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



JOHN A. YATES

JOHN A. YATES JR.

DOUGLAS E. BROOKS
PRESIDENT
CHIEF EXECUTIVE OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

### 105 SOUTH FOURTH STREET

ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471

www.yatespetroleum.com

February 5, 2016

Mr. Mike Bratcher/ Ms. Heather Patterson NMOCD District II 811 S. First St. Artesia, NM 88210

Re:

Torpedo BOW State #1

30-015-37495

Section 11, T25S-R27E Eddy County, New Mexico

Dear Mr. Bratcher / Ms. Patterson,

Yates Petroleum Corporation is submitting the enclosed work plan for the above captioned well. The plan is being submitted in response to the C-141 report dated August 27, 2015.

If there are no objections with the scope of work described in the plan, Yates will have a contractor begin work on or after February 20, 2016.

If you have any questions, feel free to call me at (575) 748-4171

Thank you.

YATES PETROLEUM CORPORATION

Chase Settle Environmental Regulatory Agent

Enclosure(s)

**Yates Petroleum Corporation** 

Torpedo BOW State #1

Section 11, T25S-R27E

**Eddy County, New Mexico** 

February 5, 2016

2RP-3227

#### I. Location

Take Black River Village Road (CR-720) west of Malaga, NM for 2.72 miles, then turn south on Roadrunner Road (CR-774) and go 6.58 miles before turning southeast for .88 mile, the location is to 100 feet to the east.

#### II. Background

On August 27, 2015, Yates submitted to the NMOCD District II office a Form C-141 for the release of 15 B/O & PW Mix with 15 B/O & PW Mix recovered. The affected area is approximately 35 feet by 40 feet around the wellhead with 40 feet by 10 feet finger running to the southeast on the location pad. Initial delineation samples were taken (08/24/2015) and sent to a NMOCD approved laboratory (09/04/2015, results enclosed). Further sampling was conducted in the S2 release area (09/15/2016) and sent to a NMOCD approved laboratory (09/28/2015, results enclosed). More sampling was conducted in the S2 release area (10/26/2015) and sent to a NMOCD approved laboratory (11/06/2015, results enclosed).

#### III. Surface and Ground Water

Area surface geology is Paleozoic Permian. The ChevronTexaco Trend Map displays at this location (Section 11, T25S-R27E) that depth to groundwater is approximately 45' feet making the site ranking for this site a twenty (20). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is twenty (20) based on the as following:

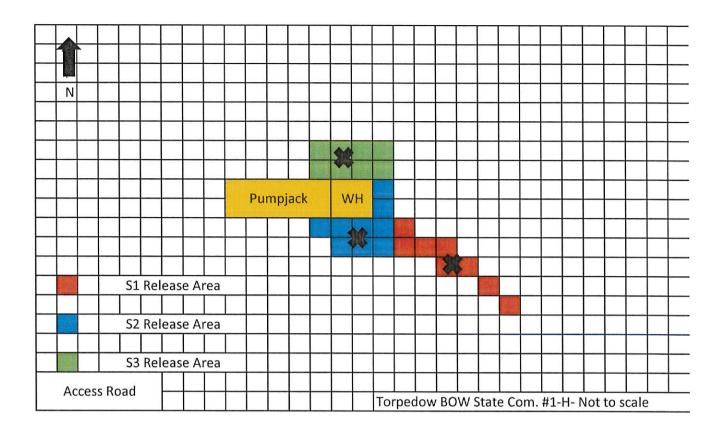
Depth to ground water > 50'
Wellhead Protection Area > 1000'
Distance to surface water body > 1000'

#### IV. Soils

The area consists of soils that are caliche and loamy top soil that are interspersed with clay seams providing a low permeability barrier to retard vertical percolation of contaminants into the subsurface.

#### V. Scope of Work

Based on enclosed analytical results, the depth to groundwater (45'), and a decrease in chlorides, Yates Petroleum Corporation proposes to excavate four (4) feet in the S2 area, install a 20 ml synthetic liner, then backfill with the original soil that was excavated to install the liner. The TPH & BTEX are within the RRAL's for BTEX (50 ppm) and TPH (100 ppm) for the Total Ranking Score of zero (0) in the release area, no further analytical testing of TPH and/or BTEX will be conducted (all chloride analytical results are for documentation). When remediation work is completed a C-141 Final Report will be submitted to the NMOCD requesting closure of the site.



Sample ID	Analytical ID	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	Chlorides
S1-1'	1508 E40	8/24/2015	Hand Auger	1'	ND	ND	ND	140
S1-2'	1508 E40	8/24/2015	Hand Auger	2'	ND	ND	ND	100
S2-1'	1508 E40	8/24/2015	Hand Auger	1'	ND	ND	100	1200
S2-2'	1508 E40	8/24/2015	Hand Auger	2'	ND	ND	ND	890
S2-3'	1509873	9/15/2015	Backhoe	3'	N/A	N/A	N/A	1800
S2-4 <sup>1</sup>	1509874	9/15/2015	Backhoe	4'	N/A	N/A	N/A	1700
S2-5'	1509872	9/15/2015	Backhoe	5'	N/A	N/A	N/A	2500
S2-6'	1509870	9/15/2015	Backhoe	6'	N/A	N/A	N/A	3200
S2-7'	1510 E60	10/26/2015	Backhoe	7'	N/A	N/A	N/A	320
S2-8'	1510 E60	10/26/2015	Hand Auger	8'	N/A	N/A	N/A	920
S2-9¹	1510 E60	10/26/2015	Hand Auger	9'	N/A	N/A	N/A	210
S3-1'	1508 E40	8/24/2015	Hand Auger	1'	ND	ND	ND	250
S3-2'	1508 E40	8/24/2015	Hand Auger	2'	ND	ND	ND	240

Site Ranking is Twenty (20). DTGW <50' (approx 48', Section 11, T25S-R27E, Trend Map) All results are ppm, Chlorides for documentation.

Released: 15 B/O & PW Mix Recovered: 15 B/O & PW Mix Release Date: 8/15/2015



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

September 04, 2015

Chase Settle

Yates Petroleum Corporation 105 South Fourth Street Artesia, NM 88210

TEL: (575) 748-4195

**FAX** 

RE: Torpedo BOW State Com #1-H

OrderNo.: 1508E40

#### Dear Chase Settle:

Hall Environmental Analysis Laboratory received 6 sample(s) on 8/28/2015 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

Albuquerque, NM 87109

#### Lab Order 1508E40

Date Reported: 9/4/2015

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Client Sample ID: S1-1' Torpedo BOW State Com #1-H

Lab ID: 1508E40-001

Project:

Matrix: SOIL

Collection Date: 8/24/2015 9:02:00 AM Received Date: 8/28/2015 2:08:00 PM

Analyses	Result	RL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: LGT
Chloride	140	30		mg/Kg	20	9/2/2015 11:57:19 AM	21108
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS	3				Analyst	: JME
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/1/2015 9:05:05 PM	21044
Surr: DNOP	157	57.9-140	S	%REC	1	9/1/2015 9:05:05 PM	21044
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/2/2015 12:57:02 AM	21055
Surr: BFB	87.2	75.4-113		%REC	1	9/2/2015 12:57:02 AM	21055
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.047		mg/Kg	1	9/2/2015 12:57:02 AM	21055
Toluene	ND	0.047		mg/Kg	1	9/2/2015 12:57:02 AM	21055
Ethylbenzene	ND	0.047		mg/Kg	1	9/2/2015 12:57:02 AM	21055
Xylenes, Total	ND	0.095		mg/Kg	1	9/2/2015 12:57:02 AM	21055
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	9/2/2015 12:57:02 AM	21055

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
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 12
- Sample pH Not In Range
- Reporting Detection Limit

#### Lab Order 1508E40

Date Reported: 9/4/2015

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Torpedo BOW State Com #1-H

Lab ID: 1508E40-002

Project:

Matrix: SOIL

Client Sample ID: S1-2'

Collection Date: 8/24/2015 9:06:00 AM Received Date: 8/28/2015 2:08:00 PM

Analyses Result RL Qual Units DF Date Analyzed Batch **EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 100 30 9/2/2015 12:09:44 PM 21108 mg/Kg **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: JME Diesel Range Organics (DRO) 9.8 mg/Kg 9/1/2015 9:33:00 PM 21044 Surr: DNOP 107 57.9-140 %REC 9/1/2015 9:33:00 PM 21044 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 4.9 9/2/2015 1:22:17 AM mg/Kg 21055 Surr: BFB 85.0 %REC 75.4-113 9/2/2015 1:22:17 AM 21055 **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.049 mg/Kg 9/2/2015 1:22:17 AM 21055 1 Toluene ND 0.049 mg/Kg 9/2/2015 1:22:17 AM 21055 Ethylbenzene ND 0.049 mg/Kg 9/2/2015 1:22:17 AM 1 21055 Xylenes, Total ND 0.097 mg/Kg 9/2/2015 1:22:17 AM 21055 Surr: 4-Bromofluorobenzene 97.8 80-120 %REC 9/2/2015 1:22:17 AM 21055

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 2 of 12 J
- P Sample pH Not In Range
- Reporting Detection Limit

#### Lab Order 1508E40

Date Reported: 9/4/2015

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Project:

Lab ID:

Torpedo BOW State Com #1-H

pedo BOW State Com #1-11

1508E40-003 Matrix: SOIL

Client Sample ID: S2-1'

Collection Date: 8/24/2015 9:14:00 AM

Received Date: 8/28/2015 2:08:00 PM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	1200	30	mg/Kg	20	9/2/2015 12:22:09 PM	21108
EPA METHOD 8015M/D: DIESEL RANGI	ORGANIC	S			Analyst	: JME
Diesel Range Organics (DRO)	100	9.8	mg/Kg	1	9/1/2015 10:00:47 PM	21044
Surr: DNOP	115	57.9-140	%REC	1	9/1/2015 10:00:47 PM	21044
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	9/2/2015 1:47:39 AM	21055
Surr: BFB	86.0	75.4-113	%REC	1	9/2/2015 1:47:39 AM	21055
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	: NSB
Benzene	ND	0.049	mg/Kg	1	9/2/2015 1:47:39 AM	21055
Toluene	ND	0.049	mg/Kg	1	9/2/2015 1:47:39 AM	21055
Ethylbenzene	ND	0.049	mg/Kg	1	9/2/2015 1:47:39 AM	21055
Xylenes, Total	ND	0.098	mg/Kg	1	9/2/2015 1:47:39 AM	21055
Surr: 4-Bromofluorobenzene	98.9	80-120	%REC	1	9/2/2015 1:47:39 AM	21055

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 3 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit

#### Lab Order 1508E40

Date Reported: 9/4/2015

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Torpedo BOW State Com #1-H Project:

1508E40-004

Lab ID:

Matrix: SOIL

Client Sample ID: S2-2'

Collection Date: 8/24/2015 9:18:00 AM

Received Date: 8/28/2015 2:08:00 PM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	890	30	mg/Kg	20	9/2/2015 12:34:34 PM	21108
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANIC	S			Analys	t: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	9/1/2015 10:28:44 PM	21044
Surr: DNOP	106	57.9-140	%REC	1	9/1/2015 10:28:44 PM	21044
EPA METHOD 8015D: GASOLINE R	ANGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	9/2/2015 2:13:03 AM	21055
Surr: BFB	101	75.4-113	%REC	1	9/2/2015 2:13:03 AM	21055
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.048	mg/Kg	1	9/2/2015 2:13:03 AM	21055
Toluene	ND	0.048	mg/Kg	1	9/2/2015 2:13:03 AM	21055
Ethylbenzene	ND	0.048	mg/Kg	1	9/2/2015 2:13:03 AM	21055
Xylenes, Total	ND	0.095	mg/Kg	1	9/2/2015 2:13:03 AM	21055
Surr: 4-Bromofluorobenzene	100	80-120	%REC	1	9/2/2015 2:13:03 AM	21055

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

- Value exceeds Maximum Contaminant Level.
- 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 R
- % 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 4 of 12 J
- Sample pH Not In Range
- Reporting Detection Limit

#### Lab Order 1508E40

Date Reported: 9/4/2015

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Torpedo BOW State Com #1-H Project:

Lab ID: 1508E40-005 Matrix: SOIL

Client Sample ID: S3-1'

Collection Date: 8/24/2015 9:28:00 AM

Received Date: 8/28/2015 2:08:00 PM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	250	30	mg/Kg	20	9/2/2015 1:11:48 PM	21108
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANIC	S			Analys	t: JME
Diesel Range Organics (DRO)	22	10	mg/Kg	1	9/1/2015 10:56:16 PM	21044
Surr: DNOP	107	57.9-140	%REC	1	9/1/2015 10:56:16 PM	21044
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	9/2/2015 10:40:17 AM	21055
Surr: BFB	92.6	75.4-113	%REC	1	9/2/2015 10:40:17 AM	21055
<b>EPA METHOD 8021B: VOLATILES</b>					Analys	t: NSB
Benzene	ND	0.048	mg/Kg	1	9/2/2015 10:40:17 AM	21055
Toluene	ND	0.048	mg/Kg	1	9/2/2015 10:40:17 AM	21055
Ethylbenzene	ND	0.048	mg/Kg	1	9/2/2015 10:40:17 AM	21055
Xylenes, Total	ND	0.096	mg/Kg	1	9/2/2015 10:40:17 AM	21055
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	9/2/2015 10:40:17 AM	21055

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 R
- % 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 12 J
- Sample pH Not In Range
- Reporting Detection Limit

#### Lab Order 1508E40

Date Reported: 9/4/2015

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Project: Torpedo BOW State Com #1-H

Lab ID: 1508E40-006

Matrix: SOIL

Client Sample ID: S3-2'

Collection Date: 8/24/2015 9:35:00 AM

Received Date: 8/28/2015 2:08:00 PM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	st: <b>LGT</b>
Chloride	240	30	mg/Kg	20	9/2/2015 1:24:13 PM	21108
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANIC	S			Analy	st: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	9/1/2015 11:24:08 PM	21044
Surr: DNOP	102	57.9-140	%REC	1	9/1/2015 11:24:08 PM	21044
EPA METHOD 8015D: GASOLINE R	ANGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	9/2/2015 11:05:43 AM	21055
Surr: BFB	89.1	75.4-113	%REC	1	9/2/2015 11:05:43 AM	21055
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.047	mg/Kg	1	9/2/2015 11:05:43 AM	21055
Toluene	ND	0.047	mg/Kg	1	9/2/2015 11:05:43 AM	21055
Ethylbenzene	ND	0.047	mg/Kg	1	9/2/2015 11:05:43 AM	1 21055
Xylenes, Total	ND	0.095	mg/Kg	1	9/2/2015 11:05:43 AN	1 21055
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	9/2/2015 11:05:43 AM	1 21055

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 6 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1508E40

04-Sep-15

Client:

Yates Petroleum Corporation

Result

Project:

Torpedo BOW State Com #1-H

Sample ID MB-21108

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 21108

RunNo: 28635

Prep Date: 9/2/2015

Analysis Date: 9/2/2015

SeqNo: 866750

Units: mg/Kg

HighLimit

%RPD

**RPDLimit** 

Qual

Analyte Chloride

ND 1.5

PQL

Sample ID LCS-21108 LCSS

SampType: LCS

Batch ID: 21108

TestCode: EPA Method 300.0: Anions

LowLimit

RunNo: 28635

Units: mg/Kg

Prep Date: 9/2/2015

Client ID:

Analysis Date: 9/2/2015

1.5

SeqNo: 866751 %REC

HighLimit

%RPD **RPDLimit** 

Qual

Analyte

PQL

15.00

SPK value SPK Ref Val

94.7

Chloride

14

0

SPK value SPK Ref Val %REC LowLimit

90

110

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

E Value above quantitation range

J Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Detection Limit Page 7 of 12

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1508E40

04-Sep-15

Client:

Yates Petroleum Corporation

Project: Torpedo	BOW State Com #1-H	
Sample ID MB-21044	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 21044	RunNo: 28580
Prep Date: 8/31/2015	Analysis Date: 9/1/2015	SeqNo: 864619 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	ND 10	
Surr: DNOP	9.6 10.00	95.8 57.9 140
Sample ID LCS-21044	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 21044	RunNo: 28580
Prep Date: 8/31/2015	Analysis Date: 9/1/2015	SeqNo: 864624 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	43 10 50.00	0 86.4 57.4 139
Surr: DNOP	4.9 5.000	97.7 57.9 140
Sample ID MB-21068	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 21068	RunNo: 28606
Prep Date: 8/31/2015	Analysis Date: 9/2/2015	SeqNo: 866078 Units: %REC
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	9.8 10.00	97.7 57.9 140
Sample ID LCS-21068	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 21068	RunNo: 28606
Prep Date: 8/31/2015	Analysis Date: 9/2/2015	SeqNo: 866079 Units: %REC
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	5.3 5.000	106 57.9 140

- 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
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits
- Page 8 of 12

- P Sample pH Not In Range
- RL Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1508E40

04-Sep-15

Client: Project:

Prep Date:

Yates Petroleum Corporation Torpedo BOW State Com #1-H

Sample ID MB-21059 PBS Client ID:

SampType: MBLK Batch ID: 21059

TestCode: EPA Method 8015D: Gasoline Range

RunNo: 28590

8/31/2015 Analysis Date: 9/1/2015 SeqNo: 865117 Units: %REC LowLimit

75.4

Analyte Result Surr: BFB 870 SPK value SPK Ref Val %REC HighLimit

%RPD **RPDLimit** Qual

Sample ID LCS-21059

LCSS

SampType: LCS Batch ID: 21059 TestCode: EPA Method 8015D: Gasoline Range RunNo: 28590

86.7

113

Prep Date: 8/31/2015

Analysis Date: 9/1/2015

PQL

PQL

SeqNo: 865118

Units: %REC

%RPD Qual

Analyte Surr: BFB

Client ID:

Result 940 SPK value SPK Ref Val 1000

1000

%REC LowLimit 93.8 75.4

HighLimit

**RPDLimit** 

113

Sample ID MB-21055

SampType: MBLK

RunNo: 28590

TestCode: EPA Method 8015D: Gasoline Range

Client ID: Prep Date:

8/31/2015

Batch ID: 21055 Analysis Date: 9/1/2015

SeqNo: 865124

Units: mg/Kg

HighLimit

Analyte Gasoline Range Organics (GRO)

**PBS** 

Result PQL 5.0

Result

Result

SPK value SPK Ref Val %REC LowLimit

%RPD

%RPD

Surr: BFB

ND 890

1000

25.00

1000

88.5

75.4

**RPDLimit** 

Qual

Sample ID LCS-21055

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

113

Client ID: LCSS Prep Date: 8/31/2015 Batch ID: 21055

RunNo: 28590

Analyte

Analysis Date: 9/1/2015 PQL

SeqNo: 865125

Units: mg/Kg

**RPDLimit** Qual

Gasoline Range Organics (GRO) Surr: BFB

26 5.0 1100

SPK value SPK Ref Val %REC 0 105 112

HighLimit Lowl imit 79.6 122 75.4 113

Sample ID MB-21086

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Prep Date:

Batch ID: 21086

RunNo: 28617

Analyte

9/1/2015

9/1/2015

Analysis Date: 9/2/2015

PQL

SeqNo: 866257

Units: %REC

113

Surr: BFB

840

1000

SPK value SPK Ref Val %REC LowLimit

**RPDLimit** 

Qual

Sample ID LCS-21086

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

84.1 75.4 HighLimit %RPD 113

Client ID: LCSS

Batch ID: 21086 Analysis Date: 9/2/2015

PQL

RunNo: 28617

Page 9 of 12

Prep Date: Analyte

Sun: BFB

Result 930 SPK value SPK Ref Val 1000

SeqNo: 866258 %REC LowLimit

93.0

Units: %REC HighLimit

75.4

%RPD **RPDLimit** 

Qual

S

Qualifiers: Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

% Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits R

В Analyte detected in the associated Method Blank

Ε Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1508E40

04-Sep-15

Client:

Yates Petroleum Corporation

Project:

Torpedo BOW State Com #1-H

Sample ID MB-21089

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID:

PBS

Batch ID: 21089

**PQL** 

RunNo: 28617

Prep Date: 9/1/2015

Analysis Date: 9/2/2015

Units: %REC

SeqNo: 866273

Analyte

Result

SPK value SPK Ref Val %REC

75.4

Surr: BFB

880

1000

LowLimit

HighLimit 113 **RPDLimit** 

Qual

Sample ID LCS-21089

Prep Date: 9/1/2015

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

87.6

%RPD

Client ID:

LCSS

Batch ID: 21089 Analysis Date: 9/2/2015

PQL

RunNo: 28617

SeqNo: 866274

Units: %REC

Qual

Analyte

Result

97.2

LowLimit 75.4

HighLimit

%RPD **RPDLimit** 

Surr: BFB

970

1000

SPK value SPK Ref Val %REC

113

Qualifiers:

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

RPD outside accepted recovery limits R

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 limits

P Sample pH Not In Range

RLReporting Detection Limit Page 10 of 12

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1508E40

04-Sep-15

Client: Project: Yates Petroleum Corporation Torpedo BOW State Com #1-H

Sample ID MB-21059

SampType: MBLK

TestCode: EPA Method 8021B: Volatiles

80

LowLimit

Client ID: PBS

Batch ID: 21059

RunNo: 28590

Prep Date: 8/31/2015

Sample ID LCS-21059

Analysis Date: 9/1/2015

SeqNo: 865148

Units: %REC

Analyte

PQL

Result

SPK value SPK Ref Val

1.000

%REC LowLimit

120

HighLimit

%RPD **RPDLimit** Qual

Surr: 4-Bromofluorobenzene

1.0

SampType: LCS

103

TestCode: EPA Method 8021B: Volatiles

Client ID: LCSS

Batch ID: 21059

PQL

RunNo: 28590

Prep Date: 8/31/2015 Analyte

Analysis Date: 9/1/2015

SegNo: 865149

Units: %REC

Surr: 4-Bromofluorobenzene

Result 1.1

SPK value SPK Ref Val

%REC 106

HighLimit

%RPD **RPDLimit**  Qual

Result

1.0

Result

1.000

80 120

Sample ID MB-21055 PBS

SampType: MBLK Batch ID: 21055

TestCode: EPA Method 8021B: Volatiles

RunNo: 28590

Units: mg/Kg

Analyte Benzene

Client ID:

Prep Date: 8/31/2015 Analysis Date: 9/1/2015

0.050

0.050

0.050

0.10

SeqNo: 865154 SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD

**RPDLimit** 

Qual

Toluene

ND ND Ethylbenzene ND

ND

1.000

104

80

Xylenes, Total Surr: 4-Bromofluorobenzene

Sample ID LCS-21055

SampType: LCS

TestCode: EPA Method 8021B: Volatiles

102

99.3

102

102

116

LowLimit

120

Client ID: Prep Date: 8/31/2015

LCSS

Batch ID: 21055

Analysis Date: 9/1/2015

RunNo: 28590

Analyte Benzene

Toluene

Sample ID MB-21086

Prep Date: 9/1/2015

Surr: 4-Bromofluorobenzene

PBS

1.0 0.050 0.99 0.050

PQL

0.050

0.10

1.000

1.000

1.000

3.000

1.000

SPK value SPK Ref Val %REC

0

0

0

0

SeqNo: 865155

80

80

80

80

80

Units: mg/Kg HighLimit

120

120

120

120

120

%RPD

**RPDLimit** Qual

Ethylbenzene Xylenes, Total

Client ID:

Surr: 4-Bromofluorobenzene

3.1 1.2

1.0

SampType: MBLK Batch ID: 21086

Analysis Date: 9/2/2015

PQL

TestCode: EPA Method 8021B: Volatiles RunNo: 28617

SeqNo: 866291

Units: %REC

120

Analyte

Result 0.97 SPK value SPK Ref Val 1.000

%REC 97.3 LowLimit

80

HighLimit

%RPD

**RPDLimit** 

Page 11 of 12

Qual

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix D

Η Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

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

Reporting Detection Limit

RL

ND

RPD outside accepted recovery limits R S % Recovery outside of range due to dilution or matrix

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1508E40

04-Sep-15

Client:

Yates Petroleum Corporation

Project:

Torpedo BOW State Com #1-H

Sample ID LCS-21086

SampType: LCS

TestCode: EPA Method 8021B: Volatiles

Client ID: LCSS

Batch ID: 21086

PQL

RunNo: 28617

Prep Date: 9/1/2015

Analysis Date: 9/2/2015

SeqNo: 866292

80

LowLimit

Units: %REC

Analyte

104

Surr: 4-Bromofluorobenzene

9/1/2015

Result 1.0 SPK value SPK Ref Val %REC HighLimit

**RPDLimit** 

Qual

Sample ID MB-21089

SampType: MBLK

TestCode: EPA Method 8021B: Volatiles

120

%RPD

%RPD

Client ID:

PBS

Batch ID: 21089

RunNo: 28617

Prep Date:

Analysis Date: 9/2/2015

SeqNo: 866297

Units: %REC

Analyte Surr: 4-Bromofluorobenzene Result 1.0 PQL SPK value SPK Ref Val %REC 1.000

1.000

103

LowLimit HighLimit 80 120 **RPDLimit** 

Qual

Sample ID LCS-21089

Client ID: LCSS

SampType: LCS

Batch ID: 21089

TestCode: EPA Method 8021B: Volatiles RunNo: 28617

Units: %REC

Analyte

Analysis Date: 9/2/2015 Result

PQL

SPK value SPK Ref Val %REC LowLimit

%RPD HighLimit

**RPDLimit** 

Qual

Surr: 4-Bromofluorobenzene

Prep Date: 9/1/2015

1.1

1.000

111

SeqNo: 866298

80

120

S

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

H Holding times for preparation or analysis exceeded

% Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits В Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit Page 12 of 12



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 Corporat Work Order Number: 1508E40 RcptNo: 1 Received by/date: Logged By: **Lindsay Mangin** 8/28/2015 2:08:00 PM Completed By: **Lindsay Mangin** 8/31/2015 6:31:39 AM 08/31/15 Reviewed By: Chain of Custody 1. Custody seals intact on sample bottles? No 🗌 Yes Not Present 2. Is Chain of Custody complete? Yes 🐠 No 🗌 Not Present 3. How was the sample delivered? Courier Log In 4. Was an attempt made to cool the samples? Yes No 🗆 NA 🗌 5. Were all samples received at a temperature of >0° C to 6.0°C No T NA 🗌 Sample(s) in proper container(s)? Yes No 🗌 7. Sufficient sample volume for indicated test(s)? No 8. Are samples (except VOA and ONG) properly preserved? 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? No 🍻 # of preserved bottles checked 12. Does paperwork match bottle labels? Yes No 🗌 for pH: (Note discrepancies on chain of custody) (<2 or >12 unless noted) 13. Are matrices correctly identified on Chain of Custody? Adjusted? No 🗌 14. Is it clear what analyses were requested? No 🗌 15. Were all holding times able to be met? Yes No 🗌 Checked by: (If no, notify customer for authorization.) 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 2.4 Good Yes

S	hain	ာ-Jo-	Chain-of-Custody Record	Turn-Around Time:	Time:				Indian Indian	Property of the Party of the Pa	2		2	Z	HALL ENVIRONMENTAL	Z	
Client:	Yates P	etroleum	Client: Yates Petroleum Corporation	X Standard	□ Rush					ANALYSIS	YSJ		4	0	LABORATORY	OR	>
				Project Name:					×	www.hallenvironmental.com	enviro	neu	tal.co	E			
Mailing	Mailing Address:	) ;;	A STATE OF THE STA	Torpe	Torpedo BOW State Com #1-H	te Com #1-H	4	301 H.	4901 Hawkins NE	岩	Albuc	juerqu	e, N	Albuquerque, NM 87109	6		
105 Sou	uth 4th S	105 South 4th Street Artesia, NM	esia, NM 88210	Project #:				el. 50	Tel. 505-345-3975	3975	Fa	Fax 505-345-4107	-345-	4107			
Phone #:	7	575-703-6537	-6537		30-015-37495	7495		HI HERE	: 1	4	nalysi	Analysis Request	nest				
email or Fax#:	· Fax#:	csettle@	csettle@yatespetroleum.com	Project Manager:	ger:						( O						
QA/QC F	QA/QC Package:				Chase Settle						3 0		·	-			
□ Standard	dard		☐ Level 4 (Full Validation)		PO# 205. 0750	.20					ci '						
Accreditation:	tation:	C		Sampler: On Ice:	Chase Settle	ON E								(∀			(N Jo
□ EDD (Type)	(Type)	5		Sample Temperature:	erature:	1°C+0,3'=24°		000-1111000				-	(A	ΟΛ-			<u>\</u>
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MT	orteM H9T	TPH (Metho	ANG) 0188	RCRA 8 Me	O,7) anoinA oitee9 1808	OV) 80928	im92) 0728 ·			Air Bubbles
8/24/2015	9:02	9:02 Soil	S1-1'	1 - 4oz.	ICE	-00/	×	×			×						
8/24/2015	90:6	9:06 Soil	S1-2,		ICE	700-	×	×			_×	-					-
8/24/2015	9:14	9:14 Soil	S2-1'	1 - 4oz.	ICE	-033	×	×			×						_
8/24/2015	9:18	9:18 Soil	S2-2,	1 - 40z.	ICE	-00t	×	×			×						
8/24/2015	9:28	9:28 Soil	S3-1'		E	-WÉ	×	×			×						_
8/24/2015	9:35	9:35 Soil	\$3-2'		ICE	-000	×	×			×						_
											_						
												-					H
														_		1	-
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				:		1	-		$\dashv$							1	-
Date: 8-27-15	Time:	Relinquished by:	1/2	Received by:	4	108/28 15 1408	Kemarks:	:S:									
	Time:	Relinquished by:		Received by:	_	Date Time											
"	necessary,	samples sub	Incressary, 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.	intracted to other act	credited laboratories	s. This serves as notice of this	possibility.	Any sub	contract	ed data v	ill be cle	arly nota	ted on t	ne analyt	ical report	١,	



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

September 28, 2015

Chase Settle
Yates Petroleum Corporation
105 South Fourth Street

Artesia, NM 88210 TEL: (575) 748-4195

FAX

RE: Torpedo BOW State Com #1-H

OrderNo.: 1509870

#### Dear Chase Settle:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/18/2015 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

Albuquerque, NM 87109

### Lab Order 1509870

Date Reported: 9/28/2015

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Torpedo BOW State Com #1-H

1509870-001

Lab ID:

Matrix: SOIL

Client Sample ID: S2-6'

Collection Date: 9/15/2015 8:35:00 AM

Received Date: 9/18/2015 9:21:00 AM

Analyses	Result	RL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Anal	yst: <b>LGT</b>
Chloride	3200	150	mg/Kg	100 9/24/2015 5:58:42 A	M 21444

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 R
- % 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 1 of 2 J
- Sample pH Not In Range
- Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1509870

28-Sep-15

Client:

Yates Petroleum Corporation

Result

Project:

Torpedo BOW State Com #1-H

Sample ID MB-21444

Sample ID LCS-21444

Prep Date: 9/22/2015

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

Prep Date:

Client ID:

PBS

9/22/2015

Batch ID: 21444

**PQL** 

RunNo: 29028

Analysis Date: 9/22/2015

SeqNo: 880818

Units: mg/Kg

%RPD

HighLimit

**RPDLimit** 

Qual

Analyte Chloride

ND 1.5

SampType: LCS Batch ID: 21444

Analysis Date: 9/22/2015

TestCode: EPA Method 300.0: Anions

RunNo: 29028 SeqNo: 880819

Units: mg/Kg

Analyte

LCSS

Result

**PQL** 

SPK value SPK Ref Val

SPK value SPK Ref Val %REC LowLimit

%REC

HighLimit

%RPD **RPDLimit** 

Qual

Chloride

1.5

93.2

110

14

15.00

90

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

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit Page 2 of 2



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 Corporat	Work Order Number:	1509870		RoptNo: 1	
Received by/dat	te: Lindsay Mangin	09/18/15 9/18/2015 9:21:00 AM		Jimaky Hongo		
Completed By:	Lindsay Mangin	9/18/2015 10:40:23 AM	ľ	Jumby Hopes		
Reviewed By:	17%	naliste				1
Chain of Cus	stody	0 1/10/13				
	als intact on sample bottles?		Yes 🐼	No 🗆	Not Present	
	Custody complete?		Yes 🖈	No 🗌	Not Present $\square$	
	e sample delivered?		Courier			
3. 110W Was III	·					
<u>Log In</u>			20.00			
4. Was an att	empt made to cool the samp	les?	Yes 🖈	No 🗌	na 🗆	
F		turn of 200 C to C 0°C	v 🔼	No 🗆	na 🗌	
5. Were all sa	amples received at a tempera	ture or >0° C to 6.0°C	Yes 🐼	140	מס ב	
6. Sample(s)	in proper container(s)?		Yes 🍻	No 🗔		
		1/- \ 0	Yes 🐼	No 🗆		-
1.5	ample volume for indicated t		Yes 💇	No □		
	es (except VOA and ONG) provervative added to bottles?	openy preserved?	Yes 🗌	No 🐼	NA 🗆	
9. was prese	ivalive added to pottles:		.00		Section Address Sections Section 1	
10.VOA vials	have zero headspace?		Yes 🗌	No 🗌	No VOA Vials 🖢	
11. Were any	sample containers received	oroken?	Yes L	No 🐼	# of preserved	
10 -			Yes 률	No 🗆	bottles checked for pH:	v
N. 10 C.	erwork match bottle labels? repancies on chaln of custod	у)	res eu	NO LI		r >12 unless noted)
70	es correctly identified on Cha		Yes 🐠	No 🗆	Adjusted?	
14. Is it clear	what analyses were requeste	d?	Yes 🍻	No 🗆		
	olding times able to be met?	<b>\</b>	Yes 🍻	No 🗀	Checked by:	
(II no, nou	fy customer for authorization	•1				
Special Har	ndling (if applicable)					
	t notified of all discrepancies	with this order?	Yes 🗌	No 🗆	NA 🐼	
	son Notified:	Date:	COMPANIES AND STATE OF STREET			
1	Whom:	Via:	J □ eMail □	Phone Fax	☐ In Person	
	garding:				N. C.	
	nt Instructions:	CONTROL EAST CONTROL TO A SECURIOR CONTROL MANAGEMENT CONTROL OF CONTROL CONTR	A CONTRACTOR OF THE PROPERTY OF THE	ne de conscient for a minima de la	HIS ASSESSMENT OF THE PROPERTY	
17. Additiona	al remarks:					
18. Cooler I	nformation					
Coole			Seal Date	Signed By	_	
1	4.2 Good	Yes		1		

TAL	ORY							(N 1	<u> </u>	() SE	Air Bubble										oort.
HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analy	Pose)	o sse) Sas/Did	H9T (1.8 (1.4) (1.4) (H/ (H/) 808 \	Se)   ON   Spe   ON   OS   OS   OS   OS   OS   OS   OS	bor bor no A no A lets lets lets	BTEX + M BTEX + M TPH Meth TPH (Meth EDB (Meth 8310 (PN RCRA 8 M Anions (F, 8081 Pest 8081 Pest	×							Remarks:		thes accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
Turn-Around Time:	X Standard   Rush	Project Name:	Torpedo BOW State Com #1-H	Project #:	30-015-37495	Project Manager:	Chase Settle PO # 205. 0750	Chase Settle		Sample Temperature: フ, ノールのモーザム	Container Preservative HEAL No. Type and # Type   1509870	1-402. None 001							Received by:	Received by: Date Time	This serves as notice of this
Chain-of-Custody Record			Mailing Address:	105 South 4th Street Artesia, NM 88210	Phone #: 575-703-6537	Fax#:	1 25		□ Other	□ EDD (Type)	Date Time Matrix Sample Request ID	8-35 Soil S2-6'	200						Date: Time: Relinquished by:	Date: Time: Relinquished by:	of believeding of unan lateraneural lists at 1.11 - 1.11



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

OrderNo.: 1509872

September 28, 2015

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

FAX

RE: Torpedo BOW State Com #1-H

#### Dear Chase Settle:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/18/2015 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

### Lab Order 1509872

Date Reported: 9/28/2015

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Project:

Torpedo BOW State Com #1-H

1509872-001

Lab ID:

Client Sample ID: S2-5'

Collection Date: 9/15/2015 8:27:00 AM

Received Date: 9/18/2015 9:21:00 AM

Analyses	Result	RL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	yst: <b>LGT</b>
Chloride	2500	150	mg/Kg	100 9/24/2015 6:11:06 A	M 21444

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
- 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 1 of 2
- Sample pH Not In Range P
- Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1509872

28-Sep-15

Client:

Yates Petroleum Corporation

Project:

Torpedo BOW State Com #1-H

Sample ID MB-21444

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 21444

RunNo: 29028

Prep Date: 9/22/2015

Analysis Date: 9/22/2015

SeqNo: 880818

Units: mg/Kg

Analyte

Result PQL SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD

**RPDLimit** 

Qual

Chloride

ND 1.5

Sample ID LCS-21444

LCSS

SampType: LCS

TestCode: EPA Method 300.0: Anions

Batch ID: 21444

RunNo: 29028

Prep Date: 9/22/2015

SeqNo: 880819

Units: mg/Kg

HighLimit

Analyte

Client ID:

Analysis Date: 9/22/2015

1.5

%RPD **RPDLimit** 

Qual

Chloride

PQL

Result 14

SPK value SPK Ref Val %REC

110

15.00

0

93.2

90

LowLimit

Qualifiers:

S

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

% Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits R

B Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits I

Sample pH Not In Range

Reporting Detection Limit RL

Page 2 of 2



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 Corp	oorat Work Order N	umber: 1509872	4	RcptNo: 1	A commence of additional company of the company of
Received by/dat Logged By: Completed By: Reviewed By:	Lindsay Mangin Lindsay Mangin	09/18/15 9/18/2015 9:21: 9/18/2015 10:44 09/18/15	:05 AM	finsky HodgeD Jansky HodgeD		
Chain of Cus	stody ()	,				
1. Custody sea	als intact on sample bot	tles?	Yes 🐠	No 🗆	Not Present 🗌	
2. Is Chain of	Custody complete?		Yes 🕏	No 🗀	Not Present	
3. How was th	e sample delivered?		Courier			
Log In						
4. Was an att	empt made to cool the s	samples?	Yes 🕏	No 🗌	NA □	
5. Were all sa	imples received at a ten	nperature of >0° C to 6.0°	C Yes 🐼	No 🗆	na 🗆	
6. Sample(s)	in proper container(s)?		Yes 🐼	No 🗆		
7. Sufficient s	ample volume for indica	ited test(s)?	Yes 🗹	No 🗆		
8. Are sample	es (except VOA and ON	G) properly preserved?	Yes 🐼	No ∐		
9. Was prese	rvative added to bottles	?	Yes	No 💇	NA 🗌	
10.VOA vials l	have zero headspace?		Yes 🗌	No 🗆	No VOA Vials 🕏	
11, Were any	sample containers recei	ived broken?	Yes	No 🗹	# of preserved	es es
	rwork match bottle labe repancies on chain of cu		Yes 🖈	No 🗆		r >12 unless noted)
13. Are matrice	es correctly identified or	Chain of Custody?	Yes 🙋	No 🗆	Adjusted?	
14, Is it clear v	vhat analyses were requ	ested?	Yes 🛷	No 🗌		
	olding times able to be r fy customer for authoriza		Yes 🐼	No 📙	Checked by:	
Special Han	dling (if applicabl	e)				
	notified of all discrepan		Yes 🗌	No 🗆	NA 🐼	
Pers	son Notified:	CONTRACTOR	Date:	UT MA TO TO A PROMOTE SUPERIOR AT LIMITED		
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17. Additiona	l remarks:					
18. Cooler In	nformation			8		
Cooler	No Temp °C Con		l No Seal Date	Signed By		
1	4.2 Good	Yes	-			

HALL ENVIRONMENTAL	ANALYSIS LABORATORY		6(										eəldduR iiA										
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			Torpedo BOW State Com #1-H		7495	004		<b>6</b> )	750	0	□ No	12-11.00==4.2	) HEAL No. 1509872	100-					CONTRACTOR OF THE PROPERTY OF			9/18/15 392	, Date Time
Time:	Rush	ioi	edo BOW St		30-015-37495	0-010-00	iger:	Chase Settle	PO# 205. 0750	Chase Settle	√ Xes	emperature: ろ,	Preservative Type	None									
Turn-Around Time:	X Standard	Project Nam	Torp	Project #:			Project Manager:		25	Sampler:	On Ice:	Sample Tem	Container Type and #	1 - 4oz.							,	Received by:	Received by
Chain-of-Custody Record	Yates Petroleum Corporation			105 Couth 4th Street Artesis NM 88210	5007	6537	csettle@yatespetroleum.com		□ Level 4 (Full Validation)				Sample Request ID	S2-5								is an analysis of the second s	ed by:
of-Cu	etroleum			troof Arto	777 700	5/5-/03-653/	csettle@				□ Other		Matrix	8:27 Soil								Relinquished by:	Relinquished by:
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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

September 28, 2015

Chase Settle

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

FAX

RE: Torpedo BOW State Com #1-H

OrderNo.: 1509873

#### Dear Chase Settle:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/18/2015 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

Albuquerque, NM 87109

Lab Order 1509873

Date Reported: 9/28/2015

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Lab ID: 1509873-001

Project:

Torpedo BOW State Com #1-H

Matrix: SOIL

Client Sample ID: S2-3'

Collection Date: 9/15/2015 8:18:00 AM

Received Date: 9/18/2015 9:21:00 AM

Analyses	Result	RL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Anal	yst: <b>LGT</b>
Chloride	1800	150	mg/Kg	100 9/24/2015 6:23:31 A	M 21444

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
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 2 J
- P Sample pH Not In Range
- Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1509873

28-Sep-15

Client:

Yates Petroleum Corporation

Result

Project:

Torpedo BOW State Com #1-H

Sample ID MB-21444

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 21444

PQL

RunNo: 29028

Prep Date: 9/22/2015 Analysis Date: 9/22/2015

Units: mg/Kg

HighLimit

SeqNo: 880818

%RPD

**RPDLimit** Qual

Analyte Chloride

ND 1.5

Sample ID LCS-21444

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 21444

RunNo: 29028

Prep Date: 9/22/2015

Analysis Date: 9/22/2015

SeqNo: 880819

Units: mg/Kg

Analyte

PQL

1.5

SPK value SPK Ref Val %REC

0

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit** 

Qual

90

LowLimit

Chloride

14

15.00

93.2

110

#### Qualifiers:

S

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H

% Recovery outside of range due to dilution or matrix

- R RPD outside accepted recovery limits
- ND Not Detected at the Reporting Limit
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 2 of 2



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

RcptNo: 1 Work Order Number: 1509873 Yates Petroleum Corporat Client Name: Received by/date: 9/18/2015 9:21:00 AM Lindsay Mangin Logged By: 9/18/2015 10:47:16 AM Lindsay Mangin Completed By: 09/18/15 Reviewed By: Chain of Custody Not Present No [ 1. Custody seals intact on sample bottles? Not Present No 🗍 Yes 2. Is Chain of Custody complete? Courier 3 How was the sample delivered? Log In No 🗌 NA 🗌 Yes 🛷 4. Was an attempt made to cool the samples? No 🗌 NA 🗌 5. Were all samples received at a temperature of >0° C to 6.0°C No 🗆 Sample(s) in proper container(s)? No 🗌 7. Sufficient sample volume for indicated test(s)? No 🗌 8. Are samples (except VOA and ONG) properly preserved? NA 🗌 Yes 🗌 No 🐠 9. Was preservative added to bottles? No VOA Vials No 🗌 Yes 10.VOA vials have zero headspace? Yes No 🐼 11. Were any sample containers received broken? # of preserved bottles checked for pH: No 🗌 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 🗌 13. Are matrices correctly identified on Chain of Custody? No 🗌 14. Is it clear what analyses were requested? Checked by: No 🗌 Yes 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) Yes 🗌 NA 🖝 No \_ 16. Was client notified of all discrepancies with this order? Date: Person Notified: eMail Phone Fax In Person Via: By Whom: Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Seal Date Condition Seal Intact | Seal No Cooler No Temp °C 4.2 Good

HALL ENVIRONMENTAL	ANALYSIS LABORATORY		60						(N	10	<u>ا (۱</u>	eəlddu8 זוֹA													fical report.
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I Time:	d 🗆 Rush	e:	pedo BOW S		30-015-37495	ager:	Chase Settle	PO # 205, 0750	Chase Settle	Z	nperature:⊅	Preservative Type	None										180	<del>-</del>	accredited laborate
Turn-Around Time:	X Standard	Project Name:	Tor	Project #:		Project Manager:			Sampler:	On ice.	Sample Temperature:	Container Type and #	1 - 4oz.		12		6.5						Received by/	Received by:	contracted to other
Chain-of-Custody Record	Client: Yates Petroleum Corporation			105 South 4th Street Artesia, NM 88210	6537	csettle@yatespetroleum.com		□ Level 4 (Full Validation)				Sample Request ID	S2-3'							M			bd by:	ed by:	I hecessary, samples submitted to Half 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.
-of-Cu	Petroleum		S:	Street Arte	575-703-6537	csettle@	49900			Other		Matrix	8:18 Soil										Relinquished by:	Relinquished by:	y, samples sub
hain	Yates		Mailing Address:	uth 4th	#	email or Fax#:	QA/QC Package:	ndard	Accreditation:	AP	□ EDD (Type)	Time											Time:	Time: (	If necessar
J	Client:		Mailing	105 Sc	Phone #:	email	QA/QC	☐ Standard	Accrec	□ NELAP		Date	9/15/2015										Date: 9/17/2015	Date:	



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

September 28, 2015

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

FAX

RE: Torpedo BOW State Com #1-H

OrderNo.: 1509874

#### Dear Chase Settle:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/18/2015 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

andy

4901 Hawkins NE

Albuquerque, NM 87109

#### Lab Order 1509874

Date Reported: 9/28/2015

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Project: Torpedo BOW State Com #1-H

1509874-001

Lab ID:

Matrix: SOIL

Client Sample ID: S2-4'

Collection Date: 9/15/2015 8:21:00 AM

Received Date: 9/18/2015 9:21:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>					Anal	yst: <b>LGT</b>
Chloride	1700	75	mg/Kg	50	9/24/2015 6:35:55 A	M 21444

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
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 2 J
- Sample pH Not In Range P
- Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1509874

28-Sep-15

Client:

Yates Petroleum Corporation

Project:

Torpedo BOW State Com #1-H

Sample ID MB-21444

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: **PBS** 

Prep Date:

LCSS

9/22/2015

9/22/2015

Batch ID: 21444

RunNo: 29028

Analysis Date: 9/22/2015

SeqNo: 880818

Units: mg/Kg

**RPDLimit** 

Qual

Analyte Chloride

Result

**PQL** SPK value SPK Ref Val %REC LowLimit ND 1.5

HighLimit

%RPD

Sample ID LCS-21444

SampType: LCS Batch ID: 21444

Analysis Date: 9/22/2015

1.5

TestCode: EPA Method 300.0: Anions

RunNo: 29028

SeqNo: 880819

Units: mg/Kg

%RPD

Analyte

Client ID:

Prep Date:

SPK value SPK Ref Val

0

93.2

90

LowLimit

HighLimit

**RPDLimit** 

Qual

Chloride

14

15.00

%REC

110

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

% Recovery outside of range due to dilution or matrix S

В Analyte detected in the associated Method Blank

E Value above quantitation range

1 Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit Page 2 of 2



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

RcptNo: 1 Yates Petroleum Corporat Work Order Number: 1509874 Client Name: Received by/date: 9/18/2015 9:21:00 AM Logged By: Lindsay Mangin 9/18/2015 10:49:47 AM Completed By: Lindsay Mangin Reviewed By: Chain of Custody Not Present No 🗌 1 Custody seals intact on sample bottles? No 🗀 -Not Present 2. Is Chain of Custody complete? Yes 3. How was the sample delivered? Courier Log In No 🗌 NA . Yes 4. Was an attempt made to cool the samples? NA 🗌 No 🗌 5. Were all samples received at a temperature of >0° C to 6.0°C Yes 🍻 6. Sample(s) in proper container(s)? No 🗌 7. Sufficient sample volume for indicated test(s)? Yes No 8. Are samples (except VOA and ONG) properly preserved? No 🍻 NA [ 9. Was preservative added to bottles? Yes Yes 🗌 No 🗌 No VOA Vials 10.VOA vials have zero headspace? No 🐠 Yes 11. Were any sample containers received broken? # of preserved bottles checked for pH: No 🗌 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 🗌 13. Are matrices correctly identified on Chain of Custody? No 🗌 14. Is it clear what analyses were requested? Checked by: No 🗌 15. Were all holding times able to be met? Yes (If no, notify customer for authorization.) Special Handling (if applicable) NA Yes No 🗌 16. Was client notified of all discrepancies with this order? Person Notified: Date: eMail Phone Fax In Person By Whom: Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Temp °C | Condition Seal Intact | Seal No Seal Date Cooler No Signed By Good 4.2

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Client: Yate	Yates Petroleum Corporation			X Standard	□ Rush		maxet 22					ハ	3	20	ANALYSIS LABOKATOKT	2	Z	
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If nece	ssary, samp	nes submit	ted to Hall Environmental may be supp	סעונישכובת זה המוכי יי	כתבחוובה ומהכיהייי	CO. 1:10 CO. 100 CO. 1							The state of the s					



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

November 06, 2015

Chase Settle

Yates Petroleum Corporation 105 South Fourth Street Artesia, NM 88210

TEL: (575) 748-4217 FAX

RE: Torpedo BOW State Com #1-H

OrderNo.: 1510E60

#### Dear Chase Settle:

Hall Environmental Analysis Laboratory received 3 sample(s) on 10/30/2015 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

Albuquerque, NM 87109

Lab Order: 1510E60

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/6/2015

20 11/4/2015 2:46:34 PM 22180

CLIENT: Yates Petroleum Corporation Lab Order: 1510E60 Torpedo BOW State Com #1-H Project: Lab ID: 1510E60-001 Collection Date: 10/26/2015 9:43:00 AM Client Sample ID: S2-7' Matrix: SOIL Result RL Qual Units **DF** Date Analyzed Analyses **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 320 30 11/4/2015 2:21:44 PM mg/Kg 22180 Lab ID: 1510E60-002 Collection Date: 10/26/2015 9:52:00 AM Client Sample ID: S2-8' Matrix: SOIL Result **RL** Qual Units **DF** Date Analyzed Analyses **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 920 30 mg/Kg 11/4/2015 2:34:09 PM 22180 Lab ID: 1510E60-003 Collection Date: 10/26/2015 10:05:00 AM Client Sample ID: S2-9' Matrix: SOIL RL Qual Units Result Analyses DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT

30

mg/Kg

210

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

#### 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 1 of 2
- P Sample pH Not In Range
- RL Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1510E60

06-Nov-15

Client:

Yates Petroleum Corporation

Result

Project:

Torpedo BOW State Com #1-H

Sample ID MB-22180

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: PBS

Batch ID: 22180

RunNo: 30017

Prep Date: 11/4/2015

Analysis Date: 11/4/2015

PQL

SeqNo: 914569

Units: mg/Kg HighLimit

%RPD

%RPD

**RPDLimit** 

Qual

Analyte Chloride

ND 1.5

Sample ID LCS-22180

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID: LCSS

Prep Date: 11/4/2015

Batch ID: 22180

RunNo: 30017

SeqNo: 914570

Units: mg/Kg

Analyte

Analysis Date: 11/4/2015 **PQL** 

SPK value SPK Ref Val %REC

LowLimit

HighLimit

**RPDLimit** 

Qual

SPK value SPK Ref Val %REC LowLimit

92.2

90

Chloride 14

1.5

Result

15.00

110

Qualifiers:

S

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

H Holding times for preparation or analysis exceeded

% Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits В

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 2 of 2

P Sample pH Not In Range

RL Reporting Detection Limit



#### Holl Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 7711 - 505 345 3075 E4X- 505 345 4407

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.	1510E60	)		Ropti	No: 1
Received by/date.	10/30/15			_		
Logged By: Celina Sessa	10/30/2015 9:45:00 AM	1	Celi	a Si	ne	
Completed By: Celina Sessa	10/30/2015 11:00.26 A	М	Celii Celii	~ S	sen	
Reviewed By:	10/20/15					
Chain of Custody	Ja 1	10/30/	15			
1. Custody seals intact on sample bottles?		Yes Z	Z No		Not Present	<b>V</b> -
2. Is Chain of Custody complete?		Yes Y	Z No		Not Present	and the second s
3. How was the sample delivered?		Courier				
Log In						
4. Was an attempt made to cool the sample	s?	Yes S	Z No		NA	
5 Were all samples received at a temperatu	re of >0° C to 5.0°C	Yes 🗸	No	1,000	NA [	
6. Sample(s) in proper container(s)?		Yes	No			
7. Sufficient sample volume for indicated tes	l(s)?	Yes V	No			
8. Are samples (except VOA and ONG) prop	erly preserved?	Yes Y				
9. Was preservative added to bottles?		Yes	No	$\checkmark$	NA	
10. VOA vials have zero headspace?		Yes	No		No VOA Vials	V.
11. Were any sample containers received bro	ken?	Yes	□ No	<b>Y</b>	# of preserved	
10		Yes N	Z No	П	bottles checked	d
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes B	Z) NO	hand.		(<2 or >12 unless noted)
13. Are matrices correctly identified on Chain	of Custody?	Yos S	/ No		Adjusted	?
14, is it clear what analyses were requested?		Yes S	✓ No	П		
15. Were all holding times able to be met? (If no, notify customer for authorization)		Yes S	<b>∠</b> No	· [_]	Checked	by:
Special Handling (if applicable)						
16. Was client notified of all discrepancies wi	th this order?	Yes	] No		NA	$\checkmark$
Person Notified:	Date	IP-OLAN ALMONYOLA	egades de mande (VIIII estante Casill II) sentá.	etrostunestroi		
By Whom:	Via:	cMail	Phone [	Fax	In Person	
Regarding	CONTRACTOR AND	e la contractivamente sidan	source on the second of the se	ACCUPATION AND TO	and a second constitution of the second	nedav .
Client Instructions:	astand for the Unit of the Control o	inanderstraggersene etchion	na, ya ka ya ka	la desirado (de manos de desirado de	au anticina de la cincia de principa de la constituira de la constituira de la constituira de la constituira d	and the
17. Additional remarks:						
18. Cooler Information	500 N. (Mar) 200 1000000 M				ı	
Cooler No Temp °C Condition  1 2.6 Good	Seal Intact   Seal No   Not Present	Seal Dat	e Signed	Ву		

ITAL	TORY				関連工作場を		Lieba (umano de anno an		(N	OL	X) :	eelddu8 riA											
HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis Request	O <sup>4</sup> )	o se	ses Dq. <sub>s</sub>	PPH (1.) (1.) (1.) (1.) (1.) (1.) (1.) (1.)	T +  210  214  244  250  251  251  251  251  251  251  251	d 86 or 1 or 1 or 2 steleste steleste or 1 or 2 or 3 or 3 or 4 or 3 or 4 or 3 or 4 or 4 or 4 or 4 or 5 or 6 or 6 or 7 or 7 or 7 or 7 or 7 or 7 or 7 or 7	BTEX + MT ATEX + MT CONTROLL CONTROL CON	×	×	×						D	Kernarks.	Time: Relinquished by: Date Time
**************************************			s Com #1-H		195		5.0	0		- No	), 9	HEAL NO. (510E60	100-	-003	-003						aten at a training	348	Date Time
	□ Rush	25	Torpedo BOW State Com #1-H		30-015-37495	ger:	Chase Settle	PO # 205, 0750	Chase Settle		emperature: 2.6	Preservative Type	None	None	None				ACCUPATION OF THE PROPERTY OF				
Turn-Around Time	X Standard	Project Name:	Torp	Project #:	3	Project Manager:			Sampler:		Sample Temp	Container Type and #	1 - 40z.	1 - 40z.	1 - 40z.				1800-001-000-001-00	uksion rego denome	Description Per	Received by:	Received by:
Chain-of-Custody Record	Sorporation			sia, NM 88210	3537	csettle@yatespetroleum.com		☐ Level 4 (Full Validation)				Sample Request ID	S2-7	\$2-8'	S2-9'						1 4		d by:
-of-Cu	Yates Petroleum Corporation		ió	05 South 4th Street Artesia, NM	575-703-6537	csettle@y				Other		Matrix	9:43 Soil	9:52 Soil	10:05 Soil		and and the state of the state	es acoummon				Relinquished by:	Relinquished by:
hain			Aailing Address:	uth 4th 5	4	smail or Fax#:	A.OC Package:	Standard	Accreditation:	AP	EDD (Type)	Time Time	-		-							ij e	Time:
J	Slient		Mailing	05 So	# acode	imail o	JA'OC	□ Star	Accred	D NELAP	ED	Date	ot25,2015	C(26,2015	c:26,2015							24-15	)ate: