FINAL C-141 AND SPILL REMEDIATION REPORT

AUGUST 2011

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Burgundy Oil & Gas of NM, Inc.	Contact	Ben Taylor
Address	401 W. Texas, Suite 1003, Midland, TX 79701	Telephone No.	(432) 684-4033
Facility Name	Eunice Monument Unit Tank Battery	Facility Type	Central Oil & Gas Battery

Surface Owner: State	Mineral Owner: State	Lease No. 015823

NEARBY WELL EUNICE MONUMENT UNIT 020

LOCATION OF RELEASE 30-025-04319-00-00

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	24	20S	36E					Lea

Latitude N 32.56231° **Longitude** W 103.28065°

NATURE OF RELEASE

Type of Release	Water with slop oil	Volume of Release 8 bbl	Volume Recovered 6 bbl
Source of Release	400 bbl fiberglass tank	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 7/15/10
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required		If YES, To Whom?	
By Whom? Geoffrey Leking		Date and Hour 7/23/10 - afternoon	
Was a Watercourse Reached? ☐ Yes ☒ No		If YES, Volume Impacting the Watercourse.	

HOBBS OCD

JUL 14 2011

RECEIVED

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Injection tank overflowed into an overflow tank that had 8 bbls of slop oil in it. Alarm system malfunctioned, causing the 8 bbls to be pushed over the top of tank. Picked up all but 2 bbls.

Describe Area Affected and Cleanup Action Taken.*

Pad around tanks were stained with oil. Soil was excavated in an approximate 250' x 100' x 3' (deep) area until laboratory results of samples reported TPH concentrations below 100 mg/kg and chloride concentrations below 250 mg/kg. Impacted soil was blended on-site with clean soil and fertilizer until TPH concentrations were reported below 100 mg/kg, and the excavation was backfilled with blended soil. A site drawing with sample locations is attached, along with laboratory documentation and a table summarizing the sample results. The tank battery areas were lined with 20 mil plastic and new firewalls were constructed with the additional blended soil.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Ben Taylor	OIL CONSERVATION DIVISION
Printed Name: Ben Taylor	Approved by ~~District Supervisor:~~ ENV ENGINEER Geoff Leking
Title: Production Manager	Approval Date: 08/12/11 Expiration Date: —
E-mail Address: bogi@t3wireless.com	Conditions of Approval: — Attached ☐ IRP-11-10-2660
Date: 7/7/11 Phone: (432) 684-4033	

* Attach Additional Sheets If Necessary

Crain Environmental

HOBBS OCD

JUL 14 2011

RECEIVED

July 14, 2011

Mr. Geoffrey Leking
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Spill Remediation Report, Burgundy Oil & Gas of New Mexico, Inc.,
Eunice Monument Unit Tank Battery,
Unit Letter I (NE/4, SE/4), Section 24, Township 20 South, Range 36 East,
Lea County, New Mexico
(Latitude: N 32.56231° / Longitude: W 103.28065°)

Dear Mr. Leking:

Burgundy Oil & Gas of New Mexico, Inc. (Burgundy) has retained Crain Environmental (CE) to remediate impacts to soil from a leak at the Eunice Monument Unit Tank Battery (Site). The Site is located in the northeast quarter (NE/4) of the southeast quarter (SE/4), Section 24, Township 20 South, Range 36 East, Lea County, New Mexico. Approximately 8 barrels of produced water and slop oil were released from a fiberglass tank on or about July 15, 2010, and approximately 6 barrels of fluid were recovered from the site. A C-141 was submitted to the New Mexico Oil Conservation Division (NMOCD) on July 28, 2010, a copy of which is included as Appendix A. 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 37 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' ~~>100 Feet~~	20
Wellhead Protection Area	No	0
Distance to Surface Water Body	>1000 Horizontal Feet	0
		Total: 0

The following RRALs have been assigned based on NMOCD criteria:

Benzene	**10 mg/kg**
Total BTEX	**50 mg/kg**
TPH	**100 mg/kg**

2925 East 17th Street • Odessa, TX 79761
Phone: (432) 530-9797 • Fax: (432) 272-0304

Initial Investigation

On August 27, 2010, soil samples (SS-1 through SS-14) were collected throughout the spill area at depths of six (6) inches and one (1) foot below ground surface (bgs). The soil samples were placed in clean glass sample jars, labeled, chilled in an ice chest and delivered to Xenco Laboratories (Xenco), of Odessa, Texas for analysis of benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX), total petroleum hydrocarbons (TPH) and chloride. Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations. Appendix B provides a copy of the laboratory reports and chain of custody documentation. Appendix C provides photographic documentation.

Referring to Table 1, Benzene, BTEX and chloride concentrations were reported below the RRALs of 10 mg/kg, 50 mg/kg, and 250 mg/kg, respectively, in each sample. TPH concentrations were reported above the RRAL of 100 mg/kg in the following samples at a depth of one (1) foot bgs:

SS-3	934.2 mg/kg
SS-5	311.0 mg/kg
SS-6	690.0 mg/kg
SS-9	3013.0 mg/kg
SS-10	5746.0 mg/kg
SS-11	876.2 mg/kg
SS-13	982.5 mg/kg

Remediation and Confirmation Sampling Activities

Portions of the spill area that reported elevated TPH concentrations were excavated to a depth of two (2) feet bgs, except for sample point SS-9, that was excavated to a depth of one and half (1.5) foot bgs. All excavated soil was blended on-site with clean soil and fertilizer. On October 21, 2010, soil samples were collected from the above referenced points (at a depth of 2' bgs) and from each of the two (2) blended spoil piles. The soil samples were placed in clean glass sample jars, labeled, chilled in an ice chest and delivered to Xenco for TPH analysis. Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations. Appendix B provides a copy of the laboratory reports and chain of custody documentation. Appendix C provides photographic documentation.

Referring to Table 1, soil samples SS-3, SS-5 and SS-6 reported non-detect TPH concentrations. Soil sample SS-13 reported a TPH concentration of 33.6 mg/kg. TPH concentrations in soil samples SS-9 (958.5 mg/kg), SS-10 (4156 mg/kg) and SS-11 (554.4 mg/kg) remained above the RRAL of 100 mg/kg.

Additional soil was excavated from the areas surrounding sample points SS-9 and SS-10 (to a depth of 3' bgs), and sample point SS-11 (to a depth of 4' bgs). All excavated soil was added to the two (2) spoil piles and blended, in order to reduce TPH concentrations below 100 mg/kg. On November 6, 2010, soil samples were collected from the SS-9, SS-10, SS-11 sample points, and from the two (2) spoil piles for TPH analysis. Table 1 provides a summary of the

laboratory results. Figure 2 shows the sample locations. Appendix B provides a copy of the laboratory reports and chain of custody documentation.

Referring to Table 1, sample points SS-9 and SS-10 reported TPH concentrations that were Non-Detect, and sample point SS-11 reported a TPH concentration of 70.6 mg/kg. TPH concentrations in the two (2) spoil piles remained above the RRAL (Spoil 1 = 820.4 mg/kg, Spoil 2 = 1022.3 mg/kg).

Additional clean soil and fertilizer was added to the spoil piles and blending continued until soil samples collected on April 6, 2011 reported TPH concentrations below 100 mg/kg (Spoil 1 = 38.6 mg/kg, Spoil 2 = 36.7 mg/kg). The excavation was backfilled with the blended soil and firewalls were constructed around the tank batteries and heater treater. The containment areas were lined with a 20 mil plastic liner.

Burgundy respectfully requests that the Eunice Monument Unit Tank Battery site be closed by the NMOCD. A final C141 form is included in Appendix D. If you have any questions or need additional information, please call Mr. Ben Taylor at (432) 684-4033, or myself at (575) 441-7244. We may also be reached by email at bogi@t3wireless.com or Cindy.Crain@gmail.com.

Sincerely,
Crain Environmental

Cindy K. Crain

Cindy K. Crain, P.G.
President

cc: Ben Taylor, Burgundy

FIGURES

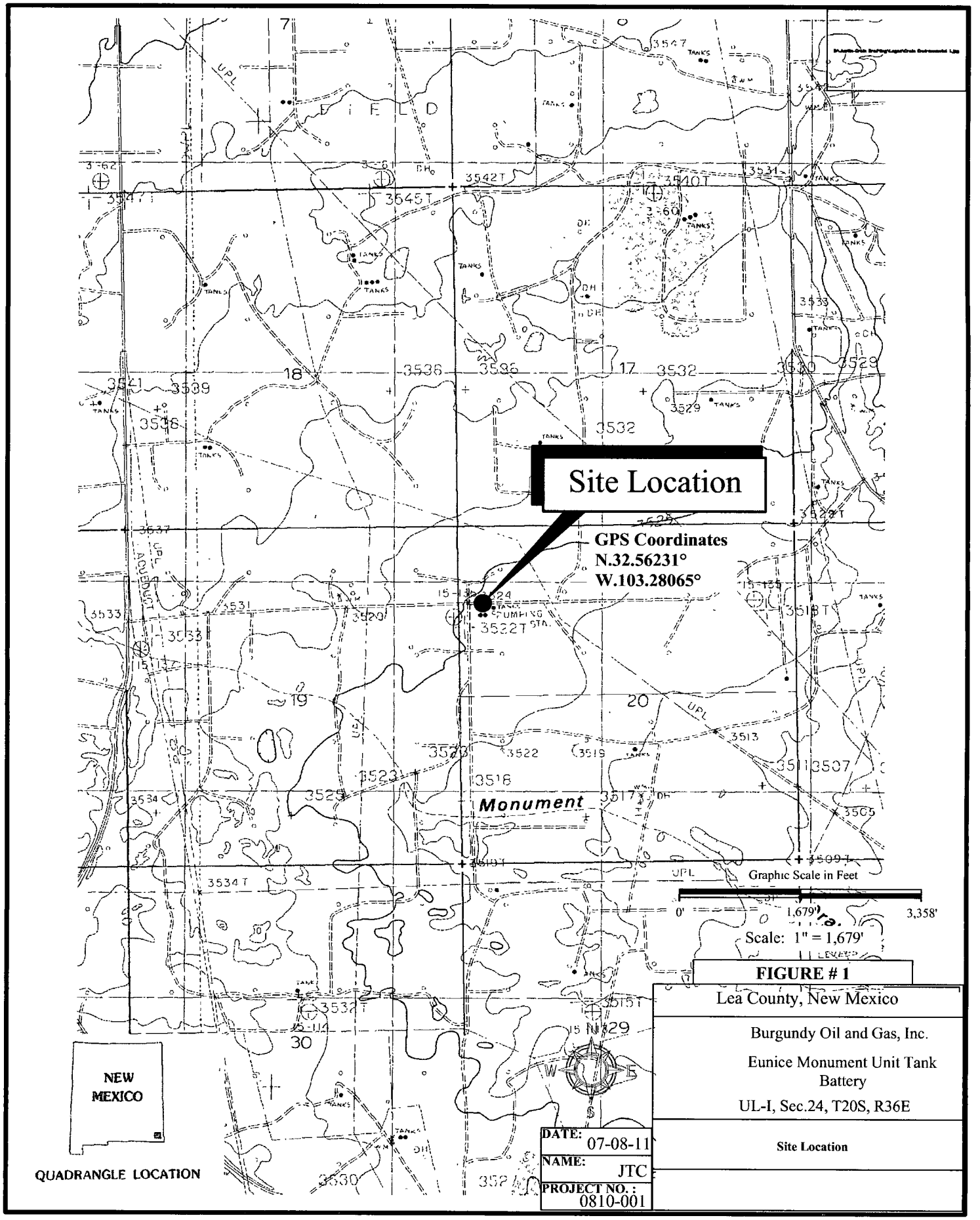


FIGURE # 1

Lea County, New Mexico

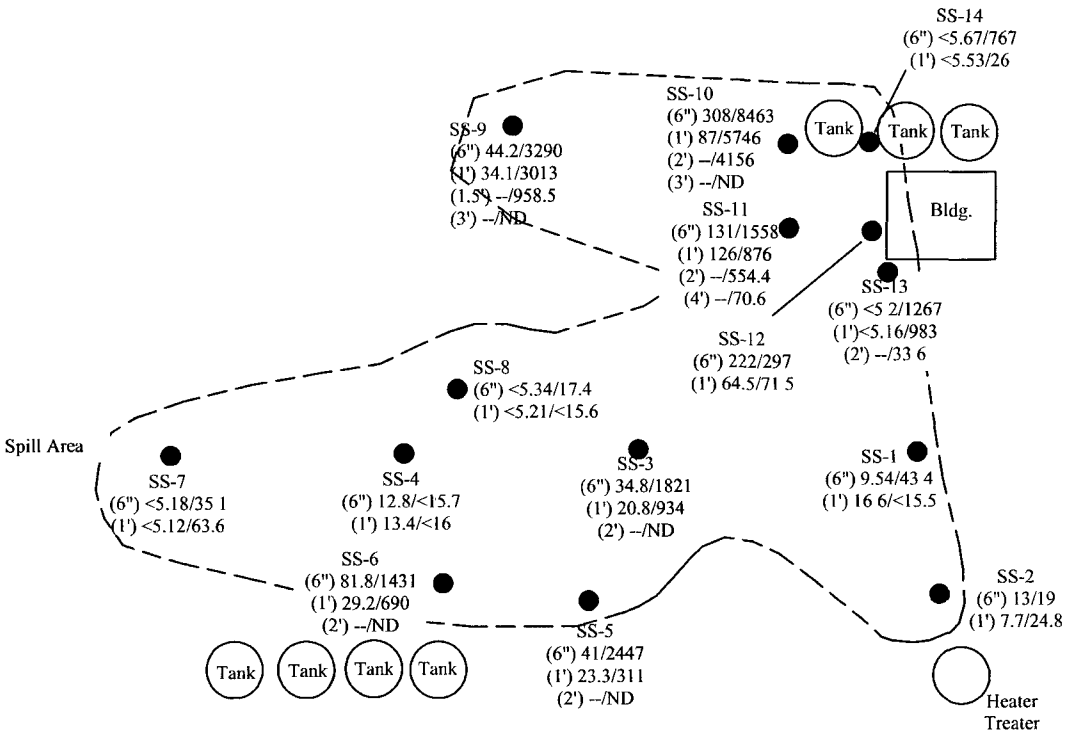
Burgundy Oil and Gas, Inc.

Eunice Monument Unit Tank Battery

UL-I, Sec.24, T20S, R36E

Site Location

DATE:	07-08-11
NAME:	JTC
PROJECT NO. :	0810-001



Graphic Scale in Feet

0' 25' 50'

Scale: 1" = 25'

FIGURE # 2

Lea County, New Mexico

Burgundy Oil and Gas, Inc.

Eunice Monument Unit Tank Battery

UL-I, Sec.24, T20S, R36E

Site Drawing With Soil Sample Locations

LEGEND

SS-1 ● (6") 9.54/43.4 (1') 16 6/<15.5 — Soil Sample Location With Depth (feet bgs) and Chloride / TPH Concentrations (mg/kg)

N W E S

DATE:	07-08-11
NAME:	JTC
PROJECT NO. :	0810-001

TABLE

Table 1: Summary of Laboratory Analysis of Soil Samples
Burgundy Oil & Gasof New Mexico, Inc., EMU Tank Battery
Section 24, Township 20 South, Range 36 East
Lea County, New Mexico

Sample Date	Soil Sample Number	Sample Depth (feet BGS)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH C6-C12 (mg/kg)	TPH C12-C28 (mg/kg)	TPH C28-C35 (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Standard (WQCC)			10					100	250
8/27/10	SS-1	6"	ND	ND	ND	43.4	ND	43.4	9.54
8/27/10	SS-1	1'	ND	ND	ND	ND	ND	ND	16.6
8/27/10	SS-2	6"	ND	ND	ND	19.0	ND	19.0	13.0
8/27/10	SS-2	1'	ND	ND	ND	24.8	ND	24.8	7.7
8/27/10	SS-3	6"	ND	1.5461	322	1310	189	1821	34.8
8/27/10	SS-3	1'	ND	0.5958	214	626	94.2	934.2	20.8
10/21/10	SS-3	2'	---	---	ND	ND	ND	ND	---
8/27/10	SS-4	6"	ND	ND	ND	ND	ND	ND	12.8
8/27/10	SS-4	1'	ND	ND	ND	ND	ND	ND	13.4
8/27/10	SS-5	6"	ND	ND	ND	2060	387	2447	41.0
8/27/10	SS-5	1'	ND	ND	ND	248	63	311	23.3
10/21/10	SS-5	2'	---	---	ND	ND	ND	ND	---
8/27/10	SS-6	6"	ND	ND	ND	1130	301	1431	81.8
8/27/10	SS-6	1'	ND	ND	ND	567	123	690	29.2
10/21/10	SS-6	2'	---	---	ND	ND	ND	ND	---
8/27/10	SS-7	6"	ND	ND	ND	35.1	ND	35.1	ND
8/27/10	SS-7	1'	ND	ND	ND	63.6	ND	63.6	ND
8/27/10	SS-8	6"	ND	ND	ND	17.4	ND	17.4	ND
8/27/10	SS-8	1'	ND	ND	ND	ND	ND	ND	ND
8/27/10	SS-9	6"	ND	1.782	474	2500	316	3290	44.2
8/27/10	SS-9	1'	ND	1.800	803	2210	ND	3013	34.1
10/21/10	SS-9	1.5'	---	---	119	790	49.5	958.5	---
11/6/10	SS-9	3'	---	---	ND	ND	ND	ND	---
8/27/10	SS-10	6"	0.1012	11.462	2510	5240	713	8463	308
8/27/10	SS-10	1'	ND	21.99	2790	2840	116	5746	87.0
10/21/10	SS-10	2'	---	---	169	3730	257	4156	---
11/6/10	SS-10	3'	---	---	ND	ND	ND	ND	---

Sample Date	Soil Sample Number	Sample Depth (feet BGS)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH C6-C12 (mg/kg)	TPH C12-C28 (mg/kg)	TPH C28-C35 (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
Standard (WQCC)			10					100	250
8/27/10	SS-11	6"	ND	ND	ND	1250	308	1558	131
8/27/10	SS-11	1'	ND	ND	51.6	788	36.6	876.2	126
10/21/10	SS-11	2'	---	---	ND	518	36.4	554.4	---
11/6/10	SS-11	4'	---	---	ND	70.6	ND	70.6	---
8/27/10	SS-12	6"	ND	ND	ND	229	68	297	222
8/27/10	SS-12	1'	ND	ND	ND	71.5	ND	71.5	65
8/27/10	SS-13	6"	ND	ND	ND	1010	257	1267	ND
8/27/10	SS-13	1'	ND	ND	ND	897	85.5	982.5	ND
10/21/10	SS-13	2'	---	---	ND	33.6	ND	33.6	---
8/27/10	SS-14	6"	ND	ND	ND	642	125	767	ND
8/27/10	SS-14	1'	ND	ND	ND	26	ND	26	ND
10/21/10	Spoil 1	---	---	---	83	2540	130	2753	---
11/6/10	Spoil 1	---	---	---	54.1	744	22.3	820.4	---
11/19/10	Spoil 1	---	---	---	<10.0*	708*	---	708	---
12/29/10	Spoil 1	---	---	---	<10.0*	247*	---	247	---
3/2/11	Spoil 1	---	---	---	<10.0*	190*	---	190	---
4/6/11	Spoil 1	---	---	---	ND	38.6	ND	38.6	---
10/21/10	Spoil 2	---	---	---	ND	419	ND	419	---
11/6/10	Spoil 2	---	---	---	54.9	947	20.4	1022.3	---
11/19/10	Spoil 2	---	---	---	<10.0*	601*	---	601	---
12/29/10	Spoil 2	---	---	---	<10.0*	373*	---	373	---
3/2/11	Spoil 2	---	---	---	<10.0*	272*	---	272	---
4/6/11	Spoil 2	---	---	---	ND	36.7	ND	36.7	---

Notes: 8/27/10, 10/21/10, 11/6/10 and 4/6/11 Analysis Conducted by Xenco Laboratories, Odessa, TX
11/19/10, 12/29/10 and 3/2/11 Analysis Conducted by Cardinal Laboratories, Hobbs, NM

1 BGS. Depth in feet below ground surface
2 mg/kg Milligrams per kilogram
3 --- No data available
4 ND Non Detect
5 * Cardinal Laboratories TPH Results GRO (C6-C10) and DRO (>C10-C28)

APPENDIX A

INITIAL C141 DOCUMENTATION

well file

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210

State of New Mexico
Energy Minerals and Natural Resources

Form C-141
Revised October 10, 2003

well file

District I
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District III
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State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Burgundy Oil & Gas of New Mexico, Inc	Contact Ben Taylor
Address 401 W Texas Ave., Suite 1003; Midland, TX 79701	Telephone No. 432-684-4033
Facility Name Eunice Monument Unit Tank Battery	Facility Type Central Oil & Gas Battery

Surface Owner State	Mineral Owner State	Lease No. 015823

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	24	20S	36E					Lea

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release water with slop oil	Volume of Release 8 bbls	Volume Recovered 6 bbls
Source of Release 400 bbl fiberglass tank	Date and Hour of Occurrence	Date and Hour of Discovery 7/15/2010
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom? Geoffrey Leking	Date and Hour 7/23/2010 afternoon	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully *

Describe Cause of Problem and Remedial Action Taken.*
Injection tank overflowed into an overflow tank that had 8 bbls of slop oil in it. Alarm system malfunctioned causing the 8 bbls to be pushed over the top of tank. Picked up all but 2 bbls.

Describe Area Affected and Cleanup Action Taken.*
Pad around tanks were stained with oil. Will remove contaminated soil and haul to approved facility and replace soil with fresh. Cindy Crain with Crain Environmental will assess the 2nd week of August, 2010

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations

Signature: Ben Taylor	OIL CONSERVATION DIVISION
Printed Name: Ben Taylor	Approved by District Supervisor.
Title: Production Manager	Approval Date: / Expiration Date
E-mail Address: bogi@t3wireless.com	Conditions of Approval: / Attached ☐
Date: 7/28/2010 Phone: 432-684-4033	

* Attach Additional Sheets If Necessary

APPENDIX B

ANALYTICAL DATA AND CHAIN OF CUSTODY DOCUMENTATION

Analytical Report 387612

for

Crain Environmental

Project Manager: Cindy Crain

Burgundy EMU Tank Battery

0810-001

09-SEP-10

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0738), 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)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL01273):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):
Arizona(AZ0757), California(06244CA), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

09-SEP-10

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

Reference: XENCO Report No: **387612**
Burgundy EMU Tank Battery
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 387612. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 387612 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,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 387612

Crain Environmental, Odessa, TX

Burgundy EMU Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS-1	S	Aug-27-10 10:11	6 - 6 In	387612-001
SS-2	S	Aug-27-10 10:12	6 - 6 In	387612-002
SS-3	S	Aug-27-10 10:15	6 - 6 In	387612-003
SS-4	S	Aug-27-10 10:21	6 - 6 In	387612-004
SS-5	S	Aug-27-10 10:17	6 - 6 In	387612-005
SS-6	S	Aug-27-10 10:23	6 - 6 In	387612-006
SS-7	S	Aug-27-10 10:25	6 - 6 In	387612-007
SS-8	S	Aug-27-10 10:27	6 - 6 In	387612-008
SS-9	S	Aug-27-10 10:28	6 - 6 In	387612-009
SS-10	S	Aug-27-10 10:30	6 - 6 In	387612-010
SS-11	S	Aug-27-10 10:31	6 - 6 In	387612-011
SS-12	S	Aug-27-10 10:34	6 - 6 In	387612-012
SS-13	S	Aug-27-10 10:35	6 - 6 In	387612-013
SS-14	S	Aug-27-10 10:38	6 - 6 In	387612-014
SS-1	S	Aug-27-10 10:40	1 - 1 ft	387612-015
SS-2	S	Aug-27-10 10:43	1 - 1 ft	387612-016
SS-3	S	Aug-27-10 10:45	1 - 1 ft	387612-017
SS-4	S	Aug-27-10 10:52	1 - 1 ft	387612-018
SS-5	S	Aug-27-10 10:47	1 - 1 ft	387612-019
SS-6	S	Aug-27-10 10:48	1 - 1 ft	387612-020
SS-7	S	Aug-27-10 10:31	1 - 1 ft	387612-021
SS-8	S	Aug-27-10 10:34	1 - 1 ft	387612-022
SS-9	S	Aug-27-10 10:35	1 - 1 ft	387612-023
SS-10	S	Aug-27-10 10:38	1 - 1 ft	387612-024
SS-11	S	Aug-27-10 10:40	1 - 1 ft	387612-025
SS-12	S	Aug-27-10 10:43	1 - 1 ft	387612-026
SS-13	S	Aug-27-10 10:45	1 - 1 ft	387612-027
SS-14	S	Aug-27-10 10:52	1 - 1 ft	387612-028

CASE NARRATIVE

Client Name: Crain Environmental
Project Name: Burgundy EMU Tank Battery

Project ID:	*0810-001*	*Report Date:*	*09-SEP-10*
Work Order Number:	*387612*	*Date Received:*	*08/27/2010*

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-820955 Percent Moisture
None

Batch: LBA-820960 Percent Moisture
None

Batch: LBA-820979 TPH By SW8015 Mod
SW8015MOD_NM

Batch 820979, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 387612-020.

Batch: LBA-820987 TPH By SW8015 Mod
None

Batch: LBA-821030 Inorganic Anions by EPA 300/300.1
None

Batch: LBA-821034 Inorganic Anions by EPA 300/300.1
None

Batch: LBA-821824 BTEX by EPA 8021B
SW8021BM

Batch 821824, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 387612-017.

SW8021BM

Batch 821824, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike.
Samples affected are: 387612-028, -027, -023, -009, -021, -026, -022, -025, -017.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Ethylbenzene, o-Xylene is within laboratory Control Limits

SW8021BM

Batch 821824, Ethylbenzene, m,p-Xylenes RPD was outside QC limits.
Samples affected are: 387612-028, -027, -023, -009, -021, -026, -022, -025, -017

Batch: LBA-821832 BTEX by EPA 8021B
SW8021BM

Batch 821832, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 387612-010. 4-Bromofluorobenzene was within QC limits
4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 387612-003. 1,4-Difluorobenzene was within QC limits

SW8021BM

Batch 821832, Ethylbenzene, Toluene, o-Xylene recovered below QC limits in the Matrix Spike. m,p-Xylenes recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 387612-012, -015, -019, -006, -008, -018, -004, -005, -013, -016, -010, -002, -014, -020, -011, -007, -001, -003.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Ethylbenzene, o-Xylene is within laboratory Control Limits

Batch: LBA-822184 BTEX by EPA 8021B
SW8021BM

Batch 822184, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 387612-024.
4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 388700-001 SD,387612-024.

Certificate of Analysis Summary 387612

Crain Environmental, Odessa, TX

Project Name: Burgundy EMU Tank Battery

Project Id: 0810-001
Contact: Cindy Crain
Project Location: Lea County, NM

Date Received in Lab: Fri Aug-27-10 04:25 pm
Report Date: 09-SEP-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	387612-001		387612-002		387612-003		387612-004		387612-005		387612-006	
	Field Id:	SS-1		SS-2		SS-3		SS-4		SS-5		SS-6	
	Depth:	6-6 In		6-6 In		6-6 In		6-6 In		6-6 In		6-6 In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-27-10 10:11		Aug-27-10 10.12		Aug-27-10 10:15		Aug-27-10 10:21		Aug-27-10 10:17		Aug-27-10 10:23	
BTEX by EPA 8021B	*Extracted:*	Sep-03-10 11.15		Sep-03-10 11:15		Sep-03-10 11:15		Sep-03-10 11.15		Sep-03-10 11:15		Sep-03-10 11.15	
	Analyzed:	Sep-06-10 03.18		Sep-05-10 19:10		Sep-06-10 07:10		Sep-05-10 21:29		Sep-05-10 21:52		Sep-06-10 04.04	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0011	ND	0.0267	ND	0.0010	ND	0.0011	ND	0.0010
Toluene		ND	0.0021	ND	0.0021	ND	0.0535	ND	0.0021	ND	0.0021	ND	0.0021
Ethylbenzene		ND	0.0010	ND	0.0011	0.1289	0.0267	ND	0.0010	ND	0.0011	ND	0.0010
m,p-Xylenes		ND	0.0021	ND	0.0021	0.7050	0.0535	ND	0.0021	ND	0.0021	ND	0.0021
o-Xylene		ND	0.0010	ND	0.0011	0.7122	0.0267	ND	0.0010	ND	0 0011	ND	0.0010
Total Xylenes		ND	0.0010	ND	0.0011	1.4172	0.0267	ND	0.0010	ND	0 0011	ND	0.0010
Total BTEX		ND	0.0010	ND	0.0011	1.5461	0.0267	ND	0.0010	ND	0.0011	ND	0.0010
Inorganic Anions by EPA 300/300.1	*Extracted:*												
	Analyzed:	Aug-30-10 12:50		Aug-30-10 12.50		Aug-30-10 12:50		Aug-30-10 12:50		Aug-30-10 12:50		Aug-30-10 12:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		9.54	5.24	13.0	5.31	34.8	5.35	12.8	5.23	41.0	5.28	81.8	5.24
Percent Moisture	*Extracted:*												
	Analyzed:	Aug-31-10 08.22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		4.60	1.00	5.81	1.00	6 49	1.00	4.31	1.00	5.32	1.00	4.67	1.00
TPH By SW8015 Mod	*Extracted:*	Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30	
	Analyzed:	Aug-30-10 17.44		Aug-30-10 18:15		Aug-30-10 18:46		Aug-30-10 19:17		Aug-30-10 19:47		Aug-30-10 20:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.8	ND	16.0	322	79.8	ND	15.7	ND	159	ND	157
C12-C28 Diesel Range Hydrocarbons		43.4	15.8	19.0	16 0	1310	79.8	ND	15.7	2060	159	1130	157
C28-C35 Oil Range Hydrocarbons		ND	15.8	ND	16.0	189	79.8	ND	15.7	387	159	301	157
Total TPH		43.4	15.8	19.0	16.0	1821	79.8	ND	15.7	2447	159	1431	157

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 387612

Crain Environmental, Odessa, TX

Project Name: Burgundy EMU Tank Battery

Project Id: 0810-001
Contact: Cindy Crain
Project Location: Lea County, NM

Date Received in Lab: Fri Aug-27-10 04:25 pm
Report Date: 09-SEP-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	387612-007		387612-008		387612-009		387612-010		387612-011		387612-012	
	Field Id:	SS-7		SS-8		SS-9		SS-10		SS-11		SS-12	
	Depth:	6-6 In		6-6 In		6-6 In		6-6 In		6-6 In		6-6 In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-27-10 10:25		Aug-27-10 10:27		Aug-27-10 10.28		Aug-27-10 10:30		Aug-27-10 10.31		Aug-27-10 10:34	
BTEX by EPA 8021B	*Extracted:*	Sep-03-10 11:15		Sep-03-10 11:15		Sep-03-10 10:15		Sep-03-10 11:15		Sep-03-10 11:15		Sep-03-10 11:15	
	Analyzed:	Sep-05-10 22:16		Sep-05-10 22:39		Sep-05-10 14:32		Sep-06-10 06:47		Sep-05-10 23:03		Sep-05-10 23:26	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0011	ND	0.0262	0.1012	0.0547	ND	0.0011	ND	0.0011
Toluene		ND	0.0021	ND	0.0021	0.0695	0.0525	0 7278	0.1094	ND	0 0021	ND	0.0022
Ethylbenzene		ND	0.0010	ND	0.0011	0.2395	0.0262	1.638	0.0547	ND	0.0011	ND	0.0011
m,p-Xylenes		ND	0.0021	ND	0.0021	1.196	0.0525	7.163	0.1094	ND	0.0021	ND	0.0022
o-Xylene		ND	0.0010	ND	0.0011	0.2773	0.0262	1.832	0.0547	ND	0.0011	ND	0.0011
Total Xylenes		ND	0.0010	ND	0.0011	1 473	0.0262	8.995	0.0547	ND	0.0011	ND	0.0011
Total BTEX		ND	0.0010	ND	0.0011	1.782	0.0262	11.462	0.0547	ND	0.0011	ND	0.0011
Inorganic Anions by EPA 300/300.1	*Extracted:*												
	Analyzed:	Aug-30-10 12:50		Aug-30-10 12:50		Aug-30-10 12:50		Aug-30-10 12:50		Aug-30-10 12:50		Aug-30-10 12:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	5.18	ND	5.34	44.2	5.25	308	10.9	131	10.7	222	10.8
Percent Moisture	*Extracted:*												
	Analyzed:	Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		3 45	1.00	6.45	1.00	4.69	1.00	8.63	1.00	6.18	1.00	7.28	1.00
TPH By SW8015 Mod	*Extracted:*	Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30	
	Analyzed:	Aug-30-10 20:48		Aug-30-10 21:18		Aug-30-10 21:47		Aug-30-10 22:17		Aug-30-10 23:15		Aug-30-10 23.45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.6	ND	16.1	474	79.0	2510	164	ND	80.1	ND	16.1
C12-C28 Diesel Range Hydrocarbons		35.1	15.6	17.4	16.1	2500	79 0	5240	164	1250	80 1	229	16 1
C28-C35 Oil Range Hydrocarbons		ND	15.6	ND	16.1	316	79.0	713	164	308	80.1	68.0	16.1
Total TPH		35 1	15.6	17.4	16.1	3290	79.0	8463	164	1558	80.1	297	16.1

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 387612

Crain Environmental, Odessa, TX

Project Name: Burgundy EMU Tank Battery

Project Id: 0810-001
Contact: Cindy Crain
Project Location: Lea County, NM

Date Received in Lab: Fri Aug-27-10 04:25 pm
Report Date: 09-SEP-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	387612-013		387612-014		387612-015		387612-016		387612-017		387612-018	
	Field Id:	SS-13		SS-14		SS-1		SS-2		SS-3		SS-4	
	Depth:	6-6 In		6-6 In		1-1 ft		1-1 ft		1-1 ft		1-1 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-27-10 10.35		Aug-27-10 10:38		Aug-27-10 10·40		Aug-27-10 10·43		Aug-27-10 10:45		Aug-27-10 10:52	
BTEX by EPA 8021B	*Extracted:*	Sep-03-10 11:15		Sep-03-10 11:15		Sep-03-10 11:15		Sep-03-10 11:15		Sep-03-10 10:15		Sep-03-10 11:15	
	Analyzed:	Sep-05-10 23:49		Sep-06-10 00:12		Sep-06-10 00:35		Sep-06-10 02·08		Sep-05-10 06·55		Sep-06-10 02:31	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0011	ND	0.0010	ND	0.0011	ND	0.0276	ND	0 0011
Toluene		ND	0.0021	ND	0.0023	ND	0.0021	ND	0.0022	ND	0.0551	ND	0.0021
Ethylbenzene		ND	0.0010	ND	0.0011	ND	0.0010	ND	0.0011	0.0582	0.0276	ND	0.0011
m,p-Xylenes		ND	0.0021	ND	0.0023	ND	0 0021	ND	0.0022	0.4240	0.0551	ND	0.0021
o-Xylene		ND	0.0010	ND	0.0011	ND	0.0010	ND	0.0011	0.1136	0.0276	ND	0.0011
Total Xylenes		ND	0.0010	ND	0.0011	ND	0 0010	ND	0.0011	0.5376	0.0276	ND	0.0011
Total BTEX		ND	0.0010	ND	0.0011	ND	0.0010	ND	0.0011	0.5958	0.0276	ND	0.0011
Inorganic Anions by EPA 300/300.1	*Extracted:*												
	Analyzed:	Aug-30-10 12.50		Aug-30-10 12:50		Aug-30-10 12·50		Aug-30-10 12:50		Aug-30-10 12:50		Aug-30-10 12:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	5.20	ND	5 67	16.6	5 18	7.70	5.46	20.8	5.51	13.4	5.32
Percent Moisture	*Extracted:*												
	Analyzed:	Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08·22	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		3.83	1.00	11.9	1.00	3 48	1.00	8 40	1.00	9.31	1 00	5.96	1.00
TPH By SW8015 Mod	*Extracted:*	Aug-30-10 12:30		Aug-30-10 12.30		Aug-30-10 12.30		Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30	
	Analyzed:	Aug-31-10 00:16		Aug-31-10 00:45		Aug-31-10 01:15		Aug-31-10 01:47		Aug-31-10 02:16		Aug-31-10 02.45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	157	ND	84.8	ND	15 5	ND	16.3	214	16.6	ND	16.0
C12-C28 Diesel Range Hydrocarbons		1010	157	642	84 8	ND	15 5	24.8	16 3	626	16.6	ND	16.0
C28-C35 Oil Range Hydrocarbons		257	157	125	84.8	ND	15.5	ND	16.3	94.2	16.6	ND	16.0
Total TPH		1267	157	767	84.8	ND	15.5	24.8	16 3	934	16.6	ND	16.0

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 387612

Crain Environmental, Odessa, TX

Project Name: Burgundy EMU Tank Battery

Project Id: 0810-001
Contact: Cindy Crain
Project Location: Lea County, NM

Date Received in Lab: Fri Aug-27-10 04:25 pm
Report Date: 09-SEP-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	387612-019		387612-020		387612-021		387612-022		387612-023		387612-024	
	Field Id:	SS-5		SS-6		SS-7		SS-8		SS-9		SS-10	
	Depth:	1-1 ft		1-1 ft		1-1 ft		1-1 ft		1-1 ft		1-1 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-27-10 10.47		Aug-27-10 10:48		Aug-27-10 10:31		Aug-27-10 10:34		Aug-27-10 10.35		Aug-27-10 10:38	
BTEX by EPA 8021B	*Extracted:*	Sep-03-10 11:15		Sep-03-10 11:15		Sep-03-10 10:15		Sep-03-10 10:15		Sep-03-10 10:15		Sep-07-10 15:39	
	Analyzed:	Sep-06-10 02:55		Sep-06-10 04:50		Sep-05-10 14:55		Sep-05-10 01:30		Sep-05-10 14:09		Sep-08-10 09:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0011	ND	0.0010	ND	0.0010	ND	0.0263	ND	0.2221
Toluene		ND	0.0021	ND	0.0021	ND	0.0020	ND	0.0021	ND	0.0526	1.769	0.4442
Ethylbenzene		ND	0.0010	ND	0.0011	ND	0.0010	ND	0.0010	0.2476	0 0263	3.333	0.2221
m,p-Xylenes		ND	0.0021	ND	0.0021	ND	0.0020	ND	0.0021	1.252	0.0526	13.60	0.4442
o-Xylene		ND	0.0010	ND	0.0011	ND	0.0010	ND	0.0010	0.2999	0 0263	3.284	0.2221
Total Xylenes		ND	0.0010	ND	0.0011	ND	0.0010	ND	0.0010	1.552	0 0263	16 88	0.2221
Total BTEX		ND	0.0010	ND	0.0011	ND	0.0010	ND	0.0010	1.800	0.0263	21 99	0.2221
Inorganic Anions by EPA 300/300.1	*Extracted:*												
	Analyzed:	Aug-30-10 12:50		Aug-30-10 12:50		Aug-30-10 18:32		Aug-30-10 18:32		Aug-30-10 18:32		Aug-30-10 18:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		23.3	5.21	29.2	5.27	ND	5.12	ND	5.21	34.1	5.26	87.0	5.55
Percent Moisture	*Extracted:*												
	Analyzed:	Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		4.03	1.00	5.06	1.00	2.26	1.00	4.06	1.00	4.87	1.00	9.95	1.00
TPH By SW8015 Mod	*Extracted:*	Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30	
	Analyzed:	Aug-31-10 03:15		Aug-31-10 03:46		Aug-30-10 17:38		Aug-30-10 17:58		Aug-30-10 18:18		Aug-30-10 18:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.6	ND	78.9	ND	15.3	ND	15.6	803	78.8	2790	83.4
C12-C28 Diesel Range Hydrocarbons		248	15.6	567	78.9	63 6	15.3	ND	15 6	2210	78 8	2840	83 4
C28-C35 Oil Range Hydrocarbons		63.0	15.6	123	78.9	ND	15.3	ND	15.6	ND	78.8	116	83.4
Total TPH		311	15.6	690	78.9	63.6	15.3	ND	15.6	3013	78 8	5746	83.4

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 387612

Crain Environmental, Odessa, TX

Project Name: Burgundy EMU Tank Battery

Project Id: 0810-001
Contact: Cindy Crain
Project Location: Lea County, NM

Date Received in Lab: Fri Aug-27-10 04:25 pm
Report Date: 09-SEP-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	387612-025		387612-026		387612-027		387612-028					
	Field Id:	SS-11		SS-12		SS-13		SS-14					
	Depth:	1-1 ft		1-1 ft		1-1 ft		1-1 ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Aug-27-10 10.40		Aug-27-10 10:43		Aug-27-10 10:45		Aug-27-10 10.52					
BTEX by EPA 8021B	*Extracted:*	Sep-03-10 10:15		Sep-03-10 10:15		Sep-03-10 10:15		Sep-03-10 10:15					
	Analyzed:	Sep-05-10 01:53		Sep-04-10 23:10		Sep-05-10 06.32		Sep-05-10 02:16					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		ND	0.0011	ND	0.0010	ND	0.0010	ND	0.0011				
Toluene		ND	0.0021	ND	0.0021	ND	0.0021	ND	0.0022				
Ethylbenzene		ND	0.0011	ND	0.0010	ND	0.0010	ND	0.0011				
m,p-Xylenes		ND	0.0021	ND	0.0021	ND	0.0021	ND	0.0022				
o-Xylene		ND	0 0011	ND	0.0010	ND	0.0010	ND	0.0011				
Total Xylenes		ND	0 0011	ND	0.0010	ND	0.0010	ND	0.0011				
Total BTEX		ND	0.0011	ND	0.0010	ND	0.0010	ND	0.0011				
Inorganic Anions by EPA 300/300.1	*Extracted:*												
	Analyzed:	Aug-30-10 18:32		Aug-30-10 18:32		Aug-30-10 18:32		Aug-30-10 18:32					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		126	5.27	64.5	5.19	ND	5.16	ND	5.53				
Percent Moisture	*Extracted:*												
	Analyzed:	Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22		Aug-31-10 08:22					
	Units/RL:	%	RL	%	RL	%	RL	%	RL				
Percent Moisture		5.13	1.00	3 66	1.00	3.14	1.00	9.66	1 00				
TPH By SW8015 Mod	*Extracted:*	Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30		Aug-30-10 12:30					
	Analyzed:	Aug-30-10 18:59		Aug-30-10 19:19		Aug-30-10 19:59		Aug-30-10 20:19					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		51.6	15.8	ND	15.5	ND	77 6	ND	16.6				
C12-C28 Diesel Range Hydrocarbons		788	15.8	71.5	15.5	897	77 6	26.0	16 6				
C28-C35 Oil Range Hydrocarbons		36.6	15.8	ND	15.5	85.5	77.6	ND	16.6				
Total TPH		876	15.8	71.5	15.5	983	77.6	26.0	16.6				

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

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.

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.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 821824 **Sample:** 572587-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/04/10 21:38

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0345	0.0300	115	80-120	
4-Bromofluorobenzene	0.0326	0.0300	109	80-120	

Lab Batch #: 821824 **Sample:** 572587-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/04/10 22:47

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

Lab Batch #: 821824 **Sample:** 387612-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/04/10 23:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0342	0.0300	114	80-120	

Lab Batch #: 821824 **Sample:** 387612-026 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/04/10 23:34

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0349	0.0300	116	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

Lab Batch #: 821824 **Sample:** 387612-026 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/04/10 23:57

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0342	0.0300	114	80-120	
4-Bromofluorobenzene	0.0350	0.0300	117	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612,

Project ID: 0810-001

Lab Batch #: 821824 **Sample:** 387612-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 01:30

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0334	0.0300	111	80-120	

Lab Batch #: 821824 **Sample:** 387612-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 01:53

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0337	0.0300	112	80-120	

Lab Batch #: 821824 **Sample:** 387612-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 02:16

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0339	0.0300	113	80-120	

Lab Batch #: 821824 **Sample:** 387612-027 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 06:32

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0310	0.0300	103	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 821824 **Sample:** 387612-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 06:55

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0446	0.0300	149	80-120	*

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 821824 **Sample:** 387612-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 14:09

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0353	0.0300	118	80-120	

Lab Batch #: 821824 **Sample:** 387612-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 14:32

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0254	0.0300	85	80-120	
4-Bromofluorobenzene	0.0356	0.0300	119	80-120	

Lab Batch #: 821824 **Sample:** 387612-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 14:55

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0351	0.0300	117	80-120	

Lab Batch #: 821832 **Sample:** 572591-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/05/10 17:15

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0346	0.0300	115	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

Lab Batch #: 821832 **Sample:** 572591-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/05/10 17:38

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0353	0.0300	118	80-120	
4-Bromofluorobenzene	0.0345	0.0300	115	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612,

Project ID: 0810-001

Lab Batch #: 821832 **Sample:** 572591-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/05/10 18:47

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0342	0.0300	114	80-120	

Lab Batch #: 821832 **Sample:** 387612-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 19:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0 0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0353	0.0300	118	80-120	

Lab Batch #: 821832 **Sample:** 387612-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 19:34

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0348	0.0300	116	80-120	
4-Bromofluorobenzene	0.0342	0.0300	114	80-120	

Lab Batch #: 821832 **Sample:** 387612-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 19:57

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0350	0.0300	117	80-120	
4-Bromofluorobenzene	0.0346	0.0300	115	80-120	

Lab Batch #: 821832 **Sample:** 387612-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 21:29

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0350	0.0300	117	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 821832 **Sample:** 387612-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 21:52

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

Lab Batch #: 821832 **Sample:** 387612-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 22:16

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0347	0.0300	116	80-120	

Lab Batch #: 821832 **Sample:** 387612-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 22:39

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0353	0.0300	118	80-120	

Lab Batch #: 821832 **Sample:** 387612-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 23:03

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0349	0.0300	116	80-120	

Lab Batch #: 821832 **Sample:** 387612-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 23:26

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0340	0.0300	113	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 821832 **Sample:** 387612-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/05/10 23:49

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

Lab Batch #: 821832 **Sample:** 387612-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/06/10 00:12

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0339	0.0300	113	80-120	

Lab Batch #: 821832 **Sample:** 387612-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/06/10 00:35

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0347	0.0300	116	80-120	

Lab Batch #: 821832 **Sample:** 387612-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/06/10 02:08

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0345	0.0300	115	80-120	

Lab Batch #: 821832 **Sample:** 387612-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/06/10 02:31

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0339	0.0300	113	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** *Poor recoveries due to dilution*

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 821832 **Sample:** 387612-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/06/10 02:55

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0345	0.0300	115	80-120	

Lab Batch #: 821832 **Sample:** 387612-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/06/10 03:18

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0 0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0349	0.0300	116	80-120	

Lab Batch #: 821832 **Sample:** 387612-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/06/10 04:04

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0324	0.0300	108	80-120	

Lab Batch #: 821832 **Sample:** 387612-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/06/10 04:50

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0351	0.0300	117	80-120	

Lab Batch #: 821832 **Sample:** 387612-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/06/10 06:47

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0198	0.0300	66	80-120	*
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 821832 **Sample:** 387612-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/06/10 07:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0454	0.0300	151	80-120	*

Lab Batch #: 822184 **Sample:** 572778-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/08/10 04:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0328	0.0300	109	80-120	
4-Bromofluorobenzene	0.0328	0.0300	109	80-120	

Lab Batch #: 822184 **Sample:** 572778-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/08/10 04:34

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0330	0.0300	110	80-120	
4-Bromofluorobenzene	0.0341	0.0300	114	80-120	

Lab Batch #: 822184 **Sample:** 572778-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/08/10 06:00

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

Lab Batch #: 822184 **Sample:** 388700-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/08/10 06:46

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0331	0.0300	110	80-120	
4-Bromofluorobenzene	0.0356	0.0300	119	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 822184 **Sample:** 388700-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/08/10 07:09

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0342	0.0300	114	80-120	
4-Bromofluorobenzene	0.0369	0.0300	123	80-120	**

Lab Batch #: 822184 **Sample:** 387612-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/08/10 09:51

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0165	0.0300	55	80-120	**
4-Bromofluorobenzene	0.0531	0.0300	177	80-120	**

Lab Batch #: 820979 **Sample:** 572053-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/30/10 16:10

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	101	107	70-135	
o-Terphenyl	48.5	50.3	96	70-135	

Lab Batch #: 820979 **Sample:** 572053-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/30/10 16:41

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	46.2	50.1	92	70-135	

Lab Batch #: 820979 **Sample:** 572053-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/30/10 17:13

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.7	101	70-135	
o-Terphenyl	51.2	49.9	103	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 822184 **Sample:** 388700-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/08/10 07:09

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0342	0.0300	114	80-120	
4-Bromofluorobenzene	0.0369	0.0300	123	80-120	**

Lab Batch #: 822184 **Sample:** 387612-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/08/10 09:51

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0165	0.0300	55	80-120	**
4-Bromofluorobenzene	0.0531	0.0300	177	80-120	**

Lab Batch #: 820979 **Sample:** 572053-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/30/10 16:10

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	101	107	70-135	
o-Terphenyl	48.5	50.3	96	70-135	

Lab Batch #: 820979 **Sample:** 572053-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/30/10 16:41

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	46.2	50.1	92	70-135	

Lab Batch #: 820979 **Sample:** 572053-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/30/10 17:13

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.7	101	70-135	
o-Terphenyl	51.2	49.9	103	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

*Surrogate Recovery [D] = 100 * A / B*

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612,

Project ID: 0810-001

Lab Batch #: 820979 **Sample:** 387612-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 17:44

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	101	121	70-135	
o-Terphenyl	61.6	50.3	122	70-135	

Lab Batch #: 820979 **Sample:** 387612-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 18:15

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.7	101	91	70-135	
o-Terphenyl	46.2	50.3	92	70-135	

Lab Batch #: 820979 **Sample:** 387612-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 18:46

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.0	99.5	94	70-135	
o-Terphenyl	48.6	49.8	98	70-135	

Lab Batch #: 820979 **Sample:** 387612-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 19:17

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.6	100	88	70-135	
o-Terphenyl	44.3	50.2	88	70-135	

Lab Batch #: 820979 **Sample:** 387612-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 19:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96 9	100	97	70-135	
o-Terphenyl	51.4	50.1	103	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 820979 **Sample:** 387612-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 20:18

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.1	99.8	94	70-135	
o-Terphenyl	48.8	49.9	98	70-135	

Lab Batch #: 820979 **Sample:** 387612-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 20:48

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.8	100	92	70-135	
o-Terphenyl	46.4	50.2	92	70-135	

Lab Batch #: 820979 **Sample:** 387612-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 21:18

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.7	100	89	70-135	
o-Terphenyl	44.8	50.1	89	70-135	

Lab Batch #: 820979 **Sample:** 387612-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 21:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	54.8	50.2	109	70-135	

Lab Batch #: 820979 **Sample:** 387612-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 22:17

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.7	128	70-135	
o-Terphenyl	59.0	49.9	118	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 820979 **Sample:** 387612-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 23:15

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	54.7	50.1	109	70-135	

Lab Batch #: 820979 **Sample:** 387612-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 23:45

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.5	99.5	90	70-135	
o-Terphenyl	45.9	49.8	92	70-135	

Lab Batch #: 820979 **Sample:** 387612-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/31/10 00:16

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.9	101	89	70-135	
o-Terphenyl	45.2	50.3	90	70-135	

Lab Batch #: 820979 **Sample:** 387612-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/31/10 00:45

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	99.7	104	70-135	
o-Terphenyl	53.4	49.9	107	70-135	

Lab Batch #: 820979 **Sample:** 387612-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/31/10 01:15

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.8	100	82	70-135	
o-Terphenyl	40.9	50.0	82	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 820979 **Sample:** 387612-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/31/10 01:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.9	99.8	91	70-135	
o-Terphenyl	46.2	49.9	93	70-135	

Lab Batch #: 820979 **Sample:** 387612-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/31/10 02:16

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	52.2	50.2	104	70-135	

Lab Batch #: 820979 **Sample:** 387612-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/31/10 02:45

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.0	100	96	70-135	
o-Terphenyl	47.9	50.1	96	70-135	

Lab Batch #: 820979 **Sample:** 387612-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/31/10 03:15

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	61.0	50.1	122	70-135	

Lab Batch #: 820979 **Sample:** 387612-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/31/10 03:46

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	134	99.9	134	70-135	
o-Terphenyl	68.7	50.0	137	70-135	*

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 820979 **Sample:** 387612-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/31/10 04:16

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.9	100	87	70-135	
o-Terphenyl	39.8	50.1	79	70-135	

Lab Batch #: 820979 **Sample:** 387612-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/31/10 04:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.5	106	70-135	
o-Terphenyl	49.1	49.8	99	70-135	

Lab Batch #: 820987 **Sample:** 572058-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/30/10 15:15

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.8	101	87	70-135	
o-Terphenyl	52.5	50.3	104	70-135	

Lab Batch #: 820987 **Sample:** 572058-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/30/10 15:35

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.3	100	85	70-135	
o-Terphenyl	45.4	50.1	91	70-135	

Lab Batch #: 820987 **Sample:** 572058-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/30/10 15:56

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.5	99.7	86	70-135	
o-Terphenyl	44.2	49.9	89	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 820987 **Sample:** 387612-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 17:38

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.5	99.5	84	70-135	
o-Terphenyl	41.9	49.8	84	70-135	

Lab Batch #: 820987 **Sample:** 387612-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 17:58

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.5	100	89	70-135	
o-Terphenyl	44.4	50.0	89	70-135	

Lab Batch #: 820987 **Sample:** 387612-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 18:18

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.9	114	70-135	
o-Terphenyl	43.3	50.0	87	70-135	

Lab Batch #: 820987 **Sample:** 387612-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 18:39

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	41.5	50.1	83	70-135	

Lab Batch #: 820987 **Sample:** 387612-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 18:59

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86 5	100	87	70-135	
o-Terphenyl	43.3	50.1	86	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 387612, **Project ID:** 0810-001

Lab Batch #: 820987 **Sample:** 387612-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 19:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.7	99.5	82	70-135	
o-Terphenyl	41.2	49.8	83	70-135	

Lab Batch #: 820987 **Sample:** 387612-027 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 19:59

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.2	100	75	70-135	
o-Terphenyl	41.3	50.1	82	70-135	

Lab Batch #: 820987 **Sample:** 387612-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 20:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.5	100	87	70-135	
o-Terphenyl	44.3	50.0	89	70-135	

Lab Batch #: 820987 **Sample:** 387633-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 20:38

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.3	100	85	70-135	
o-Terphenyl	44.9	50.0	90	70-135	

Lab Batch #: 820987 **Sample:** 387633-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/30/10 20:58

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.6	99.5	81	70-135	
o-Terphenyl	42.7	49.8	86	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Blank Spike Recovery

Project Name: Burgundy EMU Tank Battery

Work Order #: 387612 **Project ID:** 0810-001

Lab Batch #: 821824 **Sample:** 572587-1-BKS **Matrix:** Solid

Date Analyzed: 09/04/2010 **Date Prepared:** 09/03/2010 **Analyst:** ASA

Reporting Units: mg/kg **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene	ND	0.1000	0.0924	92	70-130	
Toluene	ND	0.1000	0.0909	91	70-130	
Ethylbenzene	ND	0.1000	0.0933	93	71-129	
m,p-Xylenes	ND	0.2000	0.1798	90	70-135	
o-Xylene	ND	0.1000	0 0919	92	71-133	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: Burgundy EMU Tank Battery

Work Order #: 387612 **Project ID:** 0810-001

Analyst: ASA **Date Prepared:** 09/03/2010 **Date Analyzed:** 09/05/2010

Lab Batch ID: 821832 **Sample:** 572591-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	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
Benzene	ND	0.1000	0.0803	80	0.1	0.0927	93	14	70-130	35	
Toluene	ND	0 1000	0 0802	80	0.1	0.0906	91	12	70-130	35	
Ethylbenzene	ND	0.1000	0.0845	85	0.1	0.0939	94	11	71-129	35	
m,p-Xylenes	ND	0.2000	0.1639	82	0.2	0.1814	91	10	70-135	35	
o-Xylene	ND	0.1000	0.0837	84	0.1	0.0932	93	11	71-133	35	

Analyst: SEE **Date Prepared:** 09/07/2010 **Date Analyzed:** 09/08/2010

Lab Batch ID: 822184 **Sample:** 572778-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	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
Benzene	ND	0.1000	0.0838	84	0 1	0.0896	90	7	70-130	35	
Toluene	ND	0.1000	0.0881	88	0 1	0.0901	90	2	70-130	35	
Ethylbenzene	ND	0.1000	0 0956	96	0.1	0 0934	93	2	71-129	35	
m,p-Xylenes	ND	0.2000	0.2054	103	0 2	0.1825	91	12	70-135	35	
o-Xylene	ND	0.1000	0.0963	96	0.1	0.0941	94	2	71-133	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

BS / BSD Recoveries

Project Name: Burgundy EMU Tank Battery

Work Order #: 387612 **Project ID:** 0810-001

Analyst: LATCOR **Date Prepared:** 08/30/2010 **Date Analyzed:** 08/30/2010

Lab Batch ID: 821030 **Sample:** 821030-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	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
Chloride	ND	10.0	10.7	107	10	10.6	106	1	80-120	20	

Analyst: LATCOR **Date Prepared:** 08/30/2010 **Date Analyzed:** 08/30/2010

Lab Batch ID: 821034 **Sample:** 821034-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	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
Chloride	ND	10.0	9.62	96	10	9.50	95	1	80-120	20	

Analyst: BEV **Date Prepared:** 08/30/2010 **Date Analyzed:** 08/30/2010

Lab Batch ID: 820979 **Sample:** 572053-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	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
C6-C12 Gasoline Range Hydrocarbons	ND	1010	1020	101	1000	981	98	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1010	848	84	1000	819	82	3	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

BS / BSD Recoveries

Project Name: Burgundy EMU Tank Battery

Work Order #: 387612
Analyst: BEV
Lab Batch ID: 820987
Sample: 572058-1-BKS
Units: mg/kg

Date Prepared: 08/30/2010
Batch #: 1

Project ID: 0810-001
Date Analyzed: 08/30/2010
Matrix: Solid

TPH By SW8015 Mod Analytes	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
	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
C6-C12 Gasoline Range Hydrocarbons	ND	1010	1120	111	1000	1100	110	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1010	974	96	1000	1050	105	8	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

Final 1.000

Form 3 - MS Recoveries

Project Name: Burgundy EMU Tank Battery

Work Order #: 387612

Lab Batch #: 821030 **Project ID:** 0810-001

Date Analyzed: 08/30/2010 **Date Prepared:** 08/30/2010 **Analyst:** LATCOR

QC- Sample ID: 387612-001 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	9.54	105	116	101	80-120	

Lab Batch #: 821034

Date Analyzed: 08/30/2010 **Date Prepared:** 08/30/2010 **Analyst:** LATCOR

QC- Sample ID: 387612-021 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	ND	102	103	101	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: Burgundy EMU Tank Battery

Work Order # : 387612 **Project ID:** 0810-001

Lab Batch ID: 821824 **QC- Sample ID:** 387612-026 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/04/2010 **Date Prepared:** 09/03/2010 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1038	0.0787	76	0.1038	0.0944	91	18	70-130	35	
Toluene	ND	0 1038	0.0713	69	0 1038	0.0896	86	23	70-130	35	X
Ethylbenzene	ND	0.1038	0.0605	58	0.1038	0.0883	85	37	71-129	35	XF
m,p-Xylenes	ND	0.2076	0.1054	51	0.2076	0.1580	76	40	70-135	35	XF
o-Xylene	ND	0.1038	0.0616	59	0.1038	0.0850	82	32	71-133	35	X

Lab Batch ID: 821832 **QC- Sample ID:** 387612-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/05/2010 **Date Prepared:** 09/03/2010 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1062	0.0763	72	0 1062	0.0845	80	10	70-130	35	
Toluene	ND	0.1062	0.0691	65	0.1062	0.0802	76	15	70-130	35	X
Ethylbenzene	ND	0.1062	0.0622	59	0 1062	0.0778	73	22	71-129	35	X
m,p-Xylenes	ND	0 2123	0.1030	49	0.2123	0.1454	68	34	70-135	35	X
o-Xylene	ND	0.1062	0.0588	55	0.1062	0.0762	72	26	71-133	35	X

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Burgundy EMU Tank Battery

Work Order # : 387612 **Project ID:** 0810-001

Lab Batch ID: 822184 **QC- Sample ID:** 388700-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/08/2010 **Date Prepared:** 09/07/2010 **Analyst:** SEE

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1110	0.0802	72	0.1110	0.0876	79	9	70-130	35	
Toluene	ND	0 1110	0.0806	73	0 1110	0.0871	78	8	70-130	35	
Ethylbenzene	ND	0.1110	0 0849	76	0.1110	0.0915	82	7	71-129	35	
m,p-Xylenes	ND	0.2220	0.1652	74	0.2220	0.1778	80	7	70-135	35	
o-Xylene	ND	0.1110	0.0806	73	0.1110	0.0877	79	8	71-133	35	

Lab Batch ID: 820979 **QC- Sample ID:** 387612-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/31/2010 **Date Prepared:** 08/30/2010 **Analyst:** BEV

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1050	847	81	1040	1030	99	19	70-135	35	
C12-C28 Diesel Range Hydrocarbons	43.4	1050	940	85	1040	1150	106	20	70-135	35	

Lab Batch ID: 820987 **QC- Sample ID:** 387633-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/30/2010 **Date Prepared:** 08/30/2010 **Analyst:** BEV

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	16.5	1080	1150	105	1080	1100	100	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	199	1080	1090	83	1080	1000	74	9	70-135	35	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Burgundy EMU Tank Battery

Work Order #: 387612

Lab Batch #: 821030 **Project ID:** 0810-001
Date Analyzed: 08/30/2010 **Date Prepared:** 08/30/2010 **Analyst:** LATCOR
QC- Sample ID: 387612-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300/300.1	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	9.54	9.65	1	20	

Lab Batch #: 821034
Date Analyzed: 08/30/2010 **Date Prepared:** 08/30/2010 **Analyst:** LATCOR
QC- Sample ID: 387612-021 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300/300.1	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	ND	ND	NC	20	

Lab Batch #: 820955
Date Analyzed: 08/31/2010 **Date Prepared:** 08/31/2010 **Analyst:** JLG
QC- Sample ID: 387612-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	4.60	5.60	20	20	

Lab Batch #: 820960
Date Analyzed: 08/31/2010 **Date Prepared:** 08/31/2010 **Analyst:** JLG
QC- Sample ID: 387612-021 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	2.26	2.57	13	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Environmental Lab of Texas

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
Company Name: Crain Environmental
Company Address: 2925 East 17th Street
City/State/Zip: Odessa, TX 79761
Telephone No: (432) 530-9797 Fax No: (432) 272-0304
Sampler Signature: Cindy Crain e-mail: cindy.crain@gmail.com

Project Name: Burgundy EMU Tank Battery
Project #: 0810-001
Project Loc: Lea County, New Mexico
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 387612

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 / 8015M	TOTAL: TPH: TX 1005 / TX 1006	Cations (Ca, Mg, Na, K)	Anions (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.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	SS-1	6"	6"	8/27/2010	1011		1	X								S	X			X					X				X
2	SS-2	6"	6"	8/27/2010	1012		1	X								S	X			X					X				X
3	SS-3	6"	6"	8/27/2010	1015		1	X								S	X			X					X				X
4	SS-4	6"	6"	8/27/2010	1021		1	X								S	X			X					X				X
5	SS-5	6"	6"	8/27/2010	1017		1	X								S	X			X					X				X
6	SS-6	6"	6"	8/27/2010	1023		1	X								S	X			X					X				X
7	SS-7	6"	6"	8/27/2010	1025		1	X								S	X			X					X				X
8	SS-8	6"	6"	8/27/2010	1027		1	X								S	X			X					X				X
9	SS-9	6"	6"	8/27/2010	1028		1	X								S	X			X					X				X
16	SS-10	6"	6"	8/27/2010	1030		1	X									X			X					X				X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Cindy Crain	8/27/10	1625			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Tara Barnes	8/27/10	1625

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 4.1 °C

Environmental Lab of Texas

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
Company Name: Crain Environmental
Company Address: 2925 East 17th Street
City/State/Zip: Odessa, TX 79761
Telephone No: (432) 530-9797 Fax No: (432) 272-0304
Sampler Signature: Cindy Crain e-mail: cindy.crain@gmail.com

Project Name: Burgundy EMU Tank Battery
Project #: 0810-001
Project Loc: Lea County, New Mexico
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 387612

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge / GW=Groundwater S=Soil/Solid / NP=Non-Potable Specify Other	Analyze For: TPH 418.1 / 8015B	TPH TX 1005 / TX 1006	Cations (Ca, Mg, Na, K)	Anions (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	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
11	SS-11	6"	6"	8/27/2010	1031		1	X								S	X			X					X				X
12	SS-12	6"	6"	8/27/2010	1034		1	X								S	X			X					X				X
13	SS-13	6"	6"	8/27/2010	1035		1	X								S	X			X					X				X
14	SS-14	6"	6"	8/27/2010	1038		1	X								S	X			X					X				X
15	SS-1	1'	1'	8/27/2010	1040		1	X								S	X			X					X				X
16	SS-2	1'	1'	8/27/2010	1043		1	X								S	X			X					X				X
17	SS-3	1'	1'	8/27/2010	1045		1	X								S	X			X					X				X
18	SS-4	1'	1'	8/27/2010	1052		1	X								S	X			X					X				X
19	SS-5	1'	1'	8/27/2010	1047		1	X								S	X			X					X				X
20	SS-6	1'	1'	8/27/2010	1048		1	X									X			X					X				X

TCLP:
TOTAL:

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Cindy Crain	8/27/10	1625			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Ja Bane	8/27/10	16:25

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 4.1 °C

Final 1.000

Environmental Lab of Texas

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
Company Name: Crain Environmental
Company Address: 2925 East 17th Street
City/State/Zip: Odessa, TX 79761
Telephone No: (432) 530-9767 Fax No: (432) 272-0304
Sampler Signature: Cindy Crain e-mail: cindy.crain@gmail.com

Project Name: Burgundy EMU Tank Battery
Project #: 0810-001
Project Loc: Lea County, New Mexico
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 387612

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge / GW=Groundwater S=Soil/Solid / NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 / 8015M	TOTAL: TPH: 8015B	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (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.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
21	SS-7	1'	1'	8/27/2010	1031		1	X								S	X				X						X				X
22	SS-8	1'	1'	8/27/2010	1034		1	X								S	X				X						X				X
23	SS-9	1'	1'	8/27/2010	1035		1	X								S	X				X						X				X
24	SS-10	1'	1'	8/27/2010	1038		1	X								S	X				X						X				X
25	SS-11	1'	1'	8/27/2010	1040		1	X								S	X				X						X				X
26	SS-12	1'	1'	8/27/2010	1043		1	X								S	X				X						X				X
27	SS-13	1'	1'	8/27/2010	1045		1	X								S	X				X						X				X
28	SS-14	1'	1'	8/27/2010	1052		1	X								S	X				X						X				X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Cindy Crain		1625			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Ta Dawn	8/27/10	16:25

Laboratory Comments:

Sample Containers intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 4.1 °C

XENCO Laboratories	XENCO Laboratories Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa	Document Title: Sample Receipt Checklist Document No.: SYS-SRC Revision/Date: No. 01, 5/27/2010 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Craig Environmental

Date/Time: 8/27/10 16:25

Lab ID #: 387612

Initials: TB

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	(N/A)	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	(No)	N/A	
17. VOC sample have zero head space?	(Yes)	No	N/A	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	4.1 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact:_____ Contacted by:_____ Date/Time:_____

Regarding: _____

Corrective Action Taken: _____

Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
- ☐ Initial and Backup Temperature confirm out of temperature conditions
- ☐ Client understands and would like to proceed with analysis

Analytical Report 394631

for

Crain Environmental

Project Manager: Cindy Crain

Burgundy EMU Tank Battery

0810-001

26-OCT-10

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0738), 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)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL01273):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):
Arizona(AZ0757), California(06244CA), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

26-OCT-10

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

Reference: XENCO Report No: **394631**
Burgundy EMU Tank Battery
Project Address: Lea County, New Mexico

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 394631. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 394631 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,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 394631

Crain Environmental, Odessa, TX

Burgundy EMU Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS-3	S	Oct-21-10 14:35	2 - 2	394631-001
SS-5	S	Oct-21-10 14:40	2 - 2	394631-002
SS-6	S	Oct-21-10 14:45	2 - 2	394631-003
SS-9	S	Oct-21-10 14:48	1.5 - 1.5	394631-004
SS-10	S	Oct-21-10 14:50	2 - 2	394631-005
SS-11	S	Oct-21-10 14:53	2 - 2	394631-006
SS-13	S	Oct-21-10 14:56	2 - 2	394631-007
Spoil 1	S	Oct-21-10 14:59		394631-008
Spoil 2	S	Oct-21-10 15:02		394631-009

CASE NARRATIVE

Client Name: Crain Environmental
Project Name: Burgundy EMU Tank Battery

Project ID:	*0810-001*	*Report Date:*	*26-OCT-10*
Work Order Number:	*394631*	*Date Received:*	*10/22/2010*

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Certificate of Analysis Summary 394631

Crain Environmental, Odessa, TX

Project Name: Burgundy EMU Tank Battery

Project Id: 0810-001
Contact: Cindy Crain
Project Location: Lea County, New Mexico

Date Received in Lab: Fri Oct-22-10 01:12 pm
Report Date: 26-OCT-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	394631-001		394631-002		394631-003		394631-004		394631-005		394631-006	
	Field Id:	SS-3		SS-5		SS-6		SS-9		SS-10		SS-11	
	Depth:	2-2		2-2		2-2		1.5-1.5		2-2		2-2	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-21-10 14:35		Oct-21-10 14.40		Oct-21-10 14:45		Oct-21-10 14:48		Oct-21-10 14:50		Oct-21-10 14:53	
Percent Moisture	*Extracted:*												
	Analyzed:	Oct-23-10 09:05		Oct-23-10 09:05		Oct-23-10 09.05		Oct-23-10 09.05		Oct-23-10 09:05		Oct-23-10 09:05	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		4 73	1.00	ND	1.00	1.23	1.00	1 77	1 00	4.36	1.00	1.39	1.00
TPH By SW8015 Mod	*Extracted:*	Oct-22-10 13:35		Oct-22-10 13:35		Oct-22-10 13:35		Oct-22-10 13 35		Oct-22-10 13:35		Oct-22-10 13:35	
	Analyzed:	Oct-22-10 15:24		Oct-22-10 15:44		Oct-22-10 16:03		Oct-22-10 16:23		Oct-22-10 16:43		Oct-22-10 17:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.7	ND	15.2	ND	15.1	119	15.2	169	158	ND	15 2
C12-C28 Diesel Range Hydrocarbons		ND	15.7	ND	15 2	ND	15 1	790	15.2	3730	158	518	15.2
C28-C35 Oil Range Hydrocarbons		ND	15 7	ND	15.2	ND	15.1	49.5	15.2	257	158	36.4	15.2
Total TPH		ND	15 7	ND	15.2	ND	15.1	959	15.2	4156	158	554	15 2

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 394631

Crain Environmental, Odessa, TX

Project Name: Burgundy EMU Tank Battery

Project Id: 0810-001
Contact: Cindy Crain
Project Location: Lea County, New Mexico

Date Received in Lab: Fri Oct-22-10 01:12 pm
Report Date: 26-OCT-10
Project Manager: Brent Barron, II

Analysis Requested									
	Lab Id:	394631-007		394631-008		394631-009			
	Field Id:	SS-13		Spoil 1		Spoil 2			
	Depth:	2-2							
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Oct-21-10 14:56		Oct-21-10 14:59		Oct-21-10 15:02			
Percent Moisture	*Extracted:*								
	Analyzed:	Oct-23-10 09:05		Oct-23-10 09:05		Oct-23-10 09:05			
	Units/RL:	%	RL	%	RL	%	RL		
Percent Moisture		3.18	1.00	1.82	1.00	2 03	1.00		
TPH By SW8015 Mod	*Extracted:*	Oct-22-10 13:35		Oct-22-10 13:35		Oct-22-10 13:35			
	Analyzed:	Oct-22-10 17:41		Oct-22-10 18:01		Oct-22-10 18:21			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		ND	15.5	83.0	76.0	ND	76.7		
C12-C28 Diesel Range Hydrocarbons		33.6	15.5	2540	76 0	419	76 7		
C28-C35 Oil Range Hydrocarbons		ND	15.5	130	76.0	ND	76.7		
Total TPH		33.6	15 5	2753	76.0	419	76.7		

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.

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.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 394631,

Project ID: 0810-001

Lab Batch #: 828828 **Sample:** 576831-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/22/10 12:45

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78 9	99 8	79	70-135	
o-Terphenyl	51.4	49 9	103	70-135	

Lab Batch #: 828828 **Sample:** 576831-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/22/10 13:05

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.0	100	79	70-135	
o-Terphenyl	44.3	50.2	88	70-135	

Lab Batch #: 828828 **Sample:** 576831-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/22/10 13:24

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.8	100	84	70-135	
o-Terphenyl	45 6	50 1	91	70-135	

Lab Batch #: 828828 **Sample:** 394631-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/22/10 15:24

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85 7	99.5	86	70-135	
o-Terphenyl	46 0	49 8	92	70-135	

Lab Batch #: 828828 **Sample:** 394631-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/22/10 15:44

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.0	100	79	70-135	
o-Terphenyl	40.4	50 2	80	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 394631, **Project ID:** 0810-001

Lab Batch #: 828828 **Sample:** 394631-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/22/10 16:03 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.5	99.5	80	70-135	
o-Terphenyl	40 4	49.8	81	70-135	

Lab Batch #: 828828 **Sample:** 394631-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/22/10 16:23 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.3	99.5	88	70-135	
o-Terphenyl	56.1	49 8	113	70-135	

Lab Batch #: 828828 **Sample:** 394631-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/22/10 16:43 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.1	101	91	70-135	
o-Terphenyl	50.9	50.3	101	70-135	

Lab Batch #: 828828 **Sample:** 394631-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/22/10 17:22 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85 2	99.6	86	70-135	
o-Terphenyl	45 6	49 8	92	70-135	

Lab Batch #: 828828 **Sample:** 394631-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/22/10 17:41 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84 5	99.8	85	70-135	
o-Terphenyl	44 4	49.9	89	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 394631, **Project ID:** 0810-001

Lab Batch #: 828828 **Sample:** 394631-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/22/10 18:01 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97 2	99.5	98	70-135	
o-Terphenyl	52.8	49.8	106	70-135	

Lab Batch #: 828828 **Sample:** 394631-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/22/10 18:21 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82 9	100	83	70-135	
o-Terphenyl	44 5	50 1	89	70-135	

Lab Batch #: 828828 **Sample:** 394519-001 D / MD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/22/10 18:40 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99 8	100	100	70-135	
o-Terphenyl	47.7	50.1	95	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Burgundy EMU Tank Battery

Work Order #: 394631
Analyst: BEV
Lab Batch ID: 828828
Sample: 576831-1-BKS
Units: mg/kg

Date Prepared: 10/22/2010
Batch #: 1

Project ID: 0810-001
Date Analyzed: 10/22/2010
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	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
C6-C12 Gasoline Range Hydrocarbons	ND	998	932	93	1000	963	96	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	850	85	1000	929	93	9	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

Sample Duplicate Recovery

Project Name: Burgundy EMU Tank Battery

Work Order #: 394631

Lab Batch #: 828776 **Project ID:** 0810-001

Date Analyzed: 10/23/2010 **Date Prepared:** 10/23/2010 **Analyst:** JLG

QC- Sample ID: 394519-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	5 20	5 22	0	20	

Lab Batch #: 828828

Date Analyzed: 10/22/2010 **Date Prepared:** 10/22/2010 **Analyst:** BEV

QC- Sample ID: 394519-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

TPH By SW8015 Mod Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	1460	1590	9	35	
C12-C28 Diesel Range Hydrocarbons	2550	3050	18	35	
C28-C35 Oil Range Hydrocarbons	211	173	20	35	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Environmental Lab of Texas

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
Company Name: Crain Environmental
Company Address: 2925 East 17th Street
City/State/Zip: Odessa, TX 79761
Telephone No: (432) 530-9797 Fax No: (432) 272-0304
Sampler Signature: Cindy Crain e-mail: cindy.crain@gmail.com

Project Name: Burgundy EMU Tank Battery
Project #: 0810-001
Project Loc: Lea County, New Mexico
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 394631

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge	GW = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	Analyze For: TCLP: TPH 8015B (8015M)	TCLP: 418.1	TOTAL: TPH TX 1005 TX 1006	TOTAL: Cations (Ca, Mg, Na, K)	TOTAL: Anions (Cl, SO4, Alkalinity)	TOTAL: SAR / ESP / CEC	TOTAL: Metals: As Ag Ba Cd Cr Pb Hg Se	TOTAL: Volatiles	TOTAL: Semivolatiles	TOTAL: BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	SS-3	2	2	10/21/2010	1435		1	X								S			X													X
02	SS-5	2	2	10/21/2010	1440		1	X								S			X													X
03	SS-6	2	2	10/21/2010	1445		1	X								S			X													X
04	SS-9	1.5	1.5	10/21/2010	1448		1	X								S			X													X
05	SS-10	2	2	10/21/2010	1450		1	X								S			X													X
06	SS-11	2	2	10/21/2010	1453		1	X								S			X													X
07	SS-13	2	2	10/21/2010	1456		1	X								S			X													X
08	Spoil 1	---	---	10/21/2010	1459		1	X								S			X													X
09	Spoil 2	---	---	10/21/2010	1502		1	X								S			X													X

Special Instructions:

Relinquished by:	Date	Time	Received by	Date	Time
Cindy Crain	10/22/10	1312			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT.	Date	Time
				10/22/10	13:12

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	on lids	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt: 4oz C.G. 4.3 °C

Final 1.000

XENCO Laboratories	XENCO Laboratories Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa	Document Title: Sample Receipt Checklist Document No.: SYS-SRC Revision/Date: No. 01, 5/27/2010 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Crain Environmental

Date/Time: 10/22/10 13:12

Lab ID # : 394631

Initials: AS

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	(N/A)	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	No	(N/A)	
17. VOC sample have zero head space?	(Yes)	No	N/A	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	4.3 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact:_____ Contacted by:_____ Date/Time:_____

Regarding: _____

_____

Corrective Action Taken:_____

_____

_____

_____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.

☐ Initial and Backup Temperature confirm out of temperature conditions

☐ Client understands and would like to proceed with analysis

Analytical Report 396436

for

Crain Environmental

Project Manager: Cindy Crain

Burgundy EMU Tank Battery

0810-001

10-NOV-10

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0738), 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)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL01273):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):
Arizona(AZ0757), California(06244CA), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

10-NOV-10

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

Reference: XENCO Report No: **396436**
Burgundy EMU Tank Battery
Project Address: Lea County, New Mexico

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 396436. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 396436 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,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 396436

Crain Environmental, Odessa, TX

Burgundy EMU Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS-9	S	Nov-06-10 13:52	3 - 3	396436-001
SS-10	S	Nov-06-10 13:55	3 - 3	396436-002
SS-11	S	Nov-06-10 13:58	4 - 4	396436-003
Spoil 1	S	Nov-06-10 14:02		396436-004
Spoil 2	S	Nov-06-10 14:05		396436-005

CASE NARRATIVE

Client Name: Crain Environmental
Project Name: Burgundy EMU Tank Battery

Project ID:	*0810-001*	*Report Date:*	*10-NOV-10*
Work Order Number:	*396436*	*Date Received:*	*11/08/2010*

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Certificate of Analysis Summary 396436

Crain Environmental, Odessa, TX

Project Name: Burgundy EMU Tank Battery

Project Id: 0810-001
Contact: Cindy Crain
Project Location: Lea County, New Mexico

Date Received in Lab: Mon Nov-08-10 02:15 pm
Report Date: 10-NOV-10
Project Manager: Brent Barron, II

Analysis Requested																	
	Lab Id:	396436-001			396436-002			396436-003			396436-004			396436-005			
	Field Id:	SS-9			SS-10			SS-11			Spoil 1			Spoil 2			
	Depth:	3-3			3-3			4-4									
	Matrix:	SOIL			SOIL			SOIL			SOIL			SOIL			
	Sampled:	Nov-06-10 13:52			Nov-06-10 13:55			Nov-06-10 13:58			Nov-06-10 14:02			Nov-06-10 14:05			
Percent Moisture	***Extracted:***																
	Analyzed:	Nov-09-10 08:15			Nov-09-10 08:15			Nov-09-10 08:15			Nov-09-10 08:15			Nov-09-10 08.15			
	Units/RL:	%	RL		%	RL		%	RL		%	RL		%	RL		
Percent Moisture		13.4	1.00		3.09	1.00		5.52	1 00		ND	1.00		ND	1.00		
TPH By SW8015 Mod	***Extracted:***	Nov-08-10 15:00			Nov-08-10 15:00			Nov-08-10 15:00			Nov-08-10 15:00			Nov-08-10 15:00			
	Analyzed:	Nov-10-10 09:19			Nov-10-10 09:19			Nov-10-10 09.19			Nov-10-10 09 19			Nov-10-10 09 19			
	Units/RL:	mg/kg	RL		mg/kg	RL		mg/kg	RL		mg/kg	RL		mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		ND	17 4		ND	15.4		ND	15 9		54.1	15.1		54.9	15.1		
C12-C28 Diesel Range Hydrocarbons		ND	17.4		ND	15.4		70.6	15.9		744	15 1		947	15.1		
C28-C35 Oil Range Hydrocarbons		ND	17.4		ND	15.4		ND	15.9		22.3	15.1		20.4	15.1		
Total TPH		ND	17 4		ND	15.4		70.6	15 9		820	15.1		1022	15.1		

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.

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.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 396436, **Project ID:** 0810-001

Lab Batch #: 831198 **Sample:** 578252-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 11/09/10 12:07

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.1	100	96	70-135	
o-Terphenyl	56 9	50 1	114	70-135	

Lab Batch #: 831198 **Sample:** 578252-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 11/09/10 12:26

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.4	100	98	70-135	
o-Terphenyl	63.5	50.1	127	70-135	

Lab Batch #: 831198 **Sample:** 578252-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 11/09/10 12:46

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.1	99 7	99	70-135	
o-Terphenyl	53.4	49.9	107	70-135	

Lab Batch #: 831198 **Sample:** 396436-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 11/10/10 09:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	59 7	50.1	119	70-135	

Lab Batch #: 831198 **Sample:** 396436-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 11/10/10 09:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.6	105	70-135	
o-Terphenyl	54.9	49.8	110	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 396436, **Project ID:** 0810-001

Lab Batch #: 831198 **Sample:** 396436-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 11/10/10 09:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99 9	107	70-135	
o-Terphenyl	57.7	50.0	115	70-135	

Lab Batch #: 831198 **Sample:** 396436-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 11/10/10 09:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.6	101	70-135	
o-Terphenyl	51.2	49 8	103	70-135	

Lab Batch #: 831198 **Sample:** 396436-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 11/10/10 09:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	99.9	104	70-135	
o-Terphenyl	54.4	50 0	109	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Burgundy EMU Tank Battery

Work Order #: 396436
Analyst: BEV
Lab Batch ID: 831198 **Sample:** 578252-1-BKS
Units: mg/kg

Date Prepared: 11/08/2010
Batch #: 1

Project ID: 0810-001
Date Analyzed: 11/09/2010
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	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
C6-C12 Gasoline Range Hydrocarbons	ND	1000	923	92	1000	941	94	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	919	92	1000	915	92	0	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

Sample Duplicate Recovery

Project Name: Burgundy EMU Tank Battery

Work Order #: 396436

Lab Batch #: 831044 **Project ID:** 0810-001

Date Analyzed: 11/09/2010 **Date Prepared:** 11/09/2010 **Analyst:** JLG

QC- Sample ID: 396373-003 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	1 82	1.99	9	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Environmental Lab of Texas

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

Company Name: Crain Environmental

Company Address: 2925 East 17th Street

City/State/Zip: Odessa, TX 79761

Telephone No: (432) 530-9797 Fax No: (432) 272-0304

Sampler Signature: Cindy Crain e-mail: cindy.crain@gmail.com

Project Name: Burgundy EMU Tank Battery

Project #: 0810-001

Project Loc: Lea County, New Mexico

PO #:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 396436

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M 8015B	TPH TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (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	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	SS-9	3	3	11/6/2010	1352		1	X								S	X												X
02	SS-10	3	3	11/6/2010	1355		1	X								S	X												X
03	SS-11	4	4	11/6/2010	1358		1	X								S	X												X
04	Spoil 1	---	---	11/6/2010	1402		1	X								S	X												X
05	Spoil 2	---	---	11/6/2010	1405		1	X								S	X												X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
Cindy Crain	11/8/10	1415			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT: Andrea Elam	11.9.10	14:15

Laboratory Comments:

Sample Containers Intact? (Y) N
VOCs Free of Headspace? (Y) N
Labels on container(s) (Y) N
Custody seals on container(s) Y (N)
Custody seals on cooler(s) Y (N)
Sample Hand Delivered (Y) N
by Sampler/Client Rep ? (Y) N
by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 1.4 °C

XENCO Laboratories

XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Pittsburgh
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS-SRC
Revision/Date: No. 01, 5/27/2010
Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Crain Env.
Date/Time: 11.2.10 14.15
Lab ID: 396436
Initials: AE

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	(N/A)	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	No	(N/A)	
17. VOC sample have zero head space?	(Yes)	No	N/A	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	1.4 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC Chapter 5.5.7.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis

CARDINAL Laboratories

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

November 29, 2010

CINDY CRAIN

CRAIN ENVIRONMENTAL

2925 E. 17TH STREET

ODESSA, TX 79761

RE: EMU TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 11/19/10 12:58.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (V2, V3)

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene
Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/19/2010	Sampling Date:	11/19/2010
Reported:	11/29/2010	Sampling Type:	Soil
Project Name:	EMU TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	0810-001	Sample Received By:	Jodi Henson
Project Location:	LEA CO., NM		

Sample ID: SPOIL 1 (H021348-01)

TPH 8015M mg/kg **Analyzed By: AB**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/25/2010	ND	204	102	200	15.6	
DRO >C10-C28	**708**	10.0	11/25/2010	ND	201	100	200	8.12	

Surrogate: 1-Chlorooctane	*86.4 %*	*70-130*
Surrogate. 1-Chlorooctadecane	*94.2 %*	*70-130*

Sample ID: SPOIL 2 (H021348-02)

TPH 8015M mg/kg **Analyzed By: AB**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/25/2010	ND	204	102	200	15.6	
DRO >C10-C28	**601**	10.0	11/25/2010	ND	201	100	200	8.12	

Surrogate: 1-Chlorooctane	*110 %*	*70-130*
Surrogate: 1-Chlorooctadecane	*117 %*	*70-130*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Crain Environmental	BILL TO	
Project Manager:	Cindy Crain	P.O. #:	
Address:	2925 E. 17th St.	Company:	
City:	Odessa State: Tx Zip: 79761	Attn:	
Phone #:	(432) 530-9797 Fax #: (432) 272-0304	Address:	
Project #:	0810-001 Project Owner: Burgundy Oil	City:	
Project Name:	EMU Tank Battery	State: Zip:	
Project Location:	Lea Co., NM	Phone #:	
Sampler Name:	Cindy Crain	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	TPH 8015M
H21348-1	Spoil 1	C	1			✓					✓		11/14/10	1130	✓
2	Spoil 2	C	1			✓					✓		11/19/10	1135	✓

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 the client for the 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 30 days after completion of the applicable 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 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.

Relinquished By: Cindy Crain	Date: 11/19/10 Time: 1258	Received By: Jodie Henson	
Relinquished By:	Date: Time:	Received By:	

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

3.5°C

Sample Condition: Cool: Yes / No; Intact: Yes / No

CHECKED BY: (Initials) JH

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

Email Results to: Cindy.Crain@gmail.com

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26

CARDINAL Laboratories

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

December 31, 2010

CINDY CRAIN

CRAIN ENVIRONMENTAL

2925 E. 17TH STREET

ODESSA, TX 79761

RE: EMU TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 12/29/10 12:20.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (V2, V3)

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene
Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/29/2010	Sampling Date:	12/29/2010
Reported:	12/31/2010	Sampling Type:	Soil
Project Name:	EMU TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	0810-001	Sample Received By:	Jodi Henson
Project Location:	LEA CO., NM		

Sample ID: S. P. - 1 (E) (H021616-01)

TPH 8015M mg/kg **Analyzed By: CK** **S-04**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/31/2010	ND	184	92.2	200	7.68	
DRO >C10-C28	**247**	10.0	12/31/2010	ND	172	86.1	200	14.8	

Surrogate 1-Chlorooctane	*153 %*	*70-130*
Surrogate 1-Chlorooctadecane	*161 %*	*70-130*

Sample ID: S. P. - 2 (W) (H021616-02)

TPH 8015M mg/kg **Analyzed By: CK** **S-04**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/31/2010	ND	184	92.2	200	7.68	
DRO >C10-C28	**373**	10.0	12/31/2010	ND	172	86.1	200	14.8	

Surrogate 1-Chlorooctane	*148 %*	*70-130*
Surrogate 1-Chlorooctadecane	*164 %*	*70-130*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Crain Environmental	**BILL TO**		
Project Manager: Cindy Crain	P.O. #:		
Address: 2925 E 17th St	Company:		
City: Odessa State: TX Zip: 79761	Attn:		
Phone #: 432-530-9797 Fax #: 432-272-0304	Address:		
Project #: 0810-001 Project Owner: Burgundy	City:		
Project Name: E.M.U. T.B.	State: NM Zip:		
Project Location: Lea Co. NM	Phone #:		
Sampler Name: Virgil Guaglies	Fax #:		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	T.P.H 8015M
H21616-1	S.P.-1 (E)	G	1			X							12-29-10	9:40	1
2	S.P.-2 (W)	G	1			X							12-29-10	9:50	1

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 the client for the 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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Virgil Guaglies	Date: 12-29-10 Time: 12:20	Received By: Jodi Henson	
Relinquished By:	Date: Time:	Received By:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	20°C	Sample Condition Cool: Yes / No Intact: Yes / No	CHECKED BY: (Initials)

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS: E.mail Results to: cindy.crain@gmail.com

FORM-006
Revision 1.0

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

CARDINAL Laboratories

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

March 08, 2011

CINDY CRAIN

CRAIN ENVIRONMENTAL

2925 E. 17TH STREET

ODESSA, TX 79761

RE: EMU TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 03/02/11 14:34.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (V2, V3)

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

9:00 AM
- Friday morning -

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/02/2011	Sampling Date:	03/02/2011
Reported:	03/08/2011	Sampling Type:	Soil
Project Name:	EMU TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	0111-01	Sample Received By:	Jodi Henson
Project Location:	LEA CO., NM		

Sample ID: SP - 1 E (H100417-01)

TPH 8015M mg/kg **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/04/2011	ND	192	96.0	200	1.89	
DRO >C10-C28	**190**	10.0	03/04/2011	ND	189	94.5	200	4.31	

Surrogate 1-Chlorooctane	*106 %*	*70-130*
Surrogate 1-Chlorooctadecane	*101 %*	*70-130*

Sample ID: SP - 2 W (H100417-02)

TPH 8015M mg/kg **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/04/2011	ND	192	96.0	200	1.89	
DRO >C10-C28	**272**	10.0	03/04/2011	ND	189	94.5	200	4.31	

Surrogate 1-Chlorooctane	*104 %*	*70-130*
Surrogate 1-Chlorooctadecane	*100 %*	*70-130*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Crain Environmental
Project Manager:	Cindy Crain
Address:	2925 E 17th St
City:	Odessa State: T.X. Zip: 79761
Phone #:	432-530-9797 Fax #: 432-272-0304
Project #:	0111-01 Project Owner: Burgundy
Project Name:	EMU T.B
Project Location:	Lea Co. N.M.
Sampler Name:	Virgil Guaglieri

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	same
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

T.P.H 8015M

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	PRESERV.: ACID/BASE.	ICE / COOL	OTHER	SAMPLING: DATE	TIME	T.P.H 8015M
H100417-1	SP-1 E	G	1			✓							3-2-11	8:41	✓
2	SP-2 W	G	1			✓							3-2-11	8:46	✓

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 the client for the 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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 3-2-11	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Virgil Guaglieri	Time: 2:34	Jodi Henson	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: Email results to: cindy.crain@gmail.com
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials)

1.0c

FORM-006
Revision 1.0

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

#26

Analytical Report 412474

for

Crain Environmental

Project Manager: Cindy Crain

Burgundy EMU Tank Battery

0810-001

12-APR-11

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0738), 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)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL01273):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):
Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

12-APR-11

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

Reference: XENCO Report No: **412474**
Burgundy EMU Tank Battery
Project Address: Lea County, New Mexico

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 412474. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 412474 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,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 412474

Crain Environmental, Odessa, TX

Burgundy EMU Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Spoil (East)	S	Apr-06-11 17:30		412474-001
Spoil (West)	S	Apr-06-11 17:35		412474-002

CASE NARRATIVE

Client Name: Crain Environmental
Project Name: Burgundy EMU Tank Battery

Project ID:	*0810-001*	*Report Date:*	*12-APR-11*
Work Order Number:	*412474*	*Date Received:*	*04/07/2011*

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Certificate of Analysis Summary 412474

Crain Environmental, Odessa, TX

Project Name: Burgundy EMU Tank Battery

Project Id: 0810-001
Contact: Cindy Crain
Project Location: Lea County, New Mexico

Date Received in Lab: Thu Apr-07-11 04.55 pm
Report Date: 12-APR-11
Project Manager: Brent Barron, II

Analysis Requested									
	Lab Id:	412474-001		412474-002					
	Field Id:	Spoil (East)		Spoil (West)					
	Depth:								
	Matrix:	SOIL		SOIL					
	Sampled:	Apr-06-11 17:30		Apr-06-11 17:35					
Percent Moisture	*Extracted:*								
	Analyzed:	Apr-08-11 17:00		Apr-08-11 17:00					
	Units/RL:	%	RL	%	RL				
Percent Moisture		1.07	1.00	1.08	1.00				
TPH By SW8015 Mod	*Extracted:*	Apr-08-11 12:00		Apr-08-11 12.00					
	Analyzed:	Apr-09-11 19:54		Apr-09-11 20:24					
	Units/RL:	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		ND	15.1	ND	15.2				
C12-C28 Diesel Range Hydrocarbons		38 6	15.1	36.7	15.2				
C28-C35 Oil Range Hydrocarbons		ND	15.1	ND	15.2				
Total TPH		38.6	15.1	36.7	15 2				

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

XENCO Laboratories

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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.

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.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: Burgundy EMU Tank Battery

Work Orders : 412474, **Project ID:** 0810-001

Lab Batch #: 851328 **Sample:** 600089-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/09/11 12:45

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	99.5	117	70-135	
o-Terphenyl	48.6	49 8	98	70-135	

Lab Batch #: 851328 **Sample:** 600089-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/09/11 13:16

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.9	101	86	70-135	
o-Terphenyl	35.8	50.3	71	70-135	

Lab Batch #: 851328 **Sample:** 600089-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/09/11 13:46

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.8	100	71	70-135	
o-Terphenyl	35.5	50.2	71	70-135	

Lab Batch #: 851328 **Sample:** 412474-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/09/11 19:54

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.9	101	70-135	
o-Terphenyl	48.8	50.0	98	70-135	

Lab Batch #: 851328 **Sample:** 412474-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/09/11 20:24

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.7	100	86	70-135	
o-Terphenyl	39.6	50.1	79	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

XENCO Laboratories

BS / BSD Recoveries

Project Name: Burgundy EMU Tank Battery

Work Order #: 412474
Analyst: BEV
Lab Batch ID: 851328
Sample: 600089-1-BKS
Units: mg/kg

Date Prepared: 04/08/2011
Batch #: 1

Project ID: 0810-001
Date Analyzed: 04/09/2011
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	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
C6-C12 Gasoline Range Hydrocarbons	<14.9	995	850	85	1010	769	76	10	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<14.9	995	894	90	1010	800	79	11	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

Final 1.000

XENCO Laboratories

Sample Duplicate Recovery

Project Name: Burgundy EMU Tank Battery

Work Order #: 412474

Lab Batch #: 851392 **Project ID:** 0810-001

Date Analyzed: 04/08/2011 17:00 **Date Prepared:** 04/08/2011 **Analyst:** WRU

QC- Sample ID: 412474-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	1.07	1.05	2	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Environmental Lab of Texas

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
Company Name: Crain Environmental
Company Address: 2925 East 17th Street
City/State/Zip: Odessa, TX 79761
Telephone No: (432) 530-9797 Fax No: (432) 272-0304
Sampler Signature: Cindy Crain e-mail: cindy.crain@gmail.com

Project Name: Burgundy EMU Tank Battery
Project #: 0810-001
Project Loc: Lea County, New Mexico
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 412474

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH. 418.1	TPH. 8015M	TPH. TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	TCLP / TOTAL: Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	Spoil (East)	---	---	4/6/2011	1730		1	X								S	X														X
02	Spoil (West)	---	---	4/6/2011	1735		1	X								S	X														X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
Cindy Crain	4/7/11	1655			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT	Date	Time
			Andrea Elam	4.7.11	16:55

Laboratory Comments:

Sample Containers Intact?	(Y)	N
VOCs Free of Headspace?	(Y)	N
Labels on container(s)	(Y)	N
Custody seals on container(s)	Y	(N)
Custody seals on cooler(s)	Y	(N)
Sample Hand Delivered	(Y)	N
by Sampler/Client Rep ?	(Y)	N

by Courier? UPS DHL FedEx Lone Star

4 oz glass

Temperature Upon Receipt: 1.1 °C

Final 1.000

XENCO Laboratories	XENCO Laboratories Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa	Document Title: Sample Receipt Checklist Document No.: SYS-SRC Revision/Date: No. 01, 5/27/2010 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Crain Env.

Date/Time: 4.7.11 16:55

Lab ID #: 412744474

Initials: AE 4.7.11

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	(N/A)	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	No	(N/A)	
17. VOC sample have zero head space?	(Yes)	No	N/A	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	1.1 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact:_____ Contacted by:_____ Date/Time:_____

Regarding: _____

_____

Corrective Action Taken: _____

_____

_____

_____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.

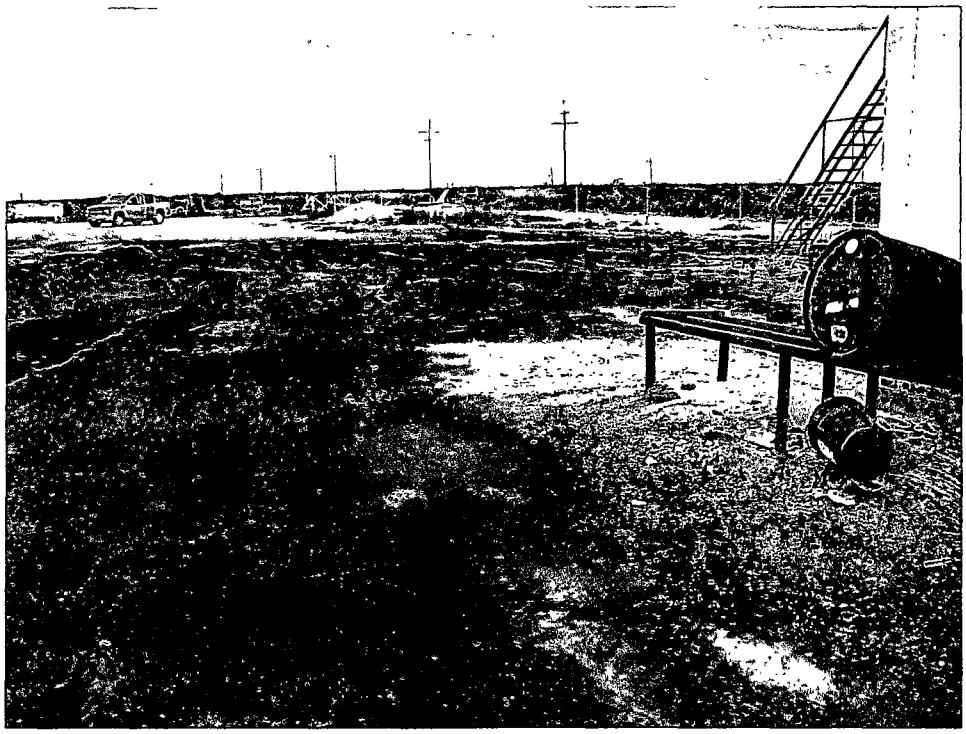
☐ Initial and Backup Temperature confirm out of temperature conditions

☐ Client understands and would like to proceed with analysis

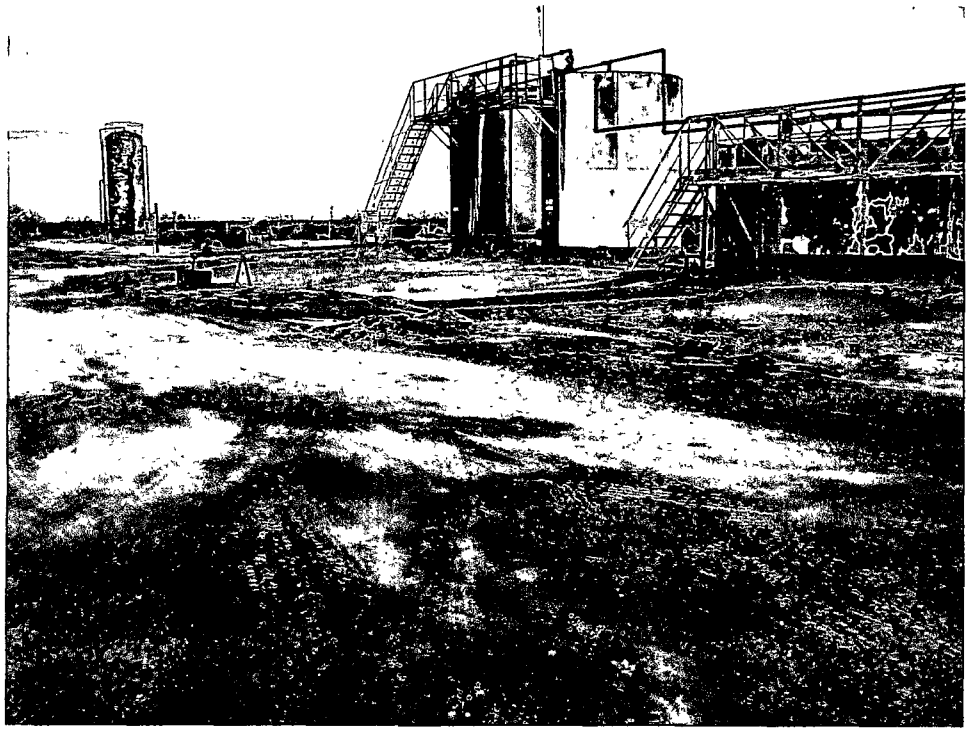
APPENDIX C

PHOTOGRAPHS

BURGUNDY OIL & GAS OF NM, INC.
EMU Tank Battery

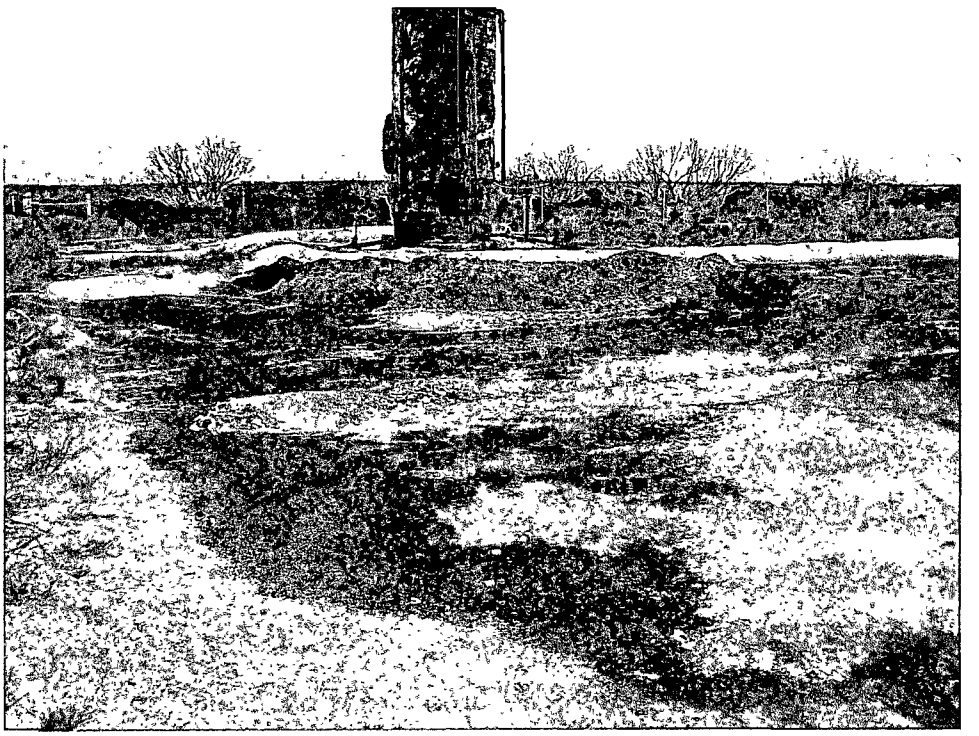


View to west of spill 8/6/10

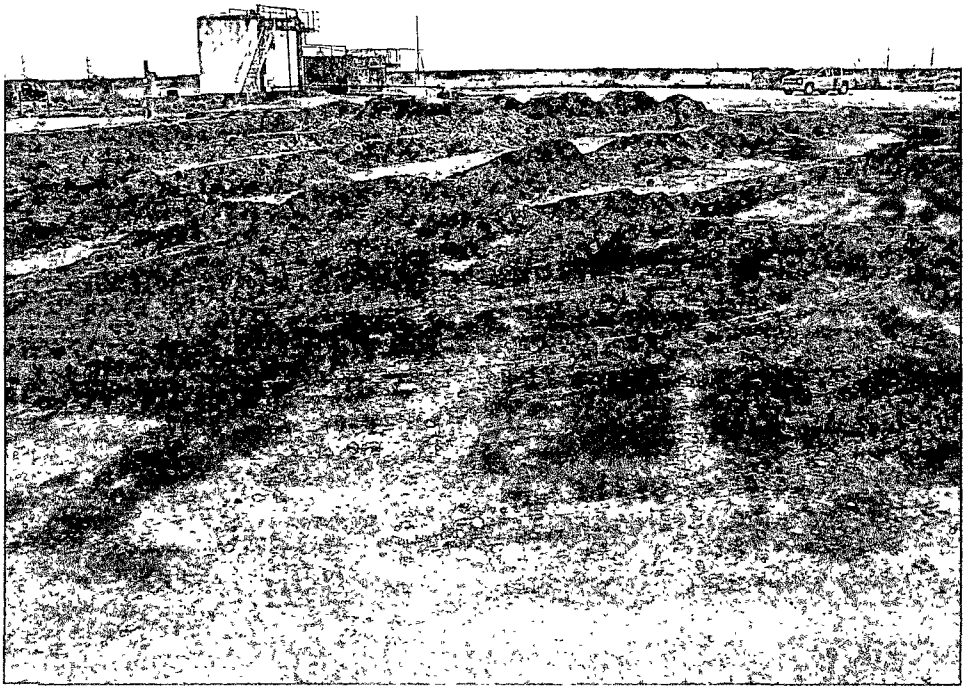


View to east of spill 8/6/10

BURGUNDY OIL & GAS OF NM, INC.
EMU Tank Battery

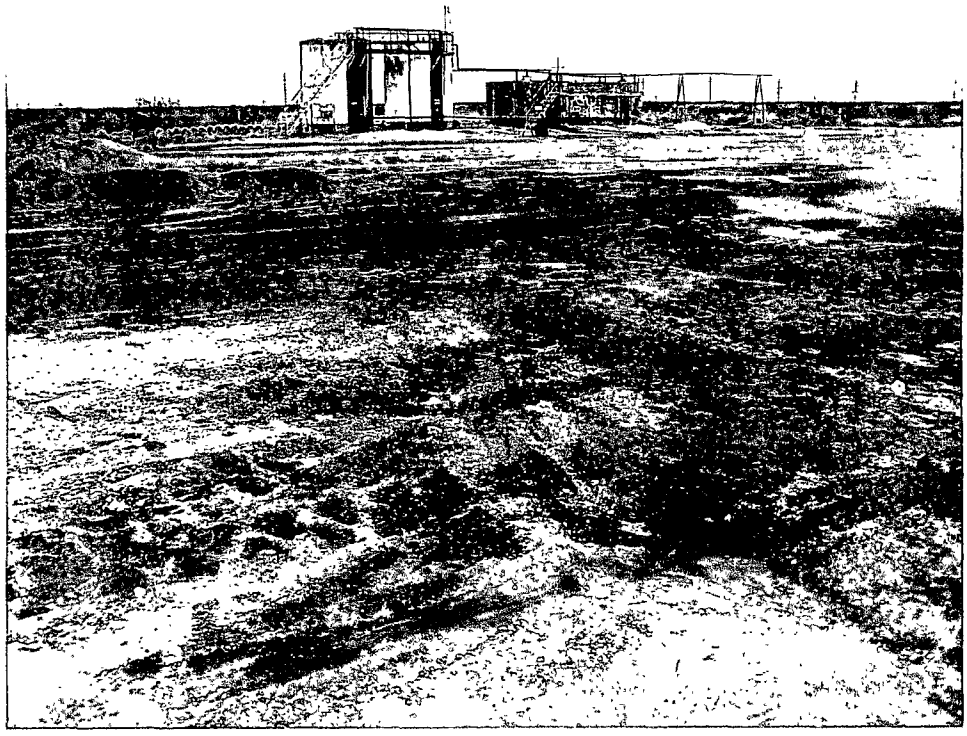


View to south of spill 8/6/10

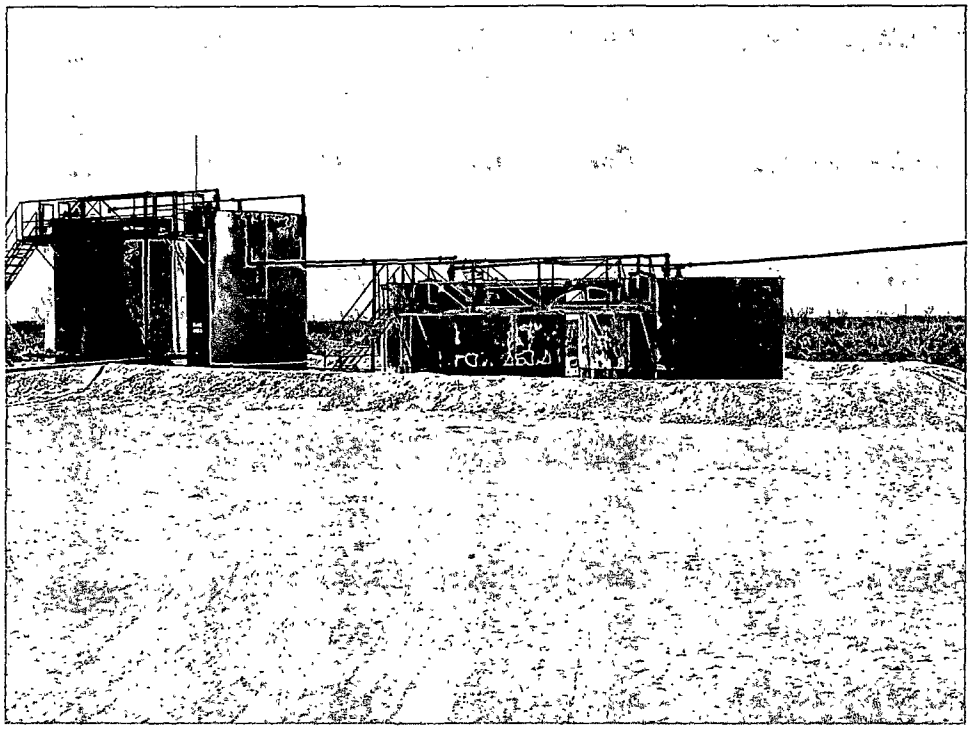


View to west of spill 8/6/10

BURGUNDY OIL & GAS OF NM, INC.
EMU Tank Battery

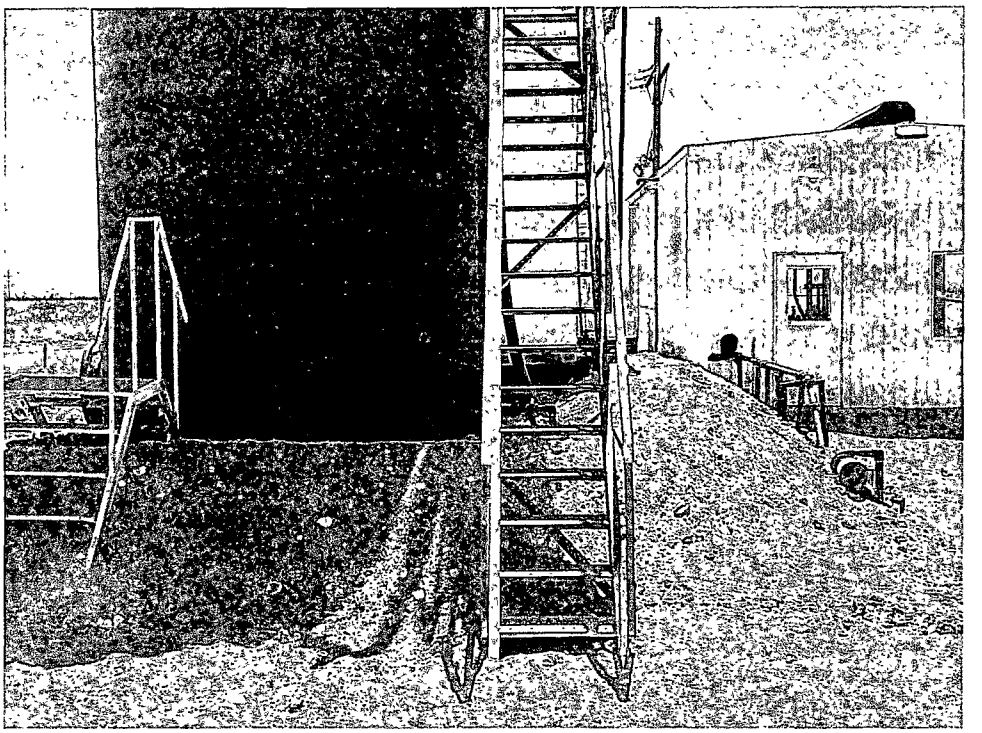


View to south of spill 8/6/10

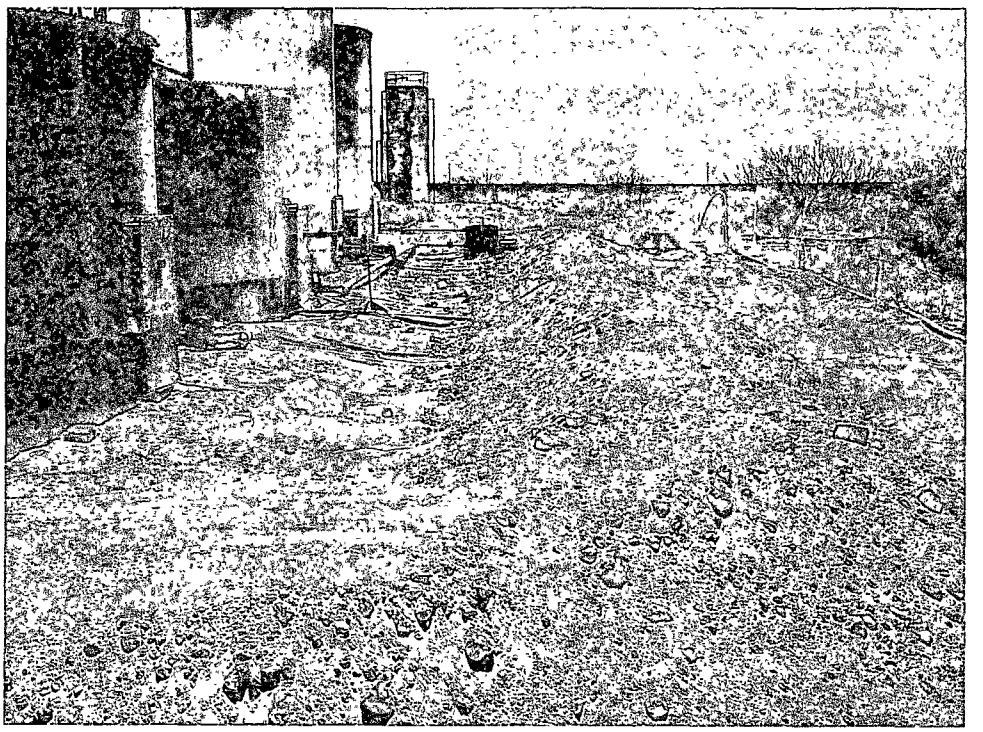


View to south of completed remediation

BURGUNDY OIL & GAS OF NM, INC.
EMU Tank Battery

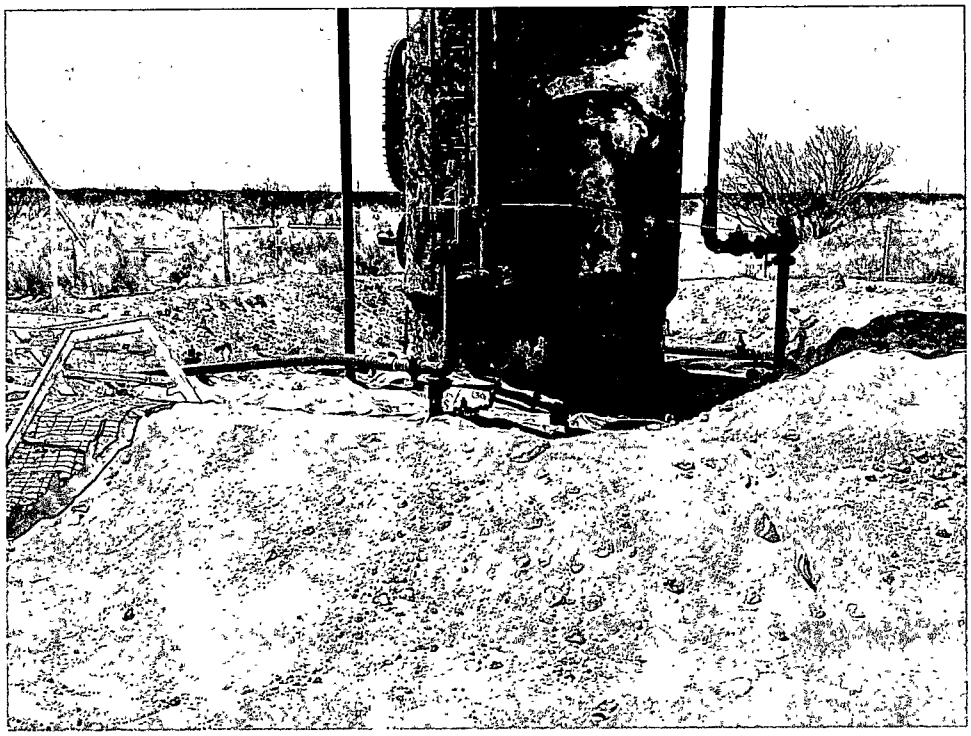


View to east of completed remediation

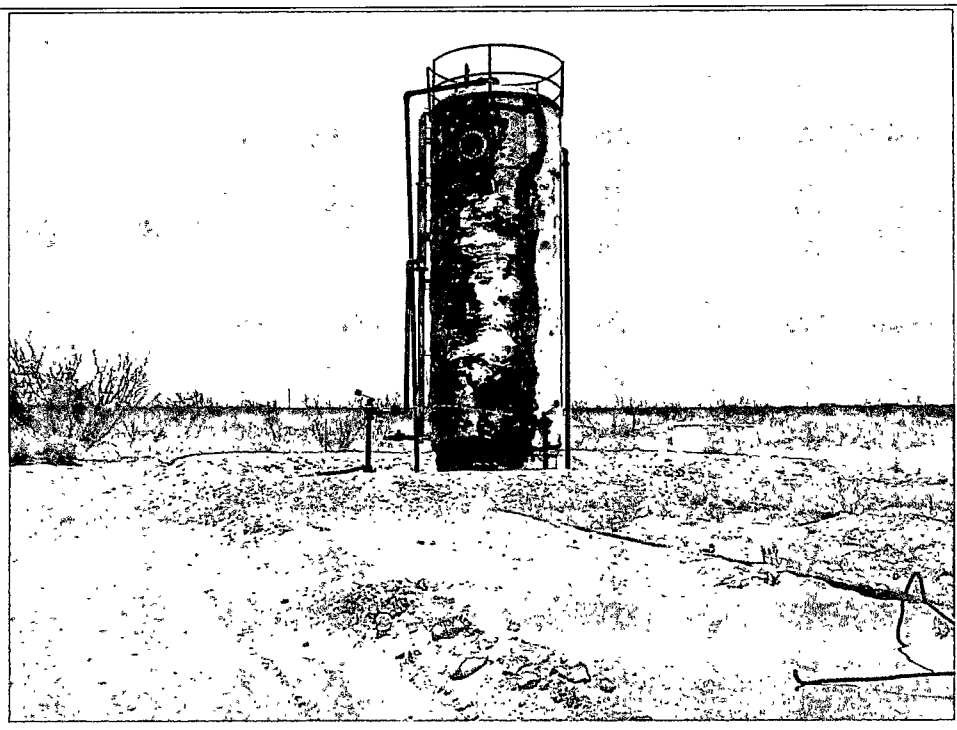


View to east of completed remediation

BURGUNDY OIL & GAS OF NM, INC.
EMU Tank Battery

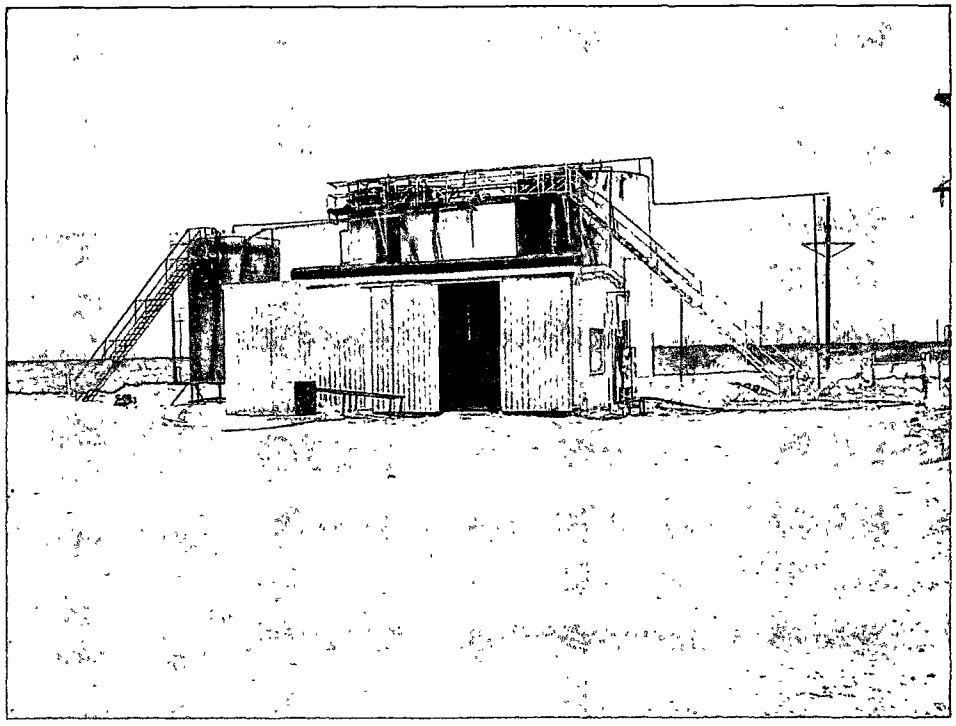


View to south of completed remediation

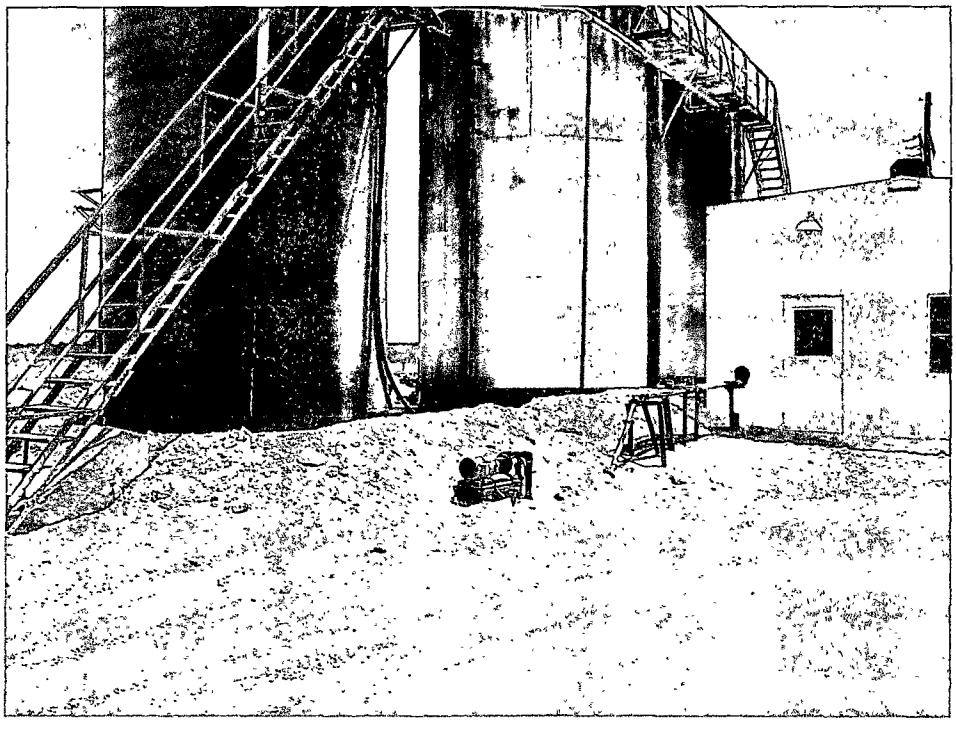


View to east of completed remediation

BURGUNDY OIL & GAS OF NM, INC.
EMU Tank Battery

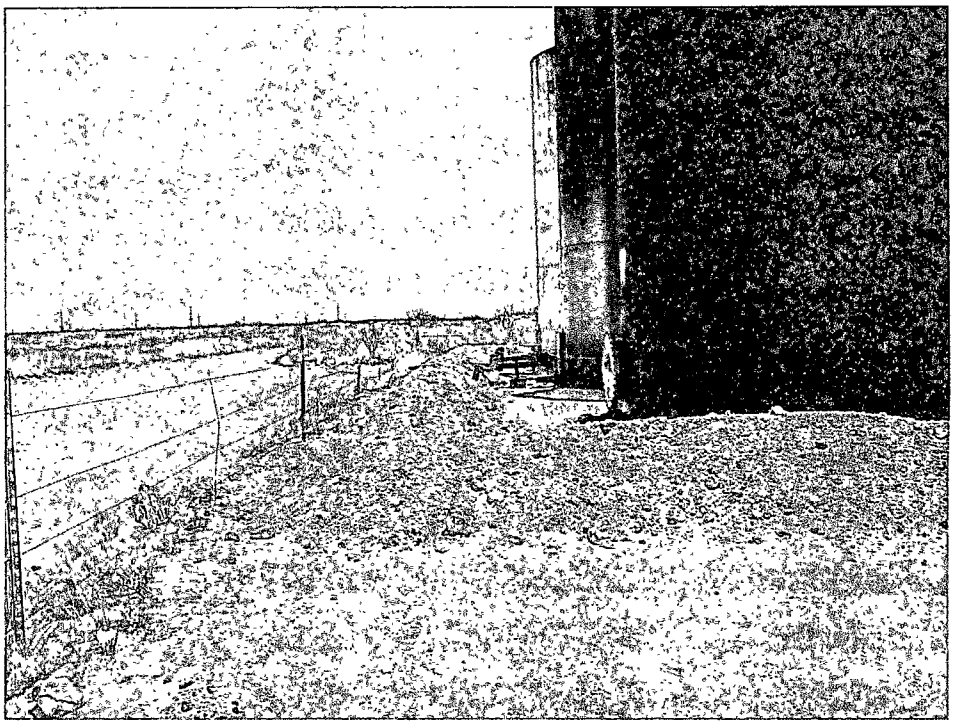


View to north of completed remediation

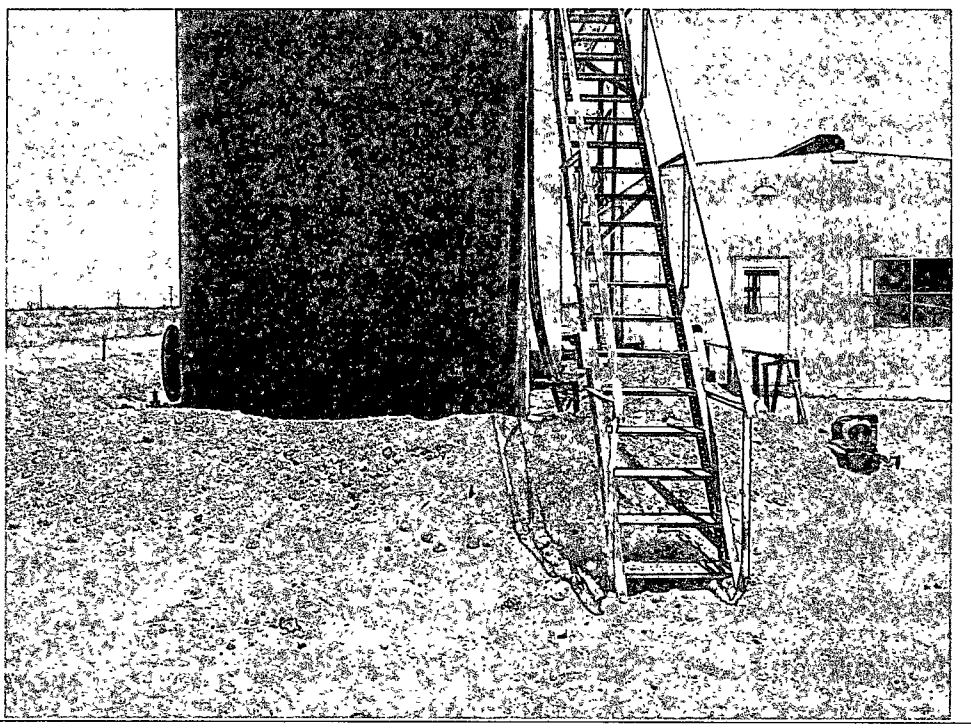


View to northeast of completed remediation

BURGUNDY OIL & GAS OF NM, INC.
EMU Tank Battery



View to east of completed remediation



View to east of completed remediation

APPENDIX D

FINAL C141 FORM

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Burgundy Oil & Gas of NM, Inc.	Contact	Ben Taylor
Address	401 W. Texas, Suite 1003, Midland, TX 79701	Telephone No.	(432) 684-4033
Facility Name	Eunice Monument Unit Tank Battery	Facility Type	Central Oil & Gas Battery

Surface Owner: State	Mineral Owner: State	Lease No. 015823

NEARBY WELL EUNICE MONUMENT UNIT 020

LOCATION OF RELEASE 30-025-04319-00-00

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	24	20S	36E					Lea

Latitude N 32.56231° **Longitude** W 103.28065°

NATURE OF RELEASE

Type of Release	Water with slop oil	Volume of Release 8 bbl	Volume Recovered 6 bbl
Source of Release	400 bbl fiberglass tank	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 7/15/10
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required		If YES, To Whom?	
By Whom? Geoffrey Leking		Date and Hour 7/23/10 - afternoon	
Was a Watercourse Reached? ☐ Yes ☒ No		If YES, Volume Impacting the Watercourse.	

HOBBS OCD

JUL 14 2011

RECEIVED

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Injection tank overflowed into an overflow tank that had 8 bbls of slop oil in it. Alarm system malfunctioned, causing the 8 bbls to be pushed over the top of tank. Picked up all but 2 bbls.

Describe Area Affected and Cleanup Action Taken.*

Pad around tanks were stained with oil. Soil was excavated in an approximate 250' x 100' x 3' (deep) area until laboratory results of samples reported TPH concentrations below 100 mg/kg and chloride concentrations below 250 mg/kg. Impacted soil was blended on-site with clean soil and fertilizer until TPH concentrations were reported below 100 mg/kg, and the excavation was backfilled with blended soil. A site drawing with sample locations is attached, along with laboratory documentation and a table summarizing the sample results. The tank battery areas were lined with 20 mil plastic and new firewalls were constructed with the additional blended soil.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Ben Taylor	OIL CONSERVATION DIVISION
Printed Name: Ben Taylor	Approved by ENV ENGINEER ~~District Supervisor~~: Geoffrey Leking
Title: Production Manager	Approval Date: 08/12/11 Expiration Date: —
E-mail Address: bogi@t3wireless.com	Conditions of Approval: — Attached ☐
Date: 7/7/11 Phone: (432) 684-4033	IRP-11-10-2660

* Attach Additional Sheets If Necessary