



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 16, 2016

ZACK THOMAS

MEWBOURNE OIL COMPANY

P. O. BOX 5270

HOBBS, NM 88240

RE: BRADLEY 28 FED COM #2

Enclosed are the results of analyses for samples received by the laboratory on 12/09/16 12:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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.

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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

MEWBOURNE OIL COMPANY
ZACK THOMAS
P. O. BOX 5270
HOBBS NM, 88240
Fax To: (575) 937-6252

Received:	12/09/2016	Sampling Date:	12/09/2016
Reported:	12/16/2016	Sampling Type:	Soil
Project Name:	BRADLEY 28 FED COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP 1 @ 6" (H602767-01)

BTX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTX	<0.300	0.300	12/13/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 73.6-140

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/13/2016	ND	400	100	400	3.92	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/13/2016	ND	175	87.4	200	5.25	
DRO >C10-C28	<10.0	10.0	12/13/2016	ND	177	88.3	200	9.51	

Surrogate: 1-Chlorooctane 76.2 % 35-147

Surrogate: 1-Chlorooctadecane 69.3 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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ZACK THOMAS
P. O. BOX 5270
HOBBS NM, 88240
Fax To: (575) 937-6252

Received: 12/09/2016
Reported: 12/16/2016
Project Name: BRADLEY 28 FED COM #2
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 12/09/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ 1.5' (H602767-02)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTX	<0.300	0.300	12/13/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/13/2016	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/13/2016	ND	175	87.4	200	5.25	
DRO >C10-C28	<10.0	10.0	12/13/2016	ND	177	88.3	200	9.51	

Surrogate: 1-Chlorooctane 88.4 % 35-147

Surrogate: 1-Chlorooctadecane 96.1 % 28-171

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Fax To: (575) 937-6252

Received: 12/09/2016
Reported: 12/16/2016
Project Name: BRADLEY 28 FED COM #2
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 12/09/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ 6" (H602767-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTX	<0.300	0.300	12/13/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/13/2016	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/13/2016	ND	175	87.4	200	5.25	
DRO >C10-C28	<10.0	10.0	12/13/2016	ND	177	88.3	200	9.51	

Surrogate: 1-Chlorooctane 83.4 % 35-147

Surrogate: 1-Chlorooctadecane 79.3 % 28-171

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Received:	12/09/2016	Sampling Date:	12/09/2016
Reported:	12/16/2016	Sampling Type:	Soil
Project Name:	BRADLEY 28 FED COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP 2 @ 1.5' (H602767-04)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTX	<0.300	0.300	12/13/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/13/2016	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/13/2016	ND	175	87.4	200	5.25	
DRO >C10-C28	<10.0	10.0	12/13/2016	ND	177	88.3	200	9.51	

Surrogate: 1-Chlorooctane 89.0 % 35-147

Surrogate: 1-Chlorooctadecane 97.8 % 28-171

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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.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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



Celey D. Keene, Lab Director/Quality Manager



CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

Company Name: <u>Wendburne</u>		P.O. #:		BILL TO																															
Project Manager:		Company:		ANALYSIS REQUEST																															
Address:		Attn:																																	
City:		Address:																																	
State:		City:																																	
Zip:		State:																																	
Phone #:		Fax #:																																	
Project #:		Project Owner:																																	
Project Name: <u>Bradley 28 Fed Com #2</u>		City:																																	
Project Location: <u>Eddy Co, NM</u>		State:																																	
Fax #:		Zip:																																	
Phone #:		Phone #:																																	
Sample Name:		Fax #:																																	
FOR LAB USE ONLY																																			
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME		CL		TPH		BTEX	
H602767		SP1 0 6.11		4		1																				12/9/16		8:00							
1		SP1 0 6.11																																	
2		SP1 0 6.11																																	
3		SP2 0 6.11																																	
4		SP2 0 1.5'																																	
PLEASE NOTE: Liability and Damages. Cardinal's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services rendered by Cardinal regardless of whether such claim is based upon any of the above stated remedies or otherwise.																																			
Relinquished By:		Date: <u>12/9/16</u>		Received By: <u>Heidi Jensen</u>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #: <u></u>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #: <u></u>																							
Relinquished By: <u>D. Morone</u>		Time: <u>12:00</u>		Time: <u>12:20</u>		REMARKS:																													
Delivered By: (Circle One)		Sample Condition		CHECKED BY: <u>(Initials)</u>																															
Sampler - UPS - Bus - Other: <u>5.42</u>		<input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		<u>68</u>																															