

GW - 97

REPORTS

YEAR(S):

2003



April 21, 2003

Attention: Mr. Wayne Price
State of New Mexico
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87504

RE: Farmington Investigation, Discharge Permit Renewal GW-97, BJ Services Company, USA, Farmington District.

Dear Mr. Price:

BJ Services Company, USA (BJ Services) would like to notify the New Mexico Oil Conservation Division (NMOCD) of completed investigation activities regarding tests performed by Davis Plumbing on January 29, 2003 and additional investigation/remedial activities performed on February 11, 2003 by Ecological.

Introduction

On January 29, 2003 Davis Plumbing performed various tests on multiple sumps, discharge lines, and oil/water separator unit. Testing results from Davis Plumbing are included in Attachment 2. After conducting a hydrostatic test on the discharge line running from the washbay to the oil/water separator and visually testing the separator unit it was determined that the discharge line was leaking and the separator displayed signs of significant corrosion in the bottom. Site diagrams have been included in Attachment 1.

Field Activities

Separator

On February 11, 2003, Ecological of Midland Texas was contracted by BJ Services to perform the removal and investigation of the separator unit as well as the discharge line. After removing the separator unit it was determined that over excavation was necessary. After the removal of visually contaminated soil, two bottom samples and four wall samples were collected by Ecological to confirm the removal of impacted soils. These samples were collected and analyzed for Total Petroleum Hydrocarbons (TPH), chlorides, metals, Benzene, Toluene, Ethylbenzene, and Xylene (BTEX).

Drain Line

After the separator excavation, Ecological had discussions with BJ Services about the best approach to investigating and repairing the drain line from the washbay. After these discussions, Ecological pressured the line at two different locations to narrow down the area of investigation. Ecological first tested from the test area A to the washbay and found that the line did not pass. Second, Ecological tested from test area B to test area A and also found that the line did not pass. After evaluating their options, Ecological removed an area of asphalt near the washbay to uncover a cast iron pipe connected to a PVC pipe. The connection between these pipes was found to be inadequate and was repaired. Soils under the cast iron/PVC connection were excavated and confirmation three confirmation samples were collected. After repairing the cast iron connection, Ecological also investigated two clean-outs, down the line, nearer to the separator excavation. Ecological found that the cleanouts also needed repair. Soils under the cleanouts were excavated and three samples were collected for confirmation. After repairing the cleanouts, Ecological pressured the entire line to 3 psi and found it to pass.

Analytical Results

Since the New Mexico Environmental Department (NMED) does not publish screening limits for contaminants in soil, results were first compared to NMED groundwater standards. If sample results were found to exceed those standards, soil results were then compared to EPA residential soil-screening values published February 18, 2003. If results exceeded EPA residential soil screening values the samples were analyzed for Synthetic Precipitation Leaching Procedure (SPLP) and then compared with NMED groundwater standards. Analytical results are presented in Attachment 1 and also in Attachment 4.

Separator

Confirmation samples collected from the separator excavation reported no detectable concentrations of BTEX or TPH except in sample "Separator-E" that reported detectable concentrations of toluene and xylene below NMED groundwater standards. After evaluating metals results it was believed that SPLP samples were necessary since arsenic concentrations exceeded NMED groundwater standards as well as EPA residential soil screening values. Sample "Separator-B" was analyzed for SPLP metals and reported no exceedences above NMED groundwater standards.

Drain Line

Sample results reported no detectable concentrations of BTEX. TPH results for sample "cleanout floor" reported exceedences of Diesel Range Organics (DRO) at 134 mg/kg. After discussions with Wayne Price of the OCD, it was concluded that results were acceptable to the NMOCd. After evaluating metals results it was determined that SPLP samples were necessary since arsenic concentrations exceeded NMED groundwater standards and EPA residential soil values. SPLP results reported concentrations below NMED groundwater standards.

Waste Disposal

Investigation Derived Waste (IDW) generated by excavation activities has been profiled and properly disposed using Envirotech Inc. Soil Remediation Facility in Hilltop New Mexico. Documentation is provided in Attachment 3.

Conclusion

Separator

- Confirmation soil samples collected from the separator excavation reported no detectable concentrations of BTEX or TPH except in sample “Separator-E” that reported detectable concentrations of toluene and xylene below NMED groundwater standards.
- No soil samples exceeded NMED groundwater standards for Chlorides.
- SPLP soil results for metals reported no metals above NMED groundwater standards.

Drain Line

- Confirmation samples collected from the separator excavation reported no detectable concentrations of BTEX in soil.
- No soil samples reported exceedences of TPH above groundwater standards except sample “cleanout floor” at 134mg/kg. After discussions with the NMOCD, it was concluded that no further action was necessary.
- No soil samples exceeded NMED groundwater standards for Chlorides.
- SPLP soil results for metals reported no metals above NMED groundwater standards.

After reviewing the results, BJ Services believes that no further action is necessary and considers this matter closed.

If you have any questions or concerns during your review of this report, please contact me at (281) 357-2573.

Sincerely,



Jason Goodwin
HSE Specialist

Cc: Jo Ann Cobb – Tomball w/o attachments
Jeff Houghton – Farmington w/ attachments

Attachment 1

Tables and Figures

Table 1
Drain Line Sample Results
BJ Services, Farmington, NM

Constituent	NMED Action Limits (GW) mg/L	Sample ID	Cast Iron Floor 02/13/2003	Cast Iron North 02/13/2003		Clean Out South 02/13/2003	Clean Out North 02/13/2003
				02/13/2003	02/13/2003		
Volatiles (mg/kg)							
Benzene	0.01		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Toluene	0.75		<0.0250	<0.0250	<0.0250	NA	<0.0250
Ehtylbenzene	0.75		<0.0250	<0.0250	<0.0250	NA	<0.0250
m/p-Xylene	0.62		<0.0250	<0.0250	<0.0250	NA	<0.0250
O-Xylene	0.62		<0.0250	<0.0250	<0.0250	NA	<0.0250
TPH (mg/kg)							
GRO	100		<10	<10	<10	134	NA
DRO	100		<10	<10	<10	NA	<10
Total	100		<10	<10	<10	134	NA
Inorganics (mg/kg)							
Arsenic	0.1	2.28	1.47	1.46	1.57	<0.008	1.68
Barium	1	131	105	86.4	87.1	90.2	90.2
Cadmium	0.01	0.612	0.543	0.556	0.464	<0.001	0.48
Chromium	0.05	4.2	3.54	4.02	3.13	0.003	3.68
Lead	0.05	2.29	2.8	2.08	2.12	<0.011	1.65
Selenium	0.05		<0.20	<0.20	<0.20	<0.004	1.13
Mercury	0.002		<0.0250	<0.0250	<0.0250	<0.0005	<0.0250
Silver	0.05		<0.10	<0.10	<0.10	<0.002	<0.10
Chloride	250		<20	<20	<20	NA	<20

Exceeds NMED GW Standards
NA = Not Analyzed

Table 2
Separator Sample Results
BJ Services, Farmington, NM

Constituent	NMED Action Limits (GW)	Sample ID Date	Separator-B		Separator-W		Separator-N		Separator-S		Separator-E	
			02/11/2003	SPLP	02/11/2003	02/11/2003	02/11/2003	02/11/2003	02/11/2003	02/11/2003	02/11/2003	02/11/2003
Volatiles (mg/kg)												
Benzene	0.01		<0.025	NA	<0.025		<0.025		<0.025		<0.025	
Toluene	0.75		<0.025	NA	<0.025		<0.025		<0.025		0.037	
Ethylbenzene	0.75		<0.025	NA	<0.025		<0.025		<0.025		<0.025	
m/p-Xylene	0.62		<0.025	NA	<0.025		<0.025		<0.025		0.058	
o-Xylene	0.62		<0.025	NA	<0.025		<0.025		<0.025		<0.025	
TPH (mg/kg)												
GRO	100		<10	NA	<10		<10		<10		<10	
DRO	100		<10	NA	<10		<10		<10		<10	
Total	100		<10	NA	<10		<10		<10		<10	
Inorganics (mg/kg)												
Arsenic	0.1		2.62	<0.008	2.43		2.5		1.87		2.4	
Barium	1		81.1	0.076	77.4		92		112		91.1	
Cadmium	0.01		0.516	<0.001	0.489		0.468		0.486		0.483	
Chromium	0.05		4.21	<0.002	3.86		4.79		4.16		4.11	
Lead	0.05		1.34	<0.011	1.46		1.14		1.63		0.874	
Selenium	0.05		<0.20	<0.004	<0.20		<0.20		<0.20		<0.20	
Mercury	0.002		<0.0250	<0.0005	<0.0250		<0.0250		<0.0250		<0.0250	
Silver	0.05		<0.10	<0.002	<0.10		<0.10		<0.10		<0.10	
Chloride	250		<20.0	NA	<20.0		<20.0		<20.0		<20.0	

Exceeds NMED GW Standards

NA = Not Analyzed

Acid Dock

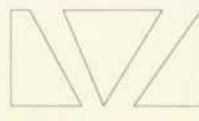


Cement
Bulk Plant

Maintenance

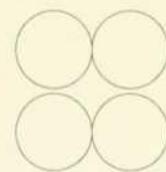
Shop

Office



Area of
Investigation

Sand
Storage



BJ Services Company, USA
11211 FM 2920
Tomball, Texas 77375

Figure 1: Facility Layout

Not To Scale	Revision Date:	Drawn By:
	04/03/03	JSG

Maintenance
Shop

Washbay

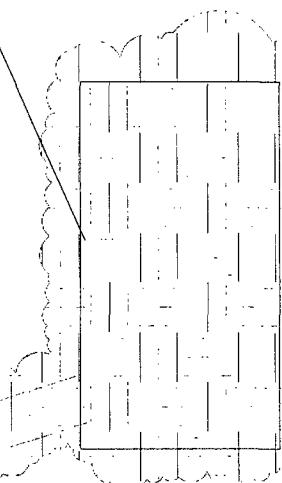
Test Location A
Cast Iron
Excavation

4" PVC Drain Line

Drain Line
Excavation
Cleanout
Access

Test Location B

North

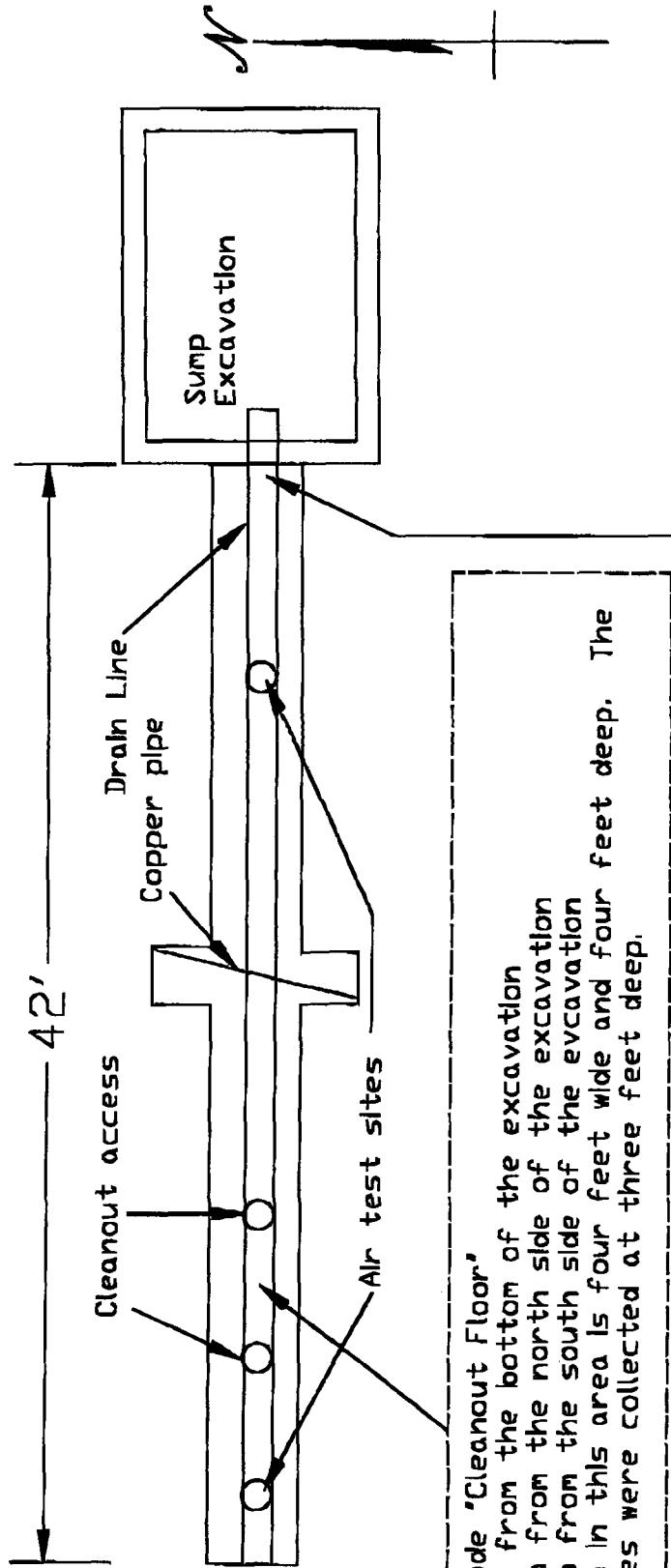


BJ Services Company, USA
11211 FM 2920
Tomball, Texas 77375



Figure 2: Area of Investigation

Not To Scale	REVISION DATE:	DRAWN BY:
	04/03/03	JSG

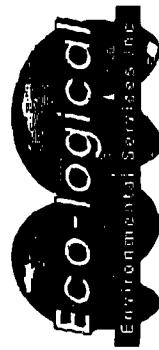
**Sample Field Code 'Cleanout Floor'**

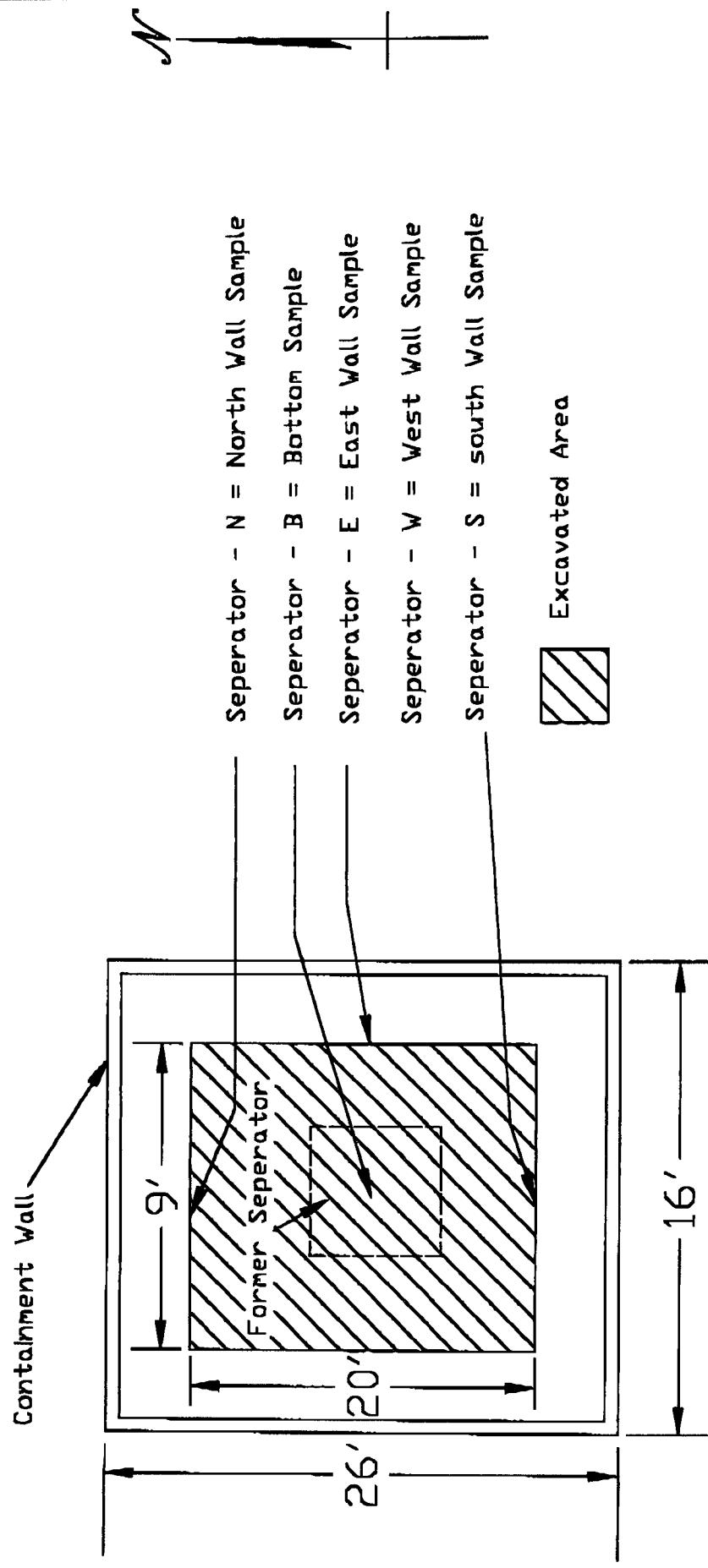
Cleanout North from the bottom of the excavation
Cleanout North from the north side of the excavation
Cleanout South from the south side of the excavation
The excavation in this area is four feet wide and four feet deep. The
side wall samples were collected at three feet deep.

Sample Field Code 'Cast Iron'

Cast Iron Floor from floor of excavation
Cast Iron South from the south wall of the excavation
Cast Iron North from the north wall of the excavation
The excavation in this area is five feet deep. The wall
samples were collected at three feet deep.

BJ Services
Farmington NM Sump
Removal





BJ Services	Excavation Depth Center = 9.5' Walls = 9.0'
Farmington NM Sump Removal	Wall samples were collected at 9' deep



Attachment 2

Testing Reports
(Davis Plumbing and Ecological)

(505) 334-6882
(505) 334-9440 FAX



P.O. Box 1000
Aztec, NM 87410

January 29, 2003

BJ Services
3250 Southside River Rd
Farmington, NM 87401

RE: Test for Leaks

Left side oil separator from wash bay - No corrosion visible
Separator oil tank has hole in bottom

Right side oil separator shows signs of corrosion

Wash bay - no break in cement
Face of cement starting to deteriorate

4" line from wash bay to separator leaking

SPC sump - No damage or corrosion visible
Shows no signs of damage or deterioration

Sump at acid tank - face of cement starting to deteriorate.
Existing paint needs to be cleaned off and tank re-coated

Tank and lines at fuel island are holding (24 hour standby water test)

Richard Davis,
Richard Davis, President

by Christopher Davis



BJ Services Farmington, New Mexico Line Repair Report

On February 12, 2003 Eco-logical Environmental Services conducted an air test on the drain line running from the wash bay to the drain collection sump. The test was preformed by sealing the outlet at the sump and the inlet at the wash bay and applying three psi of air to the line. Within five minutes the air pressure was zero. After the failure of that air test a water test was conducted. In this test eight gallons of water was lost in the line in ten minutes. Several feet of the line was excavated and another air test was preformed and failed. At that point an area along the line was excavated approximately 40 feet from the wash bay and air test was conducted at that point. This air test passed, holding three psi of air for one hour. This indicated that the line leak was between that point and where the last test was conducted.

Excavation continued until this 40 section was uncovered. The leak was located at the connection in the cleanout closest to the wash bay. All of that section of line was replaced. The entire line was then retested, again using three psi of air for 1.5 hours.

Samples (field code "Cleanout") were collected from the bottom and both sides of the area where the leak was found. All samples were below action levels indicating no further action was needed.

Scott Springer, Project Manager

Eco-logical Environmental Services

Attachment 3

Waste Application for Disposal



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address BJ SERVICES 3250 SOUTH SIDE RIVER RD FARMINGTON NM 87401	2. Destination Name: Envirotech Inc. Soil Remediation Facility Landfarm #2 Hilltop, New Mexico
3. Originating Site (name): SAME	Location of the Waste (Street address &/or ULSTR):
attach list of originating sites as appropriate	
4. Source and Description of Waste SOIL FROM SUMP CLEAN OUT & SUMP REMOVAL	

I, SCOTT SPRINGER representative for :
Print Name

BJ SERVICES do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

EXEMPT oilfield waste NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non -hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

- MSDS Information Other (description)
 RCRA Hazardous Waste Analysis
 Chain of Custody

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Scott Springer

Title: PROJECT MANAGER

Date: 6/17/03

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Bravo 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

RECEIVED
MAR 27 2003
Environmental Engineer
Oil Conservation Division

Form C-138
Revised March 17, 1999
Submit Original
Plus 1 Copy
to Appropriate
District Office

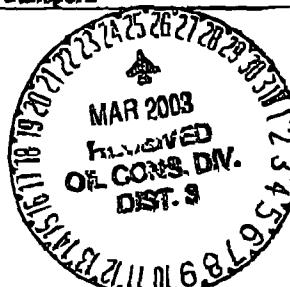
REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: <input type="checkbox"/> Non-Exempt: <input checked="" type="checkbox"/>	4. Generator: BJ Services
Verbal Approval Received: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	5. Originating Site: Yard
2. Management Facility Destination: Envirotech Soil Remediation Facility, Landfarm #2	6. Transporter: Envirotech
3. Address of Facility Operator: 5796 U.S. Highway 64, Farmington, NM 87401	8. State: New Mexico
7. Location of Material (Street Address or ULSTR) 3250 Southside River Road, Farmington	Project #95026-00
<p>9. Circle One:</p> <p>A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.</p> <p>B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved</p> <p>All transporters must certify the wastes delivered are only those consigned for transport.</p>	

BRIEF DESCRIPTION OF MATERIAL:

Soil from sump cleanout and sump removal.

CWS and sump analytical attached.



Estimated Volume 10 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE Landrea R. Jackson TITLE: Environmental Administrative Assistant DATE: 03/24/03
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Landrea Jackson TELEPHONE NO: (505) 632-0615

(This space for State Use)

APPROVED BY: Derry Foust TITLE: Enviro/Engr DATE: 03/25/03
APPROVED BY: Plaster TITLE: Environmental Geologist DATE: 3/27/03

Attachment 4

Analytical Data (QA/QC)

ANALYTICAL REPORT

Prepared for:

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Project: BJ Farmington
PO#: 212-2303
Order#: G0305729
Report Date: 02/20/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703
 915-520-7737

Order#: G0305729
 Project: 212-2303
 Project Name: BJ Farmington
 Location: Farmington, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>	<u>Date / Time</u>	<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
0305729-01	Pile Composite	SOIL	2/12/03 9:00	2/17/03 10:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0305729-02	Cast Iron Floor	SOIL	2/13/03 15:00	2/17/03 10:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0305729-03	Cast Iron North	SOIL	2/13/03 15:00	2/17/03 10:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0305729-04	Cast Iron South	SOIL	2/13/03 15:00	2/17/03 10:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703
 915-520-7737

Order#: G0305729
 Project: 212-2303
 Project Name: BJ Farmington
 Location: Farmington, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>		<u>Date / Time</u>		<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>	<u>Container</u>		
0305729-05	Clean Out Floor	SOIL	2/13/03 12:30	2/17/03 10:15	4 oz glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C			
	8015M						
	8021B/5030 BTEX						
	METALS RCRA 7 Total						
	Chloride						
	Mercury, Total						
0305729-06	Clean Out North	SOIL	2/13/03 12:30	2/17/03 10:15	4 oz glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C			
	8015M						
	8021B/5030 BTEX						
	METALS RCRA 7 Total						
	Chloride						
	Mercury, Total						
0305729-07	Clean Out South	SOIL	2/13/03 12:30	2/17/03 10:15	4 oz glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C			
	8015M						
	8021B/5030 BTEX						
	METALS RCRA 7 Total						
	Chloride						
	Mercury, Total						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Order#: G0305729
Project: 212-2303
Project Name: BJ Farmington
Location: Farmington, NM

Lab ID: 0305729-01
Sample ID: Pile Composite

8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/18/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL	
GRO, C6-C12	<10.0	10.0	
DRO, >C12-C35	<10.0	10.0	
TOTAL, C6-C35	<10.0		10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	127%	70	130
1-Chlorooctadecane	118%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/18/103 19:49	1	25	JMM	8021B

Parameter	Result mg/kg	RL	
Benzene	< 0.0250	0.0250	
Toluene	< 0.0250	0.0250	
Ethylbenzene	< 0.0250	0.0250	
p/m-Xylene	< 0.0250	0.0250	
o-Xylene	< 0.0250	0.0250	

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	121%	80	120
Bromofluorobenzene	114%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 7

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703

Order#: G0305729
 Project: 212-2303
 Project Name: BJ Farmington
 Location: Farmington, NM

Lab ID: 0305729-02
 Sample ID: Cast Iron Floor

8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/18/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	115%	70	130
1-Chlorooctadecane	104%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/18/103 20:09	1	25	JMM	8021B

Parameter	Result mg/kg	RL
Benzene	< 0.0250	0.0250
Toluene	< 0.0250	0.0250
Ethylbenzene	< 0.0250	0.0250
p/m-Xylene	< 0.0250	0.0250
o-Xylene	< 0.0250	0.0250

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	108%	80	120
Bromofluorobenzene	106%	80	120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Order#: G0305729
Project: 212-2303
Project Name: BJ Farmington
Location: Farmington, NM

Lab ID: 0305729-03
Sample ID: Cast Iron North

8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/18/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)
1-Chlorooctane	111%	70 130
1-Chlorooctadecane	98%	70 130

8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/18/03 20:29	1	25	JMM	8021B

Parameter	Result mg/kg	RL
Benzene	< 0.0250	0.0250
Toluene	< 0.0250	0.0250
Ethylbenzene	< 0.0250	0.0250
p/m-Xylene	< 0.0250	0.0250
o-Xylene	< 0.0250	0.0250

Surrogates	% Recovered	QC Limits (%)
aaa-Toluene	121%	80 120
Bromofluorobenzene	120%	80 120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703

Order#: G0305729
 Project: 212-2303
 Project Name: BJ Farmington
 Location: Farmington, NM

Lab ID: 0305729-04
 Sample ID: Cast Iron South

8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/18/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL	
GRO, C6-C12	<10.0	10.0	
DRO, >C12-C35	<10.0	10.0	
TOTAL, C6-C35	<10.0		10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	129%	70	130
1-Chlorooctadecane	124%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/18/03 20:49	1	25	JMM	8021B

Parameter	Result mg/kg	RL	
Benzene	< 0.0250	0.0250	
Toluene	< 0.0250	0.0250	
Ethylbenzene	< 0.0250	0.0250	
p/m-Xylene	< 0.0250	0.0250	
o-Xylene	< 0.0250	0.0250	

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	108%	80	120
Bromofluorobenzene	108%	80	120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703

Order#: G0305729
 Project: 212-2303
 Project Name: BJ Farmington
 Location: Farmington, NM

Lab ID: 0305729-05
 Sample ID: Clean Out Floor

8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/18/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL	
GRO, C6-C12	<10.0		10.0
DRO, >C12-C35	134		10.0
TOTAL, C6-C35	134		10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	110%	70	130
1-Chlorooctadecane	103%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/18/103 21:09	1	25	JMM	8021B

Parameter	Result mg/kg	RL	
Benzene	< 0.0250		0.0250
Toluene	< 0.0250		0.0250
Ethylbenzene	< 0.0250		0.0250
p/m-Xylene	< 0.0250		0.0250
o-Xylene	< 0.0250		0.0250

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	121%	80	120
Bromofluorobenzene	118%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Order#: G0305729
Project: 212-2303
Project Name: BJ Farmington
Location: Farmington, NM

Lab ID: 0305729-06
Sample ID: Clean Out North

8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/18/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL	
GRO, C6-C12	<10.0	10.0	
DRO, >C12-C35	<10.0	10.0	
TOTAL, C6-C35	<10.0	10.0	

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	115%	70	130
1-Chlorooctadecane	107%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/18/03 21:49	1	25	JMM	8021B

Parameter	Result mg/kg	RL	
Benzene	< 0.0250	0.0250	
Toluene	< 0.0250	0.0250	
Ethylbenzene	< 0.0250	0.0250	
p/m-Xylene	< 0.0250	0.0250	
o-Xylene	< 0.0250	0.0250	

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	119%	80	120
Bromofluorobenzene	114%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703

Order#: G0305729
 Project: 212-2303
 Project Name: BJ Farmington
 Location: Farmington, NM

Lab ID: 0305729-07
 Sample ID: Clean Out South

8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		2/18/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	112%	70	130
1-Chlorooctadecane	108%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>		2/18/03 22:09	1	25	JMM	8021B

Parameter	Result mg/kg	RL
Benzene	< 0.0250	0.0250
Toluene	< 0.0250	0.0250
Ethylbenzene	< 0.0250	0.0250
p/m-Xylene	< 0.0250	0.0250
o-Xylene	< 0.0250	0.0250

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	106%	80	120
Bromofluorobenzene	95%	80	120

Approval: *Raland K. Tuttle* 2-20-03
 Raland K. Tuttle, Lab Director, QA Officer Date
 Cecily D. Keene, Org. Tech. Director
 Jeanne McMurrey, Inorg. Tech. Director
 Sandra Biezugbe, Lab Tech.
 Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703

Order#: G0305729
 Project: 212-2303
 Project Name: BJ Farmington
 Location: Farmington, NM

Lab ID: 0305729-01

Sample ID: Pile Composite

METALS RCRA 7 Total

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	1.66	mg/kg	50	0.40	3050/6010B	02/19/2003	2/19/03	SM
Barium	78.6	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Cadmium	0.534	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Chromium	3.65	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM
Lead	1.51	mg/kg	50	0.550	3050/6010B	02/19/2003	2/19/03	SM
Selenium	< 0.20	mg/kg	50	0.20	3050/6010B	02/19/2003	2/19/03	SM
Silver	< 0.10	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Total	< 0.0250	mg/kg	50	0.0250	7470	02/19/2003	2/19/03	SM

Lab ID: 0305729-02

Sample ID: Cast Iron Floor

METALS RCRA 7 Total

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	2.28	mg/kg	50	0.40	3050/6010B	02/19/2003	2/19/03	SM
Barium	131	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Cadmium	0.612	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Chromium	4.20	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM
Lead	2.29	mg/kg	50	0.550	3050/6010B	02/19/2003	2/19/03	SM
Selenium	< 0.20	mg/kg	50	0.20	3050/6010B	02/19/2003	2/19/03	SM
Silver	< 0.10	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Total	< 0.0250	mg/kg	50	0.0250	7470	02/19/2003	2/19/03	SM

Lab ID: 0305729-03

Sample ID: Cast Iron North

METALS RCRA 7 Total

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	1.47	mg/kg	50	0.40	3050/6010B	02/19/2003	2/19/03	SM
Barium	105	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Cadmium	0.543	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Chromium	3.54	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM
Lead	2.80	mg/kg	50	0.550	3050/6010B	02/19/2003	2/19/03	SM
Selenium	< 0.20	mg/kg	50	0.20	3050/6010B	02/19/2003	2/19/03	SM
Silver	< 0.10	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM

N/A = Not Applicable

RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP ECO-LOGICAL ENVIRONMENTAL 2200 MARKET STREET MIDLAND, TX 79703	Order#: G0305729 Project: 212-2303 Project Name: BJ Farmington Location: Farmington, NM
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Lab ID: 0305729-03
Sample ID: Cast Iron North

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Total	< 0.0250	mg/kg	50	0.0250	7470	02/19/2003	2/19/03	SM

Lab ID: 0305729-04
Sample ID: Cast Iron South

METALS RCRA 7 Total

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	1.46	mg/kg	50	0.40	3050/6010B	02/19/2003	2/19/03	SM
Barium	105	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Cadmium	0.556	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Chromium	4.02	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM
Lead	2.08	mg/kg	50	0.550	3050/6010B	02/19/2003	2/19/03	SM
Selenium	< 0.20	mg/kg	50	0.20	3050/6010B	02/19/2003	2/19/03	SM
Silver	< 0.10	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Total	< 0.0250	mg/kg	50	0.0250	7470	02/19/2003	2/19/03	SM

Lab ID: 0305729-05
Sample ID: Clean Out Floor

METALS RCRA 7 Total

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	1.57	mg/kg	50	0.40	3050/6010B	02/19/2003	2/19/03	SM
Barium	86.4	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Cadmium	0.464	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Chromium	3.13	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM
Lead	2.12	mg/kg	50	0.550	3050/6010B	02/19/2003	2/19/03	SM
Selenium	< 0.20	mg/kg	50	0.20	3050/6010B	02/19/2003	2/19/03	SM
Silver	< 0.10	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Total	< 0.0250	mg/kg	50	0.0250	7470	02/19/2003	2/19/03	SM

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
 ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703

Order#: G0305729
 Project: 212-2303
 Project Name: BJ Farmington
 Location: Farmington, NM

Lab ID: 0305729-06
 Sample ID: Clean Out North

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	1.72	mg/kg	50	0.40	3050/6010B	02/19/2003	2/19/03	SM
Barium	90.2	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Cadmium	0.558	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Chromium	3.70	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM
Lead	3.13	mg/kg	50	0.550	3050/6010B	02/19/2003	2/19/03	SM
Selenium	< 0.20	mg/kg	50	0.20	3050/6010B	02/19/2003	2/19/03	SM
Silver	< 0.10	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.0250	mg/kg	50	0.0250	7470	02/19/2003	2/19/03	SM

Lab ID: 0305729-07
 Sample ID: Clean Out South

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	1.68	mg/kg	50	0.40	3050/6010B	02/19/2003	2/19/03	SM
Barium	87.1	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Cadmium	0.480	mg/kg	50	0.050	3050/6010B	02/19/2003	2/19/03	SM
Chromium	3.68	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM
Lead	1.65	mg/kg	50	0.550	3050/6010B	02/19/2003	2/19/03	SM
Selenium	< 0.20	mg/kg	50	0.20	3050/6010B	02/19/2003	2/19/03	SM
Silver	< 0.10	mg/kg	50	0.10	3050/6010B	02/19/2003	2/19/03	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.0250	mg/kg	50	0.0250	7470	02/19/2003	2/19/03	SM

Approval: *Raland K. Tuttle*

Raland K. Tuttle, Lab Director, QA Officer

Date

Celey D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director

Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703

Order#: G0305729
 Project: 212-2303
 Project Name: BJ Farmington
 Location: Farmington, NM

Lab ID: 0305729-01
 Sample ID: Pile Composite

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	<20	mg/kg	1	20	9253	2/18/03	SB

Lab ID: 0305729-02
 Sample ID: Cast Iron Floor

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	<20	mg/kg	1	20	9253	2/18/03	SB

Lab ID: 0305729-03
 Sample ID: Cast Iron North

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	<20	mg/kg	1	20	9253	2/18/03	SB

Lab ID: 0305729-04
 Sample ID: Cast Iron South

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	<20	mg/kg	1	20	9253	2/18/03	SB

Lab ID: 0305729-05
 Sample ID: Clean Out Floor

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	<20	mg/kg	1	20	9253	2/18/03	SB

Lab ID: 0305729-06
 Sample ID: Clean Out North

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	<20	mg/kg	1	20	9253	2/18/03	SB

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Order#: G0305729
Project: 212-2303
Project Name: BJ Farmington
Location: Farmington, NM

Lab ID: 0305729-07
Sample ID: Clean Out South

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	<20	mg/kg	1	20	9253	2/18/03	SB

Approval: Roland K. Tuttle 2-20-03
Date
Roland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS**QUALITY CONTROL REPORT****8015M****Order#: G0305729**

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0004676-02			<10		
CONTROL SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0004676-03		952	884	92.9%	
CONTROL DUP SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0004676-04		952	877	92.1%	0.8%
SRM SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0004676-05		1000	863	86.3%	

ENVIRONMENTAL LAB OF TEXAS
QUALITY CONTROL REPORT
8021B/5030 BTEX

Order#: G0305729

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0004692-02			< 0.025		
Toluene-mg/kg		0004692-02			< 0.025		
Ethylbenzene-mg/kg		0004692-02			< 0.025		
p/m-Xylene-mg/kg		0004692-02			< 0.025		
o-Xylene-mg/kg		0004692-02			< 0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0305729-07	0	2.5	2.34	93.6%	
Toluene-mg/kg		0305729-07	0	2.5	2.30	92.9%	
Ethylbenzene-mg/kg		0305729-07	0	2.5	2.29	91.6%	
p/m-Xylene-mg/kg		0305729-07	0	5	4.78	95.6%	
o-Xylene-mg/kg		0305729-07	0	2.5	2.37	94.8%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0305729-07	0	2.5	2.44	97.6%	4.2%
Toluene-mg/kg		0305729-07	0	2.5	2.38	95.2%	3.4%
Ethylbenzene-mg/kg		0305729-07	0	2.5	2.35	94.9%	2.6%
p/m-Xylene-mg/kg		0305729-07	0	5	4.90	98.0%	2.5%
o-Xylene-mg/kg		0305729-07	0	2.5	2.42	96.8%	2.1%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0004692-05		0.1	0.098	98.0%	
Toluene-mg/kg		0004692-05		0.1	0.097	97.9%	
Ethylbenzene-mg/kg		0004692-05		0.1	0.098	98.0%	
p/m-Xylene-mg/kg		0004692-05		0.2	0.203	101.5%	
o-Xylene-mg/kg		0004692-05		0.1	0.102	102.0%	

ENVIRONMENTAL LAB OF TEXAS
QUALITY CONTROL REPORT
METALS RCRA 7 Total

Order#: G0305729

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004690-02			< 0.40		
Barium-mg/kg		0004690-02			< 0.050		
Cadmium-mg/kg		0004690-02			< 0.050		
Chromium-mg/kg		0004690-02			< 0.10		
Lead-mg/kg		0004690-02			< 0.55		
Selenium-mg/kg		0004690-02			< 0.20		
Silver-mg/kg		0004690-02			< 0.10		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004690-03		40	37.0	92.5%	
Barium-mg/kg		0004690-03		10	10.5	105.%	
Cadmium-mg/kg		0004690-03		10	9.47	94.7%	
Chromium-mg/kg		0004690-03		10	10.0	100.%	
Lead-mg/kg		0004690-03		50	51.8	103.6%	
Selenium-mg/kg		0004690-03		20	16.9	84.5%	
Silver-mg/kg		0004690-03		5	5.06	101.2%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004690-04		40	36.2	90.5%	2.2%
Barium-mg/kg		0004690-04		10	10.4	104.%	1.%
Cadmium-mg/kg		0004690-04		10	9.39	93.9%	0.8%
Chromium-mg/kg		0004690-04		10	10.0	100.%	0.%
Lead-mg/kg		0004690-04		50	52.0	104.%	0.4%
Selenium-mg/kg		0004690-04		20	17.0	85.%	0.6%
Silver-mg/kg		0004690-04		5	5.00	100.%	1.2%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004690-05		1	0.997	99.7%	
Barium-mg/kg		0004690-05		1	1.04	104.%	
Cadmium-mg/kg		0004690-05		1	1.02	102.%	
Chromium-mg/kg		0004690-05		1	1.04	104.%	
Lead-mg/kg		0004690-05		1	1.01	101.%	
Selenium-mg/kg		0004690-05		1	1.01	101.%	
Silver-mg/kg		0004690-05		0.5	0.521	104.2%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0305729

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pet (%) Recovery	RPD
Chloride-mg/kg		0004683-01			<20		
Mercury, Total-mg/kg		0004686-01			< 0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pet (%) Recovery	RPD
Chloride-mg/kg		0305725-18	2690	2000	4720	101.5%	
Mercury, Total-mg/kg		0305729-01	0	0.05	0.0495	99.%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pet (%) Recovery	RPD
Chloride-mg/kg		0305725-18	2690	2000	4680	99.5%	0.9%
Mercury, Total-mg/kg		0305729-01	0	0.05	0.0520	104.%	4.9%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pet (%) Recovery	RPD
Chloride-mg/kg		0004683-04		5000	4960	99.2%	
Mercury, Total-mg/kg		0004686-04		0.001	0.00102	102.%	

Environmental Lab of Texas, Inc.

12610 West 20 East
Odessa, Texas 79763

Phone: 915-563-1900
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: S. L. Stipe

Company Name: **Eco-logical Environmental Services, Inc.**

Company Address: **2200 Market Street**

City/State/Zip: **Midland, Texas 79703**

Telephone No: **520-7535**

Fax No: **520-7737**

Project Name: **BG Farm Market**
Project #: **212-2303**
Project Loc: **Farmington, N.M.**
PO #: **212-2303**

Sampler Signature: G. L. Stipe

Sampled At:

Date Sampled:

Time Sampled:

No. of Containers:

Preservative:

Matrix:

Analyzed For:

Total:

TO AL:

Specified:

Standard:

RUSH TAT (Pre-Schedule):

Standard TAT:

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763

Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Project Manager: John Doe

Project Name: B1 - Fermat's

Company Name **Eco-logical Environmental Services, Inc.**
Company Address: **2200 Market Street**
City/State/Zip: **Midland, Texas 79703**
Telephone No.: **520-7535**
Fax No.: **520-7737**

PO# 212-2303

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703
 915-520-7737

Order#: G0305706
 Project: 212-2303
 Project Name: BJ-Farmington
 Location: Farmington, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>	<u>Date / Time</u>	<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
0305706-05	Separator-W	SOIL	2/11/03	2/13/03 10:25	8 oz Glass	Ice
				Temp: 0.5 C		
<u>Lab Testing:</u>						
	Rejected: No					
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703
 915-520-7737

Order#: G0305706
 Project: 212-2303
 Project Name: BJ-Farmington
 Location: Farmington, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>		<u>Date / Time</u>		<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>	<u>Container</u>		
0305706-01	Separator-B	SOIL	2/11/03	2/13/03 10:25	8 oz Glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 0.5 C			
	8015M						
	8021B/5030 BTEX						
	METALS RCRA 7 Total						
	Chloride						
	Mercury, Total						
0305706-02	Separator-N	SOIL	2/11/03	2/13/03 10:25	8 oz Glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 0.5 C			
	8015M						
	8021B/5030 BTEX						
	METALS RCRA 7 Total						
	Chloride						
	Mercury, Total						
0305706-03	Separator-S	SOIL	2/11/03	2/13/03 10:25	8 oz Glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 0.5 C			
	8015M						
	8021B/5030 BTEX						
	METALS RCRA 7 Total						
	Chloride						
	Mercury, Total						
0305706-04	Separator-E	SOIL	2/11/03	2/13/03 10:25	8 oz Glass		Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 0.5 C			
	8015M						
	8021B/5030 BTEX						
	METALS RCRA 7 Total						
	Chloride						
	Mercury, Total						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Order#: G0305706
Project: 212-2303
Project Name: BJ-Farmington
Location: Farmington, NM

Lab ID: 0305706-01
Sample ID: Separator-B

8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/13/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	124%	70	130
1-Chlorooctadecane	129%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/14/03 8:26	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	87%	80	120
Bromofluorobenzene	90%	80	120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703

Order#: G0305706
 Project: 212-2303
 Project Name: BJ-Farmington
 Location: Farmington, NM

Lab ID: 0305706-02
 Sample ID: Separator-N

8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/13/03	1	1	CK	8015M

Parameter	Result mg/kg	RL	
GRO, C6-C12	<10.0	10.0	
DRO, >C12-C35	<10.0	10.0	
TOTAL, C6-C35	<10.0	10.0	

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	104%	70	130
1-Chlorooctadecane	105%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/14/03 8:47	1	25	CK	8021B

Parameter	Result mg/kg	RL	
Benzene	<0.025	0.025	
Toluene	<0.025	0.025	
Ethylbenzene	<0.025	0.025	
p/m-Xylene	<0.025	0.025	
o-Xylene	<0.025	0.025	

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	83%	80	120
Bromofluorobenzene	87%	80	120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Order#: G0305706
Project: 212-2303
Project Name: BJ-Farmington
Location: Farmington, NM

Lab ID: 0305706-03
Sample ID: Separator-S

8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/13/03	1	1	CK	8015M

Parameter	Result mg/kg	RL	
GRO, C6-C12	<10.0	10.0	
DRO, >C12-C35	<10.0	10.0	
TOTAL, C6-C35	<10.0	10.0	

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	104%	70	130
1-Chlorooctadecane	107%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/14/03	1	25	CK	8021B
		9:08				

Parameter	Result mg/kg	RL	
Benzene	<0.025	0.025	
Toluene	<0.025	0.025	
Ethylbenzene	<0.025	0.025	
p/m-Xylene	<0.025	0.025	
o-Xylene	<0.025	0.025	

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	88%	80	120
Bromofluorobenzene	94%	80	120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
 2200 MARKET STREET
 MIDLAND, TX 79703

Order#: G0305706
 Project: 212-2303
 Project Name: BJ-Farmington
 Location: Farmington, NM

Lab ID: 0305706-04
 Sample ID: Separator-E

8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/13/03	1	1	CK	8015M

Parameter	Result mg/kg	RL	
GRO, C6-C12	<10.0	10.0	
DRO, >C12-C35	<10.0	10.0	
TOTAL, C6-C35	<10.0	10.0	

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	98%	70	130
1-Chlorooctadecane	99%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Method Blank		2/14/03 9:36	1	25	CK	8021B

Parameter	Result mg/kg	RL	
Benzene	<0.025	0.025	
Toluene	0.037	0.025	
Ethylbenzene	<0.025	0.025	
p/m-Xylene	0.058	0.025	
o-Xylene	<0.025	0.025	

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	89%	80	120
Bromofluorobenzene	95%	80	120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Order#: G0305706
Project: 212-2303
Project Name: BJ-Farmington
Location: Farmington, NM

Lab ID: 0305706-05
Sample ID: Separator-W

8015M

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Blank		2/13/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	109%	70	130
1-Chlorooctadecane	112%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Sample Amount</u>	<u>Dilution Factor</u>	<u>Analyst</u>	<u>Method</u>
Method Blank		2/14/03 11:02	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	90%	80	120
Bromofluorobenzene	94%	80	120

Approval: Raland K. Tuttle 2-14-03
 Raland K. Tuttle, Lab Director, QA Officer Date
 Celey D. Keene, Org. Tech. Director
 Jeanne McMurrey, Inorg. Tech. Director
 Sandra Biezugbe, Lab Tech.
 Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS
QUALITY CONTROL REPORT

8015M

Order#: G0305706

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004634-02			<10.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0305702-01	49.2	952	849	84.%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0305702-01	49.2	952	845	83.6%	0.5%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004634-05		1000	903	90.3%	

ENVIRONMENTAL LAB OF TEXAS
QUALITY CONTROL REPORT
8021B/5030 BTEX

Order#: G0305706

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0004632-02			<0.025		
Toluene-mg/kg		0004632-02			<0.025		
Ethylbenzene-mg/kg		0004632-02			<0.025		
p/m-Xylene-mg/kg		0004632-02			<0.025		
o-Xylene-mg/kg		0004632-02			<0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0305706-04	0	2.5	2.14	85.6%	
Toluene-mg/kg		0305706-04	0.037	2.5	2.21	86.9%	
Ethylbenzene-mg/kg		0305706-04	0	2.5	2.25	90.0%	
p/m-Xylene-mg/kg		0305706-04	0.058	5	4.90	96.8%	
o-Xylene-mg/kg		0305706-04	0	2.5	2.31	92.4%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0305706-04	0	2.5	2.21	88.4%	3.2%
Toluene-mg/kg		0305706-04	0.037	2.5	2.24	88.1%	1.3%
Ethylbenzene-mg/kg		0305706-04	0	2.5	2.26	90.4%	0.4%
p/m-Xylene-mg/kg		0305706-04	0.058	5	4.91	97.0%	0.2%
o-Xylene-mg/kg		0305706-04	0	2.5	2.34	93.6%	1.3%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0004632-05		0.1	0.087	87.0%	
Toluene-mg/kg		0004632-05		0.1	0.088	88.0%	
Ethylbenzene-mg/kg		0004632-05		0.1	0.088	88.0%	
p/m-Xylene-mg/kg		0004632-05		0.2	0.192	96.0%	
o-Xylene-mg/kg		0004632-05		0.1	0.092	92.0%	

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Order#: G0305706
Project: 212-2303
Project Name: BJ-Farmington
Location: Farmington, NM

Lab ID: 0305706-01
Sample ID: Separator-B

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	< 20.0	mg/kg	1	20.0	9253	2/14/03	CK

Lab ID: 0305706-02
Sample ID: Separator-N

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	< 20.0	mg/kg	1	20.0	9253	2/14/03	CK

Lab ID: 0305706-03
Sample ID: Separator-S

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	< 20.0	mg/kg	1	20.0	9253	2/14/03	CK

Lab ID: 0305706-04
Sample ID: Separator-E

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	< 20.0	mg/kg	1	20.0	9253	2/14/03	CK

Lab ID: 0305706-05
Sample ID: Separator-W

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	< 20.0	mg/kg	1	20.0	9253	2/14/03	CK

Approval: Roland K. Tuttle 2-19-03
 Roland K. Tuttle, Lab Director, QA Officer Date
 Celey D. Keene, Org. Tech. Director
 Jeanne McMurrey, Inorg. Tech. Director
 Sandra Biczugba, Lab Tech.
 Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS
QUALITY CONTROL REPORT
METALS RCRA 7 Total

Order#: G0305706

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004673-02			< 0.40		
Barium-mg/kg		0004673-02			< 0.050		
Cadmium-mg/kg		0004673-02			< 0.050		
Chromium-mg/kg		0004673-02			< 0.10		
Lead-mg/kg		0004673-02			< 0.55		
Selenium-mg/kg		0004673-02			< 0.20		
Silver-mg/kg		0004673-02			< 0.10		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004673-03		40	35.6	89%	
Barium-mg/kg		0004673-03		10	10.3	103%	
Cadmium-mg/kg		0004673-03		10	9.20	92%	
Chromium-mg/kg		0004673-03		10	9.51	95.1%	
Lead-mg/kg		0004673-03		50	50.8	101.6%	
Selenium-mg/kg		0004673-03		20	16.3	81.5%	
Silver-mg/kg		0004673-03		5	4.16	83.2%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004673-04		40	36.0	90%	1.1%
Barium-mg/kg		0004673-04		10	10.2	102%	1%
Cadmium-mg/kg		0004673-04		10	9.17	91.7%	0.3%
Chromium-mg/kg		0004673-04		10	9.64	96.4%	1.4%
Lead-mg/kg		0004673-04		50	50.3	100.6%	1%
Selenium-mg/kg		0004673-04		20	15.9	79.5%	2.5%
Silver-mg/kg		0004673-04		5	4.09	81.8%	1.7%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004673-05		1	1.03	103%	
Barium-mg/kg		0004673-05		1	1.05	105%	
Cadmium-mg/kg		0004673-05		1	1.03	103%	
Chromium-mg/kg		0004673-05		1	1.02	102%	
Lead-mg/kg		0004673-05		1	1.03	103%	
Selenium-mg/kg		0004673-05		1	1.01	101%	
Silver-mg/kg		0004673-05		0.5	0.492	98.4%	

ENVIRONMENTAL LAB OF TEXAS
QUALITY CONTROL REPORT

Test Parameters

Order#: G0305706

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	0004640-01			<20.0		
Mercury, Total-mg/kg	0004666-01			< 0.025		
MS SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	0305697-01	3540	5000	8510	99.4%	
Mercury, Total-mg/kg	0305706-01	0	53.75	46.0	85.6%	
MSD SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	0305697-01	3540	5000	8600	101.2%	1.1%
Mercury, Total-mg/kg	0305706-01	46	53.75	47.0	87.4%	2.2%
SRM SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	0004640-04		5000	5230	104.6%	
Mercury, Total-mg/kg	0004666-04		0.001	0.00097	97.%	

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763

Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

p. 8

12600 West I-20 East
Odessa, Texas 79763

Phone: 915-563-1800
Fax: 915-563-1713

Project Manager:

Shaw Step

Company Name: **Eco-logical Environmental Services, Inc.**
Company Address: **2200 Market Street**

Project #: R12/2305
Project Loc: Emergency New Mexico

City/State/Zip: _____

Telephone No: 520-535
Fax No: 520-7737

Sampler Signature: John S. McElwaine

ANALYTICAL REPORT

Prepared for:

**SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703**

**Project: BJ-Farmington
PO#: 212-2303
Order#: G0305706
Report Date: 02/14/2003**

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP ECO-LOGICAL ENVIRONMENTAL 2200 MARKET STREET MIDLAND, TX 79703	Order#: G0305706 Project: 212-2303 Project Name: BJ-Farmington Location: Farmington, NM
---	--

Lab ID: 0305706-01
Sample ID: Separator-B

METALS RCRA 7 Total

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	2.62	mg/kg	50	0.40	3050/6010B	02/16/2003	2/18/03	SM
Barium	81.1	mg/kg	50	0.050	3050/6010B	02/16/2003	2/18/03	SM
Cadmium	0.516	mg/kg	50	0.050	3050/6010B	02/16/2003	2/18/03	SM
Chromium	4.21	mg/kg	50	0.10	3050/6010B	02/16/2003	2/18/03	SM
Lead	1.34	mg/kg	50	0.550	3050/6010B	02/16/2003	2/18/03	SM
Selenium	< 0.20	mg/kg	50	0.20	3050/6010B	02/16/2003	2/18/03	SM
Silver	< 0.10	mg/kg	50	0.10	3050/6010B	02/16/2003	2/18/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Total	< 0.0250	mg/kg	50	0.0250	7470	02/16/2003	2/18/03	SM

Lab ID: 0305706-02

Sample ID: Separator-N

METALS RCRA 7 Total

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	2.50	mg/kg	50	0.40	3050/6010B	02/16/2003	2/18/03	SM
Barium	92.0	mg/kg	50	0.050	3050/6010B	02/16/2003	2/18/03	SM
Cadmium	0.468	mg/kg	50	0.050	3050/6010B	02/16/2003	2/18/03	SM
Chromium	4.79	mg/kg	50	0.10	3050/6010B	02/16/2003	2/18/03	SM
Lead	1.14	mg/kg	50	0.550	3050/6010B	02/16/2003	2/18/03	SM
Selenium	< 0.20	mg/kg	50	0.20	3050/6010B	02/16/2003	2/18/03	SM
Silver	< 0.10	mg/kg	50	0.10	3050/6010B	02/16/2003	2/18/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Total	< 0.0250	mg/kg	50	0.0250	7470	02/16/2003	2/18/03	SM

Lab ID: 0305706-03

Sample ID: Separator-S

METALS RCRA 7 Total

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	1.87	mg/kg	50	0.40	3050/6010B	02/16/2003	2/18/03	SM
Barium	112	mg/kg	50	0.050	3050/6010B	02/16/2003	2/18/03	SM
Cadmium	0.486	mg/kg	50	0.050	3050/6010B	02/16/2003	2/18/03	SM
Chromium	4.16	mg/kg	50	0.10	3050/6010B	02/16/2003	2/18/03	SM
Lead	1.63	mg/kg	50	0.550	3050/6010B	02/16/2003	2/18/03	SM
Selenium	< 0.20	mg/kg	50	0.20	3050/6010B	02/16/2003	2/18/03	SM
Silver	< 0.10	mg/kg	50	0.10	3050/6010B	02/16/2003	2/18/03	SM

N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Order#: G0305706
Project: 212-2303
Project Name: BJ-Farmington
Location: Farmington, NM

Lab ID: 0305706-03
Sample ID: Separator-S

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Total	< 0.0250 ✓	mg/kg	50	0.0250	7470	02/16/2003	2/18/03	SM

Lab ID: 0305706-04
Sample ID: Separator-E

METALS RCRA 7 Total

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	2.40 ✓	mg/kg	50	0.40	3050/6010B	02/16/2003	2/18/03	SM
Barium	91.1 ✓	mg/kg	50	0.050	3050/6010B	02/16/2003	2/18/03	SM
Cadmium	0.483 ✓	mg/kg	50	0.050	3050/6010B	02/16/2003	2/18/03	SM
Chromium	4.11 ✓	mg/kg	50	0.10	3050/6010B	02/16/2003	2/18/03	SM
Lead	0.874 ✓	mg/kg	50	0.550	3050/6010B	02/16/2003	2/18/03	SM
Selenium	< 0.20 ✓	mg/kg	50	0.20	3050/6010B	02/16/2003	2/18/03	SM
Silver	< 0.10 ✓	mg/kg	50	0.10	3050/6010B	02/16/2003	2/18/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Total	< 0.0250 ✓	mg/kg	50	0.0250	7470	02/16/2003	2/18/03	SM

Lab ID: 0305706-05
Sample ID: Separator-W

METALS RCRA 7 Total

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	2.43 ✓	mg/kg	50	0.40	3050/6010B	02/16/2003	2/18/03	SM
Barium	77.4 ✓	mg/kg	50	0.050	3050/6010B	02/16/2003	2/18/03	SM
Cadmium	0.489 ✓	mg/kg	50	0.050	3050/6010B	02/16/2003	2/18/03	SM
Chromium	3.86 ✓	mg/kg	50	0.10	3050/6010B	02/16/2003	2/18/03	SM
Lead	1.46 ✓	mg/kg	50	0.550	3050/6010B	02/16/2003	2/18/03	SM
Selenium	< 0.20 ✓	mg/kg	50	0.20	3050/6010B	02/16/2003	2/18/03	SM
Silver	< 0.10 ✓	mg/kg	50	0.10	3050/6010B	02/16/2003	2/18/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Total	< 0.0250 ✓	mg/kg	50	0.0250	7470	02/16/2003	2/18/03	SM

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Order#: G0305706
Project: 212-2303
Project Name: BJ-Farmington
Location: Farmington, NM

Approval: *Roland K. Tuttle* 2-19-03
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ANALYTICAL REPORT

Prepared for:

**SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703**

Project: BJ-Farmington
PO#: 212-2303
Order#: G0305706
Report Date: 02/14/2003

Certificates

US EPA Laboratory Code TX00158

ANALYTICAL REPORT

Prepared for:

**SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703**

Project: BJ Farmington

PO#: 212-2303

Order#: G0305793

Report Date: 02/24/2003

**Certificates
US EPA Laboratory Code TX00158**

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Order#: G0305793
Project: 212-2303
Project Name: BJ Farmington
Location: Farmington, N.M.

Lab ID: 0305793-01
Sample ID: Cleanout Floor

METALS RCRA 7 SPLP

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	<0.008	mg/kg	1	0.008	I312/6010B	02/22/2003	2/24/03	SM
Barium	0.048	mg/kg	1	0.001	I312/6010B	02/22/2003	2/24/03	SM
Cadmium	<0.001	mg/kg	1	0.001	I312/6010B	02/22/2003	2/24/03	SM
Chromium	0.003	mg/kg	1	0.002	I312/6010B	02/22/2003	2/24/03	SM
Lead	<0.011	mg/kg	1	0.011	I312/6010B	02/22/2003	2/24/03	SM
Selenium	<0.004	mg/kg	1	0.004	I312/6010B	02/22/2003	2/24/03	SM
Silver	<0.002	mg/kg	1	0.002	I312/6010B	02/22/2003	2/24/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, SPLP	<0.0005	mg/L	1	0.0005	I312/7470	02/22/2003	2/24/03	SM

Approval: *Raland K. Tuttle* 2-24-03
 Raland K. Tuttle, Lab Director, QA Officer Date
 Celey D. Keene, Org. Tech. Director
 Joanne McMurrey, Inorg. Tech. Director
 Sandra Biezugbe, Lab Tech.
 Sara Molina, Lab Tech.

N/A = Not Applicable

RL = Reporting Limit

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS
QUALITY CONTROL REPORT
METALS RCRA 7 SPLP

Order #: G0305793

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004723-02			<0.008		
Barium-mg/kg		0004723-02			<0.001		
Cadmium-mg/kg		0004723-02			<0.001		
Chromium-mg/kg		0004723-02			<0.002		
Lead-mg/kg		0004723-02			<0.011		
Selenium-mg/kg		0004723-02			<0.004		
Silver-mg/kg		0004723-02			<0.002		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004723-03		0.8	0.824	103%	
Barium-mg/kg		0004723-03		0.2	0.206	103%	
Cadmium-mg/kg		0004723-03		0.2	0.201	100.5%	
Chromium-mg/kg		0004723-03		0.2	0.193	96.5%	
Lead-mg/kg		0004723-03		1	1.11	111%	
Selenium-mg/kg		0004723-03		0.4	0.420	105%	
Silver-mg/kg		0004723-03		0.1	0.108	108%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004723-04		0.8	0.816	102%	1%
Barium-mg/kg		0004723-04		0.2	0.208	104%	1%
Cadmium-mg/kg		0004723-04		0.2	0.206	103%	2.5%
Chromium-mg/kg		0004723-04		0.2	0.197	98.5%	2.1%
Lead-mg/kg		0004723-04		1	1.12	112%	0.9%
Selenium-mg/kg		0004723-04		0.4	0.420	105%	0%
Silver-mg/kg		0004723-04		0.1	0.104	104%	3.8%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004723-05		1	0.964	96.4%	
Barium-mg/kg		0004723-05		1	0.934	93.4%	
Cadmium-mg/kg		0004723-05		1	0.923	92.3%	
Chromium-mg/kg		0004723-05		1	0.989	98.9%	
Lead-mg/kg		0004723-05		1	0.981	98.1%	
Selenium-mg/kg		0004723-05		1	1.00	100%	
Silver-mg/kg		0004723-05		0.5	0.502	100.4%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0305793

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, SPLP-mg/L		0004724-01			<0.0005		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, SPLP-mg/L		0305792-01	0	0.001	0.00104	104%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, SPLP-mg/L		0305792-01	0.00104	0.001	0.00107	107%	2.8%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, SPLP-mg/L		0004724-04		0.001	0.00108	108%	

Environmental Lab of Texas, Inc.

Phone: 916-563-1800
Fax: 916-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Shameless

Eco-logical Environmental Services, Inc.

2200 Market Street

Midland, Texas 79703

520-7535

Telephone No.: _____

3.3

Project Name: **AG Forum**

Project #: 212-2303

Project Loc: Farmington, NJ

PO #: 212-2303

520-7737

Fax No.: -

ANALYTICAL REPORT

Prepared for:

**SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703**

Project: BJ-Farmington
PO#: 212-2303
Order#: G0305792
Report Date: 02/24/2003

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703
915-520-7737

Order#: G0305792
Project: 212-2303
Project Name: BJ-Farmington
Location: Farmington, New Mexico

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>		<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
0305792-01	Separator-B	SOIL	2/11/03	2/13/03 10:25	8 oz glass	Ice
				Temp: 0.5 C		
	<u>Lab Testing:</u>		Rejected: No			
	METALS RCRA 7 SPLP					
	Mercury, SPLP					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

SHANE ESTEP
ECO-LOGICAL ENVIRONMENTAL
2200 MARKET STREET
MIDLAND, TX 79703

Order#: G0305792
Project: 212-2303
Project Name: BJ-Farmington
Location: Farmington, New Mexico

Lab ID: 0305792-01
Sample ID: Separator-B

METALS RCRA 7 SPLP

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	<0.008	mg/kg	1	0.008	1312/6010B	02/22/2003	2/24/03	SM
Barium	0.076	mg/kg	1	0.001	1312/6010B	02/22/2003	2/24/03	SM
Cadmium	<0.001	mg/kg	1	0.001	1312/6010B	02/22/2003	2/24/03	SM
Chromium	<0.002	mg/kg	1	0.002	1312/6010B	02/22/2003	2/24/03	SM
Lead	<0.011	mg/kg	1	0.011	1312/6010B	02/22/2003	2/24/03	SM
Selenium	<0.004	mg/kg	1	0.004	1312/6010B	02/22/2003	2/24/03	SM
Silver	<0.002	mg/kg	1	0.002	1312/6010B	02/22/2003	2/24/03	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, SPLP	<0.0005	mg/L	1	0.0005	1312/7470	02/22/2003	2/24/03	SM

Approval: Roland K. Tuttle 2-24-03
 Roland K. Tuttle, Lab Director, QA Officer Date
 Clecy D. Keene, Org. Tech. Director
 Jeannie McMurry, Inorg. Tech. Director
 Sandra Biczugbe, Lab Tech.
 Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS
QUALITY CONTROL REPORT
METALS RCRA 7 SPLP

Order#: G0305792

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004723-02			<0.008		
Barium-mg/kg		0004723-02			<0.001		
Cadmium-mg/kg		0004723-02			<0.001		
Chromium-mg/kg		0004723-02			<0.002		
Lead-mg/kg		0004723-02			<0.011		
Selenium-mg/kg		0004723-02			<0.004		
Silver-mg/kg		0004723-02			<0.002		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004723-03		0.8	0.824	103.%	
Barium-mg/kg		0004723-03		0.2	0.206	103.%	
Cadmium-mg/kg		0004723-03		0.2	0.201	100.5%	
Chromium-mg/kg		0004723-03		0.2	0.193	96.5%	
Lead-mg/kg		0004723-03		1	1.11	111.%	
Selenium-mg/kg		0004723-03		0.4	0.420	105.%	
Silver-mg/kg		0004723-03		0.1	0.108	108.%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004723-04		0.8	0.816	102.%	1.%
Barium-mg/kg		0004723-04		0.2	0.208	104.%	1.%
Cadmium-mg/kg		0004723-04		0.2	0.206	101.%	2.5%
Chromium-mg/kg		0004723-04		0.2	0.197	98.5%	2.1%
Lead-mg/kg		0004723-04		1	1.12	111.%	0.9%
Selenium-mg/kg		0004723-04		0.4	0.420	105.%	0.%
Silver-mg/kg		0004723-04		0.1	0.104	104.%	3.8%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0004723-05		1	0.964	96.4%	
Barium-mg/kg		0004723-05		1	0.934	93.4%	
Cadmium-mg/kg		0004723-05		1	0.923	92.3%	
Chromium-mg/kg		0004723-05		1	0.989	98.9%	
Lead-mg/kg		0004723-05		1	0.981	98.1%	
Selenium-mg/kg		0004723-05		1	1.00	100.%	
Silver-mg/kg		0004723-05		0.5	0.502	100.4%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order #: G0305792

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Per (%) Recovery	RPD
Mercury, SPLP-mg/L		0004724-01			<0.0005		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Per (%) Recovery	RPD
Mercury, SPLP-mg/L		0305792-01	0	0.001	0.00104	104.%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Per (%) Recovery	RPD
Mercury, SPLP-mg/L		0305792-01	0.00104	0.001	0.00107	107.%	2.8%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Per (%) Recovery	RPD
Mercury, SPLP-mg/L		0004724-04		0.001	0.00108	108.%	

