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



JOHN A. YATES

JOHN A. YATES JR. CHAIRMAN OF THE BOARD

DOUGLAS E. BROOKS PRESIDENT CHIEF EXECUTIVE OFFICER

JOHN D. PERINI EXECUTIVE VICE PRESIDENT CHIEF FINANCIAL OFFICER

JAMES S. BROWN CHIEF OPERATING OFFICER

**APPROVED** 

By JKeyes at 8:33 am, Apr 11, 2016

105 SOUTH FOURTH STREET ARTESIA, NEW MEXICO 88210-2118 TELEPHONE (575) 748-1471

www.vatespetroleum.com

RECEIVED

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

KATHY H. PORTER SECRETARY DENNIS G. KINSEY

Yates Petroleum Corporation

Undaunted BSD State Com #1H Work Plan

Section 2, T25S-R32E

Lea County, New Mexico

April 8, 2016

AN AN AN

#### 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.



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1 - Surface 1 - 1' 1 - 2'	Sample Area	Sample Date	Report	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
1-1' 1-2'	Release area	3/10/2016	1603846	Grab/Backhoe	Surface	QN	QN	QN	QN	9,700
1 - 2'	Release area	3/10/2016	1603846	Grab/Backhoe	1.	QN	QN	QN	QN	1,400
	Release area	3/10/2016	1603846	Grab/Backhoe	2'	QN	ND	QN	QN	160
1 - 3'	Release area	3/10/2016	1603846	Grab/Backhoe	3.	QN	QN	QN	QN	230
2 - Surface	Release area	3/10/2016	1603846	Grab/Backhoe	Surface	QN	ND	12	12	17,000
2 - 1'	Release area	3/10/2016	1603846	Grab/Backhoe	1.	QN	ND	QN	ND	3,500
2 - 2'	Release area	3/10/2016	1603846	Grab/Backhoe	2'	QN	ND	QN	DN	4,400
2 - 3'	Release area	3/10/2016	1603846	Grab/Backhoe	3'	ND	ND	ND	ND	6,900
2 - 4'	Release area	3/10/2016	1603E20	Grab/Backhoe	4'		3			7,000
2 - 5'	Release area	3/10/2016	1603E20	Grab/Backhoe	5'	1	с т С		1	5,400
2 - 6'	Release area	3/10/2016	1603E20	Grab/Backhoe	6'	della. Antia		1	1	6,400
2 - 7'	Release area	3/10/2016	1603E20	Grab/Backhoe	7'	1	ĩ	Э.	1	8,600
2 - 8'	Release area	3/10/2016	1603E20	Grab/Backhoe	œ	1	ar Tar F	1	1	4,600
2 - 9'	Release area	3/10/2016	1603E20	Grab/Backhoe	9'	Е	- 1		5	38
2 - 10'	Release area	3/10/2016	1603E20	Grab/Backhoe	10'	•	a.			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,	DN	ND	ND	DN	3,000
3 - 2'	Release area	3/10/2016	1603846	Grab/Backhoe	2'	QN	QN	QN	QN	3,600
3 - 3'	Release area	3/10/2016	1603846	Grab/Backhoe	3'	QN	QN	QN	QN	9,600
3 - 4'	Release area	3/10/2016	1603E20	Grab/Backhoe	4'		Ϋ́			8,400
3 - 5'	Release area	3/10/2016	1603E20	Grab/Backhoe	5		1	j.	1	6,700
3 - 6'	Release area	3/10/2016	1603E20	Grab/Backhoe	6'	1	1	1	-	5,900
3 - 7'	Release area	3/10/2016	1603E20	Grab/Backhoe	7'	-			-	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'	с. с С	1		-	2,000
3 - 10'	Release area	3/10/2016	1603E20	Grab/Backhoe	10'			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

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

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 <u>www.hallenvironmental.com</u> 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environ	mental Analysis	s Laborat	ory, Inc.		Lab Order: 1603846 Date Reported: 3/25	/2016
	Yates Petroleum Corpor Jndaunted BSD State C			L	ab Order: 16038	346
Lab ID:	1603846-001			Collection Date:	: 3/10/2016 9:51:00 A	M
Client Sample ID:	1- Surface			Matrix:	: SOIL	
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300	0.0: ANIONS				An	alyst: SRM
Chloride		9700	750	mg/Kg	500 3/23/2016 9:20:10	
Lab ID:	1603846-002			<b>Collection Date:</b>	: 3/10/2016 9:53:00 A	М
Client Sample ID:	1-1'			Matrix:		
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	0.0: ANIONS	1400	75	mg/Kg	Ana 50 3/23/2016 9:57:24	alyst: <b>SRM</b> PM 24388
Lab ID:	1603846-003			Collection Date:	3/10/2016 9:54:00 A	M
Client Sample ID:	1-2'			Matrix:		
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300	.0: ANIONS				Ana	lyst: LGT
Chloride		160	30	mg/Kg	20 3/22/2016 4:33:56	20
Lab ID: Client Sample ID:	1603846-004 1-3'			Collection Date: Matrix:	3/10/2016 9:55:00 AI	M
Analyses		Result	PQL Qual		DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	230	30	mg/Kg		lyst: LGT
Lab ID:	1603846-005			Collection Date:	3/10/2016 10:20:00 A	M
Client Sample ID:			·	Matrix:		1111
Analyses		Result	PQL Qual		DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	17000	750	mg/Kg	Ana 500 3/23/2016 9:32:34 I	lyst: <b>SRM</b> PM 24388

Qualifiers:

- 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

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 4

**Analytical Report** 

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

Hall Environ	mental Analysi	s Laborat	ory, Inc.		Lab Order: <b>1603846</b> Date Reported: <b>3/2</b> :	
	Yates Petroleum Corpo Undaunted BSD State (		-	L	<b>ab Order:</b> 1603	846
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	0.0: ANIONS				An	alyst: LGT
Chloride		3500	150	mg/Kg	100 3/25/2016 5:31:00	and a second statement of
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	0.0: ANIONS				An	alyst: SRM
Chloride		4400	150	mg/Kg	100 3/23/2016 10:47:0	<ul> <li>Second const</li> </ul>
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	0.0: ANIONS				An	alyst: SRM
Chloride		6900	300	mg/Kg	200 3/23/2016 11:24:1	5
Lab ID:	1603846-009			<b>Collection Date:</b>	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	0.0: ANIONS		0		An	alyst: SRM
Chloride		11000	750	mg/Kg	500 3/23/2016 9:44:59	-
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 Chloride	0.0: ANIONS	3000	150	mg/Kg	An 100 3/23/2016 10:59:2	alyst: <b>SRM</b> 7 PM 24388

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 Page 2 of 4

**Analytical Report** 

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

Hall Enviro	nmental Analys	is Laborate	ory, Inc.		Analytical Report Lab Order: 1603846 Date Reported: 3/25	/2016
CLIENT: Project:	Yates Petroleum Corp Undaunted BSD State				Lab Order: 16038	46
Lab ID: Client Sample ID	1603846-011 : 3-2'				Date: 3/10/2016 10:52:00 A trix: SOIL	M
Analyses		Result	PQL Qua	l Units	DF Date Analyzed	Batch ID
EPA METHOD 30 Chloride	EPA METHOD 300.0: ANIONS Chloride 3600			mg/Kg	Ana 100 3/23/2016 11:11:52	alyst: <b>SRM</b> 2 PM 24388
Lab ID: Client Sample ID	1603846-012 : 3-3'				Date: 3/10/2016 10:53:00 A trix: SOIL	AM
Analyses		Result	PQL Qua	l Units	DF Date Analyzed	Batch ID
EPA METHOD 30 Chloride	00.0: ANIONS	9600	300	mg/Kg	Ana 200 3/23/2016 11:36:42	alyst: <b>SRM</b> 2 PM 24388

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 Page 3 of 4
- 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#: 1603846

Page 4 of 4

25-Mar-16

 Client:
 Yates Petroleum Corporation

 Project:
 Undaunted BSD State Com #1H

Sample ID MB-24388	SampType: MBLK	TestCode: EPA Method 300.0: Ar	lions
Client ID: PBS	Batch ID: 24388	RunNo: 33002	
Prep Date: 3/22/2016	Analysis Date: 3/22/2016	SeqNo: 1012346 Units: n	ng/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLin	nit %RPD RPDLimit Qual
Chloride	ND 1.5		
Sample ID LCS-24388	SampType: LCS	TestCode: EPA Method 300.0: Ar	lions
Sample ID LCS-24388 Client ID: LCSS	SampType: LCS Batch ID: 24388	TestCode: EPA Method 300.0: Ar RunNo: 33002	ions
	The second		
Client ID: LCSS	Batch ID: 24388 Analysis Date: 3/22/2016	RunNo: 33002	ng/Kg

#### 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

ENVIRONMENTAL ANALYSIS LABORATORY		Hawkins NE e, NM 87109 05-345-4107	Samp	ble Log-In C	heck List
Client Name: Yates Petroleum Corpora Work	Order Number: 16038	346		RcptNo:	1
Received by/date: 24 03	16/16				
Logged By: Lindsay Mangin 3/16/20	016 9:55:00 AM	0	ting the go		
Completed By: Lindsay Mangin 3/16/20	016 3;02:24 PM	0	turly Alago		
Reviewed By: 03/1	7/16	V			
Chain of Custody					
1. Custody seals intact on sample bottles?	Yes		No 🗆	Not Present 🗹	
2. Is Chain of Custody complete?	Yes	$\mathbf{V}$	No 🗌	Not Present	
3. How was the sample delivered?	Cour	ier			
<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	V	No 🗌		
8. Are samples (except VOA and ONG) properly preserved	rved? Yes	$\checkmark$	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. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes		No 🗌	bottles checked for pH:	or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody	Yes		No 🗔	Adjusted?	
14. Is it clear what analyses were requested?	Yes		No 🗆 🗄		
<ol> <li>Were all holding times able to be met? (If no, notify customer for authorization.)</li> </ol>	Yes		No 🗌	Checked by:	<u> </u>
Special Handling (if applicable)					
16. Was client notified of all discrepancies with this order	er? Yes		No 🗆	NA 🗹	
Person Notified:	Date	<b>UR!</b>			
By Whom:	Via: 🛄 eMa	ail 🗌 Phon	e 🗌 Fax	In Person	-
Regarding:					
Client Instructions:					
17. Additional remarks:					
18. <u>Cooler Information</u> <u>Cooler No</u> Temp °C Condition Seal Intac 1 1.1 Good Yes	t Seal No Seal D	ate Sig	ned By		
Anaria and an and an and an and an		<del>.</del>	) 		<del></del>
Page 1 of 1					

lient:	Yates Petroleum Corporation	etroleun	Yates Petroleum Corporation	X Standard	C Rush			ЦП	ANAL		SIS	LAB	ANALYSIS LABORATORY	0K
				Project Name:			đ		www	hallenv	ironme	www.hallenvironmental.com	6	
ailing Address:	ess:			Undau	Undaunted BSD S	State Com #1H		1001 H	4901 Hawkins NE		onquero	Albuquerque, NM 87109	87109	
05 South 4	Ith Stree	t Artesi	05 South 4th Street Artesia, NM 88210	Project #:				Tel. 50	Tel. 505-345-3975		Fax 50	505-345-4107	107	8 8
hone #:		575-513	575-513-8799 or 575-748-4111		1RP-4204	04		100		Analy	Analysis Request	quest		
mail or Fax#:	推	agriffin(G	agriffin@vatespetroleum.com	Project Manager:	cer:			-			-	0.0		
A/QC Package: I Standard	3ge:		Level 4 (Full Validation)		Amber Griffin PO # 205-2020	riffin 2020						10.17		in nyi j
ccreditation:	8			Sampler:		Amber Griffin	THE PARTY NO.			(H)	-			
I NELAP		D Other		On Ice:	<b>及</b> Yes	D No	WILL BREAK						VC	i I
(Type)	(ec			Sample Temperature:	perature: 2./	1-1.00 F= 1.1						(∀(	<u>م-ال</u>	
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservativ e Type	HEAL NO.	BTEX + M	TPH Metho BTEX + M	TPH (Meth	AN9) 0168 М 8 АЯЭЯ	, H) enoinA itee9 1808	8260B (VC	mə2) 0728	
3/10/2016	9:51 Soil	Soil	1 - Surface	1 - 402.	lce	-001-	×	×			×			
3/10/2016		Soil	1-1'	1 - 4oz.	lce	-02	×	×			×			-
3/10/2016	9:54 Soil	Soil	1-2'	1 - 4oz.	lce	-ABS	×	×	-		×			
3/10/2016	9:55 Soil	Soil	1-3'	1 - 4oz.	lce	-cort	×	×			×			
3/10/2016	10:20 Soil	Soil	2 - Surface	1 - 4oz.	lce	-000	×	×			×			_
3/10/2016	10:21 Soil	Soil	2 - 1'	1 - 402.	lce	-m	×	×			×			
3/10/2016	-	Soil	2 - 2'	1 - 4oz.	<u>l</u> oe	the	×	×			×			-
3/10/2016		Soil	2-3'	1 - 40Z.	ice	202	×	×			×			+
3/10/2016		Soil	3 - Surface	1 - 4oz.	ice	400	×	×			×			
3/10/2016		Soil	3 - 1'	1 - 402.	ice	010	×	×			×			
3/10/2016	1	Soil	3-2'	1 - 4oz.	ice	-0/1	×	×			×			
3/10/2016		Soil	3-3'	1 - 4oz.	lce	210-	×	×			×			-
	Time: 8:00	Relinquished by:	ed by:	Received by:	Chier 031	3/16/16 0955	Remarks: results as	rks: 1 s as m	Remarks: TPH: 8015B, BTEX: 8021B. results as mg/kg. Anions: Chloride C	5B, BTE nions:	EX: 803 Chloric	Ē.	EX: 8021B. Please show BTEX Chloride Only. Please put	A BTE
	Time:	Relinquished by:	-	Received by:		Date Time	chlori	des on	chlorides on a separate report.	ate rep		I nank you	ou.	

### HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

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 <u>www.hallenvironmental.com</u> 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 3/25/2016

## Hall Environmental Analysis Laboratory, Inc.

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CLIENT: Project: Lab ID:	Yates Petroleum Corporation Undaunted BSD State Com #1H 1603846-001	Matrix:	SOIL		Date: 3/1	Surface 0/2016 9:51:00 AM 6/2016 9:55:00 AM	
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA MET	THOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst	KJH
Diesel R Surr: I	ange Organics (DRO) 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 MET	HOD 8015D: GASOLINE RANGE	E				Analyst	0.0
Gasoline Surr: I	Range Organics (GRO) 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 MET	HOD 8021B: VOLATILES					Analyst	

EFA WETHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	3/18/2016 7:18:26 PM	24316
Toluene	ND	0.048	mg/Kg	1	3/18/2016 7:18:26 PM	24316
Ethylbenzene	ND	0.048	mg/Kg	1	3/18/2016 7:18:26 PM	24316
Xylenes, Total	ND	0.096	mg/Kg	1	3/18/2016 7:18:26 PM	24316
Surr: 4-Bromofluorobenzene	110	80-120	%Rec	1	3/18/2016 7:18:26 PM	24316

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 15
	ND	Not Detected at the Reporting Limit	Р	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

#### Date Reported: 3/25/2016

### Hall Environmental Analysis Laboratory, Inc.

	Yates Petroleum Corporation			Client Sampl	e ID: 1-	1'	
Project:	Undaunted BSD State Com #1H			Collection ]	Date: 3/1	0/2016 9:53:00 AM	
Lab ID:	1603846-002	Matrix:	SOIL	Received I	Date: 3/1	6/2016 9:55:00 AM	
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA MET	THOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst	KJH
Diesel R	ange Organics (DRO)	ND	9.7	mg/Kg	1	3/18/2016 9:44:31 PM	24294
Surr: I	DNOP	90.3	70-130	%Rec	1	3/18/2016 9:44:31 PM	24294
EPA MET	HOD 8015D: GASOLINE RANGE	1				Analyst	NSB
Gasoline	Range Organics (GRO)	ND	4.8	mg/Kg	1	3/18/2016 7:41:45 PM	24316
Surr: E	3FB	106	66.2-112	%Rec	1	3/18/2016 7:41:45 PM	24316
EPA MET	HOD 8021B: VOLATILES					Analyst	NOD

ALLES 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 3/18/2016 7:41:45 PM mg/Kg 1 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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 15
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range Page 2 of 15
	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.

Date Reported: 3/25/2016

CLIENT:	Yates Petroleum Corporation			<b>Client Sampl</b>	e ID: 1-2	2'	
<b>Project:</b>	Undaunted BSD State Com #1H			Collection 1	Date: 3/1	0/2016 9:54:00 AM	
Lab ID:	1603846-003	Matrix:	SOIL	Received I	Date: 3/1	16/2016 9:55:00 AM	
Analyses		Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA MET	THOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst	: KJH
Diesel R	ange 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 ME	THOD 8015D: GASOLINE RANG	E				Analyst	NSB
Gasoline	e 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 MET	THOD 8021B: VOLATILES					Analyst	NSB

#### в . ...

EPA WETHOD 6021B: 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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	в	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 1
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1603846 Date Reported: 3/25/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation			Client Sampl			
<b>Project:</b> Undaunted BSD State Com #1H			Collection 1	Date: 3/1	0/2016 9:55:00 AM	
Lab ID: 1603846-004	Matrix:	SOIL	Received 1	Date: 3/1	6/2016 9:55:00 AM	
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	s			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 RANG	E				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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 4 of 1:
	ND	Not Detected at the Reporting Limit	Р	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

Project: Undaunted BSD State Com #1H

Date Reported: 3/25/2016 Client Sample ID: 2- Surface Collection Date: 3/10/2016 10:20:00 AM

Lab ID: 1603846-005	Matrix:	SOIL	Received 1	Received Date: 3/16/2016 9:55:00 AM				
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch		
EPA METHOD 8015M/D: DIESEL RAM	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 RA	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 PM	1 24316		
EPA METHOD 8021B: VOLATILES					Analys	t: NSB		
Benzene	ND	0.025	mg/Kg	1	3/18/2016 11:13:00 PM	/ 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 PM	/ 24316		
Surr: 4-Bromofluorobenzene	113	80-120	%Rec	1	3/18/2016 11:13:00 PM	/ 24316		

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	в	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 5 of 15
	ND	Not Detected at the Reporting Limit	Р	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

Date Reported: 3/25/2016

3/18/2016 11:36:24 PM 24316

### Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

CLIENT:Yates Petroleum CorporationProject:Undaunted BSD State Com #Lab ID:1603846-006	lH Matrix:	SOIL	Collection 1	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 Q	ual 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 11:10:08 PM	24294		
Surr: DNOP	90.9	70-130	%Rec	1	3/18/2016 11:10:08 PM	24294		
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB		
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/18/2016 11:36:24 PM	24316		
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		
Curry A Descent fluence have								

80-120

%Rec

1

106

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 6 of 15
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range Page 6 of 15
	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

Date Reported: 3/25/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Yates Petroleum Corporation			<b>Client Sampl</b>	e ID: 2-2	2'				
Project:	Undaunted BSD State Com #1H	[	Collection Date: 3/10/2016 10:22:00 AM							
Lab ID:	1603846-007	Matrix: SOIL		Received Date: 3/16/2016 9:55:00 AM						
Analyses		Result	PQL Q	ual Units	DF	Date Analyzed	Batch			
EPA MET	THOD 8015M/D: DIESEL RANGE	ORGANIC	s			Analyst	: KJH			
Diesel R	ange Organics (DRO)	ND	9.9	mg/Kg	1	3/18/2016 11:31:28 PM	24294			
Surr: I	DNOP	90.5	70-130	%Rec	1	3/18/2016 11:31:28 PM	24294			
EPA MET	HOD 8015D: GASOLINE RANG	E				Analyst	NSB			
Gasoline	Range Organics (GRO)	ND	4.8	mg/Kg	1	3/18/2016 11:59:56 PM	24316			
Surr: I	BFB	105	66.2-112	%Rec	1	3/18/2016 11:59:56 PM	24316			

Suff: BFB	105	66.2-112	%Rec	1	3/18/2016 11:59:56 PM 24316
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.024	mg/Kg	1	3/18/2016 11:59:56 PM 24316
Toluene	ND	0.048	mg/Kg	1	3/18/2016 11:59:56 PM 24316
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 24316

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Sample nH Net In Bange 7 of 15
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range Page 7 of 15
	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

3/19/2016 12:23:25 AM 24316

#### Date Reported: 3/25/2016

### Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

CLIENT: Project:	Yates Petroleum Corporation Undaunted BSD State Com #1F	ł		Client Sample Collection I		3' 0/2016 10:23:00 AM	
Lab ID:	1603846-008	Matrix:	SOIL			6/2016 9:55:00 AM	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch
ΕΡΑ ΜΕΤ	HOD 8015M/D: DIESEL RANGE	ORGANICS	5			Analys	t: KJH
Diesel R Surr: I	ange Organics (DRO) DNOP	ND 96.2	9.5 70-130	mg/Kg %Rec	1 1	3/18/2016 11:52:35 PM 3/18/2016 11:52:35 PM	1 24294
EPA MET	HOD 8015D: GASOLINE RANG	E				Analys	

#### Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 3/19/2016 12:23:25 AM 24316 Surr: BFB 104 66.2-112 %Rec 1 3/19/2016 12:23:25 AM 24316 EPA METHOD 8021B: VOLATILES Analyst: NSB Benzene ND 0.024 mg/Kg 1 3/19/2016 12:23:25 AM 24316 Toluene 0.047 ND mg/Kg 1 3/19/2016 12:23:25 AM 24316 Ethylbenzene ND 0.047 mg/Kg 1 3/19/2016 12:23:25 AM 24316 Xylenes, Total ND 0.095 mg/Kg 3/19/2016 12:23:25 AM 24316 1

80-120

%Rec

1

106

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 8 of 15
	ND	Not Detected at the Reporting Limit	Р	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

#### Date Reported: 3/25/2016

### Hall Environmental Analysis Laboratory, Inc.

EPA MET	THOD 8015M/D: DIESEL RANGE	ORGANIC	s			Analyst	КІН
Analyses		Result	PQL	Qual	Units	DF Date Analyzed	Batch
Lab ID:	1603846-009	Matrix:	SOIL		Received	Date: 3/16/2016 9:55:00 AM	
Project:	Undaunted BSD State Com #1H				Collection	Date: 3/10/2016 10:50:00 AM	
CLIENT:	Yates Petroleum Corporation			C	lient Samp	ole ID: 3- Surface	

Diesel Range Organics (DRO)	5100	98		mg/Kg	10	3/19/2016 12:13:48 AM	24294
Surr: DNOP	0	70-130	S	%Rec	10	3/19/2016 12:13:48 AM	24294
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	NSB
Gasoline Range Organics (GRO)	400	47		mg/Kg	10	3/19/2016 12:46:55 AM	
Surr: BFB	204	5.55	~	• •			
oun. Bi B	294	66.2-112	S	%Rec	10	3/19/2016 12:46:55 AM	24316
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	0.5	17.1 1.17		00			
	3.5	0.47		mg/Kg	10	3/19/2016 12:46:55 AM	24316
Xylenes, Total	23	0.93		mg/Kg	10	3/19/2016 12:46:55 AM	24316
Surr: 4-Bromofluorobenzene	129	80-120	S	%Rec	10	3/19/2016 12:46:55 AM	
and an		00 120	5	JULY CO	10	3/19/2010 12:46:55 AM	24316

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 9 of 15
	ND	Not Detected at the Reporting Limit	Р	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

#### Date Reported: 3/25/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Project:	Yates Petroleum Corporation Undaunted BSD State Com #11	Н		Client Sampl Collection 1		l' 0/2016 10:51:00 AM	
Lab ID:	1603846-010	Matrix: S	SOIL	Received I	<b>Date:</b> 3/1	6/2016 9:55:00 AM	
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS				Analys	t: KJH
Diesel Ra Surr: E	ange Organics (DRO) NOP	ND 99.8	10 70-130	mg/Kg %Rec	1 1	3/19/2016 12:56:03 AM 3/19/2016 12:56:03 AM	1 24294
EPA MET	HOD 8015D: GASOLINE RANG	θE				Analys	

#### Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 3/19/2016 1:10:17 AM 24316 Surr: BFB 110 66.2-112 3/19/2016 1:10:17 AM %Rec 1 24316 EPA METHOD 8021B: VOLATILES Analyst: NSB Benzene ND 0.025 mg/Kg 3/19/2016 1:10:17 AM 1 24316 Toluene ND 0.049 mg/Kg 1 3/19/2016 1:10:17 AM 24316 Ethylbenzene ND 0.049 mg/Kg 1 3/19/2016 1:10:17 AM 24316 Xylenes, Total ND 0.098 mg/Kg 1 3/19/2016 1:10:17 AM 24316 Surr: 4-Bromofluorobenzene 108 80-120 %Rec 1 3/19/2016 1:10:17 AM 24316

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 10 of 15
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range Page 10 of 15
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Analytical Report** Lab Order 1603846 Date Reported: 3/25/2016

3/19/2016 1:33:43 AM

3/19/2016 1:33:43 AM

24316

24316

### Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

CLIENT:Yates Petroleum CorporationProject:Undaunted BSD State Com #11Lab ID:1603846-011	H Matrix:	SOIL		ate: 3/1	2' 0/2016 10:52:00 AM 6/2016 9:55:00 AM	
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	s			Analyst	кјн
Diesel Range Organics (DRO) Surr: DNOP	ND 93.8	9.9 70-130	mg/Kg %Rec	1 1	3/19/2016 1:17:03 AM 3/19/2016 1:17:03 AM	24294 24294
EPA METHOD 8015D: GASOLINE RANG	θE				Analyst	NSB
Gasoline Range Organics (GRO) Surr: BFB	ND 107	4.9 66.2-112	mg/Kg %Rec	1 1	3/19/2016 1:33:43 AM 3/19/2016 1:33:43 AM	24316 24316
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene Toluene	ND ND	0.025 0.049	mg/Kg mg/Kg	1 1	3/19/2016 1:33:43 AM 3/19/2016 1:33:43 AM	24316 24316
Ethylbenzene Xylenes, Total	ND ND	0.049 0.098	mg/Kg mg/Kg	1 1	3/19/2016 1:33:43 AM 3/19/2016 1:33:43 AM	24316 24316

80-120

110

%Rec

1

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	в	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 11 of 15
	ND	Not Detected at the Reporting Limit	Р	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

#### Date Reported: 3/25/2016

3/18/2016 9:03:05 PM

Analyst: NSB

Analyst: NSB

24316

24316

24316

24316

24316

24316

24316

### Hall Environmental Analysis Laboratory, Inc.

Gasoline Range Organics (GRO)

EPA METHOD 8021B: VOLATILES

Surr: 4-Bromofluorobenzene

Surr: BFB

Benzene

Toluene

Ethylbenzene

Xylenes, Total

CLIENT:	Yates Petroleum Corporation			Client Sample	ID. 2	21	
Project:	Undaunted BSD State Com #			Client Sample		5 10/2016 10:53:00 AM	
Lab ID:	1603846-012	Matrix: S	SOIL			16/2016 9:55:00 AM	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS				Analys	t: KJH
Diesel Ra	ange Organics (DRO)	ND	10	mg/Kg	1	3/19/2016 1:38:29 AM	24294
Surr: D	NOP	88.6	70-130	%Rec	1	3/19/2016 1:38:29 AM	24294
EPA MET	HOD 8015D: GASOLINE RAN	IGE				Analys	t: NSB

4.8

66.2-112

0.024

0.048

0.048

0.097

80-120

mg/Kg

%Rec

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%Rec

1

1

1

1

1

1

1

ND

91.3

ND

ND

ND

ND

112

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit Page 12 of 15
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range Page 12 of 15
	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.

WO#: 1603846

25-Mar-16

Client: Project:		Petroleum Co nted BSD Sta									
	LCS-24294 LCSS 3/17/2016	1010 1010 1010 1010	ype: LC 1 ID: 24 ate: 3/	294	F	tCode: E RunNo: 3 SeqNo: 1	2883	8015M/D: Die Units: mg/K		e Organics	
Analyte Diesel Range ( Surr: DNOP	Organics (DRO)	Result 47 3.8	PQL 10	SPK value 50.00 5.000	SPK Ref Val 0	%REC 94.3 76.8	LowLimit 65.8 70	HighLimit 136 130	%RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte	MB-24294 PBS 3/17/2016		ype: <b>ME</b> 1D: <b>24</b> / ate: <b>3</b> / PQL	294 18/2016	F	tCode: El RunNo: 3 SeqNo: 1 %REC	2883	8015M/D: Die Units: mg/K HighLimit		e Organics RPDLimit	Qual
Diesel Range C Surr: DNOP	Organics (DRO)	ND 8.6	10	10.00		86.1	70	130			<u>a</u> udi

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

Page 13 of 15

**Client:** 

Hall Environmental Analysis Laboratory, Inc.
--

Yates Petroleum Corporation

Project:	Undaunte	ed BSD State	e Con	n #1H							
Sample ID M		SampTyp	pe: MI	BLK	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID: PI	BS	Batch I	D: 24	321	F	RunNo: 3	2893				
Prep Date: 3	3/17/2016	Analysis Dat	te: 3/	18/2016	S	SeqNo: 1	008613	Units: %Re	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		1100		1000		108	66.2	112			
Sample ID LC		SampTyp	pe: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID: LC	CSS	Batch I	D: 24	321	R	RunNo: 3	2893				
Prep Date: 3	3/17/2016	Analysis Dat	te: 3/	18/2016	S	SeqNo: 1	008614	Units: %Red	0		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		1200		1000		117	66.2	112			S
											-
Sample ID MI	IB-24316	SampTyp	be: ME	BLK	Tes	tCode: E		8015D: Gaso	line Rang	e	-
Sample ID MI		SampTyp Batch I				tCode: E RunNo: 3	PA Method		line Rang	e	
	BS		D: 24	316	R		PA Method 2893		-	e	
Client ID: PE Prep Date: 3 Analyte	BS 3/17/2016	Batch I Analysis Dat	D: 24	316 18/2016	R	RunNo: <b>3</b> SeqNo: <b>1</b>	PA Method 2893	8015D: Gaso	-	e RPDLimit	Qual
Client ID: PE Prep Date: 3 Analyte	BS 3/17/2016	Batch I Analysis Dat	D: 24 te: 3/	316 18/2016	R	RunNo: <b>3</b> SeqNo: <b>1</b>	PA Method 2893 008621	8015D: Gaso Units: mg/K	g		
Client ID: PE Prep Date: 3 Analyte Gasoline Range O	BS 3/17/2016 Drganics (GRO)	Batch I Analysis Dat Result ND	D: 24 te: 3/ PQL 5.0	<b>316</b> 18/2016 SPK value 1000	R S SPK Ref Val	RunNo: <b>3</b> BeqNo: <b>1</b> %REC 106	PA Method 2893 008621 LowLimit 66.2	8015D: Gaso Units: mg/K HighLimit	g %RPD	RPDLimit	
Client ID: PE Prep Date: 3 Analyte Gasoline Range O Surr: BFB	BS 3/17/2016 Drganics (GRO) CS-24316	Batch I Analysis Dat Result ND 1100	D: 24 te: 3/ PQL 5.0 De: LC	316 18/2016 SPK value 1000	R S SPK Ref Val Test	RunNo: <b>3</b> BeqNo: <b>1</b> %REC 106	PA Method 2893 008621 LowLimit 66.2 PA Method	8015D: Gaso Units: mg/K HighLimit 112	g %RPD	RPDLimit	
Client ID: PE Prep Date: 3 Analyte Gasoline Range O Surr: BFB Sample ID LC	BS 3/17/2016 Drganics (GRO) CS-24316 CSS	Batch I Analysis Dat Result ND 1100 SampTyp	D: 24 te: 3/ PQL 5.0 De: LC D: 24	316 18/2016 SPK value 1000 SS 316	R S SPK Ref Val Test R	RunNo: <b>3</b> SeqNo: <b>1</b> %REC 106 tCode: <b>E</b>	PA Method 2893 008621 LowLimit 66.2 PA Method 2893	8015D: Gaso Units: mg/K HighLimit 112	g %RPD	RPDLimit	
Client ID: PE Prep Date: 3 Analyte Gasoline Range O Surr: BFB Sample ID LC Client ID: LC	BS 3/17/2016 Drganics (GRO) CS-24316 CSS 3/17/2016	Batch I Analysis Dat Result ND 1100 SampTyp Batch II Analysis Dat	D: 24 te: 3/ PQL 5.0 De: LC D: 24 te: 3/	316 18/2016 SPK value 1000 S 316 18/2016	R S SPK Ref Val Test R	RunNo: 3 SeqNo: 1 %REC 106 tCode: E RunNo: 3 SeqNo: 1	PA Method 2893 008621 LowLimit 66.2 PA Method 2893	8015D: Gaso Units: mg/K HighLimit 112 8015D: Gaso	g %RPD	RPDLimit	

Qualifiers:

- \* 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
- Analyte detected in the associated Method Blank В
- Value above quantitation range E
- Analyte detected below quantitation limits J

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

Page 14 of 15

25-Mar-16

1603846

WO#:

Hall Environmental Analysis Laboratory, Inc.

											25-1111-1
Client: Project:		Petroleum C nted BSD St	-								
Sample ID	MB-24321	Samp	Туре: М	BLK	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID:	PBS	Batc	h ID: 24	321	F	RunNo: 3	2893				
Prep Date:	3/17/2016	Analysis [	Date: 3/	18/2016	S	SeqNo: 1	008645	Units: %Re	с		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	ofluorobenzene	1.1		1.000		113	80	120		ro Denne	Quui
Sample ID	LCS-24321	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID:	LCSS	Batc	h ID: 24	321		RunNo: 3					
Prep Date:	3/17/2016	Analysis [	Date: 3/	18/2016	S	SeqNo: 1	008646	Units: %Re	с		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brome	ofluorobenzene	1.2		1.000		121	80	120			S
Sample ID	MB-24316	Samp	Туре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID:	PBS	Batc	h ID: 24	316	F	RunNo: 3	2893				
Prep Date:	3/17/2016	Analysis [	Date: 3/	18/2016	S	SeqNo: 1	008653	Units: mg/K	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								Quui
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brome	ofluorobenzene	1.1		1.000		113	80	120			
Sample ID	LCS-24316	Samp	Type: LC	s	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	LCSS	Batc	h ID: 24	316	F	RunNo: 3	2893				
Prep Date:	3/17/2016	Analysis [	Date: 3/	18/2016	5	SeqNo: 1	008654	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.0	0.025	1.000	0	102	80	120			
Toluene		0.98	0.050	1.000	0	97.7	80	120			
Ethylbenzene		0.99	0.050	1.000	0	98.9	80	120			
Xylenes, Total		2.9	0.10	3.000	0	98.1	80	120			
Surr: 4-Brome	ofluorobenzene	1.2		1.000		116	80	120			

#### 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
- RPD outside accepted recovery limits R
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Р

#### Page 15 of 15

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

WO#: 1603846

25-Mar-16

HALL Environmental Analysis Laboratory	Hall Environmental A Albuu TEL: 505-345-3975 I Website: www.hal	4901 Hawk querque, NM FAX: 505-34	kins NE 187109 Sam 5-4107	ple Log-In C	heck List
Client Name: Yates Petroleum Corpora	Work Order Number:	1603846		RcptNo	1
Received by/date:	5 16/16				
Logged By: Lindsay Mangin 3/1	6/2016 9:55:00 AM		Julythe	)	1
Completed By: Lindsay Mangin 3/1	6/2016 3;02:24 PM		And Hafe	)	I
Reviewed By:	3/11/16		000		
Chain of Custody	41-44-~				
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?		<u>Courier</u>			
<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 pr	reserved?	Yes 🗹	No 🗆		
9. Was preservative added to bottles?		Yes 🗌	No 🗹	na 🗆	
10.VOA vials have zero headspace?		Yes 🗌	No 🗆	No VOA Vials 🗹	
11. Were any sample containers received broken?		Yes 🗆	No 🗹		
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗆	# of preserved bottles checked for pH:	or >12 unless noted)
13. Are matrices correctly identified on Chain of Cus	stody?	Yes 🗹	No 🗔	Adjusted?	
14. Is it clear what analyses were requested?		Yes 🗹	No 🗆	1	
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	3
Regarding:				and the second designed of	
Client Instructions:					
17. Additional remarks:					
18. <u>Cooler Information</u> Cooler No Temp °C Condition Seal II 1 1.1 Good Yes	ntact Seal No S	eal Date	Signed By		
Page 1 of 1				A	<u></u>

lient:	Yates P	etroleum	Yates Petroleum Corporation	V CLUST	(		]	1					
				A Standard	C Rush			П	ANA	XSI	SIS	BOR	ANALYSIS LABORATORY
				Project Name:	ä				www.h:	www.hallenvironmental.com	mental.	moo	
ailing Address;	ress:	-		Undau	nted BSD (	Undaunted BSD State Com #1H	4	901 Haw	4901 Hawkins NE -		uerque,	Albuquerque, NM 87109	
05 South 4th Street Artesia, NM	tth Stree	et Artesi	a, NM 88210	Project #:				el. 505-	Tel. 505-345-3975		505-34	505-345-4107	
hone #:	Survey of	575-513-	575-513-8799 or 575-748-4111		1RP-4204	204	Contraction of the second			Analysis	Request	st	
nail or Fax#:	ŧ	agriffin@	agriffin@yatespetroleum.com	Project Manager:	iger:					ros			
A/QC Package: I Standard	:əðe:		Level 4 (Full Validation)		Amber Griffin PO # 205-2020	sriffin -2020				"*Od'z			
ccreditation:	ä			Sampler:	A	Amber Griffin +		98	(1.1				
<b>I NELAP</b>		D Other		On Ice:	<b>I</b> AYes	D No	No.	G10	₽09	5		(\v	
I EDD (Type)	)e)			Sample Temperature:	perature: 2,	1-1.00 == 1.1		8 P	; po	lete	ebk		
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservativ e Type	HEAL NO.	rm + Xətə Tm + Xətə	orijeM HqT http://www.mail.org/ http://wwwww.mail.org/ http://www.mail.o	ліюм) 803 АИЧ) 0168	RCRA 8 M6 D, 7) enoinA	8081 Pestic 8081 Pestic	imə2) 0728	
3/10/2016	9:51 Soil	Soil	1 - Surface	1 - 4oz.	lce	100-	×	×		×			
3/10/2016	9:53 Soil		1-1.	1 - 4oz.	lce	-02	×	×		×			2 2 1
3/10/2016	9:54 Soil		1 - 2'	1 - 402.	lce	-103	×	×		×			
3/10/2016	9:55 Soil		1-3'	1 - 402.	lce	-aut	×	×		×			
3/10/2016	10:20 Soil		2 - Surface	1 - 4oz.	lce	-005	×	×		×			
3/10/2016	10:21 Soil	1	2 - 1'	1 - 4oz.	lce	-ac	×	×		×			-
3/10/2016	10:22 Soil		2 - 2'	1 - 4oz.	oe	50	×	×		×			
3/10/2016	10:23 Soil		2-3'	1 - 402.	ice	-028	×	×		×			
3/10/2016	10:50 Soil		3 - Surface	1 - 402.	ice	-	×	×		×			
3/10/2016	10:51 Soil		3-1'	1 - 4oz.	loe	010	×	×		×	12		
3/10/2016	10:52 Soil		3 - 2'	1 - 402.	ice	-0/1	×	×		×			
3/10/2016	10:53	Soil	3-3'	1 - 402.	lce	210-	×	×		×			
	Time:	lime: Relinquished by:	id by:	K	н К <sub>1</sub>	Date	Remarks:	S: TPI	I: 8015B	TPH: 8015B, BTEX: 8021B.	8021B.	Please	Please show BTEX
14/16	8:00	ambur	w bruten	Jar. a	Flair O	0	results	as mg/	g. Anio	results as mg/kg. Anions: Chic	oride Only. Pl	results as mg/kg. Anions: Chloride Only. Please put	e put
late:	Time:	Relinquished by:	10 p/c 0/0	Received by:		Date Time	culoud	62 0U 9	separan	i report.		, you	
				a los a									



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

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 <u>www.hallenvironmental.com</u> 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environ	mental Analys	is Laborato	ory, Inc.		Date Reported: 4/7/201	16
	ates Petroleum Corp Indaunted BSD State			L	ab Order: 1603E20	0
Lab ID: Client Sample ID:	1603E20-001 2-4'			Matrix:		1
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	7000	300	mg/Kg	Analy 200  4/4/2016 4:15:41 PM	st: <b>LGT</b> 24575
Lab ID: Client Sample ID:	1603E20-002 2-5'		•	Collection Date: Matrix:	3/10/2016 10:25:00 AN SOIL	1
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	5400	300	mg/Kg	Analy 200 4/4/2016 4:28:05 PM	st: <b>LGT</b> 24575
Lab ID: Client Sample ID:	1603E20-003 2-6'			Collection Date: Matrix:	3/10/2016 10:26:00 AN SOIL	1
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	6400	300	mg/Kg	Analy 200  4/4/2016 4:40:30 PM	st: <b>LGT</b> 24575
Lab ID: Client Sample ID:	1603E20-004 2-7'			Collection Date: Matrix:	3/10/2016 10:29:00 AN SOIL	1
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	8600	750	mg/Kg	Analy 500 4/4/2016 4:52:54 PM	st: LGT 24575
Lab ID:	1603E20-005				: 3/10/2016 10:34:00 AN	1
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	Analy 100  4/4/2016 5:05:18 PM	st: <b>LGT</b> 24575

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 Page 1 of 4

Analytical Report Lab Order: 1603E20

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

Hall Environ	mental Analys	is Laborato	ory, Inc.		Lab Order: 1603E20 Date Reported: 4/7	)
	ates Petroleum Corpo Indaunted BSD State			L	ab Order: 1603	E20
Lab ID:	1603E20-006			Collection Date:	3/10/2016 10:38:00	AM
Client Sample ID:	2-9'			Matrix:	SOIL	
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300	.0: ANIONS				Ar	alyst: LGT
Chloride		38	30	mg/Kg	20 4/1/2016 4:40:36	
Lab ID:	1603E20-007	15		<b>Collection Date:</b>	3/10/2016 10:42:00	АМ
Client Sample ID:	2-10'			Matrix:	SOIL	
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300	.0: ANIONS				Ar	alyst: LGT
Chloride		46	30	mg/Kg	20 4/1/2016 2:24:06	PM 24575
Lab ID:	1603E20-008			<b>Collection Date:</b>	3/10/2016 10:54:00	AM
Client Sample ID:	3-4'			Matrix:	SOIL	
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300	.0: ANIONS				Ar	alyst: LGT
Chloride		8400	300	mg/Kg	200 4/4/2016 5:17:43	PM 24575
Lab ID:	1603E20-009			<b>Collection Date:</b>	3/10/2016 10:56:00	AM
Client Sample ID:	3-5'			Matrix:	SOIL	
Analyses		Result	PQL Qual	Units	DF Date Analyzed	<b>Batch ID</b>
EPA METHOD 300	.0: ANIONS				Ar	alyst: LGT
Chloride		6700	300	mg/Kg	200 4/4/2016 5:30:08	PM 24575
Lab ID:	1603E20-010		,	<b>Collection Date:</b>	3/10/2016 10:58:00	AM
Client Sample ID:	3-6'			Matrix:	SOIL	
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	5900	300	mg/Kg	Ar 200 4/4/2016 5:42:33	alyst: <b>LGT</b> PM 24575

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix
- Н 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 В Analyte detected in the associated Method Blank

- Е Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 4 Р

Sample pH Not In Range

**Analytical Report** 

RL **Reporting Detection Limit** 

W Sample container temperature is out of limit as specified

Hall Environ	mental Analysis	Laborato	ory, Inc.		Lab Order: <b>1603E</b> 2 Date Reported: <b>4</b> /	
	ates Petroleum Corporat indaunted BSD State Co			$\mathbf{L}$	ab Order: 160	3E20
Lab ID:	1603E20-011				: 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				A	nalyst: LGT
Chloride		8900	300	mg/Kg	200 4/4/2016 5:54:58	3 PM 24575
Lab ID:	1603E20-012			Collection Date:	: 3/10/2016 11:03:00	) AM
<b>Client Sample ID:</b>	3-8'			Matrix	: SOIL	
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300	.0: ANIONS				Δ	nalyst: LGT
Chloride		6200	300	mg/Kg	200 4/4/2016 6:07:23	3 PM 24575
Lab ID:	1603E20-013			Collection Date:	: 3/10/2016 11:08:0	0 AM
<b>Client Sample ID:</b>	3-9'			Matrix	: SOIL	
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300	.0: ANIONS				Α	nalyst: LGT
Chloride		2000	75	mg/Kg	50 4/4/2016 6:44:30	6 PM 24575
Lab ID:	1603E20-014			Collection Date	: 3/10/2016 11:16:0	0 AM
Client Sample ID:	3-10'			Matrix	: SOIL	
Analyses		Result	PQL Qual	Units	DF Date Analyzed	Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	160	30	mg/Kg	A 20 4/1/2016 4:15:4	Analyst: <b>LGT</b> 7 PM 24575

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 Page 3 of 4

**Analytical Report** 

- 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#: 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	SeqNo: 1021596 Unit	ts: mg/Kg
Analyte	Result PQL SPK value S	SPK Ref Val %REC LowLimit Hig	ghLimit %RPD RPDLimit Qual
Chloride	ND 1.5		
Sample ID LCS-24575	SampType: LCS	TestCode: EPA Method 300.	0: Anions
Sample ID LCS-24575 Client ID: LCSS	SampType: LCS Batch ID: 24575	TestCode: EPA Method 300. RunNo: 33247	0: Anions
		RunNo: 33247	0: Anions ts: mg/Kg
Client ID: LCSS	Batch ID: 24575	RunNo: <b>33247</b> SeqNo: <b>1021597</b> Uni	

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

Page 4 of 4

ENVIRONMENTAL ANALYSIS LABORATORY 7EL: 505-3	onmental Analysis Labors 4901 Hawkin Albuquerque, NM 8 845-3975 FAX: 505-345- www.hallenvironmental	s NE 7109 Samp 1107	e Log-In Che	ck List
Client Name: Yates Petroleum Corpora Work Order	Number: 1603E20		ReptNo: 1	
Received by/date: A CBERN	an a		. May - 21, and 21, and 20,	
Logged By: Lindsay Mangin 3/30/2016 9:49	5:00 AM	Andythigo		
Completed By: Lindsay Mangin 3/30/2016 10:4	17:50 AM	South History)		2
Reviewed By AQ - 03/30	110	0 5.0-		: 영문 : 영
Chain of Custody	$\psi   \varphi   = 0$		a a na ana ana ana ana ana ana ana ana	
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			
<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	D°C Yes 🗹	No 🗌		
6. Sample(s) in proper container(s)?	Yes 🗹	Na 🗔		
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 bottles checked	
12. Does paperwork match bottle labels?	Yes 🔽	No 🗆	for pH	and the second
(Note discrepancies on chain of custody)			<pre>&lt;2 or &gt; Adjusted?</pre>	12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes 🗹	No 🛄	riajaatea t	Enclosed and a first framework water states a second contact on
14. Is it clear what analyses were requested?	Yes 🗹	No 🗌	Checked by:	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No 🗌	Checked by.	anna 2010 - Martin agran ann ann ann ann ann ann ann ann ann
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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes		11 200 A	

Proje treet Artesia, NM 88210 Proje 575-513-8799 or 575-748-4111 Proje agriffin@vatespetroleum.com Proje □ Level 4 (Full Validation) Sami	Project Name: Undaunted BSD State Com #1H			E.		210	Í	ANALYSIS LABORATORY	0K	
11 Proje dation) Sami	Indaunted BSD State			NNN	www.hallenvironmental.com	ironme	ntal.com			
Street Artesia, NM 88210 Proje 575-513-8799 or 575-748-4111 Proje agriffin@vatespetroleum.com Proje		Com #1H	4901	4901 Hawkins NE -	VE - AI	buenbro	Albuquerque, NM 87109	87109		
575-513-8799 or 575-748-4111 agriffin@vatespetroleum.com □ Level 4 (Full Validation)	#		Tel. (	505-345-3975	- <u>1</u>	Fax 50!	505-345-4107	107	a <sup>d</sup>	
agriffin@vatespetroleum.com □ Level 4 (Full Validation)	1RP-4204		and the second second		Anal	Analysis Request	quest			
Level 4 (Full Validation)	Project Manager:		λjuo	880					datument from	
	Amber Griffin PO # 205-2020		seÐ)	0/886			20.17			
		Amber Griffin AC	Hd.	(1.	()					(N
D Other	X Yes	lo l	L +	811				(vr		JO
(pe)	Sample Temperature: 1, 7		38.	7 pa		0.0	(∀	)/-I		۶ (۸
Date Time Matrix Sample Request ID Container	ainer Preservative	HEAL No.	rm + Xəta rm + Xəta	hitem Hqt Hatem) Hqt Hitem) BD3	AN9) 0168 RCRA 8 M	0,4) anoinA bite99 1808	8260B (VO	m92) 0728		Air Bubbles
3/10/2016 10:24 Soil 2 - 4' 1 - 4oz.		10-				×				
		-022				×				
		10B				×				_
		HAU-				×				
1.4		-002				×				
3/10/2016 10:38 Soil 2 - 9' 1 - 402.		à				×				_
		507				×				
		-00%				×				_
3/10/2016 10:56 Soil 3 - 5 1-402		88				×				4
$(x^{n})^{1}$		-010-				×				
3/10/2016 11:01 Soil 3 - 7 1 - 402		-0(				×				
3/10/2016 11:03 Soil 3-8' 1-4oz.		-012				×				-
1		2013				×				+
11:16 Soil 3 - 10'	-{	9				×	The second second			_
Time: 10:044	Jut 031	Date Time 34/6 0 745	Remarks:	Anions:		Chloride Only.		Thank you.		
Time: Relinquished by:	d by:	Date Timé								