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

HOBBS OCD
FEB 1 4 2014
RECEIVED

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: Chevron Environmental Management Company (CEMC)	Contact: Kegan Boyer
Address: 1400 Smith Street, Houston Texas, 77002	Telephone No.: 713-372-7705
Facility Name: Lovington Paddock Unit #87	Facility Type

Surface Owner: City of Lovington	Mineral Owner: Chevron	Lease No.: 23220

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	36	16	36 E					Lea

Latitude 32.88257 **Longitude** -103.3038

NATURE OF RELEASE

Type of Release: Crude oil and produced water	Volume of Release: 1bbl oil and 5 bbl water	Volume Recovered: ½ bbl
Source of Release: Hole in 2½" flow line	Date and Hour of Occurrence: 5/30/07 10:00 am	Date and Hour of Discovery: 5/30/07 10:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Pat Caperton (left message on answering machine)	
By Whom? Ricky Heredia	Date and Hour: 5/30/07 11:30 am	
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.*
Expect root cause will be external corrosion to 2½" steel flow line. Well was shut in at the time of leak.
Chlorides 35,000 ppm Oil gravity 33.9
Had roustabout gang pick up standing fluid with vacuum trailer. Did emergency one call and picked up wet soil on location. Hauled contaminated soil to Sundance.
Called and left message on Kirt voice mail that works for the City of Lovington as well.

Describe Area Affected and Cleanup Action Taken.*
Affected area approximately 60' x 60'.
Affected area was marked with flags. One call will be done and contaminated soil down to rock will be removed. Once soil has been removed samples will be taken to check for extent of remaining contaminated soil. Contaminated soil will be replaced with fresh soil.

See attached Site Closure Report (January 2014) prepared by Conestoga Rovers & Associates (CRA) on behalf of Chevron Environmental Management Company documenting final Cleanup Action taken.

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:	OIL CONSERVATION DIVISION	
Printed Name: Kegan Boyer	Approved by District Supervisor:	
Title: CEMC Project Manager	Approval Date:	Expiration Date:
E-mail Address: kegan.boyer@chevron.com	Conditions of Approval:	Attached ☐
Date: Phone: (713) 372-7705		

* Attach Additional Sheets If Necessary

Kegan W. Boyer, P.G.
Project Manager

Upstream Business Unit
Environmental Management Company
1400 Smith Street
Room 07076
Houston, Texas 77002
Tel 713-372-7705
kegan.boyer@chevron.com

February 11, 2014

Mr. Geoffrey Leking
New Mexico Oil Conservation Division
District 1
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Site Closure Documentation
Lovington Paddock Unit #87 (RP #1400)

Dear Mr. Leking,

Please find enclosed for your files a copy of the following report documenting final closure activities at the Lovington Paddock Unit #87 (RP #1400):

- *Site Closure Report, Lovington Paddock Unit #87,*
  Unit B, Section 36, Township 16S, Range 36E,
  Lea County, New Mexico
  RP #1400
  (Final Form C-141 also included with report)

This report was prepared by Conestoga-Rovers & Associates (CRA) on behalf of Chevron Environmental Management Company (CEMC) to document remedial activities performed for CEMC at the above-referenced project site. Also enclosed is an electronic copy of the report on CD-ROM.

CEMC now considers remedial activities at this site to be complete and respectfully requests that the NMOCD grant a no further action status to the site. Should you have any questions regarding the content of the report, please do not hesitate to contact me by phone at 713-372-7705 or via e-mail at kegan.boyer@chevron.com.

Sincerely,

Kegan W. Boyer, P.G.
Environmental Project Manager

cc: Bernie Bockish, CRA

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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State of New Mexico
Energy Minerals and Natural Resources

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1220 South St. Francis Dr.
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HOBBS OCD
FEB 14 2014
RECEIVED

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

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Address: 1400 Smith Street, Houston Texas, 77002	Telephone No.: 713-372-7705
Facility Name: Lovington Paddock Unit #87	Facility Type

Surface Owner: City of Lovington	Mineral Owner: Chevron	Lease No.: 23220

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Signature: Kegan Boyer	OIL CONSERVATION DIVISION	
Printed Name: Kegan Boyer	Approved by District Supervisor:	
Title: CEMC Project Manager	Approval Date:	Expiration Date:
E-mail Address: kegan.boyer@chevron.com	Conditions of Approval:	Attached ☐
Date: FEBRUARY 5, 2014 Phone: (713) 372-7705		

* Attach Additional Sheets If Necessary

CONESTOGA-ROVERS & ASSOCIATES

www.CRAworld.com

Site Closure Report

Lovington Paddock Unit #87
Unit B, Section 36, Township 16S, Range 36E
Lea County, New Mexico
RP #1400

Prepared for: Mr. Kegan Boyer
Chevron Environmental Management Company
1400 Smith Street, Room 07076
Houston, Texas 77002

Conestoga-Rovers & Associates
6121 Indian School Road, NE Suite 200
Albuquerque, New Mexico 87110

February 2014 • 073820 • Report No. 3

Partners in Sustainability

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Section 1.0 Introduction

This Site Closure Report provides documentation associated with corrective actions at the Lovington Paddock Unit (LPU) #87, Lea County, New Mexico. The closure activities were documented and performed by Conestoga Rovers & Associates (CRA) under the direction of Chevron Environmental Management Company (CEMC). This report is an attachment to the Final C-141 Form submittal for RP #1400.

The Chevron LPU #87 (hereafter referred to as the "Site"), is located in Section 36 (Unit B), Township 16 South, Range 36 East, Lea County, New Mexico (Figure 1).

The scope of work for the subject corrective actions and corresponding activities was developed between CEMC, New Mexico Oil Conservation Division (NMOCD), and CRA personnel. CRA performed project management, general oversight of the reclamation activities, and documentation of the field work. The agreed upon scope of services included:

- Obtaining proper site specific training, permits and involving appropriate stakeholders needed to conclude scope of work.
- Lay poly liner in an excavated pit area and backfill the excavation pit using clean topsoil transported from an off-site source.
- Provide final backfilling, grading, ripping and seeding the Site.
- Prepare site closure documents for submittal with the Final C-141 Release Notification and Corrective Action Form to the NMOCD requesting site closure.

Section 2.0 Site History/Assessment

Chevron submitted a C-141 Form to the NMOCD dated May 30, 2007, describing a release of 1 barrel (bbl) of oil and 5 barrels of produced brine from a corroded 2 ½ inch steel flow line with a reported release date of May 30, 2007. The C-141 reported that the released brine had a concentration of 35,000 ppm and impacted an area of surface soils approximately 60 feet by 60 feet. A remediation permit (RP) number, RP #1400, was assigned to this release incident by the NMOCD Hobbs office.

Following the release, approximately ½ of a barrel of fluid was recovered. Visibly impacted soil was excavated. Impacted surface soils were transported to the Sundance (Parabo), Inc. facility near Eunice, New Mexico by the Chevron business unit.

Following the initial site remediation that occurred shortly after the release event, surface soil samples were initially collected by Tetra Tech using a hand auger at three locations on July 15, 2010 to a depth of 6 inches.

Samples were analyzed for TPH, BTEX, and chloride by Trace Analysis, Inc. of Lubbock, Texas. Results from these tests were below detection limits for all analyses.

On August 18, 2010, trench samples from these same three locations (see Figure 2) were obtained from depths of 1 to 1.5 feet and analyzed for chlorides. The results from these samples were non-detect for chlorides (see Table 1 and Appendix A). Based on a site visit conducted in April 2013 by CRA, excavation of the release site covering an area of approximately 60 feet by 60 feet had been completed.

On January 11, 2011, CRA, CEMC and Marcos Silvestri (Chevron contract PM) met at the NMOCD District I Hobbs office to discuss this project site. A topic of discussion included the scope of work and objectives to complete site activities as directed by the NMOCD Hobbs district office. On January 13, 2011, CRA submitted closure request reports and data information packets for the Site and Remediation Plans as discussed in the January 11, 2011 meeting. On April 13, 2011, the NMOCD Hobbs district office approved the proposed remedial activities (backfill) described in the closure request reports from January 2011. The approved remedial activities proposed in 2011 were again presented in the scope of work that was submitted by CRA on June 27, 2013.

Additionally, permission to complete restoration activities without additional soil sampling was granted by Mr. Geoffrey Leking of the NMOCD via email on November 5, 2013, based on the following:

- The vertical and horizontal extent of regulated impacts to soils by the oil and brine release incident has been adequately delineated by previous site investigations.
- Remedial excavation work was previously completed based on an April 2013 site visit.
- Based on information provided in the completed C-141 Form, all excavated materials from this location had been removed and subsequently transported to the Sundance (Parabo), Inc. facility for disposal.

Section 3.0 Corrective Actions

The field implementation of the approved site closure activities began on November 5, 2013 and completed by November 15, 2013. Ron's Welding, Inc. (RWI) of Hobbs, New Mexico provided labor, heavy equipment and pit lining material. CRA coordinated field operations, performed project management tasks and managed the safety of CRA employees working on Site.

3.1 Lining and Backfilling of Remedial Excavation

The steel flow line that runs through the impacted area was wrapped with wax protective wrap prior to backfilling. A 20 mil poly liner was then placed over the approximately 60 feet by 60 feet previously excavated area.

Clean topsoil was obtained from the borrow pit located west of the intersection of State Roads 238 and 50 (Buckeye). Clean topsoil was excavated using a backhoe and placed into 10-wheel dump trucks for transportation to the site.

Approximately 180 cubic yards of clean topsoil material was transported from the borrow pit and used to backfill the excavation. The clean fill was then graded to match the ground surface and wheel-rolled using a backhoe (see Appendix B for photographs). To complete the restoration activities, the backfill area was seeded with BLM #4 seed mix.

Section 4.0 Summary

The agreed upon scope of work and closure plan activities for the reclamation of the Chevron LPU #87 Lea County, New Mexico, has been completed (RP #1400). The following is a summary of project milestones and work performed:

- Chevron submitted a C-141 Form to the NMOCD dated May 30, 2007, describing a release of 1 bbl of oil and 5 bbl of produced brine from a corroded 2 ½ inch steel flow line with a reported release date of May 30, 2007.
- Soil sampling results performed by Tetra Tech in July and August, 2010 did not indicate the presence of hydrocarbons or chlorides in the shallow subsurface.
- On January 11, 2011, CRA, CEMC and Marcos Silvestri (Chevron contract PM) met at the NMOCD District I Hobbs office to discuss this project site.
- On April 13, 2011, the NMOCD Hobbs district office approved the proposed remedial activities (backfill) described in the closure request reports. The NMOCD approved scope of work from January 2011 was again presented in the scope of work submitted by CRA on June 27, 2013.
- A site visit conducted in April 2013 by CRA confirmed that excavation of the release site covering an area of approximately 60 feet by 60 feet had been completed.
- In November 2013, the Site was lined, backfilled, and graded to minimize surface water runoff and erosion. The ground was then ripped using heavy equipment, and a New Mexico native seed mixture was dispersed as part of final Site closure activities.

Section 5.0 Site Closure Request

This Site Closure Report provides documentation of the LPU #87 remedial correctional actions performed in accordance to the RP #1400. Based on NMOCD communication and corrective actions performed to date, CRA, on behalf of CEMC, respectfully requests the NMOCD rule that no further action for this site is warranted. This Site Closure Report concludes the scope of work for this project. Please feel free to contact the CRA Albuquerque office if there are any questions or additional information is required.

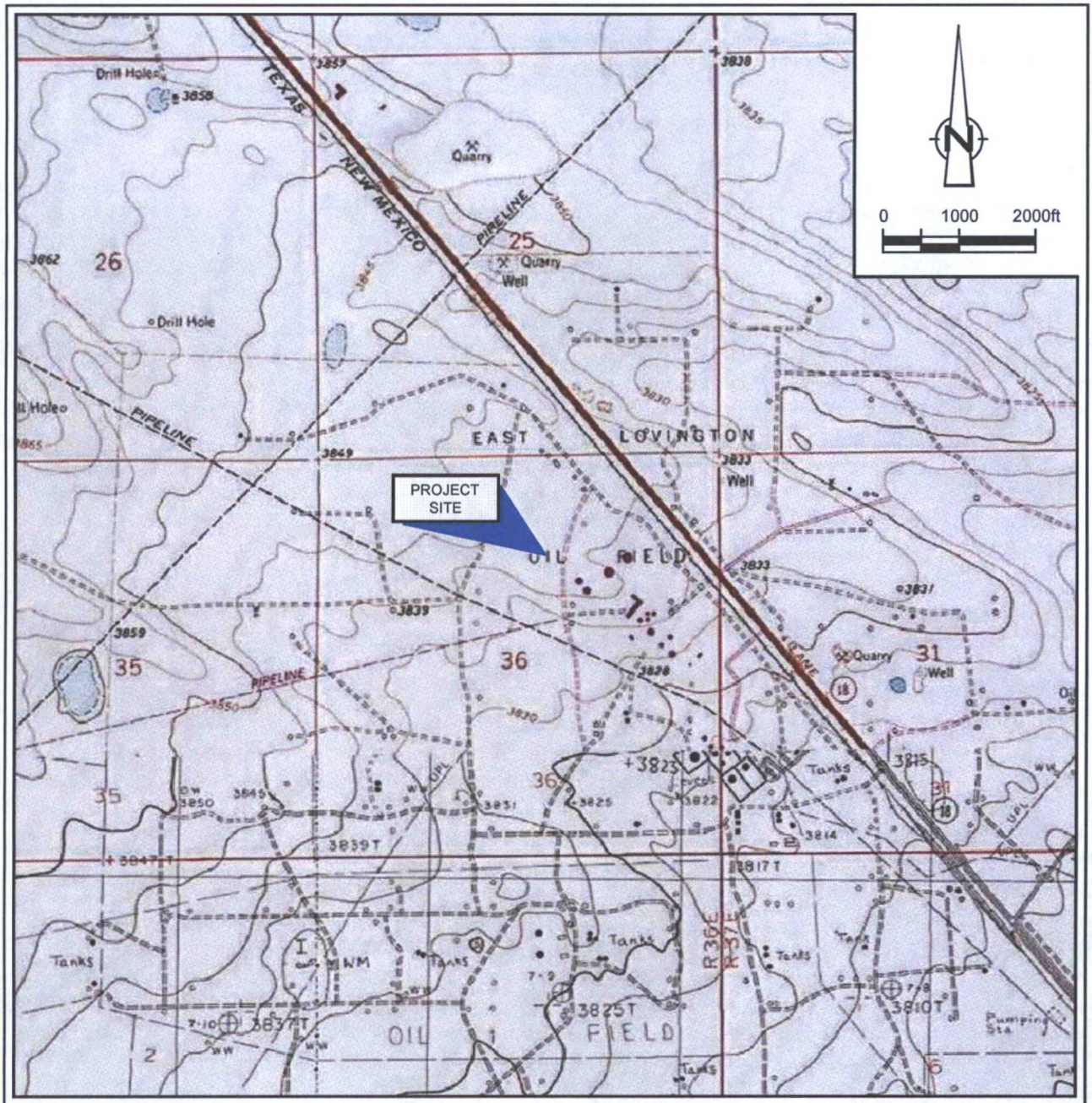
All of which is Respectfully Submitted,

CONESTOGA ROVERS & ASSOCIATES

Reviewed by:

Cale Kanack
Staff Scientist

Bernard Bockisch, PMP
Sr. Project Manager



SOURCE: USGS 7.5 MINUTE QUAD
"LOVINGTON AND LOVINGTON SE, NEW MEXICO"

LAT/LONG: 32.8821° NORTH, 103.3066° WEST
COORDINATE: NAD83 DATUM, U.S. FOOT
STATE PLANE ZONE - NEW MEXICO EAST

Figure 1

SITE LOCATION MAP
LOVINGTON PADDOCK UNIT #87
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

073820-00(000)GN-DL001 JAN 8/2014

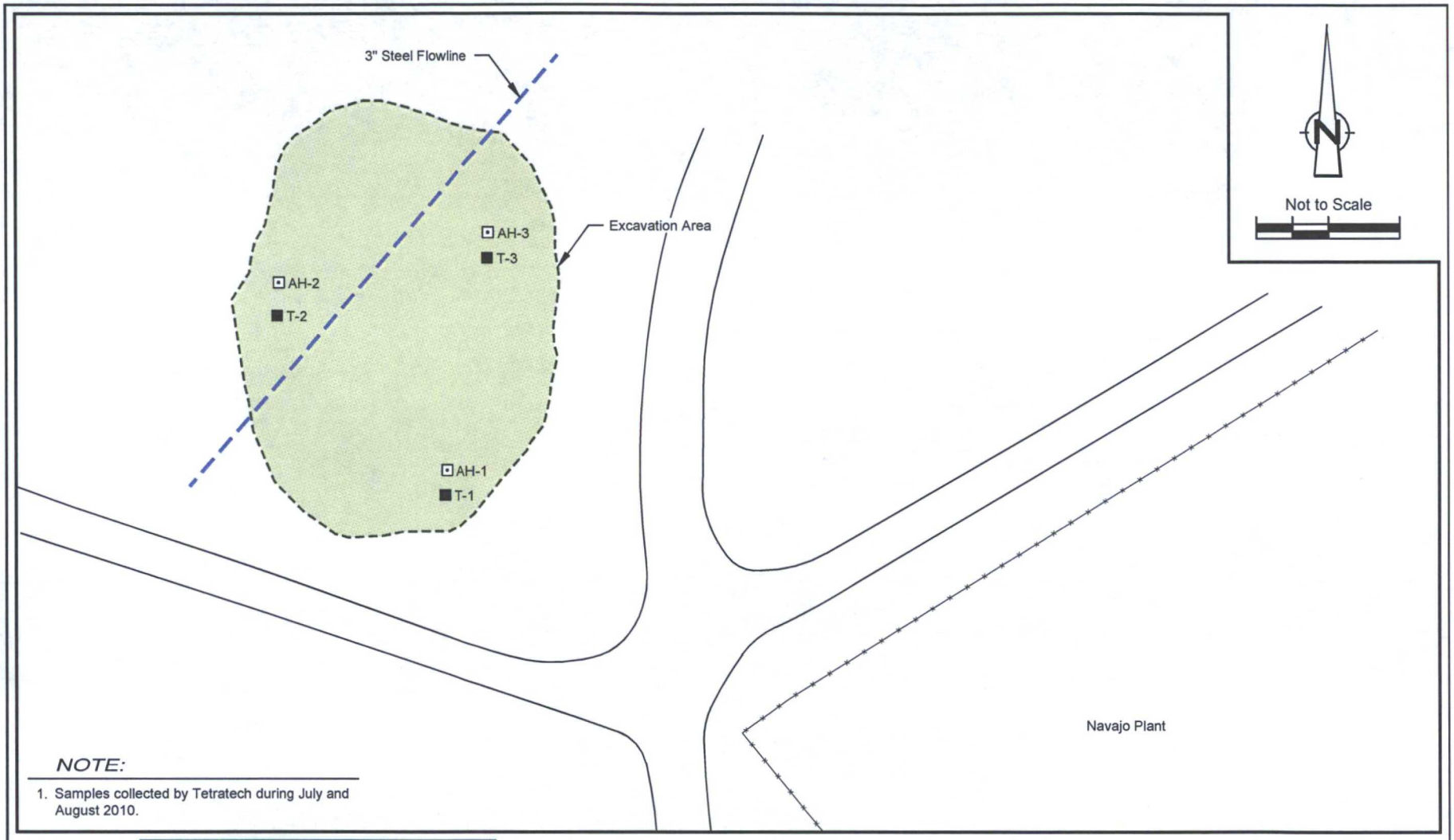


Figure 2

SITE DETAIL MAP
LOVINGTON PADDOCK UNIT #87
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

073820-00(000)GN-DL001 JAN 8/2014

Table 1
Soil Analytical Summary
Lovington Paddock Unit #87
Lea County, New Mexico
Chevron Environmental Management Company

Sample ID	Sample Date	Sample Depth	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH Total (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Chloride (mg/kg)
AH-1	7/15/2010	0-6"	< 2.00	< 50.0	< 50.0	< 0.02	< 0.02	< 0.02	< 0.02	< 200
AH-2	7/15/2010	0-6"	< 2.00	< 50.0	< 50.0	< 0.02	< 0.02	< 0.02	< 0.02	< 200
AH-3	7/15/2010	0-6"	< 2.00	< 50.0	< 50.0	< 0.02	< 0.02	< 0.02	< 0.02	< 200
T-1	8/18/2010	0.5-1'	--	--	--	--	--	--	--	< 200
T-2	8/18/2010	1-1.5'	--	--	--	--	--	--	--	< 200
T-3	8/18/2010	1-1.5'	--	--	--	--	--	--	--	< 200

Notes:
1. All data collected by TetraTech
2. -- = Not analyzed
3. < = Value Less than Reporting Limit (RL)
4. GRO/DRO = Gasoline/Diesel Range Organics

Summary Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX 79705

Report Date: July 20, 2010

Work Order: 10071917

Project Location: Lea County, NM
Project Name: LPU #87
Project Number: 114-6400599

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
238010	AH-1 0-6 in.	soil	2010-07-15	00:00	2010-07-19
238011	AH-2 0-6 in.	soil	2010-07-15	00:00	2010-07-19
238012	AH-3 0-6 in.	soil	2010-07-15	00:00	2010-07-19

	BTEX				TPH DRO - NEW	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
238010 - AH-1 0-6 in.	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
238011 - AH-2 0-6 in.	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
238012 - AH-3 0-6 in.	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00

Sample: 238010 - AH-1 0-6 in.

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 238011 - AH-2 0-6 in.

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 238012 - AH-3 0-6 in.

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 | Lubbock, Texas 79424 | 800•378•1296 | 806•794•1296 | FAX 806•794•1298
200 East Sunset Road, Suite E | El Paso, Texas 79922 | 888•588•3443 | 915•585•3443 | FAX 915•585•4944
5002 Basin Street, Suite A1 | Midland, Texas 79703 | | 432•689•6301 | FAX 432•689•6313
6015 Harris Parkway, Suite 110 | Ft. Worth, Texas 76132 | | 817•201•5260

E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: July 20, 2010

Work Order: 10071917

Project Location: Lea County, NM
Project Name: LPU #87
Project Number: 114-6400599

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
238010	AH-1 0-6 in.	soil	2010-07-15	00:00	2010-07-19
238011	AH-2 0-6 in.	soil	2010-07-15	00:00	2010-07-19
238012	AH-3 0-6 in.	soil	2010-07-15	00:00	2010-07-19

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Michael Abel

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project LPU #87 were received by TraceAnalysis, Inc. on 2010-07-19 and assigned to work order 10071917. Samples for work order 10071917 were received intact at a temperature of 3.3 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	61608	2010-07-19 at 16:00	71883	2010-07-19 at 15:44
Chloride (Titration)	SM 4500-Cl B	61618	2010-07-20 at 08:51	71894	2010-07-20 at 11:55
TPH DRO - NEW	S 8015 D	61591	2010-07-19 at 14:30	71872	2010-07-19 at 14:30
TPH GRO	S 8015 D	61608	2010-07-19 at 16:00	71884	2010-07-19 at 16:29

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10071917 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 238010 - AH-1 0-6 in.

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	71883	Date Analyzed:	2010-07-19	Analyzed By:	AG
Prep Batch:	61608	Sample Preparation:	2010-07-19	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.0200		mg/Kg	1	0.0200
Toluene		<0.0200		mg/Kg	1	0.0200
Ethylbenzene		<0.0200		mg/Kg	1	0.0200
Xylene		<0.0200		mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.65	mg/Kg	1	2.00	82	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.72	mg/Kg	1	2.00	86	38.4 - 157

Sample: 238010 - AH-1 0-6 in.

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71894	Date Analyzed:	2010-07-20	Analyzed By:	AR
Prep Batch:	61618	Sample Preparation:	2010-07-20	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		<200		mg/Kg	50	4.00

Sample: 238010 - AH-1 0-6 in.

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	71872	Date Analyzed:	2010-07-19	Analyzed By:	kg
Prep Batch:	61591	Sample Preparation:	2010-07-19	Prepared By:	kg

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		<50.0		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		88.3	mg/Kg	1	100	88	70 - 130

Sample: 238010 - AH-1 0-6 in.

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	71884	Date Analyzed:	2010-07-19	Analyzed By:	AG
Prep Batch:	61608	Sample Preparation:	2010-07-19	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.92	mg/Kg	1	2.00	96	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.87	mg/Kg	1	2.00	94	42 - 159

Sample: 238011 - AH-2 0-6 in.

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	71883	Date Analyzed:	2010-07-19	Analyzed By:	AG
Prep Batch:	61608	Sample Preparation:	2010-07-19	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.21	mg/Kg	1	2.00	60	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.24	mg/Kg	1	2.00	62	38.4 - 157

Sample: 238011 - AH-2 0-6 in.

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71894	Date Analyzed:	2010-07-20	Analyzed By:	AR
Prep Batch:	61618	Sample Preparation:	2010-07-20	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		<200		mg/Kg	50	4.00

Sample: 238011 - AH-2 0-6 in.

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	71872	Date Analyzed:	2010-07-19	Analyzed By:	kg
Prep Batch:	61591	Sample Preparation:	2010-07-19	Prepared By:	kg

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		<50.0		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		96.1	mg/Kg	1	100	96	70 - 130

Sample: 238011 - AH-2 0-6 in.

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	71884	Date Analyzed:	2010-07-19	Analyzed By:	AG
Prep Batch:	61608	Sample Preparation:	2010-07-19	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		<2.00		mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.40	mg/Kg	1	2.00	70	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.36	mg/Kg	1	2.00	68	42 - 159

Sample: 238012 - AH-3 0-6 in.

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	71883	Date Analyzed:	2010-07-19	Analyzed By:	AG
Prep Batch:	61608	Sample Preparation:	2010-07-19	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.33	mg/Kg	1	2.00	66	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.35	mg/Kg	1	2.00	68	38.4 - 157

Sample: 238012 - AH-3 0-6 in.

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	71894	Date Analyzed:	2010-07-20	Analyzed By:	AR
Prep Batch:	61618	Sample Preparation:	2010-07-20	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 238012 - AH-3 0-6 in.

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	71872	Date Analyzed:	2010-07-19	Analyzed By:	kg
Prep Batch:	61591	Sample Preparation:	2010-07-19	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		97.0	mg/Kg	1	100	97	70 - 130

Sample: 238012 - AH-3 0-6 in.

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	71884	Date Analyzed:	2010-07-19	Analyzed By:	AG
Prep Batch:	61608	Sample Preparation:	2010-07-19	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.53	mg/Kg	1	2.00	76	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.48	mg/Kg	1	2.00	74	42 - 159

Method Blank (1) QC Batch: 71872

QC Batch:	71872	Date Analyzed:	2010-07-19	Analyzed By:	kg
Prep Batch:	61591	QC Preparation:	2010-07-19	Prepared By:	kg

Parameter	Flag	MDL Result	Units	RL
DRO		<14.5	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		91.3	mg/Kg	1	100	91	70 - 130

Method Blank (1) QC Batch: 71883

QC Batch:	71883	Date Analyzed:	2010-07-19	Analyzed By:	AG
Prep Batch:	61608	QC Preparation:	2010-07-19	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0150	mg/Kg	0.02
Toluene		<0.00950	mg/Kg	0.02
Ethylbenzene		<0.0106	mg/Kg	0.02
Xylene		<0.00930	mg/Kg	0.02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.26	mg/Kg	1	2.00	113	66.6 - 122
4-Bromofluorobenzene (4-BFB)		2.26	mg/Kg	1	2.00	113	55.4 - 132

Method Blank (1) QC Batch: 71884

QC Batch:	71884	Date Analyzed:	2010-07-19	Analyzed By:	AG
Prep Batch:	61608	QC Preparation:	2010-07-19	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
GRO		<1.65	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.61	mg/Kg	1	2.00	130	67.6 - 150
4-Bromofluorobenzene (4-BFB)		2.46	mg/Kg	1	2.00	123	52.4 - 130

Method Blank (1) QC Batch: 71894

QC Batch:	71894	Date Analyzed:	2010-07-20	Analyzed By:	AR
Prep Batch:	61618	QC Preparation:	2010-07-20	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Laboratory Control Spike (LCS-1)

QC Batch:	71872	Date Analyzed:	2010-07-19	Analyzed By:	kg
Prep Batch:	61591	QC Preparation:	2010-07-19	Prepared By:	kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	215	mg/Kg	1	250	<14.5	86	57.4 - 133.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	226	mg/Kg	1	250	<14.5	90	57.4 - 133.4	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	92.0	94.5	mg/Kg	1	100	92	94	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 71883 | Date Analyzed: 2010-07-19 | Analyzed By: AG
Prep Batch: 61608 | QC Preparation: 2010-07-19 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.06	mg/Kg	1	2.00	<0.0150	103	81.9 - 108
Toluene	2.09	mg/Kg	1	2.00	<0.00950	104	81.9 - 107
Ethylbenzene	2.06	mg/Kg	1	2.00	<0.0106	103	78.4 - 107
Xylene	6.23	mg/Kg	1	6.00	<0.00930	104	79.1 - 107

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.00	mg/Kg	1	2.00	<0.0150	100	81.9 - 108	3	20
Toluene	2.02	mg/Kg	1	2.00	<0.00950	101	81.9 - 107	3	20
Ethylbenzene	1.99	mg/Kg	1	2.00	<0.0106	100	78.4 - 107	3	20
Xylene	6.02	mg/Kg	1	6.00	<0.00930	100	79.1 - 107	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.27	2.06	mg/Kg	1	2.00	114	103	70.2 - 114
4-Bromofluorobenzene (4-BFB)	2.32	2.06	mg/Kg	1	2.00	116	103	69.8 - 121

Laboratory Control Spike (LCS-1)

QC Batch: 71884 | Date Analyzed: 2010-07-19 | Analyzed By: AG
Prep Batch: 61608 | QC Preparation: 2010-07-19 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.8	mg/Kg	1	20.0	<1.65	79	69.9 - 95.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.2	mg/Kg	1	20.0	<1.65	81	69.9 - 95.4	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.52	2.59	mg/Kg	1	2.00	126	130	61.9 - 142
4-Bromofluorobenzene (4-BFB)	2.39	2.51	mg/Kg	1	2.00	120	126	68.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 71894 | Date Analyzed: 2010-07-20 | Analyzed By: AR
Prep Batch: 61618 | QC Preparation: 2010-07-20 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.9	mg/Kg	1	100	<2.18	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<2.18	101	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 238016

QC Batch: 71872 | Date Analyzed: 2010-07-19 | Analyzed By: kg
Prep Batch: 61591 | QC Preparation: 2010-07-19 | Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	224	mg/Kg	1	250	<14.5	90	35.2 - 167.1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	232	mg/Kg	1	250	<14.5	93	35.2 - 167.1	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	98.9	97.9	mg/Kg	1	100	99	98	70 - 130

Matrix Spike (MS-1) Spiked Sample: 238005

QC Batch: 71883 | Date Analyzed: 2010-07-19 | Analyzed By: AG
Prep Batch: 61608 | QC Preparation: 2010-07-19 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.04	mg/Kg	1	2.00	<0.0150	102	80.5 - 112
Toluene	2.10	mg/Kg	1	2.00	<0.00950	105	82.4 - 113

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Ethylbenzene	2.16	mg/Kg	1	2.00	<0.0106	108	83.9 - 114
Xylene	6.49	mg/Kg	1	6.00	<0.00930	108	84 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2.21	mg/Kg	1	2.00	<0.0150	110	80.5 - 112	8	20
Toluene	[1]	2.27	mg/Kg	1	2.00	<0.00950	114	82.4 - 113	8	20
Ethylbenzene	[2]	2.35	mg/Kg	1	2.00	<0.0106	118	83.9 - 114	8	20
Xylene	[3]	7.08	mg/Kg	1	6.00	<0.00930	118	84 - 114	9	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.22	1.67	mg/Kg	1	2	61	84	41.3 - 117
4-Bromofluorobenzene (4-BFB)	1.28	1.74	mg/Kg	1	2	64	87	35.5 - 129

Matrix Spike (MS-1) Spiked Sample: 238016

QC Batch: 71884 | Date Analyzed: 2010-07-19 | Analyzed By: AG
Prep Batch: 61608 | QC Preparation: 2010-07-19 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.3	mg/Kg	1	20.0	<1.65	76	61.8 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.1	mg/Kg	1	20.0	<1.65	80	61.8 - 114	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.79	1.91	mg/Kg	1	2	90	96	50 - 162
4-Bromofluorobenzene (4-BFB)	1.81	1.92	mg/Kg	1	2	90	96	50 - 162

[1]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[2]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[3]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

Matrix Spike (MS-1) Spiked Sample: 238013

QC Batch: 71894 | Date Analyzed: 2010-07-20 | Analyzed By: AR
Prep Batch: 61618 | QC Preparation: 2010-07-20 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10000	mg/Kg	100	10000	<218	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10400	mg/Kg	100	10000	<218	104	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-2)

QC Batch: 71872 | Date Analyzed: 2010-07-19 | Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	248	99	80 - 120	2010-07-19

Standard (CCV-3)

QC Batch: 71872 | Date Analyzed: 2010-07-19 | Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	253	101	80 - 120	2010-07-19

Standard (CCV-2)

QC Batch: 71883 | Date Analyzed: 2010-07-19 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.102	102	80 - 120	2010-07-19
Toluene		mg/Kg	0.100	0.103	103	80 - 120	2010-07-19
Ethylbenzene		mg/Kg	0.100	0.102	102	80 - 120	2010-07-19
Xylene		mg/Kg	0.300	0.307	102	80 - 120	2010-07-19

Standard (CCV-3)

QC Batch: 71883 Date Analyzed: 2010-07-19 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0997	100	80 - 120	2010-07-19
Toluene		mg/Kg	0.100	0.100	100	80 - 120	2010-07-19
Ethylbenzene		mg/Kg	0.100	0.0992	99	80 - 120	2010-07-19
Xylene		mg/Kg	0.300	0.300	100	80 - 120	2010-07-19

Standard (CCV-2)

QC Batch: 71884 Date Analyzed: 2010-07-19 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.993	99	80 - 120	2010-07-19

Standard (CCV-3)

QC Batch: 71884 Date Analyzed: 2010-07-19 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.980	98	80 - 120	2010-07-19

Standard (ICV-1)

QC Batch: 71894 Date Analyzed: 2010-07-20 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.9	99	85 - 115	2010-07-20

Standard (CCV-1)

QC Batch: 71894 Date Analyzed: 2010-07-20 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-07-20

Order #: 10071917

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 1

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: Chevron

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6400599

PROJECT NAME: LPU #87 Lea Co NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	ANALYSIS REQUEST: BTEX 8021B	TPH TX1005 (Ext. to C35)	TPH 8015 MOD.	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
238010	7/15/2010		S		X	AH-1 0-6"	1				X		X	X												X				
011			S		X	AH-2 0-6"	1				X		X	X												X				
012			S		X	AH-3 0-6"	1				X		X	X												X				

RELINQUISHED BY: (Signature)	Date: 7/19/10 Time: 2:05	RECEIVED BY: (Signature)	Date: 7/19/10 Time: 1455
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) TF Date: 7-15-10 Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS

AIRBILL #:

OTHER:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes / No

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: Tx ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED: 3.3°c intact

REMARKS: All tests Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Summary Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX 79705

Report Date: August 30, 2010

Work Order: 10082310

Project Location: Lea County, NM
Project Name: LPU #87
Project Number: 114-6400599

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
242110	T-1 0.5-1'	soil	2010-08-18	00:00	2010-08-20
242111	T-2 0.5-1'	soil	2010-08-18	00:00	2010-08-20
242112	T-3 1-1.5'	soil	2010-08-18	00:00	2010-08-20

Sample: 242110 - T-1 0.5-1'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 242111 - T-2 0.5-1'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 242112 - T-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: August 30, 2010

Work Order: 10082310

Project Location: Lea County, NM
Project Name: LPU #87
Project Number: 114-6400599

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
242110	T-1 0.5-1'	soil	2010-08-18	00:00	2010-08-20
242111	T-2 0.5-1'	soil	2010-08-18	00:00	2010-08-20
242112	T-3 1-1.5'	soil	2010-08-18	00:00	2010-08-20

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Michael Abel

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project LPU #87 were received by TraceAnalysis, Inc. on 2010-08-20 and assigned to work order 10082310. Samples for work order 10082310 were received intact at a temperature of 4.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	62587	2010-08-26 at 09:39	73010	2010-08-27 at 15:08

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10082310 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 242110 - T-1 0.5-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	73010	Date Analyzed:	2010-08-27	Analyzed By:	AR
Prep Batch:	62587	Sample Preparation:	2010-08-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 242111 - T-2 0.5-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	73010	Date Analyzed:	2010-08-27	Analyzed By:	AR
Prep Batch:	62587	Sample Preparation:	2010-08-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 242112 - T-3 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	73010	Date Analyzed:	2010-08-27	Analyzed By:	AR
Prep Batch:	62587	Sample Preparation:	2010-08-26	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Method Blank (1) QC Batch: 73010

QC Batch:	73010	Date Analyzed:	2010-08-27	Analyzed By:	AR
Prep Batch:	62587	QC Preparation:	2010-08-26	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Laboratory Control Spike (LCS-1)

QC Batch: 73010 | Date Analyzed: 2010-08-27 | Analyzed By: AR
Prep Batch: 62587 | QC Preparation: 2010-08-26 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.6	mg/Kg	1	100	<2.18	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	103	mg/Kg	1	100	<2.18	103	85 - 115	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 242145

QC Batch: 73010 | Date Analyzed: 2010-08-27 | Analyzed By: AR
Prep Batch: 62587 | QC Preparation: 2010-08-26 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	9620	mg/Kg	100	10000	<218	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	9950	mg/Kg	100	10000	<218	100	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 73010 | Date Analyzed: 2010-08-27 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	104	104	85 - 115	2010-08-27

Standard (CCV-1)

QC Batch: 73010 | Date Analyzed: 2010-08-27 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	96.5	96	85 - 115	2010-08-27

WO #: 10082310

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 1

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: Chevron

SITE MANAGER: Ike Tavarez

PROJECT NO.: 1H-LH00599

PROJECT NAME: Chevron / LPH #87 Lea Co, NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 6021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
242110	8/18		S		X	T-1 0.5'-1'	1				X													X				
111	"		"		"	T-2 0.5'-1'	"				"													"				
112	"		"		"	T-3 1'-1.5'	"				"													"				

RELINQUISHED BY: (Signature) — Date: 8/20/10 Time: 1545 — RECEIVED BY: (Signature) — Date: 8.20.10 Time: 15:45

SAMPLED BY: (Print & Initial) JJ — Date: 8/18/10 Time:

RELINQUISHED BY: (Signature) — Date: Time: — RECEIVED BY: (Signature) — Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) — Date: Time: — RECEIVED BY: (Signature) — Date: Time:

TETRA TECH CONTACT PERSON: Ike Tavarez — Results by:

RECEIVING LABORATORY: Trace — RECEIVED BY: (Signature)

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: PHONE: DATE: TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4.0°C intact

REMARKS: All tests: Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Photo Log

Photo 1. Impacted area prior to backfill.

Photo 2. Impacted area after placement of 20 mil poly liner.

Photo 3. Impacted area after completion of restoration activities.