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



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471

www.yatespetroleum.com

JOHN A. YATES CHAIRMAN EMERITUS

JOHN A. YATES JR.

DOUGLAS E. BROOKS
PRESIDENT
CHIEF EXECUTIVE OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

April 4, 2016

Mr. Mike Bratcher or Ms. Heather Patterson NMOCD District II 811 South First Artesia, NM 88210

RE:

Bryan ME #1

30-015-23097

Section 33, T18S-R26E Eddy County, New Mexico

Mr. Bratcher or Ms. Patterson,

Yates Petroleum Corporation would like to submit the following plan of work to you regarding the release that occurred at the above mentioned facility on July 11, 2015 (2RP-3164). The release was 15 barrels of produced water with 10 barrels of produced water recovered.

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

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

Thank You,

Amber Griffin

Environmental Regulatory Agent Yates Petroleum Corporation Yates Petroleum Corporation

Bryan ME #1

Section 33, T18S-R26E

Eddy County, New Mexico

April 4, 2016

I. Location

The release area is located approximately 9.1 miles south of Artesia, NM on Highway 285, 0.6 miles east of Highway 285 on Kincaid Ranch Road and 0.5 miles south of Kincaid Ranch Road on a lease road.

II. Background

On July 11, 2015, Yates had a release of 15 barrels produced water with 10 barrels produced water recovered. The area affected from this release was to the north of the wellhead/pumpjack and is approximately 30' x 40'. At the time of the release, the area was bermed to prevent the release from spreading. An initial Form C-141 was submitted, via email, to the NMOCD District II on July 27, 2015.

On July 15, 2015 Yates visited the site and collected an initial soil sample from the surface using a shovel. The surface soil sample was sent to an approved NMOCD laboratory and tested for BTEX 8021B, TPH 8015M, and Chlorides 300.0. Yates received the analytical results on July 24, 2015 (Report 1507792 attached to this work plan). The analytical results showed that both BTEX and TPH were at levels below NMOCD RRAL's. The analytical results also showed elevated chloride levels, and Yates determined that further vertical delineation of chlorides was needed.

Yates returned to the site again on September 10, 2015 and November 3, 2015 and collected soils samples from the depths of 1'-8', 10', 12' and 14' below the surface level using a backhoe. Yates received the analytical results on September 28, 2015, October 12, 2015 and November 17, 2015 (Reports 1509894, 1510101 and 1511272 attached to this work plan). Analytical results from these sampling events showed that chloride levels were still elevated.

Yates returned to the site on February 24, 2016 and collected soils samples from the depths of 16', 18' and 20' below the surface level using a trackhoe. Yates received the analytical results on March 4, 2016 (Report 1602B44 attached to this work plan). Analytical results show chloride levels finally delineating to acceptable 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 75' feet making the site ranking for this site a ten (10). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is ten (10) based on the following:

Depth to ground water 50-99'
Wellhead Protection Area > 1000'
Distance to surface water body > 1000'

IV. Soils

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

V. Scope of Work

Based off the analytical reports which show complete vertical delineation, Yates proposes to excavate 3' from the release area. The excavation will be approximately 40' long, 30' wide. Once all soils have been excavated, a 20 mil synthetic liner will be placed in the bottom of the excavation. The backfill process of the excavation will then be completed with topsoil.

Contaminated soils that are excavated will be hauled to a NMOCD approved disposal facility – R360 Environmental Solutions Halfway Facility located on Highway 62/180.

Once all excavation and backfill work is complete, Yates will submit a Final Form C-141 to NMOCD requesting closure of this release.



Bryan ME #1

	Sample Area	Sample Date	Sample Date Analytical Report	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
Bryan 1 - Surface	Release Area	7/15/2015	1507792	Grab/Shovel	Surface	ND	ND	ND	ND	7,700
Bryan 1 - 1'	Release Area	9/10/2015	1509894	Grab/Backhoe	1.	1				2,000
Bryan 1 - 2'	Release Area	9/10/2015	1509894	Grab/Backhoe	2'		1		ı	1,800
Bryan 1 - 3'	Release Area	9/10/2015	1509894	Grab/Backhoe	3,		1		i	2,700
Bryan 1 - 4'	Release Area	9/10/2015	1510101	Grab/Backhoe	4.					1,700
Bryan 1 - 5'	Release Area	9/10/2015	1510101	Grab/Backhoe	5.		-1			1,900
Bryan 1 - 6'	Release Area	9/10/2015	1510101	Grab/Backhoe	.9		1		1	1,800
Bryan 1 - 7'	Release Area	11/3/2015	1511272	Grab/Backhoe	7.	r	1	. •	•	5,300
Bryan 1 - 8'	Release Area	11/3/2015	1511272	Grab/Backhoe	8.	1	- 1			8,200
Bryan 1 - 10'	Release Area	11/3/2015	1511272	Grab/Backhoe	10,	1	, 1	•		8,500
Bryan 1 - 12'	Release Area	11/3/2015	1511272	Grab/Backhoe	12'	-	1		•	5,700
Bryan 1 - 14'	Release Area	11/3/2015	1511272	Grab/Backhoe	14.		1			4,100
Bryan 1 - 16'	Release Area	2/24/2016	1602B44	Grab/Backhoe	16'					1,100
Bryan 1 - 18'	Release Area	2/24/2016	1602B44	Grab/Backhoe	18,		1		•	540
Bryan 1 - 20'	Release Area	2/24/2016	1602B44	Grab/Backhoe	20'	1	1	1	1	490

Site Ranking is Ten (10). Depth to Ground Water 50-99' (approx. 75', per ChevronTexaco Trend Map).

All results are ppm.

Released: 15 B/PW; Recovered: 10 B/PW. Release Date: 7/11/2015. 2RP-3164



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

July 24, 2015

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

FAX

RE: Bryan ME #1

OrderNo.: 1507792

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/17/2015 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 www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1507792

Date Reported: 7/24/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum

Client Sample ID: Bryan 1 - Surface

Project: Bryan ME #1

Collection Date: 7/15/2015 12:50:00 PM

1507792-001 Lab ID:

Matrix: SOIL

Received Date: 7/17/2015 10:00:00 AM

Analyses Result **RL** Qual Units DF Date Analyzed Batch **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: JME Diesel Range Organics (DRO) ND 10 mg/Kg 7/22/2015 11:18:52 AM 20309 Surr: DNOP 102 57.9-140 %REC 1 7/22/2015 11:18:52 AM 20309 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 4.8 mg/Kg 7/20/2015 3:38:32 PM 20306 Surr: BFB %REC 92.3 75.4-113 1 7/20/2015 3:38:32 PM 20306 **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.048 mg/Kg 7/20/2015 3:38:32 PM 20306 1 Toluene ND 0.048 mg/Kg 1 7/20/2015 3:38:32 PM 20306 Ethylbenzene ND 0.048 mg/Kg 7/20/2015 3:38:32 PM 1 Xylenes, Total ND 0.096 mg/Kg 1 7/20/2015 3:38:32 PM 20306 Surr: 4-Bromofluorobenzene 101 80-120 %REC 7/20/2015 3:38:32 PM 20306

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 4

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

OC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1507792

24-Jul-15

Client:

Yates Petroleum

Project:

Bryan ME #1

Sample ID	MB-2030
Client ID:	DDC

SampType: MBLK

TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID:

Batch ID: 20309

RunNo: 27634

Prep Date: 7/17/2015

Analysis Date: 7/21/2015

10

LowLimit

Analyte

Result

SPK value SPK Ref Val %REC PQL

SeqNo: 830062

Units: mg/Kg HighLimit

%RPD

RPDLimit

Qual

Diesel Range Organics (DRO) Surr: DNOP

ND 10

10.00

50.00

5.000

10.00

103

57.9

Sample ID LCS-20309

SampType: LCS Batch ID: 20309

TestCode: EPA Method 8015M/D: Diesel Range Organics

102

100

RunNo: 27634

139

140

140

Client ID: Prep Date: 7/17/2015

LCSS Analysis Date: 7/21/2015

Units: mg/Kg

Analyte Diesel Range Organics (DRO)

Result 51

PQL SPK value SPK Ref Val

SeqNo: 830063 %REC

HighLimit

%RPD **RPDLimit**

Qual

Surr: DNOP

Client ID:

Sample ID MB-20378 PBS

SampType: MBLK

5.0

11

Result

7.3

57.9 TestCode: EPA Method 8015M/D: Diesel Range Organics

57.9

57.4

LowLimit

RunNo: 27701

Prep Date: Analyte

7/22/2015 Result

Analysis Date: 7/23/2015 PQL

Batch ID: 20378

10

SPK value SPK Ref Val %REC

0

SeqNo: 833319 LowLimit Units: %REC HighLimit

140

%RPD **RPDLimit**

Qual

Surr: DNOP

Sample ID LCS-20378

SampType: LCS

TestCode: EPA Method 8015M/D: Diesel Range Organics

RunNo: 27701

109

Batch ID: 20378 Analysis Date: 7/23/2015

SeqNo: 833320

Units: %REC

Qual

Analyte Surr: DNOP

Client ID:

Prep Date: 7/22/2015

LCSS

SPK value SPK Ref Val

5.000

%REC 147

LowLimit 57.9 HighLimit 140 %RPD

RPDLimit

S

Page 2 of 4

Qualifiers:

S

- E Value above quantitation range
- Analyte detected below quantitation limits J 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Value exceeds Maximum Contaminant Level.

Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- Η ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Holding times for preparation or analysis exceeded

OC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1507792

24-Jul-15

Client:

Yates Petroleum

Project:

Bryan ME #1

Sample ID MB-20306

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID:

Analyte

PBS

Batch ID: 20306

PQL

5.0

5.0

RunNo: 27604

Prep Date: 7/17/2015

Analysis Date: 7/20/2015

SeqNo: 829377

%REC

Units: mg/Kg

LowLimit HighLimit

%RPD **RPDLimit**

Qual

Gasoline Range Organics (GRO) Surr: BFB

ND 910

Result

1000

SPK value SPK Ref Val

SPK value SPK Ref Val

25.00

1000

90.7

75.4

Sample ID LCS-20306

Client ID: LCSS

SampType: LCS

RunNo: 27604

%REC

97.1

98.1

TestCode: EPA Method 8015D: Gasoline Range

Prep Date: 7/17/2015

Batch ID: 20306

0

122

113

113

Units: mg/Kg HighLimit

%RPD **RPDLimit**

Qual

Surr: BFB

Result PQL

24

980

Analysis Date: 7/20/2015

SeqNo: 829378

LowLimit

79.6

75.4

75.4

Gasoline Range Organics (GRO)

Analyte

Sample ID MB-20308

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID:

Client ID: LCSS

PBS

Prep Date: 7/17/2015

Batch ID: 20308

RunNo: 27604

SeqNo: 829387

Units: %REC

113

Analyte

Analysis Date: 7/20/2015 Result **PQL**

SPK value SPK Ref Val 1000

%REC LowLimit HighLimit

%RPD **RPDLimit**

Qual

Surr: BFB

Sample ID LCS-20308

SampType: LCS

900

TestCode: EPA Method 8015D: Gasoline Range

90.4

RunNo: 27604

Prep Date: 7/17/2015

Batch ID: 20308 Analysis Date: 7/20/2015

SeqNo: 829388

Units: %REC

RPDLimit Qual

Analyte Surr: BFB Result 990 SPK value SPK Ref Val 1000

%REC 98.5

75.4

LowLimit

HighLimit 113

%RPD

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank B
- Holding times for preparation or analysis exceeded Η ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 3 of 4

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

1.1

WO#:

1507792

24-Jul-15

Client:

Yates Petroleum

Project:

Surr: 4-Bromofluorobenzene

Bryan ME #1

Sample ID MB-20306	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batch	n ID: 203	306	F	RunNo: 2	7604				
Prep Date: 7/17/2015	Analysis D	Date: 7/	20/2015	S	SeqNo: 8	29405	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		96.9	80	120			
						(1887).				
Sample ID LCS-20306	Samp1	ype: LC	s	Tes			8021B: Vola	tiles		
Sample ID LCS-20306 Client ID: LCSS	021000044	Type: LC				PA Method		tiles		
Contraction of account with appropriate and the property of	021000044	h ID: 20 :	306	F	tCode: E	PA Method 7604				
Client ID: LCSS	Batcl	h ID: 20 :	306 20/2015	F	tCode: E	PA Method 7604	8021B: Vola		RPDLimit	Qual
Client ID: LCSS Prep Date: 7/17/2015	Batcl Analysis D	h ID: 20 : Date: 7 /	306 20/2015	F	tCode: El RunNo: 2 SeqNo: 8	PA Method 7604 29406	8021B: Vola	(g	RPDLimit	Qual
Client ID: LCSS Prep Date: 7/17/2015 Analyte	Batcl Analysis D Result	h ID: 20: Date: 7/ .	306 20/2015 SPK value	SPK Ref Val	tCode: El RunNo: 2 SeqNo: 8 %REC	PA Method 7604 29406 LowLimit	8021B: Volat Units: mg/F HighLimit	(g	RPDLimit	Qual
Client ID: LCSS Prep Date: 7/17/2015 Analyte Benzene	Batch Analysis E Result 0.99	PQL 0.050	306 20/2015 SPK value 1.000	SPK Ref Val	tCode: El RunNo: 2 SeqNo: 8 %REC 99.0	PA Method 7604 29406 LowLimit 76.6	8021B: Volate Units: mg/F HighLimit 128	(g	RPDLimit	Qual

Sample ID MB-20308	SampT	ype: Mi	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles			
Client ID: PBS	Batch	ID: 20	308	F	RunNo: 2	7604					
Prep Date: 7/17/2015	Analysis D	ate: 7	20/2015	8	SeqNo: 8	29414	Units: %RE	С			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: 4-Bromofluorobenzene	0.97		1.000		96.8	80	120				

107

80

120

1.000

Sample ID LCS-20308	SampType:	LCS	Tes	tCode: EF	A Method	8021B: Volat	iles		
Client ID: LCSS	Batch ID:	20308	F	RunNo: 2	7604				
Prep Date: 7/17/2015	Analysis Date:	7/20/2015	8	SeqNo: 8	29419	Units: %RE	С		
Analyte	Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0	1.000		104	80	120			

Qualifiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits

RSD is greater than RSDlimit 0

R RPD outside accepted recovery limits

Spike Recovery outside accepted recovery limits

В Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Page 4 of 4

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerate, NM 87109

TEL: 505-315-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Work Order Number: 1507792 RcptNo: 1 Yates Petroleum Corpora Client Name: 07/17/15 CS Received by/date: Celin Som 7/17/2015 10:00:00 AM Logged By: Celina Sessa Celin Som 7/17/2015 11:28:02 AM Completed By: Celina Sessa 07/17/15 Reviewed By IO Chain of Custody Not Present 1. Custody seals intact on sample bottles? No _ Not Present Yes V 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In No 🗌 NA . 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 Yes Y Sample(s) in proper container(s)? 7. Sufficient sample volume for indicated test(s)? 8. Are samples (except VOA and ONG) properly preserved? NA 🗌 No V Yes 9. Was preservative added to bottles? No VOA Vials 🗸 No Yes 10. VOA vials have zero headspace? Yes No V 11. Were any sample containers received broken? # of preserved bottles checked No 🗌 for pH: 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? Vac V No 🗌 14. Is it clear what analyses were requested? Checked by: No 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) Yes No 🔲 NA V 16. Was client notified of all discrepancies with this order? Date Person Notified: By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Seal Intact | Seal No Cooler No Temp °C Condition Signed By Seal Date

HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analys	osei(2/888	(1) (1) (1) (1)	1T + 1 33 to 81 to 160 do 17 do 18 d	bod	BTEX + M' BTEX + M' TPH Metho TPH (Metho 8310 (PNA ROB1 Pesti 8081 Pesti 8081 Pesti 8081 Pesti	×	de la constitución de la constit							report.	Incressery, samples submitted to Hall Environmental may be subcontracted to other accredited abboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report
Tum-Around Time:	X Standard Rush	Project Name:	Bryan ME #1	Project #:	30-015-23097	Project Manager:	Amber Griffin		Sampler: Amber Grinin On Ice: XYes □ No	Sample Temperature: 1,0° C.	Container Preservativ HEAL No. Type and # e Type	9	1.402.						Received by: Date Time	Received by: Dato Time	I. ontracted to othor accredited laboratories. This serves as notice of thi
Chain-of-Custody Record			Mailing Address:	105 South 4th Street Artesia, NM 86210	1 4/	Fax#: acannon@yatespetroleum.com	ii	☐ Standard ☐ Level 4 (Full Valleauori)	Accreditation:	(Sec.)	ne Matrix Sample Request ID	Broom 1 - Surface							Twe	Date: Reinquished by:	If necessary, samples submitted to Hall Environmental may be subco



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

July 24, 2015

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

FAX

RE: Bryan ME #1

OrderNo.: 1507792

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/17/2015 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 www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1507792

Date Reported: 7/24/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum

Client Sample ID: Bryan 1 - Surface

Collection Date: 7/15/2015 12:50:00 PM

Lab ID:

Project:

Bryan ME #1 1507792-001

Matrix: SOIL

Received Date: 7/17/2015 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Anal	yst: LGT
Chloride	7700	300	mg/Kg	200 7/23/2015 3:58:02 P	M 20356

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Page 1 of 1

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



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquergue, NM 87109

TEL: 505-315-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Work Order Number: 1507792 RcptNo: 1 Yates Petroleum Corpora 07/17/15 15 Received by/date: Celin Som Logged By: Celina Sessa 7/17/2015 10:00:00 AM Celin Som 7/17/2015 11:25:02 AM Completed By: Celina Sessa 07/17/15 Reviewed By: IO Chain of Custody Not Present V Yes | 1. Custody seals intact on sample bottles? No _ Not Present Yes V 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In No NA 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 Yes 🗸 Sample(s) in proper container(s)? 7. Sufficient sample volume for indicated test(s)? 8. Are samples (except VOA and ONG) properly preserved? No V NA . Yes 9. Was preservative added to bottles? No No VOA Vials Yes 10, VOA vials have zero headspace? Yes No V 11 Were any sample containers received broken? # of preserved bottles checked No 🗌 for pH: 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? Yes 14. Is it clear what analyses were requested? No 🗌 Checked by: 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) Yes No 🗌 NA V 16. Was client notified of all discrepancies with this order? Person Notified Date In Person By Whom: Via: eMail Phone Fax Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No | Temp °C | Condition | Seal Intact | Seal No Seal Date Signed By

HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	505-345-3975 Fax 505-345-4107	Analysis Request	the sales		д, _с С	(H)	A9 8 0V A0	or leta leta (Cl, lolde (AC)	TPH (Meth B310 (PNz B310 (PNz B310 (PNz B Moinns (E) B081 Pesti B260B (VC B260B (VC B260B)	×								TPH: 8015B, BTEX: 8021B. Please show BTEX	ging. Tiease put cinolide Lesdits off a separate		other accredited taboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
			901 Ha	Tel. 508			-	sə)	89	108	3 bo	M + X3T8 odsaM H9T	×	recen							rks: T	results as mg/kg.	:	ity. Any su
		Ĭ	4			Water Street	amuse mu	NECESTE PROPERTY AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO IN COLUMN	-			M + X3T8	×		-	1					Remarks:	report	}	is possibili
Tum-Around Time:	X Standard Rush	Project Name:	Bryan ME #1	Project #:	30-015-23097	Project Manager:	Amber Griffin	PO # 205-2020	Sampler: Amber Griffin	On Ice: 🔀 Yes 🗆 No	Sample Temperature: / D° C	Container Preservativ HEAL No.	1-407 Ce								Date Time	was some 07/17/15 1000	Received by: Date Time	
Chain-of-Custody Record	Client: Yates Petroleum Corporation		Mailing Address:	105 South 4th Street Artesia. NM 88210	Phone #: 575-513-8799 or 575-748-4111	-ax#:		□ Standard □ Level 4 (Full Validation)		□ Other	ype)	Date Time Matrix Sample Request ID	Bryan 1 - Surface	14.00 00.1							Date. Time: Relinquished by:	7 When Sinkson	Ë	 Inecessary, samples submitted to Hall Environmental may be subcontracted to



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

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

FAX

RE: Bryan ME #1

OrderNo.: 1509894

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 3 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 www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1509894

Date Reported: 9/28/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Bryan ME #1

Lab ID:

1509894-001

Matrix: SOIL

Client Sample ID: Bryan 1 - 1'

Collection Date: 9/10/2015 9:35:00 AM Received Date: 9/18/2015 9:21:00 AM

Analyses Result RL Qual Units DF Date Analyzed Batch **EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 2000 75 mg/Kg 50 9/24/2015 6:48:20 AM 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
- Н 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 4 J
- Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1509894

Date Reported: 9/28/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Bryan ME #1

Lab ID: 1509894-002 Matrix: SOIL

Client Sample ID: Bryan 1 - 2'

Collection Date: 9/10/2015 9:40:00 AM Received Date: 9/18/2015 9:21:00 AM

Analyses	Result	RL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	1800	75	mg/Kg	50	9/24/2015 7:00:45 AN	1 21444

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 D
- 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
- Ε Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 4 J
- P Sample pH Not In Range
- Reporting Detection Limit

Lab Order 1509894

Date Reported: 9/28/2015

50 9/24/2015 7:13:10 AM 21444

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Bryan ME #1

Lab ID:

Chloride

1509894-003

Matrix: SOIL

Client Sample ID: Bryan 1 - 3'

Collection Date: 9/10/2015 9:45:00 AM Received Date: 9/18/2015 9:21:00 AM

Analyses Result RL Qual Units DF Date Analyzed Batch **EPA METHOD 300.0: ANIONS** Analyst: LGT

75

mg/Kg

2700

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 3 of 4 J
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1509894

28-Sep-15

Client:

Yates Petroleum Corporation

Project:

Bryan ME #1

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

%RPD

HighLimit

RPDLimit

Qual

Analyte Chloride

PQL ND 1.5

Sample ID LCS-21444

Prep Date: 9/22/2015

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID: LCSS

Batch ID: 21444

RunNo: 29028

SeqNo: 880819

Units: mg/Kg

HighLimit

Analyte

Analysis Date: 9/22/2015 PQL

1.5

%RPD **RPDLimit**

Qual

93.2

LowLimit

Chloride

Result 14

15.00

110

SPK value SPK Ref Val %REC

SPK value SPK Ref Val %REC LowLimit

Qualifiers:

- 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
- 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
- J Analyte detected below quantitation limits
 - Sample pH Not In Range
- Reporting Detection Limit

P

Page 4 of 4



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

RcptNo: 1 Yates Petroleum Corporat Work Order Number: 1509894 Client Name: Received by/date: 9/18/2015 9:21:00 AM Logged By: Lindsay 9/18/2015 2:24:29 PM Completed By: **Lindsay Mangin** Reviewed By: Chain of Custody No 🗌 Not Present 1. Custody seals intact on sample bottles? Yes No 🗌 Not Present 2. Is Chain of Custody complete? Yes Courier 3. How was the sample delivered? Log In NA 🗍 No 🗆 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 🗌 6. Sample(s) in proper container(s)? No 🗌 7. Sufficient sample volume for indicated test(s)? No 🗌 Yes 8. Are samples (except VOA and ONG) properly preserved? NA 🗆 No 🛃 Yes 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 No 🗆 for pH: 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) No 🗆 NA Yes 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 Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By 4.2 Good

HALL ENVIRONMENTAL	ANALYSIS LABORATORY		109	7					(N - /	() s	əlddug ıi V													inalytical report.
Z	30	ШŌ	- Albuquerque, NM 87109	Fax 505-345-4107					(AC		m92) 0728													on the a
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I	4	>	awkii	5-34				([1.81t	po	TPH (Meth			\neg								Jorid		np-cou
	Ш		4901 Hawkins NE	Tel. 505-345-3975		esei	Q/ss(9)	8310	8 bo	TPH Metho											Remarks: Chloride Only.		Anys
			49	ř							BTEX + M											mark		sibility
	ا ا ا					(12	(80) s	18	NT + :	LBE	M + X3T8					 						<u>%</u>	Т	this pos
	ht.		WE #1		3164		Griffin 5-2020	0.0	Amber Griffin <i>はら</i> E No	5,2-1,00c=42	* HEAL NO 509894	$-\omega_{l}$	-005	-003								Date Time	Date	orles. This serves as notice of
Time:	□ Rush	ö	Bryan ME #1		2RP-3164	iger:	Amber Griffin	7 2 2 2 2	A Yes A	emberature: \mathcal{S}_{i}	Preservativ e Type	None	None	None								100	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	ccredited laborate
Turn-Around Time:	X Standard	Project Name:		Project #:		Project Manager.	8		Sampler: On Ice:	Sample Tem	Container Type and #	1 - 40z.	1 - 40z.	1 - 4oz.								Received by:	Received by:	ontracted to other a
Chain-of-Custody Record	Yates Petroleum Corporation			ia, NM 88210	575-513-8799 or 575-748-4111	agriffin@yatespetroleum.com	/ 10 Hotel 10 / 11 / 11 / 11 / 11 / 11 / 11 / 11	Level 4 (rull validation)			Sample Request ID	Bryan 1 - 1'	Bryan 1 - 2'	Bryan 1 - 3'								d by:	d by:	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
of-Cus	etroleum			set Artes	575-513-	agriffin@			□ Other		Matrix	9:35 Soil										Relinquished by:	Relinquished by:	samples subm
ıain-c	Yates P		dress:	4th Str		x#:	kage:	p	on:	(bd)	Time											Time:	Time:	necessary,
ຣົ	Client:		Mailing Address:	105 South 4th Street Artesia, NM	Phone #:	email or Fax#:	QA/QC Package:	□ Standard	Accreditation:	□ EDD (Type)	Date	9/10/2015	9/10/2015	9/10/2015								Date:		=



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

October 12, 2015

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

RE: Bryan ME #1

OrderNo.: 1510101

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 3 sample(s) on 10/2/2015 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 www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 1510101

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 10/12/2015

CLIENT: Yates Petroleum Corporation Lab Order: 1510101 Project: Bryan ME #1 Lab ID: 1510101-001 Collection Date: 9/10/2015 9:50:00 AM Client Sample ID: Bryan 1-4' Matrix: SOIL Analyses Result RL Qual Units DF Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 1700 75 mg/Kg 10/8/2015 2:26:57 AM 21662 Lab ID: 1510101-002 Collection Date: 9/10/2015 9:55:00 AM Client Sample ID: Bryan 1-5' Matrix: SOIL Analyses Result RL Qual Units **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 1900 75 mg/Kg 50 10/8/2015 2:39:22 AM 21662 Lab ID: 1510101-003 Collection Date: 9/10/2015 10:00:00 AM Client Sample ID: Bryan 1-6' Matrix: SOIL Analyses Result RL Qual Units **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 1800 75 mg/Kg 10/8/2015 3:16:36 AM 21662

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 2
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1510101

12-Oct-15

Client:

Yates Petroleum Corporation

Project:

Bryan ME #1

Sample ID MB-21662

SampType: MBLK

TestCode: EPA Method 300.0: Anions

LowLimit

90

Client ID:

PBS

Batch ID: 21662

RunNo: 29327

Analysis Date: 10/5/2015

Prep Date: 10/5/2015

SeqNo: 891486

Units: mg/Kg

HighLimit

%RPD **RPDLimit**

Qual

Analyte Chloride

PQL ND 1.5

Sample ID LCS-21662

SampType: LCS

TestCode: EPA Method 300.0: Anions RunNo: 29327

Prep Date: 10/5/2015

Client ID: LCSS

Batch ID: 21662

Units: mg/Kg

Analyte

Analysis Date: 10/5/2015

1.5

SeqNo: 891487

HighLimit %RPD

RPDLimit Qual

15.00

93.3

110

Chloride

14

SPK value SPK Ref Val %REC 0

SPK value SPK Ref Val %REC LowLimit

Qualifiers:

S

- 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
- R RPD outside accepted recovery limits
- Analyte detected in the associated Method Blank E Value above quantitation range
- Analyte detected below quantitation limits J
- P Sample pH Not In Range

В

Reporting Detection Limit

Page 2 of 2



Hall Environmental Analysis Laboratory 4901 Havekors NE Albuquerque, NM 87109

TEL, 505-345-3975 FAX: 505-345-4107 Website, www.hallenvironmental.com

Sample Log-In Check List

RootNo: 1 Work Order Number: 1510101 Yates Petroleum Corpora Client Name: 10/02/15 Received by/date: 10/2/2015 9:40:00 AM Logged By: Lindsay Mangin 10/5/2015 7:41:41 AM Completed By: **Lindsay Mangin** 10/05/15 Reviewed By: Chain of Custody Not Present Y 1. Custody seals intact on sample bottles? No 🗔 Not Present Yes 🗸 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In No 🗌 NA 4. Was an attempt made to cool the samples? NA | Wore all samples received at a temperature of >0° C to 6 0°C No V Approved by client. No . Yes V Sample(s) in proper container(s)? No 7 Sufficient sample volume for indicated test(s)? No 8. Are samples (except VOA and CNC) properly preserved? NA . Yes 9. Was preservative added to bottles? No VOA Vials No 10. VOA vials have zero headspace? No V 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 Mo 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) Yes No ... NA V 16. Was client notified of all discrepancies with this order? Date Person Notified Via: eMail Phone Fax In Person By Whom: Regarding: Client Instructions: 17. Additional remarks: 18 Cooler Information Signed By Condition | Seal Intact | Seal No Seal Date Ccoler No | Temp °C | 14.4 Good Yes



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

November 17, 2015

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

FAX

RE: Bryan ME #1

OrderNo.: 1511272

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 5 sample(s) on 11/6/2015 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 www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 1511272

Date Reported: 11/17/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation Lab Order: 1511272 Project: Bryan ME #1 1511272-001 Lab ID: Collection Date: 11/3/2015 9:56:00 AM Client Sample ID: Bryan 1-7' Matrix: SOIL Result RL Qual Units **DF** Date Analyzed Analyses **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 5300 300 mg/Kg 200 11/14/2015 1:53:54 AM 22299 Lab ID: 1511272-002 Collection Date: 11/3/2015 9:59:00 AM Client Sample ID: Bryan 1-8' Matrix: SOIL Analyses Result RL Qual Units **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 8200 750 500 11/14/2015 2:06:20 AM 22299 mg/Kg 1511272-003 Lab ID: Collection Date: 11/3/2015 10:04:00 AM Client Sample ID: Bryan 1-10' Matrix: SOIL Analyses Result RL Qual Units **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 8500 750 mg/Kg 500 11/14/2015 2:18:45 AM 22299 Lab ID: 1511272-004 Collection Date: 11/3/2015 10:10:00 AM Client Sample ID: Bryan 1-12' Matrix: SOIL **DF** Date Analyzed Result RL Qual Units Analyses **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT 5700 Chloride 300 mg/Kg 200 11/14/2015 2:31:09 AM 22299 Lab ID: 1511272-005 Collection Date: 11/3/2015 10:17:00 AM Client Sample ID: Bryan 1-14' Matrix: SOIL Result RL Qual Units **DF** Date Analyzed **Batch ID** Analyses

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

150

mg/Kg

4100

Qualifiers:

Chloride

EPA METHOD 300.0: ANIONS

- 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
- S % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
 - Page 1 of 2

Analyst: LGT

100 11/14/2015 2:43:33 AM 22299

- P Sample pH Not In Range
- Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1511272

17-Nov-15

Client:

Yates Petroleum Corporation

Project:

Analyte

Chloride

Bryan ME #1

Sample ID MB-22299

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 22299

RunNo: 30193

SPK value SPK Ref Val %REC LowLimit

0

Prep Date: 11/11/2015

Analysis Date: 11/11/2015

SeqNo: 919916

Units: mg/Kg

HighLimit

%RPD

%RPD

RPDLimit Qual

Result ND

SampType: LCS

PQL

1.5

TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 22299

RunNo: 30193

90

Prep Date: 11/11/2015

Sample ID LCS-22299

Units: mg/Kg

Analysis Date: 11/11/2015

SeqNo: 919917

LowLimit

Analyte Chloride

14

SPK value SPK Ref Val 15.00

%REC 90.9

HighLimit 110 **RPDLimit**

Qual

Sample ID MB-22299

Client ID:

Prep Date:

SampType: MBLK Batch ID: 22299

Analysis Date: 11/12/2015

PQL

1.5

TestCode: EPA Method 300.0: Anions

RunNo: 30221

Units: mg/Kg

Analyte

Result

HighLimit

%RPD

Result

14

PQL SPK value SPK Ref Val %REC LowLimit

SeqNo: 920917

RPDLimit

Qual

Chloride

1.5

TestCode: EPA Method 300.0: Anions

Client ID:

LCSS

Sample ID LCS-22299

Prep Date: 11/11/2015

PBS

11/11/2015

Batch ID: 22299

SampType: LCS

RunNo: 30221

SeqNo: 920918

Units: mg/Kg

Analyte

Analysis Date: 11/12/2015

SPK value SPK Ref Val

%REC

LowLimit

%RPD

RPDLimit

Qual

Chloride

POL 1.5

15.00

0

91.7

90

HighLimit 110

Qualifiers:

S

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

% 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
- 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 Albuquergue, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client	Name:	Yates Petrole	eum Corporat	Work O	rder Numbe	er: 15112	72			RcptNo	1
Receiv	red by/date	»: <u> </u>	A.	11/06/	15						1
Logged	d By:	Lindsay Ma	ingin	11/6/2015	9:35:00 Al	М		Juney 4	lego o		:
Compl	eted By:	Lindsay Ma	ngin ,	11/6/2015	12:21:56 F	PM		Strucky	Happy		
Review	ved By:		2	i	1/06/15			0	U		İ
<u>Chain</u>	of Cus	tody	1		CIIVOII			/		Sa 11/06/1	18
1. Cu	stody seal	ls intact on sa	mple bottles?			Yes		No		Net Present	-
2. Is	Chain of C	ustody compl	ete?			Yes		No		Not Present	
3. Ho	w was the	sample delive	ered?			Cour	ier				
Log I	<u>ln</u>										
4. w	as an atte	mpt made to	cool the sample	es?		Yes		No		na 🗆	
5. W	ere all san	nples received	l at a temperat	ure of >0° C	to 6.0°C	Yes		No		NA □	
6. Sa	ample(s) ir	n proper conta	iner(s)?			Yes		No			
7. Su	ifficient sa	mple volume f	or indicated te	st(s)?		Yes		No			
			and ONG) pro	47 (8)	ed?	Yes		No			
9. W	as preserv	ative added to	bottles?			Yes		No		NA 🗆	
10.vc	OA vials ha	ave zero head:	space?			Yes	П	No	П	No VOA Vials	
			ers received br	oken?		Yes		No			
										# of preserved bottles checked	
		vork match bo				Yes		No		for pH:	
	E.		ain of custody)			.,		Mari		(<2 Adjusted?	or >12 unless noted)
100000000000000000000000000000000000000		10 10 10 10 10 10 10 10 10 10 10 10 10 1	ntified on Chair ere requested	1. (1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		Yes Yes		4600		/ lajuotou :	
1200000000		ding times able				Yes		No		Checked by:	
		customer for a				100				İ	
Speci	ial Hand	lling (if app	olicable)								
		E-NICTHOCOCO TO SECULIA CONTRACTOR CONTRACTOR OF SECULIA	iscrepancies w	ith this ardar?		V	\Box	N-		NA 🗹	i
10.00			iscrepaticles w	iui uns order?		Yes		No		NA 🗷	1
		n Notified:	**************************************	The state of the s	Date	·					
	By Wh Regar			The supplementary of the suppl	Via:	∐ eM	ail _] Phone [_]	Fax	☐ In Person	-
	100000	ing: Instructions:		William to the parties of the same the		MATERIAL PROPERTY OF	-		U.S. Art. March.		
17. A	dditional r	,						34	-	900 000	₃₂
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10.	Cooler N		Condition	Seal Intact	Seal No	Seal D	ate	Signed I	Ву	Ī	
	1	5.3		Yes				-3.04			

.AL	ORY								(N ro) <u>/</u> /	sə	lddu8 1iA							-			ort.
HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107		SO'	ssé s/D	59) H(S	4 TP 158 (1.81 (1.40 (HA (HA)	1, NG Ges Ges Ges Ges Ges Ges Ges Ges Ges Ge	hod thoo thoo thoo thoo thoo thoo thoo stici	BTEX + N BTEX + N TPH Meth TPH (Meth B310 (PN R310 (PN R310 (PN R081 Pes 8260B (V R081 Pes 8260B (V	×	×	×	×	×				Remarks: Chloride Only.	Time: Relinquished by: Received by: Date Time Time: Relinquished by: Received by: R
Turn-Around Time:	X Standard Rush	Project Name:	Bryan ME #1	Project #:	2RP-3164	Project Manager:	Amber Griffin		Sampler: Amber Griffin AG		のでは、「ないでは、「ないでは、「ないでは、「ないでは、「ないでは、「ないでは、「ないでは、「ないでは、「ないでは、「ないでは、「ないでは、「ないでは、「ないでは、「ないでは、「ないでは、「ないでは、	Container Preservativ HEAL NG Type and # e Type 15/1242	1-4oz. None -(Y)	1-4oz. None -002	1-4oz. None -203	1-4oz. None -004	1-4oz. None - OS				Received by. Per Collect Time From 11/0 6/15 0935	Received by: Date Time nitracted to other accredited laboratories. This serves as notice of this process.
Chain-of-Custody Record Tu	Yates Petroleum Corporation		ddress:	105 South 4th Street Artesia, NM 88210	575-513-8799 or 575-748-4111	agriffin@yatespetroleum.com		ard Level 4 (Full Validation)				Time Matrix Sample Request ID	9:56 Soil Bryan 1 - 7'	9:59 Soil Bryan 1 - 8'	10:04 Soil Bryan 1 - 10'	10:10 Soil Bryan 1 - 12'	10:17 Soil Bryan 1 - 14'				Time: Relinquished by: 6.00 M. M. O. C.	1
Ö	Client:		Mailing Address:	105 Sout	Phone #:	email or Fax#:	QA/QC Package:	☐ Standard	Accreditation:	NELAT		Date	11/3/2015	11/3/2015	11/3/2015	11/3/2015	11/3/2015			~	Date:	1



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

March 04, 2016

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

FAX

RE: Bryan ME #1

OrderNo.: 1602B44

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 3 sample(s) on 2/26/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 1602B44

Hall Environmental Analysis Laboratory, Inc.

Result

1100

Result

540

Result

490

Date Reported: 3/4/2016

CLIENT: Project:

Yates Petroleum Corporation

Bryan ME #1

Lab Order:

1602B44

Lab ID:

Analyses

1602B44-001

Collection Date: 2/24/2016 8:40:00 AM

Client Sample ID: Bryan 1-16

Matrix: SOIL

EPA METHOD 300.0: ANIONS

Chloride

PQL Qual Units

DF Date Analyzed

Batch ID

30 ma/Ka

30

Analyst: JRR 3/3/2016 6:45:47 PM 24065

Lab ID:

Lab ID:

Analyses

1602B44-002

Matrix: SOIL

Collection Date: 2/24/2016 8:47:00 AM

Analyst: JRR

Analyses

Client Sample ID: Bryan 1-18

PQL Qual Units

DF Date Analyzed

Batch ID

24065

EPA METHOD 300.0: ANIONS Chloride

1602B44-003

Collection Date: 2/24/2016 8:56:00 AM

3/3/2016 6:58:12 PM

Matrix: SOIL

Client Sample ID: Bryan 1-20

PQL Qual Units

DF Date Analyzed

Batch ID

Analyst: JRR

EPA METHOD 300.0: ANIONS

Chloride

30

mg/Kg

mg/Kg

20 3/3/2016 7:10:37 PM

24065

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

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

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 J Page 1 of 2

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

OC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1602B44

04-Mar-16

Client:

Yates Petroleum Corporation

Project:

Bryan ME #1

Sample ID MB-24065

SampType: mblk

TestCode: EPA Method 300.0: Anions

LowLimit

Client ID:

PBS

Batch ID: 24065

RunNo: 32563

Prep Date: 3/3/2016 Analysis Date: 3/3/2016

SeqNo: 996302

Units: mg/Kg

HighLimit

RPDLimit

Qual

Analyte Chloride

Result PQL ND 1.5

SampType: Ics Batch ID: 24065 TestCode: EPA Method 300.0: Anions

RunNo: 32563

Units: mg/Kg

Prep Date: 3/3/2016

Sample ID LCS-24065

LCSS

Analysis Date: 3/3/2016

SeqNo: 996303

Analyte

Client ID:

Result

PQL SPK value SPK Ref Val

SPK value SPK Ref Val %REC

HighLimit 90

%RPD **RPDLimit**

%RPD

Qual

110

%REC Chloride 14 1.5 15.00 95.0

Qualifiers:

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

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

P

Sample container temperature is out of limit as specified

Page 2 of 2



Hall Environmental Analysis Laboratory 1901 Hawkins NE Albuquerque, NM 87109 111 - 505-345, 3075 FAY, 505-345, 4402

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.	1602B44		RoptNo	o: 1
Received by/date	e:					
Logged By:	Ashley Gallegos	2/26/2016 8:55:00 AM		#3		
Completed By:	Ashley Gallegos	2/26/2016 3:08:09 PM		子を		
Reviewed By	T	021.11		0		
Chain of Cus	tody	ockille				
1. Custody sea	ils intact on sample bottles?		Yes	No	Not Present	
2. Is Chain of C	Custody complete?		Yes 🗸	No	Not Present	
3. How was the	sample delivered?		Courier			
Log In						
4. Was an atte	empt made to cool the samples	3?	Yes 🗸	No No	NA	
5. Were all san	mples received at a temperatur	re of >0" C to 6.0°C	Yes 🗸	No	NA [
6. Sample(s) ii	n proper container(s)?		Yes 🔽	No		
7. Sufficient sa	imple volume for indicated test	(s)?	Yes 🗸	No	1	
8. Are samples	(except VOA and ONG) prop	erly preserved?	Yes 🗸	No		
9. Was presen	vative added to bottles?		Yes	No	✓ NA	
10. VOA vials ha	ave zero headspace?		Yês _		No VOA Vials	
11, Were any s	ample containers received bro	ken?	Yes	No	# of preserved	
2 7 3000			Τ.		bottles checked	
	work match bottle labels? epancies on chain of custody)		Yes 🗹	No		2 or >12 unless noted)
	s correctly identified on Chain	of Custody?	Yes V	No	O made unit of O	*
N 100 C 0	nat analyses were requested?	,	Yes V	No		
	ding times able to be met? customer for authorization.)		Yes 🗸	No	Checked by	ç.
Special Hand	dling (if applicable)					
16, Was client r	notified of all discrepancies wit	h this order?	Yes [No	NA S	•
Perso	on Notified:	Date	(Autoroccist encountry or majorité encourse	indication view where we are presented in the contract of the	and the same of th	
By W	hom:	Via:	eMail	Phone	Fax In Person	
Rega	rding:			CALL SECURITY OF SECURITY OF SECURITY S	Schilleton de commence de comm	
Client	Instructions	aum et ui schhool armenum en ean ean amhain amhail as muileach a por an leiche muil le trèis aid an èigean de	nos mostas aparaba negla en grantiza en	es (District 19, 20) sel e persière en l'écopit le maintenant de l'écopit de l'année de l'écopit de l'année de	ndern von den der de de gewende het de genelle de gemeine de gêne ung i gewende met de de geven specifiere.	
17. Additional:	remarks					
18. Cooler Inf	ormation				a.	
Cooler N	to the same of the	Seal Intact Seal No	Seal Date	Signed B	by	
1	3.2 Good \	res es				

AL	ORY											<u>and the state of </u>	Control by here and		UV		^/ 3	edddu B si A	CARO BIOGRAPHIA			5000 Story					ort.
HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107		Pos ese	abé iQ\a	g' ^z (68 (1.1) (1.1) (1.1) (H)	+ : 4010 8010 8010 100 100 100 100 100 100 10	BBT bo bo or or or etal etal	BTEX + MTPH (Methorson) TPH (Methorson) (PNA 8 Montons (F, 6008) (PNA 8 Montons (F, 6008) (Pna 6008	×	×	×				Remarks: Chloride Only.		If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be dearly notated on the analytical report.						
i urn-Around i ime:	X Standard Rush	Project Name:	Bryan ME #1	Project #:	2RP-3164	Project Manager:	Amber Griffin	PO # 205-2020	Amber Griffin A C	□ No	emperature: 3, 2	Container Preservativ HEAL No. Type and # e Type //c03/84/4	1-40z	1-4oz003	1-402.				Received by: Date Time F	Received by: Dafe Time	ontracted to other accredited laboratories. This serves as notice of this i						
Chain-of-Custody Record	Client: Yates Petroleum Corporation		Mailing Address:	05 South 4th Street Artesia, NM 88210	Phone #: 575-513-8799 or 575-748-4111	Fax#: agriffin@yatespetroleum.com	l iii	Standard Level 4 (Full Validation)		□ Other	ype)	Date Time Matrix Sample Request ID	2/24/2016 8:40 Soil Bryan 1 - 16						125 v Gisch Conthol	hate: Refinquished by:	If necessary, samples submitted to Hall Environmental may be subex						