

MARTIN YATES, III
1912-1985

FRANK W. YATES
1936-1986

S.P. YATES
1914-2000



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471

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JOHN A. YATES
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CHIEF OPERATING OFFICER

August 19, 2015

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

Re: Spunky BUK State Com #1-H
30-015-42304
Section 2, T26S-R26E
Eddy County, New Mexico
2RP-3037

Mr. Bratcher/Mrs. Patterson,

Yates Petroleum Corporation is submitting the enclosed work plan for the above captioned well. The plan is being submitted in response to the C-141 report dated June 3, 2015.

If there are no objections with the scope of work described in the plan, Yates will have a contractor begin work on or after September 1, 2015.

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

Thank you.

YATES PETROLEUM CORPORATION

Chase Settle
Environmental Regulatory Agent

Enclosure(s)

KATHY H. PORTER
SECRETARY

DENNIS G. KINSEY
TREASURER

Yates Petroleum Corporation

Spunky BUK State Com #1-H

Section 2, T26S-R26E

Eddy County, New Mexico

August 19, 2015

2RP-3037

I. Location

Go south of Malaga on HWY 285 for 11.45 miles, then turn right on White City Road (CR 724) and continue for 11.37 miles. At CR 748, turn right and follow it for .89 mile then turn left at the Fresh Water Reservoir and go 1.10 miles to the location.

II. Background

On June 3, 2015, Yates Petroleum Corporation submitted to the NMOCD District II office a Form C-141 for the release of 179 B/O and 142 B/PW with 167 B/O and 127 B/PW recovered. The total affected area was approximately 150 feet by 40 feet within the metal containment berm and an approximate area of 75 feet by 50 feet outside of the containment berm on the production pad. Initial delineation samples were taken in the release area outside of the metal containment (7/15/2015) and sent to a NMOCD approved laboratory (7/24/2015, results enclosed).

III. Surface and Ground Water

Area surface geology is Paleozoic Permian. The ChevronTexaco Trend Map displays at this location (Section 2, T26S-R26E) that depth to groundwater is approximately 25 feet making the site ranking for this site a twenty (20). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

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

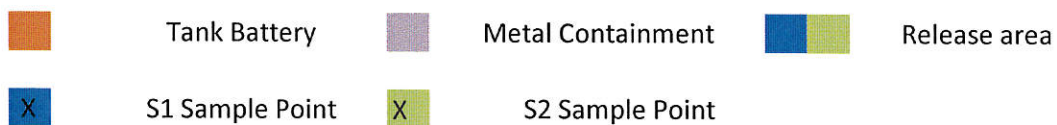
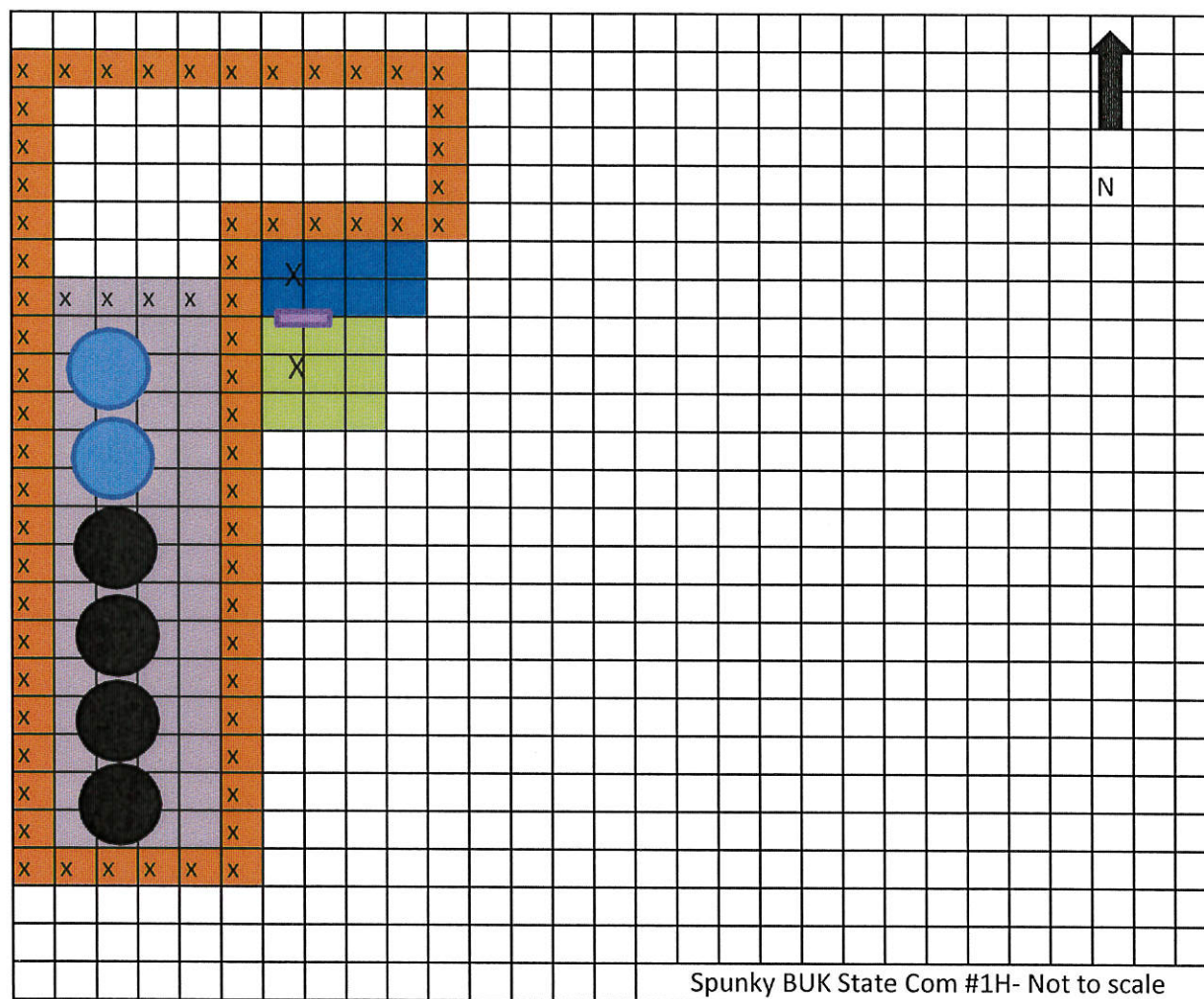
Depth to ground water	< 50'
Wellhead Protection Area	> 1000'
Distance to surface water body	> 1000'

IV. Soils

The release area consists of soils that are caliche, providing a low permeability barrier to retard vertical percolation of contaminants into the subsurface.

V. Scope of Work

Based on enclosed analytical results, a decrease in TPH, and acceptable chloride levels, Yates Petroleum Corporation will excavate one (1) foot from the S2 release area, placing the excavated material on a plastic synthetic liner on the production pad. The excavated material will then be treated with 3% MicroBlaze. The stockpiled material will have confirmation samples tested for TPH 30 days after treatment, if the TPH analysis is not below the RRAL for site ranking 20, the MicroBlaze treatment will be allowed another 30 days to remediate the TPH before more confirmation sampling occurs. If by 90 days from the first MicroBlaze treatment, the TPH still has not tested below the RRAL for a site ranking 20, then another application of 3% MicroBlaze solution will be applied with the same confirmation sampling protocol as before. Once stockpiled soils have tested below the RRAL for TPH with a site ranking 20, the excavation will be backfilled with the remediated soil. BTEX is within the RRAL for BTEX (50 ppm) for the Total Ranking Score of twenty (20), therefore no further analytical testing of BTEX will be conducted (all chloride analytical results are for documentation). When remediation work is completed a C-141 Final Report will be submitted to the NMOCD requesting closure of the site.



H402737	Sample Area	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	Chlorides
S1-1'	Release Area	7/15/2015	Hand Auger	1'	ND	ND	ND	81
S1-2'	Release Area	7/15/2015	Hand Auger	2'	0.21	ND	19	160
S1-3'	Release Area	7/15/2015	Hand Auger	3'	ND	ND	ND	130
S2-1'	Release Area	7/15/2015	Hand Auger	1'	23.7	270	2200	730
S2-2'	Release Area	7/15/2015	Hand Auger	2'	0.695	5.1	14	1100
S2-3'	Release Area	7/15/2015	Hand Auger	3'	0.421	ND	49	610

Site Ranking is Twenty (20). <50' (25', Section 2, T26S-R26E, Trend Map

All results are ppm. Chlorides for documentation

Released: 179 B/O & 142 B/PW ; Recovered: 167 B/O & 127 B/PW Release Date: 5/23/2015



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

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

RE: Spunky BUK State Com #1-H

OrderNo.: 1507794

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 6 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,

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 1507794

Date Reported: 7/24/2015

CLIENT: Yates Petroleum

Client Sample ID: S1-1'

Project: Spunky BUK State Com #1-H

Collection Date: 7/15/2015 9:02:00 AM

Lab ID: 1507794-001

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	81	30		mg/Kg	20	7/22/2015 4:57:30 PM	20384
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/23/2015 10:45:01 AM	20309
Surr: DNOP	75.4	57.9-140		%REC	1	7/23/2015 10:45:01 AM	20309
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/20/2015 10:49:24 PM	20308
Surr: BFB	91.9	75.4-113		%REC	1	7/20/2015 10:49:24 PM	20308
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/20/2015 10:49:24 PM	20308
Toluene	ND	0.050		mg/Kg	1	7/20/2015 10:49:24 PM	20308
Ethylbenzene	ND	0.050		mg/Kg	1	7/20/2015 10:49:24 PM	20308
Xylenes, Total	ND	0.099		mg/Kg	1	7/20/2015 10:49:24 PM	20308
Surr: 4-Bromofluorobenzene	96.9	80-120		%REC	1	7/20/2015 10:49:24 PM	20308

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 10
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1507794

Date Reported: 7/24/2015

CLIENT: Yates Petroleum

Client Sample ID: S1-2'

Project: Spunky BUK State Com #1-H

Collection Date: 7/15/2015 9:08:00 AM

Lab ID: 1507794-002

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	160	30		mg/Kg	20	7/22/2015 5:34:44 PM	20384
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	19	10		mg/Kg	1	7/23/2015 11:07:45 AM	20309
Surr: DNOP	89.5	57.9-140		%REC	1	7/23/2015 11:07:45 AM	20309
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/20/2015 11:18:03 PM	20308
Surr: BFB	98.6	75.4-113		%REC	1	7/20/2015 11:18:03 PM	20308
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/20/2015 11:18:03 PM	20308
Toluene	ND	0.050		mg/Kg	1	7/20/2015 11:18:03 PM	20308
Ethylbenzene	ND	0.050		mg/Kg	1	7/20/2015 11:18:03 PM	20308
Xylenes, Total	0.21	0.099		mg/Kg	1	7/20/2015 11:18:03 PM	20308
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	7/20/2015 11:18:03 PM	20308

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1507794

Date Reported: 7/24/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum

Client Sample ID: S1-3'

Project: Spunky BUK State Com #1-H

Collection Date: 7/15/2015 9:13:00 AM

Lab ID: 1507794-003

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	130	30		mg/Kg	20	7/22/2015 5:47:09 PM	20384
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/22/2015 2:27:35 PM	20309
Surr: DNOP	85.9	57.9-140		%REC	1	7/22/2015 2:27:35 PM	20309
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/20/2015 11:46:50 PM	20308
Surr: BFB	90.6	75.4-113		%REC	1	7/20/2015 11:46:50 PM	20308
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	7/20/2015 11:46:50 PM	20308
Toluene	ND	0.048		mg/Kg	1	7/20/2015 11:46:50 PM	20308
Ethylbenzene	ND	0.048		mg/Kg	1	7/20/2015 11:46:50 PM	20308
Xylenes, Total	ND	0.097		mg/Kg	1	7/20/2015 11:46:50 PM	20308
Surr: 4-Bromofluorobenzene	96.0	80-120		%REC	1	7/20/2015 11:46:50 PM	20308

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 3 of 10
	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	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1507794

Date Reported: 7/24/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum

Client Sample ID: S2-1'

Project: Spunky BUK State Com #1-H

Collection Date: 7/15/2015 9:31:00 AM

Lab ID: 1507794-004

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	730	30		mg/Kg	20	7/22/2015 5:59:34 PM	20384
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	2200	98		mg/Kg	10	7/22/2015 5:36:53 PM	20309
Surr: DNOP	0	57.9-140	S	%REC	10	7/22/2015 5:36:53 PM	20309
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	270	24		mg/Kg	5	7/21/2015 12:15:35 AM	20308
Surr: BFB	303	75.4-113	S	%REC	5	7/21/2015 12:15:35 AM	20308
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.24		mg/Kg	5	7/21/2015 12:15:35 AM	20308
Toluene	3.9	0.24		mg/Kg	5	7/21/2015 12:15:35 AM	20308
Ethylbenzene	1.8	0.24		mg/Kg	5	7/21/2015 12:15:35 AM	20308
Xylenes, Total	18	0.49		mg/Kg	5	7/21/2015 12:15:35 AM	20308
Surr: 4-Bromofluorobenzene	130	80-120	S	%REC	5	7/21/2015 12:15:35 AM	20308

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum **Client Sample ID:** S2-2'
Project: Spunky BUK State Com #1-H **Collection Date:** 7/15/2015 9:37:00 AM
Lab ID: 1507794-005 **Matrix:** SOIL **Received Date:** 7/17/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1100	30		mg/Kg	20	7/22/2015 6:11:59 PM	20384
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	14	10		mg/Kg	1	7/23/2015 11:28:57 AM	20309
Surr: DNOP	84.0	57.9-140		%REC	1	7/23/2015 11:28:57 AM	20309
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5.1	4.9		mg/Kg	1	7/21/2015 1:13:00 AM	20308
Surr: BFB	105	75.4-113		%REC	1	7/21/2015 1:13:00 AM	20308
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	7/21/2015 1:13:00 AM	20308
Toluene	0.095	0.049		mg/Kg	1	7/21/2015 1:13:00 AM	20308
Ethylbenzene	ND	0.049		mg/Kg	1	7/21/2015 1:13:00 AM	20308
Xylenes, Total	0.60	0.099		mg/Kg	1	7/21/2015 1:13:00 AM	20308
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	7/21/2015 1:13:00 AM	20308

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
	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
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1507794

Date Reported: 7/24/2015

CLIENT: Yates Petroleum

Client Sample ID: S2-3'

Project: Spunky BUK State Com #1-H

Collection Date: 7/15/2015 9:44:00 AM

Lab ID: 1507794-006

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	610	30		mg/Kg	20	7/22/2015 6:49:12 PM	20384
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	49	9.8		mg/Kg	1	7/22/2015 3:48:51 PM	20309
Surr: DNOP	45.7	57.9-140	S	%REC	1	7/22/2015 3:48:51 PM	20309
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/21/2015 1:41:41 AM	20308
Surr: BFB	98.9	75.4-113		%REC	1	7/21/2015 1:41:41 AM	20308
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/21/2015 1:41:41 AM	20308
Toluene	0.051	0.050		mg/Kg	1	7/21/2015 1:41:41 AM	20308
Ethylbenzene	ND	0.050		mg/Kg	1	7/21/2015 1:41:41 AM	20308
Xylenes, Total	0.37	0.099		mg/Kg	1	7/21/2015 1:41:41 AM	20308
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	7/21/2015 1:41:41 AM	20308

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507794

24-Jul-15

Client: Yates Petroleum

Project: Spunky BUK State Com #1-H

Sample ID	MB-20384	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	20384	RunNo:	27693					
Prep Date:	7/22/2015	Analysis Date:	7/22/2015	SeqNo:	832404	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-20384	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	20384	RunNo:	27693					
Prep Date:	7/22/2015	Analysis Date:	7/22/2015	SeqNo:	832405	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.5	90	110			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507794

24-Jul-15

Client: Yates Petroleum

Project: Spunky BUK State Com #1-H

Sample ID	MB-20309	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	20309	RunNo:	27634					
Prep Date:	7/17/2015	Analysis Date:	7/21/2015	SeqNo:	830062	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	10		10.00		103	57.9	140			

Sample ID	LCS-20309	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	20309	RunNo:	27634					
Prep Date:	7/17/2015	Analysis Date:	7/21/2015	SeqNo:	830063	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	57.4	139			
Surr: DNOP	5.0		5.000		100	57.9	140			

Sample ID	MB-20378	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	20378	RunNo:	27701					
Prep Date:	7/22/2015	Analysis Date:	7/23/2015	SeqNo:	833319	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		109	57.9	140			

Sample ID	LCS-20378	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	20378	RunNo:	27701					
Prep Date:	7/22/2015	Analysis Date:	7/23/2015	SeqNo:	833320	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.3		5.000		147	57.9	140			S

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507794

24-Jul-15

Client: Yates Petroleum

Project: Spunky BUK State Com #1-H

Sample ID	MB-20308	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	20308	RunNo:	27604					
Prep Date:	7/17/2015	Analysis Date:	7/20/2015	SeqNo:	829387	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	900		1000		90.4	75.4	113			

Sample ID	LCS-20308	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	20308	RunNo:	27604					
Prep Date:	7/17/2015	Analysis Date:	7/20/2015	SeqNo:	829388	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	97.5	79.6	122			
Surr: BFB	990		1000		98.5	75.4	113			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507794

24-Jul-15

Client: Yates Petroleum

Project: Spunky BUK State Com #1-H

Sample ID	MB-20308	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	20308	RunNo:	27604					
Prep Date:	7/17/2015	Analysis Date:	7/20/2015	SeqNo:	829414	Units:	mg/Kg			
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		96.8	80	120			

Sample ID	LCS-20308	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	20308	RunNo:	27604					
Prep Date:	7/17/2015	Analysis Date:	7/20/2015	SeqNo:	829419	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	102	76.6	128			
Toluene	0.97	0.050	1.000	0	96.7	75	124			
Ethylbenzene	0.99	0.050	1.000	0	99.3	79.5	126			
Xylenes, Total	2.9	0.10	3.000	0	98.3	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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- P Sample pH Not In Range
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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

Sample Log-In Check List

Client Name: Yates Petroleum Corpora

Work Order Number: 1507794

RcptNo: 1

Received by/date: CS 07/17/15

Logged By: Celina Sessa

7/17/2015 10:00:00 AM

Celina Sessa

Completed By: Celina Sessa

7/17/2015 11:37:30 AM

Celina Sessa

Reviewed By: IO

07/17/15

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 ☒

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

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

Project Name:

Spunkv BUK State Com #1-H

4901 Hawkins NE - Albuquerque, NM 87109

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

30-015-42304

Project Manager:

Chase Settle

PO # 205 0750

Sampler: Chase Settle

☐ No

ure: 10°C

HEAL No.

Container

Container

1-402

1-403

4

1

1

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Received by:

Data	Time
1	1
2	2
3	3
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100	100

Received by:

Remarks:

If necessary, employee 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.