



*EOG Resources, Inc.
Artesia Division Office
105 S. 4th Street
Artesia, N. M. 88210*

December 9, 2016

Mr. Mike Bratcher
NMOCD District II
811 South First
Artesia, NM 88210

RE: Dayton Townsite Water System (Williams Water Line)
Section 25, T18S-R26E
Eddy County, New Mexico

Mr. Bratcher,

EOG Y Resources, Inc. would like to submit the following plan of work to you regarding the release that was discovered at the above mentioned facility on 8/9/2016 (2RP-3840). The release was unknown amounts of crude oil and produced water with 1 barrel of produced water recovered.

With NMOCD approval of this work plan, EOG Y 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 EOG Y Management for review. Once EOG Y 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 amber_griffin@eogresources.com.

Thank You,

A handwritten signature in blue ink that reads "Amber Griffin".

Amber Griffin
Environmental Representative
EOG Y Resources, Inc.

EOG Y Resources, Inc. – Artesia Division Office

Dayton Townsite Water System (Williams Water Line) Work Plan

Section 25, T18S-R26E

Eddy County, New Mexico

December 9, 2016

I. Location

The release is located approximately 8 miles south of Artesia, NM on Highway 285 and approximately 3.2 miles east of Highway 285 on Dayton Road.

II. Background

On August 9, 2016, a release was discovered along a pipeline right-of-way. The release was unknown amounts of crude oil and produced water, with 1 barrel of produced recovered. An initial Form C-141 was submitted, via e-mail, to the NMOCD District II on August 19, 2016.

On August 16, 2016 EOG Y personnel returned to the site and collected soil samples from the release area with a backhoe, which was split into four sections. The soil samples were sent to an approved NMOCD laboratory and tested for BTEX 8021B, TPH 8015M and Chlorides 300.0. EOG Y received the analytical results on August 24 and 29, 2016 (Reports 1608B49 and 1608C32 attached to this work plan). Analytical results showed that all four sections had non-detectable levels of TPH and BTEX and were below NMOCD RRAL's. For chlorides, Sections 1 and 2 had delineated to acceptable levels while Sections 3 and 4 still showed elevated levels.

On September 13, 2016 EOG Y personnel returned to the site and collected additional soil samples from Sections 3 and 4 of the release area with a trackhoe. The soil samples were sent to an approved NMOCD laboratory and tested for Chlorides 300.0. EOG Y received the analytical results on September 27, 2016 (Report 1609856 attached to this work plan). Analytical results showed that chlorides were still at elevated levels for these two sections.

On September 13, 2016 horizontal soil samples were also taken to show that EOG Y had found the horizontal extent of the release area. EOG Y received the analytical results on September 22, 2016 (Report 1609852 attached to this work plan).

On November 15, 2016 EOG Y personnel returned to the site and collected additional soil samples with a core rig from an area between Sections 3 and 4 of the release area. The soil samples were sent to an approved NMOCD laboratory and tested for Chlorides 300.0. EOG Y received the analytical results on November 30, 2016 (Report 1611A17 attached to this work plan). Analytical results showed that chlorides had delineated to acceptable levels.

III. Surface and Ground Water

Area surface geology is Cenozoic. Groundwater records listed on NMOSE shows depth to groundwater to be approximately 35 feet making the site ranking for this site a twenty (20). It should be noted that while we had the core rig on location obtaining samples, groundwater was not encountered at 35' or 40' below the surface level, so depth to groundwater is actually deeper than 40'. 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 native soil, interspersed with clay seams providing a low permeability barrier to retard vertical percolation of contaminants into the subsurface.

V. Scope of Work

Based on analytical results which show complete vertical and horizontal delineation, EOG Y proposes to excavate all sections to a depth of 4' below the surface level. A 20 mil liner will be installed in the bottom of the excavation. The excavation will be backfilled with 2' of caliche and 2' of top soil. The disturbed area will then be re-seeded.

All contaminated soils will be hauled to a NMOCD approved facility.

A Final C-141 will be submitted to NMOCD once all work has been completed.

Dayton Townsite Water System (Williams Water Line) VERTICAL

	Sample Area	Sample Date	Analytical Report	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chloride
1 - 2.5'	Release Area	8/16/2016	1608C32	Grab/Backhoe	2.5' BSL	ND	ND	ND	ND	2,600
1 - 4'	Release Area	8/16/2016	1608C32	Grab/Backhoe	4' BSL	ND	ND	ND	ND	420
1 - 6'	Release Area	8/16/2016	1608B49	Grab/Backhoe	6' BSL	-	-	-	-	180
1 - 8'	Release Area	8/16/2016	1608B49	Grab/Backhoe	8' BSL	-	-	-	-	130
1 - 10'	Release Area	8/16/2016	1608B49	Grab/Backhoe	10' BSL	-	-	-	-	170
2 - 2.5'	Release Area	8/16/2016	1608C32	Grab/Backhoe	2.5' BSL	ND	ND	ND	ND	18,000
2 - 4'	Release Area	8/16/2016	1608C32	Grab/Backhoe	4' BSL	ND	ND	ND	ND	14,000
2 - 6'	Release Area	8/16/2016	1608B49	Grab/Backhoe	6' BSL	-	-	-	-	14,000
2 - 8'	Release Area	8/16/2016	1608B49	Grab/Backhoe	8' BSL	-	-	-	-	17,000
2 - 10'	Release Area	8/16/2016	1608B49	Grab/Backhoe	10' BSL	-	-	-	-	9,000
2 - 12'	Release Area	8/16/2016	1608B49	Grab/Backhoe	12' BSL	-	-	-	-	2,100
2 - 14'	Release Area	8/16/2016	1608B49	Grab/Backhoe	14' BSL	-	-	-	-	310
3 - 4'	Release Area	8/16/2016	1608C32	Grab/Backhoe	4' BSL	ND	ND	ND	ND	18,000
3 - 6'	Release Area	8/16/2016	1608C32	Grab/Backhoe	6' BSL	ND	ND	ND	ND	16,000
3 - 8'	Release Area	8/16/2016	1608B49	Grab/Backhoe	8' BSL	-	-	-	-	20,000
3 - 10'	Release Area	8/16/2016	1608B49	Grab/Backhoe	10' BSL	-	-	-	-	14,000
3 - 12'	Release Area	8/16/2016	1608B49	Grab/Backhoe	12' BSL	-	-	-	-	15,000
3 - 14'	Release Area	8/16/2016	1608B49	Grab/Backhoe	14' BSL	-	-	-	-	16,000
3 - 16'	Release Area	9/13/2016	1608B56	Grab/Trackhoe	16' BSL	-	-	-	-	22,000
3 - 18'	Release Area	9/13/2016	1608B56	Grab/Trackhoe	18' BSL	-	-	-	-	24,000
3 - 20'	Release Area	9/13/2016	1608B56	Grab/Trackhoe	20' BSL	-	-	-	-	17,000
3 - 22'	Release Area	9/13/2016	1608B56	Grab/Trackhoe	22' BSL	-	-	-	-	5,200
4 - 2'	Release Area	8/16/2016	1608C32	Grab/Backhoe	2' BSL	ND	ND	ND	ND	17,000
4 - 4'	Release Area	8/16/2016	1608C32	Grab/Backhoe	4' BSL	ND	ND	ND	ND	17,000
4 - 6'	Release Area	8/16/2016	1608B49	Grab/Backhoe	6' BSL	-	-	-	-	21,000
4 - 8'	Release Area	8/16/2016	1608B49	Grab/Backhoe	8' BSL	-	-	-	-	21,000
4 - 10'	Release Area	8/16/2016	1608B49	Grab/Backhoe	10' BSL	-	-	-	-	21,000
4 - 12'	Release Area	8/16/2016	1608B49	Grab/Backhoe	12' BSL	-	-	-	-	22,000
4 - 14'	Release Area	8/16/2016	1608B49	Grab/Backhoe	14' BSL	-	-	-	-	20,000
4 - 16'	Release Area	9/13/2016	1608B56	Grab/Trackhoe	16' BSL	-	-	-	-	720
4 - 18'	Release Area	9/13/2016	1608B56	Grab/Trackhoe	18' BSL	-	-	-	-	14,000
4 - 20'	Release Area	9/13/2016	1608B56	Grab/Trackhoe	20' BSL	-	-	-	-	14,000
CR - 25'	Release Area	11/15/2016	1611A17	Grab/Core Rig	25' BSL	-	-	-	-	190
CR - 30'	Release Area	11/15/2016	1611A17	Grab/Core Rig	30' BSL	-	-	-	-	190
CR - 35'	Release Area	11/15/2016	1611A17	Grab/Core Rig	35' BSL	-	-	-	-	260
CR - 40'	Release Area	11/15/2016	1611A17	Grab/Core Rig	40' BSL	-	-	-	-	160

Site Ranking is TWENTY (20). Depth to Ground Water <50' (approx. 35', per NMOSE 24-18S-26E).

All results are ppm.

Released: Unknown B/PW; Recovered: 1 B/PW. Release Date: 8/9/2016. 2RP-3840

Dayton Townsite Water System (Williams Water Line) HORIZONTAL

	Sample Area	Sample Date	Analytical Report	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chloride
Horizontal #1	Outside Release Area	9/13/2016	1609852	Grab/Backhoe	2 - 3' BSL	-	-	-	-	60
Horizontal #2	Outside Release Area	9/13/2016	1609852	Grab/Backhoe	2 - 3' BSL	-	-	-	-	ND
Horizontal #3	Outside Release Area	9/13/2016	1609852	Grab/Backhoe	2 - 3' BSL	-	-	-	-	ND
Horizontal #4	Outside Release Area	9/13/2016	1609852	Grab/Backhoe	2 - 3' BSL	-	-	-	-	32
Horizontal #5	Outside Release Area	9/13/2016	1609852	Grab/Backhoe	2 - 3' BSL	-	-	-	-	32
Horizontal #6	Outside Release Area	9/13/2016	1609852	Grab/Backhoe	2 - 3' BSL	-	-	-	-	140

Site Ranking is TWENTY (20). Depth to Ground Water <50' (approx. 35', per NMOSE 24-18S-26E).

All results are ppm.

Released: Unknown B/PW; Recovered: 1 B/PW. Release Date: 8/9/2016. 2RP-3840

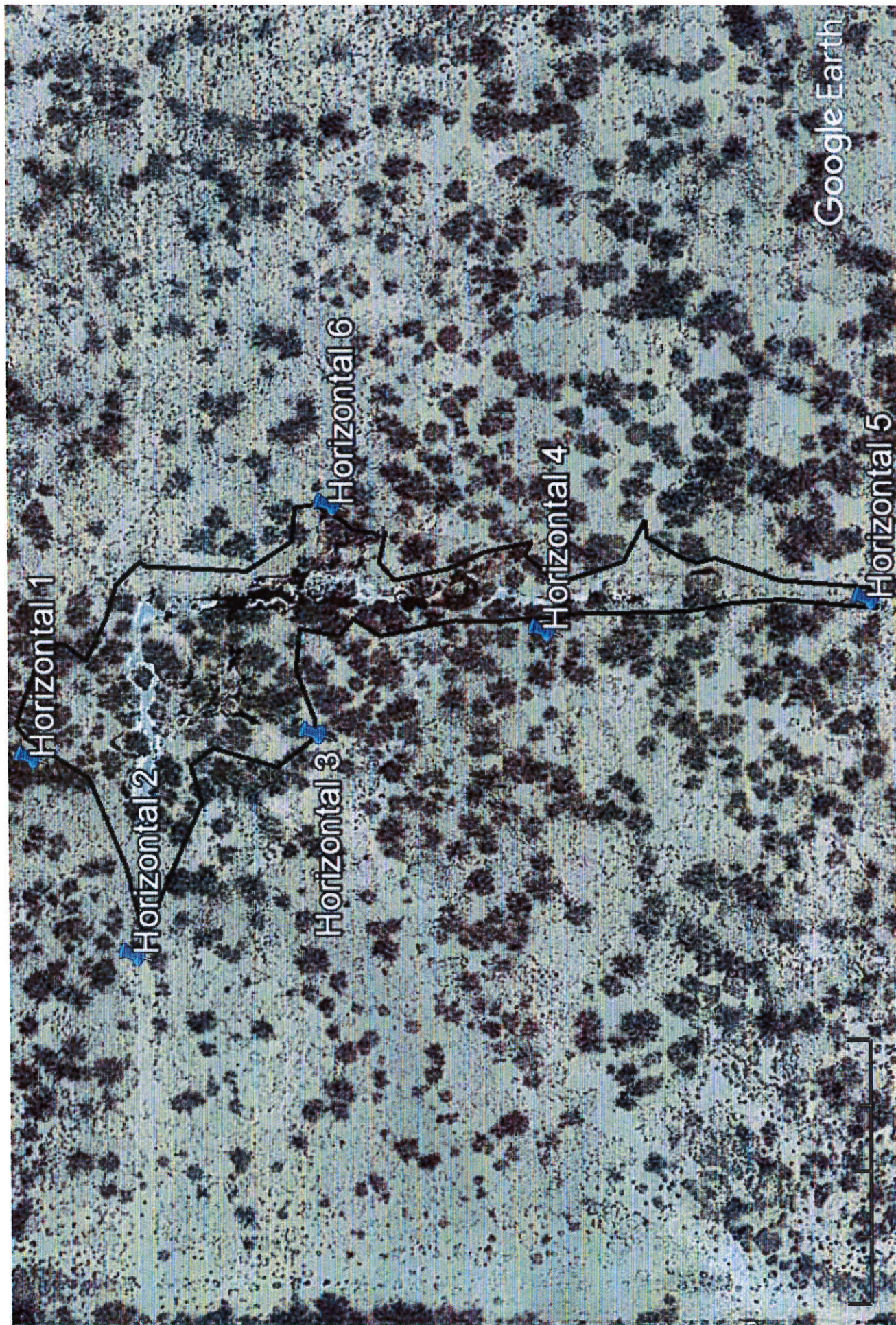


feet
meters

300
100



Google Earth



feet
meters

300
100

Google Earth





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

August 24, 2016

Amber Griffin

Yates Petroleum Corporation

105 South Fourth Street

Artesia, NM 88210

TEL: (575) 748-4111

FAX

RE: Dayton Townsite Water System (Williams Water Line)

OrderNo.: 1608B49

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 17 sample(s) on 8/18/2016 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 qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order: 1608B49

Date Reported: 8/24/2016

CLIENT: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Lab Order: 1608B49**Lab ID:** 1608B49-001**Collection Date:** 8/16/2016 8:24:00 AM**Client Sample ID:** 1-6**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	180	30		mg/Kg	20	8/22/2016 12:20:14 PM	27113

Lab ID: 1608B49-002**Collection Date:** 8/16/2016 8:29:00 AM**Client Sample ID:** 1-8**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	130	30		mg/Kg	20	8/22/2016 12:57:29 PM	27113

Lab ID: 1608B49-003**Collection Date:** 8/16/2016 8:33:00 AM**Client Sample ID:** 1-10**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	170	30		mg/Kg	20	8/22/2016 1:09:53 PM	27113

Lab ID: 1608B49-004**Collection Date:** 8/16/2016 9:16:00 AM**Client Sample ID:** 2-6**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	14000	750		mg/Kg	500	8/23/2016 9:40:22 PM	27113

Lab ID: 1608B49-005**Collection Date:** 8/16/2016 9:20:00 AM**Client Sample ID:** 2-8**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	17000	750		mg/Kg	500	8/23/2016 9:52:46 PM	27113

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order: 1608B49

Date Reported: 8/24/2016

CLIENT: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Lab Order: 1608B49

Lab ID: 1608B49-006

Collection Date: 8/16/2016 9:24:00 AM

Client Sample ID: 2-10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	9000	750		mg/Kg	500	8/23/2016 10:05:11 PM	27113

Analyst: MRA

Lab ID: 1608B49-007

Collection Date: 8/16/2016 9:30:00 AM

Client Sample ID: 2-12

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	2100	75		mg/Kg	50	8/23/2016 10:17:36 PM	27113

Analyst: MRA

Lab ID: 1608B49-008

Collection Date: 8/16/2016 9:35:00 AM

Client Sample ID: 2-14

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	310	30		mg/Kg	20	8/22/2016 2:36:46 PM	27113

Analyst: MRA

Lab ID: 1608B49-009

Collection Date: 8/16/2016 9:48:00 AM

Client Sample ID: 3-8

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	20000	1500		mg/Kg	1E	8/23/2016 10:30:00 PM	27113

Analyst: MRA

Lab ID: 1608B49-010

Collection Date: 8/16/2016 9:51:00 AM

Client Sample ID: 3-10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	14000	750		mg/Kg	500	8/23/2016 10:42:25 PM	27113

Analyst: MRA

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

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

Analytical Report

Lab Order: 1608B49

Date Reported: 8/24/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Lab Order: 1608B49

Lab ID: 1608B49-011 **Collection Date:** 8/16/2016 9:56:00 AM
Client Sample ID: 3-12 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS Analyst: MRA							
Chloride	15000	750		mg/Kg	500	8/23/2016 10:54:50 PM	27113

Lab ID: 1608B49-012 **Collection Date:** 8/16/2016 10:02:00 AM
Client Sample ID: 3-14 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS Analyst: MRA							
Chloride	16000	750		mg/Kg	500	8/23/2016 11:07:14 PM	27113

Lab ID: 1608B49-013 **Collection Date:** 8/16/2016 10:40:00 AM
Client Sample ID: 4-6 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS Analyst: MRA							
Chloride	21000	750		mg/Kg	500	8/23/2016 11:44:29 PM	27113

Lab ID: 1608B49-014 **Collection Date:** 8/16/2016 10:43:00 AM
Client Sample ID: 4-8 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS Analyst: MRA							
Chloride	21000	1500		mg/Kg	1E	8/23/2016 11:56:54 PM	27113

Lab ID: 1608B49-015 **Collection Date:** 8/16/2016 10:46:00 AM
Client Sample ID: 4-10 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS Analyst: MRA							
Chloride	21000	1500		mg/Kg	1E	8/24/2016 12:09:18 AM	27113

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Lab Order: 1608B49

Lab ID: 1608B49-016 **Collection Date:** 8/16/2016 10:50:00 AM
Client Sample ID: 4-12 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	22000	1500		mg/Kg	1E	8/24/2016 12:21:43 AM	27113

Analyst: MRA

Lab ID: 1608B49-017 **Collection Date:** 8/16/2016 10:56:00 AM
Client Sample ID: 4-14 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	20000	750		mg/Kg	500	8/24/2016 12:34:08 AM	27113

Analyst: MRA

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 5
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608B49

24-Aug-16

Client: Yates Petroleum Corporation

Project: Dayton Townsite Water System (Williams Wate

Sample ID	MB-27113	SampType	mblk	TestCode	EPA Method 300.0: Anions					
Client ID	PBS	Batch ID	27113	RunNo	36677					
Prep Date	8/22/2016	Analysis Date	8/22/2016	SeqNo	1136325	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-27113	SampType	lcs	TestCode	EPA Method 300.0: Anions					
Client ID	LCSS	Batch ID	27113	RunNo	36677					
Prep Date	8/22/2016	Analysis Date	8/22/2016	SeqNo	1136326	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	90	110			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Yates Petroleum Corpora

Work Order Number: 1608B49

RcptNo: 1

Received by/date

AG

08/18/16

Logged By: Ashley Gallegos

8/18/2016 9:55:00 AM

Completed By: Ashley Gallegos

8/19/2016 8:41:28 AM

Reviewed By:

AG

08/19/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☐ No ☒ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☐ No ☒ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date	_____
By Whom:	_____	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	22.1	Good	Yes			

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

Email or Fax#: agriffin@yatespetroleum.com

A/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

EDD (Type)

Date	Time	Matrix	Sample Request ID
1/16/2016	8:24	Soil	1 - 6'
1/16/2016	8:29	Soil	1 - 8'
1/16/2016	8:33	Soil	1 - 10'
1/16/2016	9:16	Soil	2 - 6'
1/16/2016	9:20	Soil	2 - 8'
1/16/2016	9:24	Soil	2 - 10'
1/16/2016	9:30	Soil	2 - 12'
1/16/2016	9:35	Soil	2 - 14'
1/16/2016	9:48	Soil	3 - 8'
1/16/2016	9:51	Soil	3 - 10'
1/16/2016	9:56	Soil	3 - 12'
1/16/2016	10:02	Soil	3 - 14'

Relinquished by:

Amber Griffin

Relinquished by:

Received by:

Amber Griffin 8/18/16 9:55

Date

Time

Date

Time

Project Name: 8/25/2016

☒ Standard ☐ Rush

Project #:

Dayton Townsite Water System (Williams Water Line)

Project #:

8/9/2016 Release

Project Manager:

Amber Griffin

PO # 205-2020

Sampler:

On Ice: ☐ Yes ☒ No

Sample Temperature: 72.1

Container Type and #

Preservative Type

HEAL No.

110088349

-001

-002

-003

-004

-005

-006

-007

-008

-009

-010

-011

-012



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMBs (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCBs	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
							X				
							X				
							X				
							X				
							X				
							X				
							X				
							X				
							X				
							X				
							X				
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							X				
							X				
							X				
							X				
							X				
							X				

Remarks: Anions: Chloride only. PAGE 1 OF 2.

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

Email or Fax#: agriffin@yatespetroleum.com

A/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☒ NELAP ☐ Other

EDD (Type)

Date	Time	Matrix	Sample Request ID
1/16/2016	10:40	Soil	4 - 6'
1/16/2016	10:43	Soil	4 - 8'
1/16/2016	10:46	Soil	4 - 10'
1/16/2016	10:50	Soil	4 - 12'
1/16/2016	10:56	Soil	4 - 14'

Sampler: Amber Griffin AG
On Ice: ☐ Yes ☒ No
Sample Temperature: 22.1

Container Type and #
Preservative Type
HEAL No.
16088349
-013
-014
-015
-016
-017

TURN-AROUND TIME:

8/25/2016
☒ Standard ☐ Rush

Project Name:

Dayton Townsite Water System (Williams Water Line)

Project #:

8/9/2016 Release

Project Manager:

Amber Griffin
PO # 205-2020

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

TPH Method 8015B (Gas/Diesel)	BTEX + MTBE + TPH (Gas only)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F ⁻ , Cl ⁻ , NO ₃ ⁻ , NO ₂ ⁻ , PO ₄ ³⁻ , SO ₄ ²⁻)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
						X				
						X				
						X				
						X				
						X				

Relinquished by:	Relinquished by:	Received by:
Amber Griffin	Dorey Concha	Dorey Concha
Time:	Time	Time
1/17/16	8/18/16	8/18/16
ate:	ate:	ate:

Remarks: Anions: Chloride only. 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

August 29, 2016

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

RE: Dayton Townsite Water System (Williams Water Line)

OrderNo.: 1608C32

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 8 sample(s) on 8/18/2016 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 qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order: 1608C32

Date Reported: 8/29/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Lab Order: 1608C32

Lab ID: 1608C32-001 **Collection Date:** 8/16/2016 8:19:00 AM
Client Sample ID: 1-2.5' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	2600	75		mg/Kg	50	8/26/2016 4:21:44 PM	27138
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Lab ID: 1608C32-002 **Collection Date:** 8/16/2016 8:21:00 AM
Client Sample ID: 1-4' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	420	30		mg/Kg	20	8/24/2016 11:14:50 AM	27138
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Lab ID: 1608C32-003 **Collection Date:** 8/16/2016 9:12:00 AM
Client Sample ID: 2-2.5' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	18000	750		mg/Kg	500	8/26/2016 4:34:08 PM	27138
----------	-------	-----	--	-------	-----	----------------------	-------

Lab ID: 1608C32-004 **Collection Date:** 8/16/2016 9:14:00 AM
Client Sample ID: 2-4' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	14000	750		mg/Kg	500	8/26/2016 4:46:33 PM	27138
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Lab ID: 1608C32-005 **Collection Date:** 8/16/2016 9:43:00 AM
Client Sample ID: 3-4' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	18000	750		mg/Kg	500	8/26/2016 4:58:57 PM	27138
----------	-------	-----	--	-------	-----	----------------------	-------

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

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

Analytical Report

Lab Order: 1608C32

Date Reported: 8/29/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Lab Order: 1608C32**Lab ID:** 1608C32-006**Collection Date:** 8/16/2016 9:45:00 AM**Client Sample ID:** 3-6'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	16000	750		mg/Kg	500	8/26/2016 5:36:10 PM	27138
----------	-------	-----	--	-------	-----	----------------------	-------

Lab ID: 1608C32-007**Collection Date:** 8/16/2016 10:32:00 AM**Client Sample ID:** 4-2'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	17000	750		mg/Kg	500	8/26/2016 5:48:34 PM	27138
----------	-------	-----	--	-------	-----	----------------------	-------

Lab ID: 1608C32-008**Collection Date:** 8/16/2016 10:36:00 AM**Client Sample ID:** 4-4'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	17000	750		mg/Kg	500	8/26/2016 6:00:59 PM	27138
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Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608C32

29-Aug-16

Client: Yates Petroleum Corporation

Project: Dayton Townsite Water System (Williams Wate

Sample ID	MB-27138	SampType: mblk			TestCode: EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID: 27138			RunNo: 36705					
Prep Date:	8/23/2016	Analysis Date: 8/24/2016			SeqNo: 1137468		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-27138	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	27138	RunNo:	36705					
Prep Date:	8/23/2016	Analysis Date:	8/24/2016	SeqNo:	1137469	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

Qualifiers:

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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
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: 1608C32

RcptNo: 1

Received by/date:

AS

08/18/16

Logged By: Lindsay Mangin

8/18/2016 9:55:00 AM

Completed By: Lindsay Mangin

8/22/2016 12:28:41 PM

Reviewed By:

J

08/23/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH:
(<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			

Chain-of-Custody Record

Client: Yates Petroleum Corporation

Turn-Around Time:

8/25/2016

☒ Standard ☐ Rush

Project Name:

Dayton Townsite Water System (Williams Water Line)

Project #:

8/9/2016 Release

Project Manager:

Amber Griffin

PO # 205-2020

Accreditation: ☐ Level 4 (Full Validation)

☐ NELAP ☐ Other

☐ EDD (Type)

Sampler:

☒ Yes ☐ No

Sample Temperature: 15.0C

Date

Time

Matrix

Sample Request ID

Container Type and #

Preservative Type

HEAL No.

11e08C32

1-4 oz.

Ice

1-4 oz.

Ice

8/16/2016

8:19

Soil

1-2.5'

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

8/16/2016

8:21

Soil

1-4'

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

8/16/2016

9:12

Soil

2-2.5'

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

8/16/2016

9:14

Soil

2-4'

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

8/16/2016

9:43

Soil

3-4'

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

8/16/2016

9:45

Soil

3-6'

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

8/16/2016

10:32

Soil

4-2'

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

Ice

8/16/2016

10:36

Soil

4-4'

1-4 oz.

Ice

1-4 oz.

Ice

1-4 oz.

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1-4 oz.

Ice

8/16/2016

10:36

Soil

4-4'

1-4 oz.

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8/16/2016

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8/16/2016

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8/16/2016

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8/16/2016

10:36

Soil

4-4'

1-4 oz.

Ice

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Ice

1-4 oz.

Ice



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMB's (8021)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
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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*

August 29, 2016

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

RE: Dayton Townsite Water System (Williams Water Line)

OrderNo.: 1608C32

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 8 sample(s) on 8/18/2016 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 qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1608C32

Date Reported: 8/29/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: 1-2.5'

Project: Dayton Townsite Water System (William

Collection Date: 8/16/2016 8:19:00 AM

Lab ID: 1608C32-001

Matrix: SOIL

Received Date: 8/18/2016 9:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/24/2016 11:28:14 AM	27096
Surr: DNOP	75.6	70-130		%Rec	1	8/24/2016 11:28:14 AM	27096
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/24/2016 12:43:58 PM	27122
Surr: BFB	81.1	68.3-144		%Rec	1	8/24/2016 12:43:58 PM	27122
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	8/24/2016 12:43:58 PM	27122
Toluene	ND	0.049		mg/Kg	1	8/24/2016 12:43:58 PM	27122
Ethylbenzene	ND	0.049		mg/Kg	1	8/24/2016 12:43:58 PM	27122
Xylenes, Total	ND	0.097		mg/Kg	1	8/24/2016 12:43:58 PM	27122
Surr: 4-Bromofluorobenzene	95.2	80-120		%Rec	1	8/24/2016 12:43:58 PM	27122

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

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

Analytical Report

Lab Order 1608C32

Date Reported: 8/29/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: 1-4'

Project: Dayton Townsite Water System (William

Collection Date: 8/16/2016 8:21:00 AM

Lab ID: 1608C32-002

Matrix: SOIL

Received Date: 8/18/2016 9:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/24/2016 11:50:12 AM	27096
Surr: DNOP	84.8	70-130		%Rec	1	8/24/2016 11:50:12 AM	27096
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2016 1:54:24 PM	27122
Surr: BFB	80.6	68.3-144		%Rec	1	8/24/2016 1:54:24 PM	27122
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	8/24/2016 1:54:24 PM	27122
Toluene	ND	0.048		mg/Kg	1	8/24/2016 1:54:24 PM	27122
Ethylbenzene	ND	0.048		mg/Kg	1	8/24/2016 1:54:24 PM	27122
Xylenes, Total	ND	0.095		mg/Kg	1	8/24/2016 1:54:24 PM	27122
Surr: 4-Bromofluorobenzene	95.7	80-120		%Rec	1	8/24/2016 1:54:24 PM	27122

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

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

Analytical Report

Lab Order 1608C32

Date Reported: 8/29/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: 2-2.5'

Project: Dayton Townsite Water System (William

Collection Date: 8/16/2016 9:12:00 AM

Lab ID: 1608C32-003

Matrix: SOIL

Received Date: 8/18/2016 9:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/24/2016 12:12:00 PM	27096
Surr: DNOP	82.1	70-130		%Rec	1	8/24/2016 12:12:00 PM	27096
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2016 3:04:46 PM	27122
Surr: BFB	82.4	68.3-144		%Rec	1	8/24/2016 3:04:46 PM	27122
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	8/24/2016 3:04:46 PM	27122
Toluene	ND	0.048		mg/Kg	1	8/24/2016 3:04:46 PM	27122
Ethylbenzene	ND	0.048		mg/Kg	1	8/24/2016 3:04:46 PM	27122
Xylenes, Total	ND	0.095		mg/Kg	1	8/24/2016 3:04:46 PM	27122
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	8/24/2016 3:04:46 PM	27122

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

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

Analytical Report

Lab Order 1608C32

Date Reported: 8/29/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: 2-4'

Project: Dayton Townsite Water System (William

Collection Date: 8/16/2016 9:14:00 AM

Lab ID: 1608C32-004

Matrix: SOIL

Received Date: 8/18/2016 9:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	8/24/2016 12:33:53 PM	27096
Surr: DNOP	81.9	70-130		%Rec	1	8/24/2016 12:33:53 PM	27096
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2016 3:28:18 PM	27122
Surr: BFB	80.8	68.3-144		%Rec	1	8/24/2016 3:28:18 PM	27122
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	8/24/2016 3:28:18 PM	27122
Toluene	ND	0.048		mg/Kg	1	8/24/2016 3:28:18 PM	27122
Ethylbenzene	ND	0.048		mg/Kg	1	8/24/2016 3:28:18 PM	27122
Xylenes, Total	ND	0.096		mg/Kg	1	8/24/2016 3:28:18 PM	27122
Surr: 4-Bromofluorobenzene	94.5	80-120		%Rec	1	8/24/2016 3:28:18 PM	27122

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

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

Analytical Report

Lab Order 1608C32

Date Reported: 8/29/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: 3-4'

Project: Dayton Townsite Water System (William

Collection Date: 8/16/2016 9:43:00 AM

Lab ID: 1608C32-005

Matrix: SOIL

Received Date: 8/18/2016 9:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/24/2016 12:55:45 PM	27096
Surr: DNOP	81.8	70-130		%Rec	1	8/24/2016 12:55:45 PM	27096
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2016 3:51:47 PM	27122
Surr: BFB	79.7	68.3-144		%Rec	1	8/24/2016 3:51:47 PM	27122
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	8/24/2016 3:51:47 PM	27122
Toluene	ND	0.048		mg/Kg	1	8/24/2016 3:51:47 PM	27122
Ethylbenzene	ND	0.048		mg/Kg	1	8/24/2016 3:51:47 PM	27122
Xylenes, Total	ND	0.095		mg/Kg	1	8/24/2016 3:51:47 PM	27122
Surr: 4-Bromofluorobenzene	91.7	80-120		%Rec	1	8/24/2016 3:51:47 PM	27122

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

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

Analytical Report

Lab Order 1608C32

Date Reported: 8/29/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 3-6'**Project:** Dayton Townsite Water System (William**Collection Date:** 8/16/2016 9:45:00 AM**Lab ID:** 1608C32-006**Matrix:** SOIL**Received Date:** 8/18/2016 9:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/24/2016 1:17:43 PM	27096
Surr: DNOP	87.5	70-130		%Rec	1	8/24/2016 1:17:43 PM	27096
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/24/2016 4:15:10 PM	27122
Surr: BFB	79.3	68.3-144		%Rec	1	8/24/2016 4:15:10 PM	27122
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	8/24/2016 4:15:10 PM	27122
Toluene	ND	0.049		mg/Kg	1	8/24/2016 4:15:10 PM	27122
Ethylbenzene	ND	0.049		mg/Kg	1	8/24/2016 4:15:10 PM	27122
Xylenes, Total	ND	0.097		mg/Kg	1	8/24/2016 4:15:10 PM	27122
Surr: 4-Bromofluorobenzene	91.4	80-120		%Rec	1	8/24/2016 4:15:10 PM	27122

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

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

Analytical Report

Lab Order 1608C32

Date Reported: 8/29/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: 4-2'

Project: Dayton Townsite Water System (William

Collection Date: 8/16/2016 10:32:00 AM

Lab ID: 1608C32-007

Matrix: SOIL

Received Date: 8/18/2016 9:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/24/2016 1:39:33 PM	27096
Surr: DNOP	78.7	70-130		%Rec	1	8/24/2016 1:39:33 PM	27096
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2016 8:56:03 PM	27122
Surr: BFB	81.8	68.3-144		%Rec	1	8/24/2016 8:56:03 PM	27122
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	8/24/2016 8:56:03 PM	27122
Toluene	ND	0.048		mg/Kg	1	8/24/2016 8:56:03 PM	27122
Ethylbenzene	ND	0.048		mg/Kg	1	8/24/2016 8:56:03 PM	27122
Xylenes, Total	ND	0.096		mg/Kg	1	8/24/2016 8:56:03 PM	27122
Surr: 4-Bromofluorobenzene	94.8	80-120		%Rec	1	8/24/2016 8:56:03 PM	27122

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

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

Analytical Report

Lab Order 1608C32

Date Reported: 8/29/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 4-4'**Project:** Dayton Townsite Water System (William**Collection Date:** 8/16/2016 10:36:00 AM**Lab ID:** 1608C32-008**Matrix:** SOIL**Received Date:** 8/18/2016 9:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/24/2016 2:01:31 PM	27096
Surr: DNOP	81.1	70-130		%Rec	1	8/24/2016 2:01:31 PM	27096
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/24/2016 9:19:20 PM	27122
Surr: BFB	81.8	68.3-144		%Rec	1	8/24/2016 9:19:20 PM	27122
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	8/24/2016 9:19:20 PM	27122
Toluene	ND	0.050		mg/Kg	1	8/24/2016 9:19:20 PM	27122
Ethylbenzene	ND	0.050		mg/Kg	1	8/24/2016 9:19:20 PM	27122
Xylenes, Total	ND	0.099		mg/Kg	1	8/24/2016 9:19:20 PM	27122
Surr: 4-Bromofluorobenzene	94.4	80-120		%Rec	1	8/24/2016 9:19:20 PM	27122

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608C32

29-Aug-16

Client: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Sample ID	LCS-27096	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	27096	RunNo:	36709					
Prep Date:	8/22/2016	Analysis Date:	8/24/2016	SeqNo:	1137693	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	112	62.6	124			
Surr: DNOP	4.9		5.000		98.6	70	130			

Sample ID	MB-27096	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	27096	RunNo:	36709					
Prep Date:	8/22/2016	Analysis Date:	8/24/2016	SeqNo:	1137694	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	9.0		10.00		89.5	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608C32

29-Aug-16

Client: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Sample ID	MB-27122	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	27122	RunNo:	36718					
Prep Date:	8/23/2016	Analysis Date:	8/24/2016	SeqNo:	1138315	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	760		1000		76.0	68.3	144			

Sample ID	LCS-27122	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	27122	RunNo:	36718					
Prep Date:	8/23/2016	Analysis Date:	8/24/2016	SeqNo:	1138316	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.6	80	120			
Surr: BFB	850		1000		84.7	68.3	144			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608C32

29-Aug-16

Client: Yates Petroleum Corporation

Project: Dayton Townsite Water System (Williams Wate

Sample ID	MB-27122	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	27122	RunNo:	36718					
Prep Date:	8/23/2016	Analysis Date:	8/24/2016	SeqNo:	1138341	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		88.5	80	120			

Sample ID	LCS-27122	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	27122	RunNo:	36718					
Prep Date:	8/23/2016	Analysis Date:	8/24/2016	SeqNo:	1138342	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.025	1.000	0	87.1	75.3	123			
Toluene	0.92	0.050	1.000	0	92.0	80	124			
Ethylbenzene	0.97	0.050	1.000	0	96.6	82.8	121			
Xylenes, Total	2.9	0.10	3.000	0	97.5	83.9	122			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Yates Petroleum Corporat

Work Order Number: 1608C32

RcptNo: 1

Received by/date:

AS

08/18/16

Logged By: Lindsay Mangin

8/18/2016 9:55:00 AM

Completed By: Lindsay Mangin

8/22/2016 12:28:41 PM

Reviewed By:

JA

08/23/16

Jessie Mangin

Jessie Mangin

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of >0° C to 6.0° C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

Adjusted?

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

Checked by:

(If no, notify customer for authorization.)

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			

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

Mail or Fax#: agriffin@yatespetroleum.com

A/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☒ NELAP ☐ Other

EDD (Type)

Turn-Around Time: 6/25/2016

☒ Standard ☐ Rush

Project Name:

Dayton Townsite Water System (Williams Water Line)

Project #:

8/9/2016 Release

Project Manager:

Amber Griffin

PO # 205-2020

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.5°C

HEAL No. 116080332

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type
8/16/2016	8:19	Soil	1 - 2.5'	1 - 4 oz.	Ice
8/16/2016	8:21	Soil	1 - 4'	1 - 4 oz.	Ice
8/16/2016	9:12	Soil	2 - 2.5'	1 - 4 oz.	Ice
8/16/2016	9:14	Soil	2 - 4'	1 - 4 oz.	Ice
8/16/2016	9:43	Soil	3 - 4'	1 - 4 oz.	Ice
8/16/2016	9:45	Soil	3 - 6'	1 - 4 oz.	Ice
8/16/2016	10:32	Soil	4 - 2'	1 - 4 oz.	Ice
8/16/2016	10:36	Soil	4 - 4'	1 - 4 oz.	Ice

Date: 8/17/16

Time: 11:16

Relinquished by: Amber Griffin

Relinquished by:

Received by: [Signature]

Date: 8/18/16

Time: 0955

Received by:



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TPH (Gas only)	BTEX + MTBE + TPH (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	

Remarks: TPH: 8015B, BTEX: 8021B. Please show BTEX results as mg/kg. Anions: Chloride only, please show on a separate report. **PAGE 1 OF 1.**



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

September 27, 2016

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

RE: Dayton Townsite Water System (Williams Water Line)

OrderNo.: 1609856

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 7 sample(s) on 9/15/2016 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 qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order: 1609856

Date Reported: 9/27/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Lab Order: 1609856**Lab ID:** 1609856-001**Collection Date:** 9/13/2016 10:08:00 AM**Client Sample ID:** 3-16'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	22000	750		mg/Kg	500	9/23/2016 3:49:40 AM	27611

Analyst: LGT

Lab ID: 1609856-002**Collection Date:** 9/13/2016 10:14:00 AM**Client Sample ID:** 3-18'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	24000	1500		mg/Kg	1E	9/23/2016 4:02:05 AM	27611

Analyst: LGT

Lab ID: 1609856-003**Collection Date:** 9/13/2016 10:20:00 AM**Client Sample ID:** 3-20'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	17000	750		mg/Kg	500	9/23/2016 4:14:29 AM	27611

Analyst: LGT

Lab ID: 1609856-004**Collection Date:** 9/13/2016 10:35:00 AM**Client Sample ID:** 3-22'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	5200	300		mg/Kg	200	9/23/2016 4:26:54 AM	27611

Analyst: LGT

Lab ID: 1609856-005**Collection Date:** 9/13/2016 11:01:00 AM**Client Sample ID:** 4-16'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	720	30		mg/Kg	20	9/21/2016 4:28:55 PM	27611

Analyst: LGT

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

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

Analytical Report

Lab Order: 1609856

Date Reported: 9/27/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Lab Order: 1609856

Lab ID: 1609856-006

Collection Date: 9/13/2016 11:06:00 AM

Client Sample ID: 4-18'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	14000	750		mg/Kg	500	9/23/2016 4:39:18 AM	27611

Analyst: LGT

Lab ID: 1609856-007

Collection Date: 9/13/2016 11:12:00 AM

Client Sample ID: 4-20'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							
Chloride	14000	750		mg/Kg	500	9/23/2016 4:51:43 AM	27611

Analyst: LGT

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 3
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609856

27-Sep-16

Client: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Sample ID	MB-27611	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	27611	RunNo:	37376					
Prep Date:	9/20/2016	Analysis Date:	9/21/2016	SeqNo:	1161550	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-27611	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	27611	RunNo:	37376					
Prep Date:	9/20/2016	Analysis Date:	9/21/2016	SeqNo:	1161552	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	90	110			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Yates Petroleum Corpora

Work Order Number: 1609856

RcptNo: 1

Received by/date:

UK 09/15/16

Logged By: Lindsay Mangin

9/15/2016 10:25:00 AM

Lindsay Mangin

Completed By: Lindsay Mangin

9/15/2016 3:04:13 PM

Lindsay Mangin

Reviewed By:

AS

09/16/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



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4901 Hawkins NE
Albuquerque, NM 87109
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Website: www.hallenvironmental.com

September 22, 2016

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

RE: Dayton Townsite Water System (Williams Water Line)

OrderNo.: 1609852

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 6 sample(s) on 9/15/2016 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 qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Lab Order: 1609852

Lab ID: 1609852-001 **Collection Date:** 9/13/2016 11:23:00 AM
Client Sample ID: Horizontal #1 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS Analyst: LGT							
Chloride	60	30		mg/Kg	20	9/20/2016 3:35:01 PM	27599

Lab ID: 1609852-002 **Collection Date:** 9/13/2016 11:25:00 AM
Client Sample ID: Horizontal #2 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS Analyst: LGT							
Chloride	ND	30		mg/Kg	20	9/20/2016 4:12:15 PM	27599

Lab ID: 1609852-003 **Collection Date:** 9/13/2016 11:27:00 AM
Client Sample ID: Horizontal #3 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS Analyst: LGT							
Chloride	ND	30		mg/Kg	20	9/21/2016 1:35:09 PM	27611

Lab ID: 1609852-004 **Collection Date:** 9/13/2016 11:30:00 AM
Client Sample ID: Horizontal #4 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS Analyst: LGT							
Chloride	32	30		mg/Kg	20	9/21/2016 2:12:24 PM	27611

Lab ID: 1609852-005 **Collection Date:** 9/13/2016 11:32:00 AM
Client Sample ID: Horizontal #5 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS Analyst: LGT							
Chloride	32	30		mg/Kg	20	9/21/2016 2:24:48 PM	27611

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

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

Analytical Report

Lab Order: 1609852

Date Reported: 9/22/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Lab Order: 1609852**Lab ID:** 1609852-006**Collection Date:** 9/13/2016 11:35:00 AM**Client Sample ID:** Horizontal #6**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	140	30		mg/Kg	20	9/21/2016 2:37:13 PM	27611

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609852

22-Sep-16

Client: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Sample ID	MB-27599	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	27599	RunNo:	37349					
Prep Date:	9/20/2016	Analysis Date:	9/20/2016	SeqNo:	1160293	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-27599	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	27599	RunNo:	37349					
Prep Date:	9/20/2016	Analysis Date:	9/20/2016	SeqNo:	1160294	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.1	90	110			

Sample ID	MB-27611	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	27611	RunNo:	37376					
Prep Date:	9/20/2016	Analysis Date:	9/21/2016	SeqNo:	1161550	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-27611	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	27611	RunNo:	37376					
Prep Date:	9/20/2016	Analysis Date:	9/21/2016	SeqNo:	1161552	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	90	110			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Yates Petroleum Corpora

Work Order Number: 1609852

RcptNo: 1

Received by/date:	LC	09/15/16	
Logged By:	Lindsay Mangin	9/15/2016 10:25:00 AM	<i>Lindsay Mangin</i>
Completed By:	Lindsay Mangin	9/15/2016 2:53:01 PM	<i>Lindsay Mangin</i>
Reviewed By:	AS	09/16/16	

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0° C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date	_____
By Whom:	_____	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	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 30, 2016

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

RE: Dayton Townsite Water System (Williams Water Line)

OrderNo.: 1611A17

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 4 sample(s) on 11/18/2016 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 qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order: 1611A17

Date Reported: 11/30/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Dayton Townsite Water System (Williams Wate

Lab Order: 1611A17

Lab ID: 1611A17-001

Collection Date: 11/15/2016 2:45:00 PM

Client Sample ID: CR-25'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	190	30		mg/Kg	20	11/28/2016 1:21:12 PM	28872

Lab ID: 1611A17-002

Collection Date: 11/15/2016 2:55:00 PM

Client Sample ID: CR-30'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	190	30		mg/Kg	20	11/28/2016 1:58:25 PM	28872

Lab ID: 1611A17-003

Collection Date: 11/15/2016 3:05:00 PM

Client Sample ID: CR-35'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	260	30		mg/Kg	20	11/28/2016 2:35:39 PM	28872

Lab ID: 1611A17-004

Collection Date: 11/15/2016 3:18:00 PM

Client Sample ID: CR-40'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	160	30		mg/Kg	20	11/28/2016 2:48:03 PM	28872

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611A17

30-Nov-16

Client: Yates Petroleum Corporation

Project: Dayton Townsite Water System (Williams Wate

Sample ID	MB-28872	SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS	Batch ID:	28872		RunNo:	39009				
Prep Date:	11/28/2016	Analysis Date:	11/28/2016		SeqNo:	1220081	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-28872			SampType:	lcs		TestCode:	EPA Method 300.0: Anions			
Client ID:	LCSS			Batch ID:	28872		RunNo:	39009			
Prep Date:	11/28/2016			Analysis Date:	11/28/2016		SeqNo:	1220082		Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	93.4	90	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
S % Recovery outside of range due to dilution or matrix

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



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

Sample Log-In Check List

Client Name: EOG/Yates

Work Order Number: 1611A17

RcptNo: 1

Received by/date:

dc

11/18/16

Logged By:

Ashley Gallegos

11/18/2016 9:30:00 AM

Ag

Completed By:

Ashley Gallegos

11/18/2016 12:28:41 PM

Ag

Reviewed By:

dc/ag

11/18/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☐ No ☒ NA ☐
6. Sample(s) in proper container(s)? Not required Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	15.0	Good	Yes			

Chain-of-Custody Record

Client: EOG Y Resources, Inc.

Mailing Address:

105 South 4th Street Artesia, NM 88210

Phone #: 575-513-8799 or 575-748-4111

email or Fax#: amber.griffin@eogresources.com

QA/QC Package:

☐ Standard

☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP

☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Dayton Townsite Water System (Williams Water Line)

Project #:

8/9/2016 Release

Project Manager:

Amber Griffin

PO # 205-2020

Sampler:

Amber Griffin

On Ice: ☐ Yes ☒ No

Sample Temperature: 50

Date

Time

Matrix

Sample Request ID

Container Type and #

Preservative Type

HEAL No.

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

RCRA 8 Metals

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

Air Bubbles (Y or N)

Date:

Time:

Relinquished by:

Relinquished by:

Date:

Time:

Remarks:

Anions: Chloride only. PAGE 1 OF 1. Analytical results are needed by Tuesday, November 29, 2016.

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.