Breitburn Management

State 647-711 Work Plan

Section 27, Township 18S, Range 28E Eddy County, New Mexico

Revised
April 4, 2019



Prepared for:

P.O. BOX 678 Andrews, TX 79714

By:

Safety & Environmental Solutions, Inc. 703 East Clinton Street Hobbs, New Mexico 88240 (575) 397-0510

TABLE OF CONTENTS

I.	COMPANY CONTACTS	1
II.	BACKGROUND	1
III.	SURFACE AND GROUND WATER	1
IV.	CHARACTERIZATION	1
V.	WORK PERFORMED	2
		_
VI.	ACTION PLAN	2
\/11	FIGURES & APPENDICES	2
VII.	igure 1 – Site Map	5
	gure i – Site Map	4
Α	ppendix A – C-141ppendix B – Groundwater	5
A	ppenax b - Groundwater	0
Α	ppendix C – Analytical Results	7

I. Company Contacts

Representative	Company	Telephone	E-mail
Thomas Haigood	Breitburn	(432) 701-7802	Thomas.haigood@breitburn.com
Bob Allen	SESI	(575) 397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was engaged by Breitburn to assess a spill on the State 647-711 concerning a seventy (70) bbls. of oil and produced water release. This site is situated in Eddy County, Section 27, Township 18S, and Range 28E.

According to the C-141: approximately seventy (70) barrels of oil and produced water was released when a three (3) inch check valve flow on the flow line failed due to inner corrosion, which caused a small pinhole on the bottom of the valve. The line was isolated and a vacuum truck was dispatched to recover all of the freestanding fluid. A backhoe removed all saturated soil and replaced it with fresh dirt. A remediation contractor was contacted.

III. Surface and Ground Water

There is no record of groundwater in the immediate vicinity of the site location. Further research of the New Mexico Office of the State Engineer records indicates the average depth to groundwater for the area to be 300' bgs.

IV. Characterization

The target cleanup levels are determined using the NMAC 19.15.29 revisions dated July 24, 2018. The soil screening criteria presented below, and the applicable Recommended Remediation Action Levels (RRAL) are 10 parts per million (ppm) Benzene, 50 ppm combined Benzene, Toluene, Ethyl Benzene, and Total Xylenes (BTEX), and 2,500 ppm Total Petroleum Hydrocarbons (TPH). Characterization of vertical extent of chloride concentration to a level of 600 mg/kg (PPM) is also required for pasture impact.

Closure	Table 1 Criteria for Soils Imp	acted by a Release	
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l		Method*	Limit**
<50 feet	Chloride***	EPA 300.0 or SM4500 CI	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015B	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
51 feet-100 feet	Chloride***	EPA 300.0 or SM4500 CI B	10.000 ma/ka
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015B	2,500 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
>100 feet	Chloride***	EPA 300.0 or SM4500 CI B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015B	2,500 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg

V. Work Performed

On September 10, 2018, SESI personnel was onsite at the Breitburn State 647-711 with Breitburn personnel and JS Services Backhoe personnel to begin delineation of the release installing test trenches to determine vertical extent of contamination. The JS Services personnel hand excavated to the depth of one foot in the release area where several pipelines were located. Test trench one was installed to the max depth of thirteen feet with the backhoe. Soil samples were obtained and field tested for TPH and Chlorides. Test trench one was then backfilled, and test trench two was installed to the depth of thirteen feet, while soil samples were obtained and field tested. The location was pin flagged using white flags for the one call. The excavation was mapped using the Juno 3B and site photos were taken. Aerial photos of the location, release area, and excavation were also taken using the drone. All soil samples were properly packaged, preserved and transported to Cardinal Laboratories of Hobbs, NM by chain of custody, and analyzed for TPH(total petroleum hydrocarbons)(Method 8015M), BTEX, and Chlorides (Method SM4500Cl-B). The lab results are recapped in the following table:

	Breitburn State 647-711												
	Soil Sample Results: Cardinal Laboratories 9-13-2018												
SAMPLE ID													
			benzene	Xylenes	BTEX		GRO	DRO	DRO				
TT-1 2ft	<0.050	<0.050	<0.050	<0.150	<0.300	272	<10.0	175	15.7				
TT-1 5ft	<0.050	<0.050	<0.050	<0.150	<0.300	672	<10.0	<10.0	<10.0				
TT-1 7ft	<0.050	<0.050	<0.050	<0.150	<0.300	736	<10.0	14.4	<10.0				
TT-1 13ft	<0.050	<0.050	<0.050	<0.150	<0.300	576	<10.0	10.2	<10.0				
TT-2 3ft	<0.050	<0.050	<0.050	<0.150	<0.300	240	<10.0	<10.0	<10.0				
TT-2 4ft	<0.050	<0.050	<0.050	<0.150	<0.300	224	<10.0	<10.0	<10.0				
TT-2 13ft	<0.050	<0.050	<0.050	<0.150	<0.300	112	<10.0	<10.0	<10.0				

On March 12, 2019, pursuant to an email request from Robert Hamlet of the NMOCD; SESI personnel, together with personnel and equipment from Custom Welding of Hobbs, NM., returned to the Breirburn 711 site in order to conduct further soil delineation. Five (5) test trenches (TT) were advanced to depths whereby soil screening levels were at or under the recommended limits for Chlorides, and Petroleum Hydrocarbons based on depth to water for the area. At the request of NMOCD representative; Soil samples were grabbed at surface and one foot increments. All soil samples were properly packaged, preserved and transported to Hall Laboratories by chain of custody, and analyzed for TPH(total petroleum hydrocarbons)(Method 8015M), BTEX, and Chlorides (Method 300.0 ANIONS). The lab results are recapped in the following table:

Breitburn												
State 647-711												
Soil Sample Results: HallLaboratories 03-28-19												
SAMPLE ID Benzene Toluene Ethyl- Total Total Chlorides TPH TPH												
			benzene	Xylenes	BTEX		GRO	DRO				
TT 1 @ Surface	ND	ND	ND	ND	ND	3000	ND	150				
TT 1 @ 2 ft.	ND	ND	ND	ND	ND	560	ND	ND				
TT 1 @ 3 ft.	ND	ND	ND	ND	ND	390	ND	ND				
TT 2 @ Surface	ND	ND	ND	ND	ND	170	ND	570				
TT 2 @ 1 ft.	ND	ND	ND	ND	ND	400	ND	ND				
TT 2 @ 2 ft.	ND	ND	ND	ND	ND	380	ND	ND				
TT 3 @ Surface	ND	ND	ND	.14	ND	9800	ND	8100				
TT 3 @ 1 ft.	ND	ND	ND	ND	ND	2600	ND	660				
TT 3 @ 2 ft.	ND	ND	ND	ND	ND	2900	ND	ND				
TT 3 @ 3 ft.	ND	ND	ND	ND	ND	210	ND	ND				
TT 3 @ 4 ft.	ND	ND	ND	ND	ND	88	ND	ND				
TT 4 @ Surface	ND	ND	ND	ND	ND	1900	ND	240				
TT 4 @ 1 ft.	ND	ND	ND	ND	ND	440	ND	ND				
TT 5 @ Surface	ND	ND	ND	ND	ND	13000	ND	970				
TT 5 @ 1 ft.	ND	ND	ND	ND	ND	420	ND	11				
_					_							

VI. Action Plan

The results of the samples listed above indicate no BTEX present in any of the samples. Therefore, it is proposed to excavate the impacted area off the lease road and pad to a depth where all bottom samples are at or below 600 ppm chlorides, and Diesel organics are below 100 mg/kg. Based on the latest analytical results, it is estimated that a 1' bgs. excavation will be necessary to remediate the spill area. The lease roads are constructed of hard packed caliche from years of transport, heavily traveled, and could not be trenched for testing. All caliche with staining will be removed and replaced, restoring the road to grade.

The horizontal extent of contamination will be determined by side wall samples to be taken at the time of excavation. The excavation will be backfilled with uncontaminated soil and all contaminated soil will be transported to an NMOCD approved facility. Pad and lease road will be returned to grade. Upon completion of all approved remediation activity, all necessary closure documentation will be submitted to the appropriate regulatory agencies.

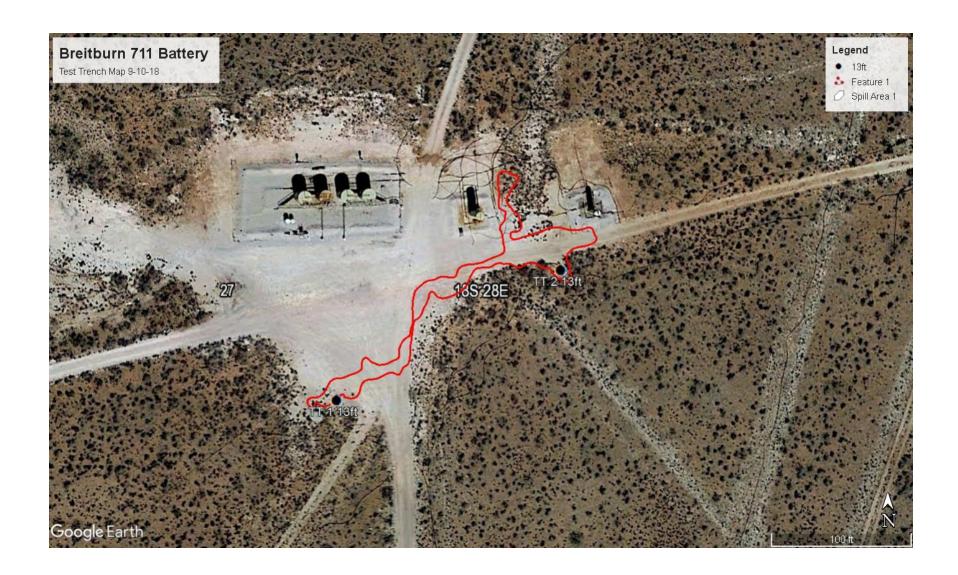
VII. Figures & Appendices

Figure 1 - Site Map Appendix A - C-141

Appendix B – Groundwater

Appendix C – Analytical Results
Appendix D – Photo Documentation

Figure 1 Site Map





Appendix A C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Form C-141

Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe. NM 87505

				~ ~ ~		, 1 11/1 0 / 2							
			Rele	ease Notific	cation	n and Co	orrective A	ction	ì				
						OPERA'	ГOR			al Report		Final Report	
		Breitburn Ope					omas Haigood			•		•	
		Andrews, TX					No. (432) 701-7	802					
Facility Nar	ne: State 6	547-711, Lea	se ID 309	9083		Facility Typ	e: Battery						
Surface Ow	ner: Unkn	own		Mineral C)wner :	Unknown			API No: N/A				
				LOCA	ATIO	N OF RE	LEASE						
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/V	West Line	County: E	ddy		
	27	18 S	28 E										
	L ·		I.	Latitude: 32°43	3'15" N	I I ongiti	ıde: 104°9'54"\	XV		I.			
						S		**					
Type of Rele	ase: Produc	ction Fluid (Oi	1 & Produ		UKE	Volume of	Release: 70 bbl.		Volume I	Recovered: 4	15 Pro	Water, 5 bbl.	
				cca water)					oil				
Source of Re	lease: 3 incl	h check valve	failed			Date and F 9/8/2018	Iour of Occurrence	ce	Date and 9/8/2018,	Hour of Dis 11:00am	covery	:	
Was Immedia	ate Notice (• •	1		If YES, To		0.00	(2010	20			
			Yes 🗵	No Not R	equired		made to NMOCI						
						2 nd attempt made to NMOCD on 9/10/2018 at 12:15pm 3 rd call made to Mike Bratcher on 9/11/2018 at 9:30am							
		good, EHS Co	ordinator			Date and Hour: 9/11/2018, 9:30am							
Was a Water	course Read	ched?	Yes] No		If YES, Volume Impacting the Watercourse. N/A							
	ırse was Im	pacted, Descri	be Fully.	ķ									
N/A													
		em and Remed											
							hole on the bottor as isolated and a v						
							emoved all saturat					ci un	
Danasila Ass	- A CC4 - 1	1 Cl	V -4: T-1	*									
		and Cleanup A. long by 2-6 f			off. The	e area was sai	mpled and a work	plan for	r remediation	on will be su	ıbmitte	d for clean	
approval.		<i>U</i> ,		1 3			•	•					
I hereby certi	fy that the i	information gi	ven above	is true and comp	lete to t	he best of my	knowledge and u	ınderstaı	nd that purs	suant to NM	OCD r	ules and	
							nd perform correc						
							arked as "Final R on that pose a thr						
							e the operator of						
		ws and/or regu											
							OIL CON	<u>SERV</u>	'ATION	DIVISIO	<u>)N</u>		
Signature: 7	homas Hai	igood											
						Approved by	Environmental S	pecialis	t:				
Printed Name	e: Thomas I	Haigood											
Title: EHS C	oordinator,	West TX/East	NM Ope	rations		Approval Da	te:		Expiration	Date:			
E-mail Addre	ess: Thomas	s.haigood@br	eitburn.co:	m		Conditions of	f Approval:						
							**			Attached	Ц		

Phone: (432) 701-7802

^{*} Attach Additional Sheets If Necessary

Appendix B Groundwater



New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a (R=POD has been replaced, O=orphaned,

& no longer serves a C=the file is water right file.) Closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

POD

Sub- Q Q Q Depth Depth Water
POD Number Code basin County 64 16 4 Sec Tws Rng X Y Well Water Column

RA 09588 RA ED 1 2 33 18S 28E 576976 3619384*

Average Depth to Water: -

Minimum Depth: --

(In feet)

Maximum Depth: --

Record Count: 1

PLSS Search:

Township: 18S Range: 28E

Appendix C Analytical Results



September 13, 2018

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: BRE-18-007

Enclosed are the results of analyses for samples received by the laboratory on 09/11/18 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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 accreditated 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)

Celey D. Keine

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



Safety & Environmental Solutions Bob Allen

703 East Clinton Hobbs NM, 88240

Fax To: (575) 393-4388

Received: 09/11/2018 Sampling Date: 09/10/2018
Reported: 09/13/2018 Sampling Type: Soil

Project Name: BRE-18-007 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

Sample ID: TT - 1 2' (H802557-01)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2018	ND	2.39	119	2.00	1.92	
Toluene*	<0.050	0.050	09/12/2018	ND	2.26	113	2.00	2.40	
Ethylbenzene*	<0.050	0.050	09/12/2018	ND	2.25	113	2.00	1.69	
Total Xylenes*	<0.150	0.150	09/12/2018	ND	6.82	114	6.00	1.37	
Total BTEX	<0.300	0.300	09/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	91.9	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	09/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	200	99.8	200	2.23	
DRO >C10-C28*	175	10.0	09/11/2018	ND	193	96.6	200	6.03	
EXT DRO >C28-C36	15.7	10.0	09/11/2018	ND					
Surrogate: 1-Chlorooctane	114 %	6 41-142	!						
Surrogate: 1-Chlorooctadecane	117 9	6 37.6-14	7						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Safety & Environmental Solutions Bob Allen 703 East Clinton

Hobbs NM, 88240

Fax To: (575) 393-4388

Received: 09/11/2018 Sampling Date: 09/10/2018

Reported: 09/13/2018 Sampling Type: Soil

Project Name: BRE-18-007 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

Sample ID: TT - 1 5' (H802557-02)

BTEX 8021B	mg	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2018	ND	2.39	119	2.00	1.92	
Toluene*	<0.050	0.050	09/12/2018	ND	2.26	113	2.00	2.40	
Ethylbenzene*	<0.050	0.050	09/12/2018	ND	2.25	113	2.00	1.69	
Total Xylenes*	<0.150	0.150	09/12/2018	ND	6.82	114	6.00	1.37	
Total BTEX	<0.300	0.300	09/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	90.5	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	09/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	200	99.8	200	2.23	
DRO >C10-C28*	<10.0	10.0	09/11/2018	ND	193	96.6	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	09/11/2018	ND					
Surrogate: 1-Chlorooctane	109	% 41-142	?						
Surrogate: 1-Chlorooctadecane	104	% 37.6-14	7						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Safety & Environmental Solutions Bob Allen

703 East Clinton Hobbs NM, 88240

Fax To: (575) 393-4388

Received: 09/11/2018 Sampling Date: 09/10/2018

Reported: 09/13/2018 Sampling Type: Soil
Project Name: BRE-18-007 Sampling Condition: Cool &

Project Name: BRE-18-007 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

Sample ID: TT - 1 7' (H802557-03)

BTEX 8021B	mg	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2018	ND	2.39	119	2.00	1.92	
Toluene*	<0.050	0.050	09/12/2018	ND	2.26	113	2.00	2.40	
Ethylbenzene*	<0.050	0.050	09/12/2018	ND	2.25	113	2.00	1.69	
Total Xylenes*	<0.150	0.150	09/12/2018	ND	6.82	114	6.00	1.37	
Total BTEX	<0.300	0.300	09/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	90.2	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	09/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	200	99.8	200	2.23	
DRO >C10-C28*	14.4	10.0	09/11/2018	ND	193	96.6	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	09/11/2018	ND					
Surrogate: 1-Chlorooctane	109	% 41-142	•						
Surrogate: 1-Chlorooctadecane	103	% 37.6-14	7						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Tamara Oldaker

Sample Received By:



Analytical Results For:

Safety & Environmental Solutions Bob Allen

703 East Clinton Hobbs NM, 88240

Fax To: (575) 393-4388

Received: 09/11/2018 Sampling Date: 09/10/2018

Reported: 09/13/2018 Sampling Type: Soil
Project Name: BRE-18-007 Sampling Condition: Cool & Intact

Project Location: NOT GIVEN

NONE GIVEN

Sample ID: TT - 1 13' (H802557-04)

Project Number:

BTEX 8021B	mg	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2018	ND	2.39	119	2.00	1.92	
Toluene*	<0.050	0.050	09/12/2018	ND	2.26	113	2.00	2.40	
Ethylbenzene*	<0.050	0.050	09/12/2018	ND	2.25	113	2.00	1.69	
Total Xylenes*	<0.150	0.150	09/12/2018	ND	6.82	114	6.00	1.37	
Total BTEX	<0.300	0.300	09/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	91.7	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	09/12/2018	ND	432	108	400	0.00	QM-07
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	200	99.8	200	2.23	
DRO >C10-C28*	10.2	10.0	09/11/2018	ND	193	96.6	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	09/11/2018	ND					
Surrogate: 1-Chlorooctane	112	% 41-142	•						
Surrogate: 1-Chlorooctadecane	109	% 37.6-14	7						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Safety & Environmental Solutions Bob Allen

703 East Clinton Hobbs NM, 88240

Fax To: (575) 393-4388

Received: 09/11/2018 Sampling Date: 09/10/2018 Reported: 09/13/2018 Sampling Type: Soil

Project Name: BRE-18-007 Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Analyzed By: me

Project Location: **NOT GIVEN**

ma/ka

Sample ID: TT - 2 3' (H802557-05)

RTFY 8021R

BIEX 8021B	mg	/ kg	Anaiyze	a By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2018	ND	2.39	119	2.00	1.92	
Toluene*	<0.050	0.050	09/12/2018	ND	2.26	113	2.00	2.40	
Ethylbenzene*	<0.050	0.050	09/12/2018	ND	2.25	113	2.00	1.69	
Total Xylenes*	<0.150	0.150	09/12/2018	ND	6.82	114	6.00	1.37	
Total BTEX	<0.300	0.300	09/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	91.2	% 69.8-14	12						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	09/12/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	200	99.8	200	2.23	
DRO >C10-C28*	<10.0	10.0	09/11/2018	ND	193	96.6	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	09/11/2018	ND					
Surrogate: 1-Chlorooctane	121	% 41-142	?						
Surrogate: 1-Chlorooctadecane	113	% 376-14	17						

Surrogate: 1-Chlorooctadecane 113 % 37.6-147

*=Accredited Analyte Cardinal Laboratories

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Safety & Environmental Solutions Bob Allen

703 East Clinton Hobbs NM, 88240

Fax To: (575) 393-4388

Received: 09/11/2018 Sampling Date: 09/10/2018 Reported: 09/13/2018 Sampling Type: Soil

Project Name: BRE-18-007 Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Analyzed By: me

Project Location: **NOT GIVEN**

ma/ka

Sample ID: TT - 2 4' (H802557-06)

RTFY 8021R

BIEX 8021B	mg/	/ Kg	Anaiyze	a By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2018	ND	2.39	119	2.00	1.92	
Toluene*	<0.050	0.050	09/12/2018	ND	2.26	113	2.00	2.40	
Ethylbenzene*	<0.050	0.050	09/12/2018	ND	2.25	113	2.00	1.69	
Total Xylenes*	<0.150	0.150	09/12/2018	ND	6.82	114	6.00	1.37	
Total BTEX	<0.300	0.300	09/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	92.0	% 69.8-14	12						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	09/12/2018	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	200	99.8	200	2.23	
DRO >C10-C28*	<10.0	10.0	09/11/2018	ND	193	96.6	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	09/11/2018	ND					
Surrogate: 1-Chlorooctane	121 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	114	% 376-14	17						

Surrogate: 1-Chlorooctadecane 114 % 37.6-147

*=Accredited Analyte Cardinal Laboratories

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Safety & Environmental Solutions Bob Allen

703 East Clinton Hobbs NM, 88240

Fax To: (575) 393-4388

Received: 09/11/2018 Sampling Date: 09/10/2018
Reported: 09/13/2018 Sampling Type: Soil

Reported:09/13/2018Sampling Type:SoilProject Name:BRE-18-007Sampling Condition:Cool & IntactProject Number:NONE GIVENSample Received By:Tamara Oldaker

Project Location: NOT GIVEN

Sample ID: TT - 2 13' (H802557-07)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2018	ND	2.39	119	2.00	1.92	
Toluene*	<0.050	0.050	09/12/2018	ND	2.26	113	2.00	2.40	
Ethylbenzene*	<0.050	0.050	09/12/2018	ND	2.25	113	2.00	1.69	
Total Xylenes*	<0.150	0.150	09/12/2018	ND	6.82	114	6.00	1.37	
Total BTEX	<0.300	0.300	09/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	92.6	% 69.8-14	2						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	09/12/2018	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/11/2018	ND	200	99.8	200	2.23	
DRO >C10-C28*	<10.0	10.0	09/11/2018	ND	193	96.6	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	09/11/2018	ND					
Surrogate: 1-Chlorooctane	103	% 41-142	?						
Surrogate: 1-Chlorooctadecane	97.8	% 37.6-14	7						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Notes and Definitions

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch

accepted based on LCS and/or LCSD recovery and/or RPD values.

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

ecovery.

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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Project Manager: Bob Allen
Sample I.D.
Sample I.D. Sample I.D. Sample I.D. State: NM Zip: 88240 Address: City: State: Zip: Phone #: Fax #: Fax #: Fax #: State: Zip: Fax #: Fax
Sample I.D. State: Zip: Phone #: Fax #: Fax #: Fax #: Phone #: Fax #: Fax #: Phone #: Fax #: Fax #: Fax #: Phone #: Fax #: Phone #: Fax #:
Sample I.D. Sample I.D. State: Zip: Fax #: Fax #: Foliable
Sample I.D. Sample I.D. State: Zip: Phone #: Fax #: Fax #: Fax #: Fax #: Fax #: Phone #: OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: ACID/BASE: ACID/BASE: ICE / COOL OTHER: ACID/BASE: ACID/BASE: ICE / COOL OTHER: ACID/BASE: ACID/BASE:
Sample I.D. Sample I.D. Sample I.D. Phone #: Fax #
Sample I.D. G(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: DATE TIME TIME TIME TIME TIME TIME TIME
Sample I.D. Sample I.D. MATRIX PRESERV. SAMPLING WASTEWATER WASTEWATER WASTEWATER WASTEWATER WASTEWATER WASTEWATER OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: DATE TIME
GONABOR (C)OM # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: DATE TIME
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2 1 5 c
がつった
7 77-1 13 fr 911 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
5 17-2 3 5 6 1 K K 00/10 0/5/11/XXXX
1 1 2 4 4 6 1 4 W MIO OBO MXXXX
7/11-2 13 to all & x allo 0200 mx x
trace a vote. I is till, used Demonse Configure to the final to receive to a state of the state

TEXAST IVITE. Liability and Demisjack Venimes analysis and received by Cardinal within 30 days after completion of the applicable analyses, All claims including those for negligence and any other cause wintscever shall be demed winted unless made in writing and received by Cardinal within 30 days after completion of the applicable analyses, All claims, including the included by other its subsidiaries, service, In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by dent its subsidiaries.

affiliates or successors arising out of or related to the performance of services bereunder by	ated to the performan	ice of services bereunder by	w Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.	d upon any of the above stated re	asons or otherwise.				
Relinguished By:		Date: a h / r	Received By:	011	Phone Result:	□ Yes	□No	Add'I Phone #:	
1		011110	G		Fax Result:	□ Yes	□ No	Add'l Fax #:	
Ses. La	3	ON CONTROL	Jamara !	What H	REMARKS:				
Relinquished By:	C	Date:	Received By:	1					
		Time:							
Delivered By: (Circle One)	One)		Sample Condition	CHECKED BY:					
Sampler - UPS - Bus - Other:	Other:	060	# TYES TYES	5.					127



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

April 05, 2019

Bob Allen Safety & Environmental Solutions PO Box 1613 Hobbs, NM 88241

TEL: (575) 397-0510 FAX: (575) 393-4388

RE: Breitburn Maverick 711 Battery OrderNo.: 1903D60

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 16 sample(s) on 3/28/2019 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 qualifiers 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 #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **1903D60**

Date Reported: 4/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions Client Sample ID: TT-3 Surface

Project: Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 9:00:00 AM

 Lab ID: 1903D60-001
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	smb
Chloride	9800	600		mg/Kg	200	4/2/2019 4:25:06 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst	: Irm
Diesel Range Organics (DRO)	8100	93		mg/Kg	10	4/1/2019 1:17:16 PM	43967
Motor Oil Range Organics (MRO)	5200	470		mg/Kg	10	4/1/2019 1:17:16 PM	43967
Surr: DNOP	0	70-130	S	%Rec	10	4/1/2019 1:17:16 PM	43967
EPA METHOD 8015D: GASOLINE RANGE						Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/30/2019 11:42:47 AM	43937
Surr: BFB	120	73.8-119	S	%Rec	1	3/30/2019 11:42:47 AM	43937
EPA METHOD 8021B: VOLATILES						Analyst	RAA
Benzene	ND	0.025		mg/Kg	1	3/30/2019 11:42:47 AM	43937
Toluene	ND	0.049		mg/Kg	1	3/30/2019 11:42:47 AM	43937
Ethylbenzene	ND	0.049		mg/Kg	1	3/30/2019 11:42:47 AM	43937
Xylenes, Total	0.14	0.098		mg/Kg	1	3/30/2019 11:42:47 AM	43937
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	3/30/2019 11:42:47 AM	43937

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

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1903D60**

Date Reported: 4/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions Client Sample ID: TT-3 1Ft

Project: Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 9:15:00 AM

 Lab ID: 1903D60-002
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	2600	150	mg/Kg	50	4/2/2019 4:37:30 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	Irm
Diesel Range Organics (DRO)	660	9.6	mg/Kg	1	4/1/2019 2:53:13 PM	43967
Motor Oil Range Organics (MRO)	350	48	mg/Kg	1	4/1/2019 2:53:13 PM	43967
Surr: DNOP	112	70-130	%Rec	1	4/1/2019 2:53:13 PM	43967
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/30/2019 12:53:24 PM	43937
Surr: BFB	101	73.8-119	%Rec	1	3/30/2019 12:53:24 PM	43937
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.023	mg/Kg	1	3/30/2019 12:53:24 PM	43937
Toluene	ND	0.046	mg/Kg	1	3/30/2019 12:53:24 PM	43937
Ethylbenzene	ND	0.046	mg/Kg	1	3/30/2019 12:53:24 PM	43937
Xylenes, Total	ND	0.092	mg/Kg	1	3/30/2019 12:53:24 PM	43937
Surr: 4-Bromofluorobenzene	91.6	80-120	%Rec	1	3/30/2019 12:53:24 PM	43937

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

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

D Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1903D60**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/5/2019

CLIENT: Safety & Environmental Solutions Client Sample ID: TT-3 2Ft

Project: Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 9:30:00 AM

 Lab ID: 1903D60-003
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	2900	150	mg/Kg	50	4/2/2019 4:49:55 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	4/1/2019 4:21:33 PM	43967
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	4/1/2019 4:21:33 PM	43967
Surr: DNOP	99.7	70-130	%Rec	1	4/1/2019 4:21:33 PM	43967
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/30/2019 1:17:01 PM	43937
Surr: BFB	91.0	73.8-119	%Rec	1	3/30/2019 1:17:01 PM	43937
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.024	mg/Kg	1	3/30/2019 1:17:01 PM	43937
Toluene	ND	0.049	mg/Kg	1	3/30/2019 1:17:01 PM	43937
Ethylbenzene	ND	0.049	mg/Kg	1	3/30/2019 1:17:01 PM	43937
Xylenes, Total	ND	0.098	mg/Kg	1	3/30/2019 1:17:01 PM	43937
Surr: 4-Bromofluorobenzene	93.6	80-120	%Rec	1	3/30/2019 1:17:01 PM	43937

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

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

D Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1903D60**Date Reported: **4/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-3 3Ft

 Project:
 Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 9:45:00 AM

 Lab ID:
 1903D60-004
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	SRM
Chloride	210	60	mg/Kg	20	3/30/2019 2:24:04 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst:	Irm
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	4/1/2019 5:50:08 PM	43967
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	4/1/2019 5:50:08 PM	43967
Surr: DNOP	91.3	70-130	%Rec	1	4/1/2019 5:50:08 PM	43967
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	3/30/2019 1:40:32 PM	43937
Surr: BFB	89.1	73.8-119	%Rec	1	3/30/2019 1:40:32 PM	43937
EPA METHOD 8021B: VOLATILES					Analyst:	RAA
Benzene	ND	0.023	mg/Kg	1	3/30/2019 1:40:32 PM	43937
Toluene	ND	0.047	mg/Kg	1	3/30/2019 1:40:32 PM	43937
Ethylbenzene	ND	0.047	mg/Kg	1	3/30/2019 1:40:32 PM	43937
Xylenes, Total	ND	0.094	mg/Kg	1	3/30/2019 1:40:32 PM	43937
Surr: 4-Bromofluorobenzene	91.6	80-120	%Rec	1	3/30/2019 1:40:32 PM	43937

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

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

D Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order 1903D60

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/5/2019

CLIENT: Safety & Environmental Solutions Client Sample ID: TT-3 4Ft

 Project:
 Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 10:00:00 AM

 Lab ID:
 1903D60-005
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	SRM
Chloride	88	60	mg/Kg	20	3/30/2019 2:36:29 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	4/1/2019 6:12:13 PM	43967
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	4/1/2019 6:12:13 PM	43967
Surr: DNOP	78.5	70-130	%Rec	1	4/1/2019 6:12:13 PM	43967
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/30/2019 2:04:12 PM	43937
Surr: BFB	89.0	73.8-119	%Rec	1	3/30/2019 2:04:12 PM	43937
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.024	mg/Kg	1	3/30/2019 2:04:12 PM	43937
Toluene	ND	0.048	mg/Kg	1	3/30/2019 2:04:12 PM	43937
Ethylbenzene	ND	0.048	mg/Kg	1	3/30/2019 2:04:12 PM	43937
Xylenes, Total	ND	0.096	mg/Kg	1	3/30/2019 2:04:12 PM	43937
Surr: 4-Bromofluorobenzene	90.4	80-120	%Rec	1	3/30/2019 2:04:12 PM	43937

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

- Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

- D Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

Lab Order **1903D60**Date Reported: **4/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-1 Surface

Project: Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 10:10:00 AM

 Lab ID: 1903D60-006
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: smb
Chloride	3000	150	mg/Kg	50	4/2/2019 5:02:20 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: Irm
Diesel Range Organics (DRO)	150	9.9	mg/Kg	1	4/1/2019 7:18:41 PM	43967
Motor Oil Range Organics (MRO)	310	49	mg/Kg	1	4/1/2019 7:18:41 PM	43967
Surr: DNOP	105	70-130	%Rec	1	4/1/2019 7:18:41 PM	43967
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	3/30/2019 2:27:50 PM	43937
Surr: BFB	87.2	73.8-119	%Rec	1	3/30/2019 2:27:50 PM	43937
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.024	mg/Kg	1	3/30/2019 2:27:50 PM	43937
Toluene	ND	0.047	mg/Kg	1	3/30/2019 2:27:50 PM	43937
Ethylbenzene	ND	0.047	mg/Kg	1	3/30/2019 2:27:50 PM	43937
Xylenes, Total	ND	0.095	mg/Kg	1	3/30/2019 2:27:50 PM	43937
Surr: 4-Bromofluorobenzene	88.5	80-120	%Rec	1	3/30/2019 2:27:50 PM	43937

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

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

D Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1903D60**

Date Reported: 4/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions Client Sample ID: TT-1 1Ft

 Project:
 Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 10:20:00 AM

 Lab ID:
 1903D60-007
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	SRM
Chloride	590	60	mg/Kg	20	3/30/2019 3:01:18 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: Irm
Diesel Range Organics (DRO)	36	9.5	mg/Kg	1	4/2/2019 7:12:53 PM	43967
Motor Oil Range Organics (MRO)	88	47	mg/Kg	1	4/2/2019 7:12:53 PM	43967
Surr: DNOP	101	70-130	%Rec	1	4/2/2019 7:12:53 PM	43967
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	3/30/2019 2:51:23 PM	43937
Surr: BFB	89.3	73.8-119	%Rec	1	3/30/2019 2:51:23 PM	43937
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.025	mg/Kg	1	3/30/2019 2:51:23 PM	43937
Toluene	ND	0.050	mg/Kg	1	3/30/2019 2:51:23 PM	43937
Ethylbenzene	ND	0.050	mg/Kg	1	3/30/2019 2:51:23 PM	43937
Xylenes, Total	ND	0.10	mg/Kg	1	3/30/2019 2:51:23 PM	43937
Surr: 4-Bromofluorobenzene	92.3	80-120	%Rec	1	3/30/2019 2:51:23 PM	43937

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

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

D Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1903D60**

Date Reported: 4/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions Client Sample ID: TT-1 2Ft

 Project:
 Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 10:45:00 AM

 Lab ID:
 1903D60-008
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	SRM
Chloride	560	60	mg/Kg	20	3/30/2019 3:13:43 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	4/1/2019 9:30:55 PM	43967
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	4/1/2019 9:30:55 PM	43967
Surr: DNOP	70.2	70-130	%Rec	1	4/1/2019 9:30:55 PM	43967
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/30/2019 3:14:52 PM	43937
Surr: BFB	89.2	73.8-119	%Rec	1	3/30/2019 3:14:52 PM	43937
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.025	mg/Kg	1	3/30/2019 3:14:52 PM	43937
Toluene	ND	0.049	mg/Kg	1	3/30/2019 3:14:52 PM	43937
Ethylbenzene	ND	0.049	mg/Kg	1	3/30/2019 3:14:52 PM	43937
Xylenes, Total	ND	0.099	mg/Kg	1	3/30/2019 3:14:52 PM	43937
Surr: 4-Bromofluorobenzene	91.7	80-120	%Rec	1	3/30/2019 3:14:52 PM	43937

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

- Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

- D Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

Lab Order **1903D60**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/5/2019

CLIENT: Safety & Environmental Solutions Client Sample ID: TT-1 3Ft

 Project:
 Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 10:55:00 AM

 Lab ID:
 1903D60-009
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	SRM
Chloride	390	60		mg/Kg	20	3/30/2019 3:26:07 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/1/2019 9:52:43 PM	43967
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/1/2019 9:52:43 PM	43967
Surr: DNOP	46.5	70-130	S	%Rec	1	4/1/2019 9:52:43 PM	43967
EPA METHOD 8015D: GASOLINE RANGE						Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/30/2019 5:12:21 PM	43937
Surr: BFB	88.7	73.8-119		%Rec	1	3/30/2019 5:12:21 PM	43937
EPA METHOD 8021B: VOLATILES						Analyst	RAA
Benzene	ND	0.023		mg/Kg	1	3/30/2019 5:12:21 PM	43937
Toluene	ND	0.046		mg/Kg	1	3/30/2019 5:12:21 PM	43937
Ethylbenzene	ND	0.046		mg/Kg	1	3/30/2019 5:12:21 PM	43937
Xylenes, Total	ND	0.092		mg/Kg	1	3/30/2019 5:12:21 PM	43937
Surr: 4-Bromofluorobenzene	90.8	80-120		%Rec	1	3/30/2019 5:12:21 PM	43937

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

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

ID Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1903D60**Date Reported: **4/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-4 Surface

Project: Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 11:05:00 AM

 Lab ID: 1903D60-010
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	SRM
Chloride	1900	60		mg/Kg	20	3/30/2019 3:38:31 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst	: Irm
Diesel Range Organics (DRO)	240	97		mg/Kg	10	4/1/2019 10:14:40 PM	43967
Motor Oil Range Organics (MRO)	730	480		mg/Kg	10	4/1/2019 10:14:40 PM	43967
Surr: DNOP	0	70-130	S	%Rec	10	4/1/2019 10:14:40 PM	43967
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/30/2019 5:35:39 PM	43937
Surr: BFB	86.4	73.8-119		%Rec	1	3/30/2019 5:35:39 PM	43937
EPA METHOD 8021B: VOLATILES						Analyst	: RAA
Benzene	ND	0.024		mg/Kg	1	3/30/2019 5:35:39 PM	43937
Toluene	ND	0.048		mg/Kg	1	3/30/2019 5:35:39 PM	43937
Ethylbenzene	ND	0.048		mg/Kg	1	3/30/2019 5:35:39 PM	43937
Xylenes, Total	ND	0.095		mg/Kg	1	3/30/2019 5:35:39 PM	43937
Surr: 4-Bromofluorobenzene	88.4	80-120		%Rec	1	3/30/2019 5:35:39 PM	43937

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

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ID Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1903D60**Date Reported: **4/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-4 1Ft

 Project:
 Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 11:10:00 AM

 Lab ID:
 1903D60-011
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	SRM
Chloride	440	59	mg/Kg	20	3/30/2019 3:50:56 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	4/2/2019 8:41:39 PM	43967
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	4/2/2019 8:41:39 PM	43967
Surr: DNOP	86.3	70-130	%Rec	1	4/2/2019 8:41:39 PM	43967
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/30/2019 5:58:51 PM	43937
Surr: BFB	90.2	73.8-119	%Rec	1	3/30/2019 5:58:51 PM	43937
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.023	mg/Kg	1	3/30/2019 5:58:51 PM	43937
Toluene	ND	0.046	mg/Kg	1	3/30/2019 5:58:51 PM	43937
Ethylbenzene	ND	0.046	mg/Kg	1	3/30/2019 5:58:51 PM	43937
Xylenes, Total	ND	0.092	mg/Kg	1	3/30/2019 5:58:51 PM	43937
Surr: 4-Bromofluorobenzene	93.1	80-120	%Rec	1	3/30/2019 5:58:51 PM	43937

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

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

D Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1903D60**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/5/2019

CLIENT: Safety & Environmental Solutions Client Sample ID: TT-5 Surface

 Project:
 Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 11:20:00 AM

 Lab ID:
 1903D60-012
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	smb
Chloride	13000	600		mg/Kg	200	4/2/2019 5:39:34 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst	: Irm
Diesel Range Organics (DRO)	970	99		mg/Kg	10	4/1/2019 11:42:23 PM	43967
Motor Oil Range Organics (MRO)	940	490		mg/Kg	10	4/1/2019 11:42:23 PM	43967
Surr: DNOP	0	70-130	S	%Rec	10	4/1/2019 11:42:23 PM	43967
EPA METHOD 8015D: GASOLINE RANGE						Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/30/2019 6:22:08 PM	43937
Surr: BFB	85.3	73.8-119		%Rec	1	3/30/2019 6:22:08 PM	43937
EPA METHOD 8021B: VOLATILES						Analyst	RAA
Benzene	ND	0.023		mg/Kg	1	3/30/2019 6:22:08 PM	43937
Toluene	ND	0.047		mg/Kg	1	3/30/2019 6:22:08 PM	43937
Ethylbenzene	ND	0.047		mg/Kg	1	3/30/2019 6:22:08 PM	43937
Xylenes, Total	ND	0.093		mg/Kg	1	3/30/2019 6:22:08 PM	43937
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	3/30/2019 6:22:08 PM	43937

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

- Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

Lab Order **1903D60**Date Reported: **4/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions Client Sample ID: TT-5 1Ft

 Project:
 Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 11:25:00 AM

 Lab ID:
 1903D60-013
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	SRM
Chloride	420	60	mg/Kg	20	3/30/2019 4:40:35 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst:	Irm
Diesel Range Organics (DRO)	11	9.9	mg/Kg	1	4/2/2019 12:47:58 AM	43967
Motor Oil Range Organics (MRO)	50	50	mg/Kg	1	4/2/2019 12:47:58 AM	43967
Surr: DNOP	90.3	70-130	%Rec	1	4/2/2019 12:47:58 AM	43967
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	RAA
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	3/30/2019 6:45:37 PM	43937
Surr: BFB	89.4	73.8-119	%Rec	1	3/30/2019 6:45:37 PM	43937
EPA METHOD 8021B: VOLATILES					Analyst:	RAA
Benzene	ND	0.025	mg/Kg	1	3/30/2019 6:45:37 PM	43937
Toluene	ND	0.050	mg/Kg	1	3/30/2019 6:45:37 PM	43937
Ethylbenzene	ND	0.050	mg/Kg	1	3/30/2019 6:45:37 PM	43937
Xylenes, Total	ND	0.099	mg/Kg	1	3/30/2019 6:45:37 PM	43937
Surr: 4-Bromofluorobenzene	92.0	80-120	%Rec	1	3/30/2019 6:45:37 PM	43937

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

Н

S % Recovery outside of range due to dilution or matrix

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

Lab Order **1903D60**

Date Reported: 4/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions Client Sample ID: TT-2 Surface

 Project:
 Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 11:55:00 AM

 Lab ID:
 1903D60-014
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	SRM
Chloride	170	60		mg/Kg	20	3/30/2019 4:52:59 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst:	: Irm
Diesel Range Organics (DRO)	570	100		mg/Kg	10	4/2/2019 1:53:44 AM	43967
Motor Oil Range Organics (MRO)	950	500		mg/Kg	10	4/2/2019 1:53:44 AM	43967
Surr: DNOP	0	70-130	S	%Rec	10	4/2/2019 1:53:44 AM	43967
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/30/2019 7:09:04 PM	43937
Surr: BFB	86.1	73.8-119		%Rec	1	3/30/2019 7:09:04 PM	43937
EPA METHOD 8021B: VOLATILES						Analyst:	RAA
Benzene	ND	0.024		mg/Kg	1	3/30/2019 7:09:04 PM	43937
Toluene	ND	0.048		mg/Kg	1	3/30/2019 7:09:04 PM	43937
Ethylbenzene	ND	0.048		mg/Kg	1	3/30/2019 7:09:04 PM	43937
Xylenes, Total	ND	0.096		mg/Kg	1	3/30/2019 7:09:04 PM	43937
Surr: 4-Bromofluorobenzene	89.2	80-120		%Rec	1	3/30/2019 7:09:04 PM	43937

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

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

D Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1903D60**Date Reported: **4/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions Client Sample ID: TT-2 1Ft

 Project:
 Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 12:00:00 PM

 Lab ID:
 1903D60-015
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	SRM
Chloride	400	59	mg/Kg	20	3/30/2019 5:05:24 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	4/4/2019 9:08:05 AM	43967
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	4/4/2019 9:08:05 AM	43967
Surr: DNOP	88.0	70-130	%Rec	1	4/4/2019 9:08:05 AM	43967
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	3/30/2019 7:32:36 PM	43937
Surr: BFB	88.0	73.8-119	%Rec	1	3/30/2019 7:32:36 PM	43937
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.023	mg/Kg	1	3/30/2019 7:32:36 PM	43937
Toluene	ND	0.047	mg/Kg	1	3/30/2019 7:32:36 PM	43937
Ethylbenzene	ND	0.047	mg/Kg	1	3/30/2019 7:32:36 PM	43937
Xylenes, Total	ND	0.093	mg/Kg	1	3/30/2019 7:32:36 PM	43937
Surr: 4-Bromofluorobenzene	91.1	80-120	%Rec	1	3/30/2019 7:32:36 PM	43937

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

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

D Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1903D60**Date Reported: **4/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-2 2Ft

Project: Breitburn Maverick 711 Battery
 Collection Date: 3/26/2019 12:15:00 PM

 Lab ID: 1903D60-016
 Matrix: SOIL
 Received Date: 3/28/2019 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	SRM
Chloride	380	60	mg/Kg	20	3/30/2019 5:17:48 PM	43982
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	4/2/2019 10:10:06 PM	43967
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	4/2/2019 10:10:06 PM	43967
Surr: DNOP	90.5	70-130	%Rec	1	4/2/2019 10:10:06 PM	43967
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/30/2019 7:56:00 PM	43937
Surr: BFB	86.6	73.8-119	%Rec	1	3/30/2019 7:56:00 PM	43937
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.023	mg/Kg	1	3/30/2019 7:56:00 PM	43937
Toluene	ND	0.046	mg/Kg	1	3/30/2019 7:56:00 PM	43937
Ethylbenzene	ND	0.046	mg/Kg	1	3/30/2019 7:56:00 PM	43937
Xylenes, Total	ND	0.093	mg/Kg	1	3/30/2019 7:56:00 PM	43937
Surr: 4-Bromofluorobenzene	88.4	80-120	%Rec	1	3/30/2019 7:56:00 PM	43937

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

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

ID Not Detected at the Reporting Limit

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1903D60**

05-Apr-19

Client: Safety & Environmental Solutions

Project: Breitburn Maverick 711 Battery

Sample ID: MB-43982 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 43982 RunNo: 58778

Prep Date: 3/29/2019 Analysis Date: 3/30/2019 SeqNo: 1975291 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-43982 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 43982 RunNo: 58778

Prep Date: 3/29/2019 Analysis Date: 3/30/2019 SeqNo: 1975292 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 94.0 90 110

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Client:

Hall Environmental Analysis Laboratory, Inc.

Safety & Environmental Solutions

WO#: **1903D60**

05-Apr-19

Project: Breitburn	Maverick 711	Battery							
Sample ID: LCS-43967	SampType:	LCS	Tes	tCode: EP	A Method	8015M/D: Die	esel Range	e Organics	
Client ID: LCSS	Batch ID:	43967	F	RunNo: 58	785				
Prep Date: 3/29/2019	Analysis Date:	4/1/2019	S	SeqNo: 19	76451	Units: mg/K	ζg		
Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	10 50.00	0	69.6	63.9	124			
Surr: DNOP	3.9	5.000		77.2	70	130			
Sample ID: MB-43967	SampType:	MBLK	Tes	tCode: EP	A Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch ID:	43967	F	RunNo: 58	785				
Prep Date: 3/29/2019	Analysis Date:	4/1/2019	S	SeqNo: 19	76452	Units: mg/K	(g		
Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10							
Motor Oil Range Organics (MRO)	ND :	50							
Surr: DNOP	11	10.00		109	70	130			
Sample ID: LCS-44126	SampType:	LCS	Tes	tCode: EP	A Method	8015M/D: Die	esel Range	e Organics	
Client ID: LCSS	Batch ID:	44126	F	RunNo: 58	8882				
Prep Date: 4/4/2019	Analysis Date:	4/4/2019	S	SeqNo: 19	80513	Units: %Red	C		
Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4	5.000		88.3	70	130			
Sample ID: MB-44126	SampType:	MBLK	Tes	tCode: EP	A Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch ID:	44126	F	RunNo: 58	882				
Prep Date: 4/4/2019	Analysis Date:	4/4/2019	S	SeqNo: 19	80514	Units: %Red	C		
Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

10.00

9.1

Qualifiers:

Surr: DNOP

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

91.4

70

130

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1903D60**

05-Apr-19

Client: Safety & Environmental Solutions

Project: Breitburn Maverick 711 Battery

Sample ID: LCS-43937 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 43937 RunNo: 58766

Prep Date: 3/28/2019 Analysis Date: 3/30/2019 SeqNo: 1974438 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
 96.0
 80.1
 123

 Surr: BFB
 1000
 1000
 105
 73.8
 119

Sample ID: MB-43937 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 43937 RunNo: 58766

Prep Date: 3/28/2019 Analysis Date: 3/30/2019 SeqNo: 1974439 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 950 1000 94.9 73.8 119

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1903D60**

05-Apr-19

Client: Safety & Environmental Solutions
Project: Breitburn Maverick 711 Battery

Sample ID: LCS-43937 Client ID: LCSS	•	ype: LC		TestCode: EPA Method RunNo: 58766				tiles			
Prep Date: 3/28/2019	Analysis D		30/2019		SeqNo: 1		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.93	0.025	1.000	0	93.4	80	120				
Toluene	1.0	0.050	1.000	0	99.9	80	120				
Ethylbenzene	0.97	0.050	1.000	0	97.0	80	120				
Xylenes, Total	3.0	0.10	3.000	0	98.7	80	120				
Surr: 4-Bromofluorobenzene	0.99		1.000		99.2	80	120				

Sample ID: MB-43937	Samp	Гуре: МЕ	BLK	Tes	estCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batc	h ID: 43	937	F	RunNo: 5	8766							
Prep Date: 3/28/2019	Analysis [Date: 3/	30/2019	9	SeqNo: 1	974465	Units: mg/K	(g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	ND	0.025											
Toluene	ND	0.050											
Ethylbenzene	ND	0.050											
Xylenes, Total	ND	0.10											
Surr: 4-Bromofluorobenzene	0.99		1.000		98.6	80	120						

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit



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: Safety Env Solutions Work Order Number: 1903D60 RcptNo: 1 Received By: Yazmine Garduno 3/28/2019 8:50:00 AM Completed By: Erin Melendrez 3/28/2019 9:55:03 AM Reviewed By: Chain of Custody 1. Is Chain of Custody complete? Yes 🗸 No 🗌 Not Present 2. How was the sample delivered? Courier Log In 3. Was an attempt made to cool the samples? No 🗌 NA 🗌 Yes 🗸 No 🗌 Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 NA 🗌 5. Sample(s) in proper container(s)? Yes 🗸 No 🗌 Sufficient sample volume for indicated test(s)? Yes 🗸 No 🗌 7. Are samples (except VOA and ONG) properly preserved? Yes 🗸 No 🗌 No 🗸 8. Was preservative added to bottles? Yes NA 🗌 9. VOA vials have zero headspace? No VOA Vials Yes No Yes 10. Were any sample containers received broken? No 🗸 # of preserved bottles checked 11. Does paperwork match bottle labels? Yes 🗸 No 🗌 for pH: (Note discrepancies on chain of custody) (<2 or ≯12 unless noted) Adjusted? 12. Are matrices correctly identified on Chain of Custody? Yes 🗸 No 🗌 13. Is it clear what analyses were requested? Yes 🗸 No 🗌 Checked by: 14. Were all holding times able to be met? No 🗌 Yes 🗸 (If no, notify customer for authorization.) Special Handling (if applicable) 15. 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: 16. Additional remarks: 17. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By

2.4

Good

Yes

ENVIRONMENTAL YSIS LABORATORY environmental.com Albuquerque, NM 87109 Fax 505-345-4107 alysis Request	(AOV) (Semi-VOA) (ACV-im-b) (ACV-	
HALL ANAL www.hall 01 Hawkins NE - el. 505-345-3975	BTEX + MTBE + TPH (Gas only) TPH 8015B (GRO / DRO / MRO) TPH (Method 418.1) EDB (Method 504.1) PAH's (8310 or 8270 SIMS) RCRA 8 Metals Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) 8081 Pesticides / 8082 PCB's	
Turn-Around Time: Standard Rush Project Name: Rush Bush Woutewk 711 Buthun Project #:	Project Manager: (A) Recolor B Sampler: Sending Manager: Sample Temperature: 2. U.C. Manager: Type MEAL No. X Type and # HEAL No. X Type MEAL No. X HEAL No. X HEAL No. X HEAL No. X HEAL No. MEAL NO. M	<u> </u>
Chain-of-Custody Record Client: Step + Evillyning Al Solveture; Mailing Address: 1703 E. Cl. Mark Albibr N. M. S. 240 Phone #: 575-3970	email or Fax#: QA/QC Package: Er-Standard Accreditation I NELAP I Other Date Time Matrix Sample Request ID	6726 0600 5 77-3 5 127 8970 5 77-3 247 600 1 77-3 247 600 1 77-3 247 600 1 77-1 5 477 600 1 77-1

HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request	BTEX + MTBE + TMB's (8021) BTEX + MTBE + TPH (Gas only) TPH 8015B (GRO / DRO / MRO) TPH (Method 418.1) EDB (Method 504.1) RCRA 8 Metals RCRA 8 Metals Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) 8260B (VOA) 8270 (Semi-VOA)	3 3 3 4 4 4 4				Time: Relinquished by: Received by: A Date Time Remarks:
Turn-Around Time: Standard Rush Project Name: Brettern Project #: Project #: Project #:	Sampler: Str. Moon loe: Nesservative HEAL No. Type and # Type CONTACT CO	210- 2052	7 -013	1 (-015		Received by: Received by: Received by: Date Time Date Time Date Time Date Time Trine Trine Trine Trine Trine Trine
Client: Sylect & Gwownwahl Client: Sylect & Gwownwahl Sultain Mailing Address: 703 @ Cleared (46bbs WM 88240 Phone #: \$75-397-0510	email or Fax#: QA/QC Package: Er-Standard Accreditation □ NELAP □ EDD (Type) Date Time Matrix Sample Request ID	03/24 (120 5 TT-5 sturber	1125 5 11-6 16-	1200 5 11-2 17		Date: Time: Relinquished by: Date: Time: Relinquished by: \$\frac{2}{2}\frac{1}{4} \frac{7}{4} \frac{2}{4} \frac{2}{4} \frac{2}{4} \frac{2}{4

Appendix D Site Photos

Breitburn 647-711 Battery Drone Photos 9-10-18











