District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

FEB 25 2009

Form C-14
Revised October 10, 200

Submit 2 Copies to appropriat
District Office in accordanc
with Rule 116 on bac
side of form

fAB1527430340
nAB1527432662

Release Notification and Corrective Action

OPERATOR

x Initial Report ☐ Final Repc

Name of Company Plains Pipeline 34053	Contact Camille Reynolds
Address 3112 W. US Hwy 82, Lovington, NM 88260	Telephone No. 575-441-0965
Facility Name Beeson 8" Discharge	Facility Type 8"Steel Pipeline

Surface Owner BLM	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	3	18S	30E					Eddy

Latitude 32° 46' 16.9" 32.771361 Longitude 103° 57' 20.7" 103.95575

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release Unknown	Volume Recovered
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 09/12/2008 @ 14:30
Was Immediate Notice Given? X Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Camille Bryant	Date and Hour 09/22/2008 @ 09:00	
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 Historical release identified by the BLM (Jim Amos) will remediate to BLM/NMOCD guidelines.

Describe Area Affected and Cleanup Action Taken.* Impacted areas along pipeline ROW for approximately 0.7 mile.

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: Camille Bryant	OIL CONSERVATION DIVISION
Printed Name: Camille Bryant	Approved by District Supervisor:
Title: Remediation Coordinator	Approval Date: 10/1/15 Expiration Date: N/A
E-mail Address: cjbryant@paalp.com	Conditions of Approval: Attached ☐
Date: 09/22/2008 Phone:575-441-0965	

* Attach Additional Sheets If Necessary

2RP-3306

Basin Environmental Consulting, LLC

2800 Plains Highway
P. O. Box 381
Lovington, New Mexico 88260
cjbryant@basin-consulting.com
Office: (575) 396-2378 Fax: (575) 396-1429

Effective Solutions

REMEDIATION SUMMARY

AND SITE CLOSURE PROPOSAL

PLAINS PIPELINE, L.P. (231735)
Beeson 8-Inch Discharge
Eddy County, New Mexico
Plains SRS # TNM Beeson Historical
UNIT LTR "B" (NW ¼ NE ¼), Section 3, Township 18 South, Range 30 East
Latitude 32° 46' 16.9" North, Longitude 103° 57' 20.7" West

Prepared For:

Plains Pipeline, L.P.
333 Clay Street
Suite 1600
Houston, Texas 77002

Prepared By:
Basin Environmental Consulting, LLC
2800 Plains Highway
Lovington, New Mexico 88260

July 2009

Camille J. Bryant
Project Manager

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APPENDICES

INTRODUCTION AND BACKGROUND INFORMATION

Basin Environmental Consulting, LLC (Basin), on behalf of Plains Pipeline, L.P. (Plains), has prepared this Remediation Summary and Site Closure Proposal for the release site known as Beeson 8-Inch Discharge (SRS # TNM Beeson Historical). The legal description of the release site is Unit Letter "B" (NW ¼ NE ¼), Section 3, Township 18 South, Range 30 East, in Eddy County, New Mexico. The property affected by the release is owned by The United States Department of the Interior Bureau of Land Management (BLM). In accordance with BLM protocol, Boone Archeological Services, LLC, in Carlsbad, New Mexico, conducted an archeological resource survey of the area for Plains. Results of the survey indicated no evidence of cultural resources present at the site. The Archeological Survey is provided as Appendix D. The release site latitude is 32° 46' 16.9" North and the longitude is 103° 57' 20.7" West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site and Sample Location Map. The Release Notification and Corrective Action (Form C-141) is provided as Appendix F.

In September 2008, evidence of a historical release was brought to the attention of Plains by BLM representative Jim Amos. The release was reported to the New Mexico Oil Conservation Division (NMOCD) on September 22, 2008. There are three (3) areas of impact along the Plains Pipeline Right-of-Way (South Area, Middle Area and North Area), as identified by the BLM. During a meeting with NMOCD, BLM and Plains representatives it was determined soil samples would be collected from each of the three (3) areas of impact. The soil investigation was designed to delineate the vertical extent of the crude oil impacted soil.

NMOCD SITE CLASSIFICATION

A search of the New Mexico Office of the State Engineer (NMOSE) database did not identify the average depth to groundwater information for Section 3, Township 18 South, Range 30 East. A reference map utilized by the NMOCD indicated depth to groundwater at the release site should be encountered at approximately 275 feet below ground surface (bgs). The depth to groundwater at the Beeson 8-Inch Discharge release site results in a score of zero (0) being assigned to the site based on the NMOCD depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1,000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

There are no surface water bodies located within 1,000 feet of the site. Based on the NMOCD ranking system zero (0) points will be assigned to the site as a result of the criteria.

The NMOCD guidelines indicate the Beeson 8-Inch Discharge release site has an initial ranking score of zero (0). Based on this score, the soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 5,000 mg/Kg (ppm)

SUMMARY OF SOIL REMEDIATION ACTIVITIES

On February 3, 2009, eight (8) soil samples (SA Sample 1-6 Inches, SA Sample 1–6 Feet, SA Sample 2–6 Inches, SA Sample 2–6 Feet, SA Sample 3–6 Inches, SA Sample 3–2 Feet, SA Sample 4–6 Inches and SA Sample 4–3 Feet) were collected from the South Area of impact, at depths ranging from six (6) inches to six (6) feet bgs. The soil samples were submitted to the laboratory and analyzed for concentrations of benzene, toluene, ethyl-benzene and xylene (BTEX) and total petroleum hydrocarbon (TPH) using EPA SW-846 8021b and SW-846 8015M, respectively. A summary of the analytical results are included in Table 1, Concentrations of BTEX, TPH and Chloride in Soil. Laboratory analytical reports are provided as Appendix B. Photographs are provided as Appendix C.

Laboratory analytical results indicated benzene concentrations were less than the laboratory method detection limit (MDL) in all the submitted soil samples. The analytical results indicated BTEX concentrations ranged from 0.0016 mg/Kg in soil sample SA Sample 2-6 Feet to 0.2408 mg/Kg in soil sample SA Sample 3-6 Inches. Laboratory analytical results indicated TPH concentrations ranged from 161 mg/Kg in soil sample SA Sample 1-6 Feet to 6,800 mg/Kg in soil sample SA Sample 2-6 Inches.

Soil sample SA Sample 1-6 Inches was analyzed for concentrations of chloride using method EPA 300. The analytical result indicated the chloride concentration was less than the laboratory MDL.

On February 3, 2009, two (2) soil samples (MA Sample 5-6 Inches and MA Sample 5-3 Feet) were collected from the Middle Area of impact, at depths ranging from six (6) inches to three (3) feet. Laboratory analytical results indicated benzene concentrations were less than the laboratory MDL in both soil samples. The analytical results indicated BTEX concentrations were 0.0502 mg/Kg and 0.2117 mg/Kg in soil samples MA Sample 5-6 Inches and MA Sample 5-3 Feet, respectively. TPH concentrations were 1,057 mg/Kg and 4,301 mg/Kg in soil samples MA Sample 5-3 Feet and MA Sample 5-6 Inches, respectively.

Basin collected sixteen (16) soil samples (NA Sample 6-6 Inches, NA Sample 6-3 Feet, NA Sample 7-6 Inches, NA Sample 7-3 Feet, NA Sample 8-6 Inches, NA Sample 8-3 Feet, NA Sample 9-6 Feet, NA Sample 9-12 Feet, NA Sample 10-6 Inches, NA Sample 10-3 Feet, NA Sample 11-6 Feet, NA Sample 11- 12 Feet, NA Sample 12-6 Feet, NA Sample 12-15 Feet, NA Sample 13-6 Inches and NA Sample 13-3 Feet) from the North Area of impact, at depths ranging from six (6) inches to fifteen (15) feet bgs. The laboratory analytical results indicated benzene concentrations ranged from less than the laboratory MDL in soil samples NA Sample 6-6 Inches, NA Sample 6-3 Feet, NA Sample 7-6 Inches, NA Sample 7-3 Feet, NA Sample 8-3 Feet, NA Sample 9-6 Feet, NA Sample 9-12 Feet, NA Sample 10-6 Inches, NA Sample 11-12 Feet, NA Sample 12-6 Feet, NA Sample 12-15 Feet, NA Sample 13-6 Inches and NA Sample 13-3 Feet to 0.0166 mg/Kg in soil sample NA Sample 10-3 Feet. BTEX concentrations ranged from 0.0012 mg/Kg in soil sample NA Sample 13-3 Feet to 109.652 mg/Kg in soil sample NA Sample 12-6 Feet. TPH concentrations ranged from less than the laboratory MDL in soil sample NA Sample 13-3 Feet to 18,100 mg/Kg in soil sample NA Sample 9-6 Feet.

Soil sample NA Sample 9-6 Feet was analyzed for concentrations of chloride. The laboratory analytical results indicated the chloride concentration was less than the laboratory MDL.

On February 25, 2009, the NMOCD Artesia Office granted verbal approval to mechanically till the South, Middle and North areas exhibiting asphaltine impact. Based on the laboratory analytical data, the area directly south of the Plains Beeson Station would require further investigation. In a letter dated March 2, 2009, the BLM approved the blending of the asphaltine impacted areas. The BLM correspondence is provided as Appendix E.

On March 18, 2009, Basin began mechanically tilling the asphaltine impacted soil in the south, middle and north areas of the site. The impacted soil was tilled and blended with non-impacted soil from the surrounding area. On March 25, 2009, a BLM representative inspected the site and granted verbal approval to seed the treated areas.

On April 13 and 14, 2009, six (6) soil borings (SB-1, SB-2, SB-3, SB-4, SB-5 and SB-6) were advanced in the area directly south of the Plains Beeson Station, to vertically investigate the extent of crude oil impacted soil. Soil boring logs are provided as Appendix A. Soil samples were collected at five (5) foot drilling intervals and field screened using a Photo-Ionization Detector (PID). Selected soil samples were submitted to the laboratory for determination of concentrations of BTEX and TPH.

Soil boring SB-1 was located on the north side of the impacted area, south of the Plains Beeson Station and was advanced to a total depth of approximately sixty-five (65) feet bgs. Soil samples collected at ten (10), twenty (20), thirty (30), forty (40), fifty (50), sixty (60) and sixty-five (65) feet bgs were submitted to the laboratory. The laboratory analytical results indicated benzene concentrations were less than the laboratory MDL for all the submitted soil samples, with the exception of the soil sample collected at ten (10) feet bgs, which exhibited a benzene concentration of 0.2233 mg/Kg. The laboratory analytical results indicated BTEX concentrations ranged from 0.0052 mg/Kg in the soil sample collected at sixty-five (65) feet bgs to 28.33 mg/Kg in the soil sample collected at twenty (20) feet bgs. The laboratory analytical results indicated TPH concentrations ranged from 89.4 mg/Kg in the soil sample collected at sixty-five (65) feet bgs to 7,223 mg/Kg in the soil sample collected at ten (10) feet bgs.

Soil boring SB-2 was located in the middle of the impacted area, south of the Plains Beeson Station and was advanced to a total depth of approximately fifty-five (55) feet bgs. Soil samples collected at ten (10), twenty (20), thirty (30), forty (40), fifty (50) and fifty-five (55) feet bgs were submitted to the laboratory. The laboratory analytical results indicated benzene concentrations ranged from less than the laboratory MDL in the soil samples collected at ten (10), thirty (30), fifty (50) and fifty-five (55) feet bgs to 3.28 mg/Kg in the soil sample collected at twenty (20) feet bgs. The laboratory analytical results indicated BTEX concentrations ranged from less than the laboratory MDL in the soil sample collected at fifty-five (55) feet bgs to 197.594 mg/Kg in the soil sample collected at twenty (20) feet bgs. The laboratory analytical results indicated TPH concentrations ranged from 23.2 mg/Kg in the soil sample collected at fifty-five (55) feet bgs to 10,241 mg/Kg in the soil sample collected at ten (10) feet bgs.

Soil boring SB-3 was located on the west side of the impacted area, south of the Plains Beeson Station and was advanced to a total depth of approximately sixty (60) feet bgs. Soil samples collected at ten (10), twenty (20), thirty (30), forty (40), fifty-five (55) and sixty (60) feet bgs were submitted to the laboratory. The laboratory analytical results indicated benzene concentrations were less than the laboratory MDL in all the submitted soil samples. The

laboratory analytical results indicated BTEX concentrations ranged from less than the laboratory MDL in the soil sample collected at sixty (60) feet bgs to 92.608 mg/Kg in the soil sample collected at twenty (20) feet bgs. The laboratory analytical results indicated TPH concentrations ranged from 109.9 mg/Kg in the soil sample collected at ten (10) feet bgs to 8,307 mg/Kg in the soil sample collected at twenty (20) feet bgs.

Soil boring SB-4 was located west of soil boring SB-3 and was advanced to a total depth of approximately twenty-five (25) feet bgs. Soil samples collected at ten (10), twenty (20) and twenty-five (25) feet bgs were submitted to the laboratory. The laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the laboratory MDL in all the submitted soil samples.

Soil boring SB-5 was located on the east side of the impacted area, south of the Plains Beeson Station and was advanced to a total depth of approximately thirty (30) feet bgs. Soil samples collected at ten (10), twenty (20), twenty-five (25) and thirty (30) feet bgs were submitted to the laboratory. The laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the laboratory MDL in all the submitted soil samples.

Soil boring SB-6 was located on the south side of the impacted area, south of the Plains Beeson Station and was advanced to a total depth of approximately thirty (30) feet bgs. Soil samples collected at ten (10), twenty (20), twenty-five (25) and thirty (30) feet bgs were submitted to the laboratory. The laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the laboratory MDL in all the submitted soil samples, with the exception of the soil sample collected at twenty (20) feet bgs, which exhibited a BTEX concentration of 0.0024 mg/Kg.

PROPOSED ACTIONS

Plains proposes the following risk-based closure strategy designed to progress the Beeson 8-Inch Discharge release site toward an NMOCD approved closure:

- The area defined by and including soil borings SB-1, SB-2, SB-3, SB-4 and SB-5 will be excavated to a depth of approximately thirteen (13) feet bgs. The area around soil borings SB-2 and SB-3 will be excavated to a depth of approximately twenty (20) feet bgs. A map depicting the Proposed Excavation Area is provided as Figure 3. The limits of the excavation will be determined by field screening using a PID and visual and olfactory evaluation of the excavation sidewalls. Confirmation soil samples will be collected at approximately fifty (50) foot intervals from the excavation sidewalls and floor and analyzed for concentrations of BTEX and TPH. The proposed excavated area defined by and including soil borings SB-1, SB-2, SB-3, SB-4 and SB-5 contains approximately 18,407 cubic yards (cy) of hydrocarbon impacted soil, which will be stockpiled on-site pending final disposition.

- Plains proposes to collect a stockpile soil sample for each 500 cy of stockpiled soil. The soil samples will be submitted to the laboratory and analyzed for concentrations of BTEX using EPA method 8021b and TPH using SW-846 8015M. Provided the analytical results indicate the TPH concentration of the soil sample is less than 5,000 mg/Kg, the

soil will be stockpiled and used as backfill. Should the analytical results indicate the TPH concentration of any of the stockpile soil samples exceed 5,000 mg/Kg, the affected soil will be blended and re-sampled until TPH concentrations are less than 5,000 mg/Kg TPH.

- The excavation will be backfilled and compacted in twelve (12) inch lifts. Following backfill activities the surface will be contoured to fit the surrounding topography. Reseeding of the site with vegetation acceptable to the BLM will take place at the conclusion of the proposed remediation activities.

REPORTING

On review and approval of this proposal by the NMOCD and BLM, Plains is prepared to begin the field activities and perform the corrective actions summarized in this Remediation Summary and Site Closure Proposal. Upon completion of the field activities summarized in this proposal, Plains will submit a Site Closure Request to the NMOCD and BLM, documenting the results of confirmation soil samples, and final topography activities.

LIMITATIONS

Basin Environmental Consulting, LLC has prepared this Remediation Summary and Site Closure Proposal to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Consulting, LLC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Consulting, LLC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Consulting, LLC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Consulting, LLC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Plains Pipeline, L.P. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Consulting, LLC and/or Plains Pipeline, L.P.

DISTRIBUTION:

Copy 1: Mike Bratcher
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division (District 2)
1301 E. Grand Avenue
Artesia, New Mexico 88210

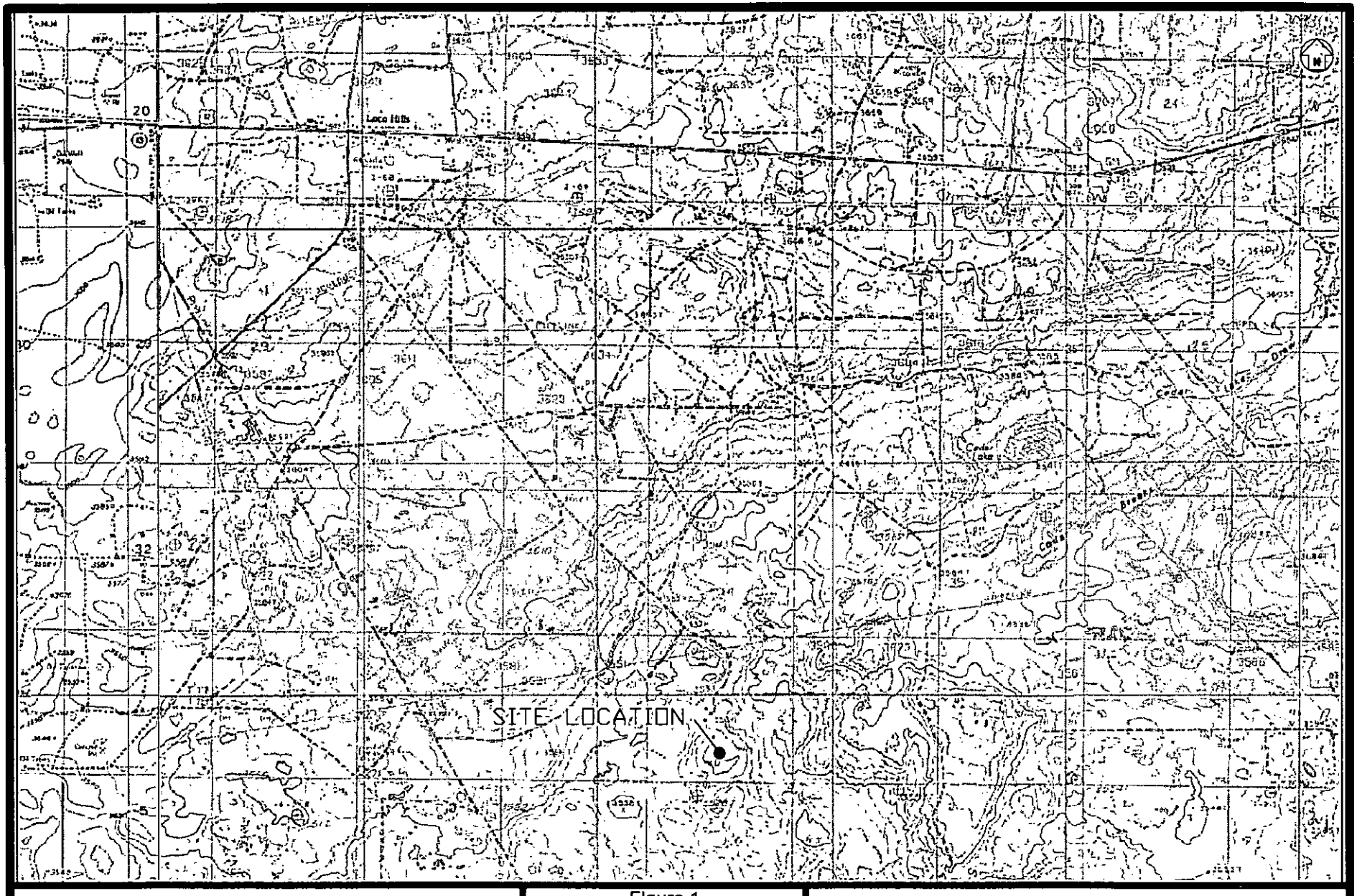
Copy 2: Paul Evans
Bureau Of Land Management
602 E. Greene Street
Carlsbad, New Mexico 88220

Copy 3: Jeff Dann
Plains Pipeline, L.P.
333 Clay Street, Suite 1600
Houston, Texas 77002
jpdann@paalp.com

Copy 4: Jason Henry
Plains Pipeline, L.P.
2530 State Highway 214
Denver City, Texas 79323
jhenry@paalp.com

Copy 5: Basin Environmental Consulting, LLC
P.O. Box 381
Lovington, New Mexico 88260
cjbryant@basin-consulting.com

FIGURES



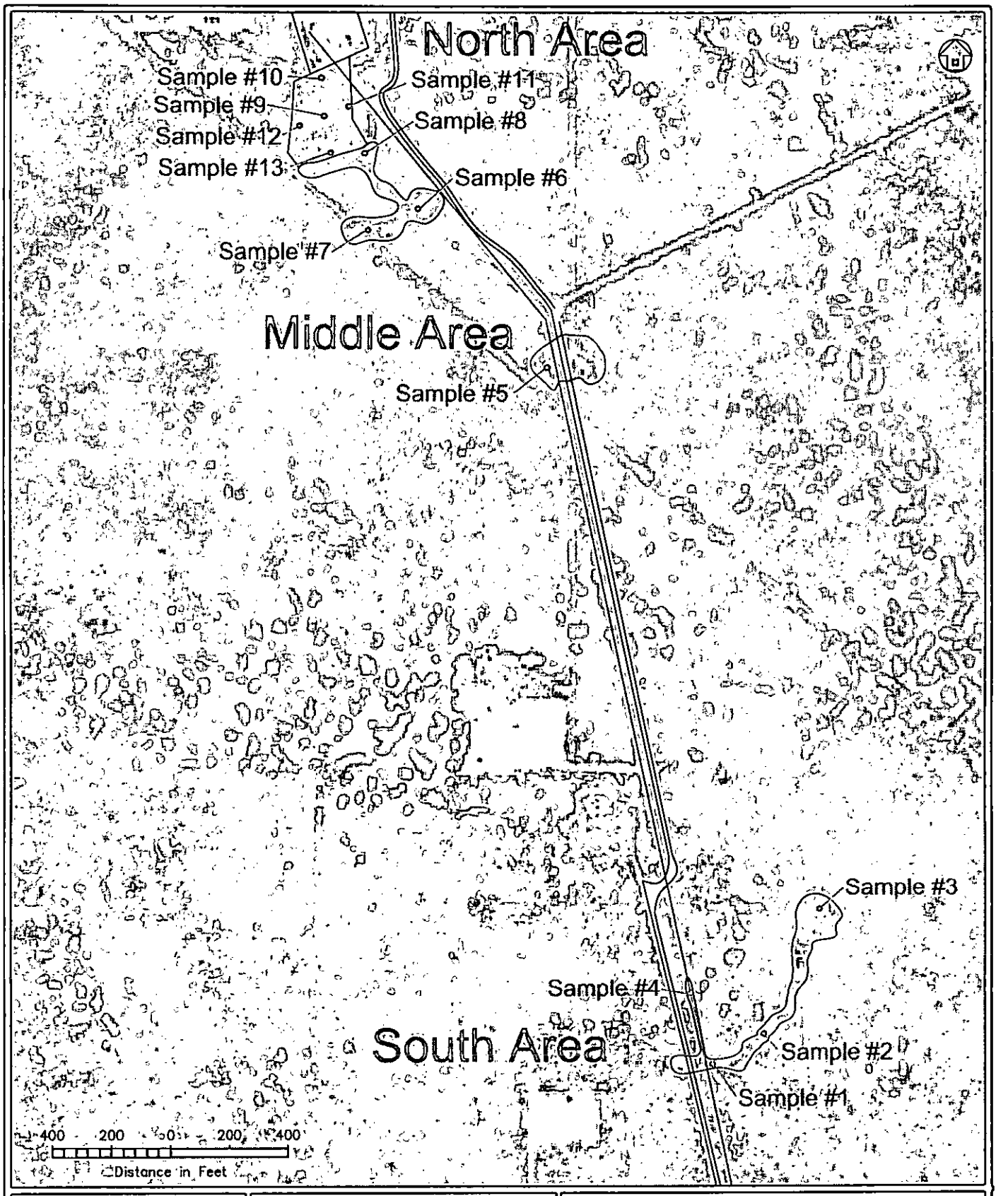
3000 1500 0 1500 3000

Distance in Feet

Figure 1
Site Location Map
Plains Pipeline, L.P.
Beeson 8-Inch Discharge
Eddy County, New Mexico
SRS# TNM Beeson Historical

Basin Environmental Services

Prep By: CDS	Checked By: CDS
June 12, 2009	Scale 1"=3000'



Legend:

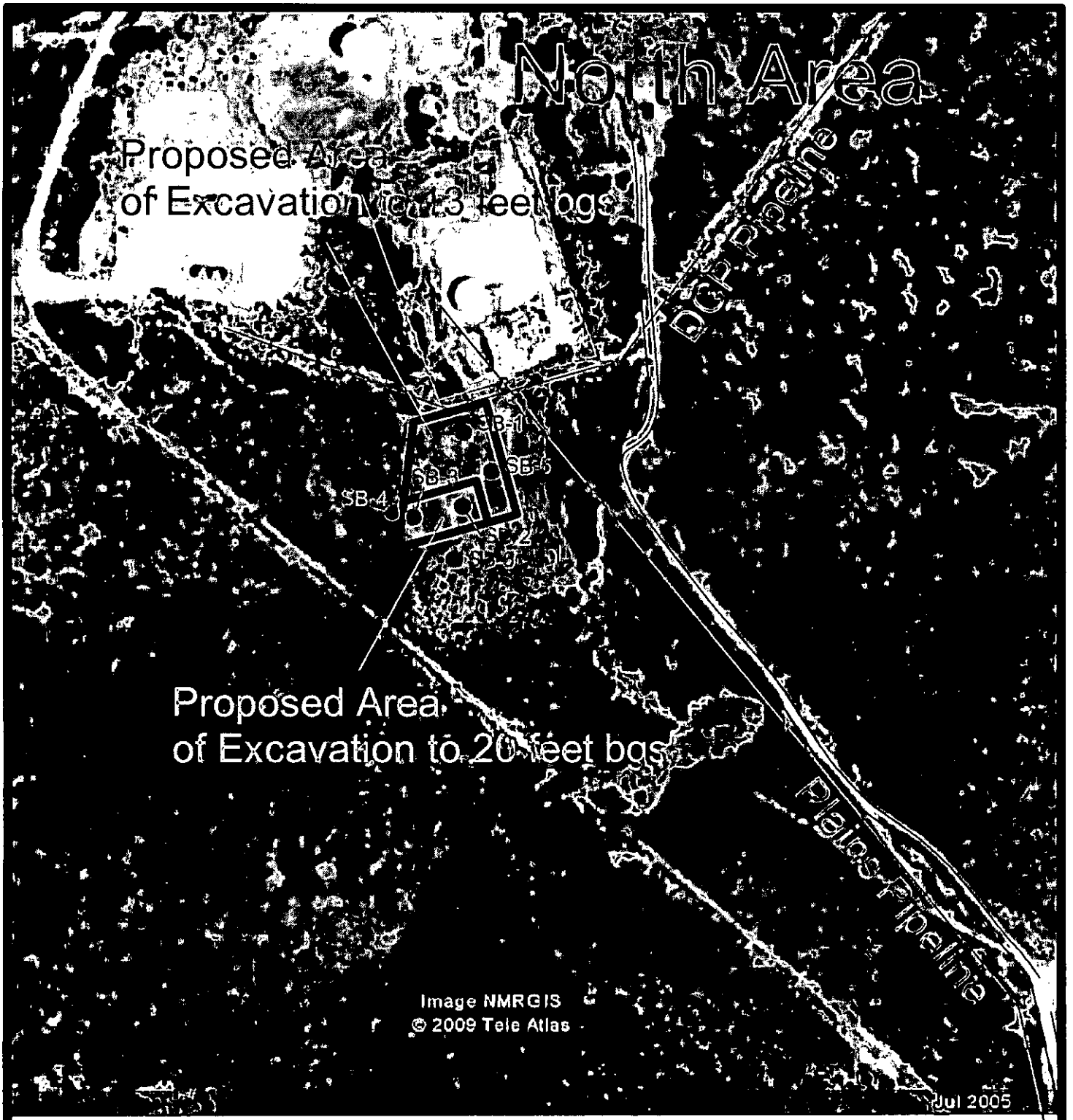
- Visually Impacted Area
- Pipeline
- Sample Location

Figure 2
Site and Sample Location Map

Plains Pipeline, L.P.
Beeson 8-Inch Discharge
Eddy County, New Mexico
SRS # Beeson Historical

Basin Environmental Services

Prep By: CDS	Checked By: CJB
February 6, 2009	Scale 1inch = approximately 400 Feet



Legend:

- Proposed Area of Excavation
- Pipeline
- Soil Boring Location

Figure 3
Proposed Area of Excavation
Plains Pipeline, L.P.
Beeson 8-Inch Discharge
Eddy County, New Mexico
SRS # Beeson Historical

Basin Environmental Services

Prep By: CDS	Checked By: CJB
February 6, 2009	Scale 1inch = approximately 200 Feet

TABLES

TABLE 1

CONCENTRATIONS OF TPH, BTEX AND CHLORIDES IN SOIL

PLAINS PIPELINE, L.P.
BEESON 8 INCH DISCHARGE
EDDY COUNTY, NEW MEXICO
SRS#TNM BEESON HISTORICAL

SAMPLE LOCATION	SAMPLE DEPTH (Below Grade Surface)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030						SW 848-8015M				300.1
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENE (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C_6-C_{12} (mg/Kg)	DRO C_{12}-C_{28} (mg/Kg)	ORO C_{28}-C_{35} (mg/Kg)	TOTAL TPH C_6 C_{35} (mg/Kg)	CHLORIDE (mg/Kg)
SA Sample 1-6 Inch	6 Inches	02/03/09	In-Situ	<0.0010	0.003	0.0058	0.0068	0.0016	0.0172	<75.3	2,750	559	3,309	<5.02
SA Sample 1-6 Feet	6 Feet	02/03/09	In-Situ	<0.0011	<0.0021	0.0036	0.005	0.0017	0.0103	<15.9	108	53	161	
SA Sample 2-6 Inch	6 Inches	02/03/09	In-Situ	<0.0010	0.0051	0.0033	0.004	0.0011	0.0135	<75.6	5,860	940	**6,800**	
SA Sample 2-6 Fee	6 Feet	02/03/09	In-Situ	<0.0011	<0.0022	0.0016	<0.0022	<0.0011	0.0016	<16.8	1,420	254	1,674	
SA Sample 3-6 Inch	6 Inches	02/03/09	In-Situ	<0.0010	0.0049	0.1641	0.0693	0.0025	0.2408	<75.3	4,020	1,560	**5,580**	
SA Sample 3-2 Feet	2 Feet	02/03/09	In-Situ	<0.0010	<0.0020	0.045	0.0213	0.0048	0.0711	<75.7	437	137	574	
SA Sample 4-6 Inch	6 Inches	02/03/09	In-Situ	<0.0010	0.0047	0.0138	0.0162	0.0029	0.0376	<150	5,190	1,080	**6,270**	
SA Sample 4-3 Feet	3 Feet	02/03/09	In-Situ	<0.0010	<0.0021	0.0089	0.0068	0.0018	0.0175	<78.6	805	183	988	
MA Sample 5-6 Inch	6 Inches	02/03/09	In-Situ	<0.0010	0.0045	0.0208	0.0204	0.0045	0.0502	<151	3,490	811	4,301	
MA Sample 5-3 Feet	3 Feet	02/03/09	In-Situ	<0.0011	<0.0021	0.1361	0.0638	0.0118	0.2117	21.7	829	206	1,057	
NA Sample 6-6 Inch	6 Inches	02/03/09	In-Situ	<0.0010	0.0037	0.0086	0.0062	<0.0010	0.0185	152	11,900	1,820	**13,872**	
NA Sample 6-3 Feet	3 Feet	02/03/09	In-Situ	<0.0010	<0.0020	0.0035	0.004	<0.0010	0.0075	<15.2	91.8	24.6	116	
NA Sample 7-6 Inch	6 Inches	02/03/09	In-Situ	<0.0010	0.0059	0.0246	0.0283	<0.0010	0.0588	<151	4,060	1,070	**5,130**	
NA Sample 7-3 Feet	3 Feet	02/03/09	In-Situ	<0.0010	<0.0020	0.0056	0.003	<0.0010	0.0086	<15.1	99.4	22.8	122	
NA Sample 8-6 Inch	6 Inches	02/03/09	In-Situ	0.0116	0.019	0.0481	0.041	0.0015	0.1212	160	8,050	1,940	**10,150**	
NA Sample 8-3 Feet	3 Feet	02/03/09	In-Situ	<0.0010	0.0233	0.0485	0.0377	0.0088	0.1183	17.4	288	83	388	
NA Sample 9-6 Feet	6 Feet	02/03/09	In-Situ	<0.5233	3.082	24.28	21.89	7.604	**56.856**	4,910	12,100	1,090	**18,100**	<5.23
NA Sample 9-12 Feet	12 Feet	02/03/09	In-Situ	<0.5318	3.058	29.53	23.69	8.801	**65.079**	3,240	8,070	1,050	**12,360**	
NA Sample 10-6 Inch	6 Inches	02/03/09	In-Situ	<0.0010	<0.0020	0.0947	0.0142	0.0283	0.1372	217	777	206	1,200	
NA Sample 10-3 Feet	3 Feet	02/03/09	In-Situ	0.0166	0.0318	0.0977	0.0956	0.0396	0.2813	592	8,870	1,660	**11,122**	
NA Sample 11-6 Feet	6 Feet	02/03/09	In-Situ	0.0053	0.0232	0.0995	0.3236	0.2365	0.6881	509	3,850	563	4,922	
NA Sample 11-12 Feet	12 Feet	02/03/09	In-Situ	<0.0531	<0.1062	4.32	7.574	1.487	13.381	1,470	5,460	722	**7,652**	
NA Sample 12-6 Feet	6 Feet	02/03/09	In-Situ	<0.5242	4.482	41.63	51.06	12.48	**109.652**	2,860	8,310	980	**12,150**	
NA Sample 12-15 Feet	15 Feet	02/03/09	In-Situ	<0.5217	3.85	33.43	48.38	13.83	**99.49**	2,420	6,800	825	**10,045**	
NA Sample 13-6 Inch	6 Inches	02/03/09	In-Situ	<0.0010	0.0023	0.2413	0.1296	0.0162	0.3894	30.2	204	134	368	
NA Sample 13-3 Feet	3 Feet	02/03/09	In-Situ	<0.0010	<0.0020	0.0012	<0.0020	<0.0010	0.0012	<15.3	<15.3	<15.3	<15.3	
SB-1 @ 10'	10 Feet	04/13/09	In-Situ	0.2233	2.43	4.21	9.362	2.106	18.3313	961	5,570	692	**7,223**	
SB-1 @ 20'	20 Feet	04/13/09	In-Situ	<0.5503	2.141	9.295	15.54	1.354	28.33	1,820	4,230	342	**6,392**	
SB-1 @ 30'	30 Feet	04/13/09	In-Situ	<0.0011	<0.0022	0.0193	0.0592	0.0243	0.1028	79.4	316	21.6	417	

TABLE 1

CONCENTRATIONS OF TPH, BTEX AND CHLORIDES IN SOIL

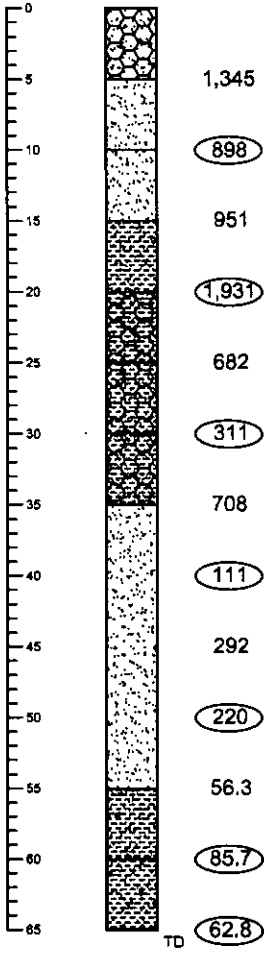
PLAINS PIPELINE, L.P.
BEESON 8 INCH DISCHARGE
EDDY COUNTY, NEW MEXICO
SRS#TNM BEESON HISTORICAL

SAMPLE LOCATION	SAMPLE DEPTH (Below Grade Surface)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030						SW 848-8015M				300.1
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENE (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C_6-C_{12} (mg/Kg)	DRO C_{12}-C_{28} (mg/Kg)	ORO C_{28}-C_{35} (mg/Kg)	TOTAL TPH C_6-C_{35} (mg/Kg)	CHLORIDE (mg/Kg)
SB-1 @ 40'	40 Feet	04/13/09	In-Situ	<0.0263	<0.0526	0.0447	0.128	0.0628	0.2355	59	551	43.9	653.9	
SB-1 @ 50'	50 Feet	04/13/09	In-Situ	<0.0011	<0.0021	0.0044	0.0079	0.0027	0.015	53.5	370	56.3	479.3	
SB-1 @ 60	60 Feet	04/13/09	In-Situ	<00010	<0.0021	0.003	0.0029	<0.001	0.0059	19	144	<15.5	163	
SB-1 @ 65'	65 Feet	04/13/09	In-Situ	<0.0011	<0.0022	0.0024	0.0028	<0.0011	0.0052	<16.3	89.4	<16.3	89.4	
SB-2 @ 10'	10 Feet	04/13/09	In-Situ	<0.1037	0.4533	14.91	20	1.89	37.2533	2,040	7,470	731	**10,241**	
SB-2 @ 20'	20 Feet	04/13/09	In-Situ	3.28	15.68	105.6	63.07	9.964	**197.594**	3,750	5,140	548	**9,438**	
SB-2 @ 30'	30 Feet	04/13/09	In-Situ	<0.011	0.1288	1.323	1.316	0.145	2.9128	1,270	3,680	286	**5,236**	
SB-2 @ 40'	40 Feet	04/13/09	In-Situ	0.0034	0.0036	0.0229	0.016	0.0023	0.0482	1,270	3,680	286	**5,236**	
SB-2 @ 50'	50 Feet	04/13/09	In-Situ	<0.0011	<0.0021	0.0448	0.0546	0.0048	0.1042	58.1	337	36.9	432	
SB-2 @ 55'	55 Feet	04/13/09	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.5	23.2	<17.5	23.2	
SB-3 @ 10'	10 Feet	04/14/09	In-Situ	<0.001	<0.0021	0.0015	<0.0021	<0.0010	0.0015	20.1	89.8	<15.4	109.9	
SB-3 @ 20'	20 Feet	04/14/09	In-Situ	<0.53	3.848	38.06	47.34	3.36	**92.608**	2,790	5,130	387	**8,307**	
SB-3 @ 30'	30 Feet	04/14/09	In-Situ	<0.0534	0.1907	2.604	4.156	0.3167	7.2674	732	2,770	200	3,702	
SB-3 @ 40'	40 Feet	04/14/09	In-Situ	<0.0011	<0.0022	0.0316	0.0642	0.0312	0.127	103	511	38.4	652.4	
SB-3 @ 55'	55 Feet	04/14/09	In-Situ	<0.0011	<0.0022	0.0026	0.0034	0.0016	0.0076	19.1	131	<16.3	150.1	
SB-3 @ 60'	60 Feet	04/14/09	In-Situ	<0.0054	<0.0109	<0.0054	<0.0109	<0.0054	<0.0109	24	311	34.3	369.3	
SB-4 @ 10'	10 Feet	04/14/09	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.3	<16.3	<16.3	<16.3	
SB-4 @ 20'	20 Feet	04/14/09	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.3	<16.3	<16.3	<16.3	
SB-4 @ 25'	25 Feet	04/14/09	In-Situ	<0.0013	<0.0026	<0.0013	<0.0026	<0.0013	<0.0026	<19.6	<19.6	<19.6	<19.6	
SB-5 @ 10'	10 Feet	04/14/09	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.3	<16.3	<16.3	<16.3	
SB-5 @ 20'	20 Feet	04/14/09	In-Situ	<0.0013	<0.0026	<0.0013	<0.0026	<0.0013	<0.0026	<19.7	<19.7	<19.7	<19.7	
SB-5 @ 25'	25 Feet	04/14/09	In-Situ	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<18.1	<18.1	<18.1	<18.1	
SB-5 @ 30'	30 Feet	04/14/09	In-Situ	<0.0013	<0.0026	<0.0013	<0.0026	<0.0013	<0.0026	<20	<20	<20	<20	
SB-6 @ 10'	10 Feet	04/14/09	In-Situ	<0.0013	<0.0026	<0.0013	<0.0026	<0.0013	<0.0026	<19.4	<19.4	<19.4	<19.4	
SB-6 @ 20'	20 Feet	04/14/09	In-Situ	<0.0014	<0.0028	0.0024	<0.0028	<0.0014	0.0024	<21.1	<21.1	<21.1	<21.1	
SB-6 @ 25'	25 Feet	04/14/09	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	<16.7	<16.7	<16.7	
SB-6 @ 30'	30 Feet	04/14/09	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.7	<17.7	<17.7	<17.7	
NMOCD REGULATORY STANDARD				10					50				5,000	

APPENDICES

APPENDIX A
SOIL BORING LOGS

Soil Boring SB-1



Depth (feet)	PID Reading	Petroleum Odor	Petroleum Stain
0 - 5	1,345	Heavy	Heavy
5 - 10	898	Moderate	Moderate
10 - 15	951	Moderate	Slight
15 - 20	1,931	Moderate	Slight
20 - 25	682	Slight	None
25 - 30	311	None	None
30 - 35	708	None	None
35 - 40	111	None	None
40 - 45	292	Slight	None
45 - 50	220	None	None
50 - 55	56.3	None	None
55 - 60	85.7	Slight	None
60 - 65	62.8	None	None

Soil Description

0 - 5' - Sand, brown, very fine grained with caliche nodules, wet.

5 - 10' - Sand, brown, very fine grained, moist.

10 - 15' - Sand, brown, very fine grained, moist.

15 - 20' - Clay, brown to tan, sandy, dry.

20 - 25' - Clay, tan, sandy with caliche nodules, dry.

25 - 30' - Clay, red to brown, sandy with caliche nodules, dry.

30 - 35' - Sand, red with some clay and caliche nodules, dry.

35 - 55' - Sand, tan, very fine grained, dry.

55 - 60' - Sand, dark reddish brown, very fine grained with some clay and caliche, dry

60 - 65' - Sand, dark reddish brown with some silty clay and gypsum stringers, dry

Soil Boring Details

Date Drilled: April 13, 2009
Thickness of Bentonite Seal: 65 Ft
Depth of Exploratory Boring: 65 Ft
Depth to Groundwater: N/A
Ground Water Elevation: N/A

▼ Indicates the PSH level measured on _____

▼ Indicates the groundwater level measured on _____

⬭ Indicates samples selected for Laboratory Analysis.

PID Head-space reading in ppm obtained with a photo-ionization detector.

Notes

1.) The soil boring was advanced on date using air rotary drilling techniques.

2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

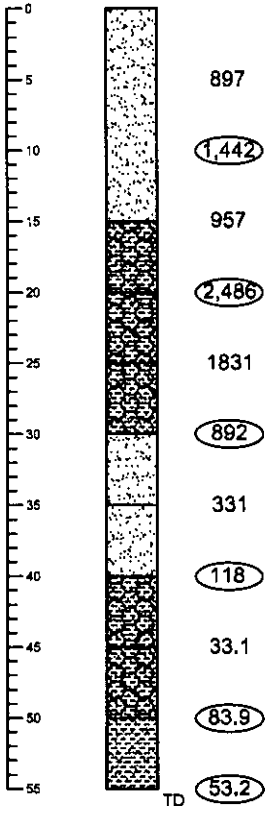
3.) The depths indicated are referenced from below ground surface (bgs).

Boring Log Details
Soil Boring SB-1
Beeson 8-Inch Discharge Eddy County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS	Checked By: CDS
April 13, 2009	

Soil Boring SB-2



Soil Description

0 - 15' - Sand, brown, very fine grained with caliche, wet.

15 - 20' - Sand, brown to tan with clay and caliche, damp.

20 - 25' - Clay, brown, sandy with caliche, damp

25 - 30' - Clay, red to brown, sandy with caliche nodules.

30 - 35' - Sand, tan, very fine grained, dry.

35 - 40' - Sand, tan to brown, dry.

40 - 45' - Clay, red to brown, sandy with caliche nodules, dry

45 - 50' - Sand, brown with some clay and caliche nodules, dry

55 - 60' - Sand, red to brown with silty clay and gypsum stringer @ 54 feet, dry.

Soil Boring Details

Date Drilled	April 13, 2009
Thickness of Bentonite Seal	55 Ft
Depth of Exploratory Boring	55 Ft
Depth to Groundwater	N/A
Ground Water Elevation	N/A

▼ Indicates the PSH level measured on _____

▼ Indicates the groundwater level measured on _____

⬭ Indicates samples selected for Laboratory Analysis.

PID Head-space reading in ppm obtained with a photo-ionization detector.

Notes

1.) The soil boring was advanced on date using air rotary drilling techniques.

2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

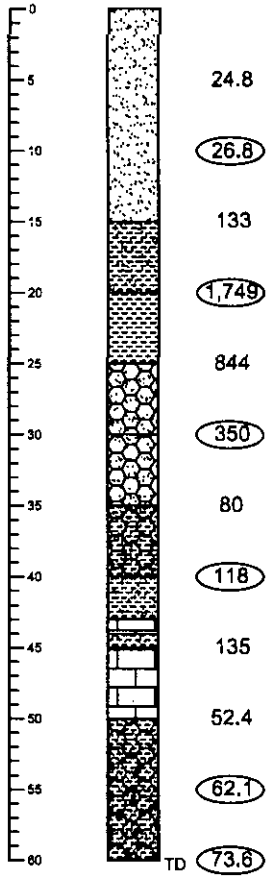
3.) The depths indicated are referenced from below ground surface (bgs).

Boring Log Details
Soil Boring SB-2
Beeson 8-Inch Discharge Eddy County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS	Checked By: CDS
April 13, 2009	

Soil Boring SB-3



Depth (feet)	Soil Columns	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
0 - 5		24.8	None	None	
5 - 10		26.8	None	None	0 - 15' - Sand, brown, very fine grained, damp.
10 - 15		133	Slight	Slight	
15 - 20		1,749	Moderate	Moderate	15 - 20' - Clay, brown, sandy, damp.
20 - 25		844	Moderate	Moderate	20 - 25' - Clay, brown to tan, very fine grained dry.
25 - 30		350	Moderate	Slight	25 - 30' - Clay, tan, sandy with caliche nodules, dry.
30 - 35		80	None	None	30 - 35' - Sand, brown with caliche nodules, dry.
35 - 40		118	None	None	35 - 40' - Clay, brown to red, sandy with caliche nodules, dry.
40 - 45		135	None	None	40 - 43' - Clay, red to brown, sandy, dry 43 - 44' - Sandstone 44 - 45' - Clay, red to brown, sandy, dry
45 - 50		52.4	None	None	45 - 50' - Sandstone, brown, dry
50 - 55		62.1	None	None	50 - 60' - Clay, dark reddish brown, sandy with caliche nodules, dry
55 - 60		73.6	None	None	

Soil Boring Details

Date Drilled: April 14, 2009
Thickness of Bentonite Seal: 60 Ft
Depth of Exploratory Boring: 60 Ft
Depth to Groundwater: N/A
Ground Water Elevation: N/A

▼ Indicates the PSH level measured on _____

▼ Indicates the groundwater level measured on _____

⬭ Indicates samples selected for Laboratory Analysis.

PID Head-space reading in ppm obtained with a photo-ionization detector.

Notes

1.) The soil boring was advanced on date using air rotary drilling techniques.

2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

3.) The depths indicated are referenced from below ground surface (bgs).

Boring Log Details
Soil Boring SB-3
Beeson 8-Inch Discharge Eddy County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS	Checked By: CDS
April 13, 2009	

Soil Boring SB-4

Depth (feet)	Soil Columns	PID Reading	Petroleum Odor	Petroleum Stain
0			None	None
5		47.5	None	None
10		(45.8)	None	None
15		47.1	None	None
20		(44.9)	None	None
25	TD	45.4		

Soil Description

0 - 15' - Sand, red to brown, very fine grained, dry.

15 - 20' - Sand, red to brown, very fine grained, dry.

20 - 25' - Clay, red to brown, sandy, dry.

Soil Boring Details

Date Drilled: April 14, 2009
Thickness of Bentonite Seal: 25 Ft
Depth of Exploratory Boring: 25 Ft
Depth to Groundwater: N/A
Ground Water Elevation: N/A

▼ Indicates the PSH level measured on _____

▼ Indicates the groundwater level measured on _____

⬭ Indicates samples selected for Laboratory Analysis.

PID Head-space reading in ppm obtained with a photo-ionization detector.

Notes

1.) The soil boring was advanced on date using air rotary drilling techniques.

2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

3.) The depths indicated are referenced from below ground surface (bgs).

Boring Log Details
Soil Boring SB-4
Beeson 8-Inch Discharge Eddy County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS	Checked By: CDS
April 13, 2009	

Soil Boring SB-5

Depth (feet)	Soil Columns	PID Reading	Petroleum Odor	Petroleum Stain
0				
5		45.6	None	None
10		(40.0)	None	None
15		38.0	None	None
20		(37.0)	None	None
25		(37.3)	None	None
30	TD	(37.1)	None	None

Soil Description

0 - 10' - Sand, red to brown, very fine grained, damp.

10 - 15" - Sand, red to brown, very fine grained, dry.

15 - 20' - Clay, tan, sandy, dry.

20 - 25' - Clay, tan to red, sandy with caliche, dry.

25 - 30' - Clay, brown to red, very fine grained, dry.

Soil Boring Details

Date Drilled: April 14, 2009
Thickness of Bentonite Seal: 30 Ft
Depth of Exploratory Boring: 30 Ft
Depth to Groundwater: N/A
Ground Water Elevation: N/A

▼ Indicates the PSH level measured on _____

▼ Indicates the groundwater level measured on _____

⬭ Indicates samples selected for Laboratory Analysis.

PID Head-space reading in ppm obtained with a photo-ionization detector.

Notes

1.) The soil boring was advanced on date using air rotary drilling techniques.

2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

3.) The depths indicated are referenced from below ground surface (bgs).

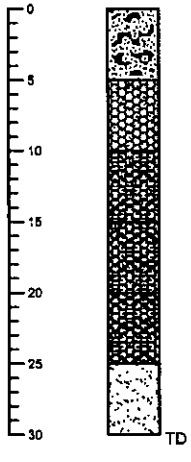
Boring Log Details
Soil Boring SB-5
Beeson 8-Inch Discharge Eddy County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS	Checked By: CDS
April 13, 2009	

Soil Boring SB-6

Depth (feet)	Soil Columns	PID Reading	Petroleum Odor	Petroleum Stain
0				
5		32.3	None	None
10		35.1	None	None
15		29.8	None	None
20		32.4	None	None
25		19.6	None	None
30	TD	34.9	None	None



Soil Description

0 - 5' - Sand, red to brown, very fine grained, damp.

5 - 10' - Sand, red to brown, very fine grained with caliche nodules, damp.

10 - 15" - Sand, red to brown, very fine grained with some clay and calich nodules.

15 - 20' - Clay, brown to tan, sandy with caliche nodules, damp.

20 - 25' - Clay, tan to brown, sandy with caliche nodules, damp.

25 - 30' - Sand, brown, very fine grained, dry.

Soil Boring Details

Date Drilled April 14, 2009
Thickness of Bentonite Seal 30 Ft
Depth of Exploratory Boring 30 Ft
Depth to Groundwater N/A
Ground Water Elevation N/A

▼ Indicates the PSH level measured on _____

▼ Indicates the groundwater level measured on _____

⬭ Indicates samples selected for Laboratory Analysis.

PID Head-space reading in ppm obtained with a photo-ionization detector.

Notes

1.) The soil boring was advanced on date using air rotary drilling techniques.

2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

3.) The depths indicated are referenced from below ground surface (bgs).

Boring Log Details
Soil Boring SB-6
Beeson 8-Inch Discharge Eddy County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS	Checked By: CDS
April 13, 2009	

APPENDIX B
ANALYTICAL REPORTS

Analytical Report 324546

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Beeson 8" Discharge

TNM-Beeson Historical

16-FEB-09

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

16-FEB-09

Project Manager: **Jason Henry**
PLAINS ALL AMERICAN EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No: **324546**
Beeson 8" Discharge
Project Address: Lea County, NM

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 324546. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 324546 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 324546

PLAINS ALL AMERICAN EH&S, Midland, TX

Beeson 8" Discharge

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SA Sample 1-6 Inch	S	Feb-03-09 09:00		324546-001
SA Sample 1-6 Feet	S	Feb-03-09 09:30		324546-002
SA Sample 2-6 Inch	S	Feb-03-09 09:45		324546-003
SA Sample 2-6 Feet	S	Feb-03-09 10:15		324546-004
SA Sample 3-6 Inch	S	Feb-03-09 10:30		324546-005
SA Sample 3-2 Feet	S	Feb-03-09 10:45		324546-006
SA Sample 4-6 Inch	S	Feb-03-09 11:00		324546-007
SA Sample 4-3 Feet	S	Feb-03-09 11:15		324546-008
MA Sample 5-6 Inch	S	Feb-03-09 11:30		324546-009
MA Sample 5-3 Feet	S	Feb-03-09 11:45		324546-010
NA Sample 6-6 Inch	S	Feb-03-09 12:00		324546-011
NA Sample 6-3 Feet	S	Feb-03-09 12:15		324546-012
NA Sample 7-6 Inch	S	Feb-03-09 12:30		324546-013
NA Sample 7-3 Feet	S	Feb-03-09 12:45		324546-014
NA Sample 8-6 Inch	S	Feb-03-09 13:00		324546-015
NA Sample 8-3 Feet	S	Feb-03-09 13:15		324546-016
NA Sample 9-6 Feet	S	Feb-03-09 14:00		324546-017
NA Sample 9-12 Feet	S	Feb-03-09 14:30		324546-018
NA Sample 10-6 Inch	S	Feb-03-09 15:00		324546-019
NA Sample 10-3 Feet	S	Feb-03-09 15:15		324546-020
NA Sample 11-6 Feet	S	Feb-03-09 16:15		324546-021
NA Sample 11-12 Feet	S	Feb-03-09 16:45		324546-022
NA Sample 12-6 Feet	S	Feb-03-09 17:45		324546-023
NA Sample 12-15 Feet	S	Feb-03-09 18:30		324546-024
NA Sample 13-6 Inch	S	Feb-03-09 18:45		324546-025
NA Sample 13-3 Feet	S	Feb-03-09 19:00		324546-026

Certificate of Analysis Summary 324546

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Beeson 8" Discharge

Project Id: TNM-Beeson Historical
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Tue Feb-10-09 08:56 am
Report Date: 16-FEB-09
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	324546-001		324546-002		324546-003		324546-004		324546-005		324546-006	
	Field Id:	SA Sample 1-6 Inch		SA Sample 1-6 Feet		SA Sample 2-6 Inch		SA Sample 2-6 Feet		SA Sample 3-6 Inch		SA Sample 3-2 Feet	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-03-09 09:00		Feb-03-09 09:30		Feb-03-09 09:45		Feb-03-09 10:15		Feb-03-09 10:30		Feb-03-09 10:45	
BTEX by EPA 8021B	*Extracted:*	Feb-10-09 16:30		Feb-10-09 16:30		Feb-10-09 16:30		Feb-10-09 16:30		Feb-10-09 16:30		Feb-10-09 16:30	
	Analyzed:	Feb-11-09 02:25		Feb-11-09 02:45		Feb-11-09 03:05		Feb-11-09 03:25		Feb-11-09 03:46		Feb-11-09 04:06	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0011	ND	0.0010	ND	0.0011	ND	0.0010	ND	0.0010
Toluene		0.0030	0.0020	ND	0.0021	0.0051	0.0020	ND	0.0022	0.0049	0.0020	ND	0.0020
Ethylbenzene		0.0058	0.0010	0.0036	0.0011	0.0033	0.0010	0.0016	0.0011	0.1641	0.0010	0.0450	0.0010
m,p-Xylenes		0.0068	0.0020	0.0050	0.0021	0.0040	0.0020	ND	0.0022	0.0693	0.0020	0.0213	0.0020
o-Xylene		0.0016	0.0010	0.0017	0.0011	0.0011	0.0010	ND	0.0011	0.0025	0.0010	0.0048	0.0010
Total Xylenes		0.0084	0.0020	0.0067	0.0021	0.0051	0.0020	ND	0.0022	0.0718	0.0020	0.0261	0.0020
Total BTEX		0.0172	0.0010	0.0103	0.0011	0.0135	0.0010	0.0016	0.0011	0.2408	0.0010	0.0711	0.0010
Percent Moisture	*Extracted:*												
	Analyzed:	Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		ND	1.00	5.52	1.00	ND	1.00	10.72	1.00	ND	1.00	ND	1.00
TPH By SW8015 Mod	*Extracted:*	Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:11	
	Analyzed:	Feb-11-09 22:41		Feb-11-09 23:06		Feb-11-09 23:30		Feb-11-09 23:55		Feb-12-09 00:20		Feb-12-09 00:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	75.3	ND	15.9	ND	75.6	ND	16.8	ND	75.3	ND	75.7
C12-C28 Diesel Range Hydrocarbons		2750	75.3	108	15.9	5860	75.6	1420	16.8	4020	75.3	437	75.7
C28-C35 Oil Range Hydrocarbons		559	75.3	53.0	15.9	940	75.6	254	16.8	1560	75.3	137	75.7
Total TPH		3309	75.3	161	15.9	6800	75.6	1674	16.8	5580	75.3	574	75.7

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 324546

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Beeson 8" Discharge

Project Id: TNM-Beeson Historical
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Tue Feb-10-09 08:56 am
Report Date: 16-FEB-09
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	324546-007		324546-008		324546-009		324546-010		324546-011		324546-012	
	Field Id:	SA Sample 4-6 Inch		SA Sample 4-3 Feet		MA Sample 5-6 Inch		MA Sample 5-3 Feet		NA Sample 6-6 Inch		NA Sample 6-3 Feet	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-03-09 11:00		Feb-03-09 11:15		Feb-03-09 11:30		Feb-03-09 11:45		Feb-03-09 12:00		Feb-03-09 12:15	
BTEX by EPA 8021B	*Extracted:*	Feb-10-09 16:30		Feb-10-09 16:30		Feb-10-09 16:30		Feb-11-09 09:00		Feb-12-09 16:45		Feb-12-09 16:45	
	Analyzed:	Feb-11-09 04:27		Feb-11-09 04:48		Feb-11-09 05:08		Feb-11-09 12:52		Feb-12-09 16:47		Feb-12-09 17:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0011	ND	0.0010	ND	0.0010
Toluene		0.0047	0.0020	ND	0.0021	0.0045	0.0020	ND	0.0021	0.0037	0.0020	ND	0.0020
Ethylbenzene		0.0138	0.0010	0.0089	0.0010	0.0208	0.0010	0.1361	0.0011	0.0086	0.0010	0.0035	0.0010
m,p-Xylenes		0.0162	0.0020	0.0068	0.0021	0.0204	0.0020	0.0638	0.0021	0.0062	0.0020	0.0040	0.0020
o-Xylene		0.0029	0.0010	0.0018	0.0010	0.0045	0.0010	0.0118	0.0011	ND	0.0010	ND	0.0010
Total Xylenes		0.0191	0.0020	0.0086	0.0021	0.0249	0.0020	0.0756	0.0021	0.0062	0.0020	0.004	0.0020
Total BTEX		0.0376	0.0010	0.0175	0.0010	0.0502	0.0010	0.2117	0.0011	0.0185	0.0010	0.0075	0.0010
Percent Moisture	*Extracted:*												
	Analyzed:	Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		ND	1.00	4.57	1.00	ND	1.00	6.57	1.00	ND	1.00	1.11	1.00
TPH By SW8015 Mod	*Extracted:*	Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:11	
	Analyzed:	Feb-12-09 01:09		Feb-12-09 01:34		Feb-12-09 01:59		Feb-12-09 02:23		Feb-12-09 03:13		Feb-12-09 03:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	150	ND	78.6	ND	151	21.7	16.1	152	151	ND	15.2
C12-C28 Diesel Range Hydrocarbons		5190	150	805	78.6	3490	151	829	16.1	11900	151	91.8	15.2
C28-C35 Oil Range Hydrocarbons		1080	150	183	78.6	811	151	206	16.1	1820	151	24.6	15.2
Total TPH		6270	150	988	78.6	4301	151	1056.7	16.1	13872	151	116.4	15.2

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 324546

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Beeson 8" Discharge

Project Id: TNM-Beeson Historical
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Tue Feb-10-09 08:56 am
Report Date: 16-FEB-09
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	324546-013		324546-014		324546-015		324546-016		324546-017		324546-018	
	Field Id:	NA Sample 7-6 Inch		NA Sample 7-3 Feet		NA Sample 8-6 Inch		NA Sample 8-3 Feet		NA Sample 9-6 Feet		NA Sample 9-12 Feet	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-03-09 12:30		Feb-03-09 12:45		Feb-03-09 13:00		Feb-03-09 13:15		Feb-03-09 14:00		Feb-03-09 14:30	
BTEX by EPA 8021B	*Extracted:*	Feb-12-09 16:45		Feb-12-09 16:45		Feb-12-09 16:45		Feb-12-09 16:45		Feb-14-09 09:00		Feb-14-09 09:00	
	Analyzed:	Feb-12-09 17:31		Feb-12-09 17:51		Feb-12-09 18:11		Feb-12-09 18:32		Feb-14-09 17:47		Feb-14-09 18:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0010	0.0116	0.0010	ND	0.0010	ND	0.5233	ND	0.5318
Toluene		0.0059	0.0020	ND	0.0020	0.0190	0.0020	0.0233	0.0020	3.082	1.047	3.058	1.064
Ethylbenzene		0.0246	0.0010	0.0056	0.0010	0.0481	0.0010	0.0485	0.0010	24.28	0.5233	29.53	0.5318
m,p-Xylenes		0.0283	0.0020	0.0030	0.0020	0.0410	0.0020	0.0377	0.0020	21.89	1.047	23.69	1.064
o-Xylene		ND	0.0010	ND	0.0010	0.0015	0.0010	0.0088	0.0010	7.604	0.5233	8.801	0.5318
Total Xylenes		0.0283	0.0020	0.003	0.0020	0.0425	0.0020	0.0465	0.0020	29.494	1.047	32.491	1.064
Total BTEX		0.0588	0.0010	0.0086	0.0010	0.1212	0.0010	0.1183	0.0010	56.856	0.5233	65.079	0.5318
Percent Moisture	*Extracted:*												
	Analyzed:	Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		ND	1.00	ND	1.00	ND	1.00	1.29	1.00	4.46	1.00	5.98	1.00
TPH By SW8015 Mod	*Extracted:*	Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:11	
	Analyzed:	Feb-12-09 04:03		Feb-12-09 04:27		Feb-12-09 04:52		Feb-12-09 05:16		Feb-12-09 05:41		Feb-12-09 06:06	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	151	ND	15.1	160	151	17.4	15.2	4910	157	3240	160
C12-C28 Diesel Range Hydrocarbons		4060	151	99.4	15.1	8050	151	288	15.2	12100	157	8070	160
C28-C35 Oil Range Hydrocarbons		1070	151	22.8	15.1	1940	151	83.0	15.2	1090	157	1050	160
Total TPH		5130	151	122.2	15.1	10150	151	388.4	15.2	18100	157	12360	160

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 324546

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Beeson 8" Discharge

Project Id: TNM-Beeson Historical
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Tue Feb-10-09 08:56 am
Report Date: 16-FEB-09
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	324546-019		324546-020		324546-021		324546-022		324546-023		324546-024	
	Field Id:	NA Sample 10-6 Inch		NA Sample 10-3 Feet		NA Sample 11-6 Feet		NA Sample 11-12 Feet		NA Sample 12-6 Feet		NA Sample 12-15 Feet	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-03-09 15:00		Feb-03-09 15:15		Feb-03-09 16:15		Feb-03-09 16:45		Feb-03-09 17:45		Feb-03-09 18:30	
BTEX by EPA 8021B	*Extracted:*	Feb-12-09 16:45		Feb-12-09 16:45		Feb-12-09 16:45		Feb-13-09 09:00		Feb-14-09 09:00		Feb-14-09 09:00	
	Analyzed:	Feb-12-09 19:34		Feb-12-09 19:55		Feb-12-09 20:57		Feb-13-09 16:28		Feb-14-09 18:28		Feb-14-09 18:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	0.0166	0.0010	0.0053	0.0011	ND	0.0531	ND	0.5242	ND	0.5217
Toluene		ND	0.0020	0.0318	0.0021	0.0232	0.0022	ND	0.1062	4.482	1.048	3.850	1.043
Ethylbenzene		0.0947	0.0010	0.0977	0.0010	0.0995	0.0011	4.320	0.0531	41.63	0.5242	33.43	0.5217
m,p-Xylenes		0.0142	0.0020	0.0956	0.0021	0.3236	0.0022	7.574	0.1062	51.06	1.048	48.38	1.043
o-Xylene		0.0283	0.0010	0.0396	0.0010	0.2365	0.0011	1.487	0.0531	12.48	0.5242	13.83	0.5217
Total Xylenes		0.0425	0.0020	0.1352	0.0021	0.5601	0.0022	9.061	0.1062	63.54	1.048	62.21	1.043
Total BTEX		0.1372	0.0010	0.2813	0.0010	0.6881	0.0011	13.381	0.0531	109.652	0.5242	99.49	0.5217
Percent Moisture	*Extracted:*												
	Analyzed:	Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00		Feb-10-09 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		2.36	1.00	4.59	1.00	7.88	1.00	5.80	1.00	4.61	1.00	4.16	1.00
TPH By SW8015 Mod	*Extracted:*	Feb-11-09 20:11		Feb-11-09 20:11		Feb-11-09 20:46		Feb-11-09 20:46		Feb-11-09 20:46		Feb-11-09 20:46	
	Analyzed:	Feb-12-09 06:31		Feb-12-09 06:55		Feb-11-09 23:04		Feb-11-09 23:27		Feb-11-09 23:50		Feb-12-09 00:13	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		217	154	592	157	509	163	1470	159	2860	157	2420	157
C12-C28 Diesel Range Hydrocarbons		777	154	8870	157	3850	163	5460	159	8310	157	6800	157
C28-C35 Oil Range Hydrocarbons		206	154	1660	157	563	163	722	159	980	157	825	157
Total TPH		1200	154	11122	157	4922	163	7652	159	12150	157	10045	157

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 324546

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Beeson 8" Discharge

Project Id: TNM-Beeson Historical
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Tue Feb-10-09 08:56 am
Report Date: 16-FEB-09
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	324546-025				324546-026							
	Field Id:	NA Sample 13-6 Inch				NA Sample 13-3 Feet							
	Depth:												
	Matrix:	SOIL				SOIL							
	Sampled:	Feb-03-09 18:45				Feb-03-09 19:00							
BTEX by EPA 8021B	*Extracted:*	Feb-12-09 16:45				Feb-12-09 16:45							
	Analyzed:	Feb-12-09 22:19				Feb-12-09 23:00							
	Units/RL:	mg/kg	RL			mg/kg	RL						
Benzene		ND	0.0010			ND	0.0010						
Toluene		0.0023	0.0020			ND	0.0020						
Ethylbenzene		0.2413	0.0010			0.0012	0.0010						
m,p-Xylenes		0.1296	0.0020			ND	0.0020						
o-Xylene		0.0162	0.0010			ND	0.0010						
Total Xylenes		0.1458	0.0020			ND	0.0020						
Total BTEX		0.3894	0.0010			0.0012	0.0010						
Percent Moisture	*Extracted:*												
	Analyzed:	Feb-10-09 17:00				Feb-10-09 17:00							
	Units/RL:	%	RL			%	RL						
Percent Moisture		1.82	1.00			1.75	1.00						
TPH By SW8015 Mod	*Extracted:*	Feb-11-09 20:46				Feb-11-09 20:46							
	Analyzed:	Feb-12-09 14:31				Feb-12-09 00:59							
	Units/RL:	mg/kg	RL			mg/kg	RL						
C6-C12 Gasoline Range Hydrocarbons		30.2	15.3			ND	15.3						
C12-C28 Diesel Range Hydrocarbons		204	15.3			ND	15.3						
C28-C35 Oil Range Hydrocarbons		134	15.3			ND	15.3						
Total TPH		368.2	15.3			ND	15.3						

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749179 **Sample:** 324302-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 749179 **Sample:** 324302-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 749179 **Sample:** 324546-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0241	0.0300	80	80-120	

Lab Batch #: 749179 **Sample:** 324546-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 749179 **Sample:** 324546-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0184	0.0300	61	80-120	**

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749179 **Sample:** 324546-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 749179 **Sample:** 324546-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0234	0.0300	78	80-120	**

Lab Batch #: 749179 **Sample:** 324546-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 749179 **Sample:** 324546-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0198	0.0300	66	80-120	**

Lab Batch #: 749179 **Sample:** 324546-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749179 **Sample:** 324546-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0212	0.0300	71	80-120	**

Lab Batch #: 749179 **Sample:** 524500-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0266	0.0300	89	80-120	

Lab Batch #: 749179 **Sample:** 524500-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 749179 **Sample:** 524500-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 749315 **Sample:** 324546-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0320	0.0300	107	80-120	
4-Bromofluorobenzene	0.0385	0.0300	128	80-120	**

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749315 **Sample:** 324679-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 749315 **Sample:** 324679-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 749315 **Sample:** 524599-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 749315 **Sample:** 524599-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 749315 **Sample:** 524599-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749440 **Sample:** 324546-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0204	0.0300	68	80-120	*

Lab Batch #: 749440 **Sample:** 324546-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 749440 **Sample:** 324546-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	80-120	
4-Bromofluorobenzene	0.0222	0.0300	74	80-120	*

Lab Batch #: 749440 **Sample:** 324546-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0314	0.0300	105	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 749440 **Sample:** 324546-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0327	0.0300	109	80-120	
4-Bromofluorobenzene	0.0209	0.0300	70	80-120	*

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749440 **Sample:** 324546-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0373	0.0300	124	80-120	*
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 749440 **Sample:** 324546-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 749440 **Sample:** 324546-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	80-120	
4-Bromofluorobenzene	0.0759	0.0300	253	80-120	*

Lab Batch #: 749440 **Sample:** 324546-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	80-120	
4-Bromofluorobenzene	0.2781	0.0300	927	80-120	*

Lab Batch #: 749440 **Sample:** 324546-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0345	0.0300	115	80-120	
4-Bromofluorobenzene	0.0558	0.0300	186	80-120	*

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749440 **Sample:** 324546-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 749440 **Sample:** 324634-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Lab Batch #: 749440 **Sample:** 324634-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0266	0.0300	89	80-120	

Lab Batch #: 749440 **Sample:** 524662-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

Lab Batch #: 749440 **Sample:** 524662-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749440 **Sample:** 524662-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

Lab Batch #: 749516 **Sample:** 324546-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0320	0.0300	107	80-120	
4-Bromofluorobenzene	0.0652	0.0300	217	80-120	**

Lab Batch #: 749516 **Sample:** 324881-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 749516 **Sample:** 324881-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 749516 **Sample:** 524714-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749516 **Sample:** 524714-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0317	0.0300	106	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 749516 **Sample:** 524714-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 749636 **Sample:** 324546-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0339	0.0300	113	80-120	
4-Bromofluorobenzene	0.0441	0.0300	147	80-120	**

Lab Batch #: 749636 **Sample:** 324546-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	0.0300	114	80-120	
4-Bromofluorobenzene	0.0477	0.0300	159	80-120	**

Lab Batch #: 749636 **Sample:** 324546-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0362	0.0300	121	80-120	**
4-Bromofluorobenzene	0.0448	0.0300	149	80-120	**

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749636 **Sample:** 324546-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0356	0.0300	119	80-120	
4-Bromofluorobenzene	0.0474	0.0300	158	80-120	**

Lab Batch #: 749636 **Sample:** 524791-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0253	0.0300	84	80-120	

Lab Batch #: 749636 **Sample:** 524791-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

Lab Batch #: 749636 **Sample:** 524791-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 749342 **Sample:** 324546-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	71.4	50.0	143	70-135	**

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749342 **Sample:** 324546-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	15.9	100	16	70-135	**
o-Terphenyl	64.5	50.0	129	70-135	

Lab Batch #: 749342 **Sample:** 324546-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	152	100	152	70-135	**
o-Terphenyl	62.6	50.0	125	70-135	

Lab Batch #: 749342 **Sample:** 324546-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	141	100	141	70-135	**
o-Terphenyl	61.2	50.0	122	70-135	

Lab Batch #: 749342 **Sample:** 324546-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.7	100	99	70-135	
o-Terphenyl	47.9	50.0	96	70-135	

Lab Batch #: 749342 **Sample:** 324546-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749342 **Sample:** 324679-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	56.1	50.0	112	70-135	

Lab Batch #: 749342 **Sample:** 324679-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	61.0	50.0	122	70-135	

Lab Batch #: 749342 **Sample:** 524616-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	59.4	50.0	119	70-135	

Lab Batch #: 749342 **Sample:** 524616-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	51.9	50.0	104	70-135	

Lab Batch #: 749342 **Sample:** 524616-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	58.8	50.0	118	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749351 **Sample:** 324546-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.7	100	90	70-135	
o-Terphenyl	46.8	50.0	94	70-135	

Lab Batch #: 749351 **Sample:** 324546-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.1	100	99	70-135	
o-Terphenyl	54.7	50.0	109	70-135	

Lab Batch #: 749351 **Sample:** 324546-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.8	100	80	70-135	
o-Terphenyl	39.0	50.0	78	70-135	

Lab Batch #: 749351 **Sample:** 324546-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.8	100	95	70-135	
o-Terphenyl	52.1	50.0	104	70-135	

Lab Batch #: 749351 **Sample:** 324546-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.2	100	86	70-135	
o-Terphenyl	43.6	50.0	87	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749351 **Sample:** 324546-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.4	100	94	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

Lab Batch #: 749351 **Sample:** 324546-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.2	100	78	70-135	
o-Terphenyl	41.4	50.0	83	70-135	

Lab Batch #: 749351 **Sample:** 324546-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.3	100	93	70-135	
o-Terphenyl	51.3	50.0	103	70-135	

Lab Batch #: 749351 **Sample:** 324546-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.1	100	81	70-135	
o-Terphenyl	42.6	50.0	85	70-135	

Lab Batch #: 749351 **Sample:** 324546-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.7	100	98	70-135	
o-Terphenyl	53.1	50.0	106	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749351 **Sample:** 324546-010 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	50.8	50.0	102	70-135	

Lab Batch #: 749351 **Sample:** 324546-010 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	49.5	50.0	99	70-135	

Lab Batch #: 749351 **Sample:** 324546-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.5	100	83	70-135	
o-Terphenyl	44.7	50.0	89	70-135	

Lab Batch #: 749351 **Sample:** 324546-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.9	100	98	70-135	
o-Terphenyl	52.9	50.0	106	70-135	

Lab Batch #: 749351 **Sample:** 324546-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.0	100	84	70-135	
o-Terphenyl	44.1	50.0	88	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749351 **Sample:** 324546-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.8	100	97	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

Lab Batch #: 749351 **Sample:** 324546-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.1	100	88	70-135	
o-Terphenyl	44.4	50.0	89	70-135	

Lab Batch #: 749351 **Sample:** 324546-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.2	100	98	70-135	
o-Terphenyl	51.8	50.0	104	70-135	

Lab Batch #: 749351 **Sample:** 324546-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	26.1	100	26	70-135	**
o-Terphenyl	57.8	50.0	116	70-135	

Lab Batch #: 749351 **Sample:** 324546-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	152	100	152	70-135	**
o-Terphenyl	56.1	50.0	112	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 324546,

Project ID: TNM-Beeson Historical

Lab Batch #: 749351 **Sample:** 324546-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.3	100	97	70-135	
o-Terphenyl	52.1	50.0	104	70-135	

Lab Batch #: 749351 **Sample:** 324546-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.1	100	96	70-135	
o-Terphenyl	52.5	50.0	105	70-135	

Lab Batch #: 749351 **Sample:** 524621-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	50.3	50.0	101	70-135	

Lab Batch #: 749351 **Sample:** 524621-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	56.2	50.0	112	70-135	

Lab Batch #: 749351 **Sample:** 524621-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	48.4	50.0	97	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: Beeson 8" Discharge

Work Order #: 324546 **Project ID:** TNM-Beeson Historical

Analyst: ASA **Date Prepared:** 02/10/2009 **Date Analyzed:** 02/10/2009

Lab Batch ID: 749179 **Sample:** 524500-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0989	99	0.1	0.1014	101	2	70-130	35	
Toluene	ND	0.1000	0.1035	104	0.1	0.1060	106	2	70-130	35	
Ethylbenzene	ND	0.1000	0.1024	102	0.1	0.1051	105	3	71-129	35	
m,p-Xylenes	ND	0.2000	0.2116	106	0.2	0.2174	109	3	70-135	35	
o-Xylene	ND	0.1000	0.1047	105	0.1	0.1078	108	3	71-133	35	

Analyst: ASA **Date Prepared:** 02/11/2009 **Date Analyzed:** 02/11/2009

Lab Batch ID: 749315 **Sample:** 524599-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.1010	101	0.1	0.1015	102	0	70-130	35	
Toluene	ND	0.1000	0.1011	101	0.1	0.1016	102	0	70-130	35	
Ethylbenzene	ND	0.1000	0.1001	100	0.1	0.1002	100	0	71-129	35	
m,p-Xylenes	ND	0.2000	0.2074	104	0.2	0.2073	104	0	70-135	35	
o-Xylene	ND	0.1000	0.1035	104	0.1	0.1032	103	0	71-133	35	

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

BS / BSD Recoveries

Project Name: Beeson 8" Discharge

Work Order #: 324546 **Project ID:** TNM-Beeson Historical

Analyst: ASA **Date Prepared:** 02/12/2009 **Date Analyzed:** 02/12/2009

Lab Batch ID: 749440 **Sample:** 524662-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.1010	101	0.1	0.1035	104	2	70-130	35	
Toluene	ND	0.1000	0.1026	103	0.1	0.1047	105	2	70-130	35	
Ethylbenzene	ND	0.1000	0.1017	102	0.1	0.1036	104	2	71-129	35	
m,p-Xylenes	ND	0.2000	0.2102	105	0.2	0.2152	108	2	70-135	35	
o-Xylene	ND	0.1000	0.1037	104	0.1	0.1059	106	2	71-133	35	

Analyst: ASA **Date Prepared:** 02/13/2009 **Date Analyzed:** 02/13/2009

Lab Batch ID: 749516 **Sample:** 524714-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.1030	103	0.1	0.1032	103	0	70-130	35	
Toluene	ND	0.1000	0.1047	105	0.1	0.1048	105	0	70-130	35	
Ethylbenzene	ND	0.1000	0.1061	106	0.1	0.1063	106	0	71-129	35	
m,p-Xylenes	ND	0.2000	0.2211	111	0.2	0.2223	111	1	70-135	35	
o-Xylene	ND	0.1000	0.1074	107	0.1	0.1091	109	2	71-133	35	

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

BS / BSD Recoveries

Project Name: Beeson 8" Discharge

Work Order #: 324546 **Project ID:** TNM-Beeson Historical

Analyst: ASA **Date Prepared:** 02/14/2009 **Date Analyzed:** 02/14/2009

Lab Batch ID: 749636 **Sample:** 524791-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0932	93	0.1	0.0990	99	6	70-130	35	
Toluene	ND	0.1000	0.0928	93	0.1	0.0997	100	7	70-130	35	
Ethylbenzene	ND	0.1000	0.0927	93	0.1	0.0997	100	7	71-129	35	
m,p-Xylenes	ND	0.2000	0.1918	96	0.2	0.2073	104	8	70-135	35	
o-Xylene	ND	0.1000	0.0951	95	0.1	0.1024	102	7	71-133	35	

Analyst: BHW **Date Prepared:** 02/11/2009 **Date Analyzed:** 02/11/2009

Lab Batch ID: 749342 **Sample:** 524616-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	948	95	1000	960	96	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	974	97	1000	980	98	1	70-135	35	

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

BS / BSD Recoveries

Project Name: Beeson 8" Discharge

Work Order #: 324546 **Project ID:** TNM-Beeson Historical

Analyst: BHW **Date Prepared:** 02/11/2009 **Date Analyzed:** 02/11/2009

Lab Batch ID: 749351 **Sample:** 524621-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1120	112	1000	1120	112	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	1060	106	1000	1050	105	1	70-135	35	

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

Form 3 - MS / MSD Recoveries

Project Name: Beeson 8" Discharge

Work Order # : 324546 **Project ID:** TNM-Beeson Historical

Lab Batch ID: 749179 **QC- Sample ID:** 324302-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 02/11/2009 **Date Prepared:** 02/10/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1118	0.0794	71	0.1118	0.0781	70	2	70-130	35	
Toluene	ND	0.1118	0.0816	73	0.1118	0.0802	72	2	70-130	35	
Ethylbenzene	ND	0.1118	0.0821	73	0.1118	0.0807	72	2	71-129	35	
m,p-Xylenes	ND	0.2236	0.1723	77	0.2236	0.1696	76	2	70-135	35	
o-Xylene	ND	0.1118	0.0805	72	0.1118	0.0792	71	2	71-133	35	

Lab Batch ID: 749315 **QC- Sample ID:** 324679-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 02/11/2009 **Date Prepared:** 02/11/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0843	84	0.1000	0.0884	88	5	70-130	35	
Toluene	ND	0.1000	0.0845	85	0.1000	0.0895	90	6	70-130	35	
Ethylbenzene	ND	0.1000	0.0808	81	0.1000	0.0871	87	8	71-129	35	
m,p-Xylenes	ND	0.2000	0.1685	84	0.2000	0.1790	90	6	70-135	35	
o-Xylene	ND	0.1000	0.0827	83	0.1000	0.0881	88	6	71-133	35	

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

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

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

Form 3 - MS / MSD Recoveries

Project Name: Beeson 8" Discharge

Work Order # : 324546 **Project ID:** TNM-Beeson Historical

Lab Batch ID: 749440 **QC- Sample ID:** 324634-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 02/13/2009 **Date Prepared:** 02/12/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1032	0.0780	76	0.1032	0.0748	72	4	70-130	35	
Toluene	ND	0.1032	0.0494	48	0.1032	0.0450	44	9	70-130	35	X
Ethylbenzene	ND	0.1032	0.0361	35	0.1032	0.0316	31	13	71-129	35	X
m,p-Xylenes	ND	0.2065	0.0670	32	0.2065	0.0580	28	14	70-135	35	X
o-Xylene	ND	0.1032	0.0367	36	0.1032	0.0329	32	11	71-133	35	X

Lab Batch ID: 749516 **QC- Sample ID:** 324881-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 02/13/2009 **Date Prepared:** 02/13/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1061	0.0779	73	0.1061	0.0801	75	3	70-130	35	
Toluene	ND	0.1061	0.0726	68	0.1061	0.0759	72	4	70-130	35	X
Ethylbenzene	ND	0.1061	0.0698	66	0.1061	0.0742	70	6	71-129	35	X
m,p-Xylenes	ND	0.2122	0.1418	67	0.2122	0.1519	72	7	70-135	35	X
o-Xylene	ND	0.1061	0.0699	66	0.1061	0.0746	70	7	71-133	35	X

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

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

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

Form 3 - MS / MSD Recoveries

Project Name: Beeson 8" Discharge

Work Order # : 324546 **Project ID:** TNM-Beeson Historical

Lab Batch ID: 749342 **QC- Sample ID:** 324679-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 02/12/2009 **Date Prepared:** 02/11/2009 **Analyst:** BHW

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1040	976	94	1040	959	92	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1040	1000	96	1040	1000	96	0	70-135	35	

Lab Batch ID: 749351 **QC- Sample ID:** 324546-010 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 02/12/2009 **Date Prepared:** 02/11/2009 **Analyst:** BHW

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	21.7	1070	1210	111	1070	1180	108	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	829	1070	1890	99	1070	1910	101	1	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

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

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

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

Sample Duplicate Recovery

Project Name: Beeson 8" Discharge

Work Order #: 324546

Lab Batch #: 749157 **Project ID:** TNM-Beeson Historical

Date Analyzed: 02/10/2009 **Date Prepared:** 02/10/2009 **Analyst:** BEV

QC- Sample ID: 324546-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

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

Lab Batch #: 749161

Date Analyzed: 02/10/2009 **Date Prepared:** 02/10/2009 **Analyst:** BEV

QC- Sample ID: 324546-021 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	7.88	8.14	3	20	

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

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Manager: Camille Bryant PAGE 01 OF 03 Project Name: Beeson 6" Discharge

Company Name: Basin Environmental Service Technologies, LLC Project #: TNM - Beeson Historical

Company Address: 2800 Plains Hwy Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260 PO #: PAA - J. Henry

Telephone No: (575) 605-7210 Fax No: (505) 396-1429 Report Format: [X] Standard [ ] TRRP [ ] NPDES

Sampler Signature: C. Bryant e-mail: cibryant@basin-consulting.com

(lab use only)
ORDER #: 324546

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl (VOA X 2)	H2SO4	NaOH	Na2S2O3	None (PAH)	Other (Specify)	Matrix: Soil	TPH 418.1 / 8015M / 8015B	TPH TX 1005	Chloride (Cl, SO4 Alkalinity)	Anions (Cl, SO4 Alkalinity)	BAR / TEB / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N O R M	PAH	EPA Plant Filter Test	Chlorides E 300	RUSH TAT (Pre-Scheduled) 24, 48, 72 hrs	Standard TAT
01	SA Sample 1 - 6 inch			2/3/2009	900		1	X								Soil	X								X							X
02	SA Sample 1 - 6 feet			2/3/2009	930		1	X								Soil	X															X
03	SA Sample 2 - 6 inch			2/3/2009	945		1	X								Soil	X															X
04	SA Sample 2 - 6 feet			2/3/2009	1015		1	X								Soil	X															X
05	SA Sample 3 - 6 inch			2/3/2009	1030		1	X								Soil	X															X
06	SA Sample 3 - 2 feet			2/3/2009	1045		1	X								Soil	X															X
07	SA Sample 4 - 6 inch			2/3/2009	1100		1	X								Soil	X															X
08	SA Sample 4 - 3 feet			2/3/2009	1115		1	X								Soil	X															X
09	MA Sample 5 - 6 inch			2/3/2009	1130		1	X								Soil	X															X
10	MA Sample 5 - 3 feet			2/3/2009	1145		1	X								Soil	X															X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
	2/4/09	0830			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT: Jeanne Fitch	Date 02-04-09	Time 0830

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) / Number: Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered by Sampler/Client Rep / by Courier? UPS DHL FedEx Lone Star Y N
Temperature Upon Receipt 2.5 °C

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant PAGE 02 OF 03

Project Name: Beeson 8" Discharge

Company Name: Basin Environmental Service Technologies, LLC

Project #: TNM - Beeson Historical

Company Address: 2800 Plains Hwy

Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260

PO #: PAA - J. Henry

Telephone No: (575) 505-7210

Fax No: (505) 396-1429

Report Format: [X] Standard [ ] TRRP [ ] NPDES

Sampler Signature: C. J. Bryant

e-mail: cjbryant@basin-consulting.com

(lab use only)
ORDER #: 324546

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Ice	HNO_3	HCl (VOA x 2)	H_2SO_4	NaOH	$Na_2S_2O_3$	None (PAH)	Other (Specify)	Matrix	TPH: 418.1 / 8015M / 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	PAH	EPA Paint Filter Test	Chlorides E 300	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
11	NA Sample 6 - 6 inch			2/3/2009	1200		1	X								Soil	X								X							X
12	NA Sample 6 - 3 feet			2/3/2009	1215		1	X								Soil	X															X
13	NA Sample 7 - 6 inch			2/3/2009	1230		1	X								Soil	X															X
14	NA Sample 7 - 3 feet			2/3/2009	1245		1	X								Soil	X															X
15	NA Sample 8 - 6 inch			2/3/2009	1300		1	X								Soil	X															X
16	NA Sample 8 - 3 feet			2/3/2009	1315		1	X								Soil	X															X
17	NA Sample 9 - 6 feet			2/3/2009	1400		1	X								Soil	X															X
18	NA Sample 9 - 12 feet			2/3/2009	1430		1	X								Soil	X															X
19	NA Sample 10 - 6 inch			2/3/2009	1500		1	X								Soil	X															X
20	NA Sample 10 - 3 feet			2/3/2009	1515		1	X								Soil	X															X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
C. J. Bryant	2/10/09	0856			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by	Date	Time	Received by ELOT: Jeanne Fitch	2-10-09	0856

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

Temperature Upon Receipt: 2.5 °C

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Manager: Camille Bryant PAGE 03 OF 03 Project Name: Beeson 8" Discharge

Company Name: Basin Environmental Service Technologies, LLC Project #: TNM - Beeson Historical

Company Address: 2800 Plains Hwy Project Loc: Lea County, NM

City/State/Zip: Levington, NM 88260 PO #: PAA - J. Henry

Telephone No: (575) 605-7210 Fax No: (505) 396-1429 Report Format: [X] Standard [ ] TRRP [ ] NPDES

Sampler Signature: C. Bryant e-mail: cjbryant@basin-consulting.com

(lab use only) ORDER #: 324546

Analyze For:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl (VOA x 2)	H2SO4	NaOH	Na2S2O3	None (PAH)	Other (Specify)	Matrix: Soil	TPH 418.1 / 8015M	TPH TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	NORM	PAH	EPA Pest Pest Test	Chlorides E 300	RUSH TAT (pre-schedule) 24, 48, 72 hrs	Standard TAT
21	NA Sample 11 - 6 feet			2/3/2009	1615		1	X								Soil	X									X							X
22	NA Sample 11 - 12 feet			2/3/2009	1645		1	X								Soil	X																X
23	NA Sample 12 - 6 feet			2/3/2009	1745		1	X								Soil	X																X
24	NA Sample 12 - 15 feet			2/3/2009	1830		1	X								Soil	X																X
25	NA Sample 13 - 6 inch			2/3/2009	1845		1	X								Soil	X																X
26	NA Sample 13 - 3 feet			2/3/2009	1900		1	X								Soil	X																X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
	2/4/09	0830			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT:	Date	Time
				2/10/09	0856

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

Temperature Upon Receipt: 2.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains/Basin

Date/Time: 06-10-09 @ 0850

Lab ID #: 324546

Initials: JMF

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	2.5 °C	
#2	Shipping container in good condition?	Yes	No	(N/A)	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present (N/A)	
#4	Custody Seals intact on sample bottles/ container? / label	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: ______ Contacted by: ______ Date/ Time: ______

Regarding: ______

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 325012

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Beeson 8" Discharge

TNM-Beeson Historical

17-FEB-09

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

17-FEB-09

Project Manager: **Jason Henry**
PLAINS ALL AMERICAN EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No: **325012**
Beeson 8" Discharge
Project Address: Lea County, NM

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 325012. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 325012 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 325012

PLAINS ALL AMERICAN EH&S, Midland, TX

Beeson 8" Discharge

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SA Sample 1-6 Inch	S	Feb-03-09 09:00		325012-001
NA Sample 9-6 Feet	S	Feb-03-09 14:00		325012-002

Certificate of Analysis Summary 325012

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Beeson 8" Discharge

Project Id: TNM-Beeson Historical
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Tue Feb-10-09 08:56 am
Report Date: 17-FEB-09
Project Manager: Brent Barron, II

Analysis Requested								
	Lab Id:	325012-001		325012-002				
	Field Id:	SA Sample 1-6 Inch		NA Sample 9-6 Feet				
	Depth:							
	Matrix:	SOIL		SOIL				
	Sampled:	Feb-03-09 09:00		Feb-03-09 14:00				
Anions by EPA 300	*Extracted:*							
	Analyzed:	Feb-16-09 11:03		Feb-16-09 11:03				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Chloride		ND	5.02	ND	5.23			
Percent Moisture	*Extracted:*							
	Analyzed:	Feb-10-09 17:00		Feb-10-09 17:00				
	Units/RL:	%	RL	%	RL			
Percent Moisture		ND	1.00	4.46	1.00			

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Outside XENCO's scope of NELAC Accreditation.

Blank Spike Recovery

Project Name: Beeson 8" Discharge

Work Order #: 325012 **Project ID:** TNM-Beeson Historical

Lab Batch #: 749735 **Sample:** 749735-1-BKS **Matrix:** Solid

Date Analyzed: 02/16/2009 **Date Prepared:** 02/16/2009 **Analyst:** LATCOR

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

Anions by EPA 300 Analytes	BLANK /BLANK SPIKE RECOVERY STUDY					
	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	11.4	114	90-110	H

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

Form 3 - MS Recoveries

Project Name: Beeson 8" Discharge

Work Order #: 325012
Lab Batch #: 749735
Date Analyzed: 02/16/2009
QC- Sample ID: 325035-001 S
Reporting Units: mg/kg

Date Prepared: 02/16/2009
Batch #: 1

Project ID: TNM-Beeson Historical
Analyst: LATCOR
Matrix: Soil

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	5150	2350	7710	109	80-120	

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

Sample Duplicate Recovery

Project Name: Beeson 8" Discharge

Work Order #: 325012

Lab Batch #: 749735 **Project ID:** TNM-Beeson Historical
Date Analyzed: 02/16/2009 **Date Prepared:** 02/16/2009 **Analyst:** LATCOR
QC- Sample ID: 325035-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Anions by EPA 300 Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	5150	5050	2	20	

Lab Batch #: 749157
Date Analyzed: 02/10/2009 **Date Prepared:** 02/10/2009 **Analyst:** BEV
QC- Sample ID: 324546-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

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

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

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Manager: Camille Bryant
Project Name: Beeson B" Discharge
Company Name: Basin Environmental Service Technologies, LLC
Project #: TNM - Beeson Historical
Company Address: P.O. Box 301
Project Loc: Lea County, NM
City/State/Zip: Lovington, NM 88260
PO #: PAA - J. Henry
Telephone No: (575) 605-7210
Fax No: (505) 396-1429
Report Format: [X] Standard [ ] TRRP [ ] NPDES
Sampler Signature: C. Bryant for C.S. Bryant
e-mail: cibryant@basin-consulting.com

(lab use only)
ORDER #: 325017

Lab # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW - Drinking Water SL - Sludge; GW - Groundwater S - Soil/Solid; WW - Wastewater Specify Other	Analyze For: TCLP: TPH 418.1	BTEX 8021B 8015B	TPH TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N O R M	Chloride E 300		RUSH TAT (Pre Schedule) 24, 48, 72 hrs	Standard TAT 4 DAY
01	SA Sample 1 - 6 inch			2/3/2009	900		1	X																					X			X
02	NA Sample 8 - 6 feet			2/3/2009	1400		1	X																					X			X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
C. Bryant	2/16/09	0856			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by	Date	Time	Received by ELOT: Jessica Fitch	02-16-09	0856

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered by Sampler/Client Rep.? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 2.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains / Basin

Date/ Time: [illegible]

Lab ID # : [illegible]

Initials: [illegible]

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	2.5 °C	
#2	Shipping container in good condition?	Yes	No	N/A	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: ______ Contacted by: ______ Date/ Time: ______

Regarding: ______

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 330355

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Beeson 8" Discharge

Beeson Historical

22-APR-09

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Miramar, FL E86349
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

22-APR-09

Project Manager: **Jason Henry**
PLAINS ALL AMERICAN EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No: **330355**
Beeson 8" Discharge
Project Address: Lea County, NM

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 330355. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 330355 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

XENCO Laboratories

Sample Cross Reference 330355

PLAINS ALL AMERICAN EH&S, Midland, TX

Beeson 8" Discharge

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1 @ 10'	S	Apr-13-09 09:00		330355-001
SB-1 @ 20'	S	Apr-13-09 09:20		330355-002
SB-1 @ 30'	S	Apr-13-09 09:40		330355-003
SB-1 @ 40'	S	Apr-13-09 10:10		330355-004
SB-1 @ 50'	S	Apr-13-09 10:45		330355-005
SB-1 @ 60'	S	Apr-13-09 11:15		330355-006
SB-1 @ 65'	S	Apr-13-09 11:45		330355-007
SB-2 @ 10'	S	Apr-13-09 13:00		330355-008
SB-2 @ 20'	S	Apr-13-09 13:20		330355-009
SB-2 @ 30'	S	Apr-13-09 13:40		330355-010
SB-2 @ 40'	S	Apr-13-09 14:10		330355-011
SB-2 @ 50'	S	Apr-13-09 14:40		330355-012
SB-2 @ 55'	S	Apr-13-09 15:10		330355-013
SB-3 @ 10'	S	Apr-14-09 08:40		330355-014
SB-3 @ 20'	S	Apr-14-09 09:00		330355-015
SB-3 @ 30'	S	Apr-14-09 09:25		330355-016
SB-3 @ 40'	S	Apr-14-09 09:50		330355-017
SB-3 @ 55'	S	Apr-14-09 10:15		330355-018
SB-3 @ 60'	S	Apr-14-09 10:50		330355-019
SB-4 @ 10'	S	Apr-14-09 11:20		330355-020
SB-4 @ 20'	S	Apr-14-09 11:40		330355-021
SB-4 @ 25'	S	Apr-14-09 12:10		330355-022
SB-5 @ 10'	S	Apr-14-09 13:30		330355-023
SB-5 @ 20'	S	Apr-14-09 13:50		330355-024
SB-5 @ 25'	S	Apr-14-09 14:15		330355-025
SB-5 @ 30'	S	Apr-14-09 14:45		330355-026
SB-6 @ 10'	S	Apr-14-09 15:30		330355-027
SB-6 @ 20'	S	Apr-14-09 15:50		330355-028
SB-6 @ 25'	S	Apr-14-09 16:15		330355-029
SB-6 @ 30'	S	Apr-14-09 16:40		330355-030

Certificate of Analysis Summary 330355

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Beeson 8" Discharge

Project Id: Beeson Historical
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Fri Apr-17-09 08:07 am
Report Date: 22-APR-09
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	330355-001		330355-002		330355-003		330355-004		330355-005		330355-006	
	Field Id:	SB-1 @ 10'		SB-1 @ 20'		SB-1 @ 30'		SB-1 @ 40'		SB-1 @ 50'		SB-1 @ 60'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-13-09 09:00		Apr-13-09 09:20		Apr-13-09 09:40		Apr-13-09 10:10		Apr-13-09 10:45		Apr-13-09 11:15	
BTEX by EPA 8021B	*Extracted:*	Apr-17-09 11:00		Apr-20-09 14:00		Apr-17-09 11:00		Apr-17-09 11:00		Apr-17-09 11:00		Apr-17-09 11:00	
	Analyzed:	Apr-18-09 22:15		Apr-21-09 00:51		Apr-18-09 17:50		Apr-18-09 20:13		Apr-18-09 18:10		Apr-18-09 18:31	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		0.2233	0.1079	ND	0.5503	ND	0.0011	ND	0.0263	ND	0.0011	ND	0.0010
Toluene		2.430	0.2158	2.141	1.101	ND	0.0022	ND	0.0526	ND	0.0021	ND	0.0021
Ethylbenzene		4.210	0.1079	9.295	0.5503	0.0193	0.0011	0.0447	0.0263	0.0044	0.0011	0.0030	0.0010
m,p-Xylenes		9.362	0.2158	15.54	1.101	0.0592	0.0022	0.1280	0.0526	0.0079	0.0021	0.0029	0.0021
o-Xylene		2.106	0.1079	1.354	0.5503	0.0243	0.0011	0.0628	0.0263	0.0027	0.0011	ND	0.0010
Total Xylenes		11.468	0.1079	16.894	0.5503	0.0835	0.0011	0.1908	0.0263	0.0106	0.0011	0.0029	0.0010
Total BTEX		18.3313	0.1079	28.33	0.5503	0.1028	0.0011	0.2355	0.0263	0.015	0.0011	0.0059	0.0010
Percent Moisture	*Extracted:*												
	Analyzed:	Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		7.31	1.00	9.33	1.00	8.61	1.00	4.88	1.00	6.00	1.00	3.26	1.00
TPH By SW8015 Mod	*Extracted:*	Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00	
	Analyzed:	Apr-18-09 15:12		Apr-18-09 15:37		Apr-18-09 16:02		Apr-18-09 16:26		Apr-18-09 16:52		Apr-18-09 17:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		961	162	1820	165	79.4	16.4	59.0	15.8	53.5	16.0	19.0	15.5
C12-C28 Diesel Range Hydrocarbons		5570	162	4230	165	316	16.4	551	15.8	370	16.0	144	15.5
C28-C35 Oil Range Hydrocarbons		692	162	342	165	21.6	16.4	43.9	15.8	56.3	16.0	ND	15.5
Total TPH		7223	162	6392	165	417	16.4	653.9	15.8	479.8	16.0	163	15.5

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 330355

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Beeson 8" Discharge

Project Id: Beeson Historical
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Fri Apr-17-09 08:07 am
Report Date: 22-APR-09
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	330355-007		330355-008		330355-009		330355-010		330355-011		330355-012	
	Field Id:	SB-1 @ 65'		SB-2 @ 10'		SB-2 @ 20'		SB-2 @ 30'		SB-2 @ 40'		SB-2 @ 50'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-13-09 11:45		Apr-13-09 13:00		Apr-13-09 13:20		Apr-13-09 13:40		Apr-13-09 14:10		Apr-13-09 14:40	
BTEX by EPA 8021B	*Extracted:*	Apr-17-09 11:00		Apr-17-09 11:00		Apr-17-09 11:00		Apr-17-09 11:00		Apr-17-09 11:00		Apr-17-09 11:00	
	Analyzed:	Apr-18-09 16:07		Apr-18-09 20:33		Apr-18-09 20:54		Apr-18-09 21:14		Apr-18-09 16:28		Apr-18-09 16:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0011	ND	0.1037	3.280	0.5655	ND	0.0110	0.0034	0.0014	ND	0.0011
Toluene		ND	0.0022	0.4533	0.2074	15.68	1.131	0.1288	0.0220	0.0036	0.0027	ND	0.0021
Ethylbenzene		0.0024	0.0011	14.91	0.1037	105.6	0.5655	1.323	0.0110	0.0229	0.0014	0.0448	0.0011
m,p-Xylenes		0.0028	0.0022	20.00	0.2074	63.07	1.131	1.316	0.0220	0.0160	0.0027	0.0546	0.0021
o-Xylene		ND	0.0011	1.890	0.1037	9.964	0.5655	0.1450	0.0110	0.0023	0.0014	0.0048	0.0011
Total Xylenes		0.0028	0.0011	21.89	0.1037	73.034	0.5655	1.461	0.0110	0.0183	0.0014	0.0594	0.0011
Total BTEX		0.0052	0.0011	37.2533	0.1037	197.594	0.5655	2.9128	0.0110	0.0482	0.0014	0.1042	0.0011
Percent Moisture	*Extracted:*												
	Analyzed:	Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		8.11	1.00	3.59	1.00	11.58	1.00	9.10	1.00	25.96	1.00	6.26	1.00
TPH By SW8015 Mod	*Extracted:*	Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00	
	Analyzed:	Apr-18-09 17:42		Apr-18-09 18:07		Apr-18-09 18:32		Apr-18-09 18:57		Apr-18-09 19:46		Apr-18-09 20:11	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.3	2040	156	3750	170	1270	165	27.4	20.3	58.1	16.0
C12-C28 Diesel Range Hydrocarbons		89.4	16.3	7470	156	5140	170	3680	165	89.8	20.3	337	16.0
C28-C35 Oil Range Hydrocarbons		ND	16.3	731	156	548	170	286	165	ND	20.3	36.9	16.0
Total TPH		89.4	16.3	10241	156	9438	170	5236	165	117.2	20.3	432	16.0

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 330355

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Beeson 8" Discharge

Project Id: Beeson Historical
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Fri Apr-17-09 08:07 am
Report Date: 22-APR-09
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	330355-013		330355-014		330355-015		330355-016		330355-017		330355-018	
	Field Id:	SB-2 @ 55'		SB-3 @ 10'		SB-3 @ 20'		SB-3 @ 30'		SB-3 @ 40'		SB-3 @ 55'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-13-09 15:10		Apr-14-09 08:40		Apr-14-09 09:00		Apr-14-09 09:25		Apr-14-09 09:50		Apr-14-09 10:15	
BTEX by EPA 8021B	*Extracted:*	Apr-17-09 11:00		Apr-17-09 11:00		Apr-17-09 11:00		Apr-17-09 11:00		Apr-17-09 11:00		Apr-17-09 11:00	
	Analyzed:	Apr-18-09 17:09		Apr-18-09 17:29		Apr-18-09 21:35		Apr-18-09 21:55		Apr-18-09 19:32		Apr-18-09 19:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0012	ND	0.0010	ND	0.5300	ND	0.0534	ND	0.0011	ND	0.0011
Toluene		ND	0.0023	ND	0.0021	3.848	1.060	0.1907	0.1068	ND	0.0022	ND	0.0022
Ethylbenzene		ND	0.0012	0.0015	0.0010	38.06	0.5300	2.604	0.0534	0.0316	0.0011	0.0026	0.0011
m,p-Xylenes		ND	0.0023	ND	0.0021	47.34	1.060	4.156	0.1068	0.0642	0.0022	0.0034	0.0022
o-Xylene		ND	0.0012	ND	0.0010	3.360	0.5300	0.3167	0.0534	0.0312	0.0011	0.0016	0.0011
Total Xylenes		ND	0.0012	ND	0.0010	50.7	0.5300	4.4727	0.0534	0.0954	0.0011	0.005	0.0011
Total BTEX		ND	0.0012	0.0015	0.0010	92.608	0.5300	7.2674	0.0534	0.127	0.0011	0.0076	0.0011
Percent Moisture	*Extracted:*												
	Analyzed:	Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		14.49	1.00	2.90	1.00	5.66	1.00	6.39	1.00	7.66	1.00	8.12	1.00
TPH By SW8015 Mod	*Extracted:*	Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00	
	Analyzed:	Apr-18-09 20:35		Apr-18-09 21:00		Apr-18-09 21:26		Apr-18-09 21:51		Apr-18-09 22:16		Apr-18-09 22:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	17.5	20.1	15.4	2790	159	732	16.0	103	16.2	19.1	16.3
C12-C28 Diesel Range Hydrocarbons		23.2	17.5	89.8	15.4	5130	159	2770	16.0	511	16.2	131	16.3
C28-C35 Oil Range Hydrocarbons		ND	17.5	ND	15.4	387	159	200	16.0	38.4	16.2	ND	16.3
Total TPH		23.2	17.5	109.9	15.4	8307	159	3702	16.0	652.4	16.2	150.1	16.3

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 330355

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Beeson 8" Discharge

Project Id: Beeson Historical
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Fri Apr-17-09 08:07 am
Report Date: 22-APR-09
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	330355-019		330355-020		330355-021		330355-022		330355-023		330355-024	
	Field Id:	SB-3 @ 60'		SB-4 @ 10'		SB-4 @ 20'		SB-4 @ 25'		SB-5 @ 10'		SB-5 @ 20'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-14-09 10:50		Apr-14-09 11:20		Apr-14-09 11:40		Apr-14-09 12:10		Apr-14-09 13:30		Apr-14-09 13:50	
BTEX by EPA 8021B	*Extracted:*	Apr-21-09 10:00		Apr-20-09 14:00		Apr-20-09 14:00		Apr-20-09 14:00		Apr-20-09 14:00		Apr-20-09 14:00	
	Analyzed:	Apr-22-09 09:15		Apr-20-09 22:07		Apr-20-09 22:27		Apr-20-09 22:48		Apr-20-09 23:09		Apr-20-09 23:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0054	ND	0.0011	ND	0.0011	ND	0.0013	ND	0.0011	ND	0.0013
Toluene		ND	0.0109	ND	0.0022	ND	0.0022	ND	0.0026	ND	0.0022	ND	0.0026
Ethylbenzene		ND	0.0054	ND	0.0011	ND	0.0011	ND	0.0013	ND	0.0011	ND	0.0013
m,p-Xylenes		ND	0.0109	ND	0.0022	ND	0.0022	ND	0.0026	ND	0.0022	ND	0.0026
o-Xylene		ND	0.0054	ND	0.0011	ND	0.0011	ND	0.0013	ND	0.0011	ND	0.0013
Total Xylenes		ND	0.0054	ND	0.0011	ND	0.0011	ND	0.0013	ND	0.0011	ND	0.0013
Total BTEX		ND	0.0054	ND	0.0011	ND	0.0011	ND	0.0013	ND	0.0011	ND	0.0013
Percent Moisture	*Extracted:*												
	Analyzed:	Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		7.89	1.00	8.14	1.00	7.90	1.00	23.58	1.00	8.25	1.00	23.82	1.00
TPH By SW8015 Mod	*Extracted:*	Apr-17-09 17:00		Apr-17-09 17:00		Apr-19-09 14:00		Apr-19-09 14:00		Apr-19-09 14:00		Apr-19-09 14:00	
	Analyzed:	Apr-18-09 23:07		Apr-18-09 23:32		Apr-19-09 16:56		Apr-19-09 17:21		Apr-19-09 17:47		Apr-19-09 18:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		24.0	16.3	ND	16.3	ND	16.3	ND	19.6	ND	16.3	ND	19.7
C12-C28 Diesel Range Hydrocarbons		311	16.3	ND	16.3	ND	16.3	ND	19.6	ND	16.3	ND	19.7
C28-C35 Oil Range Hydrocarbons		34.3	16.3	ND	16.3	ND	16.3	ND	19.6	ND	16.3	ND	19.7
Total TPH		369.3	16.3	ND	16.3	ND	16.3	ND	19.6	ND	16.3	ND	19.7

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 330355

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Beeson 8" Discharge

Project Id: Beeson Historical
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Fri Apr-17-09 08:07 am
Report Date: 22-APR-09
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	330355-025		330355-026		330355-027		330355-028		330355-029		330355-030	
	Field Id:	SB-5 @ 25'		SB-5 @ 30'		SB-6 @ 10'		SB-6 @ 20'		SB-6 @ 25'		SB-6 @ 30'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-14-09 14:15		Apr-14-09 14:45		Apr-14-09 15:30		Apr-14-09 15:50		Apr-14-09 16:15		Apr-14-09 16:40	
BTEX by EPA 8021B	*Extracted:*	Apr-20-09 14:00		Apr-20-09 14:00		Apr-20-09 00:00		Apr-20-09 00:00		Apr-20-09 00:00		Apr-20-09 00:00	
	Analyzed:	Apr-20-09 23:50		Apr-21-09 00:10		Apr-21-09 03:35		Apr-21-09 03:55		Apr-21-09 04:16		Apr-21-09 04:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0012	ND	0.0013	ND	0.0013	ND	0.0014	ND	0.0011	ND	0.0012
Toluene		ND	0.0024	ND	0.0026	ND	0.0026	ND	0.0028	ND	0.0022	ND	0.0023
Ethylbenzene		ND	0.0012	ND	0.0013	ND	0.0013	0.0024	0.0014	ND	0.0011	ND	0.0012
m,p-Xylenes		ND	0.0024	ND	0.0026	ND	0.0026	ND	0.0028	ND	0.0022	ND	0.0023
o-Xylene		ND	0.0012	ND	0.0013	ND	0.0013	ND	0.0014	ND	0.0011	ND	0.0012
Total Xylenes		ND	0.0012	ND	0.0013	ND	0.0013	ND	0.0014	ND	0.0011	ND	0.0012
Total BTEX		ND	0.0012	ND	0.0013	ND	0.0013	0.0024	0.0014	ND	0.0011	ND	0.0012
Percent Moisture	*Extracted:*												
	Analyzed:	Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00		Apr-17-09 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		17.22	1.00	25.07	1.00	22.68	1.00	28.79	1.00	10.10	1.00	15.19	1.00
TPH By SW8015 Mod	*Extracted:*	Apr-19-09 14:00		Apr-19-09 14:00		Apr-19-09 14:00		Apr-19-09 14:00		Apr-19-09 14:00		Apr-19-09 14:00	
	Analyzed:	Apr-19-09 18:37		Apr-19-09 19:03		Apr-19-09 19:28		Apr-19-09 19:53		Apr-19-09 20:18		Apr-19-09 20:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	18.1	ND	20.0	ND	19.4	ND	21.1	ND	16.7	ND	17.7
C12-C28 Diesel Range Hydrocarbons		ND	18.1	ND	20.0	ND	19.4	ND	21.1	ND	16.7	ND	17.7
C28-C35 Oil Range Hydrocarbons		ND	18.1	ND	20.0	ND	19.4	ND	21.1	ND	16.7	ND	17.7
Total TPH		ND	18.1	ND	20.0	ND	19.4	ND	21.1	ND	16.7	ND	17.7

Brent Barron
Odessa Laboratory Director

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756284 **Sample:** 8406394-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/18/09 13:43

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 756284 **Sample:** 8406394-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/18/09 14:04

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 756284 **Sample:** 8406394-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/18/09 14:45

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 756284 **Sample:** 330355-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 16:07

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 756284 **Sample:** 330355-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 16:28

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0209	0.0300	70	80-120	**
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756284 **Sample:** 330355-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 16:48

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0215	0.0300	72	80-120	**
4-Bromofluorobenzene	0.0414	0.0300	138	80-120	**

Lab Batch #: 756284 **Sample:** 330355-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 17:09

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0249	0.0300	83	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 756284 **Sample:** 330355-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 17:29

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 756284 **Sample:** 330355-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 17:50

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	**
4-Bromofluorobenzene	0.0492	0.0300	164	80-120	**

Lab Batch #: 756284 **Sample:** 330355-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 18:10

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0236	0.0300	79	80-120	**
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756284 **Sample:** 330355-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 18:31

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 756284 **Sample:** 330355-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 19:32

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0232	0.0300	77	80-120	**
4-Bromofluorobenzene	0.0415	0.0300	138	80-120	**

Lab Batch #: 756284 **Sample:** 330355-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 19:52

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 756284 **Sample:** 330355-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 20:13

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0231	0.0300	77	80-120	**
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 756284 **Sample:** 330355-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 20:33

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0210	0.0300	70	80-120	**
4-Bromofluorobenzene	0.0396	0.0300	132	80-120	**

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756284 **Sample:** 330355-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 20:54

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0200	0.0300	67	80-120	**
4-Bromofluorobenzene	0.0373	0.0300	124	80-120	**

Lab Batch #: 756284 **Sample:** 330355-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 21:14

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0211	0.0300	70	80-120	**
4-Bromofluorobenzene	0.0385	0.0300	128	80-120	**

Lab Batch #: 756284 **Sample:** 330355-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 21:35

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0212	0.0300	71	80-120	**
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

Lab Batch #: 756284 **Sample:** 330355-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 21:55

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0221	0.0300	74	80-120	**
4-Bromofluorobenzene	0.0350	0.0300	117	80-120	

Lab Batch #: 756284 **Sample:** 330355-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 22:15

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0208	0.0300	69	80-120	**
4-Bromofluorobenzene	0.0397	0.0300	132	80-120	**

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756284 **Sample:** 330355-007 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 22:56

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 756284 **Sample:** 330355-007 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 23:17

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 756422 **Sample:** 528566-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/20/09 15:57

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

Lab Batch #: 756422 **Sample:** 528566-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/20/09 16:17

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 756422 **Sample:** 528566-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/20/09 16:59

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0255	0.0300	85	80-120	
4-Bromofluorobenzene	0.0254	0.0300	85	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756422 **Sample:** 330555-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/20/09 20:45

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 756422 **Sample:** 330555-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/20/09 21:05

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 756422 **Sample:** 330355-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/20/09 22:07

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 756422 **Sample:** 330355-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/20/09 22:27

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0248	0.0300	83	80-120	
4-Bromofluorobenzene	0.0225	0.0300	75	80-120	*

Lab Batch #: 756422 **Sample:** 330355-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/20/09 22:48

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0243	0.0300	81	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756422 **Sample:** 330355-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/20/09 23:09

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0232	0.0300	77	80-120	*

Lab Batch #: 756422 **Sample:** 330355-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/20/09 23:29

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	80-120	
4-Bromofluorobenzene	0.0261	0.0300	87	80-120	

Lab Batch #: 756422 **Sample:** 330355-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/20/09 23:50

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 756422 **Sample:** 330355-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/09 00:10

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0249	0.0300	83	80-120	

Lab Batch #: 756422 **Sample:** 330355-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/09 00:51

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0212	0.0300	71	80-120	**
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756442 **Sample:** 528575-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/21/09 02:13

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 756442 **Sample:** 528575-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/21/09 02:34

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 756442 **Sample:** 528575-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/21/09 03:14

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0245	0.0300	82	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 756442 **Sample:** 330355-027 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/09 03:35

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0232	0.0300	77	80-120	*
4-Bromofluorobenzene	0.0245	0.0300	82	80-120	

Lab Batch #: 756442 **Sample:** 330355-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/09 03:55

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756442 **Sample:** 330355-029 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/09 04:16

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0244	0.0300	81	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 756442 **Sample:** 330355-030 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/09 04:36

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 756442 **Sample:** 330355-027 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/09 10:25

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 756442 **Sample:** 330355-027 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/09 10:45

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0252	0.0300	84	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 756632 **Sample:** 528674-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/21/09 11:49

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756632 **Sample:** 528674-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/21/09 12:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

Lab Batch #: 756632 **Sample:** 528674-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/21/09 12:51

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0235	0.0300	78	80-120	**
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 756632 **Sample:** 330355-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/22/09 09:15

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0207	0.0300	69	80-120	**
4-Bromofluorobenzene	0.0394	0.0300	131	80-120	**

Lab Batch #: 756632 **Sample:** 330466-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/22/09 11:18

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0503	0.0300	168	80-120	*

Lab Batch #: 756632 **Sample:** 330466-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/22/09 11:39

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0236	0.0300	79	80-120	**
4-Bromofluorobenzene	0.0499	0.0300	166	80-120	**

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756245 **Sample:** 8406370-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/18/09 13:57

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	51.0	50.0	102	70-135	

Lab Batch #: 756245 **Sample:** 8406370-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/18/09 14:22

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

Lab Batch #: 756245 **Sample:** 8406370-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/18/09 14:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.1	100	94	70-135	
o-Terphenyl	54.6	50.0	109	70-135	

Lab Batch #: 756245 **Sample:** 330355-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 15:12

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.2	100	96	70-135	
o-Terphenyl	54.2	50.0	108	70-135	

Lab Batch #: 756245 **Sample:** 330355-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 15:37

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	55.4	50.0	111	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756245 **Sample:** 330355-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 16:02

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.5	100	97	70-135	
o-Terphenyl	55.5	50.0	111	70-135	

Lab Batch #: 756245 **Sample:** 330355-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 16:26

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	57.0	50.0	114	70-135	

Lab Batch #: 756245 **Sample:** 330355-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 16:52

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.2	100	98	70-135	
o-Terphenyl	56.7	50.0	113	70-135	

Lab Batch #: 756245 **Sample:** 330355-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 17:17

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.9	100	95	70-135	
o-Terphenyl	54.5	50.0	109	70-135	

Lab Batch #: 756245 **Sample:** 330355-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 17:42

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.8	100	98	70-135	
o-Terphenyl	56.9	50.0	114	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756245 **Sample:** 330355-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 18:07

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	100	129	70-135	
o-Terphenyl	57.4	50.0	115	70-135	

Lab Batch #: 756245 **Sample:** 330355-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 18:32

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	100	122	70-135	
o-Terphenyl	57.8	50.0	116	70-135	

Lab Batch #: 756245 **Sample:** 330355-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 18:57

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	55.3	50.0	111	70-135	

Lab Batch #: 756245 **Sample:** 330355-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 19:46

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.9	100	96	70-135	
o-Terphenyl	55.6	50.0	111	70-135	

Lab Batch #: 756245 **Sample:** 330355-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 20:11

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.5	100	97	70-135	
o-Terphenyl	55.7	50.0	111	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756245 **Sample:** 330355-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 20:35

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.5	100	98	70-135	
o-Terphenyl	56.7	50.0	113	70-135	

Lab Batch #: 756245 **Sample:** 330355-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 21:00

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.4	100	93	70-135	
o-Terphenyl	53.2	50.0	106	70-135	

Lab Batch #: 756245 **Sample:** 330355-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 21:26

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	100	128	70-135	
o-Terphenyl	57.1	50.0	114	70-135	

Lab Batch #: 756245 **Sample:** 330355-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 21:51

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	57.9	50.0	116	70-135	

Lab Batch #: 756245 **Sample:** 330355-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 22:16

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	60.8	50.0	122	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756245 **Sample:** 330355-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 22:41

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.2	100	98	70-135	
o-Terphenyl	56.9	50.0	114	70-135	

Lab Batch #: 756245 **Sample:** 330355-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 23:07

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	100	96	70-135	
o-Terphenyl	55.6	50.0	111	70-135	

Lab Batch #: 756245 **Sample:** 330355-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 23:32

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	64.7	50.0	129	70-135	

Lab Batch #: 756245 **Sample:** 330355-007 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/18/09 23:58

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	51.3	50.0	103	70-135	

Lab Batch #: 756245 **Sample:** 330355-007 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/19/09 00:23

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	54.3	50.0	109	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756285 **Sample:** 8406396-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/19/09 15:42

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	50.3	50.0	101	70-135	

Lab Batch #: 756285 **Sample:** 8406396-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/19/09 16:07

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	52.0	50.0	104	70-135	

Lab Batch #: 756285 **Sample:** 8406396-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/19/09 16:32

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.7	100	97	70-135	
o-Terphenyl	56.5	50.0	113	70-135	

Lab Batch #: 756285 **Sample:** 330355-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/19/09 16:56

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.0	100	97	70-135	
o-Terphenyl	55.8	50.0	112	70-135	

Lab Batch #: 756285 **Sample:** 330355-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/19/09 17:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	63.8	50.0	128	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756285 **Sample:** 330355-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/19/09 17:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.8	100	97	70-135	
o-Terphenyl	56.1	50.0	112	70-135	

Lab Batch #: 756285 **Sample:** 330355-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/19/09 18:12

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.4	100	97	70-135	
o-Terphenyl	56.5	50.0	113	70-135	

Lab Batch #: 756285 **Sample:** 330355-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/19/09 18:37

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	100	98	70-135	
o-Terphenyl	57.4	50.0	115	70-135	

Lab Batch #: 756285 **Sample:** 330355-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/19/09 19:03

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	58.7	50.0	117	70-135	

Lab Batch #: 756285 **Sample:** 330355-027 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/19/09 19:28

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	58.7	50.0	117	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

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Form 2 - Surrogate Recoveries

Project Name: Beeson 8" Discharge

Work Orders : 330355,

Project ID: Beeson Historical

Lab Batch #: 756285 **Sample:** 330355-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/19/09 19:53

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.9	100	97	70-135	
o-Terphenyl	56.5	50.0	113	70-135	

Lab Batch #: 756285 **Sample:** 330355-029 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/19/09 20:18

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.6	100	98	70-135	
o-Terphenyl	56.9	50.0	114	70-135	

Lab Batch #: 756285 **Sample:** 330355-030 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/19/09 20:43

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.9	100	99	70-135	
o-Terphenyl	57.5	50.0	115	70-135	

Lab Batch #: 756285 **Sample:** 330355-030 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/20/09 01:43

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	52.3	50.0	105	70-135	

Lab Batch #: 756285 **Sample:** 330355-030 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/20/09 02:09

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	54.6	50.0	109	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

XENCO Laboratories

BS / BSD Recoveries

Project Name: Beeson 8" Discharge

Work Order #: 330355 **Project ID:** Beeson Historical

Analyst: ASA **Date Prepared:** 04/20/2009 **Date Analyzed:** 04/20/2009

Lab Batch ID: 756422 **Sample:** 528566-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0910	91	0.1	0.0909	91	0	70-130	35	
Toluene	ND	0.1000	0.0877	88	0.1	0.0875	88	0	70-130	35	
Ethylbenzene	ND	0.1000	0.0944	94	0.1	0.0944	94	0	71-129	35	
m,p-Xylenes	ND	0.2000	0.1951	98	0.2	0.1947	97	0	70-135	35	
o-Xylene	ND	0.1000	0.0942	94	0.1	0.0933	93	1	71-133	35	

Analyst: ASA **Date Prepared:** 04/20/2009 **Date Analyzed:** 04/21/2009

Lab Batch ID: 756442 **Sample:** 528575-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0811	81	0.1	0.0811	81	0	70-130	35	
Toluene	ND	0.1000	0.0769	77	0.1	0.0767	77	0	70-130	35	
Ethylbenzene	ND	0.1000	0.0804	80	0.1	0.0805	81	0	71-129	35	
m,p-Xylenes	ND	0.2000	0.1661	83	0.2	0.1661	83	0	70-135	35	
o-Xylene	ND	0.1000	0.0795	80	0.1	0.0796	80	0	71-133	35	

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

BS / BSD Recoveries

Project Name: Beeson 8" Discharge

Work Order #: 330355 **Project ID:** Beeson Historical

Analyst: ASA **Date Prepared:** 04/21/2009 **Date Analyzed:** 04/21/2009

Lab Batch ID: 756632 **Sample:** 528674-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0846	85	0.1	0.0873	87	3	70-130	35	
Toluene	ND	0.1000	0.0801	80	0.1	0.0833	83	4	70-130	35	
Ethylbenzene	ND	0.1000	0.0845	85	0.1	0.0878	88	4	71-129	35	
m,p-Xylenes	ND	0.2000	0.1755	88	0.2	0.1818	91	4	70-135	35	
o-Xylene	ND	0.1000	0.0835	84	0.1	0.0858	86	3	71-133	35	

Analyst: ASA **Date Prepared:** 04/17/2009 **Date Analyzed:** 04/18/2009

Lab Batch ID: 756284 **Sample:** 8406394-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0971	97	0.1	0.0991	99	2	70-130	35	
Toluene	ND	0.1000	0.0921	92	0.1	0.0939	94	2	70-130	35	
Ethylbenzene	ND	0.1000	0.0974	97	0.1	0.0995	100	2	71-129	35	
m,p-Xylenes	ND	0.2000	0.2022	101	0.2	0.2063	103	2	70-135	35	
o-Xylene	ND	0.1000	0.0962	96	0.1	0.0988	99	3	71-133	35	

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

BS / BSD Recoveries

Project Name: Beeson 8" Discharge

Work Order #: 330355 **Project ID:** Beeson Historical

Analyst: BHW **Date Prepared:** 04/17/2009 **Date Analyzed:** 04/18/2009

Lab Batch ID: 756245 **Sample:** 8406370-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1050	105	1000	1060	106	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	1030	103	1000	1030	103	0	70-135	35	

Analyst: BHW **Date Prepared:** 04/19/2009 **Date Analyzed:** 04/19/2009

Lab Batch ID: 756285 **Sample:** 8406396-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1040	104	1000	1070	107	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	1020	102	1000	1050	105	3	70-135	35	

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

Form 3 - MS / MSD Recoveries

Project Name: Beeson 8" Discharge

Work Order # : 330355 **Project ID:** Beeson Historical

Lab Batch ID: 756284 **QC- Sample ID:** 330355-007 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/18/2009 **Date Prepared:** 04/17/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1088	0.0815	75	0.1088	0.0775	71	5	70-130	35	
Toluene	ND	0.1088	0.0760	70	0.1088	0.0714	66	6	70-130	35	X
Ethylbenzene	0.0024	0.1088	0.0784	70	0.1088	0.0720	64	9	71-129	35	X
m,p-Xylenes	0.0028	0.2177	0.1596	72	0.2177	0.1468	66	8	70-135	35	X
o-Xylene	ND	0.1088	0.0754	69	0.1088	0.0698	64	8	71-133	35	X

Lab Batch ID: 756422 **QC- Sample ID:** 330555-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/20/2009 **Date Prepared:** 04/20/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1007	0.0693	69	0.0999	0.0670	67	3	70-130	35	X
Toluene	ND	0.1007	0.0612	61	0.0999	0.0584	58	5	70-130	35	X
Ethylbenzene	ND	0.1007	0.0570	57	0.0999	0.0548	55	4	71-129	35	X
m,p-Xylenes	ND	0.2014	0.1158	57	0.1998	0.1108	55	4	70-135	35	X
o-Xylene	ND	0.1007	0.0554	55	0.0999	0.0538	54	3	71-133	35	X

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

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

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

Form 3 - MS / MSD Recoveries

Project Name: Beeson 8" Discharge

Work Order # : 330355 **Project ID:** Beeson Historical

Lab Batch ID: 756442 **QC- Sample ID:** 330355-027 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/21/2009 **Date Prepared:** 04/20/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1293	0.0819	63	0.1293	0.0867	67	6	70-130	35	X
Toluene	ND	0.1293	0.0752	58	0.1293	0.0790	61	5	70-130	35	X
Ethylbenzene	ND	0.1293	0.0778	60	0.1293	0.0835	65	7	71-129	35	X
m,p-Xylenes	ND	0.2587	0.1172	45	0.2587	0.1201	46	2	70-135	35	X
o-Xylene	ND	0.1293	0.0767	59	0.1293	0.0814	63	6	71-133	35	X

Lab Batch ID: 756632 **QC- Sample ID:** 330466-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/22/2009 **Date Prepared:** 04/21/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1126	0.0617	55	0.1126	0.0627	56	2	70-130	35	X
Toluene	ND	0.1126	0.0598	53	0.1126	0.0612	54	2	70-130	35	X
Ethylbenzene	ND	0.1126	0.0652	58	0.1126	0.0662	59	2	71-129	35	X
m,p-Xylenes	ND	0.2252	0.1341	60	0.2252	0.1364	61	2	70-135	35	X
o-Xylene	ND	0.1126	0.0587	52	0.1126	0.0604	54	3	71-133	35	X

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

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

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

Form 3 - MS / MSD Recoveries

Project Name: Beeson 8" Discharge

Work Order # : 330355 **Project ID:** Beeson Historical

Lab Batch ID: 756245 **QC- Sample ID:** 330355-007 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/18/2009 **Date Prepared:** 04/17/2009 **Analyst:** BHW

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1090	1120	103	1090	1180	108	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	89.4	1090	1120	95	1090	1200	102	7	70-135	35	

Lab Batch ID: 756285 **QC- Sample ID:** 330355-030 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/20/2009 **Date Prepared:** 04/19/2009 **Analyst:** BHW

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1180	1360	115	1180	1410	119	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1180	1330	113	1180	1380	117	4	70-135	35	

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

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

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

Sample Duplicate Recovery

Project Name: Beeson 8" Discharge

Work Order #: 330355

Lab Batch #: 756185 **Project ID:** Beeson Historical

Date Analyzed: 04/17/2009 **Date Prepared:** 04/17/2009 **Analyst:** BEV

QC- Sample ID: 330355-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	7.31	7.60	4	20	

Lab Batch #: 756187

Date Analyzed: 04/17/2009 **Date Prepared:** 04/17/2009 **Analyst:** BEV

QC- Sample ID: 330355-021 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	7.90	7.38	7	20	

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

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 1 of 3

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

Project Manager: Camille Bryant
Company Name: Basin Environmental Service Technologies, LLC
Company Address: P.O. Box 301
City/State/Zip: Lovington, NM 88260
Telephone No: (575)605-7210 Fax No: (505) 396-1429
Sampler Signature: Camille Bryant e-mail: cibryant@basin-consulting.com

Project Name: Beeson 8" Discharge
Project #: Beeson Historical
Project Loc: Lea County, NM
PO #: PAA-J. Henry
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 330355

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW – Drinking Water; GW – Groundwater; S – Soil/Solid; SW – Surface Water; WW – Wastewater; Specify Other	Analyze For: TPH: 418.1 (8015M) 8015B	TPH: TX 1005 TX 1005	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	TCLP: HCl	TCLP: TOTAL: X	N O R M A L	RUSH TAT (Pre-Scheduled 24, 48, 72 hrs)	Standard TAT 4 DAY
1	SB-1 @ 10'			13-Apr-09	0900		1	X								Soil	X								X					X
2	SB-1 @ 20'			13-Apr-09	0920		1	X								Soil	X								X					X
3	SB-1 @ 30'			13-Apr-09	0940		1	X								Soil	X								X					X
4	SB-1 @ 40'			13-Apr-09	1010		1	X								Soil	X								X					X
5	SB-1 @ 50'			13-Apr-09	1045		1	X								Soil	X								X					X
6	SB-1 @ 60'			13-Apr-09	1115		1	X								Soil	X								X					X
7	SB-1 @ 65'			13-Apr-09	1145		1	X								Soil	X								X					X
8	SB-2 @ 10'			13-Apr-09	1300		1	X								Soil	X								X					X
9	SB-2 @ 20'			13-Apr-09	1320		1	X								Soil	X								X					X
10	SB-2 @ 30'			13-Apr-09	1340		1	X								Soil	X								X					X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant	4/16/09	1600		4/16/09	1600
Relinquished by:	Date	Time	Received by:	Date	Time
	4/17/09	0207			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Jessica Fitch	04-17-09	00:07

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s)? Y N
Custody seals on container(s) (16ve) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered by Sampler / Client Rep. Y N
Sample Shipped by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 2.5 °C

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 2of 3

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant

Company Name: Basin Environmental Service Technologies, LLC

Company Address: P.O. Box 301

City/State/Zip: Lovington, NM 88260

Telephone No: (575)605-7210

Fax No: (505) 396-1429

Sampler Signature: Camille Bryant

e-mail: cjbryant@basin-consulting.com

Project Name: Beeson 8" Discharge

Project #: Beeson Historical

Project Loc: Lea County, NM

PO #: PAA-J. Henry

Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 330355

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix (DW = Drinking Water, SL = Sludge, GW = Groundwater, S = Soil/Solid, NP = Non-Potable, Specify Other)	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT 4 DAY
11	SB-2 @ 40'			13-Apr-09	1410		1	X								Soil	X								X				X
12	SB-2 @ 50'			13-Apr-09	1440		1	X								Soil	X								X				X
13	SB-2 @ 55'			13-Apr-09	1510		1	X								Soil	X								X				X
14	SB-3 @ 10'			14-Apr-09	0840		1	X								Soil	X								X				X
15	SB-3 @ 20'			14-Apr-09	0900		1	X								Soil	X								X				X
16	SB-3 @ 30'			14-Apr-09	0925		1	X								Soil	X								X				X
17	SB-3 @ 40'			14-Apr-09	0950		1	X								Soil	X								X				X
18	SB-3 @ 55'			14-Apr-09	1015		1	X								Soil	X								X				X
19	SB-3 @ 60'			14-Apr-09	1050		1	X								Soil	X								X				X
20	SB-4 @ 10'			14-Apr-09	1120		1	X								Soil	X								X				X

TCLP: / TOTAL: X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
Camille Bryant	4/16/09	1600	[signature]	4/16/09	1600
[signature]	4/17/09	0800	Received by:		
Relinquished by			Received by ELOT: [signature]	04-17-09	0807

Laboratory Comments:
Sample Containers Intact? (Y) N
VOCs Free of Headspace? (Y) N
Labels on container(s) (Y) N
Custody seals on container(s) /lcbel (Y) N
Custody seals on cooler(s) Y (N)
Sample Hand Delivered (Y) N
by Sampler/Client Rep.? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 2.5 °C

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 3 of 3

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

Project Manager: Camille Bryant
Project Name: Beeson 8" Discharge
Company Name: Basin Environmental Service Technologies, LLC
Project #: Beeson Historical
Company Address: P.O. Box 301
Project Loc: Lea County, NM
City/State/Zip: Lovington, NM 88260
PO #: PAA-J. Henry
Telephone No. (575)605-7210
Fax No: (505) 396-1429
Report Format: [X] Standard [ ] TRRP [ ] NPDES
Sampler Signature: Camille Bryant
e-mail: cibryant@basin-consulting.com

(lab use only)
ORDER #: 330355

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW = Drinking Water GW = Groundwater WW = Non-Potable Specify Other	SL = Sludge S = Soil/Solid	Analyze For: TCLP: TPH 418.1	TPH 8015M	TPH TX 1005	TPH TX 1005	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL: BTEX 8021B or 8260	RCI	N.O.R.M.				RUSH TAT (Pre-Scheduled 24, 48, 72 hrs)	Standard TAT 4 DAY
21	SB-4 @ 20'			14-Apr-09	1140		1	X								Soil		X										X							X
22	SB-4 @ 25'			14-Apr-09	1210		1	X								Soil		X										X							X
23	SB-5 @ 10'			14-Apr-09	1330		1	X								Soil		X										X							X
24	SB-5 @ 20'			14-Apr-09	1350		1	X								Soil		X										X							X
25	SB-5 @ 25'			14-Apr-09	1415		1	X								Soil		X										X							X
26	SB-5 @ 30'			14-Apr-09	1445		1	X								Soil		X										X							X
27	SB-6 @ 10'			14-Apr-09	1530		1	X								Soil		X										X							X
28	SB-6 @ 20'			14-Apr-09	1550		1	X								Soil		X										X							X
29	SB-6 @ 25'			14-Apr-09	1615		1	X								Soil		X										X							X
30	SB-6 @ 30'			14-Apr-09	1640		1	X								Soil		X										X							X

Special Instructions:

Relinquished by: Camille Bryant	Date 4/16/09	Time 1600	Received by:		Date 4/16/09	Time 1600
Relinquished by:	Date 4/17/09	Time 0807	Received by:		Date	Time
Relinquished by:	Date	Time	Received by ELOT:		Date 04-17-09	Time 0907

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered by Sampler/Client Rep.? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 2.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains / Basin

Date/ Time: 04-17-09 @ 0807

Lab ID # : 330355

Initials: JMF

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	2.5 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container? /label	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

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

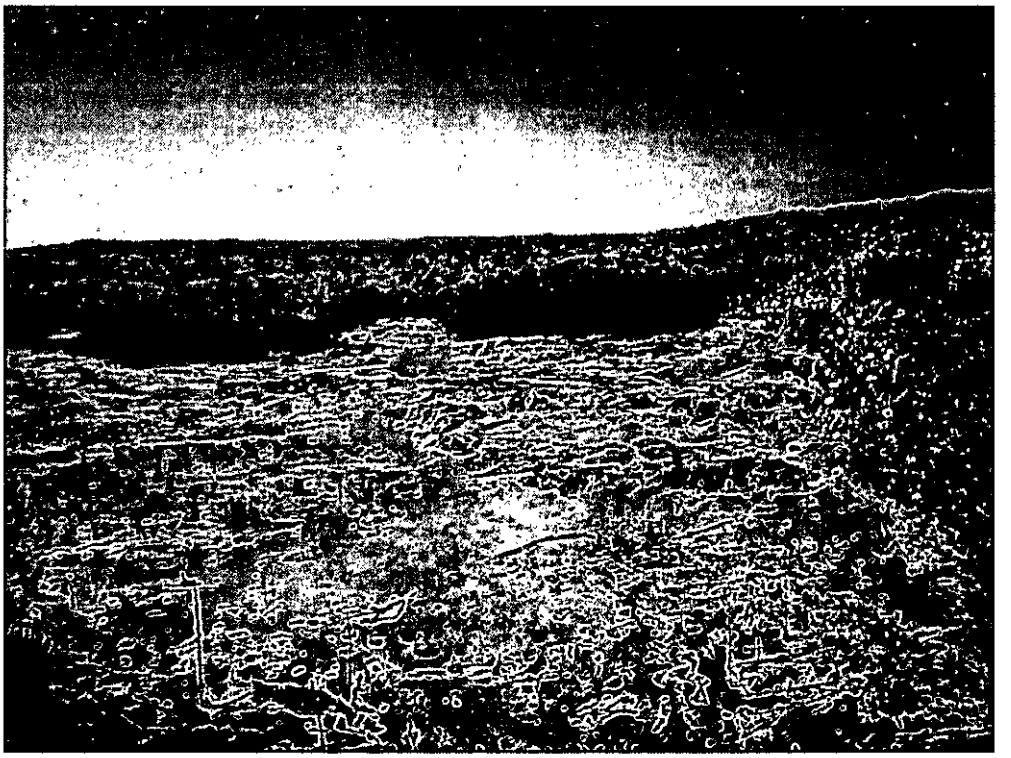
Regarding: _____

Corrective Action Taken: _____

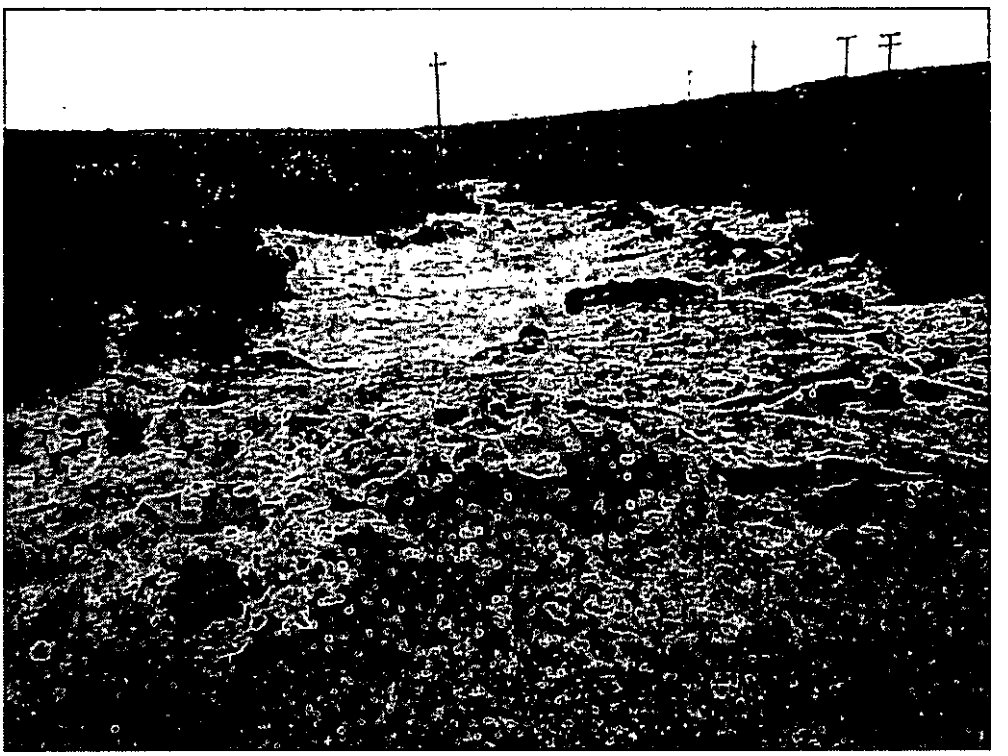
Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

APPENDIX C
PHOTOGRAPHS

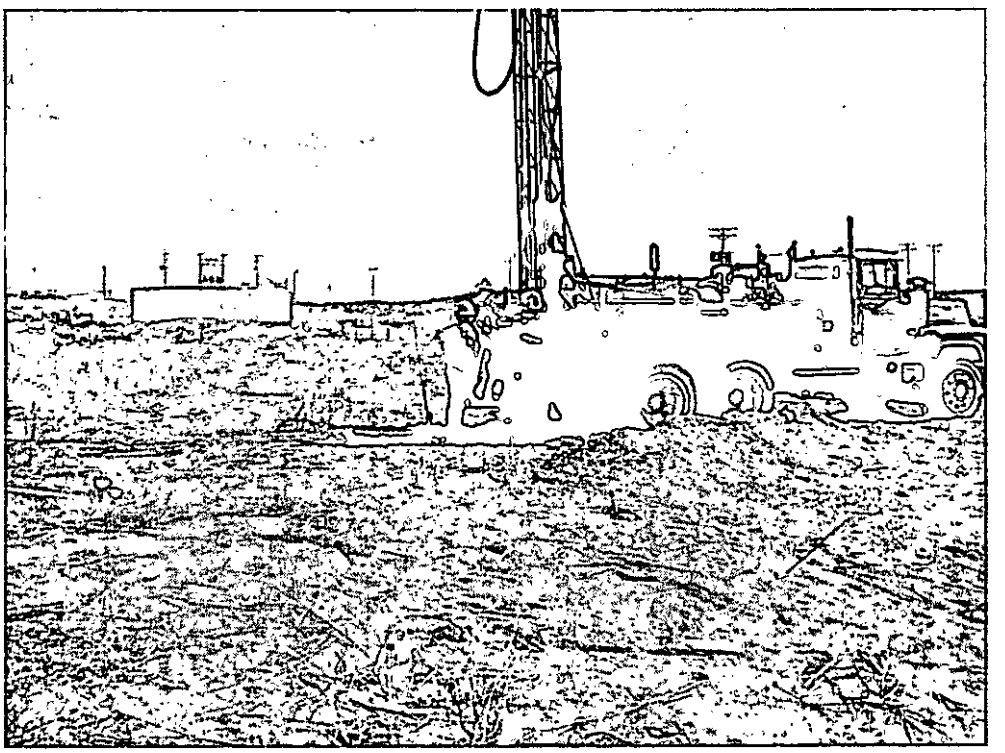


Beeson 8-Inch Discharge Release Site (South Area)



Beeson 8-Inch Discharge Release Site (North Area)

Blending Activities at Beeson 8-Inch Discharge Release Site



Soil Boring SB-3 at Beeson 8-Inch Discharge Release Site (Area Adjacent to Plains Beeson Station)

APPENDIX D
ARCHAEOLOGICAL RESOUURCE SURVEY

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.:	2a. Lead (Sponsoring) Agency:	2b. Other Permitting Agency(ies):	3. Lead Agency Report No.:
111988	BLM, CFO		

4. Title of Report: Beeson 8" Historical petroleum leak.

Author(s) Ann and Danny Boone

5. Type of Report ☒ Negative ☐ Positive

6. Investigation Type
☐ Research Design ☒ Survey/Inventory ☐ Test Excavation ☐ Excavation ☐ Collections/Non-Field Study
☐ Overview/Lit Review ☐ Monitoring ☐ Ethnographic study ☐ Site specific visit ☐ Other

7. Description of Undertaking (what does the project entail?): The project is three areas where petroleum fluid leaked from a buried pipeline. Area No. 1 is a large area where liquid ran and pooled, it is located just south of the Plains Beeson Station. Area No. 2 is a small pedestal near a caliche capped road and area No. 3 is a large area where liquid ran and pooled (See attached LocationMap). Area No. 1 and area No. 3 are very irregular shaped, area 2 is approximately 6 feet in diameter. All appear to be several years in age. The impacted area plus a 100 feet buffer around them was surveyed and the perimeter flagged with orange tape tied to vegetation. Cleanup methods are unknown but it is assumed that contaminated soil will be excavated by large machines and removed from the site.

8. Dates of Investigation: (from: 27 Oct. 08 to:)

9. Report Date: 30 Oct. 08

10. Performing Agency/Consultant: Boone Archaeological Services, LLC
2030 North Canal, Carlsbad, NM 88220
575-885-1352
Principal Investigator: Danny Boone Field Supervisor: Danny Boone
Field Personnel Names: Danny Boone

11. Performing Agency/Consultant Report No.: BAS 10-08-08

12. Applicable Cultural Resource Permit No(s): BLM: 190-2920-06-J

13. Client/Customer (project proponent): Plains Marketing, L.P.
Contact: Curt D. Stanley (Agent with Basin Enviromental)
Address: 1301 S Country Road 1150
Midland, Texas 79706-4476
Phone: (432) 682-5392

14. Client/Customer Project No.: Plains SRS, Beeson Historical

15. Land Ownership Status *(Must be indicated on project map)*:

Land Owner	Acres Surveyed	Acres in APE
BLM	21 (+/-)	14.5 (-/+)
TOTALS	21 (-/+)	14.5 (+/-)

16 Records Search(es):

Date(s) of ARMS File Review: 27 Oct. 08	Name of Reviewer(s): Ann Boone	
Date(s) of NR/SR File Review:	Name of Reviewer(s):	
Date(s) of Other Agency File Review: 27 Oct. 08	Name of Reviewer(s): Danny Boone	Agency: BLM, CFO

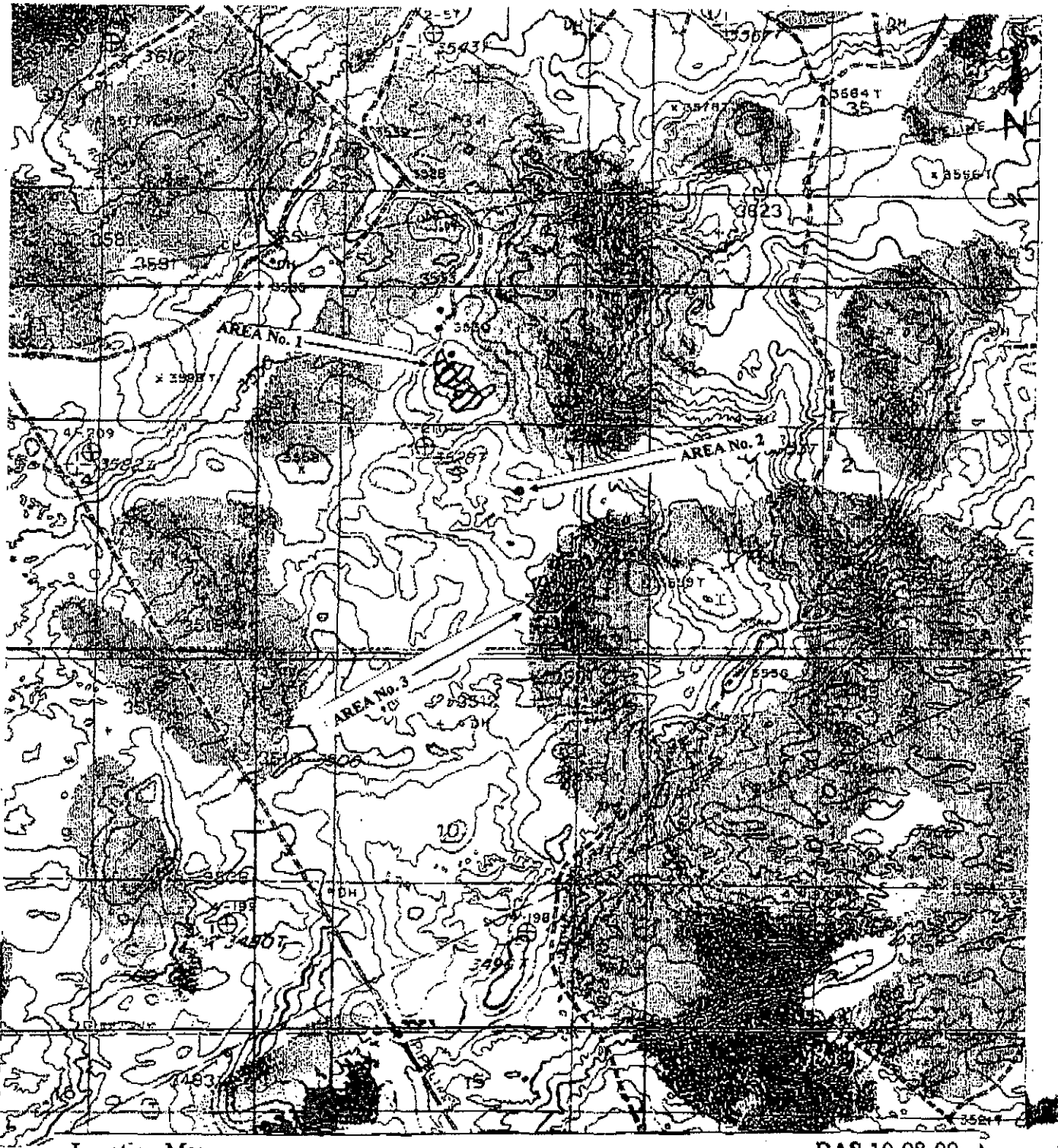
Findings: No previously recorded sites were located within 500 feet, LA 102543 is within 0.25 mile.

17. Survey Data:a. Source Graphics ☒ NAD 27 ☐ NAD 83
☒ USGS 7.5' (1:24,000) topo map ☐ Other topo map, Scale:
☒ GPS Unit Accuracy ☐<1.0m ☒ 1-10m ☐ 10-100m ☐>100m

b. USGS 7.5' Topographic Map Name / USGS Quad Code

Loco Hills, N. M. (Prov. Ed. 1985)	32103-G8

c. County(ies): Eddy



Location Map BAS 10-08-09

Archaeological survey areas for the Beeson 8" Historical sites for Plains Marketing, L.P. in Section 3, T 18S, R 30E, NMPM, Eddy County, New Mexico.

Map Reference: USGS 7.5' Series; Loco Hills, N. M. (Prov. Ed. 1985) 32103-G8

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

BAS

17. Survey Data (continued):
d. Nearest City or Town: Loco Hills, NM
e. Legal Description:

Township (N/S)	Range (E/W)	Section	¼ ¼ ¼
18S	30E	3 (Area 1)	ne nw, nw ne, sw ne.
		3 (Area 2)	nw se,
		3 (Area 3)	sw se, se se,

Projected legal description? Yes [ ] No [X] Unplatted [ ]
f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):

18. Survey Field Methods:
Intensity: ☒ 100% coverage ☐ <100% coverage
Configuration: ☒ block survey units ☐ linear survey units (l x w): ☐ other survey units (specify):
Scope: ☒ non-selective (all sites recorded) ☐ selective/thematic (selected sites recorded)
Coverage Method: ☒ systematic pedestrian coverage ☐ other method (describe)
Survey Interval (m): 15 Crew Size: 1 Fieldwork Dates: 27 Oct. 08
Survey Person Hours: 5.5 Recording Person Hours: 0 Total Hours: 5.5
Additional Narrative: Location and acres are estimates based on a hand held GPS Unit. Area No. 1 and area No. 3 are very irregular shaped, area 2 is approximately 6 feet in diameter. The impacted area plus a 100 feet buffer around them was surveyed.

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):
Topography: Moderately rolling and undulating dunal plain.
Vegetative community: Consists primarily of shinoak, sage brush, sand burrs, more sand burrs, yucca cactus, various grasses and other flora.
NRCS: Kermit-Berino association: Sandy, deep soils from wind-worked mixed sand deposits.
Elevation: 3,530 (+/-) 25 feet

20. a. Percent Ground Visibility: 70 overall b. Condition of Survey Area (grazed, bladed, undisturbed, etc.): Project is where petroleum fluid leaked from a buried pipeline

21. CULTURAL RESOURCE FINDINGS ☐ Yes, See Page 3 ☒ No, Discuss Why: Unknown

22. Required Attachments (check all appropriate boxes):
☒ USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn
☐ Copy of NMCRIS Mapserver Map Check
☐ LA Site Forms - new sites (with sketch map & topographic map)
☐ LA Site Forms (update) - previously recorded & un-relocated sites (first 2 pages minimum)
☐ Historic Cultural Property Inventory Forms
☐ List and Description of Isolates, if applicable
☐ List and Description of Collections, if applicable

23. Other Attachments:
☐ Photographs and Log
☐ Other Attachments
(Describe):

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Responsible Archaeologist: Danny Boone
Signature Danny Boone Date: 30 Oct. 08 Title (if not PI):

25. Reviewing Agency:
Reviewer's Name/Date
Accepted ( ) Rejected ( )
Tribal Consultation (if applicable): ☐ Yes ☐ No

26. SHPO
Reviewer's Name/Date:
HPD Log #:
SHPO File Location:
Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

1. NMCRIS Activity No.: 111988	2. Lead (Sponsoring) Agency: BLM, CFO	3. Lead Agency Report No.:

SURVEY RESULTS:
Sites discovered and registered: 0
Sites discovered and NOT registered: 0
Previously recorded sites revisited (*site update form required*): 0
Previously recorded sites not relocated (site update form required): 0
TOTAL SITES VISITED: 0
Total isolates recorded: 0 Non-selective isolate recording? ☒
Total structures recorded (*new and previously recorded, including acequias*): 0

MANAGEMENT SUMMARY: No cultural resources were encountered therefore archaeological clearance of three areas flagged with orange tape tied to vegetation for the Beeson 8" Historical sites for Plains Marketing, L.P. is recommended. If cultural resources are encountered at any time all activity should cease and the BLM Archaeologist notified immediately.

IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.

SURVEY LA NUMBER LOG
Sites Discovered:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

Previously recorded revisited sites:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

MONITORING LA NUMBER LOG (*site form required*)
Sites Discovered (*site form required*) : Previously recorded sites (*Site update form required*):

LA No.	Field/Agency No.	LA No.	Field/Agency No.

Areas outside known nearby site boundaries monitored? Yes ☐, No ☐ If no explain why:

TESTING & EXCAVATION LA NUMBER LOG (*site form required*)

Tested LA number(s)	Excavated LA number(s)

APPENDIX E
BLM CORRESPONDENCE

Camille J. Bryant

From: <Paul_Evans@nm.blm.gov>
To: "Camille J. Bryant" <cjbryant@basin-consulting.com>
Sent: Monday, March 02, 2009 9:23 AM
Subject: Re: Plains Beeson 8-Inch Release Site

Ms. Camille,

Your plan to blend the asphaltines location sounds fine, along as you have a good blend of soil to asphaltines. I will need to inspect the north and the middle areas before the reseeding is done. Thank you for the heads up on this.

Paul R Evans
Bureau of Land Management
Realty
Environmental Protection Specialist
Office 575-234-5972
Direct Line 575-234-5977
Mobile 575-361-7548
Fax 575-234-5927

APPENDIX F
RELEASE NOTIFICATION AND CORRECTIVE ACTION (FORM C-141)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-14
Revised October 10, 200

Submit 2 Copies to appropriat
District Office in accordanc
with Rule 116 on bac
side of for

Release Notification and Corrective Action

OPERATOR

x Initial Report ☐ Final Rep

Name of Company Plains Pipeline	Contact Camille Reynolds
Address 3112 W. US Hwy 82, Lovington, NM 88260	Telephone No. 575-441-0965
Facility Name Beeson 8" Discharge	Facility Type 8"Steel Pipeline

Surface Owner BLM	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	3	18S	30E					Eddy

Latitude 32° 46' 16.9" **Longitude** 103° 57' 20.7"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release Unknown	Volume Recovered
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 09/12/2008 @ 14:30
Was Immediate Notice Given? X Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Camille Bryant	Date and Hour 09/22/2008 @ 09:00	
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 Historical release identified by the BLM (Jim Amos) will remediate to BLM/NMOCD guidelines

Describe Area Affected and Cleanup Action Taken.* Impacted areas along pipeline ROW for approximately 0.7 mile.

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: Camille Bryant	OIL CONSERVATION DIVISION	
Printed Name: Camille Bryant	Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	Expiration Date:
E-mail Address: cjbryant@paalp.com	Conditions of Approval:	Attached ☐
Date: 09/22/2008 Phone:575-441-0965		

* Attach Additional Sheets If Necessary