MARTIN YATES, III 1912-1985 FRANK W. YATES 1936-1986 S.P YATES 1914-2008



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471

www.yatespetroleum.com

JOHN A. YATES

JOHN A. YATES JR.

DOUGLAS E. BROOKS
PRESIDENT
CHIEF EXECUTIVE OFFICER

JOHN D. PERINI EXECUTIVE VICE PRESIDENT CHIEF FINANCIAL OFFICER

JAMES S. BROWN

April 8, 2016

Mr. Jamie Keys or Ms. Kellie Jones NMOCD District I 1625 N. French Dr. Hobbs, NM 88240

RE: Undaunted BSD State Com #1H

30-025-40408

Section 2, T25S-R32E Lea County, New Mexico

Mr. Keys or Ms. Jones,

Yates Petroleum Corporation (Yates) would like to submit the attached plan of work to you regarding the release that occurred at the above mentioned facility on February 28, 2016 (1RP-4204).

With NMOCD approval of this work plan, Yates will hold a bid meeting allowing several contractors the opportunity to submit bids on this remediation project. Bids that are received will be forwarded to Yates Management for review. Once Yates Management reviews the bids and gives approval, the remediation project will be awarded to a contractor for work to commence.

If you have any questions or concerns, I can be reached at (575) 748-4111 or by email at agriffin@yatespetroleum.com.

Thank You,

Amber Griffin

Environmental Regulatory Agent Yates Petroleum Corporation



Yates Petroleum Corporation

Undaunted BSD State Com #1H Work Plan

Section 2, T25S-R32E

Lea County, New Mexico

April 8, 2016

I. Location

The well is located approximately 4 miles south of Highway 128 and 1.5 miles east of Orla Road, via a lease road.

II. Background

On February 28, 2016, Yates had a release of 25 barrels produced water, with 18 barrels produced water recovered. The area affected from this release was on the east side of the production pad. Please note that all released fluids remained on the production pad. An initial Form C-141 was submitted, via e-mail, to the NMOCD District I office on March 9, 2016 for this release.

On March 10, 2016 personnel returned to the release area and collected soil samples from the release area using a backhoe. The release area was split into three separate sections for the sampling process. The soil samples were sent to an approved NMOCD laboratory and tested for BTEX 8021B, TPH 8015M, and Chlorides 300.0. Yates received the analytical results on March 25, 2016 and April 7, 2016 (Reports 1603846 and 1603E20 attached to this work plan). The analytical results showed that BTEX and TPH were at levels below NMOCD RRAL's for all three sections. Yates also fully delineated all three sections of the release to acceptable chloride levels.

III. Surface and Ground Water

Area surface geology is Cenozoic. The ChevronTexaco depth to ground water map shows the depth to groundwater to be approximately 215 feet making the site ranking for this site a zero (0). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is zero (0) based on the following:

Depth to ground water >100' Wellhead Protection Area > 1000' Distance to surface water body > 1000'

IV. Soils

The area consists of soils that are sand and interspersed with caliche and clay seams.

V. Scope of Work

Based off the analytical reports which show complete vertical delineation, Yates proposes the following work:

- Excavate 1.5' from Section 1 of the release area. This section will be backfilled with clean caliche.
- Excavate 4' from both Sections 2 and 3 of the release area. Once these two sections are excavated, a 20 mil liner will be placed in the bottom of the excavation. A 6" layer of topsoil will be placed on top of the liner and the remaining excavation will be backfilled with clean caliche.

- Contaminated soils that are excavated will be hauled to a NMOCD approved disposal facility.
- The backfill material for the excavation will be purchased from a nearby caliche pit.
- There will be no re-seeding of the release area because it was contained to the production pad.
- Once all excavation and backfill work is complete, Yates will submit a Final Form C-141 to NMOCD requesting closure of this release.



Undaunted BSD State Com #1H

			Analytical				_			
	Sample Area	Sample Date	Report	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
1 - Surface	Release area	3/10/2016	1603846	Grab/Backhoe	Surface	ON	QN	QN	ND	9,700
,1-1	Release area	3/10/2016	1603846	Grab/Backhoe	1,	ND	Q	Q	QN	1,400
1-2'	Release area	3/10/2016	1603846	Grab/Backhoe	2'	ND	QN	Q	QN	160
1 - 3'	Release area	3/10/2016	1603846	Grab/Backhoe	3,	ND	Q	QN	ND	230
2 - Surface	Release area	3/10/2016	1603846	Grab/Backhoe	Surface	QN	QN	12	12	17,000
2-1	Release area	3/10/2016	1603846	Grab/Backhoe	the production	QN	Q	N	QN	3,500
2-2'	Release area	3/10/2016	1603846	Grab/Backhoe	2'	QN	Q	N	ND	4,400
2-3'	Release area	3/10/2016	1603846	Grab/Backhoe	3'	ND	QN	Q	QN	6,900
2 - 4'	Release area	3/10/2016	1603E20	Grab/Backhoe	4'	1	1		ı	7,000
2 - 5'	Release area	3/10/2016	1603E20	Grab/Backhoe	5'	1	ı	ı	,	5,400
2-6'	Release area	3/10/2016	1603E20	Grab/Backhoe	6'				ı	6,400
2 - 7'	Release area	3/10/2016	1603E20	Grab/Backhoe	7'	1	ì	7		8,600
2 - 8'	Release area	3/10/2016	1603E20	Grab/Backhoe	8,	1		1		4,600
2 - 9'	Release area	3/10/2016	1603E20	Grab/Backhoe	9'	I i	ı	ı		38
2 - 10'	Release area	3/10/2016	1603E20	Grab/Backhoe	10'	-	-	-		46
3 - Surface	Release area	3/10/2016	1603846	Grab/Backhoe	Surface	30.6	400	5,100	5,500	11,000
3-1'	Release area	3/10/2016	1603846	Grab/Backhoe	1.	QN	ND	Q	Q	3,000
3 - 2'	Release area	3/10/2016	1603846	Grab/Backhoe	2'	ND	N	Ð	Q	3,600
3-3'	Release area	3/10/2016	1603846	Grab/Backhoe	3'	QN	ND	Q	QN	9,600
3 - 4'	Release area	3/10/2016	1603E20	Grab/Backhoe	4.		Ŷ			8,400
3 - 5'	Release area	3/10/2016	1603E20	Grab/Backhoe	5,		ï			6,700
3-6'	Release area	3/10/2016	1603E20	Grab/Backhoe	6	1	ľ	i	1	5,900
3-7'	Release area	3/10/2016	1603E20	Grab/Backhoe	.7.		ř		1	8,900
3 - 8'	Release area	3/10/2016	1603E20	Grab/Backhoe	8,			i	-	6,200
3-9'	Release area	3/10/2016	1603E20	Grab/Backhoe	9,		1	i	•	2,000
3 - 10'	Release area	3/10/2016	1603E20	Grab/Backhoe	10'	1	i	,	. 1	160

Site Ranking is ZERO (0). Depth to Ground Water >100' (approx. 215', per ChevronTexaco trend map).

All results are ppm.Chlorides for documentation.

Released: 25 B/PW; Recovered: 18 B/PW. Release Date: 2/28/2016, 1RP-4204



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

March 25, 2016

Amber Griffin
Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
TEL: (575) 748-4111
FAX

RE: Undaunted BSD State Com #1H

OrderNo.: 1603846

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 12 sample(s) on 3/16/2016 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 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 qualifers 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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

andyl

Albuquerque, NM 87109

Lab Order: 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation Project:

Undaunted BSD State Com #1H

Lab Order:

1603846

Lab ID:

Analyses

1603846-001

Client Sample ID: 1- Surface

Collection Date: 3/10/2016 9:51:00 AM

Matrix: SOIL

Result PQL Qual Units

1400

Result

160

Result

230

DF Date Analyzed

Batch ID

EPA METHOD 300.0: ANIONS

Chloride

Client Sample ID: 1-1'

9700 750

mg/Kg

500 3/23/2016 9:20:10 PM

Analyst: SRM 24388

Lab ID:

1603846-002

Collection Date: 3/10/2016 9:53:00 AM

Matrix: SOIL

Analyses

Result

PQL Qual Units

75

DF Date Analyzed

Batch ID Analyst: SRM

24388

EPA METHOD 300.0: ANIONS Chloride

Lab ID:

1603846-003

Collection Date: 3/10/2016 9:54:00 AM

Client Sample ID: 1-2'

Client Sample ID: 1-3'

Matrix: SOIL

Analyses **EPA METHOD 300.0: ANIONS**

Chloride

PQL Qual Units

30

mg/Kg

mg/Kg

DF Date Analyzed **Batch ID** Analyst: LGT

3/23/2016 9:57:24 PM

20 3/22/2016 4:33:56 PM 24388

Lab ID:

Analyses

Lab ID:

1603846-004

Collection Date: 3/10/2016 9:55:00 AM

Matrix: SOIL

EPA METHOD 300.0: ANIONS

Chloride

30

mg/Kg

3/22/2016 4:46:20 PM 24388

Collection Date: 3/10/2016 10:20:00 AM Matrix: SOIL

Client Sample ID: 2- Surface Analyses

1603846-005

Result

PQL Qual Units

PQL Qual Units

EPA METHOD 300.0: ANIONS

DF Date Analyzed

DF Date Analyzed

Batch ID

Batch ID

Analyst: LGT

Chloride

17000

750 mg/Kg

Analyst: SRM 500 3/23/2016 9:32:34 PM 24388

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- Not Detected at the Reporting Limit ND
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 4
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order: 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

Yates Petroleum Corporation CLIENT: Lab Order: 1603846 Project: Undaunted BSD State Com #1H Lab ID: 1603846-006 Collection Date: 3/10/2016 10:21:00 AM Client Sample ID: 2-1' Matrix: SOIL Analyses Result **PQL Qual Units** DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 3500 100 3/25/2016 5:31:00 AM 24388 150 mg/Kg Lab ID: 1603846-007 Collection Date: 3/10/2016 10:22:00 AM Client Sample ID: 2-2' Matrix: SOIL Analyses Result **PQL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: SRM Chloride 4400 150 mg/Kg 100 3/23/2016 10:47:02 PM 24388 Lab ID: 1603846-008 Collection Date: 3/10/2016 10:23:00 AM Client Sample ID: 2-3' Matrix: SOIL Analyses Result **PQL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: SRM Chloride 6900 300 mg/Kg 200 3/23/2016 11:24:17 PM 24388 Lab ID: 1603846-009 Collection Date: 3/10/2016 10:50:00 AM Client Sample ID: 3- Surface Matrix: SOIL Analyses Result **PQL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: SRM Chloride 11000 750 mg/Kg 500 3/23/2016 9:44:59 PM 24388 Lab ID: 1603846-010 Collection Date: 3/10/2016 10:51:00 AM Client Sample ID: 3-1' Matrix: SOIL Analyses Result **PQL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: SRM

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

150

mg/Kg

3000

Qualifiers:

Chloride

- 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 Page 2 of 4

100 3/23/2016 10:59:27 PM 24388

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order: 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

Yates Petroleum Corporation

Project: Undaunted BSD State Com #1H Lab Order:

1603846

Lab ID:

CLIENT:

1603846-011

Collection Date: 3/10/2016 10:52:00 AM

Matrix: SOIL

Analyses

Client Sample ID: 3-2'

PQL Qual Units

DF Date Analyzed

Batch ID

EPA METHOD 300.0: ANIONS

Chloride

mg/Kg

Analyst: SRM 100 3/23/2016 11:11:52 PM 24388

Lab ID:

1603846-012

150

Collection Date: 3/10/2016 10:53:00 AM

Matrix: SOIL

Analyses

Client Sample ID: 3-3'

Result

Result

3600

PQL Qual Units

DF Date Analyzed

Batch ID

Analyst: SRM

EPA METHOD 300.0: ANIONS

Chloride

9600

300

mg/Kg

200 3/23/2016 11:36:42 PM 24388

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 4
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1603846

25-Mar-16

Client:

Yates Petroleum Corporation

Project:

Undaunted BSD State Com #1H

Sample ID MB-24388

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 24388

RunNo: 33002

3/22/2016

3/22/2016

Analysis Date: 3/22/2016

Units: mg/Kg

Analyte

Prep Date:

SeqNo: 1012346

HighLimit

%RPD **RPDLimit**

Qual

Chloride

Result ND

Sample ID LCS-24388

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID:

LCSS

Batch ID: 24388 Analysis Date: 3/22/2016

1.5

PQL

1.5

RunNo: 33002

SeqNo: 1012347

Units: mg/Kg

Analyte

Prep Date:

SPK value SPK Ref Val %REC 15.00

95.2

LowLimit

%RPD **RPDLimit**

Qual

Chloride

110

14

0

SPK value SPK Ref Val %REC LowLimit

HighLimit

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded Η

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix В 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

Sample container temperature is out of limit as specified

Page 4 of 4



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:	1603846		RcptNo:	1
Received by/date:		-		
Logged By: Lindsay Mangin 3/16/2016 9:55:00 AM		Juney Harge		Ī
Completed By: Lindsay Mangin 3/16/2016 3;02:24 PM		Straty Hopes		ı
Reviewed By: Qa 03/17/16		000		
Chain of Custody				
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			
<u>Log In</u>				
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗆	na 🗆	
5. Were all samples received at a temperature of >0° C to 6.0°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 🗹	# of preserved	
12 Dags sanguark metab battle labels	v 🖾	No 🗆	bottles checked for pH:	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗆		or >12 unless noted)
13. Are matrices correctly identified on Chaln 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:	
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:				55
Client Instructions:			Maria curio Passono addadas	
17. Additional remarks:				
18. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No 1 1 1.1 Good Yes	Seal Date	Signed By		

ANALYSIS LABORATO						П	HA	W H	S	[RO	Σ	HALL ENVIRONMENTA	
Project Name: Project Name: Project Name: Project Name: Project Name: Project Name:	oleum Corporation	X Standard	Rush		6	П	AN	NLY.	SIS		BOR	ATOR	>
Undaurred BSD State Com #1H Tel. 505.345-3975 Fax 505.345-4107		Project Name:					www	hallen.	ironm	ental.c	mo		
Project #: 1RP-4204		Undaum	ted BSD S	tate Com #1H	490	Hay	kins N		enbnq	rque,	JM 871	60	
The first of the	Artesia, NM 88210	Project #:		2 S	Tel	. 505	345-39	75	Fax 5	05-34	54107		
The project Manager: Amber Griffin Project Manager: Project Manager	5-513-8799 or 575-748-4111		1RP-42	94				Ana	ysis R	sanba	ı,		
Container Post Service Post Service Container Post Service Post Servi	riffin@yatespetroleum.com	Project Manage	er:			esej			'os	8,8			***************************************
Sample S	☐ Level 4 (Full Validation)		Amber G PO # 205-	riffin -2020		(Gas/D		200000000000000000000000000000000000000	[.] ,PO _{4,}	8S bee			
Container Container Preservativ HEAL No. Container Preservativ HEAL No. Container Preservativ HEAL No. Container C		Sampler:		nber Griffin 北	THE PERSON NAMED IN	-		(H	ON"	808	(VIA
1-Surface	Other			□ No	-	-			103	/ 86	ΑO		
1-Surface		Sample Tempe	-301	1.00					d'IO				\/ ·
1-Surface			Preservativ e Type	_				TO ME DESCRIPTION	,4) enoinA				Air Bubble
1-1' 1-402.			8	1001-	×	×			×				
1-2' 1-402. 1-6	-		2	-02	×	×			×	-			\dashv
1-3' 1-40z,			8	-003	×	×			×				1
2-Surface 1-40z. Ice -OC X X X 2-1' 1-40z. Ice -OC X X X 2-3' 1-40z. Ice -OC X X X 3-1' 1-40z. Ice -OC X X X 3-1' 1-40z. Ice -OC X X X 3-2' 1-40z. Ice -OC X X X 3-3' 1-40z. Ice -OC X X X 3-4' 1-40z. Ice <td< td=""><td></td><td></td><td>8</td><td>-00H</td><td>×</td><td>×</td><td></td><td></td><td>×</td><td></td><td></td><td></td><td></td></td<>			8	-00H	×	×			×				
2-1' 1-40z 1ce			96	520-	×	×			×				
2-2' 1-40z 10e	(A)	-	Se	-W	×	×			×				
2-3' 1-40z 1ce			8	450-	×	×			×				\neg
3-Surface 1-4oz ice — CCF; X X X X X X X X X X X X X X X X X X X			æ	227	×	×			×				1
3-1' 1-40z Ice			9	4000	×	×		\dashv	×	-			\dashv
3-2' 1-40z ice			3e	010	×	×		-	×				
3-3' 1-402. Ice			90	170-	×	×		1	×	+			
quished by: Received by: Receiv			90	2/0-	×	×			×	_			
Charles on a senarate report	quished by:	Received by:	Mit O	Date Time	Remarks results a	TP :	H: 801 kg. A	5B, B1 nions:	Chlor	021B. ide Or	Pleas		BTEX
Received by: Date Time Cilionary of a separate reports	4	Received by:		Date Time	chloride	s on s	separ	ate re	OLT.	Lhan	you.		

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

March 25, 2016

Amber Griffin Yates Petroleum Corporation 105 South Fourth Street Artesia, NM 88210 TEL: (575) 748-4111 FAX

RE: Undaunted BSD State Com #1H

OrderNo.: 1603846

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 12 sample(s) on 3/16/2016 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 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 qualifers 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,

Andy Freeman

andyl

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Undaunted BSD State Com #1H

Lab ID: 1603846-001

Project:

Matrix: SOIL

Client Sample ID: 1- Surface

Collection Date: 3/10/2016 9:51:00 AM Received Date: 3/16/2016 9:55:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	S			Analyst	: KJH
Diesel Range Organics (DRO) Surr: DNOP	ND 88.5	9.9 70-130	mg/Kg %Rec	1 1	3/18/2016 9:23:04 PM 3/18/2016 9:23:04 PM	24294 24294
EPA METHOD 8015D: GASOLINE RAN	GE		701.00		Analyst	
Gasoline Range Organics (GRO) Surr: BFB	ND 111	4.8 66.2-112	mg/Kg %Rec	1 1	3/18/2016 7:18:26 PM 3/18/2016 7:18:26 PM	24316 24316
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene	ND ND ND ND 110	0.024 0.048 0.048 0.096 80-120	mg/Kg mg/Kg mg/Kg mg/Kg %Rec	1 1 1 1	3/18/2016 7:18:26 PM 3/18/2016 7:18:26 PM 3/18/2016 7:18:26 PM 3/18/2016 7:18:26 PM 3/18/2016 7:18:26 PM	24316 24316 24316 24316 24316

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 15 J
- P Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project:

Undaunted BSD State Com #1H

Lab ID: 1603846-002 Client Sample ID: 1-1'

Collection Date: 3/10/2016 9:53:00 AM

Received Date: 3/16/2016 9:55:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	8			Analyst	: KJH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	3/18/2016 9:44:31 PM	24294
Surr: DNOP	90.3	70-130	%Rec	1	3/18/2016 9:44:31 PM	24294
EPA METHOD 8015D: GASOLINE R.	ANGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND.	4.8	mg/Kg	1	3/18/2016 7:41:45 PM	24316
Surr: BFB	106	66.2-112	%Rec	1	3/18/2016 7:41:45 PM	24316
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	3/18/2016 7:41:45 PM	24316
Toluene	ND	0.048	mg/Kg	1	3/18/2016 7:41:45 PM	24316
Ethylbenzene	ND	0.048	mg/Kg	1	3/18/2016 7:41:45 PM	24316
Xylenes, Total	ND	0.097	mg/Kg	1	3/18/2016 7:41:45 PM	24316
Surr: 4-Bromofluorobenzene	107	80-120	%Rec	1	3/18/2016 7:41:45 PM	24316

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 15 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Undaunted BSD State Com #1H Project:

Lab ID: 1603846-003 Client Sample ID: 1-2'

Collection Date: 3/10/2016 9:54:00 AM

Received Date: 3/16/2016 9:55:00 AM

Analyses	Result	PQL (Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS	8			Analyst	: KJH
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	3/18/2016 10:06:00 PM	24294
Surr: DNOP	93.6	70-130	%Rec	1	3/18/2016 10:06:00 PM	24294
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/18/2016 8:05:14 PM	24316
Surr: BFB	104	66.2-112	%Rec	1	3/18/2016 8:05:14 PM	24316
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	3/18/2016 8:05:14 PM	24316
Toluene	ND	0.048	mg/Kg	1	3/18/2016 8:05:14 PM	24316
Ethylbenzene	ND	0.048	mg/Kg	1	3/18/2016 8:05:14 PM	24316
Xylenes, Total	ND	0.097	mg/Kg	1	3/18/2016 8:05:14 PM	24316
Surr: 4-Bromofluorobenzene	108	80-120	%Rec	1	3/18/2016 8:05:14 PM	24316

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 15 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation Client Sample ID: 1-3'

Project: Undaunted BSD State Com #1H Collection Date: 3/10/2016 9:55:00 AM

Lab ID: 1603846-004 Matrix: SOIL Received Date: 3/16/2016 9:55:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	6			Analyst	KJH
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	3/18/2016 10:27:20 PM	24294
Surr: DNOP	99.4	70-130	%Rec	1	3/18/2016 10:27:20 PM	24294
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	3/18/2016 8:28:42 PM	24316
Surr: BFB	104	66.2-112	%Rec	1	3/18/2016 8:28:42 PM	24316
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	3/18/2016 8:28:42 PM	24316
Toluene	ND	0.050	mg/Kg	1	3/18/2016 8:28:42 PM	24316
Ethylbenzene	ND	0.050	mg/Kg	1	3/18/2016 8:28:42 PM	24316
Xylenes, Total	ND	0.10	mg/Kg	1	3/18/2016 8:28:42 PM	24316
Surr: 4-Bromofluorobenzene	106	80-120	%Rec	1	3/18/2016 8:28:42 PM	24316

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

- 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 Page 4 of 15
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Undaunted BSD State Com #1H

Lab ID: 1603846-005

Project:

Client Sample ID: 2- Surface

Collection Date: 3/10/2016 10:20:00 AM

Received Date: 3/16/2016 9:55:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analys	t: KJH
Diesel Range Organics (DRO)	12	10	mg/Kg	1	3/18/2016 10:48:50 PM	1 24294
Surr: DNOP	81.3	70-130	%Rec	1	3/18/2016 10:48:50 PM	1 24294
EPA METHOD 8015D: GASOLINE RAI	NGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	3/18/2016 11:13:00 PM	1 24316
Surr: BFB	111	66.2-112	%Rec	1	3/18/2016 11:13:00 PN	1 24316
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.025	mg/Kg	1	3/18/2016 11:13:00 PM	1 24316
Toluene	ND	0.050	mg/Kg	1	3/18/2016 11:13:00 PM	1 24316
Ethylbenzene	ND	0.050	mg/Kg	1	3/18/2016 11:13:00 PM	1 24316
Xylenes, Total	ND	0.10	mg/Kg	1	3/18/2016 11:13:00 PN	1 24316
Surr: 4-Bromofluorobenzene	113	80-120	%Rec	1	3/18/2016 11:13:00 PM	1 24316

Matrix: SOIL

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

- 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
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 5 of 15 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Lab ID:

Project: Undaunted BSD State Com #1H

1603846-006

Matrix: SOIL

Client Sample ID: 2-1'

Collection Date: 3/10/2016 10:21:00 AM

Received Date: 3/16/2016 9:55:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	s			Analyst	: KJH
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/18/2016 11:10:08 PM	24294
Surr: DNOP	90.9	70-130	%Rec	1	3/18/2016 11:10:08 PM	24294
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/18/2016 11:36:24 PM	
Surr: BFB	103	66.2-112	%Rec	1	3/18/2016 11:36:24 PM	24316
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	3/18/2016 11:36:24 PM	24316
Toluene	ND	0.049	mg/Kg	1	3/18/2016 11:36:24 PM	24316
Ethylbenzene	ND	0.049	mg/Kg	1	3/18/2016 11:36:24 PM	24316
Xylenes, Total	ND	0.099	mg/Kg	1	3/18/2016 11:36:24 PM	24316
Surr: 4-Bromofluorobenzene	106	80-120	%Rec	1	3/18/2016 11:36:24 PM	

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 6 of 15 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Undaunted BSD State Com #1H

Lab ID: 1603846-007

Matrix: SOIL

Client Sample ID: 2-2'

Collection Date: 3/10/2016 10:22:00 AM

Received Date: 3/16/2016 9:55:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANIC	S			Analyst:	KJH
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/18/2016 11:31:28 PM	24294
Surr: DNOP	90.5	70-130	%Rec	1	3/18/2016 11:31:28 PM	
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/18/2016 11:59:56 PM	
Surr: BFB	105	66.2-112	%Rec	1	3/18/2016 11:59:56 PM	
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	3/18/2016 11:59:56 PM	
Toluene	ND	0.048	mg/Kg	1	3/18/2016 11:59:56 PM	
Ethylbenzene	ND	0.048	mg/Kg	1	3/18/2016 11:59:56 PM	24316
Xylenes, Total	ND	0.096	mg/Kg	1	3/18/2016 11:59:56 PM	24316
Surr: 4-Bromofluorobenzene	108	80-120	%Rec	1	3/18/2016 11:59:56 PM	

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 7 of 15 J
- P Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project:

Undaunted BSD State Com #1H

Lab ID: 1603846-008 Client Sample ID: 2-3'

Collection Date: 3/10/2016 10:23:00 AM

Received Date: 3/16/2016 9:55:00 AM

Analyses	Result	PQL	Qual Units	DF Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S		An	alyst: KJH
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1 3/18/2016 11:52:3	
Surr: DNOP	96.2	70-130	%Rec	1 3/18/2016 11:52:3	= .= .
EPA METHOD 8015D: GASOLINE RAI	NGE			An	alyst: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1 3/19/2016 12:23:2	A MARKANIA
Surr: BFB	104	66.2-112	%Rec	1 3/19/2016 12:23:2	
EPA METHOD 8021B: VOLATILES				Ana	alyst: NSB
Benzene	ND	0.024	mg/Kg	1 3/19/2016 12:23:2	
Toluene	ND	0.047	mg/Kg	1 3/19/2016 12:23:2	
Ethylbenzene	ND	0.047	mg/Kg	1 3/19/2016 12:23:2	
Xylenes, Total	ND	0.095	mg/Kg	1 3/19/2016 12:23:2	
Surr: 4-Bromofluorobenzene	106	80-120	%Rec	1 3/19/2016 12:23:2	

Matrix: SOIL

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

- 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
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 8 of 15 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Undaunted BSD State Com #1H

Lab ID: 1603846-009 Client Sample ID: 3- Surface

Collection Date: 3/10/2016 10:50:00 AM

Received Date: 3/16/2016 9:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3				Analyst:	: KJH
Diesel Range Organics (DRO)	5100	98		mg/Kg	10	3/19/2016 12:13:48 AM	
Surr: DNOP	0	70-130	S	%Rec	10		
EPA METHOD 8015D: GASOLINE RA	ANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	400	47		mg/Kg	10	3/19/2016 12:46:55 AM	
Surr: BFB	294	66.2-112	S	%Rec	10	3/19/2016 12:46:55 AM	
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	ND	0.23		mg/Kg	10	3/19/2016 12:46:55 AM	
Toluene	4.1	0.47		mg/Kg	10	3/19/2016 12:46:55 AM	
Ethylbenzene	3.5	0.47		mg/Kg	10	3/19/2016 12:46:55 AM	
Xylenes, Total	23	0.93		mg/Kg	10	3/19/2016 12:46:55 AM	
Surr: 4-Bromofluorobenzene	129	80-120	S	%Rec	10	3/19/2016 12:46:55 AM	

Matrix: SOIL

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

- 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
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 9 of 15 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Undaunted BSD State Com #1H

1603846-010

Lab ID:

Matrix: SOIL

Client Sample ID: 3-1'

Collection Date: 3/10/2016 10:51:00 AM

Received Date: 3/16/2016 9:55:00 AM

Analyses	Result	PQL Q	ual Units	DF Date Analyzed Bat	tch
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS	3		Analyst: KJI	Н
Diesel Range Organics (DRO)	ND	10	mg/Kg	1 3/19/2016 12:56:03 AM 242	
Surr: DNOP	99.8	70-130	%Rec	1 3/19/2016 12:56:03 AM 242	294
EPA METHOD 8015D: GASOLINE RA	NGE			Analyst: NS	В
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1 3/19/2016 1:10:17 AM 243	
Surr: BFB	110	66.2-112	%Rec	1 3/19/2016 1:10:17 AM 243	
EPA METHOD 8021B: VOLATILES				Analyst: NS I	В
Benzene	ND	0.025	mg/Kg	1 3/19/2016 1:10:17 AM 243	
Toluene	ND	0.049	mg/Kg	1 3/19/2016 1:10:17 AM 243	
Ethylbenzene	ND	0.049	mg/Kg	1 3/19/2016 1:10:17 AM 243	316
Xylenes, Total	ND	0.098	mg/Kg	1 3/19/2016 1:10:17 AM 243	316
Surr: 4-Bromofluorobenzene	108	80-120	%Rec	1 3/19/2016 1:10:17 AM 243	

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η 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
- Analyte detected below quantitation limit Page 10 of 15 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Undaunted BSD State Com #1H

Lab ID: 1603846-011

Matrix: SOIL

Client Sample ID: 3-2'

Collection Date: 3/10/2016 10:52:00 AM

Received Date: 3/16/2016 9:55:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	S			Analyst	. K.IH
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/19/2016 1:17:03 AM	24294
Surr: DNOP	93.8	70-130	%Rec	1	3/19/2016 1:17:03 AM	24294
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/19/2016 1:33:43 AM	24316
Surr: BFB	107	66.2-112	%Rec	1	3/19/2016 1:33:43 AM	24316
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	3/19/2016 1:33:43 AM	24316
Toluene	ND	0.049	mg/Kg	1	3/19/2016 1:33:43 AM	24316
Ethylbenzene	ND	0.049	mg/Kg	1	3/19/2016 1:33:43 AM	24316
Xylenes, Total	ND	0.098	mg/Kg	1	3/19/2016 1:33:43 AM	24316
Surr: 4-Bromofluorobenzene	110	80-120	%Rec	1	3/19/2016 1:33:43 AM	24316

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 11 of 15 J
- P Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1603846

Date Reported: 3/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Undaunted BSD State Com #1H

Lab ID: 1603846-012

Project:

Client Sample ID: 3-3'

Collection Date: 3/10/2016 10:53:00 AM

Received Date: 3/16/2016 9:55:00 AM

Analyses	Result	PQL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3		Analyst:	KJH
Diesel Range Organics (DRO)	ND	10	mg/Kg		24294
Surr: DNOP	88.6	70-130	%Rec		24294
EPA METHOD 8015D: GASOLINE R.	ANGE			Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg		24316
Surr: BFB	91.3	66.2-112	%Rec		24316
EPA METHOD 8021B: VOLATILES				Analyst:	NSB
Benzene	ND	0.024	mg/Kg		24316
Toluene	ND	0.048	mg/Kg		24316
Ethylbenzene	ND	0.048	mg/Kg		24316
Xylenes, Total	ND	0.097	mg/Kg	1041	24316
Surr: 4-Bromofluorobenzene	112	80-120	%Rec		24316

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Η
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 12 of 15 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1603846

25-Mar-16

Client:

Yates Petroleum Corporation

Project:

Undaunted BSD State Com #1H

Sample ID LCS-24294	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 24	294		lunNo: 3			•		
Prep Date: 3/17/2016	Analysis D	ate: 3/	18/2016	S	SeqNo: 1	008135	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.3	65.8	136			
Surr: DNOP	3.8		5.000		76.8	70	130			

Sample ID MB-24294	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch	ID: 24	294		RunNo: 3			b-5-		
Prep Date: 3/17/2016	Analysis D	ate: 3/	18/2016	S	SeqNo: 1	008137	Units: mg/h	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10					•			Quui
Surr: DNOP	8.6		10.00		86.1	70	130			

Qualifiers:

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

Page 13 of 15

P Sample pH Not In Range

Hall Environmental Analysis Laboratory, Inc.

WO#:

1603846

25-Mar-16

Client:

Yates Petroleum Corporation

Project:

Undaunted BSD State Com #1H

Sample ID MB-24321

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

66.2

Client ID:

PBS

Batch ID: 24321

RunNo: 32893

Prep Date:

3/17/2016

SeqNo: 1008613

108

Units: %Rec

112

Analyte

Analysis Date: 3/18/2016

Surr: BFB

Result 1100

Result

Result

ND

1100

SPK value SPK Ref Val %REC LowLimit

HighLimit

RPDLimit Qual

Sample ID LCS-24321

SampType: LCS Batch ID: 24321

TestCode: EPA Method 8015D: Gasoline Range RunNo: 32893

Client ID: Prep Date:

LCSS

SeqNo: 1008614 Units: %Rec

%RPD

Analyte Surr: BFB

Client ID:

Analyte

Prep Date:

3/17/2016

Analysis Date: 3/18/2016

1000

1000

SPK value SPK Ref Val %REC

LowLimit

66.2

HighLimit %RPD 112

RPDLimit

RPDLimit

Qual S

Sample ID MB-24316

3/17/2016

SampType: MBLK

Analysis Date: 3/18/2016

PQL

5.0

Batch ID: 24316

117

TestCode: EPA Method 8015D: Gasoline Range

RunNo: 32893

Units: mg/Kg

SeqNo: 1008621 SPK value SPK Ref Val %REC LowLimit

HighLimit %RPD

Qual

Surr: BFB

Gasoline Range Organics (GRO)

Sample ID LCS-24316

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

66.2

1000

RunNo: 32893

Units: mg/Kg

112

Qual

Prep Date: Analyte

Client ID:

3/17/2016

LCSS

Batch ID: 24316

1100

Analysis Date: 3/18/2016

SeqNo: 1008622

%REC

106

LowLimit

HighLimit

%RPD **RPDLimit**

S

Surr: BFB

Gasoline Range Organics (GRO)

Result SPK value SPK Ref Val **PQL** 26 5.0

25.00 1000

0 103 114

80 66.2 120 112

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Η
- ND Not Detected at the Reporting Limit R

RPD outside accepted recovery limits

- % Recovery outside of range due to dilution or matrix
- В
- Analyte detected below quantitation limits J
- Sample pH Not In Range P

RL

Reporting Detection Limit Sample container temperature is out of limit as specified

Analyte detected in the associated Method Blank

Value above quantitation range E

Page 14 of 15

Hall Environmental Analysis Laboratory, Inc.

WO#:

1603846

25-Mar-16

Client:

Yates Petroleum Corporation

Project:

Undaunted BSD State Com #1H

Sample ID MB-24321

SampType: MBLK

TestCode: EPA Method 8021B: Volatiles

80

80

Client ID:

PBS

Batch ID: 24321

RunNo: 32893

Prep Date:

Analysis Date: 3/18/2016

SeqNo: 1008645

Units: %Rec

Analyte

3/17/2016

1.1

PQL

%RPD

Surr: 4-Bromofluorobenzene

Client ID:

1.000

SPK value SPK Ref Val %REC LowLimit 113

HighLimit 120 **RPDLimit**

Qual

Sample ID LCS-24321

LCSS

SampType: LCS Batch ID: 24321 TestCode: EPA Method 8021B: Volatiles

Prep Date:

3/17/2016

RunNo: 32893

121

Units: %Rec

120

Qual

S

Analyte Surr: 4-Bromofluorobenzene

Analysis Date: 3/18/2016

SPK value SPK Ref Val

SeqNo: 1008646 %REC LowLimit

HighLimit

%RPD **RPDLimit**

Sample ID MB-24316

SampType: MBLK

Result

Result

1.2

TestCode: EPA Method 8021B: Volatiles

SPK value SPK Ref Val %REC LowLimit

RunNo: 32893

Client ID: Prep Date: Analyte

3/17/2016

Batch ID: 24316

PQL

Analysis Date: 3/18/2016

SeqNo: 1008653

Units: mg/Kg HighLimit

RPDLimit

Qual

Benzene Toluene Ethylbenzene

ND 0.025 ND 0.050 ND 0.050

Xylenes, Total ND 0.10 Surr: 4-Bromofluorobenzene 1.1

1.000

1.000

113

120

Sample ID LCS-24316

LCSS

3/17/2016

SampType: LCS

Analysis Date: 3/18/2016

PQL

Batch ID: 24316

TestCode: EPA Method 8021B: Volatiles

102

97.7

98.9

98.1

116

RunNo: 32893

80

80

80

80

80

80

120

120

120

120

Units: mg/Kg

%RPD

Analyte Benzene Toluene Ethylbenzene

Xylenes, Total

Client ID:

Prep Date:

1.0 0.98 0.050 0.99 0.050 2.9 0.10

1.2

Result

SPK value SPK Ref Val 0.025 1.000

1.000

1.000

3.000

1.000

%REC

0

0

0

0

SeqNo: 1008654 LowLimit

HighLimit %RPD **RPDLimit** 120

Qual

Page 15 of 15

Surr: 4-Bromofluorobenzene

Qualifiers:

ND

- Value exceeds Maximum Contaminant Level,
- Sample Diluted Due to Matrix D
- H Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- B
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Reporting Detection Limit Sample container temperature is out of limit as specified

Analyte detected in the associated Method Blank

P Sample pH Not In Range

RL



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:	1603846		RcptNo:	1
Received by/date	e: 34	03/16/16				
Logged By:	Lindsay Mangin	3/16/2016 9:55:00 AM		July Hago		!
Completed By:	Lindsay Mangin	3/16/2016 3;02:24 PM		Andy Hope		i
Reviewed By:	On	03/17/16				
Chain of Cus	tody					
1. Custody sea	ls intact on sample bottles?		Yes 🗌	No 🗆	Not Present ✓	
2. Is Chain of C	Custody complete?		Yes 🗹	No 🗌	Not Present	
3. How was the	sample delivered?		Courier			
<u>Log In</u>						
4. Was an atte	mpt made to cool the samp	les?	Yes 🗹	No 🗌	NA 🗆	
5. Were all sam	nples received at a tempera	ture of >0° C to 6.0°C	Yes 🗸	No 🗆	NA 🗆	
6. Sample(s) in	proper container(s)?		Yes 🗹	No 🗆		
7. Sufficient sar	mple volume for indicated te	est(s)?	Yes 🗹	No 🗆		
8. Are samples	(except VOA and ONG) pro	pperfy preserved?	Yes 🗸	No 🗌		
9. Was preserve	ative added to bottles?		Yes 🗌	No 🗹	NA 🗆	
10.VOA vials ha	ive zero headspace?		Yes 🗌	No 🗆	No VOA Vials	
11. Were any sa	ample containers received b	roken?	Yes	No 🗹	# of preserved	
12 Dags			(-)	🗖	bottles checked	
	vork match bottle labels? Dancies on chain of custody)	Yes 🗹	No □	for pH:	or >12 unless noted)
13. Are matrices	correctly identified on Chali	n of Custody?	Yes 🗹	No 🗆	Adjusted?	
14. Is it clear wha	at analyses were requested	?	Yes 🗹	No 🗆 🗄		
	ling times able to be met? customer for authorization.)		Yes 🗹	No 🗆 .	Checked by:	
Special Hand	ling (if applicable)					
	otified of all discrepancies w	ith this order?	Yes 🗆	No 🗆	NA 🗹	
	Notified:					
By Who		Date	7 abbatt (77)	Dh 🗆 E		
Regard		Via:	_ eMail [Phone Fax	∐ In Person	3
	nstructions:					
17. Additional re		• • • • • • • • • • • • • • • • • • • •				
18. Cooler Info						
Cooler No	TOTAL PARTY OF THE	Seal Intact Seal No S	Seal Date	Signed By		
Dogo 1 of		1 3 00 care.com		.:	A	<u></u>

ailing Address: South 4th Street Artesia, NM 88210 Project Name: Undaun 575-513-8799 or 575-748-4111		The same of the sa	CINITIAN OLTANIA LICE
Proje Proje 748-4111	d □ Rush		ANALYSIS LABORATORY
Proje 748-4111	ne:		www.hallenvironmental.com
Proje	Undaunted BSD State Com #1H	4901 Hav	4901 Hawkins NE - Albuquerque, NM 87109
513-8799 or 575-748-4111		Tel. 505-	Tel. 505-345-3975 Fax 505-345-4107
	1RP-4204		Analysis Request
agriffin@yatespetroleum.com Project Manager:	ager:	(juo	-
☐ Level 4 (Full Validation)	Amber Griffin PO # 205-2020	(Gas	
	Am	141. 98 ((1.) (H) (H)
□ Other	% -	+ =	50°
Sample Ten	emperature: 2./ -/.00 F=/.	181 3 bo	od eta cida cida
Matrix Sample Request ID Type and #	Preservativ HEAL No.	O BTEX + M TPH Metho	TPH (Meth BDB (Meth B310 (PNA Anions (F, B081 Pesti B270 (VC
9:51 Soil 1 - Surface 1 - 4oz.	CC -60	×	×
9:53 Soil 1-1' 1-4oz.	loe - 22	×	×
9:54 Soil 1 - 2' 1 - 4oz.	lce -233	×	×
9:55 Soil 1-3' 1-4oz.	loe	×	×
10:20 Soil 2 - Surface 1 - 4oz.	loe SOS	×	×
10:21 Soil 2-1' 1-4oz.	lce	×	×
10:22 Soil 2-2' 1-4oz.	100	×	×
10:23 Soil 2-3' 1-4oz.	ice -033	×	×
10:50 Soil 3 - Surface 1 - 4oz.	ice DE	×	×
10:51 Soil 3-1' 1-4oz.	loe -010	×	×
10:52 Soil 3-2' 1-4oz.	1/Q- eoi	×	×
10:53 Soil 3-3' 1-4oz.	2/ <i>Q</i> _ eoi	×	-1
Reinquished by: Received by:	Short 03/16/16 0955		8 ×
r. OU	Date Time	chlorides on a	chlorides on a separate report. I hank you.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

April 07, 2016

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

FAX

RE: Undaunted BSD State Com #1H

OrderNo.: 1603E20

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 14 sample(s) on 3/30/2016 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 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 qualifers 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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

andyl

Albuquerque, NM 87109

Lab Order: 1603E20

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/7/2016

	ates Petroleum Corpo Indaunted BSD State			L	ab Order: 16031	E20
Lab ID: Client Sample ID:	1603E20-001 2-4'			Collection Date: Matrix	: 3/10/2016 10:24:00 A	AM
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	7000	300	mg/Kg	Ana 200 4/4/2016 4:15:41 F	alyst: LGT PM 24575
Lab ID:	1603E20-002			Collection Date	: 3/10/2016 10:25:00 A	AM
Client Sample ID:	2-5'			Matrix	: SOIL	
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	5400	300	mg/Kg	Ana 200 4/4/2016 4:28:05 F	alyst: LGT PM 24575
Lab ID:	1603E20-003			Collection Date	: 3/10/2016 10:26:00	AM
Client Sample ID:	2-6'			Matrix	: SOIL	
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	6400	300	mg/Kg	Ana 200 4/4/2016 4:40:30 F	alyst: LGT PM 24575
Lab ID: Client Sample ID:	1603E20-004 2-7'			Collection Date Matrix	: 3/10/2016 10:29:00 A	AM
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	8600	750	mg/Kg	Ana 500 4/4/2016 4:52:54 F	alyst: LGT PM 24575
Lab ID:	1603E20-005			Collection Date	: 3/10/2016 10:34:00	AM
Client Sample ID:	2-8'			Matrix		
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	4600	150	mg/Kg	An: 100 4/4/2016 5:05:18 F	alyst: LGT PM 24575

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

- 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 Page 1 of 4
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order: 1603E20

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/7/2016

	Yates Petroleum Corpor Undaunted BSD State C			L:	ab Order:	1603E20	
Lab ID: Client Sample ID:	1603E20-006 2-9'			Collection Date: Matrix:		38:00 AM	I
Analyses		Result	PQL Qual	Units	DF Date Anal	yzed I	Batch ID
EPA METHOD 300	0.0: ANIONS		å			Analys	st: LGT
Chloride		38	30	mg/Kg	20 4/1/2016 4		24575
Lab ID: Client Sample ID:	1603E20-007 2-10'	15		Collection Date: Matrix:		42:00 AM	[
Analyses		Result	PQL Qual	Units	DF Date Anal	yzed I	Batch ID
EPA METHOD 300 Chloride	0.0: ANIONS	46	30	mg/Kg	20 4/1/2016 2	- 5	et: LGT 24575
Lab ID:	1603E20-008			Collection Date:	3/10/2016 10:	54:00 AM	
Client Sample ID:	3-4'			Matrix:	SOIL		
Analyses		Result	PQL Qual	Units	DF Date Anal	yzed I	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	8400	300	mg/Kg	200 4/4/2016 5	-	et: LGT 24575
Lab ID:	1603E20-009			Collection Date:	3/10/2016 10:	56:00 AM	
Client Sample ID:	3-5'			Matrix:	SOIL		
Analyses		Result	PQL Qual	Units	DF Date Anal	yzed F	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	6700	300	mg/Kg	200 4/4/2016 5		et: LGT 24575
Lab ID:	1603E20-010			Collection Date:	3/10/2016 10:	58:00 AM	
Client Sample ID:	3-6'			Matrix:	SOIL		
Analyses		Result	PQL Qual	Units	DF Date Anal	yzed I	Batch ID
EPA METHOD 300	.0: ANIONS					Analys	st: LGT
Chloride		5900	300	mg/Kg	200 4/4/2016 5	-0.	24575

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

- 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 Page 2 of 4
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order: 1603E20

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/7/2016

CLIENT: Yates Petroleum Corporation Lab Order: 1603E20 Project: Undaunted BSD State Com #1H Lab ID: 1603E20-011 Collection Date: 3/10/2016 11:01:00 AM Client Sample ID: 3-7' Matrix: SOIL Analyses Result **PQL Qual Units** DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 8900 300 mg/Kg 200 4/4/2016 5:54:58 PM 24575 Lab ID: 1603E20-012 Collection Date: 3/10/2016 11:03:00 AM Client Sample ID: 3-8' Matrix: SOIL Analyses Result **PQL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 6200 300 mg/Kg 200 4/4/2016 6:07:23 PM 24575 Lab ID: 1603E20-013 Collection Date: 3/10/2016 11:08:00 AM Client Sample ID: Matrix: SOIL Analyses Result **PQL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 2000 75 mg/Kg 4/4/2016 6:44:36 PM 24575 Lab ID: 1603E20-014 Collection Date: 3/10/2016 11:16:00 AM Client Sample ID: 3-10' Matrix: SOIL **Analyses** Result **PQL Qual Units DF** Date Analyzed **Batch ID**

160

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

30

mg/Kg

Qualifiers:

EPA METHOD 300.0: ANIONS

Chloride

- 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 Page 3 of 4

Analyst: LGT

24575

20 4/1/2016 4:15:47 PM

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1603E20

07-Apr-16

Client:

Yates Petroleum Corporation

Project:

Undaunted BSD State Com #1H

Sample ID MB-24575

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: 24575

RunNo: 33247

Prep Date: 4/1/2016 Analysis Date: 4/1/2016

Units: mg/Kg

PQL

SeqNo: 1021596

Analyte

Result

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit**

Qual

Chloride

ND 1.5

Sample ID LCS-24575

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID: LCSS

Batch ID: 24575

1.5

RunNo: 33247

Units: mg/Kg

Prep Date: 4/1/2016 Analysis Date: 4/1/2016

SeqNo: 1021597

LowLimit

HighLimit

%RPD

RPDLimit

Qual

Analyte

SPK value SPK Ref Val %REC 0

90

Chloride

14

15.00

94.8

110

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Η

Not Detected at the Reporting Limit ND

RPD outside accepted recovery limits R

S % Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank В

E Value above quantitation range

J Analyte detected below quantitation limits

Page 4 of 4

P Sample pH Not In Range

Reporting Detection Limit RL

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:	1603E20		RoptNo: 1	
Received by/date: A BEOILG				1
Logged By: Lindsay Mangin 3/30/2016 9:45:00 AM		Judy Hogo		
Completed By: Lindsay Mangin 3/30/2016 10:47:50 AN	1	Judythogo		
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			
I au fa				
<u>Log In</u>			NA []	
Was an attempt made to cool the samples?	Yes 🗸	No 🗆	NA L.J	
5. Were all samples received at a temperature of >0° C to 6.0°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 CI	
10.VOA vials have zero headspace?	Yes 🗆	No 🗆	No VOA Vials	
11. Were any sample containers received broken?	Yes 🗆	No 🗸	# of preserved	
	_		bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗀	for pH (<2 or	>12 unless note
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?	Yes 🗹	No 🗆	Checked by:	
(If no, notify customer for authorization.)				raphagusphory (100 - 20 million or grockly as well-co.
0-1-11-11-11-11-11-11-11-1				
Special Handling (if applicable)	v., 🖂	,	w ⊠	
16. Was client notified of all discrepancies with this order?	Yes LJ	No 📙	N/ N	
Person Notified: Date			**************************************	and the second s
By Whom: Via:	eMail	Phone Fax	In Person	
Regarding: Client Instructions:				
	and property and the same and an arrange and are an arrange and are are an arrange and are are are are are are		entre consentramental especia estra citaria de citaria de sobre estra estra estra consentra estra consentra de	
17. Additional remarks:				
18. Cooler Information		· · · · ·		
Cooler No Temp °C Condition Seal Intact Seal No 1 1.1 Good Yes	Seal Date	Signed By		

				X Standard	□ Rush			П	ANA	「大	SIS	3	30RA	ANALYSIS LABORATORY	_
				Project Name:					www.	allenv	www.hallenvironmental.com	antal.c	Eo		
failing Address:	SS.			Undan	nted BSD S	Undaunted BSD State Com #1H	490	Haw	4901 Hawkins NE		ndneu	dice, N	Albuquerque, NM 87109		
05 South 4t	n Stree	t Artesia	05 South 4th Street Artesia, NM 88210	Project #:			Te	. 505-	Tel. 505-345-3975		Fax 50	505-345-4107	4107		
hone #:		575-513-	575-513-8799 or 575-748-4111		1RP-4204	04	N N			Analy	Analysis Request	sanba	ı		
mail or Fax#:		agriffin@	agriffin@yatespetroleum.com	Project Manager:	ger.	5.55		ese				8.9		alan programme	
MACC Package:	a)				Amber Griffin	riffin		iQ\ae			***************************************	PCB			
Standard			☐ Level 4 (Full Validation)		PO # 205-2020	2020			www			ZR			
ccreditation:				Sampler:	1000	Amber Griffin 人(つ			(1.4)	(HV		08 /	()		(N)
J NELAP		Other		On Ice:	emperature: / `	on C		-)9 po		-				o Y)
				Container	Preservative		TM + ;	odteM ortteM	(Metho	AN9) 9M 8 A	oʻitasi	Pestic (VO)	iməč)		səlqqr
Date	Time	Matrix	Sample Request ID	Type and #	-	2			EDB (Air Bu
3/10/2016	10:24 Soil	Soil	2-4'	1 - 402.	 -	8					×	-			_
3/10/2016	10:25 Soil	Soil	2-5	1 - 40Z.		-02			1	-	×	-			
3/10/2016	10:26 Soil	Soil	2-6'	1 - 40Z.		483		1		4	×	+			_
3/10/2016	10:29 Soil		2-7	1 - 40Z.		<i>537</i>		\dashv			×	+			-
3/10/2016	10:34 Soil		2-8'	1 - 40Z.		-033					×	+			+
3/10/2016	10:38 Soil		2-9'	1 - 402.		-CCC					×				+
3/10/2016	10:42 Soil	Soil	2-10'	1 - 40z.		1007		11-	1	_	×	+	.:		_
3/10/2016	10:54 Soil	Soil	3-4'	1 - 40z.		-88×				+	×	+			+
3/10/2016	10:56 Soil	Soil	3-5	1 - 4oz.		7000		+		+	×	+			+
3/10/2016	10:58 Soil	Soil	3-6	1 - 4oz.	1	0/0-				-	×	1			-
3/10/2016	11:01 Soil	Soil	3-7	1 - 4oz.		0,0		+	1		×	-			-
3/10/2016	11:03 Soil	Soil	3-8	1 - 402.		7007		+		+	×	+			+
3/10/2016	11:08 Soil	Soil	3-9	1 - 4oz.		1017		+	1	1	×	+			+
3/10/2016	11:16 Soil	Soil	3-10	1 - 4oz.	-(-014					×	-			\dashv
Jate:	Time:	Relinquished by:	The same of the sa	Received by.	1	03/34/10 G 2UC	Remarks:		Anions: (Chloric	Chloride Only.		Thank you.		
	10.001+	Refinanished by:	Se Contrio	Received by:	3	Date Tim									