

From: Groves, Amber
To: [Yu, Olivia, EMNRD](#)
Cc: [Matt Cottrell](#)
Subject: Re: Jalmat 103 Lab Results
Date: Monday, August 28, 2017 3:17:58 PM

Matt,

NMSLO will agree on backfill approval.

Thank you,
Amber

Sent from my iPhone

On Aug 28, 2017, at 3:10 PM, Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us> wrote:

Dear Mr. Cottrell:

Given the provided information, NMOCD grants approval for backfilling Jalmat 103 (30-025-08580). Like approval from NMSLO is required for backfilling and guidance on revegetation.

Thanks,

Olivia Yu
Environmental Specialist
NMOCD, District I
Olivia.yu@state.nm.us
575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Matt Cottrell [<mailto:Matt.Cottrell@breitburn.com>]
Sent: Monday, August 28, 2017 2:34 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Subject: Re: Jalmat 103 Lab Results

No that is where it cleaned up at 2 foot except at sample point one

Sent from my iPhone

On Aug 28, 2017, at 2:28 PM, Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us> wrote:

Mr. Cottrell:

Do you have any additional data, such as sidewall and bottom confirmation samples, to explain why the excavation depth is 2 feet?

Thanks,
Olivia

From: Matt Cottrell [<mailto:Matt.Cottrell@breitburn.com>]
Sent: Monday, August 28, 2017 2:02 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Subject: Re: Jalmat 103 Lab Results

2 foot and no we did not put a liner in place.

Sent from my iPhone

On Aug 28, 2017, at 1:59 PM, Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us> wrote:

Mr. Cottrell:

For documentation purposes, to what depth was the excavation and was a liner emplaced?

Thanks,
Olivia

From: Matt Cottrell [<mailto:Matt.Cottrell@breitburn.com>]
Sent: Wednesday, August 23, 2017 8:49 AM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Cc: Amber Groves <agroves@slo.state.nm.us>; Cam Robbins <Billy.Robbins@breitburn.com>
Subject: Re: Jalmat 103 Lab Results

Yes I will send that over to you ASAP.

Sent from my iPhone

On Aug 23, 2017, at 9:46 AM, Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us> wrote:

Good morning Matt:

Please send a scaled map with the sample points marked and excavated area outlined to accompany laboratory data.

Thanks,
Olivia

Sent from Samsung Mobile

----- Original message -----

From: Matt Cottrell
Date: 08/22/2017 15:29 (GMT-06:00)
To: "Yu, Olivia, EMNRD", Amber Groves
Cc: Cam Robbins
Subject: Fwd: Jalmat 103 Lab Results

Please look over the results and let me know if we can proceed with backfilling and planting the location. Thank you

Sent from my iPhone

Begin forwarded message:

From: "Tara Hodges"
<office2@sesi-nm.com>
To: "Matt Cottrell"
<Matt.Cottrell@breitburn.com>
Cc: "ballen@sesi-nm.com"
<ballen@sesi-nm.com>,
"jsosa@sesi-nm.com"
<jsosa@sesi-nm.com>
Subject: Jalmat 103 Lab Results

Matt,

I have attached, per Bob Allen SESI, the lab results for the Breitburn Jalmat 103.

Thank You

Tara Hodges

Safety & Environmental Solutions,
Inc.

703 East Clinton Street

Hobbs, NM 88240

Office: (575) 397-0510

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This email has been scanned by the Symantec Email Security.cloud service.
For more information please visit <http://www.symanteccloud.com>

August 22, 2017

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: BRI - 17 - 005

Enclosed are the results of analyses for samples received by the laboratory on 08/11/17 14:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-9. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 11:56

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP -2 1'	H702126-01	Soil	25-Jul-17 12:20	11-Aug-17 14:50
SP -4 1'	H702126-02	Soil	25-Jul-17 12:35	11-Aug-17 14:50
SP -5 SURFACE	H702126-03	Soil	25-Jul-17 10:35	11-Aug-17 14:50
SP -6 SURFACE	H702126-04	Soil	25-Jul-17 11:20	11-Aug-17 14:50

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 11:56

SP-2 1' H702126-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

I-04

Benzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			102 %	72-148		7081619	MS	13-Aug-17	8021B	

Petroleum Hydrocarbons by GC FID

I-03

GRO C6-C10	<10.0		10.0	mg/kg	1	7081633	MS	12-Aug-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7081633	MS	12-Aug-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7081633	MS	12-Aug-17	8015B	
Surrogate: 1-Chlorooctane			92.3 %	28.3-164		7081633	MS	12-Aug-17	8015B	
Surrogate: 1-Chlorooctadecane			96.1 %	34.7-157		7081633	MS	12-Aug-17	8015B	

Green Analytical Laboratories

Soluble (DI Water Extraction)

Chloride	168		10.0	mg/kg wet	10	B708139	JDA	22-Aug-17	EPA300.0	
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Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 11:56

SP-4 1' H702126-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

I-04

Benzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			103 %	72-148		7081619	MS	13-Aug-17	8021B	

Petroleum Hydrocarbons by GC FID

I-03

GRO C6-C10	<50.0		50.0	mg/kg	5	7081633	MS	12-Aug-17	8015B	
DRO >C10-C28	443		50.0	mg/kg	5	7081633	MS	12-Aug-17	8015B	
EXT DRO >C28-C36	500		50.0	mg/kg	5	7081633	MS	12-Aug-17	8015B	
Surrogate: 1-Chlorooctane			89.6 %	28.3-164		7081633	MS	12-Aug-17	8015B	
Surrogate: 1-Chlorooctadecane			141 %	34.7-157		7081633	MS	12-Aug-17	8015B	

Green Analytical Laboratories

Soluble (DI Water Extraction)

Chloride	873		100	mg/kg wet	100	B708139	JDA	22-Aug-17	EPA300.0	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 11:56

SP -5 SURFACE H702126-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

I-04

Benzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			102 %	72-148		7081619	MS	13-Aug-17	8021B	

Petroleum Hydrocarbons by GC FID

I-03

GRO C6-C10	<50.0		50.0	mg/kg	5	7081633	MS	12-Aug-17	8015B	
DRO >C10-C28	261		50.0	mg/kg	5	7081633	MS	12-Aug-17	8015B	
EXT DRO >C28-C36	276		50.0	mg/kg	5	7081633	MS	12-Aug-17	8015B	
Surrogate: 1-Chlorooctane			88.0 %	28.3-164		7081633	MS	12-Aug-17	8015B	
Surrogate: 1-Chlorooctadecane			123 %	34.7-157		7081633	MS	12-Aug-17	8015B	

Green Analytical Laboratories

Soluble (DI Water Extraction)

Chloride	104		10.0	mg/kg wet	10	B708139	JDA	22-Aug-17	EPA300.0	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 11:56

SP -6 SURFACE

H702126-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

I-04

Benzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7081619	MS	13-Aug-17	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	72-148		7081619	MS	13-Aug-17	8021B	

Petroleum Hydrocarbons by GC FID

I-03

GRO C6-C10	<10.0		10.0	mg/kg	1	7081633	MS	12-Aug-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7081633	MS	12-Aug-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7081633	MS	12-Aug-17	8015B	
<i>Surrogate: 1-Chlorooctane</i>			91.9 %	28.3-164		7081633	MS	12-Aug-17	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			95.1 %	34.7-157		7081633	MS	12-Aug-17	8015B	

Green Analytical Laboratories

Soluble (DI Water Extraction)

Chloride	26.9		10.0	mg/kg wet	10	B708139	JDA	22-Aug-17	EPA300.0	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 11:56

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 7081619 - Volatiles

Blank (7081619-BLK1)

Prepared: 11-Aug-17 Analyzed: 12-Aug-17

Benzene	ND	0.050	mg/kg						
Toluene	ND	0.050	mg/kg						
Ethylbenzene	ND	0.050	mg/kg						
Total Xylenes	ND	0.150	mg/kg						
Total BTEX	ND	0.300	mg/kg						
Surrogate: 4-Bromofluorobenzene (PID)	0.0542		mg/kg	0.0500		108	72-148		

LCS (7081619-BS1)

Prepared: 11-Aug-17 Analyzed: 12-Aug-17

Benzene	1.93	0.050	mg/kg	2.00		96.5	79.5-124		
Toluene	1.79	0.050	mg/kg	2.00		89.6	75.5-127		
Ethylbenzene	1.87	0.050	mg/kg	2.00		93.7	77.7-125		
Total Xylenes	5.56	0.150	mg/kg	6.00		92.7	70.9-124		
Surrogate: 4-Bromofluorobenzene (PID)	0.0541		mg/kg	0.0500		108	72-148		

LCS Dup (7081619-BSD1)

Prepared: 11-Aug-17 Analyzed: 12-Aug-17

Benzene	1.96	0.050	mg/kg	2.00		98.0	79.5-124	1.55	6.5
Toluene	1.82	0.050	mg/kg	2.00		91.2	75.5-127	1.80	7.02
Ethylbenzene	1.92	0.050	mg/kg	2.00		95.8	77.7-125	2.22	7.83
Total Xylenes	5.69	0.150	mg/kg	6.00		94.8	70.9-124	2.32	7.78
Surrogate: 4-Bromofluorobenzene (PID)	0.0536		mg/kg	0.0500		107	72-148		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 11:56

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7081633 - General Prep - Organics

Blank (7081633-BLK1)

Prepared & Analyzed: 11-Aug-17

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	42.6		mg/kg	50.0		85.3	28.3-164			
Surrogate: 1-Chlorooctadecane	45.5		mg/kg	50.0		91.0	34.7-157			

LCS (7081633-BS1)

Prepared & Analyzed: 11-Aug-17

GRO C6-C10	218	10.0	mg/kg	200		109	76.6-119			
DRO >C10-C28	234	10.0	mg/kg	200		117	81.4-124			
Total TPH C6-C28	452	10.0	mg/kg	400		113	79.4-121			
Surrogate: 1-Chlorooctane	53.9		mg/kg	50.0		108	28.3-164			
Surrogate: 1-Chlorooctadecane	56.0		mg/kg	50.0		112	34.7-157			

LCS Dup (7081633-BSD1)

Prepared & Analyzed: 11-Aug-17

GRO C6-C10	198	10.0	mg/kg	200		98.9	76.6-119	9.71	7.94	QR-02
DRO >C10-C28	208	10.0	mg/kg	200		104	81.4-124	11.9	9.83	QR-02
Total TPH C6-C28	405	10.0	mg/kg	400		101	79.4-121	10.9	8.57	QR-02
Surrogate: 1-Chlorooctane	48.1		mg/kg	50.0		96.3	28.3-164			
Surrogate: 1-Chlorooctadecane	49.8		mg/kg	50.0		99.5	34.7-157			

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 703 East Clinton
 Hobbs NM, 88240

 Project: BRI - 17 - 005
 Project Number: NONE GIVEN
 Project Manager: Bob Allen
 Fax To: (575) 393-4388

 Reported:
 22-Aug-17 11:56

Soluble (DI Water Extraction) - Quality Control
Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B708139 - General Prep - Wet Chem
Blank (B708139-BLK1)

Prepared: 17-Aug-17 Analyzed: 21-Aug-17

Chloride	ND	1.00	mg/kg wet							
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LCS (B708139-BS1)

Prepared: 17-Aug-17 Analyzed: 22-Aug-17

Chloride	241	10.0	mg/kg wet	250		96.3	85-115			
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LCS Dup (B708139-BSD1)

Prepared: 17-Aug-17 Analyzed: 22-Aug-17

Chloride	240	10.0	mg/kg wet	250		96.2	85-115	0.133	20	
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Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
I-04	Sample was extracted outside of the EPA recommended hold time.
I-03	This result was extracted outside of the EPA recommended holding time of 14 days.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 11 of 11

August 22, 2017

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: BRI - 17 - 005

Enclosed are the results of analyses for samples received by the laboratory on 08/11/17 13:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-9. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 12:01

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 15'	H702127-01	Soil	11-Aug-17 10:20	11-Aug-17 13:50
BH-1 20'	H702127-02	Soil	11-Aug-17 10:45	11-Aug-17 13:50
BH-1 25'	H702127-03	Soil	11-Aug-17 11:00	11-Aug-17 13:50
BH-1 30'	H702127-04	Soil	11-Aug-17 11:30	11-Aug-17 13:50

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 12:01

BH-1 15' H702127-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			102 %		72-148	7081619	MS	13-Aug-17	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10	<10.0		10.0	mg/kg	1	7081630	MS	15-Aug-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7081630	MS	15-Aug-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7081630	MS	15-Aug-17	8015B	
Surrogate: 1-Chlorooctane			99.9 %		28.3-164	7081630	MS	15-Aug-17	8015B	
Surrogate: 1-Chlorooctadecane			97.7 %		34.7-157	7081630	MS	15-Aug-17	8015B	

Green Analytical Laboratories

Soluble (DI Water Extraction)

Chloride	1700		50.0	mg/kg wet	50	B708139	JDA	22-Aug-17	EPA300.0	
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Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 12:01

BH-1 20' H702127-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7081619	MS	13-Aug-17	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %	72-148		7081619	MS	13-Aug-17	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10	<10.0		10.0	mg/kg	1	7081630	MS	15-Aug-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7081630	MS	15-Aug-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7081630	MS	15-Aug-17	8015B	
<i>Surrogate: 1-Chlorooctane</i>			87.6 %	28.3-164		7081630	MS	15-Aug-17	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			92.5 %	34.7-157		7081630	MS	15-Aug-17	8015B	

Green Analytical Laboratories

Soluble (DI Water Extraction)

Chloride	545		50.0	mg/kg wet	50	B708139	JDA	22-Aug-17	EPA300.0	
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Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 12:01

BH-1 25'
H702127-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories
Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7081619	MS	13-Aug-17	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	72-148		7081619	MS	13-Aug-17	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10	<10.0		10.0	mg/kg	1	7081630	MS	15-Aug-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7081630	MS	15-Aug-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7081630	MS	15-Aug-17	8015B	
<i>Surrogate: 1-Chlorooctane</i>			87.0 %	28.3-164		7081630	MS	15-Aug-17	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			89.3 %	34.7-157		7081630	MS	15-Aug-17	8015B	

Green Analytical Laboratories
Soluble (DI Water Extraction)

Chloride	124		10.0	mg/kg wet	10	B708139	JDA	22-Aug-17	EPA300.0	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 12:01

BH-1 30' H702127-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7081619	MS	13-Aug-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7081619	MS	13-Aug-17	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %	72-148		7081619	MS	13-Aug-17	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10	<10.0		10.0	mg/kg	1	7081630	MS	15-Aug-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7081630	MS	15-Aug-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7081630	MS	15-Aug-17	8015B	
<i>Surrogate: 1-Chlorooctane</i>			88.8 %	28.3-164		7081630	MS	15-Aug-17	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			92.6 %	34.7-157		7081630	MS	15-Aug-17	8015B	

Green Analytical Laboratories

Soluble (DI Water Extraction)

Chloride	85.4		10.0	mg/kg wet	10	B708139	JDA	22-Aug-17	EPA300.0	
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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 12:01

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7081619 - Volatiles

Blank (7081619-BLK1)

Prepared: 11-Aug-17 Analyzed: 12-Aug-17

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0542		mg/kg	0.0500		108	72-148			

LCS (7081619-BS1)

Prepared: 11-Aug-17 Analyzed: 12-Aug-17

Benzene	1.93	0.050	mg/kg	2.00		96.5	79.5-124			
Toluene	1.79	0.050	mg/kg	2.00		89.6	75.5-127			
Ethylbenzene	1.87	0.050	mg/kg	2.00		93.7	77.7-125			
Total Xylenes	5.56	0.150	mg/kg	6.00		92.7	70.9-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.0541		mg/kg	0.0500		108	72-148			

LCS Dup (7081619-BSD1)

Prepared: 11-Aug-17 Analyzed: 12-Aug-17

Benzene	1.96	0.050	mg/kg	2.00		98.0	79.5-124	1.55	6.5	
Toluene	1.82	0.050	mg/kg	2.00		91.2	75.5-127	1.80	7.02	
Ethylbenzene	1.92	0.050	mg/kg	2.00		95.8	77.7-125	2.22	7.83	
Total Xylenes	5.69	0.150	mg/kg	6.00		94.8	70.9-124	2.32	7.78	
Surrogate: 4-Bromofluorobenzene (PID)	0.0536		mg/kg	0.0500		107	72-148			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240

Project: BRI - 17 - 005
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388

Reported:
22-Aug-17 12:01

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7081630 - General Prep - Organics

Blank (7081630-BLK1)

Prepared: 14-Aug-17 Analyzed: 15-Aug-17

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	44.0		mg/kg	50.0		88.1	28.3-164			
Surrogate: 1-Chlorooctadecane	45.2		mg/kg	50.0		90.5	34.7-157			

LCS (7081630-BS1)

Prepared & Analyzed: 14-Aug-17

GRO C6-C10	212	10.0	mg/kg	200		106	76.6-119			
DRO >C10-C28	211	10.0	mg/kg	200		105	81.4-124			
Total TPH C6-C28	422	10.0	mg/kg	400		106	79.4-121			
Surrogate: 1-Chlorooctane	50.3		mg/kg	50.0		101	28.3-164			
Surrogate: 1-Chlorooctadecane	49.9		mg/kg	50.0		99.8	34.7-157			

LCS Dup (7081630-BSD1)

Prepared & Analyzed: 14-Aug-17

GRO C6-C10	210	10.0	mg/kg	200		105	76.6-119	0.639	7.94	
DRO >C10-C28	214	10.0	mg/kg	200		107	81.4-124	1.44	9.83	
Total TPH C6-C28	424	10.0	mg/kg	400		106	79.4-121	0.404	8.57	
Surrogate: 1-Chlorooctane	49.8		mg/kg	50.0		99.7	28.3-164			
Surrogate: 1-Chlorooctadecane	50.9		mg/kg	50.0		102	34.7-157			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 703 East Clinton
 Hobbs NM, 88240

 Project: BRI - 17 - 005
 Project Number: NONE GIVEN
 Project Manager: Bob Allen
 Fax To: (575) 393-4388

 Reported:
 22-Aug-17 12:01

Soluble (DI Water Extraction) - Quality Control
Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B708139 - General Prep - Wet Chem
Blank (B708139-BLK1)

Prepared: 17-Aug-17 Analyzed: 21-Aug-17

Chloride	ND	1.00	mg/kg wet							
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LCS (B708139-BS1)

Prepared: 17-Aug-17 Analyzed: 22-Aug-17

Chloride	241	10.0	mg/kg wet	250		96.3	85-115			
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LCS Dup (B708139-BSD1)

Prepared: 17-Aug-17 Analyzed: 22-Aug-17

Chloride	240	10.0	mg/kg wet	250		96.2	85-115	0.133	20	
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Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

BILL TO

ANALYSIS REQUEST

P.O. #:

Company: Same

Attn:

Address:

City:

State:

Zip:

Company Name: Safety and Environmental Solutions

Project Manager: Bob Allen

Address: 703 East Clinton, PO Box 1613

City: Hobbs State: NM Zip: 88240

Phone #: 575 397-0510 Fax #: 575 393-4388

Project #: BAI-17-005 Project Owner:

Project Name:

Project Location:

Sample Name:

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

HTD2121

BAI-1
BAI-1
BAI-1
BAI-1
BAI-1

(G)RAB OR (C)OMP.
CONTAINERS
GROUNDWATER
WASTEWATER
SOIL
OIL
SLUDGE
OTHER :
ACID/BASE:
ICE / COOL
OTHER :

DATE
TIME

BTEX
TPH (8015) EXT
Chlorides (300 EPA)

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Relinquished By:

Date:

Received By:

Relinquished By:

Date:

Received By:

Delivered By: (Circle One) 3.92

Sampler - UPS - Bus - Other:

Corrected 4.158

Sample Condition
Cool ☐ Yes ☐ No
Intact ☐ Yes ☐ No

CHECKED BY: (Initials)

REMARKS:
Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:



Jalmat 103-Breitburn

Sample Point 5

Sample Point 4

Sample Point 3

Oil or Gas Well 10

Sample Point 1

Sample Point 6

Sample Point 8

Sample Point 2

Sample Point 7

Survey

Google Earth

1997

Imagery Date: 2/1/2017 32°24'41.97" N 103°21'11.70" W elev 3620 ft eye alt 3992 ft



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