

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

Form C-141  
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 EOG Y Resources, Inc.	Contact Chase Settle
Address 104 S. 4 <sup>th</sup> Street, Artesia, NM 88210	Telephone No. 575-748-4171
Facility Name Vespa BME Federal #1H	Facility Type Battery

Surface Owner Private	Mineral Owner Federal	API No. 30-005-29095
--------------------------	--------------------------	-------------------------

#### LOCATION OF RELEASE

Unit Letter I	Section 12	Township 15S	Range 31E	Feet from the 2500	North/South Line South	Feet from the 200	East/West Line East	County Chaves
------------------	---------------	-----------------	--------------	-----------------------	---------------------------	----------------------	------------------------	------------------

Latitude 33.03027 Longitude -103.76710

#### NATURE OF RELEASE

Type of Release Crude Oil and Produced Water	Volume of Release 15 B/O & 10 B/PW	Volume Recovered 7 B/O & 6 B/PW
Source of Release Horizontal Knockout	Date and Hour of Occurrence 10/11/2016; AM	Date and Hour of Discovery 10/11/2016; 10:30 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Kristen Lynch, Rick Flores	
By Whom? Robert Asher	Date and Hour 10/12/2016; 9:01 AM	
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.\*

A collar failed on the horizontal knockout allowing the site glass nipple to be pushed out by pressure causing the release.

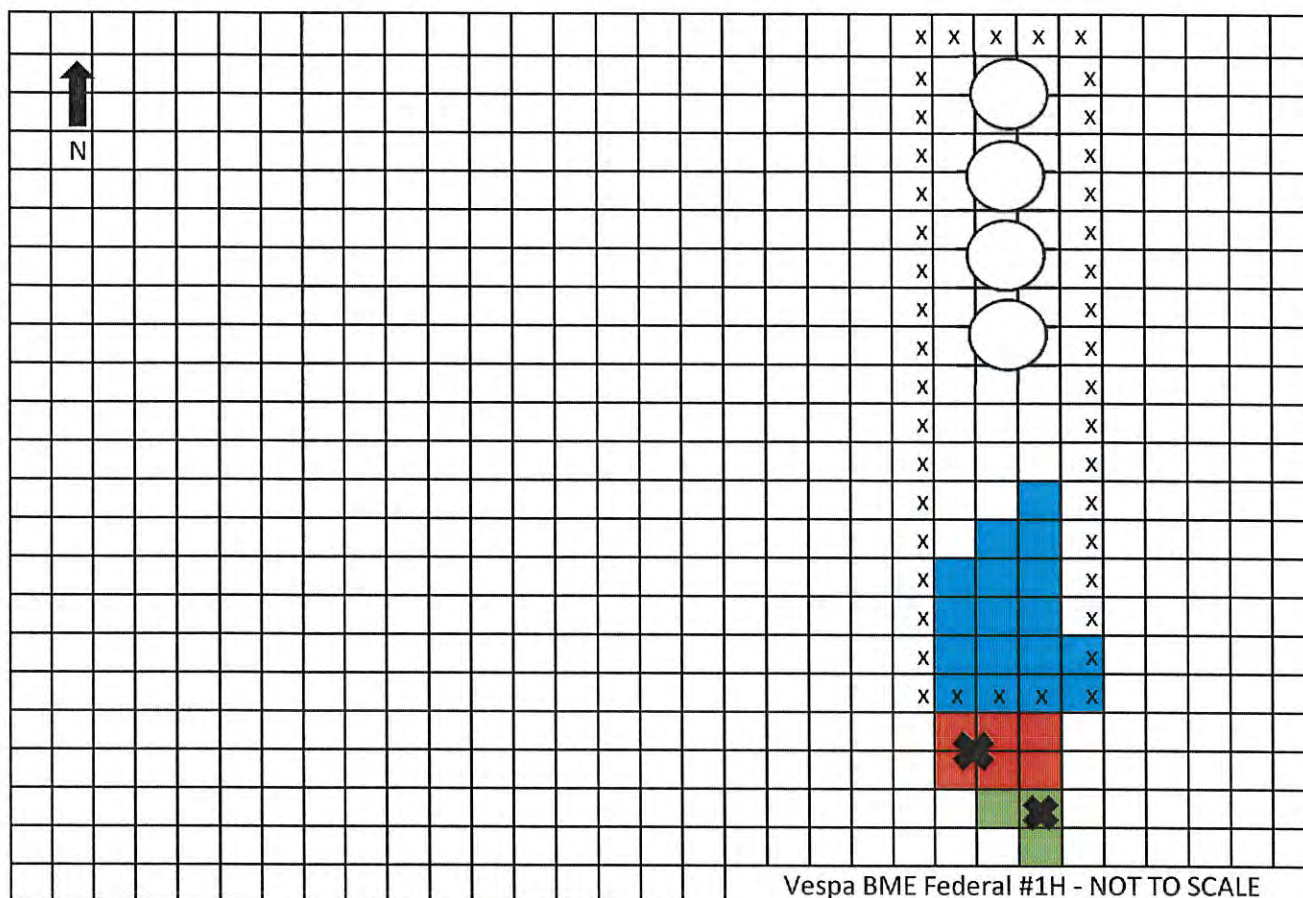
Describe Area Affected and Cleanup Action Taken.\*

An approximate area of 54' X 40' was affected within the lined berm of the battery and 55' X 40' on the adjacent pad to the south of the battery between the battery and the gas meter house. Vacuum truck was contracted to recover standing fluid and a backhoe was dispatched to remove impacted soils. Excavated soils will be hauled to a 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 240', Section 12, T15S-R31E, per Trend Map), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 0. Based on enclosed analytical results, EOG Y Resources, Inc. 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: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Chase Settle	Approved by Environmental Specialist:		
Title: NM Adv. Environmental Representative	Approval Date:	Expiration Date:	
E-mail Address: Chase.Settle@eogresources.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 12/27/2016	Phone: 575-748-4171		

\* Attach Additional Sheets If Necessary



Intact Lined Berm
  S1 Area
  S2 Area

Site Ranking is Zero (0). DTGW >100' (approx 240', Section 12, T15S-R31E, Trend Map)  
 All results are ppm, Chlorides for documentation.  
 Released: 15 B/O & 10 B/PW Recovered: 7 B/O & 6 B/PW Release Date: 10/11/2016

#### ANALYTICAL DATA

1611464	Sample Area	Sample Date	Sampe Type	Depth	BTEX	GRO	DRO	CHLORIDE
S1-1'	Release Area	10/28/2016	Backhoe	1'	ND	ND	ND	ND
S1-2'	Release Area	10/28/2016	Backhoe	2'	ND	ND	55	59
S2-1'	Release Area	10/28/2016	Backhoe	1'	ND	ND	ND	33
S2-2'	Release Area	10/28/2016	Backhoe	2'	ND	ND	170	100
S2-3'	Release Area	10/28/2016	Backhoe	3'	ND	ND	93	ND
S2-3.5'	Release Area	10/28/2016	Backhoe	3.5'	ND	ND	76	40

NMOCD will accept data for delineation purposes for 1RP-4475.

**REVIEWED**

By Olivia Yu at 2:38 pm, Sep 22, 2017



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)

November 11, 2016

Chase Settle

Yates Petroleum Corporation

105 South Fourth Street

Artesia, NM 88210

TEL: (575) 748-4111

FAX

RE: Vespa BME Federal #1

OrderNo.: 1611464

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 6 sample(s) on 11/1/2016 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:** Vespa BME Federal #1

**Collection Date:** 10/28/2016 8:37:00 AM

**Lab ID:** 1611464-001

**Matrix:** SOIL

**Received Date:** 11/1/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	11/10/2016 11:40:08 AM	28610
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/10/2016 12:29:18 PM	28597
Surr: DNOP	88.6	70-130		%Rec	1	11/10/2016 12:29:18 PM	28597
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/10/2016 11:46:59 AM	28570
Surr: BFB	84.4	68.3-144		%Rec	1	11/10/2016 11:46:59 AM	28570
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	11/10/2016 11:46:59 AM	28570
Toluene	ND	0.048		mg/Kg	1	11/10/2016 11:46:59 AM	28570
Ethylbenzene	ND	0.048		mg/Kg	1	11/10/2016 11:46:59 AM	28570
Xylenes, Total	ND	0.097		mg/Kg	1	11/10/2016 11:46:59 AM	28570
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	11/10/2016 11:46:59 AM	28570

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

<b>Qualifiers:</b>	*	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:** S1-2'  
**Project:** Vespa BME Federal #1 **Collection Date:** 10/28/2016 8:58:00 AM  
**Lab ID:** 1611464-002 **Matrix:** SOIL **Received Date:** 11/1/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	59	30		mg/Kg	20	11/10/2016 12:17:22 PM	28610
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	55	10		mg/Kg	1	11/10/2016 12:14:39 PM	28597
Surr: DNOP	84.7	70-130		%Rec	1	11/10/2016 12:14:39 PM	28597
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/10/2016 12:10:36 PM	28570
Surr: BFB	82.1	68.3-144		%Rec	1	11/10/2016 12:10:36 PM	28570
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	11/10/2016 12:10:36 PM	28570
Toluene	ND	0.049		mg/Kg	1	11/10/2016 12:10:36 PM	28570
Ethylbenzene	ND	0.049		mg/Kg	1	11/10/2016 12:10:36 PM	28570
Xylenes, Total	ND	0.098		mg/Kg	1	11/10/2016 12:10:36 PM	28570
Surr: 4-Bromofluorobenzene	94.3	80-120		%Rec	1	11/10/2016 12:10:36 PM	28570

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

<b>Qualifiers:</b>	* 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 1611464

Date Reported: 11/11/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: S2-1'

Project: Vespa BME Federal #1

Collection Date: 10/28/2016 9:01:00 AM

Lab ID: 1611464-003

Matrix: SOIL

Received Date: 11/1/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: MRA
Chloride	33	30		mg/Kg	20	11/10/2016 6:42:07 PM	28610
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/10/2016 12:41:57 PM	28597
Surr: DNOP	82.8	70-130		%Rec	1	11/10/2016 12:41:57 PM	28597
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/10/2016 12:34:19 PM	28570
Surr: BFB	83.7	68.3-144		%Rec	1	11/10/2016 12:34:19 PM	28570
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/10/2016 12:34:19 PM	28570
Toluene	ND	0.049		mg/Kg	1	11/10/2016 12:34:19 PM	28570
Ethylbenzene	ND	0.049		mg/Kg	1	11/10/2016 12:34:19 PM	28570
Xylenes, Total	ND	0.098		mg/Kg	1	11/10/2016 12:34:19 PM	28570
Surr: 4-Bromofluorobenzene	95.5	80-120		%Rec	1	11/10/2016 12:34:19 PM	28570

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: Vespa BME Federal #1

Collection Date: 10/28/2016 9:03:00 AM

Lab ID: 1611464-004

Matrix: SOIL

Received Date: 11/1/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	100	30		mg/Kg	20	11/10/2016 6:54:32 PM	28610
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	170	9.6		mg/Kg	1	11/10/2016 12:48:13 PM	28597
Surr: DNOP	97.7	70-130		%Rec	1	11/10/2016 12:48:13 PM	28597
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/10/2016 12:57:50 PM	28570
Surr: BFB	82.8	68.3-144		%Rec	1	11/10/2016 12:57:50 PM	28570
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	11/10/2016 12:57:50 PM	28570
Toluene	ND	0.049		mg/Kg	1	11/10/2016 12:57:50 PM	28570
Ethylbenzene	ND	0.049		mg/Kg	1	11/10/2016 12:57:50 PM	28570
Xylenes, Total	ND	0.099		mg/Kg	1	11/10/2016 12:57:50 PM	28570
Surr: 4-Bromofluorobenzene	94.3	80-120		%Rec	1	11/10/2016 12:57:50 PM	28570

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

<b>Qualifiers:</b>	*	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:** S2-3'

**Project:** Vespa BME Federal #1

**Collection Date:** 10/28/2016 9:06:00 AM

**Lab ID:** 1611464-005

**Matrix:** SOIL

**Received Date:** 11/1/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	11/10/2016 7:06:57 PM	28610
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	93	10		mg/Kg	1	11/10/2016 1:33:42 PM	28597
Surr: DNOP	97.1	70-130		%Rec	1	11/10/2016 1:33:42 PM	28597
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/10/2016 1:21:20 PM	28570
Surr: BFB	83.7	68.3-144		%Rec	1	11/10/2016 1:21:20 PM	28570
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	11/10/2016 1:21:20 PM	28570
Toluene	ND	0.047		mg/Kg	1	11/10/2016 1:21:20 PM	28570
Ethylbenzene	ND	0.047		mg/Kg	1	11/10/2016 1:21:20 PM	28570
Xylenes, Total	ND	0.094		mg/Kg	1	11/10/2016 1:21:20 PM	28570
Surr: 4-Bromofluorobenzene	96.6	80-120		%Rec	1	11/10/2016 1:21:20 PM	28570

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

<b>Qualifiers:</b>	* 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 1611464  
Date Reported: 11/11/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: S2-3.5'

Project: Vespa BME Federal #1

Collection Date: 10/28/2016 9:26:00 AM

Lab ID: 1611464-006

Matrix: SOIL

Received Date: 11/1/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	40	30		mg/Kg	20	11/10/2016 7:19:21 PM	28610
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	76	9.9		mg/Kg	1	11/10/2016 2:14:15 PM	28597
Surr: DNOP	96.4	70-130		%Rec	1	11/10/2016 2:14:15 PM	28597
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/10/2016 5:39:03 PM	28570
Surr: BFB	84.9	68.3-144		%Rec	1	11/10/2016 5:39:03 PM	28570
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	11/10/2016 5:39:03 PM	28570
Toluene	ND	0.049		mg/Kg	1	11/10/2016 5:39:03 PM	28570
Ethylbenzene	ND	0.049		mg/Kg	1	11/10/2016 5:39:03 PM	28570
Xylenes, Total	ND	0.098		mg/Kg	1	11/10/2016 5:39:03 PM	28570
Surr: 4-Bromofluorobenzene	99.3	80-120		%Rec	1	11/10/2016 5:39:03 PM	28570

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#: 1611464

11-Nov-16

Client: Yates Petroleum Corporation

Project: Vespa BME Federal #1

Sample ID	MB-28610	SampType:	mbk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	28610	RunNo:	38626					
Prep Date:	11/10/2016	Analysis Date:	11/10/2016	SeqNo:	1206570	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-28610	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	28610	RunNo:	38626					
Prep Date:	11/10/2016	Analysis Date:	11/10/2016	SeqNo:	1206571	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	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#: 1611464

11-Nov-16

Client: Yates Petroleum Corporation

Project: Vespa BME Federal #1

Sample ID	LCS-28593	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	28593	RunNo:	38609					
Prep Date:	11/10/2016	Analysis Date:	11/10/2016	SeqNo:	1205792	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		81.6	70	130			

Sample ID	LCS-28593	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	28593	RunNo:	38609					
Prep Date:	11/10/2016	Analysis Date:	11/10/2016	SeqNo:	1205793	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		84.9	70	130			

Sample ID	MB-28593	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	28593	RunNo:	38609					
Prep Date:	11/10/2016	Analysis Date:	11/10/2016	SeqNo:	1205794	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.0		10.00		90.1	70	130			

Sample ID	MB-28597	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	28597	RunNo:	38609					
Prep Date:	11/10/2016	Analysis Date:	11/10/2016	SeqNo:	1205795	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	8.5		10.00		84.9	70	130			

Sample ID	LCS-28572	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	28572	RunNo:	38609					
Prep Date:	11/9/2016	Analysis Date:	11/10/2016	SeqNo:	1206232	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		89.0	70	130			

Sample ID	MB-28572	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	28572	RunNo:	38609					
Prep Date:	11/9/2016	Analysis Date:	11/10/2016	SeqNo:	1206235	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.3		10.00		92.7	70	130			

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1611464

11-Nov-16

Client: Yates Petroleum Corporation

Project: Vespa BME Federal #1

Sample ID	MB-28570	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	28570	RunNo:	38598					
Prep Date:	11/9/2016	Analysis Date:	11/10/2016	SeqNo:	1206092	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	820		1000		82.3	68.3	144			

Sample ID	LCS-28570	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	28570	RunNo:	38598					
Prep Date:	11/9/2016	Analysis Date:	11/10/2016	SeqNo:	1206093	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	94.8	74.6	123			
Surr: BFB	890		1000		88.6	68.3	144			

Sample ID	MB-28565	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	28565	RunNo:	38598					
Prep Date:	11/9/2016	Analysis Date:	11/10/2016	SeqNo:	1206108	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		84.9	68.3	144			

Sample ID	LCS-28565	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	28565	RunNo:	38598					
Prep Date:	11/9/2016	Analysis Date:	11/10/2016	SeqNo:	1206109	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		91.0	68.3	144			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611464

11-Nov-16

Client: Yates Petroleum Corporation

Project: Vespa BME Federal #1

Sample ID	MB-28570		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	28570		RunNo:	38598			
Prep Date:	11/9/2016		Analysis Date:	11/10/2016		SeqNo:	1206124		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		96.9	80	120			

Sample ID	LCS-28570		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	28570		RunNo:	38598			
Prep Date:	11/9/2016		Analysis Date:	11/10/2016		SeqNo:	1206125		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	113	75.2	115			
Toluene	1.0	0.050	1.000	0	103	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	100	78.9	117			
Xylenes, Total	3.0	0.10	3.000	0	99.5	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	MB-28565		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	28565		RunNo:	38598			
Prep Date:	11/9/2016		Analysis Date:	11/10/2016		SeqNo:	1206416		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID	LCS-28565		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	28565		RunNo:	38598			
Prep Date:	11/9/2016		Analysis Date:	11/10/2016		SeqNo:	1206417		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		108	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: EOG/Yates

Work Order Number: 1611464

RcptNo: 1

Received by/date: AS 11/01/16

Logged By: Anne Thorne 11/1/2016 10:00:00 AM

Completed By: Anne Thorne 11/9/2016

Reviewed By: JS 11/09/16

*Anne Thorne*

*Anne Thorne*

### 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 ☐  
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
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 ☐

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### 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			

# Chain-of-Custody Record

Client: EOG

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Mailing Address:

Vespa BME Federal #1

105 South 4th Street Artesia, NM 88210

Project #:

Phone #: 575-703-6537

30-005-29095

Email or Fax#: csettle@yatespetroleum.com

Project Manager:

QA/QC Package:

Chase Settle

☐ Standard ☐ Level 4 (Full Validation)

PO # 205. 0750

Accreditation:

Sampler: Chase Settle

☐ NELAP ☐ Other

On Ice: ☒ Yes ☐ No

☐ EDD (Type)

Sample Temperature:

10

Date Time Matrix Sample Request ID

Container Type and #

Preservative Type

HEAL No.

1611464

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

333

334

335

336

337

338

339

340

341

342

343

344

345

346

347

348

349

350

351

352

353

354

355

356

357

358

359

360

361

362

363

364

365

366

367

368

369

370

371

372

373

374

375

376

377