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



JOHN A. YATES

JOHN A. YATES JR.

DOUGLAS E. BROOKS
PRESIDENT
CHIEF EXECUTIVE OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

105 SOUTH FOURTH STREET

ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471
www.vatespetroleum.com

February 5, 2016

Ms. Kellie Jones/ Mr. Jamie Keyes NMOCD District I 1625 N. French Drive Hobbs, New Mexico 88240

Re:

Abby BLF State #1

30-025-38951

Section 10, T9S-R33E Lea County, New Mexico

Dear Ms. Jones / Mr. Keyes,

RECEIVED

By JKeyes at 9:34 am, Feb 08, 2016

APPROVED

By JKeyes at 9:34 am, Feb 08, 2016

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 September 16, 2015.

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

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

Thank you.

YATES PETROLEUM CORPORATION

Chase Settle Environmental Regulatory Agent

Enclosure(s)

Yates Petroleum Corporation

Abby BLF State #1 Work Plan

Section 10, T9S-R33E

Lea County, New Mexico

February 5, 2016

1RP-3863

I. Location

From Crossroads, NM, travel west on Carroll Road for approximately 13.6 miles to the junction of Carroll Road and Tobac Road, turn north on Tobac Road for approximately 1 mile, turn east for ¼ of a mile to the location.

II. Background

On September 16, 2015, Yates submitted to the NMOCD District I office a Form C-141 for the release of 2 B/O & 5 B/PW with 0 B/O & 0 B/PW recovered. The affected area is approximately 150 feet by 10 feet around the pumping unit on the location pad. Initial delineation samples were taken (9/14/2015) and sent to a NMOCD approved laboratory (9/28/2015, results enclosed). Further sampling was conducted in the S2 and S3 release areas (11/3/2015) and sent to a NMOCD approved laboratory (11/17/2015, results enclosed). Additional results were taken in the S3 release area (1/20/2016) and sent to a NMOCD approved laboratory (1/28/2016, results enclosed).

III. Surface and Ground Water

Area surface geology is Cenozoic Quaternary Tertiary. The ChevronTexaco Trend Map displays at this location (Section 10, T9S-R33E) that depth to groundwater is approximately 65' feet making the site ranking for this site a ten (10). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

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

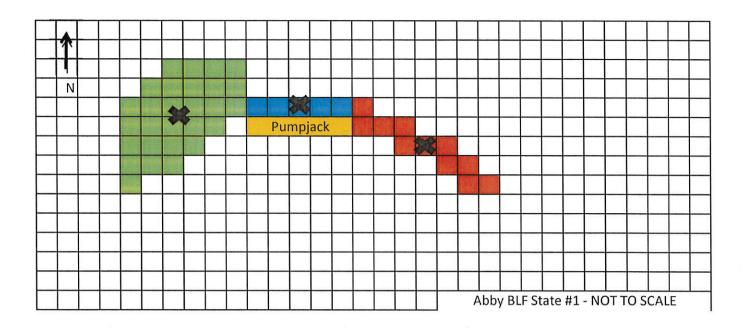
Depth to ground water 50-99'
Wellhead Protection Area > 1000'
Distance to surface water body > 1000'

IV. Soils

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

V. Scope of Work

Based on enclosed analytical results, the depth to groundwater (65'), and a decrease in chlorides, Yates Petroleum Corporation proposes to excavate the S2 area down to the rock plate (2 to 2 ½ feet) that prohibited sampling being too hard for a backhoe to penetrate, and five (5) feet in the S3 area. All excavated soil will be disposed of at a NMOCD approved facility. The S2 area will then be backfilled with 2 to 2 ½ feet of caliche, and the S3 area will be backfilled with 5 feet of caliche. The TPH & BTEX are within the RRAL's for BTEX (50 ppm) and TPH (1000 ppm) for the Total Ranking Score of ten (10), no further analytical testing of TPH and/or BTEX will be conducted (all chloride analytical results are for documentation). When remediation work is completed a C-141, Final Report, will be submitted to the NMOCD requesting closure of the site.



Sample ID	Analytical ID	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	Chlorides
S1-1'	1509875	9/14/2015	Hand Auger	1'	ND	ND	ND	ND
S2-1'	1509875	9/14/2015	Hand Auger	1'	ND	ND	ND	1900
S2-2'	1511273	11/3/2015	Backhoe	2'	N/A	N/A	N/A	920
S3-1 [']	1509875	9/14/2015	Backhoe	1'	ND	6.6	46	4100
S3-2 [']	1511273	11/3/2015	Backhoe	2'	N/A	N/A	N/A	3900
S3-3 [']	1511273	11/3/2015	Backhoe	3'	N/A	N/A	N/A	2500
S3-4 ¹	1511273	11/3/2015	Backhoe	4'	N/A	N/A	N/A	2300
S3-5 ¹	1511273	11/3/2015	Backhoe	5'	N/A	N/A	N/A	2300
S3-6'	1601860	1/20/2016	Backhoe	6'	N/A	N/A	N/A	230
S3-7'	1601860	1/20/2016	Backhoe	7'	N/A	N/A	N/A	170
53-8'	1601860	1/20/2016	Backhoe	8'	N/A	N/A	N/A	150
S3-9 ¹	1601860	1/20/2016	Backhoe	9'	N/A	N/A	N/A	200
S3-10'	1601860	1/20/2016	Backhoe	10'	N/A	N/A	N/A	110

Site Ranking is ten (10). 50-99' (65', Section 10, T9S-R33E, Trend Map) All results are ppm (chloride for documentation).

Released: 2 B/O & 5 B/PW; Recovered: 0 B/O & 0 B/PW Release Date: 09/07/2015



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

September 28, 2015

Chase Settle

Yates Petroleum Corporation 105 South Fourth Street Artesia, NM 88210

TEL: (575) 748-4217

FAX

RE: Abby BLF State #1

OrderNo.: 1509875

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 3 sample(s) on 9/18/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1509875

Date Reported: 9/28/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Abby BLF State #1

Lab ID:

1509875-001

Matrix: SOIL

Client Sample ID: S1-1'

Collection Date: 9/14/2015 1:02:00 PM

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

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	ND	30	mg/Kg	20	9/23/2015 12:48:38 PM	21467
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	: DJF
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	9/23/2015 7:11:29 PM	21433
Surr: BFB	97.3	70-130	%REC	1	9/23/2015 7:11:29 PM	21433
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANIC	S			Analyst	: KJH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	9/23/2015 11:43:07 AM	21428
Surr: DNOP	106	57.9-140	%REC	1	9/23/2015 11:43:07 AM	21428
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	: DJF
Benzene	ND	0.048	mg/Kg	1	9/23/2015 7:11:29 PM	21433
Toluene	ND	0.048	mg/Kg	1	9/23/2015 7:11:29 PM	21433
Ethylbenzene	ND	0.048	mg/Kg	1	9/23/2015 7:11:29 PM	21433
Xylenes, Total	ND	0.096	mg/Kg	1	9/23/2015 7:11:29 PM	21433
Surr: 1,2-Dichloroethane-d4	96.0	70-130	%REC	1	9/23/2015 7:11:29 PM	21433
Surr: 4-Bromofluorobenzene	100	70-130	%REC	1	9/23/2015 7:11:29 PM	21433
Surr: Dibromofluoromethane	107	70-130	%REC	1	9/23/2015 7:11:29 PM	21433
Surr: Toluene-d8	94.3	70-130	%REC	1	9/23/2015 7:11:29 PM	21433

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 7 J
- P Sample pH Not In Range
- Reporting Detection Limit

Lab Order 1509875

Date Reported: 9/28/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Abby BLF State #1 Client Sample ID: S2-1'

Collection Date: 9/14/2015 1:10:00 PM

Lab ID: 1509875-002 Matrix: SOIL

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

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	1900	75	mg/Kg	50	9/24/2015 10:04:21 PM	21467
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	: DJF
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	9/23/2015 7:39:05 PM	21433
Surr: BFB	97.7	70-130	%REC	1	9/23/2015 7:39:05 PM	21433
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANIC	S			Analyst	: KJH
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	9/23/2015 12:47:54 PM	21428
Surr: DNOP	99.4	57.9-140	%REC	1	9/23/2015 12:47:54 PM	21428
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	: DJF
Benzene	ND	0.048	mg/Kg	1	9/23/2015 7:39:05 PM	21433
Toluene	ND	0.048	mg/Kg	1	9/23/2015 7:39:05 PM	21433
Ethylbenzene	ND	0.048	mg/Kg	1	9/23/2015 7:39:05 PM	21433
Xylenes, Total	ND	0.097	mg/Kg	1	9/23/2015 7:39:05 PM	21433
Surr: 1,2-Dichloroethane-d4	94.6	70-130	%REC	1	9/23/2015 7:39:05 PM	21433
Surr: 4-Bromofluorobenzene	99.8	70-130	%REC	1	9/23/2015 7:39:05 PM	21433
Surr: Dibromofluoromethane	105	70-130	%REC	1	9/23/2015 7:39:05 PM	21433
Surr: Toluene-d8	94.5	70-130	%REC	1	9/23/2015 7:39:05 PM	21433

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J
- Analyte detected below quantitation limits Page 2 of 7
- Sample pH Not In Range P
- Reporting Detection Limit

Lab Order 1509875

Date Reported: 9/28/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Abby BLF State #1

Lab ID:

1509875-003

Matrix: SOIL

Client Sample ID: S3-1'

Collection Date: 9/14/2015 1:17:00 PM

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

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	4100	150	mg/Kg	100	9/24/2015 10:16:45 PM	21467
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	DJF
Gasoline Range Organics (GRO)	6.6	4.9	mg/Kg	1	9/23/2015 8:06:32 PM	21433
Surr: BFB	104	70-130	%REC	1	9/23/2015 8:06:32 PM	21433
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANIC	S			Analyst	: KJH
Diesel Range Organics (DRO)	46	9.7	mg/Kg	1	9/23/2015 1:09:23 PM	21428
Surr: DNOP	103	57.9-140	%REC	1	9/23/2015 1:09:23 PM	21428
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	DJF
Benzene	ND	0.049	mg/Kg	1	9/23/2015 8:06:32 PM	21433
Toluene	ND	0.049	mg/Kg	1	9/23/2015 8:06:32 PM	21433
Ethylbenzene	ND	0.049	mg/Kg	1	9/23/2015 8:06:32 PM	21433
Xylenes, Total	ND	0.097	mg/Kg	1	9/23/2015 8:06:32 PM	21433
Surr: 1,2-Dichloroethane-d4	97.4	70-130	%REC	1	9/23/2015 8:06:32 PM	21433
Surr: 4-Bromofluorobenzene	96.6	70-130	%REC	1	9/23/2015 8:06:32 PM	21433
Surr: Dibromofluoromethane	108	70-130	%REC	1	9/23/2015 8:06:32 PM	21433
Surr: Toluene-d8	94.2	70-130	%REC	1	9/23/2015 8:06:32 PM	21433

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1509875

28-Sep-15

Client:

Yates Petroleum Corporation

Project:

Abby BLF State #1

Sample ID MB-21467

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: PBS

Batch ID: 21467

RunNo: 29069

Prep Date: 9/23/2015 Analysis Date: 9/23/2015

SeqNo: 882299

Units: mg/Kg

HighLimit

%RPD **RPDLimit**

Qual

Analyte Chloride

Result PQL ND 1.5

Sample ID LCS-21467

SampType: LCS

SPK value SPK Ref Val %REC LowLimit

TestCode: EPA Method 300.0: Anions

Client ID:

LCSS

Batch ID: 21467

1.5

RunNo: 29069

SegNo: 882300 Units: mg/Kg

Prep Date: 9/23/2015 Analysis Date: 9/23/2015

%REC SPK value SPK Ref Val

LowLimit HighLimit

%RPD **RPDLimit**

Qual

PQL

94.2

110

Analyte

Chloride

15.00

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 В Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

Reporting Detection Limit

Page 4 of 7

Hall Environmental Analysis Laboratory, Inc.

43

5.2

10

50.00

5.000

WO#:

1509875

28-Sep-15

Client:

Yates Petroleum Corporation

Project:

Diesel Range Organics (DRO)

Surr: DNOP

Abby BLF State #1

Sample ID MB-21428	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 21428	RunNo: 29041	
Prep Date: 9/22/2015	Analysis Date: 9/23/2015	SeqNo: 881439	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	11 10.00	107 57.9	140
Sample ID LCS-21428	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 21428	RunNo: 29041	
Prep Date: 9/22/2015	Analysis Date: 9/23/2015	SeqNo: 881441	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual

0

86.9

105

57.4

57.9

139

140

Qualifiers:

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

Page 5 of 7

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

Hall Environmental Analysis Laboratory, Inc.

WO#:

1509875

28-Sep-15

Client:

Yates Petroleum Corporation

Project:

Abby BLF State #1

Sample ID mb-21433	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8260B: Volat	tiles Short	List	HINTO
Client ID: PBS	Batch	1D: 21	433	F	RunNo: 2	9067				
Prep Date: 9/22/2015	Analysis D	ate: 9/	23/2015	SeqNo: 882273 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: 1,2-Dichloroethane-d4	0.49		0.5000		97.7	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.49		0.5000		97.7	70	130			

Sample ID Ics-21433	Samp	ype: LC	s	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: LCSS	Batc	n ID: 21	433	F	RunNo: 2	9067				
Prep Date: 9/22/2015	Analysis [)ate: 9/	23/2015	8	SeqNo: 8	82274	Units: mg/F	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0	95.1	70	130	TRIMATE STATE OF THE STATE OF T		TORROW OF THE REAL PROPERTY OF THE PARTY OF
Toluene	1.0	0.050	1.000	0	100	70	130			
Ethylbenzene	1.0	0.050	1.000	0	100	70	130			
Xylenes, Total	3.0	0.10	3.000	0	98.9	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.50		0.5000		99.5	70	130			

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

Page 6 of 7

Hall Environmental Analysis Laboratory, Inc.

WO#:

1509875

28-Sep-15

Client:

Yates Petroleum Corporation

Project:

Abby BLF State #1

Sample ID mb-21433	SampT	уре: МЕ	BLK	Test	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: PBS	Batch	ID: 214	433	R	RunNo: 2	9067				
Prep Date: 9/22/2015	Analysis D	ate: 9/	23/2015	SeqNo: 882242 Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0				<u></u>				
Surr: BFB	500		500.0		101	70	130			

Sample ID Ics-21433 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range Client ID: LCSS Batch ID: 21433 RunNo: 29067 Prep Date: 9/22/2015 Analysis Date: 9/23/2015 SeqNo: 882243 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** LowLimit Qual Gasoline Range Organics (GRO) 25 5.0 25.00 0 101 70 123 Surr: BFB 480 500.0 96.6 70 130

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

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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 Corporat	Work Order Number:	15098	75		RcptNo:	1
Received by/dat	te: Lindsay Mangin	09 (18/15 9/18/2015 9:21:00 AM			Jimshey Hlafigs		
Completed By:	Lindsay Mangin	9/18/2015 10:54:08 AM			Juney Hleggo		!
Reviewed By:	m6_	09/18/15					
Chain of Cus	stody	1, 1, 3					
1. Custody sea	als intact on sample bottles?		Yes		No 🗆	Not Present	
2. Is Chain of	Custody complete?		Yes		No []	Not Present	
3. How was the	e sample delivered?		Cour	<u>ier</u>			
Log In							
	empt made to cool the sample	s?	Yes		No 🗆	NA □	
5. Were all sa	mples received at a temperatu	re of >0° C to 6.0°C	Yes	₩	No 🗆	NA □	
6. Sample(s)	in proper container(s)?		Yes		No 🗆		
7. Sufficient sa	ample volume for indicated tes	t(s)?	Yes		No 🗌	E	*
8. Are sample	s (except VOA and ONG) prop	erly preserved?	Yes		No 🗌		
9. Was preser	rvative added to bottles?		Yes		No 🐼	NA 🗌	
10.VOA vials h	nave zero headspace?		Yes		No 🗆	No VOA Vials	
	sample containers received bro	ken?	Yes		No 💇		
					7 <u>008</u> 8	# of preserved bottles checked	
TO COMPANY TO SELECT THE SECOND SECON	rwork match bottle labels? epancies on chain of custody)		Yes		No 🗌	for pH: (<2	or >12 unless noted)
18 18 18 18 18 18 18 18 18 18 18 18 18 1	es correctly identified on Chain	of Custody?	Yes	M	No 🗆	Adjusted?	
	hat analyses were requested?		Yes		No 🗌		
	olding times able to be met? y customer for authorization.)		Yes		No 🗆	Checked by:	
Special Han	dling (if applicable)						
16. Was client	notified of all discrepancies wi	th this order?	Yes		No 🗌	NA 🐼	
Perso	on Notified:	Date:	2043 (C. 00142-2-4		CONTRACTOR OF STREET,	12	
Ву W	/hom:	Via:	☐ eM	ail 🔲	Phone Fax	☐ In Person	
Rega	arding:		edra omikac	DV-0-0-4-4			
Clien	t Instructions:		CANHELENANDE	Market W. Collection	ATTERNATION OF THE PROPERTY OF	the many has the comment of the comm	į
17. Additional	remarks:						
18. Cooler In	a construction of the cons						
Cooler		Seal Intact Seal No	Seal D	ate	Signed By		
11	4.2 0000	res i				1	

Ö	hain	-of-Cւ	Chain-of-Custody Record	Turn-Around Time:	Time:				I	HALL ENVIRONMENTAL	П		ď	2	<u> </u>		d	
Client:	Yates P	etroleum	Yates Petroleum Corporation	X Standard	□ Rush					ANALYSIS LABORATORY		SIS	5	BO	N S	Ĕ	N.	
				Project Name:						www.hallenvironmental.com	allenv	ironm	ental.	COT				
Mailing,	Mailing Address:	12			Abby BLF State #1	ate #1	V	901	4901 Hawkins NE	s NE		ndne	- Albuquerque, NM 87109	NM 8	7109			
105 Sou	ith 4th S	treet Art	105 South 4th Street Artesia, NM 88210	Project #:				Tel. 5	Tel. 505-345-3975	5-397		ax 5	Fax 505-345-4107	5-41(70			
Phone #:	4.	575-703-6537	-6537		30-025-38951	951					Analy	sis R	Analysis Request	st				ininin.
email or Fax#:	Fax#:	csettle@	csettle@yatespetroleum.com	Project Manager:	ger:													
QA/QC Package:	ackage: lard		☐ Level 4 (Full Validation)		Chase Settle PO # 205. 0750	20							bcB.a					
	ation:	Offher		Sampler: On Ice:	Chase Settle	N. H					/s.u.		2808 /					(N 1
- EDD	EDD (Type)			Sample Temp	3	2-1,00F=4,2												o Y)
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 15799875	TM + X3T8 TM + X3T8	TPH Metho	TPH (Metho	EDB (Metho	RCRA 8 Me	⊃, ∃) anoinA	8081 Pestic	(S270 (Semi-				səldduB riA
9/142015	1:02 Soil	Soil	\$1-1,	1 - 4oz.	ICE	-001	×	×				X						
3/142015	1:10 Soil	Soil	\$2-1	1 - 4oz.	ICE	-005	×	×				×						
3/142015	1:17 Soil	Soil	\$3-1.	1 - 40z.	E	-003	×	×				×						<u> </u>
													_					<u> </u>
																	-	
												1				1		
										-							-	
										-		-						
Date: 1	Time:	Relinquished by:	1/2	Received by:	20 18	Date Time	Remarks	ks:										
Jate: T	Time:	Relinquished by:		Received by:		Date Time												
_	necessary.	samples subr	/ / / / / / / / / / / / / / / / / / /	ofracted to other aci	redited laboratories	This serves as notice of this possibility	Possibility	Anvisithed	th-confr	oted dat	ad llive	rlearly n	cted data will be clearly notated on the	n the	alvtical	ranort		l



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

November 17, 2015

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

FAX

RE: Abby BLF State #1

OrderNo.: 1511273

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 5 sample(s) on 11/6/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 1511273

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/17/2015

Yates Petroleum Corporation CLIENT: Lab Order: 1511273 Project: Abby BLF State #1 Collection Date: 11/3/2015 10:27:00 AM Lab ID: 1511273-001 Matrix: SOIL Client Sample ID: S2-2' Result RL Qual Units **DF** Date Analyzed **Batch ID** Analyses **EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 920 30 mg/Kg 20 11/11/2015 8:20:23 PM 22299 Collection Date: 11/3/2015 10:42:00 AM Lab ID: 1511273-002 Client Sample ID: S3-2' Matrix: SOIL RL Qual Units **DF** Date Analyzed Analyses Result Batch ID **EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 3900 150 100 11/14/2015 2:55:57 AM 22299 mg/Kg Collection Date: 11/3/2015 10:47:00 AM Lab ID: 1511273-003 Matrix: SOIL Client Sample ID: S3-3' Result RL Qual Units DF Date Analyzed Batch ID Analyses **EPA METHOD 300.0: ANIONS** Analyst: LGT 2500 75 50 11/14/2015 3:08:22 AM 22299 Chloride mg/Kg Lab ID: 1511273-004 Collection Date: 11/3/2015 10:52:00 AM Matrix: SOIL Client Sample ID: S3-4' Analyses Result RL Qual Units **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 2300 75 mg/Kg 11/14/2015 3:20:46 AM 22299 Lab ID: Collection Date: 11/3/2015 10:57:00 AM 1511273-005 Client Sample ID: S3-5' Matrix: SOIL RL Qual Units **DF** Date Analyzed Result Analyses **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 2300 75 mg/Kg 11/14/2015 3:33:10 AM 22299

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

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

Hall Environmental Analysis Laboratory, Inc.

WO#:

1511273

17-Nov-15

Client:

Yates Petroleum Corporation

Result

Project:

Abby BLF State #1

Sample ID MB-22299

SampType: MBLK

Batch ID: 22299

RunNo: 30193

TestCode: EPA Method 300.0: Anions

Client ID: **PBS**

Prep Date: 11/11/2015

Analysis Date: 11/11/2015

SeqNo: 919916

Units: mg/Kg

Analyte

HighLimit

RPDLimit

Qual

Chloride

PQL ND 1.5

SampType: LCS

TestCode: EPA Method 300.0: Anions

%RPD

Sample ID LCS-22299 Client ID:

LCSS Prep Date: 11/11/2015 Batch ID: 22299

RunNo: 30193 SeqNo: 919917

Units: mg/Kg

110

Analyte

Result

14

Analysis Date: 11/11/2015 PQL SPK value SPK Ref Val

1.5

%REC

SPK value SPK Ref Val %REC LowLimit

LowLimit 90.9

HighLimit

%RPD **RPDLimit** Qual

Chloride

15.00

TestCode: EPA Method 300.0: Anions

Sample ID MB-22299

Client ID: PBS

SampType: MBLK

Batch ID: 22299

Analysis Date: 11/12/2015

RunNo: 30221

SeqNo: 920917

90

Units: mg/Kg

Analyte Chloride

Result PQL

ND

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit**

Qual

Sample ID LCS-22299

Prep Date: 11/11/2015

SampType: LCS

1.5

TestCode: EPA Method 300.0: Anions

Lowl imit

RunNo: 30221

Client ID:

Prep Date: 11/11/2015

LCSS

Batch ID: 22299

Result

14

Analysis Date: 11/12/2015

SeqNo: 920918

Units: mg/Kg

RPDLimit

%RPD

Qual

Analyte Chloride

PQL

1.5

SPK value SPK Ref Val 15.00

0

%REC 91.7

90

HighLimit 110

Oualifiers:

R

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix B Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits I

P Sample pH Not In Range

RL Reporting Detection Limit Page 2 of 2



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

Sample Log-In Check List

Client Name:	Yates Petrole	eum Corporat	Work O	rder Numbe	er: 15112	73			Rcpt	No: 1
Received by/dat	te: J	ĩ A	11/06/15	-		e:	_E = 0	ů.		
Logged By:	Lindsay Ma	ngin	11/6/2015	9:35:00 AI	М		Jimby H	ورسا		
Completed By:	Lindsay Ma	ngin	11/6/2015	12:28:51 F	PM		Amely 4	Homes .		
Reviewed By:	AL	Ca	11/2	6/13			00	0 -		
Chain of Cus	tody		170	9/1-		104 2	1 9	11/0	6/15	
1. Custody sea	als intact on sar	mple bottles?			Yes	V	No	4	Not-Present	*
2. Is Chain of C	Custody comple	ete?			Yes		No		Not Present	
3. How was the	e sample delive	ered?			Cour	ier				
Log In										
4. Was an atte	empt made to c	ool the sampl	es?		Yes		No		NA	
5. Were all sar	mples received	at a temperat	ture of >0° C t	o 6.0°C	Yes		No		NA I	
6. Sample(s) i	n proper contai	ner(s)?			Yes		No		is .	
7. Sufficient sa	ample volume fo	or indicated te	est(s)?		Yes		No			
8. Are samples				ed?	Yes		No	West like		
9. Was presen					Yes		No		NA	
10.VOA vials h	ave zero heads	pace?			Yes	П	No		No VOA Vials	₩
11. Were any s			roken?		Yes		No			
									# of preserved bottles checke	
12.Does paper	work match bot epancies on cha				Yes		No		for pH:	
13. Are matrices	5.	7.0			Yes		No		Adjusted	(<2 or >12 unless noted)
14. Is it clear wh			1150		Yes		No		•	25
15. Were all hol	lding times able	to be met?			Yes		No		Checked	by:
(It no, notity	customer for a	uthorization.)								With the second of the
Special Hand	dling (if app	licable)								
16. Was client r		na re-season en estados no	ith this order?		Yes		Ņo		NA	₩
Perso	n Notified:			Date:		AND THE REAL PROPERTY.	Secretaria esperante de 1	20200]
By Wi	hom:	Newsca M. Committee Committee of the Com	. According to the second seco	Via:	i] ∏eMa	ail [Phone	Fax	☐ In Person	
Regar	ding:	Constitution of the second		Teller Handrick Property Commence	- TENNESS CONTRACTOR	-		THE WHAT COME		
Client	Instructions:	The state of the s	THE FOLIANT AND A SERVICE AND	CONTROLLING ACTION OF THE PARTY	**************************************	***********	- TO THE CONTRACT OF THE CONTR	A. C. S. H. M. C. C.		
17. Additional r	remarks:			El .	9.5		6		10.000 (1)	. (I)
18. Cooler Info	ormation .									
Cooler N		Condition	Seal Intact	Seal No	Seal D	ate	Signed E	Ву		
1	5.3	Good	Yes							

Air Bubbles (Y or N) ANALYSIS LABORATORY HALL ENVIRONMENTAL 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. 4901 Hawkins NE - Albuquerque, NM 87109 Fax 505-345-4107 (AOV-imaR) 07S8 www.hallenvironmental.com Analysis Request (AOV) 809S8 8081 Pesticides / 8082 PCB's Anions (F,CI)NO3,NO2,PO4,SO4) × × × 3CRA 8 Metals Tel. 505-345-3975 (HA9 10 AN9) 01:E8 EDB (Method 504.1) (1.814 bodfeM) H9T TPH Method 8015B (Gas/Diesel) Remarks: BTEX + MTBE + TPH (Gas only) BTEX + MTBE + TMB's (8021) 0935 Time HEAL No. 11/00/11 Date Abby BLF State #1 30-025-38951 PO # 205, 0750 Chase Settle Preservative Chase Settle Sample Temperature: 🥖 □ Rush Type Ž Yes None None None None None Turn-Around Time: Project Manager: Project Name: Container Type and # X Standard Received by: Received by: Project #: Sampler: 1 - 40z. On Ice: 1 - 4oz. 1 - 4oz. 1 - 402. 1 - 40Z. □ f_evel 4 (Full Validation) Sample Request ID Chain-of-Custody Record csettle@yatespetroleum.com 53-3 \$3-4 S3-5¹ \$2-2 S3-2' 105 South 4th Street Artesia, NM 88210 Client: Yates Petroleum Corporation Relinquished by: 575-703-6537 □ Other Matrix 10:27|Soil 10:42 Soil 10:47 Soil 10:52 Soil 10:57 Soil Mailing Address: Time QA/QC Package: email or Fax#: □ EDD (Type) Accreditation: Ime: Time: □ Standard O NELAP Phone #: 11/3/2015 11/3/2015 11/3/2015 11/3/2015 11/3/2015 Date 11-5-15 Date: Date:



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

January 27, 2016

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

FAX

RE: Abby BLF State #1

OrderNo.: 1601860

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/22/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 1601860

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2016

	Yates Petroleum Corp	oration		La	ab Order	: 16018	50
Lab ID:	1601860-001			Collection Date:	1/20/20	16 10:30:00 A	M
Client Sample ID:	S3-6'			Matrix:	SOIL		
Analyses		Result	RL Qual	Units	DF Date	e Analyzed	Batch ID
EPA METHOD 300	.0: ANIONS					Ana	lyst: LGT
Chloride		230	30	mg/Kg	20 1/26	6/2016 11:39:06	AM 23417
Lab ID:	1601860-002			Collection Date:	1/20/20	16 10:35:00 A	M
Client Sample ID:	S3-7'			Matrix:	SOIL		
Analyses		Result	RL Qual	Units	DF Dat	e Analyzed	Batch ID
EPA METHOD 300	0.0: ANIONS					Ana	lyst: LGT
Chloride		170	30	mg/Kg	20 1/26	6/2016 12:16:19	PM 23417
Lab ID:	1601860-003			Collection Date:	: 1/20/20	16 10:46:00 <i>A</i>	M
Client Sample ID:	S3-8'			Matrix	: SOIL		
Analyses		Result	RL Qual	Units	DF Dat	e Analyzed	Batch ID
EPA METHOD 300	0.0: ANIONS					Ana	lyst: LGT
Chloride		150	30	mg/Kg	20 1/20	6/2016 12:28:43	PM 23417
Lab ID:	1601860-004			Collection Date	: 1/20/20	016 10:58:00 <i>A</i>	ΛM
Client Sample ID:	S3-9'			Matrix	: SOIL		
Analyses		Result	RL Qua	Units	DF Dat	e Analyzed	Batch ID
EPA METHOD 300	0.0: ANIONS					Ana	alyst: LGT
Chloride		200	30	mg/Kg	20 1/2	6/2016 12:41:07	PM 23417
Lab ID:	1601860-005			Collection Date	: 1/20/20	016 11:22:00 A	AM
Client Sample ID:	S3-10'			Matrix	: SOIL		
Analyses		Result	RL Qua	l Units	DF Dat	te Analyzed	Batch ID
EPA METHOD 30	0.0: ANIONS					Ana	alyst: LGT
Chloride		110	30	mg/Kg	20 1/2	6/2016 12:53:32	2 PM 23417

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

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

Hall Environmental Analysis Laboratory, Inc.

WO#:

1601860

27-Jan-16

Client:

Yates Petroleum Corporation

Project:

Abby BLF State #1

Sample ID MB-23417

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: PBS

Batch ID: 23417

RunNo: 31710

Prep Date: 1/26/2016

PQL

1.5

Analysis Date: 1/26/2016

SeqNo: 970391

Units: mg/Kg

HighLimit

Analyte Chloride

Result

RPDLimit

Qual

SampType: LCS

TestCode: EPA Method 300.0: Anions

%RPD

Sample ID LCS-23417 Client ID:

LCSS

Batch ID: 23417

RunNo: 31710

Prep Date: 1/26/2016

Units: mg/Kg

Analyte

Analysis Date: 1/26/2016 **PQL**

SeqNo: 970392 SPK value SPK Ref Val %REC LowLimit

HighLimit

Qual

%RPD **RPDLimit**

Chloride

Result

15.00

110

14

ND

1.5

SPK value SPK Ref Val %REC LowLimit

95.2

90

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded H

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits S % Recovery outside of range due to dilution or matrix B Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits P Sample pH Not In Range

RL Reporting Detection Limit Page 2 of 2



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87169

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	160186	0		RoptNo	1
Received by/dat	е:	01/22/16					
Logged By:	Lindsay Mangin	1/22/2016 9:40:00 AM		0	mby Harge		
Completed By:	Lindsay Mangin	1/22/2016 10:59:55 AM		d	alythogo		
Reviewed By:	W	01/25/14					
Chain of Custody							
1 Custody sea	als intact on sample bottles?		Yes	V	No 🗌	Not Present	
2. Is Chain of 0	Custody complete?		Yes	~	No 🗌	Not Present	
3. How was the	e sample delivered?		Courie	ī			
<u>Log In</u>							
4. Was an atte	empt made to cocl the sample	3?	Yes	✓	No 🗌	NA 🗆	
5. Were all samples received at a temperature of >0° C to 6.0°C				7	No 🗌	NA 🗆	
6. Sample(s) in proper container(s)?			Yes	Y	No 🗌		
7. Sufficient sample volume for indicated test(s)?				y	No 🗆		
8. Are samples (except VOA and ONG) properly preserved?			Yes	~	No 🗌		
9. Was preservative added to bottles?			Yes		No 🗸	NA 🗌	
10 1/00 viole h	rava nara haadanaas?		Yes		No 🗆	No VOA Vials	
10. VOA vials have zero headspace? 11. Were any sample containers received broken?			Yes		No 🗸	10 1011100	
11, vero any sample contamora received or area.					p	# of preserved bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)			Yes	~	No 🗔	for pH: (<)	? or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?			Yes	✓	No 🗆	Adjusted?	
14. Is it clear what analyses were requested?			Yes	y	No 🗌		
15. Were all holding times able to be met? (If no, notify customer for authorization.)			Yes	Y	No 🗔	Checked by	
Special Han	dling (if applicable)						-
16. Was client	notified of all discrepancies wi	th this order?	Yes		No 📗	NA ⊻	
Person Notified: Date							
By Whom. Via: eMail Phone Fax In Person							
Regarding:							
17. Additional	t Instructions:						
18. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By							
1 2.0 Good Yes							