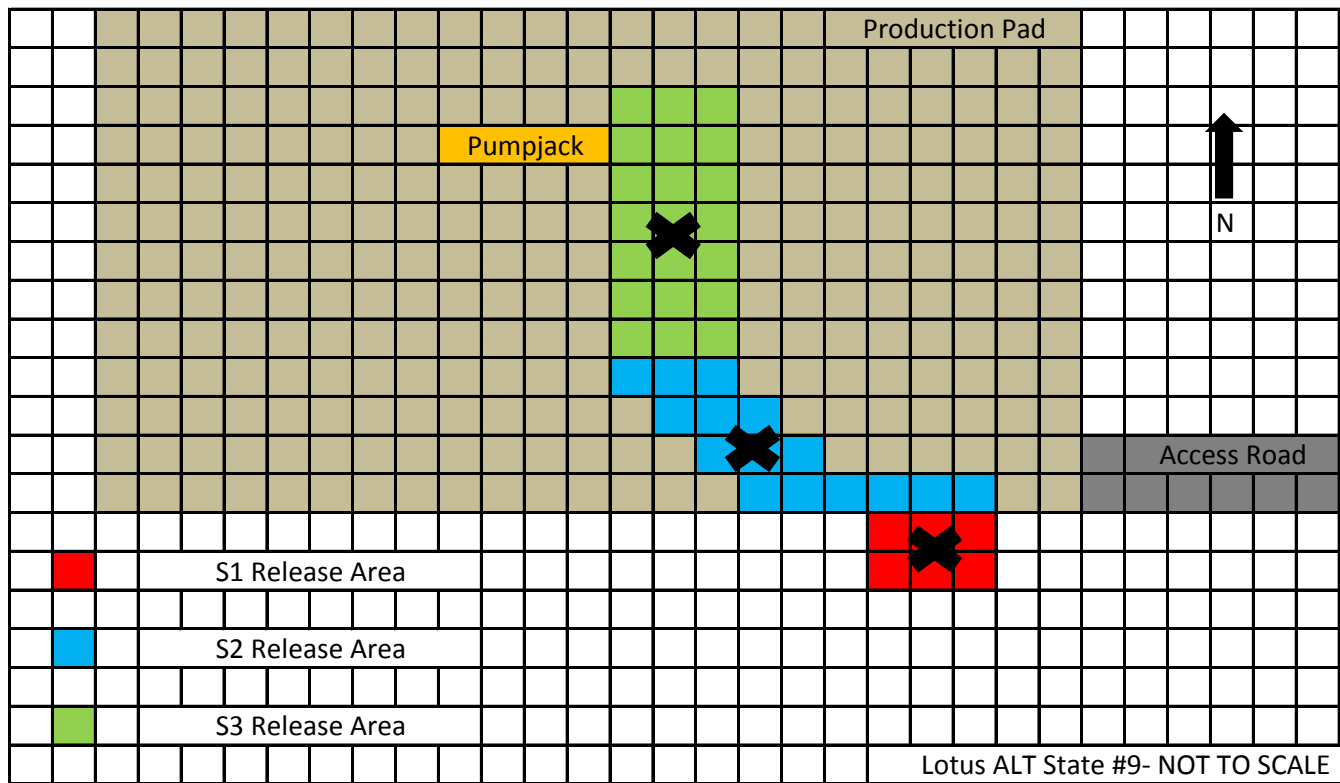
17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			







Sample ID	Analytical ID	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	Chlorides
S1-1'	1601B 17	1/26/2016	Hand Auger	1'	ND	ND	ND	ND
S1-2'	1601B 17	1/26/2016	Hand Auger	2'	ND	ND	ND	ND
S2-1'	1601B 17	1/26/2016	Hand Auger	1'	ND	ND	ND	ND
S2-2'	1601B 17	1/26/2016	Hand Auger	2'	ND	ND	ND	ND
S3-1'	1601B 17	1/26/2016	Hand Auger	1'	ND	ND	ND	280
S3-2'	1601B 17	1/26/2016	Hand Auger	2'	ND	ND	ND	280

Site Ranking is Zero (0). DTGW >100' (approx 325', Section 32, T22S-R32E, Trend Map)

All results are ppm (chlorides for documentation).

Released: 5 B/O, 5 B/PW; Recovered: 4 B/O, 4 B/PW Release Date: 01/23/2016

[illegible]