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

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

	P.O. Box 1433, Roswell, NM 88202 Telephone No. (575) 626-7660 y Name Eidson #1 Facility Type Tank Battery e Owner Primero - Lessee Mineral Owner Pee API No. 30-025-21185 LOCATION OF RELEASE tter Scalion Township Range Feet from the North/South Line Feet from the East/West Line County Less Produced Water Sulface Su												
Name of Co	ame of Company Primero Operating, Inc. Contact Phelps White												
Address					02	Telephone N			50				
Facility Nan	ne	Eidson #1				Facility Typ	e Tank F	Battery					
Surface Own	ner Pri	mero – Less	ee	Mineral C	wner	Fee			API No	. 30-025-	21185		
				LOCA	TIO	N OF REI	EASE						
OPERATOR													
				Latitude N 32.	89215°	Longitud	e <u>W 103.42757</u>	10					
				NAT	URE	OF REL	EASE						
Source of Rel	lease Pro	duced Water	Fank			1	our of Occurrenc	e		Hour of Disco	very		
Was Immedia	te Notice (Given?					Whom?	i	1/23/13				
· · · · · · · · · · · · · · · · · · ·			Yes [No X Not Rec	quired	,							
By Whom?						Date and H	our						
Was a Watero	s a Watercourse Reached?					If YES, Vo	lume Impacting t	he Wate	ercourse.				
Name of Company													
Name of Company													
	Agricol Company Primero Operating Inc. Contact Phelps White												
The produce The load line of 46' below reported less bgs, and an el	ame of Corupany Primero Operating, Inc. dress P.O. Box 1433, Reswell, NM 88202 Telephone No. (575) 626-7660 actility Name Eidson #1 Facility Type Tunk Bastery LocATION OF RELEASE nit Letter Section Township Range Feet from the North Stouth Line Foot from the East/West Line County J. 26 16S 35E 2310 NorthSouth Line Foot from the East/West Line County Latitude N.32,89215* Longitude W.103,42757* NATURE OF RELEASE Interpretation of Release Unknown Volume Recovered None Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Produced Water Tunk Date and Hour of Occurrence Date and Hour of Discovery Unknown Type of Release Unknown Date and Hour of Occurrence Date and Hour Occurrence Date and H												
Soil was exceeded excavation (pof 1' bgs to so	cavated from added unde urface. The	n a 31' x 37'; or and over wi or site was cont	x 4.5' area th topsoil) toured to c	a surrounding the). Clean caliche woriginal conditions	vas plac s. Thre	ed above the lefect of soil v	iner to a depth of as removed from	I foot b	gs. Clean 1	topsoil was pl	aced fro	om a depth	
regulations all public health should their of or the environ	Face Free												
Signature:	Same of Company Primero Operating, Inc. Contact Phelps White Markes P.O. Box 1433, Roswell, NM 8202 Telephone No. (575) 626-7660												
	: Phelps V	/hite				Approved by Environmental Specialis Environmental Specialis							
Title:	Presiden	t.				Approval Da	e:05/30/1	3	Expiration :	Date:			
E-mail Addre	ess: pwiv@	zianet.com				Conditions of	Approval:						
		ets If Necess		(575) 626-7660						IRP-0	4-13	1-2909	



May 7, 2013

Mr. Geoffrey Leking Environmental Specialist Oil Conservation Division 1625 N. French Drive Hobbs, New Mexico 88240 appreved

Environmental Specialist

NMOCD-DIST 1 5/30/13

Re:

: Spill Remediation Report, Primero Operating, Inc.,

Eidson #1,

Unit Letter J (NW/4, SE/4), Section 26, Township 16 South, Range 35 East,

Lea County, New Mexico

(Latitude: N 32.89215° / Longitude: W 103.42757°)

1RP # 04-13-2909

Dear Mr. Leking:

Primero Operating, Inc. (Primero) has retained Crain Environmental (CE) to remediate impacts to soil from a leaking produced water tank and load line at the Eidson #1 (Site). The Site is located in the northwest quarter (NW/4) of the southeast quarter (SE/4), Section 26, Township 16 South, Range 35 East, Lea County, New Mexico. A Letter of Violation (LOV) was received by Primero on January 25, 2013. The LOV addressed the leaking produced water tank, fresh oil under the north load line valve, and surplus equipment at the Site. A copy of the LOV is included as Appendix A. A C-141 was submitted to the New Mexico Oil Conservation Division (NMOCD) on April 5, 2013, a copy of which is included as Appendix B. Figure 1 shows the site location.

Based on published literature (1961), well records of the New Mexico State Engineer, and well records of the United States Geological Survey, groundwater occurs at approximately 55 feet bgs in the well located nearest the Site. No domestic water wells are located within 1,000 feet of the site. The NMOCD has established recommended remediation action levels (RRALs) for benzene, total BTEX and TPH resulting from spills of natural gas liquids ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"). Remediation levels for benzene, total BTEX and TPH were calculated using the following NMOCD criteria:

Criteria	Result	Ranking Score
Depth-to-Groundwater	50 - 99 Feet	10
Wellhead Protection Area	No	0
Distance to Surface Water Body	>1000 Horizontal Feet	0
		Total: 10

NOTE: NMOCD TRYND MAP DISPLAYED DEPTH TO WATER OF 46 THUREFORE, RANKING SEORE WOULD BE ZO. HOWEVER, DELINEATION & RUMBDIATION SATISFY A ZO RANKING SITE.

2925 East 17th Street • Odessa, TX 79761 Phone: (432) 530-9797 • Fax: (432) 272-0304 Mr. Geoffrey Leking Page 2 May 7, 2013

The following RRALs have been assigned based on NMOCD criteria:

Benzene 10 mg/kg
Total BTEX 50 mg/kg
TPH 1,000 mg/kg

Investigation Activities

On February 14, 2013, the produced water tank and ancillary equipment was removed from the Site. On February 19, 2013, a backhoe was utilized to collect soil samples for chloride analysis, from the area beneath the former tank. Soil samples were collected from the surface (SS-2), and at depths of 2 feet (SS-1), 3 feet (SS-3), 4 feet (SS-5) and 5 feet (SS-6) below ground surface (bgs), until a hard rock layer was encountered. One soil sample (SS-4) was also collected from the surface at a background location, approximately 75 feet northwest of the Site. The soil samples were placed in clean glass sample jars, labeled, and delivered to Cardinal Laboratories (Cardinal) of Hobbs, New Mexico for chloride analysis. Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations and chloride results. Appendix C provides a copy of the laboratory reports and chain of custody documentation. Photographs are included in Appendix D.

Referring to Table 1, chloride concentrations were reported above 250 mg/kg in all samples except the background sample (SS-4 at <16.0 mg/kg). On March 6, 2013, Scarborough Drilling (Scarborough) of Lamesa, Texas, mobilized a drilling rig to the Site in order to collect soil samples at a greater depth. Soil boring BH-1 was drilled at the same location as the previous samples (SS-1, SS-2, SS-3, SS-5 and SS-6). Soil samples from boring BH-1 were collected at depths of 5, 10, 15 and 20 feet bgs, until field chloride tests reported chloride concentrations below 250 mg/kg. Soil samples were also collected from boring BH-2, located 30 feet north of the first boring (BH-1), at the surface and every five (5) feet thereafter, to a depth of 11 feet bgs. All samples were placed in clean glass sample jars, labeled, and transported to Xenco Laboratories (Xenco) of Odessa, Texas for chloride analysis. Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations and chloride results. Appendix C provides a copy of the laboratory reports and chain of custody documentation. Photographs are included in Appendix D.

Referring to Table 1, even though chloride concentrations decreased with depth, the laboratory did not report any concentrations less than 250 mg/kg in boring BH-1 or BH-2. Soil samples from the BH-2 location reported relatively low chloride concentrations, and deeper drilling was not required by the NMOCD. A Scarborough drilling rig was mobilized to the Site on March 26, 2013, and soil boring BH-1 was re-entered. Soil samples were collected from boring BH-1 beginning at a depth of 25 feet bgs, and every five (5) feet thereafter, to a depth of 46 feet bgs. One additional sample (SS-7) was collected at a depth of 0-6 inches, from the area below the north load line. All samples were labeled, chilled in an ice chest and delivered to Xenco for chloride analysis of the boring BH-1 samples, and BTEX, TPH and chloride analysis of the SS-7 sample. Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations and laboratory results. Appendix C provides a copy of the laboratory reports and chain of custody documentation. Photographs are included in Appendix D.

Mr. Geoffrey Leking Page 3 May 7, 2013

Referring to Table 1, chloride concentrations in samples from boring BH-1 decreased with depth until concentrations were reported less than 250 mg/kg at a depth of 45-46 feet bgs (93.6 mg/kg). No signs of groundwater were encountered during drilling. Soil sample SS-7 (below the load line) reported benzene and total BTEX as non-detect, TPH as 2,420 mg/kg, and chloride as 736 mg/kg.

On April 5, 2013, all data collected at the Eidson #1 Site was presented to you. Primero proposed to excavate all moist soil from the area beneath the former produced water tank to a depth of approximately 4.5 to 5 feet bgs, until the hard rock layer was encountered, lining the excavation with a 20 mil plastic liner, and backfilling the excavation with clean soil. Verbal approval of the proposal was granted by you on that date, with written approval following on April 9, 2013. Your approval also addressed the fact that soil would be excavated from below the load line until samples reported concentrations below the NMOCD criteria, or a liner may also be placed under the load line.

Remediation Activities

On April 24, 2013, chloride impacted soil was excavated from a 31 by 37 foot area beneath the former produced water tank, to a depth of approximately 4.5 to 5 feet bgs, until the hard rock layer was encountered. Soil was also excavated from below the north load line, to a depth of three (3) feet bgs. Approximately 180 yards of soil from the excavation was hauled to Gandy Disposal. In order to determine the chloride content of backfill soil, samples of caliche were obtained from a nearby Primero plugged and abandoned well pad (Backfill 1) and from Primero stockpiled soil (Backfill 3) for chloride analysis. Table 1 provides a summary of the laboratory results. Chloride concentrations from sample Backfill 1 were reported as 80 mg/kg, and chloride concentrations from sample Backfill 3 were reported as 1,250 mg/kg. The stockpiled soil (Backfill 3) was not used to backfill the excavation. Appendix C provides a copy of the laboratory reports and chain of custody documentation.

On April 25, 2013, topsoil was placed at the bottom of the excavation prior to the placement of a 20 mil plastic liner. Topsoil was also placed above the liner, before backfilling the excavation to a depth of one (1) foot bgs with clean caliche. A one (1) foot layer of topsoil was added above the caliche to bring the soil to surface grade. A sample of the topsoil (Topsoil), purchased from the landowner, was collected for laboratory analysis of chloride, and a sample (Load Line) was collected from below the load line at a depth of three (3) feet bgs for analysis of TPH, BTEX and chloride. All samples were placed in clean glass sample jars, labeled, chilled in an ice chest and delivered to Cardinal Laboratories. Table 1 provides a summary of the laboratory results. Appendix C provides a copy of the laboratory reports and chain of custody documentation. Appendix D provides photographs of the excavation and the final remediated Site.

The laboratory reported the chloride concentrations of the Top Soil as 32 mg/kg and the Load Line as 304 mg/kg. The concentration of benzene in the Load Line sample was reported as <0.050 mg/kg, and TPH was reported as <20 mg/kg. The area under the load line was backfilled with clean soil.

Mr. Geoffrey Leking Page 4 May 7, 2013

Primero respectfully requests that the Eidson #1 Site be closed by the NMOCD. A final C141 form is included in Appendix E. If you have any questions or need additional information, please call Mr. Phelps White at (575) 626-7660, or myself at (575) 441-7244. We may also be reached by email at pwiv@zianet.com or Cindy.Crain@gmail.com.

Sincerely,

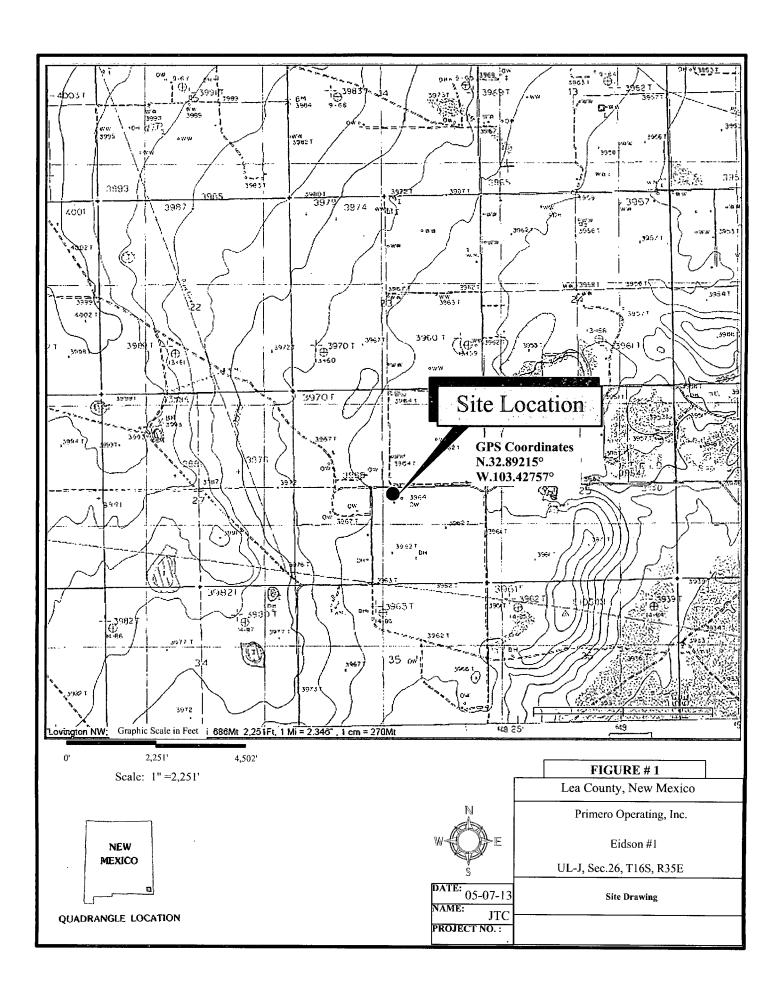
Crain Environmental

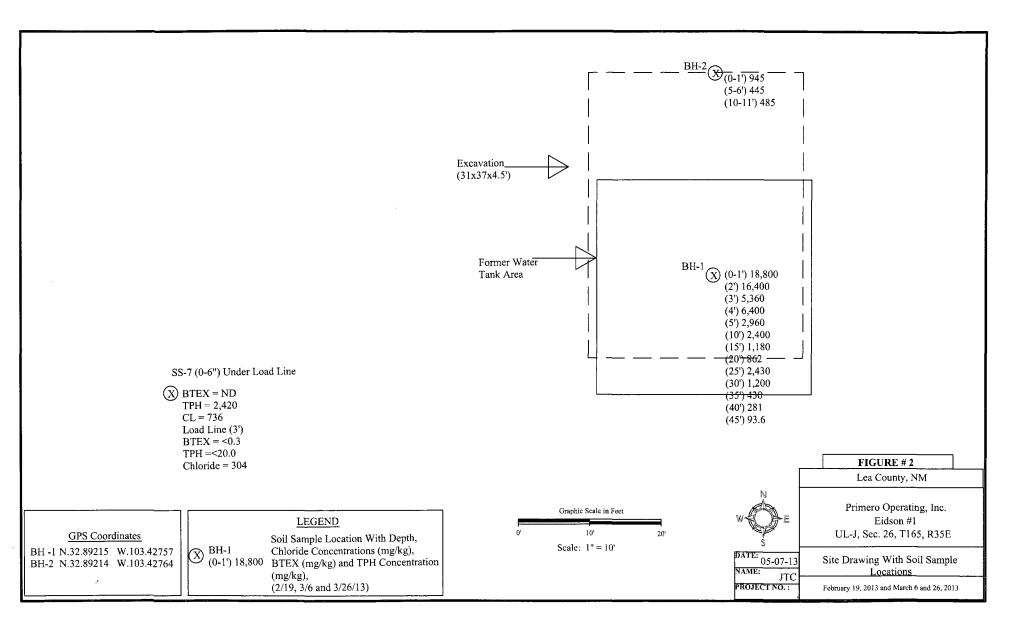
Cindy K. Crain, P.G.

cc: Phelps White, Primero

Circly K. Crain

FIGURES





TABLE

Table 1: Summary of Laboratory Analysis of Soil Samples Primero Operating, Inc., Eidson #1 Unit Letter J, Section 26, Township 16 South, Range 35 East Lea County, New Mexico

Sample Date	Sample Name	Sample Depth (feet BGS)	Benzene (mg/kg)	Total BTEX (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)	Soil Status
	WQCC Standa	rd	10	50	1000		
2/19/13	SS-1	2				16,400	Excavated
2/19/13	SS-2	0-6"				18,800	Excavated
2/19/13	SS-3	3				5,360	Excavated
2/19/13	SS-4	Background 0-6"				<16.0	In Situ
2/19/13	SS-5	4				6400	Excavated
2/19/13	SS-6	5				2,960	Excavated
3/6/13	BH-1	5-6				7390	In Situ
3/6/13	BH-1	10-11				2400	In Situ
3/6/13	BH-1	15-16				1180	In Situ
3/6/13	BH-1	20-21				862	In Situ
3/26/13	BH-1	25-26				2430	In Situ
3/26/13	BH-1	30-31				1200	In Situ
3/26/13	BH-1	35-36				430	In Situ
3/26/13	BH-1	40-41				281	In Situ
3/26/13	BH-1	45-46				93.6	In Situ
3/6/13	BH-2	0-1				945	Excavated
3/6/13	BH-2	5-6			<u></u>	445	In Situ
3/6/13	BH-2	10-11				485	In Situ
0,0/12			-	<u>-</u>			
3/26/13	SS-7 (Loadline)	0-6"	ND	ND	2420	736	Excavated
4/25/13	Loadline	3	< 0.050	<0.300	<20	304	In Situ
4/24/12	D LCU t	1		<u> </u>	T	00	F
4/24/13	Backfill 1					80	Excavation Backfill
4/24/13	Backfill 3					1250	Disposed
4/25/13	Topsoil					32	Excavation Backfill

Notes: 3/6/13 and 3/26/13 Samples Analyzed by Xenco Laboratories of Odessa, Texas.

2/19/13, 4/24/13 and 4/25/13 Samples Analyzed by Cardinal Laboratories, Hobbs, New Mexico.

BGS: Below ground surface.
 mg/kg: Milligrams per kilogram.
 Odata available.

4. < Less than the test method detection limit.

APPENDIX A LETTER OF VIOLATION



NEW MEXICO ENERGY, MINERALS NATURAL RESOURCES DEPARTMENT

Jami Bailey Director Oil Conservation Division

SUSANA MARTINEZ Governor John H. Bemis Cabinet Secretary

Response Required - Deadline Enclosed

Field Inspection Program "Preserving the Integrity of Our Environment"

25-Jan-13

PRIMERO OPERATING INC PO BOX 1433 ROSWELL NM 88202

LETTER OF VIOLATION - Inspection

Dear Operator:

The following inspection(s) indicate that the well, equipment, location or operational status of the well(s) failed to meet standards of the New Mexico Oil Conservation Division as described in the detail section below. To comply with standards imposed by Rules and Regulations of the Division, corrective action must be taken immediately and the situation brought into compliance. The detail section indicates preliminary findings and/or probable nature of the violation. This determination is based on an inspection of your well or facility by an inspector employed by the Oil Conservation Division on the date(s) indicated.

Please notify the proper district office of the Division, in writing, of the date corrective actions are scheduled to be made so that arrangements can be made to reinspect the well and/or facility.

INSPECTION DETAIL SECTION

EIDSON No.001

J-26-16S-35E

30-025-21185-00-00

Inspection

Type Inspection Date

Inspector

Violation?

*Significant Non-Compliance? Corrective

Inspection No.

01/25/2013

Routine/Periodic

Maxey Brown

Action Due By:

Yes

No

4/30/2013

iMGB1302540109

Violations

Surface Leaks/Spills

General Housekeeping (Rule 114)

Comments on Inspection: RULE 19.15.29.8. PRODUCED WATER TANK IS LEAKING FROM PATCH AT BOTTOM EDGE OF TANK. NEED TO REPAIR OR REPLACE TANK. CONTACT GEOFFREY LEKING, OCD, HOBBS DISTRICT 1 OFFICE, 575-393-6161 EXT 113, FOR APPROVED CLEANUP PLAN. ALSO NORTH OIL TANK HAS FRESH OIL UNDER LOADLINE VALVE NEXT TO TANK. NEED TO REMOVE SURPLUS EQUIPMENT (HEATER TREATER, PIECE OF FIRE TUBE, MISC JUNK). THIS IS 1ST LETTER OF NON-COMPLIANCE.

APPENDIX B INITIAL C141 DOCUMENTATION

<u>District I</u> 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**

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

1220 S. St. F180	icis Di., Sant	416, 19191 67.30.	<u>. </u>	Sa	inta Fe	e, NM 875	05		
			Rel	ease Notific	atio	n and Co	rrective A	ction	
						OPERA	TOR	X Initia	al Report Final Report
Name of Co	ompany	Primero C	perating	, Inc.					
Address		P.O. Box	1433, Ro	swell, NM 882	202	Telephone N	No. (575)	526-7660	
Facility Na	me	Eidson #1				Facility Typ	e Tank l	Battery	
Surface Ow	ner Pr	imero – Less	see	Mineral C	Owner	Fee		API No	30-025-21185
				LOCA	ATIO	N OF RE	LEASE		
Unit Letter	Section	Township	Range	Feet from the			Feet from the	East/West Line	County
l	26	16S	35E	2310	S	South	2310	East	Lea
		<u> </u>			<u> </u>				
				Latitude N 32.	89215°	Longitud	le <u>W 103.42757</u>	70 —	
				NAT	HRE	OF REL	EASE		
Type of Rele	ease Pro	oduced Water		IVAI	OIG			wn Volume F	Recovered None
						Unknown		1/25/13	-
Was Immedi	ate Notice	_	Vec F	T No. Y Not Re	anired	If YES, To	Whom?		
Dy Whamp				J 140 A HOLKO	quireu	Date and T	lour	<u> </u>	
	course Rea	ched?						he Watercourse	
was a water	course rea	-	Yes X	. No		ii i i i i i i i i i i i i i i i i i i	rante rispacing t	no watercoarse.	
If a Wateron	urca una Ir	pacted Docor	ibe Fully	*					
					Violati	on was written	n on 1/25/13. The		moved from the location.
The production surface with depth approximate	ed water ta to a depth nd were rep ly 4.5' to 8	nk was located of 46' below gorted less that be beginning the best and an e	d in a 30' ground su n 250 mg/ eleven foo	x 30' bermed area rface (bgs). Soil s kg at a depth of 4; t hard rock layer w	amples ' 5' bgs (9 vas enco	were analyzed 93.6 mg/kg). ountered at a d	for chloride cond A three foot thick cpth of approxim	centrations. Chlori hard rock layer wa ately 12' to 23' bg	de concentrations decreased as encountered at a depth of
Name of Company									
	Produced Water Produced Produc								
Name of Company Primero Operating, Inc. Contact Phelps White									
Name of Company Primero Operating, Inc. Contact Phelips White		Mai Specialist O							
Name of Company									
Title:	Preside	nt				Approval Da	te: 415/13	Expiration	Date: 4/5//3
E-mail Addr	ress: pwiv(azianet.com				Conditions of	Approval: SUC	MIT FINAL	Attached—
Date: 4/3/	(13		Phone:	(575) 626-7660		C-141	BY 6/5/1:	3	

Phone: (575) 626-7660

Date: 4/3/13

^{*} Attach Additional Sheets If Necessary

APPENDIX C

ANALYTICAL DATA AND CHAIN OF CUSTODY DOCUMENTATION



February 20, 2013

CINDY CRAIN

CRAIN ENVIRONMENTAL

2925 E. 17TH STREET

ODESSA, TX 79761

RE: PRIMERO-EIDSON #1

Enclosed are the results of analyses for samples received by the laboratory on 02/19/13 16:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 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)

Accreditation applies to public drinking water matrices.

Celeg D. Keine

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:

CRAIN ENVIRONMENTAL CINDY CRAIN 2925 E. 17TH STREET ODESSA TX, 79761 (432) 272-0304 Fax To:

Received:

Chloride

02/19/2013

02/20/2013

Sampling Date: Sampling Type:

448

112

02/19/2013

Soil

400

Reported: Project Name:

PRIMERO-EIDSON #1

16.0

Project Number:

NONE GIVEN

Sampling Condition: Sample Received By:

** (See Notes) Jodi Henson

3.64

16400

02/20/2013

Project Location: LEA COUNTY, NM

Sample ID: SS - 1 (H300454-01)

Chloride, SM4500Cl-B	mg,	/kg	Analyz	ed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

ND

Sample ID: SS - 2 (H300454-02)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	18800	16.0	02/20/2013	ND	448	112	400	3.64	

Sample ID: SS - 3 (H300454-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5360	16.0	02/20/2013	ND	448	112	400	3.64	

Sample ID: SS - 4 (H300454-04)

Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/20/2013	ND	448	112	400	3.64	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's lability and dient'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 arry other cause whatsoever shall be deemed walved 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, artillates 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.

Celey & Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

CRAIN ENVIRONMENTAL CINDY CRAIN 2925 E. 17TH STREET ODESSA TX, 79761

Fax To:

(432) 272-0304

Received:

02/19/2013

Sampling Date:

02/19/2013

Reported:

02/20/2013

Sampling Type:

Soil

Project Name:

PRIMERO-EIDSON #1

Sampling Condition:

** (See Notes)

Project Number: Project Location: NONE GIVEN LEA COUNTY, NM Sample Received By:

Jodi Henson

Sample ID: SS - 5 (H300454-05)

Chloride, SM4500CI-B

mg/kg

Analyzed By: DW

Analyte

Result

Analyzed Reporting Limit

Method Blank

BS % Recovery True Value QC

Qualifier

RPD

3.64

3.64

Chloride

6400

16.0

02/20/2013

ND

448

400

Sample ID: SS - 6 (H300454-06)

Chloride, SM4500CI-B

mg/kg

Analyzed By: DW

Analyte Reporting Limit Method Blank Result Analyzed Chloride 2960 16.0 02/20/2013 ND

BS 448 % Recovery 112

112

True Value QC 400

RPD Qualifier

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim 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 lable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or 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.

Celey D. Keine

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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim 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 walved unless made in writing and received by Cardinal within thirty (38) 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 clients bessed upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240

(575) 393 2326 EAY (575) 393-2476

Company Name:	(010) 000-2020 1 147 (010) 000-2-	A CONTROL CONTROL AND	Control of the Contro	en annual an	ALIAI SOLO DE OLICOT
		<u>C-1</u>	BILL TO		ANALYSIS REQUEST
Project Manager:	Cinay Crain St.		P.O. #:		
		Parent of Parent Robert personnel and debugging to content to the content and compared annual action.	Company:		
City: () e:	554. State: 7X	Zip: 79760;	Attn:		
Phone #: (42	52) 530-9797 Fax#: (43:	1) 272-0304	Address: (2	
Project #:	Project Owner:	: Chevicus	City:	,	
Project Name:	Primero - Eidson WI	T. M. Lail C. T ayu mana ni apaga hi ni ayu papanaga 1986, haada — hay deega yay de haarin 1994ay ah hi ha	State: Zip:		
Project Location:	Lea Co, NM	T I W 18. 178 pro 186 a librari de 1860 a a a a alguna ya a pam yingan ya mbaba ana 14 a a ana	Phone #;		
Sampler Name:	Cindy Crain	ى دىنى ئىلىدى ئالىدى ئالىدى ئالىدى ئالىدى ئالىد	Fax #:	-	
FOR LAB USE ONLY	J	MATRIX	PRESERV. SAMPLI	VG	9
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE: ICE / COOL OTHER:		Chloride
1.700424	55.1	(G) ** (D) X (D) 10	DATE	TIME	
	55-2	}	2/14/13	1100	
2	55 · 3		, , , , , , , , , , , , , , , , , , ,	1110 1120	
41	55-4		1	1124	
5	55, 5	61111	27	1136	X
Lo l	55-6	G 1 X	17	1147	

HEACE LOTE, Length and	Dumages: Cardmar's saparty and client's exclusive remedy for any			and the line	
antiyyes All claims including t	hose for negligence and any other cross whatspever shall be dealered be bable for incidental or consequental damoyes, including with	ned valved unless made in writing and rec	ewed by Cardinal within 30 days after compl	letion of the applica	poble
officiales or successors action. Relinquished By:	dut of or related to the performance of services hereunder by Card	dinal, regardless of whether such claim is b	ased upon any of the above stated reasons	or otherváse.	sult: ☐ Yes ☐ No
Reiniquished By.	()	Received By:	1	Phone Res Fax Result REMARKS	t: 🛘 Yes 🗘 No Add'l Fax #:
(undy	1000 C	Referred By:	Lewson.	TALIMATO .	,
Relinquished B∳:	Date: Time:	Received By:		Empi	il Results to: Cirdy. Crain@gmail.com.
Delivered By:	Bus - Other:	Sample Condit Cool Intact Yes Yes No N	(Initials)		J J
EOBW-00	1.2				

Revision 1.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

#26

Analytical Report 458856

for Crain Environmental

Project Manager: Cindy Crain
Primero-Eidson #1

13-MAR-13

Collected By: Client





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135) Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Lakeland: Florida (E84098)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)





13-MAR-13

Project Manager: Cindy Crain Crain Environmental 2925 E 17th St. Odessa, TX 79761

Reference: XENCO Report No(s): 458856

Primero-Eidson #1

Project Address: Lea County NM

Cindy Crain:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 458856. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 458856 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Project Manager

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Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America



Sample Cross Reference 458856



Crain Environmental, Odessa, TX

Primero-Eidson #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1	S	03-06-13 09:57	5 - 6 ft	458856-001
BH-1	S	03-06-13 10:00	10 - 11 ft	458856-002
BH-1	S	03-06-13 10:21	15 - 16 ft	458856-003
BH-1	S	03-06-13 10:33	20 - 21 ft	458856-004
BH-2	S	03-06-13 11:02	0 - 1 ft	458856-005
BH-2	S	03-06-13 11:04	5 - 6 ft	458856-006
BH-2	S	03-06-13 11:08	10 - 11 ft	458856-007

CASE NARRATIVE



Client Name: Crain Environmental Project Name: Primero-Eidson #1



Project ID: Work Order Number(s):

458856

Report Date: 13-MAR-13 Date Received: 03/07/2013

Sample receipt non conformances and comments: None	
Sample receipt non conformances and comments per sample:	
None	



Certificate of Analysis Summary 458856

Crain Environmental, Odessa, TX

Project Name: Primero-Eidson #1

TNI

Project Id:

Contact: Cindy Crain

Project Location: Lea County NM

Date Received in Lab: Thu Mar-07-13 11:18 am

Report Date: 13-MAR-13

Project Manager: Nicholas Straccione

								I I O Jeet Ivilia	uger.	Tricholas Strac			
	Lab Id:	458856-0	01	458856-0	02	458856-0	03	458856-0	04	458856-0	05	458856-0	006
Analysis Daguested	Field Id:	BH-1		BH-1		BH-1		BH-1		BH-2		BH-2	
Analysis Requested	Depth:	5-6 ft		10-11 f	t	15-16 f	t	20-21 ft	:	0-1 ft		5-6 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Sample		Mar-06-13 09:57		Mar-06-13	Mar-06-13 10:00		Mar-06-13 10:21		Mar-06-13 10:33		11:02	Mar-06-13	11:04
Inorganic Anions by EPA 300/300.1 Extracted		Mar-11-13 10:00		Mar-11-13 10:00		Mar-11-13 10:00		Mar-11-13 10:00		Mar-11-13 10:00		Mar-11-13 10:00	
	Analyzed:	Mar-12-13	01:17	Mar-12-13 (01:38	Mar-12-13 (02:00	Mar-12-13 (2:22	Mar-12-13	03:05	Mar-12-13 (03:27
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		7390	218	2400	111	1180	22.1	862	21.6	945	21.3	445	10.3
Percent Moisture	Extracted:												
Analyzea		Mar-11-13	17:00	Mar-11-13	17:00	Mar-11-13	17:00	Mar-11-13 1	7:00	Mar-11-13	17:00	Mar-11-13	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		8.11	1.00	10.2	1.00	9.34	1.00	7.57	1.00	6.01	1.00	3.13	1.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Debbie Simmons Project Manager



Certificate of Analysis Summary 458856

Crain Environmental, Odessa, TX

Project Name: Primero-Eidson #1



Project Id:

Contact: Cindy Crain

Project Location: Lea County NM

Date Received in Lab: Thu Mar-07-13 11:18 am

Report Date: 13-MAR-13

Project Manager: Nicholas Straccione

,			 	Froject Manager:	1 Henolus Stracelone	
	Lab Id:	458856-007				
Analysis Requested	Field Id:	BH-2				
Anaiysis Kequesieu	Depth:	10-11 ft				
	Matrix:	SOIL				
	Sampled:	Mar-06-13 11:08				
Inorganic Anions by EPA 300/300.1	Extracted:	Mar-11-13 10:00				
	Analyzed:	Mar-12-13 03:49				
	Units/RL:	mg/kg RL				
Chloride		485 10.4				
Percent Moisture	Extracted:					
	Analyzed:	Mar-11-13 17:00				
	Units/RL:	% RL				
Percent Moisture		3.65 1.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Debbie Simmons Project Manager



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantiation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.
- BRL Below Reporting Limit.
- **RL** Reporting Limit

MDL Method Detection Limit SDL Sample Detection Limit LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOO Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

- + NELAC certification not offered for this compound.
- (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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BS / BSD Recoveries



Project Name: Primero-Eidson #1

Work Order #: 458856 Analyst: AMB

Date Prepared: 03/11/2013

Project ID:

Date Analyzed: 03/12/2013

Lab Batch ID: 908830

Sample: 634999-1-BKS

Batch #: 1

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Units: mg/kg	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]					
Chloride	<2.00	50.0	51.2	102	50.0	52.3	105	2	80-120	20		



Form 3 - MS Recoveries



Project Name: Primero-Eidson #1

Work Order #: 458856

Lab Batch #: 908830

Date Analyzed: 03/12/2013

Date Prepared: 03/11/2013

Project ID:

Analyst: AMB

QC- Sample ID: 458856-004 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATRIX / MATRIX SPIKE RECOVERY STUDY													
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag								
Chloride	862	541	1400	99	80-120									

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference [E] = 200*(C-A)/(C+B)All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Primero-Eidson #1

Work Order #: 458856

Lab Batch #; 908759

Date Analyzed: 03/11/2013 17:00

Date Prepared: 03/11/2013

Project ID:

Analyst: WRU

QC- Sample ID: 458980-003 D

Batch #: 1

Matrix: Soil

Reporting Units: %	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
Percent Moisture	18.8	18.9	1	20	

Lab Batch #: 908762

Date Analyzed: 03/11/2013 17:00 **QC- Sample ID:** 458856-006 D

Date Prepared: 03/11/2013

Analyst: WRU

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Reporting Onto, 70	SAMI DE	SAMI DET SAMI EE DEI EICHTE RECOVERT													
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag										
Analyte		[B]													
Percent Moisture	3.13	3.07	2	20											

Xenco Laboratories

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713

	Project Manager:	Cindy Crain				*							·	: .	_		rojed	t Na	me:					mei	ro -	EIC	usor ——	1#1 ——		
	Company Name	Crain Environmental							·				• • • • • • • • • • • • • • • • • • • •		,	· ·	Р	roje	:t #:		•					*				
	Company Address:	2925 East 17th Street							<u>:</u>								Pro	ect l	.oc:					Lea	Cou	unty	, NM	1		
•	City/State/Zip:	Odessa, TX 79761	:			·.										_		P	0 #:								:'			
	Telephone No:	(575) 441-7244		•		Fax No:		(43	32) 2	72-0	304					Repo	rt Fo	rma	t:	Ø	Star	ndar	d	-		rRR	P		NP	DES
	Sampler Signature:	Circle C	sain	· ·		e-mail:		cii	ndy	.cr	ain	<u>@</u> c	mail	.coı	n										٠.					
(lab use d	only)					•								:17			F			. тс	LP:	An	alyze	For	r:	-	一	<u> </u>	$\overline{}$	
ORDER	11 \square \square \square \square	50 I							_	Drace	n/ati	on & s	of Cor	fainar		Matrix				701	AL:	\dashv	#	丰	╡.					, 72 hm
LAB# (lab use only)	FIEL	_D CODE BH-1 BH-1	.c. Beginning Depth	9 Ending Depth	3/6/2013 3/6/2013	Time Sampled 1000	Field Filtered	Total #. of Containers	90 <u>1</u>	89	НСІ	H₂SO₄			Other (Specify)	pgos/	on-Potable Specify Uther 418.1 8015M 8015	TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	X X Arions (Cl.) SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 80218/5030 or BTEX 8260	RCI	N.O.R.M.			RUSH TAT (Pre-Schodule) 24, 48,
03	I	3H-1	15'	16'	3/6/2013	1021		1						X		S	T	Τ		х			\top	1	T	7	\top	\top		Х
OU		3H-1	20'	21'	3/6/2013	1033		1						х		S				х			\prod	floor	$oxed{oxed}$		$ m oxedsymbol{f I}$			х
05		BH-2	0'	1'	3/6/2013	1102		1						x		S	L			х			\perp			\perp			$oldsymbol{\perp}$	х
06	E	3H-2	5'	6'	3/6/2013	1104	L	1						X		S	\perp	L		х		\bot	\perp	\perp	\perp	\perp	1	\bot	نــــــــــــــــــــــــــــــــــــــ	X
<i>Ο</i> 1.		3H-2	10'	11'	3/6/2013	1108		1						X		S	<u> </u> -			Х			\pm	+	_	_	\pm			X
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Special I	nstructions:	· · · · · · · · · · · · · · · · · · ·	<u> </u>	<u> </u>				L			•		.]	<u></u>			1:	<u></u>	Sar	nple	Cor	ntain	mme iers l	ntac	:1?					
Relinquish (Relinquish	undy Crau	Date 3/7//3 Date		me 18	Received by: Received by:			_							Da	į	Tin		Lat Cus Cus	els o stody stody	n co sea sea	onta als o als o	iner(in coi in coi elive	s) ntair oler(ner(s	s)		T T) }	z(B) (S) z
Relinquish		Date		me	B-0-24-50	ot: UN 002	2	<u>-</u>	F	u				1	Da		3 Tin			by S by C	amp ouri	er?	Client	Rep JPS	D	HL	300	10.	V. 37	N ne Star



XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: Crain Environmental

Work Order #: 458856

Date/ Time Received: 03/07/2013 11:18:00 AM

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sa	ample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		10	
#2 *Shipping container in good condition?	•	Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contained	er/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?		Yes	
#6 *Custody Seals Signed and dated?		Yes	
#7 *Chain of Custody present?		Yes	
#8 Sample instructions complete on Chain of	Custody?	Yes	
#9 Any missing/extra samples?		No	
#10 Chain of Custody signed when relinquish	ed/ received?	Yes	
#11 Chain of Custody agrees with sample lab	el(s)?	Yes	
#12 Container label(s) legible and intact?		Yes	
#13 Sample matrix/ properties agree with Cha	in of Custody?	Yes	
#14 Samples in proper container/ bottle?		Yes	
#15 Samples properly preserved?		Yes	
#16 Sample container(s) intact?		Yes	
#17 Sufficient sample amount for indicated te	st(s)?	Yes	
#18 All samples received within hold time?		Yes	
#19 Subcontract of sample(s)?		Yes	
#20 VOC samples have zero headspace (less	s than 1/4 inch bubble)?	Yes	
#21 <2 for all samples preserved with HNO3,I	HCL, H2SO4?	Yes	
#22 >10 for all samples preserved with NaAso	D2+NaOH, ZnAc+NaOH?	Yes	

Analyst:	PH Device/Lot#:		
Checklist cor	mpleted by:	 Date:	
Checklist re	viewed by:	 Date:	

Xenco Laboratories

Project Manager: Cindy Crain

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name

12600 West I-20 East Odessa, Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713

Primero - Eidson #1

																													_
Company Name	Crain Environmental							p., a								· P	rojec	:t #:											
Company Address:	2925 East 17th Street			· 					_							Proj	ect L	oc:				L	.ea C	oun	ty, Ni	VI			
City/State/Zip:	Odessa, TX 79761							•									P	O #:											_
Telephone No:	(575) 441-7244	_			Fax No:		(432	2) 27	2-03	04				_	Repo	rt Fo	rma	t:	M's	Stand	dard			TRE	RP.		NPDE	 ≘s	_
Sampler Signature:	7 .	Coa	· ·		e-mail:										·				·										
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826</th><th>RCI</th><th>N.O.R.M.</th><th></th><th></th><th></th><th>Statinary</th></tr><tr><td></td><td>BH-1</td><td>25</td><td>26</td><td>3/26/2013</td><td>1037</td><td></td><td>1</td><td></td><td></td><td></td><td></td><td></td><td>х</td><td></td><td>s</td><td></td><td></td><td></td><td>Х</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>x</td><td>X</td></tr><tr><td>ı</td><td>BH-1</td><td>30</td><td>31</td><td>3/26/2013</td><td>1048</td><td></td><td>1</td><td></td><td>_</td><td></td><td>_</td><td></td><td>x</td><td></td><td>_ 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FIELD CODE BH-1 BH-1</td><td>Company Address: 2925 East 17th Street City/State/Zip: Odessa, TX 79761 Telephone No: (575) 441-7244 Sampler Signature: e-mail: cindy.cra Preser FIELD CODE BH-1 BH-1 30 31 3/26/2013 1037 1 BH-1 35 36 3/26/2013 1057 1 BH-1 40 41 3/26/2013 1106 1 BH-1 45 46 3/26/2013 1110 1 SS-7 Date Time Received by: Recei</td><td>Company Address: 2925 East 17th Street City/State/Zip: Odessa, TX 79761 Telephone No: (575) 441-7244 Sampler Signature: e-mail: Cindy.crain@ FIELD CODE 60 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td>Company Address: 2925 East 17th Street City/State/Zip: Odessa, TX 79761 Telephone No: (575) 441-7244 Sampler Signature: e-mail: cindy.crain@gn FIELD CODE BH-1 BH-</td><td>Company Address: 2925 East 17th Street City/State/Zip: Odessa, TX 79761 Telephone No: (575) 441-7244 Sampler Signature: e-mail: cindy.crain@gmail. 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Analytical Report 460076

for Crain Environmental

Project Manager: Cindy Crain
Primero-Eidson #1

03-APR-13

Collected By: Client





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135) Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Lakeland: Florida (E84098)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





03-APR-13

Project Manager: Cindy Crain Crain Environmental 2925 E 17th St. Odessa, TX 79761

Reference: XENCO Report No(s): 460076

Primero-Eidson #1

Project Address: Lea County NM

Cindy Crain:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 460076. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 460076 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully

Nicholas Straccione

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America



Sample Cross Reference 460076



Crain Environmental, Odessa, TX

Primero-Eidson #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1	S	03-26-13 10:37	25 - 26 ft	460076-001
BH-1	S	03-26-13 10:48	30 - 31 ft	460076-002
BH-1	S	03-26-13 10:57	35 - 36 ft	460076-003
BH-1	S	03-26-13 11:06	40 - 41 ft	460076-004
BH-1	S	03-26-13 11:10	45 - 46 ft	460076-005
SS-7	S	03-26-13 11:30	0 - 6 In	460076-006

CASE NARRATIVE



Client Name: Crain Environmental Project Name: Primero-Eidson #1



Project ID:

Work Order Number(s):

460076

Report Date: 03-APR-13 Date Received: 03/27/2013

Sample receipt non conformances and comments:
None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-910129 BTEX by EPA 8021B

SW8021BM

Batch 910129, Ethylbenzene, m_p-Xylenes recovered below QC limits in the Matrix Spike Duplicate.

Samples affected are: 460076-006.

The Laboratory Control Sample for Ethylbenzene, m p-Xylenes is within laboratory Control Limits



Certificate of Analysis Summary 460076

Crain Environmental, Odessa, TX

Project Name: Primero-Eidson #1

TNI

Project Id:

Contact: Cindy Crain

Project Location: Lea County NM

ate Received in Lab. Wood in

Date Received in Lab: Wed Mar-27-13 03:36 pm

Report Date: 03-APR-13

Project Manager: Nicholas Straccione

,								Project Mai	nager:	Nicholas Strac	cione	*****	
	Lab Id:	460076-0	01	460076-0	02	460076-0	03	460076-0	04	460076-0	05	460076-	006
Analysis Requested	Field Id:	BH-1		BH-1		BH-1		BH-1		BH-1		SS-7	
mulysis Requesieu	Depth:	25-26 f	t	30-31 f	t	35-36 fi	t	40-41 f	ì	45-46 f	t	0-6 I	1
	Matrix:	SOIL	[SOIL		SOIL		SOIL		SOIL		SOII	
	Sampled:	Mar-26-13	10:37	Mar-26-13	0:48	Mar-26-13 1	10:57	Mar-26-13	11:06	Mar-26-13	11:10	Mar-26-13	11:30
BTEX by EPA 8021B	Extracted:							······································			~-	Mar-28-13	15:10
	Analyzed:											Mar-29-13	06:33
	Units/RL:		[mg/kg	RL
Benzene				-								ND	0.00101
Toluene					ĺ				-			ND	0.00202
Ethylbenzene												ND	0.00101
m_p-Xylenes												ND	0.00202
o-Xylene												ND	0.00101
Total Xylenes												ND	0.00101
Total BTEX												ND	0.00101
Inorganic Anions by EPA 300/300.1	Extracted:	Apr-01-13	10:00	Apr-01-13 1	0:00	Apr-01-13 1	10:00	Apr-01-13	10:00	Apr-01-13	10:00	Apr-01-13	10:00
	Analyzed:	Apr-02-13	01:05	Apr-02-13 (1:27	Apr-02-13 (01:48	Apr-02-13 (02:10	Apr-02-13	02:32	Apr-02-13	02:53
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2430	42.5	1200	21.1	430	10.4	281	10.5	93.6	4.43	736	40.4
Percent Moisture	Extracted:					_ -		_					
	Analyzed:	Mar-28-13	17:25	Mar-28-13	17:25	Mar-28-13 1	17:25	Mar-28-13	17:25	Mar-28-13	17:25	Mar-28-13	17:25
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		5.80	1.00	5.31	1.00	3.86	1.00	5.11	1.00	9.78	1.00	1.04	1.00
TPH By SW8015 Mod	Extracted:											Mar-29-13	09:10
	Analyzed:											Mar-29-13	12:08
	Units/RL:				Ì							mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons												ND	15.1
C12-C28 Diesel Range Hydrocarbons												1630	15.1
C28-C35 Oil Range Hydrocarbons												794	15.1
Total TPH						-						2420	15.1

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Nicholas Straccione Project Manager



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantiation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analytic. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- * Surrogate recovered outside laboratory control limit.
- **BRL** Below Reporting Limit.
- **RL** Reporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

- + NELAC certification not offered for this compound.
- (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	, ,
	(214) 902 0300 (210) 509-3334 (813) 620-2000 (432) 563-1800 (770) 449-8800



Form 2 - Surrogate Recoveries

Project Name: Primero-Eidson #1

Work Orders: 460076,

Project ID:

Lab Batch #: 910129

Sample: 460076-006 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 03/29/13 06:33	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
Analytes	0.0202	0.0200	ļ	00.120			
1,4-Difluorobenzene	0.0322	0.0300	107	80-120			
4-Bromofluorobenzene	0.0247	0.0300	82	80-120			

Lab Batch #: 910227

Sample: 460076-006 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/29/13 12:08	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
f-Chlorooctane	98.4	99.7	99	70-135			
o-Terphenyl	53.5	49.9	107	70-135			

Lab Batch #: 910129

Sample: 635830-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 03/28/13 15:44	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluorobenzene	0.0285	0.0300	95	80-120			
4-Bromofluorobenzene	0.0297	0.0300	99	80-120			

Lab Batch #: 910227

Sample: 635905-1-BLK / BLK

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 03/29/13 11:42	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	102	99.9	102	70-135			
o-Terphenyl	53.5	50.0	107	70-135			

Lab Batch #: 910129

Sample: 635830-1-BKS / BKS

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 03/28/13 14:38	SURROGATE RECOVERY STUDY						
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1,4-Difluorobenzene	0.0285	0.0300	95	80-120			
4-Bromofluorobenzene	0.0322	0.0300	107	80-120			

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: Primero-Eidson #1

Work Orders: 460076,

Project ID:

Lab Batch #: 910227

Sample: 635905-1-BKS / BKS

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 03/29/13 10:51	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	101	100	101	70-135			
o-Terphenyl	61.6	50.1	123	70-135			

Lab Batch #: 910129

Sample: 635830-1-BSD / BSD

Batch:

Matrix: Solid

Units: mg/kg	Date Analyzed: 03/28/13 14:55	SURROGATE RECOVERY STUDY						
BTEX	by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
A	Analytes			[D]	ĺ			
1,4-Difluorobenzene		0.0323	0.0300	108	80-120			
4-Bromofluorobenzene		0.0300	0.0300	100	80-120			

Lab Batch #: 910227

Sample: 635905-1-BSD / BSD

Batch:

Matrix: Solid

Units: mg/kg	Date Analyzed: 03/29/13 11:17	SURROGATE RECOVERY STUDY							
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane		100	100	100	70-135				
o-Terphenyl		58.5	50.1	117	70-135				

Lab Batch #: 910129

Sample: 459879-003 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 03/28/13 19:01	SURROGATE RECOVERY STUDY						
втех	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	Analytes			[D]				
1,4-Difluorobenzene		0.0298	0.0300	99	80-120			
4-Bromofluorobenzene		0.0333	0.0300	111	80-120			

Lab Batch #: 910227

Sample: 460211-001 S / MS

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 03/29/13 20:57	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes	ı	ĺ	[D]				
I-Chlorooctane	95.1	100	95	70-135			
o-Terphenyl	60.3	50.0	121	70-135			

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: Primero-Eidson #1

Work Orders: 460076,

Project ID:

Lab Batch #: 910129

Sample: 459879-003 SD / MSD

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/28/13 19:17	St	RROGATE R	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			{ D }	1	i
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

Lab Batch #: 910227

Sample: 460211-001 SD / MSD

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 03/29/13 21:24	SURROGATE RECOVERY STUDY												
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
1-Chlorooctane	103	100	103	70-135									
o-Terphenyl	58.8	50.0	118	70-135									

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: Primero-Eidson #1

Work Order #: 460076

Analyst: KEB

Date Prepared: 03/28/2013

Project ID:

Date Analyzed: 03/28/2013

Lab Batch ID: 910129

Analytes Benzene Toluene Ethylbenzene m_p-Xylenes o-Xylene

Sample: 635830-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BTEX by EPA 8021B

	BLAN	K/BLANK	SPIKE / E	BLANK S	PIKE DUPI	LICATE F	RECOVI	ERY STUD	ΟΥ	
Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
<0.000994	0.0994	0.0899	90	0.101	0.0950	94	6	70-130	35	
 <0.00199	0.0994	0.0840	85	0.101	0.0939	93	11	70-130	35	
 <0.000994	0.0994	0.0804	81	0.101	0.0873	86	8	71-129	35	
 <0.00199	0.199	0.163	82	0.201	0.176	88	8	70-135	35	
 				+					+	+

0.0975

0.101

Analyst: AMB

Date Prepared: 04/01/2013

0.0994

< 0.000994

0.0877

Date Analyzed: 04/01/2013

71-133

Lab Batch ID: 910455

Sample: 636033-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	PIKE DUPI	ICATE 1	RECOVI	ERY STUD	Y	
Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Chloride	<2.00	50.0	49.0	98	50.0	49.1	98	0	80-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Primero-Eidson #1

Work Order #: 460076 Analyst: KEB

Date Prepared: 03/29/2013

Project ID:

Date Analyzed: 03/29/2013

Lab Batch ID: 910227

Sample: 635905-1-BKS **Batch #:** 1

Matrix: Solid

Units: mg/kg		BLAN	K/BLANK S	SPIKE / I	BLANK S	PIKE DUPI	ICATE 1	RECOVI	ERY STUD	Y	
TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	972	97	1000	985	99	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1060	106	1000	1070	107	1	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Primero-Eidson #1

Work Order #: 460076

Lab Batch #: 910455

Project ID:

Date Prepared: 04/01/2013

Analyst: AMB

Date Analyzed: 04/01/2013 **QC- Sample ID:** 459989-001 S

Batch #:

Matrix: Soil

Reporting Units: mg/kg	MATRIX / MATRIX SPIKE RECOVERY STUDY														
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag									
Analytes															
Chloride	437	250	689	101	80-120										

Lab Batch #: 910455

Date Analyzed: 04/02/2013

Date Prepared: 04/01/2013

Analyst: AMB

QC- Sample ID: 460076-006 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	736	1010	1730	98	80-120	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference [E] = 200*(C-A)/(C+B) All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Primero-Eidson #1

Work Order #: 460076

Project ID:

Lab Batch ID: 910129

QC-Sample ID: 459879-003 S

Batch #:

Matrix: Soil

Date Analyzed: 03/28/2013

Date Prepared: 03/28/2013

Analyst: KEB

Reporting Units: mg/kg

Analyst. RED

reporting Units. hig/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Result	Sample		Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag		
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD			
Benzene	<0.00110	0.110	0.0860	78	0.109	0.0852	78	1	70-130	35			
Toluene	<0.00220	0.110	0.0869	79	0.109	0.0821	75	6	70-130	35			
Ethylbenzene	<0.00110	0.110	0.0777	71	0.109	0.0719	66	8	71-129	35	Х		
m_p-Xylenes .	<0.00220	0.220	0.154	70	0.219	0.146	67	5	70-135	35	X		
o-Xylene	<0:00110	0.110	0.0868	79	0.109	0.0806	74	7	71-133	35			

Lab Batch ID: 910227

QC-Sample ID: 460211-001 S

Batch #:

Matrix: Soil

Date Analyzed: 03/29/2013

Date Prepared: 03/29/2013

Analyst: KEB

Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	4	RPD	Control Limits	Control Limits	Flag		
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD			
C6-C12 Gasoline Range Hydrocarbons	<16.2	1080	1010	94	1080	1020	94	1	70-135	35			
C12-C28 Diesel Range Hydrocarbons	<16.2	1080	1120	104	1080	1140	106	2	70-135	35			

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E



Sample Duplicate Recovery



Project Name: Primero-Eidson #1

Work Order #: 460076

Lab Batch #: 910141

Date Analyzed: 03/28/2013 17:25

Date Prepared: 03/28/2013 Batch #: 1

Project ID:

Analyst: WRU

QC-Sample ID: 460041-001 D

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Reporting Omis. 70	SAMILE!	SAMI LL	DUILIC	AIL KEC	OVERT
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte	(-1	[B]			
Percent Moisture	7.43	7.04	5	20	

Xenco Laboratories

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713

Primero - Eidson #1

1	Project Manager:	Cindy Crain														_		Pro	ject	Naı	ne:				Pr —	me	ro -	- EI	dsc	n#	:1 				
	Company Name	Crain Environmental																	Pro	ojec	t#:												 		
	Company Address:	2925 East 17th Street				·												F	roje	ct L	oc:					Lea	ı Co	unt	y, N	M					
	City/State/Zip:	Odessa, TX 79761																		PC) #:														2
	Telephone No:	(575) 441-7244				Fax No:		(43	32) 2	272-C	304						Re	por	t For	mat	:	A	/ Stai	ndan	d			TRR	.—. ₹P			, VPD	ES	: /	1
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(lab use	///////	16							Г	Press	ervati	on &	# of (Conta	iners		Mat	rix	8			TOT			alyz	e Fo		Ī	Ī	1	T		48, 72 hrs		
LAB # (lab use only)		LD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	S)	h3	HCI .	H₂SO₄		O³			DW≕Drinking Water SL≕Sludge GW≔ Groundwater S∺Soil/Solid	ble Specify Other	TPH: 418.1 (8015M) 8015E	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	finions (CL)SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.			DIICH TAT ma Calculate of	Schedule) 24,	Standard IAT	250 1K Of 1K
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XENCO Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: Crain Environmental

Work Order #: 460076

Date/ Time Received: 03/27/2013 03:36:00 PM

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		2	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping conta	iner/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	•	Yes	
#6 *Custody Seals Signed and dated?		Yes	
#7 *Chain of Custody present?		Yes	
#8 Sample instructions complete on Chain	of Custody?	Yes	
#9 Any missing/extra samples?	•	No	
#10 Chain of Custody signed when relinqui	shed/ received?	Yes	
#11 Chain of Custody agrees with sample I	abel(s)?	Yes	
#12 Container label(s) legible and intact?		Yes	
#13 Sample matrix/ properties agree with C	Chain of Custody?	Yes	
#14 Samples in proper container/ bottle?		Yes	
#15 Samples properly preserved?		Yes	
#16 Sample container(s) intact?		Yes	
#17 Sufficient sample amount for indicated	test(s)?	Yes	
#18 All samples received within hold time?		Yes	
#19 Subcontract of sample(s)?		Yes	
#20 VOC samples have zero headspace (le	ess than 1/4 inch bubble)?	Yes	
#21 <2 for all samples preserved with HNC	3,HCL, H2SO4?	Yes	
#22 >10 for all samples preserved with Na/	AsO2+NaOH, ZnAc+NaOH?	Yes	

Must be s	omploted for	after-houre	dolivory of	eamnlac	prior to	nlacina in	the refrigerat	_
` wust de c	ombieted for	· aπer-nours	delivery of	rsambies	prior to	biacing in	tne retriderai	OI

Analyst:	PH Device/Lot#:	
Checklist com	pleted by:	Date:
Checklist rev	iewed by:	Date:



April 24, 2013

CINDY CRAIN

CRAIN ENVIRONMENTAL

2925 E. 17TH STREET

ODESSA, TX 79761

RE: EIDSON #1

Enclosed are the results of analyses for samples received by the laboratory on 04/24/13 14:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 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)

Accreditation applies to public drinking water matrices.

Celes D. Keine

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:

CRAIN ENVIRONMENTAL CINDY CRAIN 2925 E. 17TH STREET **ODESSA TX, 79761**

Fax To: (432) 272-0304

Received:

04/25/2013

Sampling Date:

04/25/2013

Reported:

04/30/2013

Sampling Type:

Soil

Project Name:

EIDSON #1 NONE GIVEN

Sampling Condition: Sample Received By: Cool & Intact Amanda Ponce

Project Number: Project Location:

LEA COUNTY, NM

Sample ID: TOP SOIL (H300977-01)

loride, SM4500Cl-B	mg/l
--------------------	------

Chloride, SM45UUCI-B	mg	Anaiyze	O BY: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/26/2013	ND	400	100	400	0.00	

Ameliania Osa AD

Sample ID: LOAD LINE (H300977-02)

BTEX 8021B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2013	ND	2.18	109	2.00	0.709	
Toluene*	<0.100	0.100	04/29/2013	ND	1.96	98.2	2.00	0.399	
Ethylbenzene*	<0.050	0.050	04/29/2013	ND	2.14	107	2.00	0.0330	
Total Xylenes*	<0.150	0.150	04/29/2013	ND	6.18	103	6.00	1.28	
Total BTEX	<0.300	0.300	04/29/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	104	% 89.4-12	6						-
Chloride, SM4500Cl-B	mg,	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	04/26/2013	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	04/27/2013	ND	171	85.5	200	11.1	
DRO >C10-C28	<10.0	10.0	04/27/2013	ND	164	82.0	200	13.4	

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

92.1%

65.2-140

*=Accredited Analyte

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Celey & Keine

Surrogate: 1-Chlorooctane

Cardinal Laboratories

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

ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Crain Environmen	tal		***************************************		23.10	10.3	B	LLTO	3000000		:			ANAI	YSIS	RE	QUE	ST			
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Phone #: (43	32) 530-9797 Fax#: (43				مط	+	dres	e. /	700	P	1 .]		1:	ļ	• '	·
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Project Location: Sampler Name:						-}	x #:	+,	 	··· ;	1		· ·	1				1:	1	. .	1	
FOR LAB USE ONLY	Cindy Crain	T	П	MAT	RIX			SERV	SAMPLI	NG	1				1.						'	
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	e of services hereunder by Cardinal, regardless of whether such claim is based upon any of the	pore stated reasons or otherwise.
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	7/24/13 /10	Fax Result:
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Sampler UPS - Bus - Other:	150 Dyes Pyes	575-441-7244 verbals
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EOPM 006		

FORM-006 Revision 1.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476



April 30, 2013

CINDY CRAIN
CRAIN ENVIRONMENTAL
2925 E. 17TH STREET
ODESSA, TX 79761

RE: EIDSON #1

Enclosed are the results of analyses for samples received by the laboratory on 04/25/13 14:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 accredited 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)

Accreditation applies to public drinking water matrices.

Celey D. Keene

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:

CRAIN ENVIRONMENTAL CINDY CRAIN 2925 E. 17TH STREET **ODESSA TX, 79761**

Fax To:

(432) 272-0304

Analyzed By: AP

Received:

Chloride, SM4500CI-B

04/25/2013

Reported: Project Name: 04/30/2013 EIDSON #1

Project Number:

NONE GIVEN

Project Location:

LEA COUNTY, NM

mg/kg

Sampling Date:

04/25/2013

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Amanda Ponce

Sample ID: TOP SOIL (H300977-01)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/26/2013	ND	400	100	400	0.00	
Sample ID: LOAD LINE (H3009	77-02)								
BTEX 8021B	mg.	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2013	ND	2.18	109	2.00	0.709	
Toluene*	<0.100	0.100	04/29/2013	ND	1.96	98.2	2.00	0.399	
Ethylbenzene*	<0.050	0.050	04/29/2013	ND	2.14	107	2.00	0.0330	
Total Xylenes*	<0.150	0.150	04/29/2013	ND	6.18	103	6.00	1.28	
Total BTEX	<0.300	0.300	04/29/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIE	104	% 89.4-12	6						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	304	16.0	04/26/2013	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	Qualifie
GRO C6-C10	<10.0	10.0	04/27/2013	ND	171	85.5	200	11.1	
DRO >C10-C28	<10.0	10.0	04/27/2013	ND	164	82.0	200	13.4	
Surrogate: 1-Chlorooctane	92.1	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	103	% 63.6-15	4						

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Kuna

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. Keine



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

	(575) 393-2326 FAX											·									
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Sampler Name	: Cindy Crain					Fax					X		,			•					
FOR LAB USE ONLY	Albert 1			-	MATRIX	-	PRESER	V. SAMPL	NG		8015 M	15.08									
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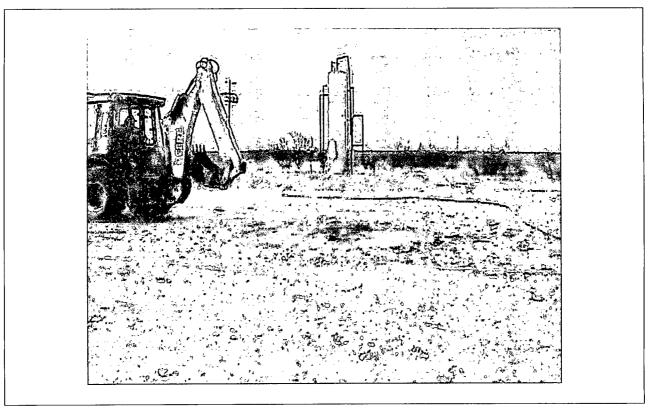
PLEASE NOTE: Liability and Damages. Cartificial sliability and clearity exclusive remedy for any cleared warve unless made in writing and received by Cardinal within 30 days after competition of the applicability and including those for negligence and any other cause whatsoever shall be deamed warved unless made in writing and received by Cardinal within 30 days after completion of the applicability and the state of the properties of the applicability of the performance of services 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 hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinguished By:	Date: 4/25/13	Received By:		Phone Result:	□ Yes	□ No	Add'l Phone #:		_
Λ Λ .	1/25/13			Fax Result:	☐ Yes	□ No	Add'l Fax #:		_
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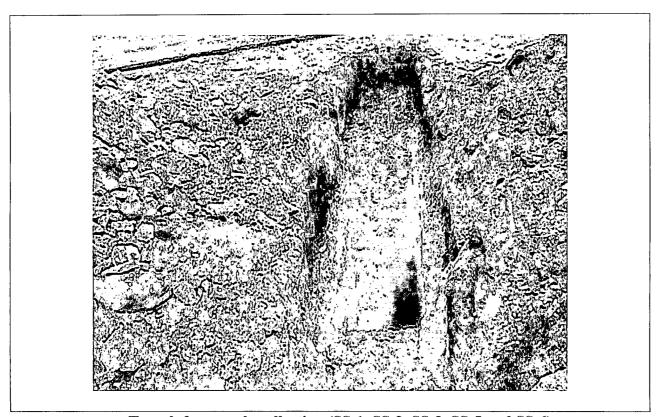
[†] Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

APPENDIX D

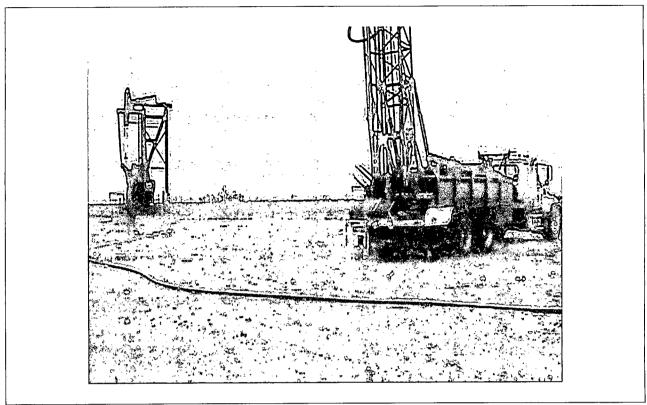
PHOTOGRAPHS



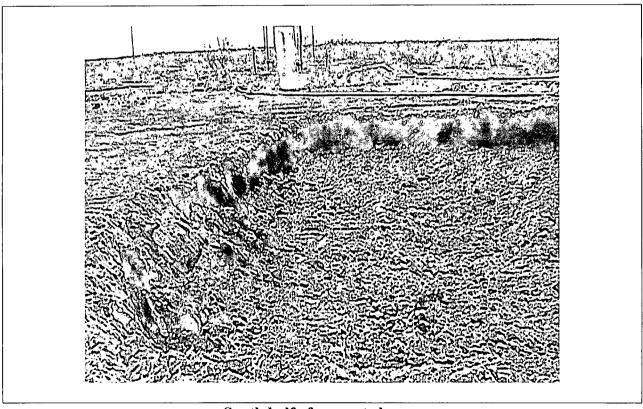
Former Produced Water Tank Location.



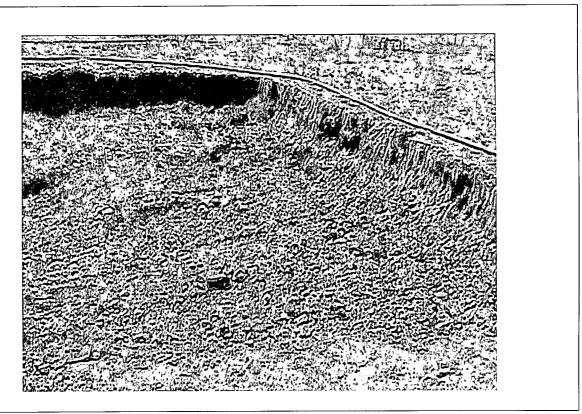
Trench for sample collection (SS-1, SS-2, SS-3, SS-5 and SS-6).



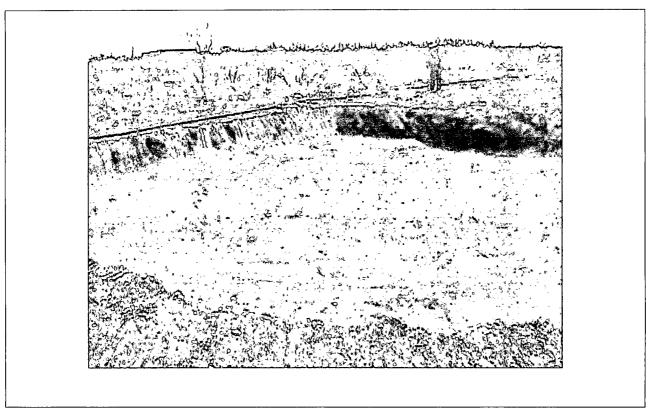
Installation of soil boring BH-1.



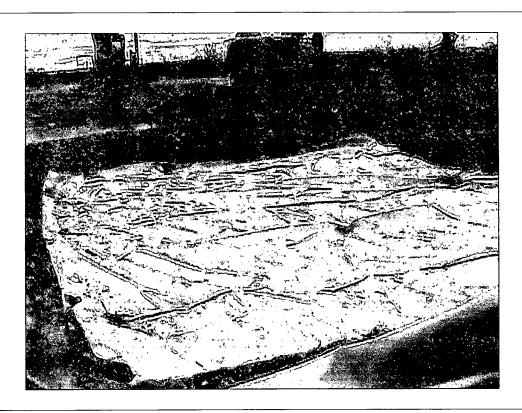
South half of excavated area.



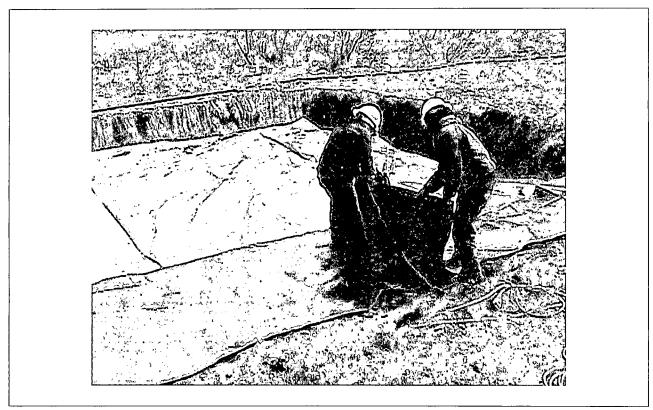
North half of excavated area.



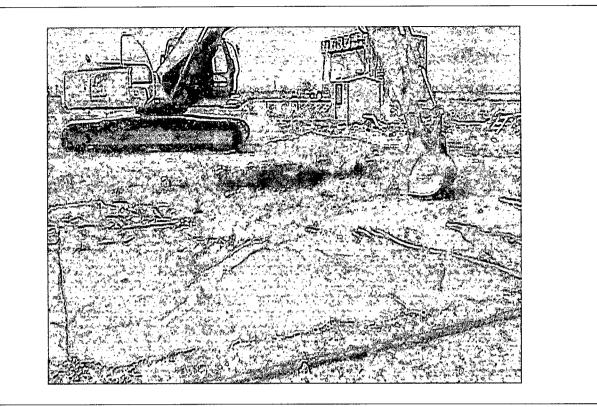
Top soil in bottom of excavation prior to liner.



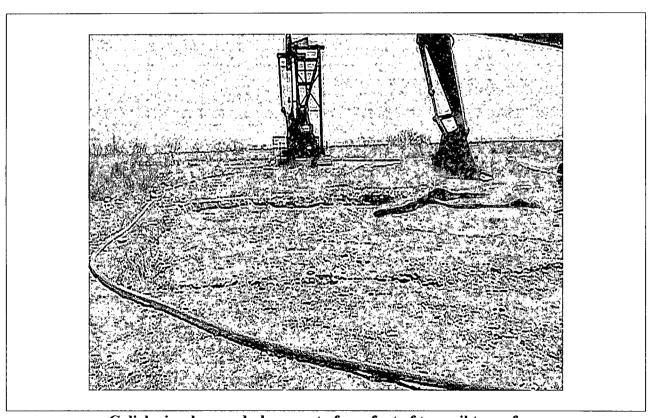
Installation of 20 mil liner.



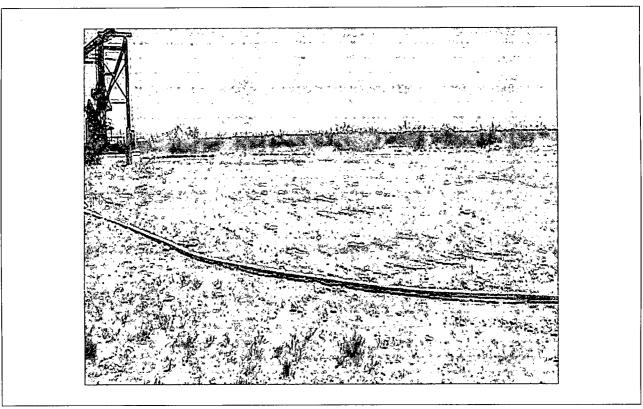
Installation of 20 mil liner.



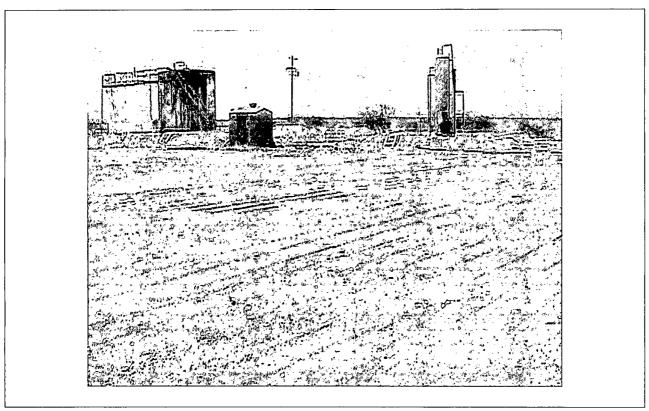
Placement of top soil over liner.



Caliche in place and placement of one foot of top soil to surface.



Remediated area (view to east).



Remediated area (view to west).

APPENDIX E

FINAL C141 FORM