

August 22, 2014

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: GRIER INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 08/19/14 11:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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:**

BBC International, Inc.  
Cliff Brunson  
P.O. Box 805  
Hobbs NM, 88241  
Fax To: (575) 397-0397

Received:	08/19/2014	Sampling Date:	08/18/2014
Reported:	08/22/2014	Sampling Type:	Soil
Project Name:	GRIER INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Kathy Perez
Project Location:	LOCO HILLS		

**Sample ID: SP 1 @ 3 INCHES (H402532-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>5120</b>	16.0	08/20/2014	ND	400	100	400	0.00	

**Sample ID: SP 1 @ 1' (H402532-02)**

BTX 8021B		mg/kg		Analyzed By: ck					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/20/2014	ND	1.80	89.8	2.00	5.15	
Toluene*	<0.050	0.050	08/20/2014	ND	1.65	82.6	2.00	4.46	
Ethylbenzene*	<0.050	0.050	08/20/2014	ND	1.84	91.8	2.00	4.49	
Total Xylenes*	<0.150	0.150	08/20/2014	ND	5.47	91.1	6.00	5.21	
Total BTX	<0.300	0.300	08/20/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>6720</b>	16.0	08/20/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/19/2014	ND	191	95.7	200	0.146	
DRO >C10-C28	<10.0	10.0	08/19/2014	ND	207	103	200	0.978	

Surrogate: 1-Chlorooctane 90.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.6 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Received:	08/19/2014	Sampling Date:	08/18/2014
Reported:	08/22/2014	Sampling Type:	Soil
Project Name:	GRIER INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Kathy Perez
Project Location:	LOCO HILLS		

**Sample ID: SP 1 @ 3' (H402532-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8400	16.0	08/20/2014	ND	400	100	400	0.00	

**Sample ID: SP 1 @ 5' (H402532-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8080	16.0	08/20/2014	ND	400	100	400	0.00	

**Sample ID: SP 2 @ 3 INCHES (H402532-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	20800	16.0	08/20/2014	ND	400	100	400	0.00	

**Sample ID: SP 2 @ 1' (H402532-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/20/2014	ND	400	100	400	0.00	

**Sample ID: SP 2 @ 3' (H402532-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/20/2014	ND	400	100	400	0.00	

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Received:	08/19/2014	Sampling Date:	08/18/2014
Reported:	08/22/2014	Sampling Type:	Soil
Project Name:	GRIER INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Kathy Perez
Project Location:	LOCO HILLS		

**Sample ID: SP 3 @ 3 INCHES (H402532-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1760	16.0	08/20/2014	ND	400	100	400	0.00		

**Sample ID: SP 3 @ 1' (H402532-09)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6320	16.0	08/20/2014	ND	400	100	400	0.00	

**Sample ID: SP 3 @ 3' (H402532-10)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3560	16.0	08/20/2014	ND	400	100	400	0.00	

**Sample ID: SP 3 @ 5' (H402532-11)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	08/20/2014	ND	416	104	400	3.92	

**Sample ID: SP 4 @ 3 INCHES (H402532-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12300	16.0	08/20/2014	ND	416	104	400	3.92		

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Received: 08/19/2014  
Reported: 08/22/2014  
Project Name: GRIER INJECTION LINE  
Project Number: NOT GIVEN  
Project Location: LOCO HILLS

Sampling Date: 08/18/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Kathy Perez

**Sample ID: SP 4 @ 1' (H402532-13)**

BTX 8021B		mg/kg		Analyzed By: ck					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/20/2014	ND	1.80	89.8	2.00	5.15	
Toluene*	<0.050	0.050	08/20/2014	ND	1.65	82.6	2.00	4.46	
Ethylbenzene*	<0.050	0.050	08/20/2014	ND	1.84	91.8	2.00	4.49	
Total Xylenes*	<0.150	0.150	08/20/2014	ND	5.47	91.1	6.00	5.21	
Total BTX	<0.300	0.300	08/20/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4080	16.0	08/20/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	08/19/2014	ND	191	95.7	200	0.146	
DRO >C10-C28	58.0	50.0	08/19/2014	ND	207	103	200	0.978	

Surrogate: 1-Chlorooctane 70.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 63.6-154

**Sample ID: SP 4 @ 3' (H402532-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1010	16.0	08/20/2014	ND	416	104	400	3.92	

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Reported:	08/22/2014	Sampling Type:	Soil
Project Name:	GRIER INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Kathy Perez
Project Location:	LOCO HILLS		

**Sample ID: SP 4 @ 5' (H402532-15)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/20/2014	ND	416	104	400	3.92		

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**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

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Cardinal Laboratories

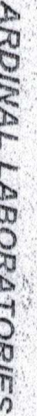
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Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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