

2R - 53

**REPORTS
DATE:**

JAN 2005



January 10, 2005

Mr. Ed Martin
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Plains All American Preliminary Site Investigation and Remediation Plan
Ballard Greyburg 5-Inch Release Site
EMS No.: 2004-00192
SW/4, SW/4 Section 10, T18S, R29E
Eddy County, New Mexico

Dear Mr. Martin:

Please find attached for your approval a Preliminary Site Investigation and Remediation Plan, dated December 14, 2004, for the Ballard Greyburg 5-Inch release site located in the SW/4, SW/4, Section 10, T18S, and R29E in Eddy County, New Mexico. The proposed Remediation Plan details site activities conducted to date and future activities for remediation and closure of the site.

Should you have any questions or comments, please contact me at (505) 441-0965.

Sincerely,

Camille Reynolds
Remediation Coordinator
Plains All American

Basin Environmental Service Technologies, LLC

P. O. Box 301
Lovington, New Mexico 88260
kouston@basinenv.com
Office: (505) 396-2378 Fax: (505) 396-1429



PRELIMINARY SITE INVESTIGATION REPORT and REMEDICATION PLAN

**PLAINS MARKETING, L.P.
Ballard Grayburg 5"
Eddy County, New Mexico
Plains EMS # 2004-00192**

2R-053

**UNIT M (SW/SW), Section 10, Township 18S, Range 29E
Latitude, Longitude 32°, 45', 27.1" North, 104°, 04', 12.0" West**

Prepared For:

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

Prepared By:

Basin Environmental Service Technologies, LLC
P. O. Box 301
Lovington, New Mexico 88260

14 December 2004

Ken Dutton

Basin Environmental Service Technologies, LLC

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INTRODUCTION

Allstate Environmental Services, LLC (Allstate) responded to a pipeline release for Plains Marketing L.P. (Plains), located on the Ballard Grayburg 5" Pipeline on 2 September 2004. The Ballard Grayburg 5" Pipeline was clamped and the saturated impacted soils were excavated and stockpiled on a poly liner. Basin Environmental Service Technologies, LLC (Basin), will perform subsequent remediation of the site at the request of Plains.

This site is located in Unit M (SW/SW), Section 10, Township 18 South, Range 29 East, in Eddy County, New Mexico (topographic Site Location Map is attached as Figure 1). The latitude is 32°, 45', 27.1" North and the longitude is 104°, 04', 12.0" West. The site is characterized by a right-of-way for the pipeline in a pasture utilized for cattle grazing. The visible surface stained area includes the release point covering an area approximately 22 feet long by 23 feet wide. The site is located approximately 21 feet from a plugged and abandoned Yates Petroleum well location. Approximately 80 barrels of crude oil were released from the Plains Pipeline and 0 barrels were recovered.

An Emergency One-Call was initiated 2 September 2004 and all responding companies either cleared or marked their respective lines. Subsequent renewals of the one-call have been accomplished as required.

Mr. James Amos, Bureau of Land Management (BLM), Carlsbad, New Mexico Office, was verbally notified 2 September 2004. Mr. Van Barton, New Mexico Oil Conservation Division (NMOCD), Artesia, New Mexico District 2 was verbally notified of the release on 2 September 2004.

SUMMARY OF FIELD ACTIVITIES

On 2 September 2004, Allstate employees Ken Dutton and Adam Martinez arrived at the Ballard Grayburg 5" Pipeline release to repair and contain the crude oil pipeline release under the direction of Plains operations personnel. After the release had been contained utilizing a pipeline repair clamp, excavation of the impacted soil was accomplished (see Figure 2, Site Map). The release point was excavated to approximately 22 feet long by 23 feet wide and 12 feet below ground surface (bgs). All excavated soil was placed on a poly liner for future remedial action. A temporary fence was erected to prevent grazing cattle access to the excavated area.

On 18 October 2004, Basin employee, Ken Dutton, utilizing Straub Corporation, Stanton, Texas, initiated vertical and horizontal delineation of the site (see Figure 2, Site Map). Initially soil borings were to be installed; however, once deeper crude oil impact was indicated, a recovery well, at the release point and monitoring wells were installed (soil boring logs are attached as Appendix D). Soil samples were collected at 5 feet intervals and screened with a Photoionization Detector (PID), calibrated 18 October 2004. The selected soil samples were analyzed for benzene, toluene,

ethylbenzene, and xylenes (BTEX), and total petroleum hydrocarbons – gasoline range organics/diesel range organics (TPH-GRO/DRO). During attempts to install an up gradient monitoring well, the drillers lost circulation at two different locations due to suspected caverns in the limestone thus preventing the installation of an up gradient well. Two down gradient monitoring wells were installed and after developing and purging in accordance with EPA and NMOCD protocols, groundwater samples were collected and analytical results indicated concentrations of BTEX were below laboratory detection levels (see Table 2, Water Chemistry). A hydrocarbon absorbent sock was installed in the recovery well to absorb the limited amount of crude oil noted on the groundwater.

NEW MEXICO OIL CONSERVATION DIVISION (NMOCD) SOIL CLASSIFICATION

A search of the New Mexico State Engineers database revealed no water depth information for that section. However, a phone call, placed by Ken Dutton (Basin), to the State Engineers' Office, Roswell, New Mexico, revealed that a non-domestic livestock water well in the SE¼ of the SW¼ Section 10, Township 18 South, Range 29 East had water depth information, which was 245 feet bgs total depth and 205 feet bgs to groundwater. There are no surface water bodies or water wells within 1000 feet of the release site. Based on this data, the site has an NMOCD Ranking Score of 0 –9, which sets the remediation levels at:

Benzene:	10 ppm
BTEX:	50 ppm
TPH:	5000 ppm

DISTRIBUTION OF HYDROCARBONS IN THE USATURATED ZONE

The release point area has been excavated to a depth of approximately 12 feet bgs and evidence of crude oil impact still exist on the floor and sidewalls of the excavation. PID readings indicated elevated concentrations of Volatile Organic Compounds (VOC) remain. Horizontal and vertical delineation of the site was initiated on 18 October 2004. A recovery well, at the release point, and two down gradient monitoring wells were installed once crude oil impact of groundwater was discovered. Two attempts to install an up gradient monitoring well proved futile due to drilling into limestone caverns and losing circulation. PID field screenings were utilized to determine which soil samples were to be submitted to the laboratory for analysis. Selected soil samples were analyzed for concentrations of BTEX and TPH. Laboratory data sheets and chain-of-custody forms are attached (Appendix C).

Recovery Well 1, as depicted on the Site Map (Figure 2), was installed at the release point. Soil samples collected at the 5, 15, 25, 35, 60, 75, 95, 115, 135, 155, 175 and 185 feet bgs were analyzed. Analytical results indicated BTEX concentrations exceeded NMOCD regulatory standards at 5, 15, 25, 35, 60 and 95 feet bgs.

Analytical results indicated TPH concentrations exceeded NMOCD regulatory standards 15, 25, 35, 60, 75 and 95 feet bgs at 5070 mg/kg, 7920 mg/kg, 5290 mg/kg, 10,400 mg/kg, 12,900 mg/kg and 12,100 mg/kg, respectively. Analytical results indicated BTEX concentrations were below NMOCD regulatory standards at 75, 115, 135, 155, 175 and 185 feet bgs. Analytical results indicated that TPH concentrations were below NMOCD regulatory standards at 5, 115, 135, 155, 175 and 185 feet bgs. The deepest soil impact documented above NMOCD standards was the soil sample collected from a depth of 95 feet bgs.

Monitoring Well 2, as depicted on the Site Map (Figure 2), was installed down gradient of the release point. Soil samples collected at 15, 60, 95, 135 and 195 feet bgs were analyzed. Analytical results indicated that BTEX and TPH concentrations were not detected above the laboratory method detection limits.

Monitoring Well 3, as depicted on the Site Map (Figure 2), was installed down gradient of the release point. Soil samples collected at 15, 60, 95, 135 and 195 feet bgs were analyzed. Analytical results indicated that BTEX and TPH concentrations were not detected above the laboratory method detection limits.

Soil Boring 1, as depicted on the Site Map (Figure 2), was installed up gradient of the release point. Soil samples collected at 15, 35, 60, 75, and 90 feet bgs were analyzed. Analytical results indicated that BTEX and TPH concentrations were not detected above the laboratory method detection limits. Soil Boring 1 was terminated at 95 feet bgs after drilling into a limestone cavern and losing air circulation. Soil Boring 1 was sealed with bentonite chips.

Soil Boring 2, as depicted on the Site Map (Figure 2), was installed up gradient of the release point. Soil samples collected at 15, 35, 60, 75, 90 and 105 feet bgs were analyzed. Analytical results indicated that BTEX and TPH concentrations were not detected above laboratory method detection limits. Soil Boring 2 was terminated at 105 feet bgs after drilling into a limestone cavern and losing air circulation. Soil Boring 2 was sealed with bentonite chips.

DISTRIBUTION OF HYDROCARBONS IN THE SATURATED ZONE

Groundwater was encountered at a depth of approximately 189 feet bgs in the recovery and monitoring wells. Recovery well 1 has a measured thickness of 0.04 feet of free phase hydrocarbon on the groundwater. A hydrocarbon absorbent sock was installed in the recovery well. Analytical results of the soil and groundwater samples indicated there was no hydrocarbon impact on the groundwater in Monitoring Well 1 and Monitoring Well 2 (see Water Chemistry, Table 3).

RECOMMENDATIONS FOR REMEDIATION/CLOSURE

Approximately 50 cubic yards of impacted soil has been excavated and stockpiled on-site resulting from the emergency response and pipeline repair. Based on the soil

delineation investigation, the release point will require further excavation. An archeological study of the site will be performed in accordance with BLM directives prior to excavation activities. Once the archeological study is completed and Plains has authorization to excavate, Plains proposes to excavate the hydrocarbon-impacted soil at the release point to a depth of approximately 12 feet bgs. Based on the available data and the extent of the surface stained soil, we anticipate the excavation will be approximately 40 feet by 40 feet in size. The excavated soils will be placed on a poly liner to prevent contamination of the surrounding area. It is estimated that approximately 711 cubic yards of impacted soil will be excavated. The excavated soils will be transported to the Plains Lea Station Land Farm. Due to the remote area of this location and lack of receptors it is recommended that an impermeable barrier consisting of a 40-mil poly liner be permanently installed at the base of the excavation to inhibit vertical migration of contaminants in soil left in place below the cap. The barrier will extend a minimum of four feet beyond the edges of soil impacted above NMOCD remedial thresholds. A 6-inch layer of fine sand will be installed beneath and above the 40-mil poly liner to prevent degrading the integrity of the poly liner. Installation of the 40-mil poly liner at a depth of 20 feet bgs will protect the barrier from erosion and human intrusion for a term sufficient to allow natural biodegradation of contaminants in the soil. After the barrier has been installed, the excavation will be backfilled with indigenous soil approved by the NMOCD and BLM. Once backfilling has occurred, the area will be contoured to the original rangeland surrounding the site and reseeded with approved BLM grass seed.

The analytical results from the initial groundwater samples collected from MW-2 and MW-3 indicated that the BTEX concentrations are below the regulatory standards established by NMOCD. It is recommended that four (4) consecutive sampling events be performed and if the groundwater samples remain below NMOCD regulatory standards the monitoring wells be plugged and abandoned pursuant to NMOCD protocols. The recovery well will be gauged monthly and in conjunction with quarterly sampling events to ascertain the level of phase-separated hydrocarbons on the groundwater. The crude oil absorbent sock, placed in recovery well 1, will be inspected on a monthly basis and replaced as required.

QA/QC PROCEDURES

Soil Sampling

Soil samples were delivered to Environmental Lab of Texas, Inc. in Odessa, Texas for BTEX, TPH analyses using the methods described below. Soil samples were analyzed for BTEX, TPH-GRO/DRO within fourteen days following the collection date.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030

- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO

Groundwater Sampling

The groundwater monitoring wells were developed utilizing the Environmental Protection Agency (EPA) protocol of approximately nine well volumes of groundwater or until the monitoring wells are dry using an electrical Grundfos Pump. Within forty-eight hours of development, the monitoring wells were measured and purged of approximately three well volumes utilizing an electrical Grundfos Pump. Groundwater samples were collected using a disposable Teflon sampler and the groundwater samples were stored in clean, glass containers provided by the laboratory and placed on ice in the field. Purged water was collected in a polystyrene tank and disposed of at a licensed New Mexico disposal facility. Groundwater samples were delivered to Environmental Lab of Texas, Odessa, Texas for analysis of BTEX and Total Dissolved Solids (TDS) concentrations using the methods described below. All samples were analyzed within approved holding times following the collection date.

- BTEX concentrations in accordance with EPA Method 8260B/5030
- TDS concentrations in accordance with EPA Method 160.1

Decontamination Of Equipment

Cleaning of the sampling equipment will be the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment will be cleaned with Liqui-Nox[®] detergent and rinsed with distilled water.

Laboratory Protocol

The laboratory will be responsible for proper QA/QC procedures after signing the chain-of-custody form. These procedures will be either transmitted with the laboratory reports or are on file at the laboratory.

LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this Preliminary Investigation Report and Work Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Service Technologies, LLC, has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Service Technologies, 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 Service Technologies, LLC, has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Service Technologies, 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 Marketing, 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 Service Technologies, LLC, and Plains Marketing, L.P.

DISTRIBUTION

Copy 1: Jeff Dann
Plains All American
333 Clay Street
Suite 1600
Houston, Texas 77002
jpdann@paalp.com

Copy 2: Camille Reynolds
Plains All American
214 W. C-61
Hobbs, New Mexico 88240
cjreynolds@paalp.com

Copy 3: Mr. Ed Martin
New Mexico Energy, Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Emartin@state.nm.us

Copy 4: Mr. Van Barton
New Mexico Oil Conservation Division
1301 W. Grand Avenue
Artesia, New Mexico 88210
Vbarton@state.nm.us

Copy 5: Mr. James Amos
U.S. Department of the Interior
Bureau of Land Management
620 E. Greene St.
P. O. Box 1778
Carlsbad, New Mexico, 88220
James_Amos@nm.blm.gov

Copy 6: Basin Environmental Service Technologies LLC
P. O. Box 301
Lovington, New Mexico 88260
kdutton@basinenv.com

Copy 3

TABLES

TABLE 1

**SOIL CHEMISTRY, SOIL BORINGS/MONITOR
AND RECOVERY WELLS**

TABLE 1, PAGE 1

SOIL CHEMISTRY

PLAINS MARKETING, L.P.
 BALLARD GRAYBURG 5"
 EDDY COUNTY, NEW MEXICO
 PLAINS EMS NO: 2004-00206

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030							METHOD: 8015M		TOTAL TPH (mg/kg)
			BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	GRO (mg/kg)	DRO (mg/kg)			
RW-1	5'	10/18/04	0.032	0.148	0.187	0.836	0.441	424	3400			3820
RW-1	15'	10/18/04	0.078	0.462	1.70	3.11	2.02	918	4150			5070
RW-1	25'	10/18/04	0.077	0.844	4.23	5.85	3.44	1360	6560			7920
RW-1	35'	10/18/04	0.238	0.747	3.09	4.59	2.71	979	4310			5290
RW-1	60'	10/18/04	0.027	0.318	2.03	3.12	2.06	1710	8650			10400
RW-1	75'	10/18/04	<0.025	0.494	1.90	1.89	2.31	1850	11000			12900
RW-1	95'	10/18/04	0.028	0.387	2.83	4.14	2.6	2130	9970			12100
RW-1	115'	10/18/04	<0.025	0.063	0.349	0.519	0.389	381	3070			3450
RW-1	135'	10/18/04	<0.025	0.122	0.655	0.994	0.672	393	2150			2540
RW-1	155'	10/18/04	<0.025	0.048	0.289	0.424	0.297	285	2420			2700
RW-1	175'	10/18/04	<0.025	0.134	0.725	1.15	0.768	503	2500			3000
RW-1	185'	10/18/04	<0.025	0.069	0.308	0.503	0.332	247	1580			1830
MW-2	15'	10/19/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0			<10.0
MW-2	60'	10/19/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0			<10.0
MW-2	95'	10/20/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0			<10.0
MW-2	135'	10/20/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0			<10.0
MW-2	195'	10/20/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0			<10.0

TABLE 1, PAGE 2

SOIL CHEMISTRY

PLAINS MARKETING, L.P.
 BALLARD GRAYBURG 5"
 EDDY COUNTY, NEW MEXICO
 PLAINS EMS NO: 2004-00206

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL TPH (mg/kg)
			BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	
MW-3	15'	10/20/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-3	60'	10/20/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-3	95'	10/20/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-3	135'	10/20/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-3	195'	10/21/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-1	15'	10/19/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-1	35'	10/19/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-1	60'	10/19/04	<0.025	<0.025	<0.025	0.041	<0.025	<10.0	<10.0	<10.0
SB-1	75'	10/19/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-1	90'	10/19/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-2	15'	10/22/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-2	35'	10/22/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-2	60'	10/22/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-2	75'	10/22/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-2	90'	10/22/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-2	105'	10/22/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0

TABLE 2

WATER CHEMISTRY

TABLE 2

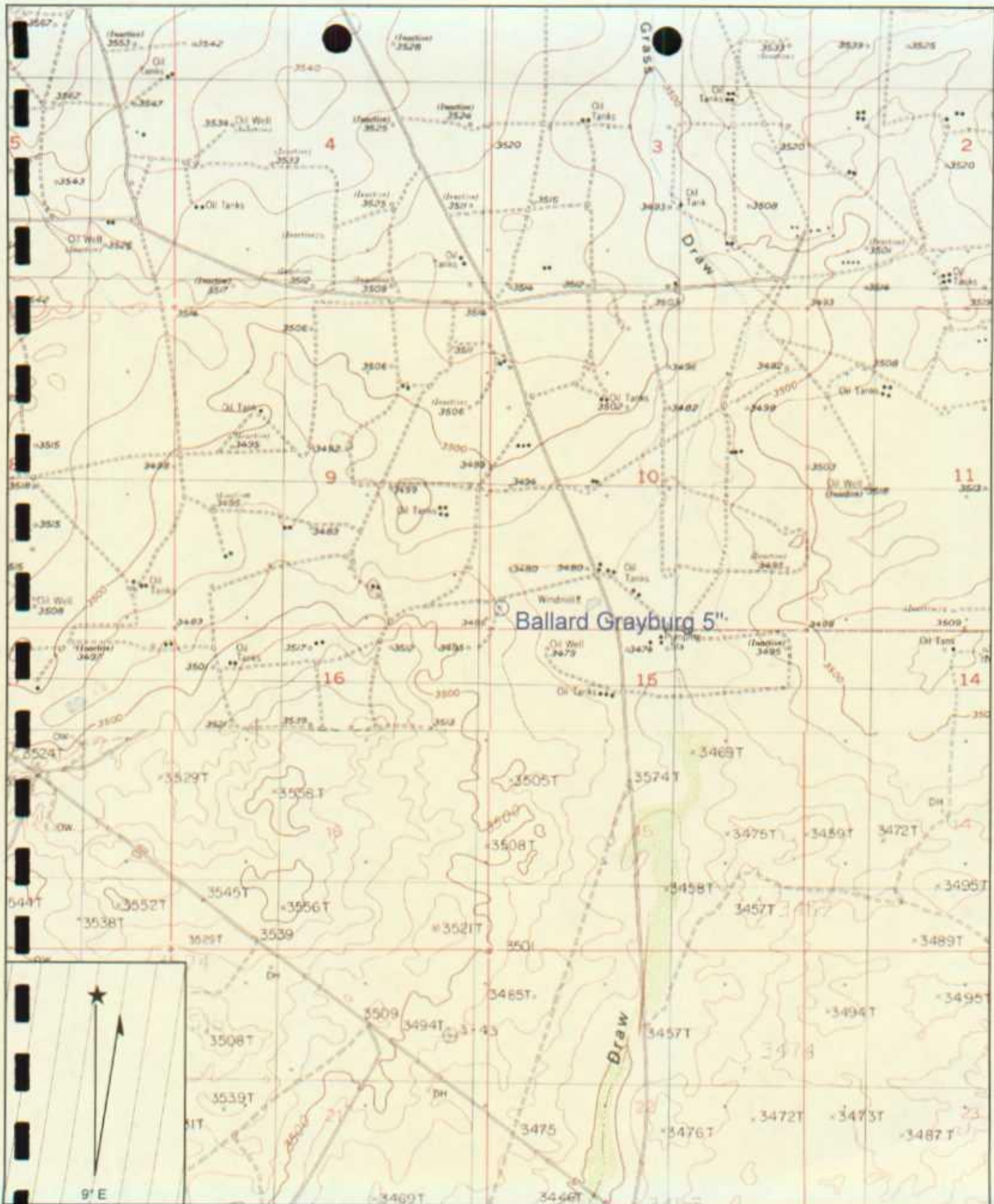
GROUND WATER CHEMISTRY

PLAINS MARKETING, L.P.
BALLARD GRAYBURG 5"
EDDY COUNTY, NEW MEXICO
PLAINS EMS NO. 2004-00206

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030					Method:
		BENZENE	TOLUENE	ETHYL- BENZENE	M,P- XYLENES	O-XYLENES	
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	160.1
MW-2	12/04/04	<0.001	<0.001	<0.001	<0.001	<0.001	7730
MW-3	12/04/04	<0.001	<0.001	<0.001	<0.001	<0.001	8530

FIGURES

FIGURE 1
SITE LOCATION MAP

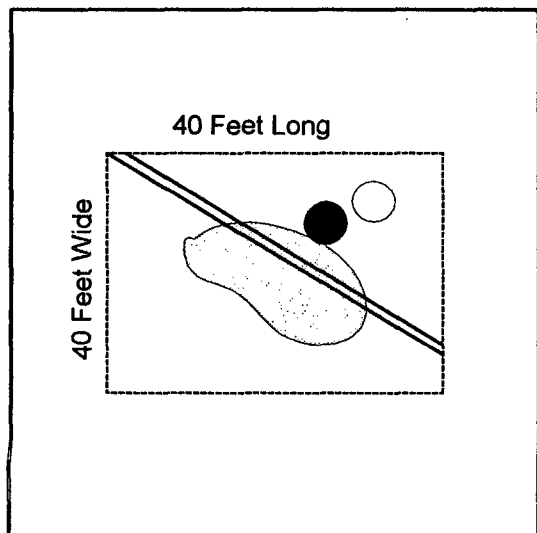
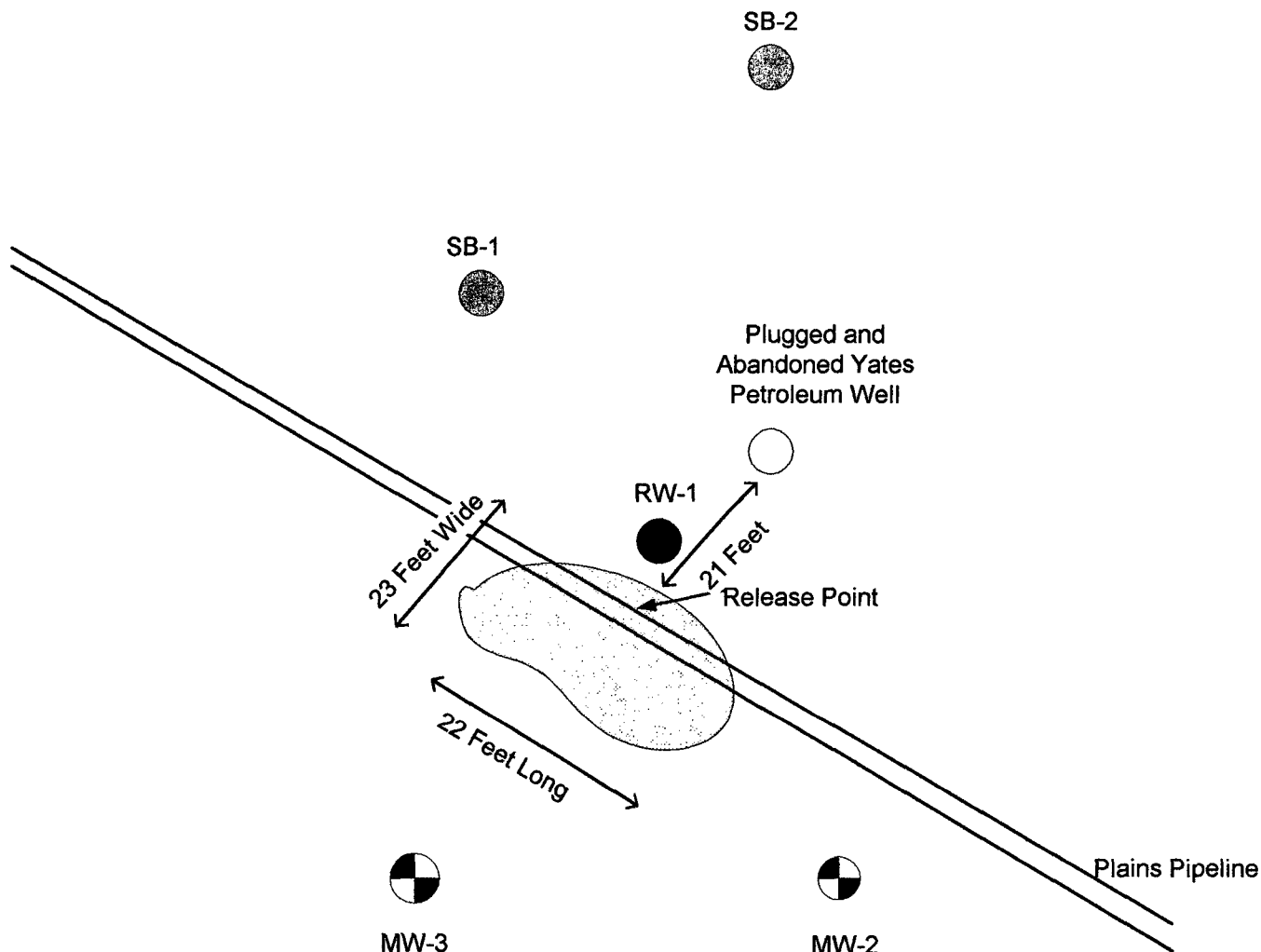


Name: RED LAKE SE
Date: 12/14/2004
Scale: 1 inch equals 2000 feet

Location: 032° 45' 20.7" N 104° 04' 12.71" W
Caption: Plains Marketing, L. P.
Ballard Grayburg 5" Pipeline
SW/SW, S10, T18S, R29E
Eddy County, New Mexico

FIGURE 2
SITE MAP

Plains Marketing, L.P.
 Ballard Grayburg 5"
 Unit M, S10, T18S, R29E
 Eddy County, New Mexico



Estimated Extent of
 Soil Excavation

TITLE	DRAWN BY
Ballard Grayburg 5"	Basin Environmental
DESCRIPTION	Service Technologies
Site Map, Figure 2	kad

FIGURE 3
DIGITAL PHOTOGRAPHS

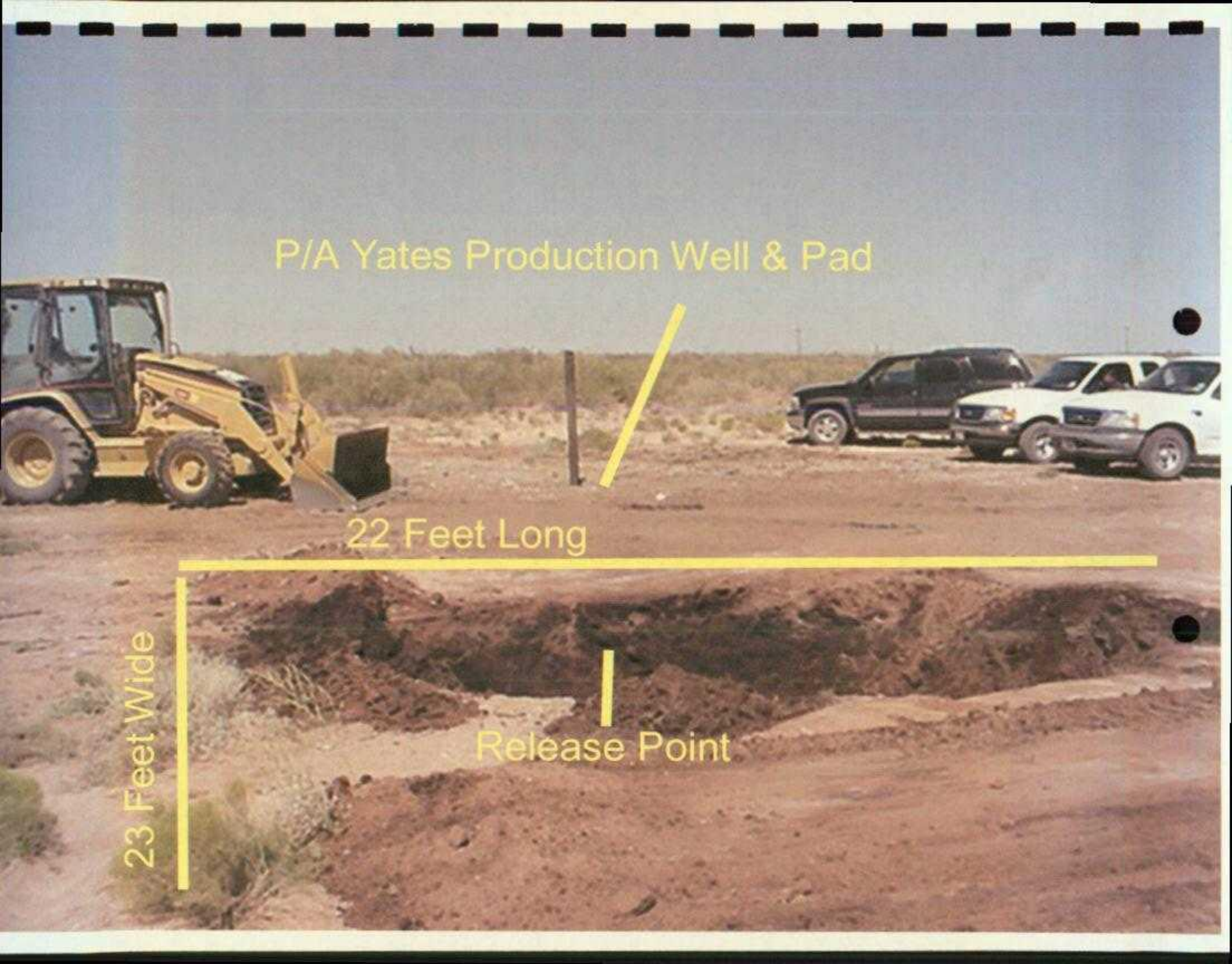
P/A Yates Production Well & Pad



22 Feet Long

23 Feet Wide

Release Point





23 Feet

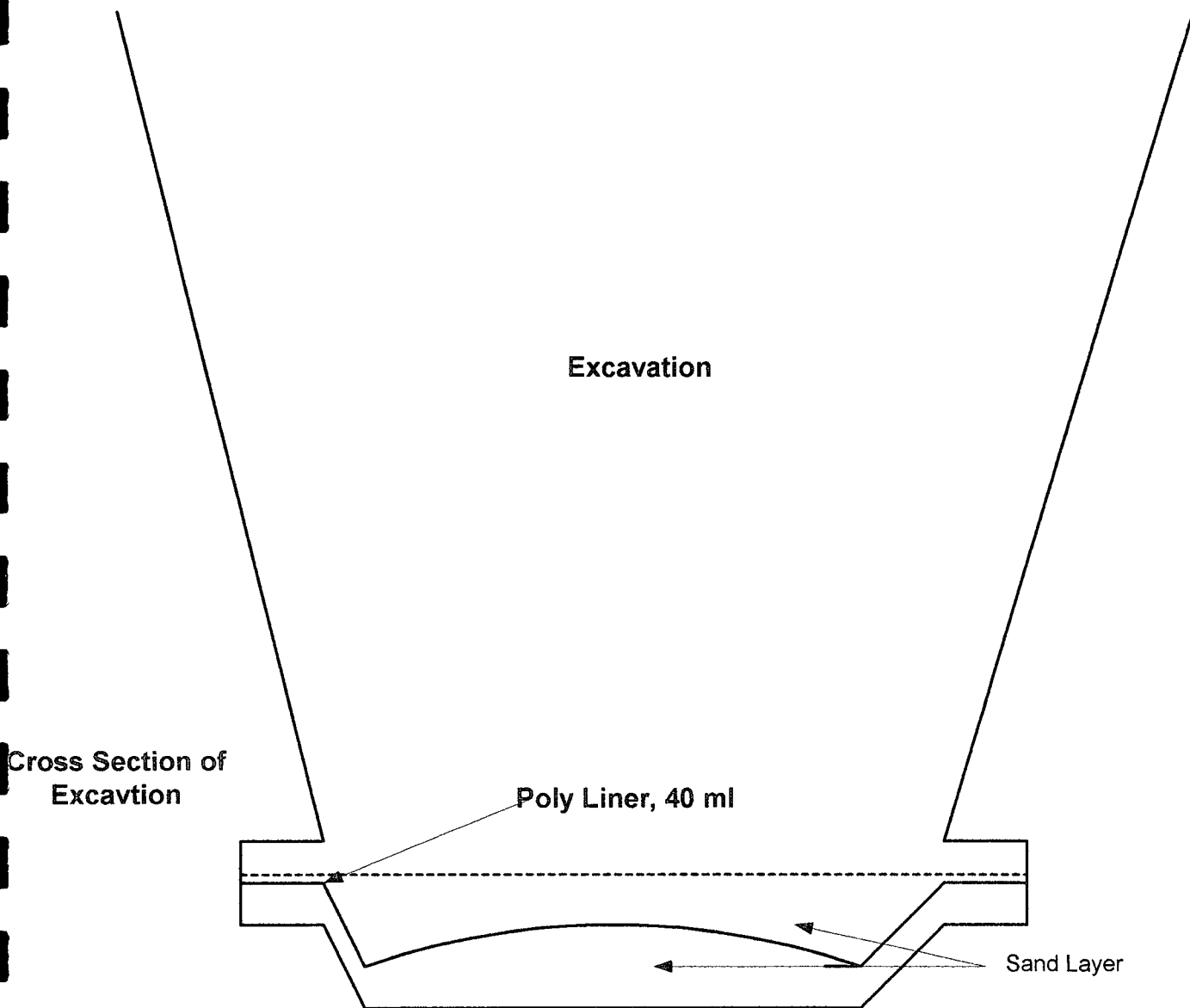
Release Point and Excavation

22 Feet

FIGURE 4

INSTALLATION OF 40-ml POLY-LINER

**Ballard Grayburg 5"
40-mil Poly-Liner Installation**



TITLE	DATE
Ballard Grayburg 5"	14 Dec 04
DRAWN BY	LABEL
Basin Environmental Services KAD	Installation of 40 ml Poly Liner

APPENDICES

APPENDIX A

**NEW MEXICO OFFICE OF THE STATE
ENGINEER WATER WELL DATABASE REPORT**

New Mexico Office of the State Engineer
Well Reports and Downloads

Township:	18S	Range:	29E	Sections:	10
NAD27 X:		Y:		Zone:	
Search Radius:					
County:		Basin:		Number:	
Suffix:					
Owner Name: (First)		(Last)		<input type="radio"/> Non-Domestic	<input type="radio"/> Domestic
<input checked="" type="radio"/> All					
Well / Surface Data Report			Avg Depth to Water Report		
Water Column Report					
Clear Form		WATERS Menu		Help	

WATER COLUMN REPORT 09/22/2004

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

Well Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Well	Depth	Depth	Wate
											Water	Colu	
No Records found, try again													

New Mexico Office of the State Engineer
Well Reports and Downloads

Township:	18S	Range:	29E	Sections:	3,15,9,11
NAD27 X:		Y:		Zone:	
Search Radius:					
County:		Basin:		Number:	
Suffix:					
Owner Name: (First)		(Last)		<input type="checkbox"/> Non-Domestic <input type="checkbox"/> Domestic <input checked="" type="radio"/> All	
Well / Surface Data Report			Avg Depth to Water Report		
Water Column Report					
Clear Form		WATERS Menu		Help	

AVERAGE DEPTH OF WATER REPORT 09/22/2004

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
No Records found, try again										

APPENDIX B

**BLM REPORT OF UNDESIRABLE EVENT
CHECKLIST**

REPORT OF UNDESIRABLE EVENT CHECKLIST

DATE OF OCCURRENCE/DISCOVERY: 9-2-04 TIME OF OCCURRENCE: 06:00
DATE REPORTED TO BLM: 9-2-04 TIME REPORTED: 13:00
BLM OFFICE REPORTED TO (RESOURCE AREA/DISTRICT OFFICE/OTHER): Carlsbad
LOCATION: SECTION: 10 T. 18S R. 29E MERIDIAN: NM Prime Meridian
COUNTY: Eddy STATE: NM WELL NAME: 5 Inch Gathering Line
OPERATOR: Plains
SURFACE OWNERSHIP: BLM MINERAL OWNERSHIP: BLM
LEASE NO.: 9018555 UNIT/CA NO.: _____ RIGHT-OF-WAY NO.: LC057579

TYPE OF EVENT, CIRCLE APPROPRIATE ITEM(S):
BLOWOUT, FIRE, FATALITY, INJURY, PROPERTY DAMAGE, OIL SPILL, SALTWATER SPILL, TOXIC
FLUID SPILL, OIL AND SALTWATER SPILL, OIL AND TOXIC FLUID SPILL, SALTWATER AND TOXIC
FLUID SPILL, GAS VENTING, UNCONTROLLED FLOW OF WELL BORE FLUIDS, OR OTHER (SPECIFY):

CAUSE OF EVENT: External corrosion of 5 inch
Gathering line

CAUSE AND EXTENT OF PERSONAL INJURIES/CAUSE OF DEATH(S): none

EFFECTS OF EVENT: Crude oil impacted soil

ACTION TAKEN TO CONTROL THE EVENT: Clamp placed on line,
impacted soil stockpiled on plastic

LENGTH OF TIME TO CONTROL EVENT AND SUBSEQUENT CLEAN-UP: 9 hours

VOLUME(S) OF FLUIDS (SPECIFY): _____ DISCHARGED: 80 barrels crude oil
CONSUMED: 80 barrels crude RECOVERED: 0 barrels crude oil

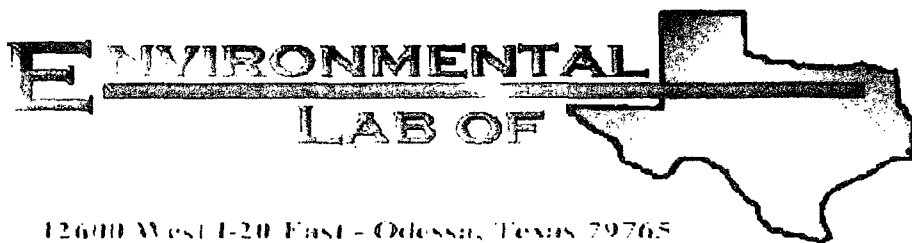
OTHER FEDERAL, STATE, AND LOCAL GOVERNMENT AGENCIES NOTIFIED (INCLUDE NAMES AND DATE
AND TIME): NMOCN Artesia Van Barton notified on
9-2-04 at 1432.

ACTION THAT HAS BEEN OR WILL BE TAKEN TO PREVENT REOCCURRENCE: A clamp was
placed on the line

SIGNED: Camille Reynolds
DATE: 9-7-04 TITLE: Remediation Coordinator
Plains Cell American

APPENDIX C

**ENVIRONMENTAL LABORATORY OF TEXAS
ANALYTICAL RESULTS**



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Ken Dutton

Basin Environmental Services

P.O. Box 301

Lovington, TX 88260

Project: Ballard-Grayburg 5 Inch

Project Number: EMS:2004-00206

Location: Eddy County, NM

Lab Order Number: 4J26001

Report Date: 11/01/04

Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RW-1 5'	4J26001-01	Soil	10/18/04 12:53	10/25/04 17:25
RW-1 15'	4J26001-02	Soil	10/18/04 13:17	10/25/04 17:25
RW-1 25'	4J26001-03	Soil	10/18/04 13:41	10/25/04 17:25
RW-1 35'	4J26001-04	Soil	10/18/04 13:56	10/25/04 17:25
RW-1 60'	4J26001-05	Soil	10/18/04 14:30	10/25/04 17:25
RW-1 75'	4J26001-06	Soil	10/18/04 14:41	10/25/04 17:25
RW-1 95'	4J26001-07	Soil	10/18/04 15:00	10/25/04 17:25
RW-1 115'	4J26001-08	Soil	10/18/04 15:34	10/25/04 17:25
RW-1 135'	4J26001-09	Soil	10/18/04 16:07	10/25/04 17:25
RW-1 155'	4J26001-10	Soil	10/18/04 16:41	10/25/04 17:25
RW-1 175'	4J26001-11	Soil	10/18/04 17:11	10/25/04 17:25
RW-1 185'	4J26001-12	Soil	10/18/04 17:26	10/25/04 17:25
SB-1 15'	4J26001-13	Soil	10/19/04 12:27	10/25/04 17:25
SB-1 35'	4J26001-14	Soil	10/19/04 12:46	10/25/04 17:25
SB-1 60'	4J26001-15	Soil	10/19/04 13:04	10/25/04 17:25
SB-1 75'	4J26001-16	Soil	10/19/04 13:15	10/25/04 17:25
SB-1 90'	4J26001-17	Soil	10/19/04 13:38	10/25/04 17:25
MW-2 15'	4J26001-18	Soil	10/19/04 15:29	10/25/04 17:25
MW-2 60'	4J26001-19	Soil	10/19/04 16:29	10/25/04 17:25
MW-2 95'	4J26001-20	Soil	10/20/04 08:39	10/25/04 17:25
MW-2 135'	4J26001-21	Soil	10/20/04 09:29	10/25/04 17:25
MW-3 15'	4J26001-22	Soil	10/20/04 12:36	10/25/04 17:25
MW-3 60'	4J26001-23	Soil	10/20/04 13:19	10/25/04 17:25
MW-3 95'	4J26001-24	Soil	10/20/04 13:46	10/25/04 17:25
MW-3 135'	4J26001-25	Soil	10/20/04 14:25	10/25/04 17:25
MW-3 195'	4J26001-26	Soil	10/21/04 09:30	10/25/04 17:25
SB-2 15'	4J26001-27	Soil	10/22/04 08:47	10/25/04 17:25
SB-2 35'	4J26001-28	Soil	10/22/04 09:04	10/25/04 17:25
SB-2 60'	4J26001-29	Soil	10/22/04 09:27	10/25/04 17:25
SB-2 75'	4J26001-30	Soil	10/22/04 09:38	10/25/04 17:25
SB-2 90'	4J26001-31	Soil	10/22/04 09:53	10/25/04 17:25
SB-2 105'	4J26001-32	Soil	10/22/04 10:09	10/25/04 17:25
MW-2 195'	4J26001-33	Soil	10/20/04 14:15	10/25/04 17:25

Basin Environmental Services
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Project: Ballard-Grayburg 5 Inch
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Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-1 5' (4J26001-01) Soil									
Benzene	0.0322	0.0250	mg/kg dry	25	EJ42716	10/26/04	10/26/04	EPA 8021B	
Toluene	0.148	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.187	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.836	0.0250	"	"	"	"	"	"	
Xylene (o)	0.441	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		116 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	424	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	3400	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	3820	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		99.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		97.8 %	70-130		"	"	"	"	
RW-1 15' (4J26001-02) Soil									
Benzene	0.0787	0.0250	mg/kg dry	25	EJ42716	10/26/04	10/26/04	EPA 8021B	
Toluene	0.462	0.0250	"	"	"	"	"	"	
Ethylbenzene	1.70	0.0250	"	"	"	"	"	"	
Xylene (p/m)	3.11	0.0250	"	"	"	"	"	"	
Xylene (o)	2.02	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		149 %	80-120		"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		111 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	918	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	4150	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	5070	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		120 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		87.6 %	70-130		"	"	"	"	
RW-1 25' (4J26001-03) Soil									
Benzene	0.0771	0.0250	mg/kg dry	25	EJ42716	10/26/04	10/26/04	EPA 8021B	
Toluene	0.844	0.0250	"	"	"	"	"	"	
Ethylbenzene	4.23	0.0250	"	"	"	"	"	"	
Xylene (p/m)	5.85	0.0250	"	"	"	"	"	"	
Xylene (o)	3.44	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		172 %	80-120		"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		104 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	1360	50.0	mg/kg dry	5	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	6560	50.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	7920	50.0	"	"	"	"	"	"	

Environmental Lab of Texas

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Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-1 25' (4J26001-03) Soil									
Surrogate: 1-Chlorooctane		23.0 %	70-130		EJ42604	10/26/04	10/26/04	EPA 8015M	S-06
Surrogate: 1-Chlorooctadecane		21.2 %	70-130		"	"	"	"	S-06
RW-1 35' (4J26001-04) Soil									
Benzene	0.238	0.0250	mg/kg dry	25	EJ42716	10/26/04	10/26/04	EPA 8021B	
Toluene	0.747	0.0250	"	"	"	"	"	"	
Ethylbenzene	3.09	0.0250	"	"	"	"	"	"	
Xylene (p/m)	4.59	0.0250	"	"	"	"	"	"	
Xylene (o)	2.71	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		220 %	80-120		"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		99.1 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	979	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	4310	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	5290	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		114 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		85.8 %	70-130		"	"	"	"	
RW-1 60' (4J26001-05) Soil									
Benzene	0.0275	0.0250	mg/kg dry	25	EJ42716	10/26/04	10/27/04	EPA 8021B	
Toluene	0.318	0.0250	"	"	"	"	"	"	
Ethylbenzene	2.03	0.0250	"	"	"	"	"	"	
Xylene (p/m)	3.12	0.0250	"	"	"	"	"	"	
Xylene (o)	2.06	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		106 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.9 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	1710	50.0	mg/kg dry	5	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	8650	50.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	10400	50.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		24.4 %	70-130		"	"	"	"	S-06
Surrogate: 1-Chlorooctadecane		19.8 %	70-130		"	"	"	"	S-06

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Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

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Reported:
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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-1 75' (4J26001-06) Soil									
Benzene	ND	0.100	mg/kg dry	100	EJ42716	10/26/04	10/27/04	EPA 8021B	
Toluene	0.494	0.100	"	"	"	"	"	"	
Ethylbenzene	1.90	0.100	"	"	"	"	"	"	
Xylene (p/m)	2.89	0.100	"	"	"	"	"	"	
Xylene (o)	2.31	0.100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		116 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	1850	50.0	mg/kg dry	5	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	11000	50.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	12900	50.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		24.6 %	70-130		"	"	"	"	S-06
Surrogate: 1-Chlorooctadecane		36.8 %	70-130		"	"	"	"	S-06
RW-1 95' (4J26001-07) Soil									
Benzene	0.0288	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/27/04	EPA 8021B	
Toluene	0.387	0.0250	"	"	"	"	"	"	
Ethylbenzene	2.83	0.0250	"	"	"	"	"	"	
Xylene (p/m)	4.14	0.0250	"	"	"	"	"	"	
Xylene (o)	2.60	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		104 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	2130	50.0	mg/kg dry	5	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	9970	50.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	12100	50.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		27.0 %	70-130		"	"	"	"	S-06
Surrogate: 1-Chlorooctadecane		32.2 %	70-130		"	"	"	"	S-06
RW-1 115' (4J26001-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/27/04	EPA 8021B	
Toluene	0.0634	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.349	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.519	0.0250	"	"	"	"	"	"	
Xylene (o)	0.389	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		92.1 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.7 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	381	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	3070	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	3450	10.0	"	"	"	"	"	"	

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Project: Ballard-Grayburg 5 Inch
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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-1 115' (4J26001-08) Soil									
Surrogate: 1-Chlorooctane		99.0 %	70-130		EJ42604	10/26/04	10/26/04	EPA 8015M	
Surrogate: 1-Chlorooctadecane		93.8 %	70-130		"	"	"	"	
RW-1 135' (4J26001-09) Soil									
Benzene	J [0.0220]	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/27/04	EPA 8021B	J
Toluene	0.122	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.655	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.994	0.0250	"	"	"	"	"	"	
Xylene (o)	0.672	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		105 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.2 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	393	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	2150	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	2540	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		96.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		88.4 %	70-130		"	"	"	"	
RW-1 155' (4J26001-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/28/04	EPA 8021B	
Toluene	0.0485	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.289	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.424	0.0250	"	"	"	"	"	"	
Xylene (o)	0.297	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		86.8 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.7 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	285	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	2420	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	2700	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		101 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		107 %	70-130		"	"	"	"	

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-1 175' (4J26001-11) Soil									
Benzene	J [0.0174]	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/27/04	EPA 8021B	J
Toluene	0.134	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.725	0.0250	"	"	"	"	"	"	
Xylene (p/m)	1.15	0.0250	"	"	"	"	"	"	
Xylene (o)	0.768	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		89.8 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.6 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	503	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	2500	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	3000	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		107 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		101 %	70-130		"	"	"	"	
RW-1 185' (4J26001-12) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/27/04	EPA 8021B	
Toluene	0.0690	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.308	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.503	0.0250	"	"	"	"	"	"	
Xylene (o)	0.332	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		83.3 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.2 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	247	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	1580	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	1830	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		93.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		95.2 %	70-130		"	"	"	"	
SB-1 15' (4J26001-13) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/28/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		80.9 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.7 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

Environmental Lab of Texas

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Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 15' (4J26001-13) Soil									
Surrogate: 1-Chlorooctane		93.4 %	70-130		EJ42604	10/26/04	10/26/04	EPA 8015M	
Surrogate: 1-Chlorooctadecane		94.6 %	70-130		"	"	"	"	
SB-1 35' (4J26001-14) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/27/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		80.9 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		95.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		95.4 %	70-130		"	"	"	"	
SB-1 60' (4J26001-15) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/28/04	EPA 8021B	
Toluene	J [0.00851]	0.0250	"	"	"	"	"	"	J
Ethylbenzene	J [0.0226]	0.0250	"	"	"	"	"	"	J
Xylene (p/m)	0.0417	0.0250	"	"	"	"	"	"	
Xylene (o)	J [0.0178]	0.0250	"	"	"	"	"	"	J
Surrogate: a,a,a-Trifluorotoluene		83.9 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.8 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		102 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		108 %	70-130		"	"	"	"	

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Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 75' (4J26001-16) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/28/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		87.3 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		107 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		115 %	70-130		"	"	"	"	
SB-1 90' (4J26001-17) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/28/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		84.7 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.8 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		86.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		103 %	70-130		"	"	"	"	
MW-2 15' (4J26001-18) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/28/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		80.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.9 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

Environmental Lab of Texas

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Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 15' (4J26001-18) Soil									
Surrogate: 1-Chlorooctane		94.8 %	70-130		EJ42604	10/26/04	10/26/04	EPA 8015M	
Surrogate: 1-Chlorooctadecane		102 %	70-130		"	"	"	"	
MW-2 60' (4J26001-19) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/28/04	EPA 8021B	
Toluene	J [0.0128]	0.0250	"	"	"	"	"	"	J
Ethylbenzene	J [0.0232]	0.0250	"	"	"	"	"	"	J
Xylene (p/m)	0.0702	0.0250	"	"	"	"	"	"	
Xylene (o)	J [0.0154]	0.0250	"	"	"	"	"	"	J
Surrogate: a,a,a-Trifluorotoluene		83.8 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		93.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		98.6 %	70-130		"	"	"	"	
MW-2 95' (4J26001-20) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ42905	10/27/04	10/28/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		80.9 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/26/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		94.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		103 %	70-130		"	"	"	"	

Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-2 135' (4J26001-21) Soil

Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/28/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		82.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.1 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		80.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		89.0 %	70-130		"	"	"	"	

MW-3 15' (4J26001-22) Soil

Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/28/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		80.1 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.2 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		90.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		99.2 %	70-130		"	"	"	"	

MW-3 60' (4J26001-23) Soil

Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/28/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		80.6 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.0 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

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Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 60' (4J26001-23) Soil									
Surrogate: 1-Chlorooctane		93.2 %	70-130		EJ42604	10/26/04	10/27/04	EPA 8015M	
Surrogate: 1-Chlorooctadecane		99.2 %	70-130		"	"	"	"	
MW-3 95' (4J26001-24) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/28/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		82.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.1 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		95.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		101 %	70-130		"	"	"	"	
MW-3 135' (4J26001-25) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/28/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		81.9 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.4 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		83.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		97.0 %	70-130		"	"	"	"	

Basin Environmental Services
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Project: Ballard-Grayburg 5 Inch
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Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 195' (4J26001-26) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/28/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		81.3 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.2 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		92.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		101 %	70-130		"	"	"	"	
SB-2 15' (4J26001-27) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/28/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		80.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.4 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		91.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		97.4 %	70-130		"	"	"	"	
SB-2 35' (4J26001-28) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/29/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		83.4 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

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Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2 35' (4J26001-28) Soil									
Surrogate: 1-Chlorooctane		101 %	70-130		EJ42604	10/26/04	10/27/04	EPA 8015M	
Surrogate: 1-Chlorooctadecane		107 %	70-130		"	"	"	"	
SB-2 60' (4J26001-29) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/29/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		86.1 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		102 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		109 %	70-130		"	"	"	"	
SB-2 75' (4J26001-30) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/29/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		84.1 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		89.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		96.4 %	70-130		"	"	"	"	

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Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2 90' (4J26001-31) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/29/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		85.8 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		96.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		101 %	70-130		"	"	"	"	
SB-2 105' (4J26001-32) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/29/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		82.3 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.4 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		80.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		84.6 %	70-130		"	"	"	"	
MW-2 195' (4J26001-33) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40101	10/28/04	10/29/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		81.9 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.0 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42604	10/26/04	10/27/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

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Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 195' (4J26001-33) Soil									
Surrogate: 1-Chlorooctane		88.8 %	70-130		EJ42604	10/26/04	10/27/04	EPA 8015M	
Surrogate: 1-Chlorooctadecane		99.6 %	70-130		"	"	"	"	

Basin Environmental Services
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Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-1 5' (4J26001-01) Soil									
% Moisture	6.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
RW-1 15' (4J26001-02) Soil									
% Moisture	7.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
RW-1 25' (4J26001-03) Soil									
% Moisture	7.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
RW-1 35' (4J26001-04) Soil									
% Moisture	9.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
RW-1 60' (4J26001-05) Soil									
% Moisture	5.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
RW-1 75' (4J26001-06) Soil									
% Moisture	6.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
RW-1 95' (4J26001-07) Soil									
% Moisture	5.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
RW-1 115' (4J26001-08) Soil									
% Moisture	13.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
RW-1 135' (4J26001-09) Soil									
% Moisture	2.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
RW-1 155' (4J26001-10) Soil									
% Moisture	12.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
RW-1 175' (4J26001-11) Soil									
% Moisture	12.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	

Environmental Lab of Texas

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Basin Environmental Services
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Project: Ballard-Grayburg 5 Inch
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Reported:
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General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-1 185' (4J26001-12) Soil									
% Moisture	11.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
SB-1 15' (4J26001-13) Soil									
% Moisture	5.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
SB-1 35' (4J26001-14) Soil									
% Moisture	5.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
SB-1 60' (4J26001-15) Soil									
% Moisture	3.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
SB-1 75' (4J26001-16) Soil									
% Moisture	5.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
SB-1 90' (4J26001-17) Soil									
% Moisture	11.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
MW-2 15' (4J26001-18) Soil									
% Moisture	4.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
MW-2 60' (4J26001-19) Soil									
% Moisture	4.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
MW-2 95' (4J26001-20) Soil									
% Moisture	3.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
MW-2 135' (4J26001-21) Soil									
% Moisture	12.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
MW-3 15' (4J26001-22) Soil									
% Moisture	13.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	

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Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
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General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 60' (4J26001-23) Soil									
% Moisture	5.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
MW-3 95' (4J26001-24) Soil									
% Moisture	5.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
MW-3 135' (4J26001-25) Soil									
% Moisture	13.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
MW-3 195' (4J26001-26) Soil									
% Moisture	15.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
SB-2 15' (4J26001-27) Soil									
% Moisture	3.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
SB-2 35' (4J26001-28) Soil									
% Moisture	3.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
SB-2 60' (4J26001-29) Soil									
% Moisture	2.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
SB-2 75' (4J26001-30) Soil									
% Moisture	4.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
SB-2 90' (4J26001-31) Soil									
% Moisture	3.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
SB-2 105' (4J26001-32) Soil									
% Moisture	1.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	
MW-2 195' (4J26001-33) Soil									
% Moisture	14.0		%	1	EJ42701	10/26/04	10/27/04	% calculation	

Environmental Lab of Texas

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Basin Environmental Services
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Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429
Reported:
11/01/04 16:44

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch EJ42604 - Solvent Extraction (GC)

Blank (EJ42604-BLK1)

Prepared & Analyzed: 10/26/04

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet						
Diesel Range Organics >C12-C35	ND	10.0	"						
Total Hydrocarbon C6-C35	ND	10.0	"						
Surrogate: 1-Chlorooctane	39.6		mg/kg	50.0		79.2	70-130		
Surrogate: 1-Chlorooctadecane	41.0		"	50.0		82.0	70-130		

Blank (EJ42604-BLK2)

Prepared: 10/26/04 Analyzed: 10/27/04

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet						
Diesel Range Organics >C12-C35	ND	10.0	"						
Total Hydrocarbon C6-C35	ND	10.0	"						
Surrogate: 1-Chlorooctane	39.7		mg/kg	50.0		79.4	70-130		
Surrogate: 1-Chlorooctadecane	40.3		"	50.0		80.6	70-130		

LCS (EJ42604-BS1)

Prepared & Analyzed: 10/26/04

Gasoline Range Organics C6-C12	455	10.0	mg/kg wet	500		91.0	75-125		
Diesel Range Organics >C12-C35	486	10.0	"	500		97.2	75-125		
Total Hydrocarbon C6-C35	941	10.0	"	1000		94.1	75-125		
Surrogate: 1-Chlorooctane	45.7		mg/kg	50.0		91.4	70-130		
Surrogate: 1-Chlorooctadecane	40.1		"	50.0		80.2	70-130		

LCS (EJ42604-BS2)

Prepared: 10/26/04 Analyzed: 10/27/04

Gasoline Range Organics C6-C12	434	10.0	mg/kg wet	500		86.8	75-125		
Diesel Range Organics >C12-C35	488	10.0	"	500		97.6	75-125		
Total Hydrocarbon C6-C35	922	10.0	"	1000		92.2	75-125		
Surrogate: 1-Chlorooctane	45.8		mg/kg	50.0		91.6	70-130		
Surrogate: 1-Chlorooctadecane	41.7		"	50.0		83.4	70-130		

Calibration Check (EJ42604-CCV1)

Prepared & Analyzed: 10/26/04

Gasoline Range Organics C6-C12	488		mg/kg	500		97.6	80-120		
Diesel Range Organics >C12-C35	519		"	500		104	80-120		
Total Hydrocarbon C6-C35	1010		"	1000		101	80-120		
Surrogate: 1-Chlorooctane	48.3		"	50.0		96.6	70-130		
Surrogate: 1-Chlorooctadecane	45.0		"	50.0		90.0	70-130		

Basin Environmental Services
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Project Manager: Ken Dutton

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Reported:
11/01/04 16:44

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EJ42604 - Solvent Extraction (GC)

Calibration Check (EJ42604-CCV2)

Prepared & Analyzed: 10/26/04

Gasoline Range Organics C6-C12	489		mg/kg	500		97.8	80-120			
Diesel Range Organics >C12-C35	488		"	500		97.6	80-120			
Total Hydrocarbon C6-C35	977		"	1000		97.7	80-120			
Surrogate: 1-Chlorooctane	41.7		"	50.0		83.4	70-130			
Surrogate: 1-Chlorooctadecane	39.9		"	50.0		79.8	70-130			

Matrix Spike (EJ42604-MS1)

Source: 4J26001-17

Prepared & Analyzed: 10/26/04

Gasoline Range Organics C6-C12	573	10.0	mg/kg dry	562	ND	102	75-125			
Diesel Range Organics >C12-C35	584	10.0	"	562	ND	104	75-125			
Total Hydrocarbon C6-C35	1160	10.0	"	1120	ND	104	75-125			
Surrogate: 1-Chlorooctane	55.0		mg/kg	50.0		110	70-130			
Surrogate: 1-Chlorooctadecane	50.3		"	50.0		101	70-130			

Matrix Spike (EJ42604-MS2)

Source: 4J26001-21

Prepared: 10/26/04 Analyzed: 10/27/04

Gasoline Range Organics C6-C12	536	10.0	mg/kg dry	568	ND	94.4	75-125			
Diesel Range Organics >C12-C35	611	10.0	"	568	ND	108	75-125			
Total Hydrocarbon C6-C35	1150	10.0	"	1140	ND	101	75-125			
Surrogate: 1-Chlorooctane	46.4		mg/kg	50.0		92.8	70-130			
Surrogate: 1-Chlorooctadecane	44.5		"	50.0		89.0	70-130			

Matrix Spike Dup (EJ42604-MSD1)

Source: 4J26001-17

Prepared & Analyzed: 10/26/04

Gasoline Range Organics C6-C12	567	10.0	mg/kg dry	562	ND	101	75-125	1.05	20	
Diesel Range Organics >C12-C35	584	10.0	"	562	ND	104	75-125	0.00	20	
Total Hydrocarbon C6-C35	1150	10.0	"	1120	ND	103	75-125	0.866	20	
Surrogate: 1-Chlorooctane	54.5		mg/kg	50.0		109	70-130			
Surrogate: 1-Chlorooctadecane	51.8		"	50.0		104	70-130			

Matrix Spike Dup (EJ42604-MSD2)

Source: 4J26001-21

Prepared: 10/26/04 Analyzed: 10/27/04

Gasoline Range Organics C6-C12	550	10.0	mg/kg dry	568	ND	96.8	75-125	2.58	20	
Diesel Range Organics >C12-C35	589	10.0	"	568	ND	104	75-125	3.67	20	
Total Hydrocarbon C6-C35	1140	10.0	"	1140	ND	100	75-125	0.873	20	
Surrogate: 1-Chlorooctane	46.7		mg/kg	50.0		93.4	70-130			
Surrogate: 1-Chlorooctadecane	44.8		"	50.0		89.6	70-130			

Basin Environmental Services
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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch EJ42716 - EPA 5030C (GC)

Blank (EJ42716-BLK1)

Prepared: 10/26/04 Analyzed: 10/27/04

Benzene	ND	0.0250	mg/kg wet						
Toluene	ND	0.0250	"						
Ethylbenzene	ND	0.0250	"						
Xylene (p/m)	ND	0.0250	"						
Xylene (o)	ND	0.0250	"						
Surrogate: a,a,a-Trifluorotoluene	87.0		ug/kg	100		87.0	80-120		
Surrogate: 4-Bromofluorobenzene	103		"	100		103	80-120		

LCS (EJ42716-BS1)

Prepared & Analyzed: 10/26/04

Benzene	115		ug/kg	100		115	80-120		
Toluene	108		"	100		108	80-120		
Ethylbenzene	105		"	100		105	80-120		
Xylene (p/m)	240		"	200		120	80-120		
Xylene (o)	115		"	100		115	80-120		
Surrogate: a,a,a-Trifluorotoluene	111		"	100		111	80-120		
Surrogate: 4-Bromofluorobenzene	119		"	100		119	80-120		

Calibration Check (EJ42716-CCV1)

Prepared: 10/26/04 Analyzed: 10/27/04

Benzene	99.0		ug/kg	100		99.0	80-120		
Toluene	92.9		"	100		92.9	80-120		
Ethylbenzene	96.9		"	100		96.9	80-120		
Xylene (p/m)	218		"	200		109	80-120		
Xylene (o)	104		"	100		104	80-120		
Surrogate: a,a,a-Trifluorotoluene	103		"	100		103	80-120		
Surrogate: 4-Bromofluorobenzene	114		"	100		114	80-120		

Matrix Spike (EJ42716-MS1)

Source: 4J25002-01

Prepared: 10/26/04 Analyzed: 10/27/04

Benzene	88.8		ug/kg	100	ND	88.8	80-120		
Toluene	91.2		"	100	ND	91.2	80-120		
Ethylbenzene	97.3		"	100	ND	97.3	80-120		
Xylene (p/m)	220		"	200	ND	110	80-120		
Xylene (o)	106		"	100	ND	106	80-120		
Surrogate: a,a,a-Trifluorotoluene	104		"	100		104	80-120		
Surrogate: 4-Bromofluorobenzene	118		"	100		118	80-120		

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Basin Environmental Services
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Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EJ42716 - EPA 5030C (GC)

Matrix Spike Dup (EJ42716-MSD1)

Source: 4J25002-01

Prepared: 10/26/04 Analyzed: 10/27/04

Benzene	92.0		ug/kg	100	ND	92.0	80-120	3.54	20	
Toluene	93.6		"	100	ND	93.6	80-120	2.60	20	
Ethylbenzene	102		"	100	ND	102	80-120	4.72	20	
Xylene (p/m)	233		"	200	ND	116	80-120	5.31	20	
Xylene (o)	113		"	100	ND	113	80-120	6.39	20	
Surrogate: a,a,a-Trifluorotoluene	104		"	100		104	80-120			
Surrogate: 4-Bromofluorobenzene	118		"	100		118	80-120			

Batch EJ42905 - EPA 5030C (GC)

Blank (EJ42905-BLK1)

Prepared & Analyzed: 10/27/04

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	81.0		ug/kg	100		81.0	80-120			
Surrogate: 4-Bromofluorobenzene	85.4		"	100		85.4	80-120			

LCS (EJ42905-BS1)

Prepared & Analyzed: 10/27/04

Benzene	88.7		ug/kg	100		88.7	80-120			
Toluene	90.0		"	100		90.0	80-120			
Ethylbenzene	98.9		"	100		98.9	80-120			
Xylene (p/m)	223		"	200		112	80-120			
Xylene (o)	110		"	100		110	80-120			
Surrogate: a,a,a-Trifluorotoluene	93.8		"	100		93.8	80-120			
Surrogate: 4-Bromofluorobenzene	119		"	100		119	80-120			

Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch EJ42905 - EPA 5030C (GC)

Calibration Check (EJ42905-CCV1)

Prepared: 10/27/04 Analyzed: 10/28/04

Benzene	90.6		ug/kg	100		90.6	80-120		
Toluene	90.9		"	100		90.9	80-120		
Ethylbenzene	93.5		"	100		93.5	80-120		
Xylene (p/m)	211		"	200		106	80-120		
Xylene (o)	102		"	100		102	80-120		
Surrogate: a,a,a-Trifluorotoluene	100		"	100		100	80-120		
Surrogate: 4-Bromofluorobenzene	107		"	100		107	80-120		

Matrix Spike (EJ42905-MS1)

Source: 4J26001-16

Prepared: 10/27/04 Analyzed: 10/28/04

Benzene	91.1		ug/kg	100	ND	91.1	80-120		
Toluene	93.9		"	100	ND	93.9	80-120		
Ethylbenzene	105		"	100	ND	105	80-120		
Xylene (p/m)	238		"	200	ND	119	80-120		
Xylene (o)	118		"	100	ND	118	80-120		
Surrogate: a,a,a-Trifluorotoluene	106		"	100		106	80-120		
Surrogate: 4-Bromofluorobenzene	118		"	100		118	80-120		

Matrix Spike Dup (EJ42905-MSD1)

Source: 4J26001-16

Prepared: 10/27/04 Analyzed: 10/28/04

Benzene	88.7		ug/kg	100	ND	88.7	80-120	2.67	20
Toluene	91.9		"	100	ND	91.9	80-120	2.15	20
Ethylbenzene	99.8		"	100	ND	99.8	80-120	5.08	20
Xylene (p/m)	225		"	200	ND	112	80-120	6.06	20
Xylene (o)	110		"	100	ND	110	80-120	7.02	20
Surrogate: a,a,a-Trifluorotoluene	98.8		"	100		98.8	80-120		
Surrogate: 4-Bromofluorobenzene	118		"	100		118	80-120		

Batch EK40101 - EPA 5030C (GC)

Blank (EK40101-BLK1)

Prepared & Analyzed: 10/28/04

Benzene	ND	0.0250	mg/kg wet						
Toluene	ND	0.0250	"						
Ethylbenzene	ND	0.0250	"						
Xylene (p/m)	ND	0.0250	"						
Xylene (o)	ND	0.0250	"						
Surrogate: a,a,a-Trifluorotoluene	83.7		ug/kg	100		83.7	80-120		
Surrogate: 4-Bromofluorobenzene	98.7		"	100		98.7	80-120		

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch EK40101 - EPA 5030C (GC)

LCS (EK40101-BS1)

Prepared & Analyzed: 10/28/04

Benzene	84.3		ug/kg	100		84.3	80-120		
Toluene	87.5		"	100		87.5	80-120		
Ethylbenzene	96.2		"	100		96.2	80-120		
Xylene (p/m)	216		"	200		108	80-120		
Xylene (o)	104		"	100		104	80-120		
Surrogate: a,a,a-Trifluorotoluene	97.4		"	100		97.4	80-120		
Surrogate: 4-Bromofluorobenzene	116		"	100		116	80-120		

Calibration Check (EK40101-CCV1)

Prepared: 10/28/04 Analyzed: 10/29/04

Benzene	94.5		ug/kg	100		94.5	80-120		
Toluene	94.2		"	100		94.2	80-120		
Ethylbenzene	93.3		"	100		93.3	80-120		
Xylene (p/m)	206		"	200		103	80-120		
Xylene (o)	98.7		"	100		98.7	80-120		
Surrogate: a,a,a-Trifluorotoluene	107		"	100		107	80-120		
Surrogate: 4-Bromofluorobenzene	101		"	100		101	80-120		

Matrix Spike (EK40101-MS1)

Source: 4J26001-31

Prepared: 10/28/04 Analyzed: 10/29/04

Benzene	90.7		ug/kg	100	ND	90.7	80-120		
Toluene	93.4		"	100	ND	93.4	80-120		
Ethylbenzene	101		"	100	ND	101	80-120		
Xylene (p/m)	229		"	200	ND	114	80-120		
Xylene (o)	111		"	100	ND	111	80-120		
Surrogate: a,a,a-Trifluorotoluene	101		"	100		101	80-120		
Surrogate: 4-Bromofluorobenzene	113		"	100		113	80-120		

Matrix Spike Dup (EK40101-MSD1)

Source: 4J26001-31

Prepared: 10/28/04 Analyzed: 10/29/04

Benzene	92.0		ug/kg	100	ND	92.0	80-120	1.42	20
Toluene	93.8		"	100	ND	93.8	80-120	0.427	20
Ethylbenzene	101		"	100	ND	101	80-120	0.00	20
Xylene (p/m)	228		"	200	ND	114	80-120	0.00	20
Xylene (o)	110		"	100	ND	110	80-120	0.905	20
Surrogate: a,a,a-Trifluorotoluene	99.9		"	100		99.9	80-120		
Surrogate: 4-Bromofluorobenzene	118		"	100		118	80-120		

Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429
Reported:
11/01/04 16:44

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EJ42701 - General Preparation (Prep)

Blank (EJ42701-BLK1)

Prepared: 10/26/04 Analyzed: 10/27/04

% Moisture	0.0	%
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Duplicate (EJ42701-DUP1)

Source: 4J26001-01

Prepared: 10/26/04 Analyzed: 10/27/04

% Moisture	6.0	%	6.0	0.00	20
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Basin Environmental Services
P.O. Box 301
Lovington TX, 88260

Project: Ballard-Grayburg 5 Inch
Project Number: EMS:2004-00206
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
11/01/04 16:44

Notes and Definitions

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:

Raland K. Tuttle

Date:

11/1/04

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Biezugbe, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
4J26001-03	8021B BTEX	a,a,a-Trifluorotoluene	Exceeds upper control limit
	8021B BTEX	(Soil)	Result calculations based on MDL
	TPH 8015	(Soil)	Result calculations based on MDL
	8021B BTEX	(Soil)	RPD calculations based on %Recovery
	8021B BTEX	(Soil)	J-Flags used
	TPH 8015	(Soil)	J-Flags used
4J26001-03	TPH 8015	1-Chlorooctadecane	Exceeds lower control limit
4J26001-03	TPH 8015	1-Chlorooctane	Exceeds lower control limit
4J26001-05	TPH 8015	1-Chlorooctadecane	Exceeds lower control limit
4J26001-05	TPH 8015	1-Chlorooctane	Exceeds lower control limit
4J26001-06	TPH 8015	1-Chlorooctadecane	Exceeds lower control limit
4J26001-06	TPH 8015	1-Chlorooctane	Exceeds lower control limit
			Default Report (not modified)
4J26001-07	TPH 8015	1-Chlorooctadecane	Exceeds lower control limit
4J26001-07	TPH 8015	1-Chlorooctane	S-06
4J26001-04	8021B BTEX	a,a,a-Trifluorotoluene	Exceeds upper control limit
4J26001-02	8021B BTEX	a,a,a-Trifluorotoluene	Exceeds upper control limit
4J26001-02	8021B BTEX	a,a,a-Trifluorotoluene	S-04
4J26001-03	8021B BTEX	a,a,a-Trifluorotoluene	S-04
4J26001-03	TPH 8015	1-Chlorooctadecane	S-06
4J26001-03	TPH 8015	1-Chlorooctane	S-06
4J26001-04	8021B BTEX	a,a,a-Trifluorotoluene	S-04
4J26001-05	TPH 8015	1-Chlorooctadecane	S-06
4J26001-05	TPH 8015	1-Chlorooctane	S-06
4J26001-06	TPH 8015	1-Chlorooctadecane	S-06
4J26001-06	TPH 8015	1-Chlorooctane	S-06
4J26001-07	TPH 8015	1-Chlorooctadecane	S-06
4J26001-07	TPH 8015	1-Chlorooctane	Exceeds lower control limit

Environmental Lab of Texas

1000 West 10th Street
Arlington, Texas 76010
Phone: 425-000-1000
Fax: 425-000-0710

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

1 of 4

Project Manager: KEN DUTTON

Company Name: RES

Company Address: P.O. BOX 301

City/State/Zip: LOVINGTON, NM 88026

Telephone No: (505) 444-2124

Fax No: (505) 384-1429

Sampler Signature: [Signature]

Project Name: BALLARD-GARRETT S

Project #: FHS: 2504-0516

Project Loc: EDDY COUNTY, NM

PO #:

DATE & TIME	WELL DEPTH	TIME	TEMPERATURE	WIND DIRECTION	WIND SPEED	WIND GUST	WIND CHILL	WIND RAIN	WIND SNOW	WIND HAIL	WIND GRAPE	WIND OTHER	WIND TOTAL	WIND REMARKS	WIND COMMENTS	WIND TOTAL	WIND REMARKS	WIND COMMENTS
01 Dec-4 8:00	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5
02 Dec-4 8:00	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5
03 Dec-4 8:00	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5
04 Dec-4 8:00	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5
05 Dec-4 8:00	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5
06 Dec-4 8:00	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5
07 Dec-4 8:00	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5
08 Dec-4 8:00	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5
09 Dec-4 8:00	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5
10 Dec-4 8:00	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5	15'	00.1	14.5

Sample Containers sealed?
Temperature Upon Receipt:
Laboratory Comments:

Rec 0.0°C

Date	Time	Date	Time	Date	Time	Date	Time
10-25-04	17:25	10-25-04	17:25	10-25-04	17:25	10-25-04	17:25

**12600 Wewee 1-20 East
Odessa, Texas 79768**

Phone: 432-563-1200
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: KEN DUTTON

Company Name BES

Company Address: 20 Box 301

City/State/Zip: LOVINGTON NM 88260

Telephone No: (505) 441-2124

විකල්ප විද්‍යාභ්‍යාස:

Fax No: (505) 396-1429

Project Name: BALLARD-GRAYBURG 5

Project #: EMS: 2004-002,06

Project Loc: Eddy County, NM

PDF

Telephone No: (505) 441-2124
Sampler Signature: *Don Harts*

Fax No: (505) 396-1429

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative										Matrix					Analyze For							
					IC	HNO ₃	HCl	NaOH	H ₂ SO ₄	None	Other (Specify)	Water	Sludge	Soil	Other (Specify)	TPH: 418, 4016M	1005	1006	Customs (Ca, Mg, Na, K)	Arsenic (As, Sb, Sn, Hg, Se)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Bi	Volatiles	Semivolatiles	BTEX 4021B/4030 or BTEX 4260	ACI	NCRM
152260001	-21 MW-2 135'	26 OCT	0929	1	X																		X			X	
	-22 MW-3 15'	26 OCT	1236	1																			X				
	-23 MW-3 60'	26 OCT	1319																								
	-24 MW-3 95'	26 OCT	1346																								
	-25 MW-3 135'	26 OCT	1425																								
	-26 MW-3 195'	21 OCT	0936																								
	-27 SB-2 15'	22 OCT	0847																								
	-28 SB-2 35'	22 OCT	0904																								
	-29 SB-2 60'	22 OCT	0927																								
	-30 SB-2 75'	22 OCT	0938																								

Social instructions:

Sample Containers Intact?
Temperature Upon Receipt:
Laboratory Comments:

lec 0.0°C

Requisitioned by:	Date	Time	Received by:	Date	Time
Ken Danks	25 OCT 84	1440	Spk. Allen	25 OCT 84	1440

Relinquished by:	Date	Time	Received by ELOF:	Date	Time
<i>John D. Moore</i>	10-25-04	1725	<i>Kalanck</i>	10-25-04	1725

Environmental Lab of Texas

Variance / Corrective Action Report – Sample Log-In

Client: Basin Environmental

Date/Time: 10-26-04 @ 0815

Order #: 4526001

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	O.C	C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Custody Seals intact on shipping container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>Not present</u>	
Custody Seals intact on sample bottles?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>Not present</u>	
Chain of custody present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Sample instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Container labels legible and intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable	

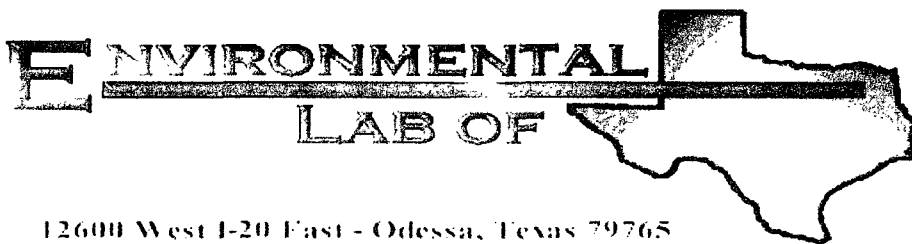
Other observations:

Variance Documentation:

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

Regarding:

Corrective Action Taken:



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Ken Dutton

Basin Environmental Services

P.O. Box 301

Lovington, NM 88260

Project: Plain Marketing

Project Number: Ballard-Grayburg 5 inch

Location: Eddy County, NM

Lab Order Number: 4L06005

Report Date: 12/09/04

Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429
Reported:
12/09/04 17:29

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	4L06005-01	Water	12/02/04 13:05	12/06/04 09:30
MW-3	4L06005-02	Water	12/02/04 15:10	12/06/04 09:30

Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
12/09/04 17:29

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4L06005-01) Water									
Benzene	0.00111	0.00100	mg/L	1	EL40913	12/08/04	12/08/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		99.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %	80-120		"	"	"	"	

MW-3 (4L06005-02) Water

Benzene	ND	0.00100	mg/L	1	EL40913	12/08/04	12/08/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		114 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	80-120		"	"	"	"	

Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429
Reported:
12/09/04 17:29

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4L06005-01) Water									
Total Dissolved Solids	7730	5.00	mg/L	1	EL40702	12/06/04	12/07/04	EPA 160.1	
MW-3 (4L06005-02) Water									
Total Dissolved Solids	8530	5.00	mg/L	1	EL40702	12/06/04	12/07/04	EPA 160.1	

Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
12/09/04 17:29

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL40913 - EPA 5030C (GC)

Blank (EL40913-BLK1)

Prepared & Analyzed: 12/08/04

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	19.8		ug/l	20.0		99.0	80-120			
Surrogate: 4-Bromofluorobenzene	17.4		"	20.0		87.0	80-120			

LCS (EL40913-BS1)

Prepared & Analyzed: 12/08/04

Benzene	94.3		ug/l	100		94.3	80-120			
Toluene	97.6		"	100		97.6	80-120			
Ethylbenzene	96.2		"	100		96.2	80-120			
Xylene (p/m)	194		"	200		97.0	80-120			
Xylene (o)	99.5		"	100		99.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	17.8		"	20.0		89.0	80-120			
Surrogate: 4-Bromofluorobenzene	22.1		"	20.0		110	80-120			

LCS Dup (EL40913-BSD1)

Prepared & Analyzed: 12/08/04

Benzene	97.4		ug/l	100		97.4	80-120	3.23	20	
Toluene	100		"	100		100	80-120	2.43	20	
Ethylbenzene	102		"	100		102	80-120	5.85	20	
Xylene (p/m)	202		"	200		101	80-120	4.04	20	
Xylene (o)	103		"	100		103	80-120	3.46	20	
Surrogate: a,a,a-Trifluorotoluene	18.7		"	20.0		93.5	80-120			
Surrogate: 4-Bromofluorobenzene	22.2		"	20.0		111	80-120			

Calibration Check (EL40913-CCV1)

Prepared & Analyzed: 12/08/04

Benzene	97.0		ug/l	100		97.0	80-120			
Toluene	99.1		"	100		99.1	80-120			
Ethylbenzene	101		"	100		101	80-120			
Xylene (p/m)	199		"	200		99.5	80-120			
Xylene (o)	101		"	100		101	80-120			
Surrogate: a,a,a-Trifluorotoluene	19.4		"	20.0		97.0	80-120			
Surrogate: 4-Bromofluorobenzene	21.5		"	20.0		108	80-120			

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 4 of 7

Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
12/09/04 17:29

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch EL40913 - EPA 5030C (GC)

Matrix Spike (EL40913-MS1)

Source: 4L06002-01

Prepared & Analyzed: 12/08/04

Benzene	102		ug/l	100	ND	102	80-120			
Toluene	102		"	100	ND	102	80-120			
Ethylbenzene	101		"	100	ND	101	80-120			
Xylene (p/m)	203		"	200	ND	102	80-120			
Xylene (o)	111		"	100	ND	111	80-120			
Surrogate: a,a,a-Trifluorotoluene	18.4		"	20.0		92.0	80-120			
Surrogate: 4-Bromofluorobenzene	19.5		"	20.0		97.5	80-120			

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 5 of 7

Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
12/09/04 17:29

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch EL40702 - General Preparation (WetChem)

Blank (EL40702-BLK1)

Prepared: 12/06/04 Analyzed: 12/07/04

Total Dissolved Solids	ND	5.00	mg/L							
------------------------	----	------	------	--	--	--	--	--	--	--

Duplicate (EL40702-DUP1)

Source: 4L03001-01

Prepared: 12/06/04 Analyzed: 12/07/04

Total Dissolved Solids	4120	5.00	mg/L		4030			2.21	20	
------------------------	------	------	------	--	------	--	--	------	----	--

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 6 of 7

Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
12/09/04 17:29

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By:

Roland K. Tuttle

Date:

12/9/2004

Roland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 7 of 7

Project Manager: KEN DUTTON

Company Name BASIN EAV. SVCS

Company Address: P.O. Box 361

City/State/Zip: Kovington, NM 88240

Telephone No: 5057441-2124

Sampler Signature:

Fax No: (505) 396-1429

Project Name: PLAINS MARKETING

Project #: BALLARD-GRAYBURG S"

Project Loc: EDDY COUNTY, NM

PO 系: FHS: 2004-00192

[illegible]

Environmental Lab of Texas

Variance / Corrective Action Report – Sample Log-In

Client: Basin Env. Susc

Date/Time: 12/6/04 12:35

Order #: 4606005

Initials: JLH

Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>3</u> C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Custody Seals intact on shipping container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>Not present</u>
Custody Seals intact on sample bottles?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>Not present</u>
Chain of custody present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Container labels legible and intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable

Other observations:

Variance Documentation:

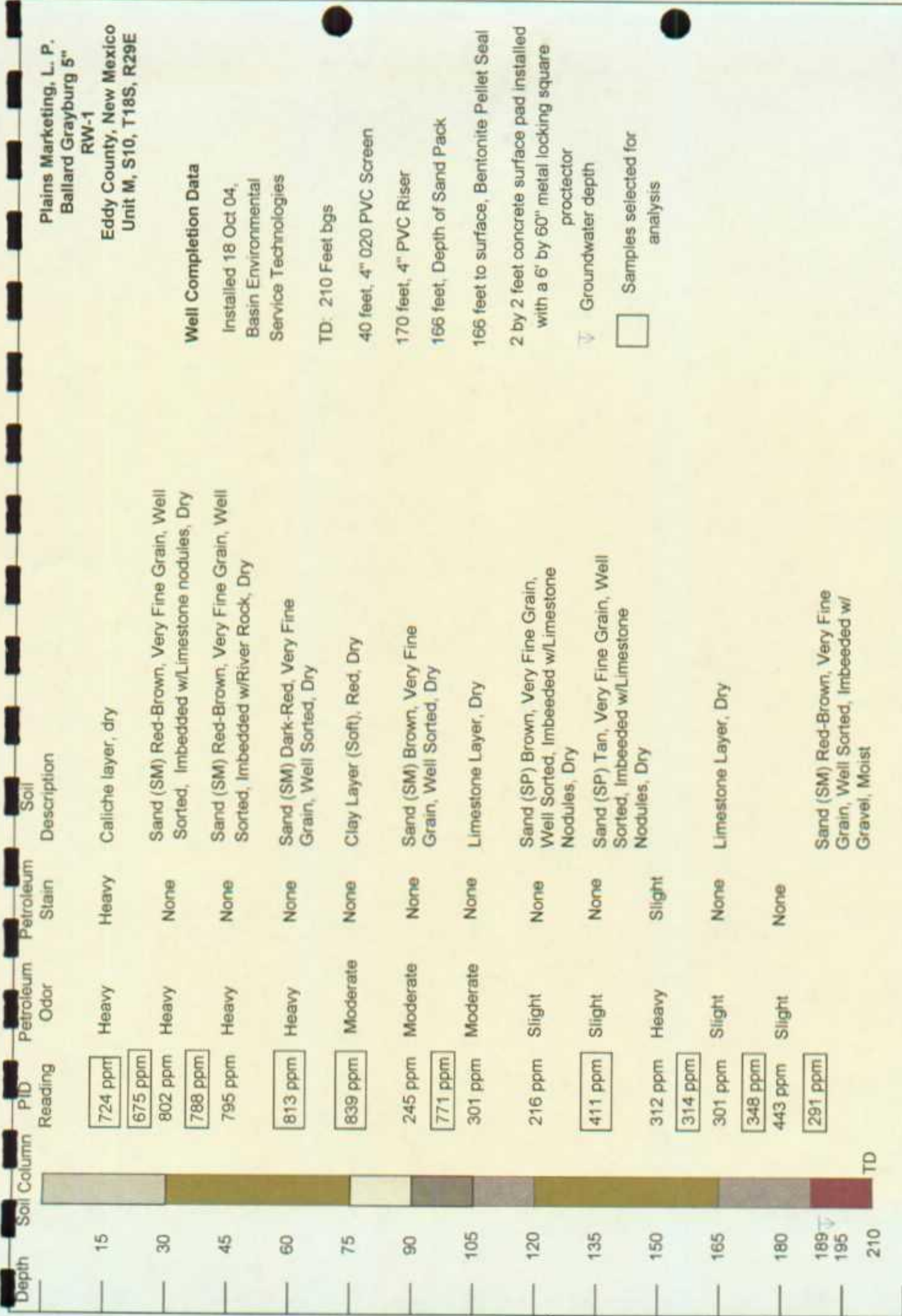
Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

Corrective Action Taken:

APPENDIX D

SOIL BORING LOGS



Plains Marketing, L. P.
Ballard Grayburg 5"
RW-1
Eddy County, New Mexico
Unit M, S10, T18S, R29E

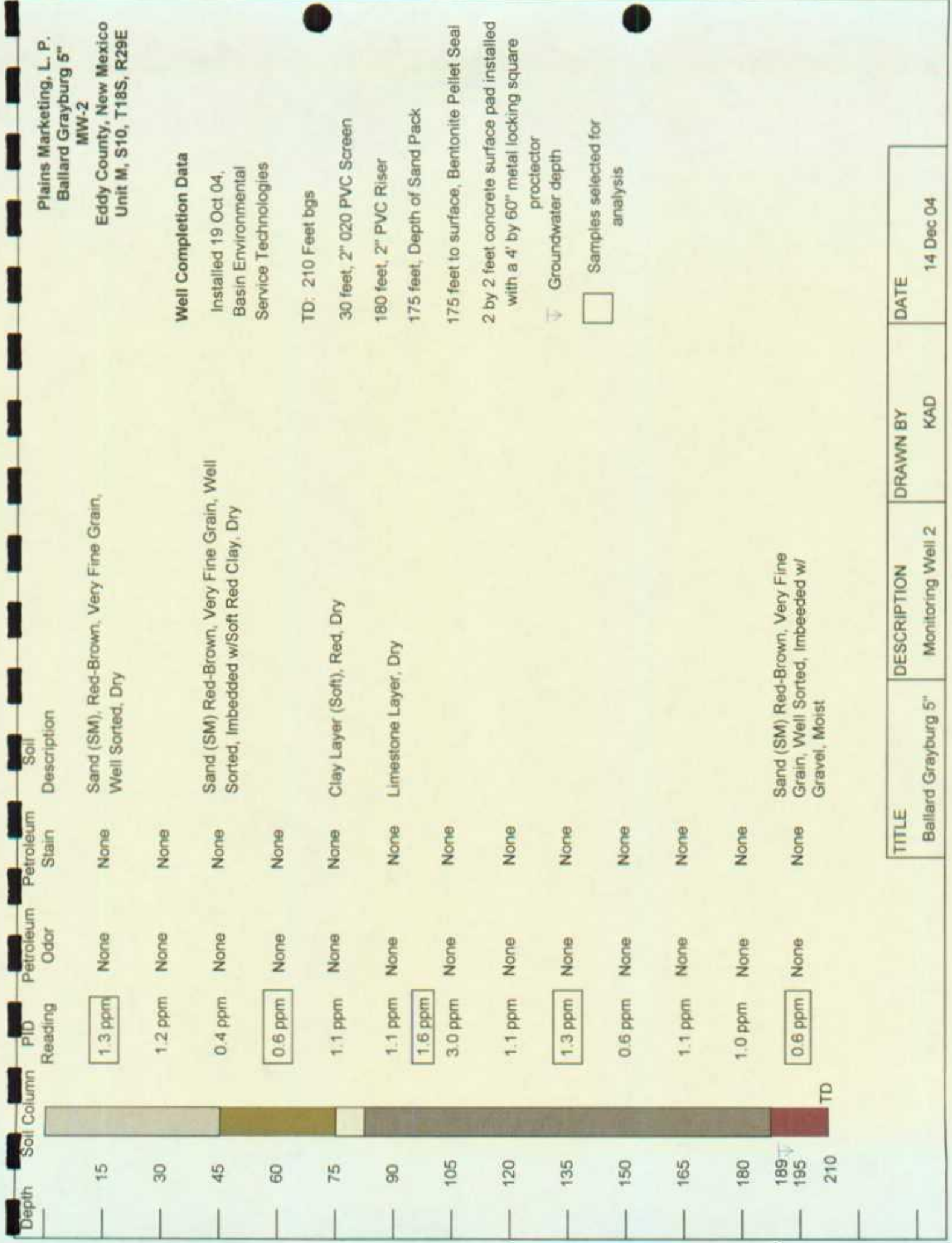
Well Completion Data

Installed 18 Oct 04,
Basin Environmental
Service Technologies
TD: 210 Feet bgs
40 feet, 4" 020 PVC Screen
170 feet, 4" PVC Riser
166 feet, Depth of Sand Pack
166 feet to surface, Bentonite Pellet Seal
2 by 2 feet concrete surface pad installed
with a 6" by 60" metal locking square

proctor
Groundwater depth

☐ Samples selected for
analysis

TITLE	DESCRIPTION	DRAWN BY	DATE
Ballard Grayburg 5"	Recovery Well 1	KAD	14 Dec 04



Plains Marketing, L. P.
Ballard Grayburg 5"
MW-3
Eddy County, New Mexico
Unit M, S10, T18S, R29E

Well Completion Data

Installed 20 Oct 04,
Basin Environmental
Service Technologies

TD: 210 Feet bgs

30 feet, 2" 020 PVC Screen

180 feet, 2" PVC Riser

175 feet, Depth of Sand Pack

175 feet to surface, Bentonite Pellet Seal

2 by 2 feet concrete surface pad installed
with a 4' by 60" metal locking square
protector

Groundwater depth

☐ Samples selected for
analysis

Sand (SM), Red-Brown, Very Fine Grain,
Well Sorted, Dry

Sand (SM) Red-Brown, Very Fine Grain, Well
Sorted, Imbedded w/Soft Red Clay, Dry

Clay Layer (Soft), Red, Dry

Limestone Layer, Dry

Sand (SM) Red-Brown, Very Fine
Grain, Well Sorted, Imbedded w/
Gravel, Moist

Soil
Description

Petroleum
Stain

Petroleum
Odor

PID
Reading

Depth
Soil Column

15

30

45

60

75

90

105

120

135

150

165

180

189

195

TD

1.1 ppm

1.7 ppm

3.8 ppm

4.6 ppm

1.6 ppm

1.5 ppm

1.2 ppm

0.9 ppm

21.1 ppm

1.3 ppm

1.1 ppm

0.8 ppm

0.7 ppm

1.4 ppm

TITLE

Ballard Grayburg 5"

DESCRIPTION

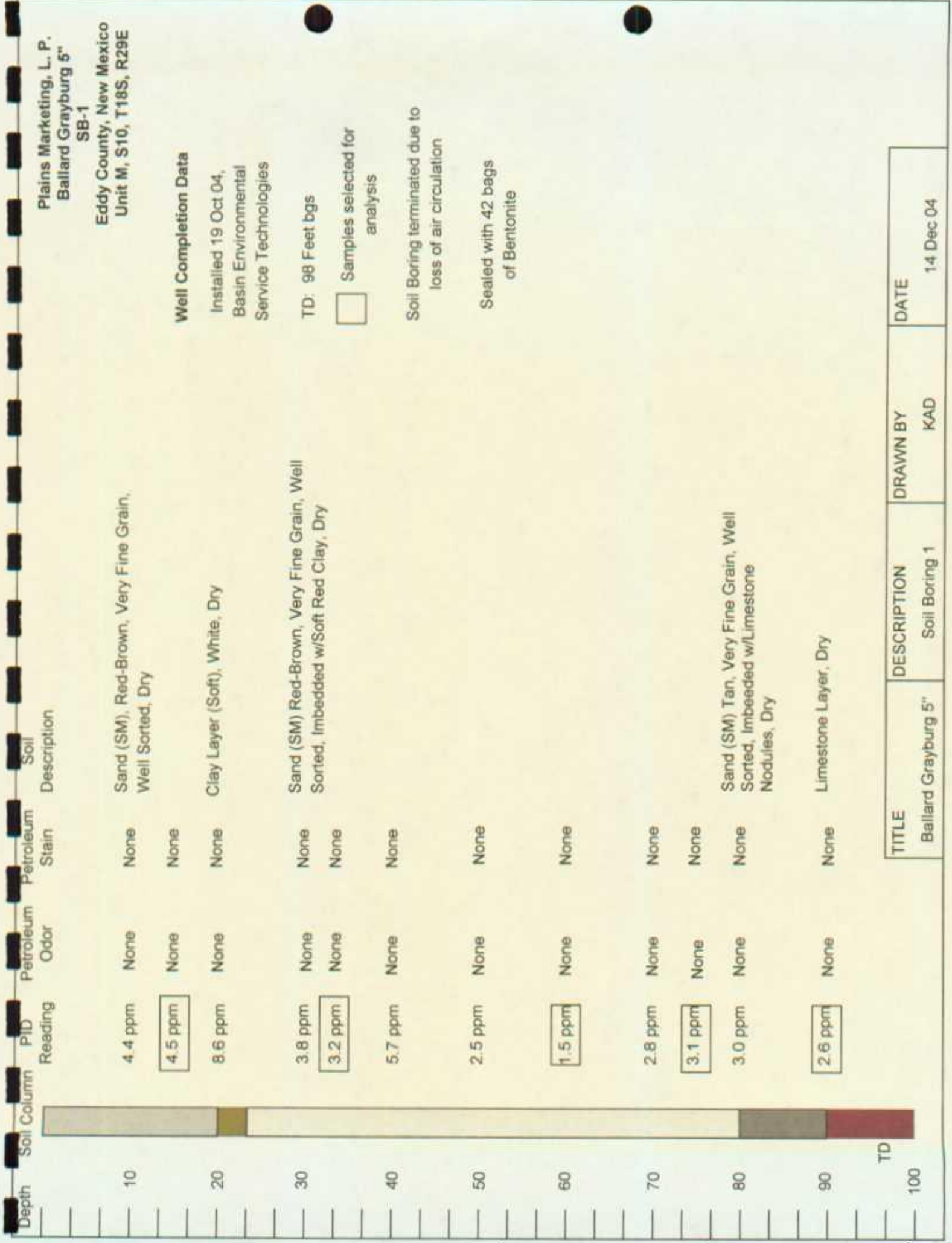
Monitoring Well 3

DRAWN BY

KAD

DATE

14 Dec 04



Plains Marketing, L. P.
Ballard Grayburg 5"
SB-1
Eddy County, New Mexico
Unit M, S10, T18S, R29E

Well Completion Data

Installed 19 Oct 04,
Basin Environmental
Service Technologies

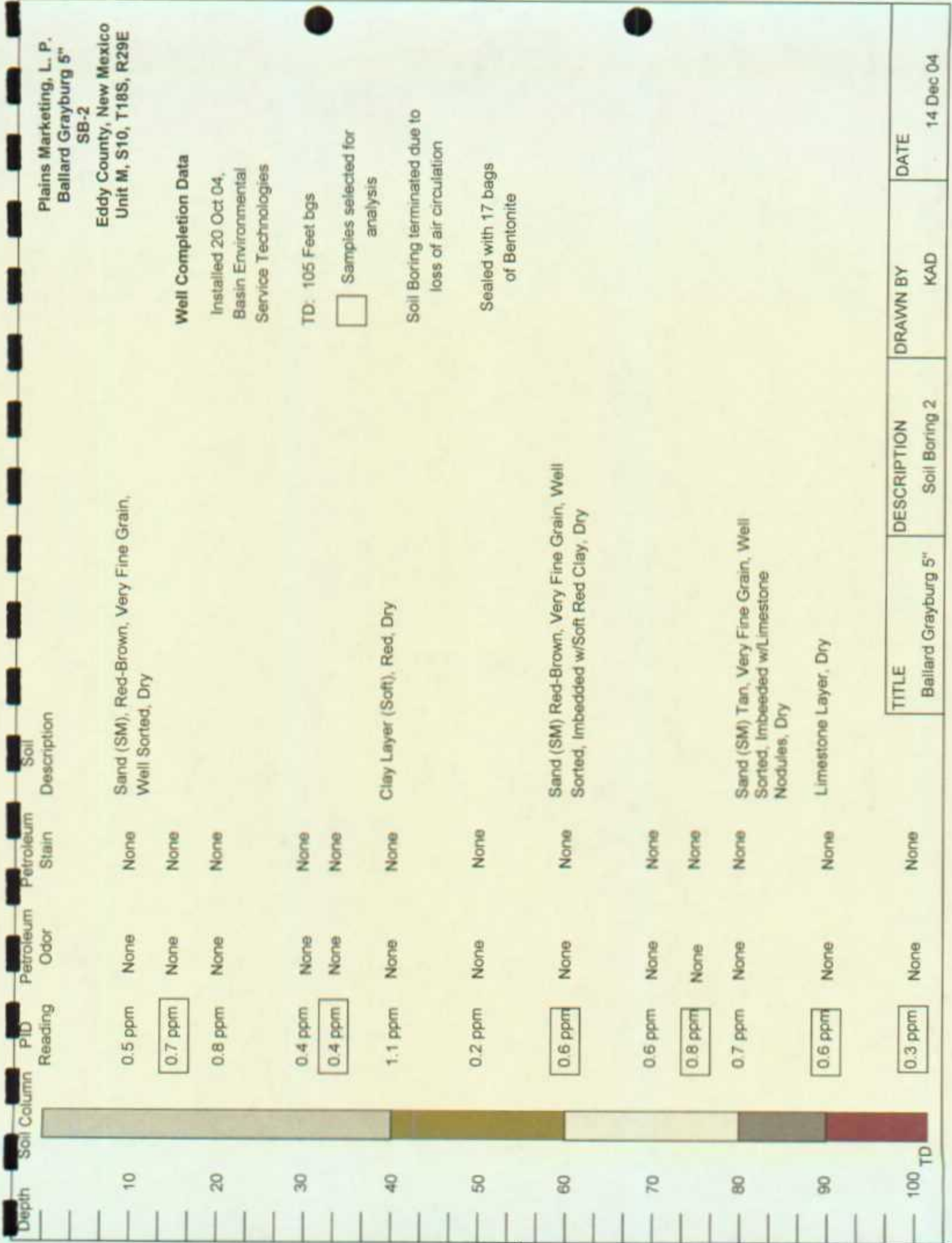
TD: 98 Feet bgs

☐ Samples selected for
analysis

Soil Boring terminated due to
loss of air circulation

Sealed with 42 bags
of Bentonite

TITLE	DESCRIPTION	DRAWN BY	DATE
Ballard Grayburg 5"	Soil Boring 1	KAD	14 Dec 04



Plains Marketing, L. P.
Ballard Grayburg 5"
SB-2
Eddy County, New Mexico
Unit M, S10, T18S, R29E

Well Completion Data

Installed 20 Oct 04,
Basin Environmental
Service Technologies

TD: 105 Feet bgs

☐ Samples selected for
analysis

Soil Boring terminated due to
loss of air circulation

Sealed with 17 bags
of Bentonite

TITLE	DESCRIPTION	DRAWN BY	DATE
Ballard Grayburg 5"	Soil Boring 2	KAD	14 Dec 04

APPENDIX E
NMOCD 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-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

x Initial Report ☐ Final Report

Name of Company Plains Marketing, LP	Contact Camille Reynolds
Address 5805 East Hwy. 80, Midland, TX 79706	Telephone No. 505-441-0965
Facility Name Ballard Greyburg 5" #2	Facility Type 5" Steel Pipeline
Surface Owner BLM	Mineral Owner
Lease No.	

LOCATION OF RELEASE

Unit Letter M	Section 10	Township 18S	Range 29E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude 32° 45' 27.1" Longitude 104° 04' 12.0"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 80 barrels	Volume Recovered 0 barrels
Source of Release 5" Steel Pipeline	Date and Hour of Occurrence 9-2-04 @ 05:00	Date and Hour of Discovery 9-2-04 @ 08:15
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Van Barton	
By Whom? Ken Dutton	Date and Hour 9-2-04 @ 14:32	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* External corrosion of the 5" steel pipeline. A line clamp was installed to mitigate the release. The line is a 5-inch steel gathering line that produces approximately 95 barrels of crude per day. The pressure on the line varies from 50 to 70 psi and the gravity of the sour crude oil is 39. The sour crude has an H₂S content of 20 ppm.

Describe Area Affected and Cleanup Action Taken.* The impacted soil was excavated and stockpiled on plastic. Aerial extent of surface impact was 10 x 6 feet. Subsequent excavation of impacted soil resulted in an area of approximately 22 x 23 x 13 feet.

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: <i>Camille Reynolds</i>	OIL CONSERVATION DIVISION	
Printed Name: Camille Reynolds	Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	Expiration Date:
E-mail Address: cjrreynolds@psalp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 9-7-04	Phone: 505-441-0965	

* Attach Additional Sheets If Necessary



**PLAINS
PIPELINE**

March 11, 2005

Mr. Ed Martin
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

2R-053

Re: Plains All American – Annual Monitoring Report
1 Site in Eddy County, New Mexico

Dear Mr. Martin:

Plains Pipeline is an operator of crude oil pipelines and terminal facilities in the state of New Mexico. Plains Pipeline actively monitors certain historical release sites exhibiting groundwater impacts, consistent with assessments and work plans developed in consultation with the New Mexico Oil Conservation Division (NMOCD). In accordance with the rules and regulations of the NMOCD, Plains Pipeline hereby submits our Annual Monitoring report for the following site:

Ballard Greyburg 5 Inch Section 10, Township 18 South, Range 29 East, Eddy County

Basin Environmental prepared this document and has vouched for their accuracy and completeness, and on behalf of Plains Pipeline, I have personally reviewed the document and interviewed Basin in order to verify the accuracy and completeness of this document. It is based upon these inquiries and reviews that Plains Pipeline submits the enclosed Annual Monitoring Report for the above 1 facility.

If you have any questions or require further information, please contact me at (505) 441-0965.

Sincerely,

Camille Reynolds
Remediation Coordinator
Plains Pipeline

CC: Van Barton, NMOCD, Artesia, NM

Enclosures

**2004
ANNUAL MONITORING REPORT**

**BALLARD-GRAYBURG 5" GATHERING
SW ¼ SW ¼ SECTION 10, TOWNSHIP 18 SOUTH, RANGE 29 EAST
LATITUDE, LONGITUDE: 32°, 45', 27.1" NORTH, 104°, 04', 12.0" WEST
EDDY COUNTY, NEW MEXICO
PLAINS EMS NUMBER: 2004-00192**

PREPARED FOR:

**PLAINS MARKETING, L.P.
333 CLAY STEET, SUITE 1600
HOUSTON, TEXAS 77002**

PREPARED BY:

**BASIN ENVIRONMENTAL SERVICE TECHNOLOGIES, LLC
P. O. Box 301
Lovington, New Mexico 88260**

April 2005


Ken Dutton
Project Manager

TABLE OF CONTENTS

INTRODUCTION.....	1
SITE DESCRIPTION AND BACKGROUND INFORMATION.....	1
FIELD ACTIVITIES.....	1
LABORATORY RESULTS.....	2
SUMMARY.....	2
ANTICIPATED ACTIONS.....	3
LIMITATIONS.....	3
DISTRIBUTION.....	4

FIGURES

Figure 1 – Site Location Map

Figure 2 – Inferred Groundwater Elevation Map

Figure 3 – Groundwater Concentration and Inferred PSH Extent Map

TABLES

Table 1 – Groundwater Elevation Data (2004)

Table 2 – Concentrations of Benzene and BTEX in Groundwater (2004)

APPENDICES

Appendix A – Laboratory Reports

Appendix B - Release Notification and Corrective Action (Form C-141)

INTRODUCTION

Basin Environmental Service Technologies, LLC, (Basin) on behalf of Plains Marketing, L.P., (Plains), prepared this annual report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an annual report by April 1 of each year. This report is intended to be viewed as a complete document with text, figures, tables, and appendices. This report presents the results of the initial quarterly groundwater monitoring event conducted in calendar year 2004 only. Additional site activities and remedial work is summarized in several letters and reports previously submitted to the NMOCD. For reference, the Site Location Map is provided as Figure 1.

Initial groundwater monitoring was conducted during the fourth (4th) quarter in 2004 to assess the levels and extent of dissolved phase and phase-separated hydrocarbons (PSH) constituents. The groundwater monitoring event consisted of measuring static water levels in the monitoring wells, checking for the presence of PSH atop the water column, and purging and sampling of each well exhibiting sufficient recharge. Monitoring or recovery wells containing a thickness of PSH greater than 0.01 foot were not sampled.

SITE DESCRIPTION AND BACKGROUND INFORMATION

The legal description of the site is SW ¼ SW ¼ Section 10, Township 18 South, Range 29 East. The latitude is 32°, 45', 27.1" North and the longitude is 104°, 04', 12.0" West. On 02 September 2004, Allstate Environmental Services, LLC (Allstate) responded to the pipeline release on behalf of Plains to repair the pipeline and excavate the impacted soil. Beginning on 18 October 2004, Basin assumed project responsibilities for the Ballard Grayburg 5" site. The site is characterized by a right-of-way for the pipeline in a pasture utilized for cattle grazing. The visible surface stained area includes the release point covering an area approximately 22 feet long by 23 feet wide. Excavation activities during the emergency response covered an area approximately 22 feet long by 23 feet wide and 12 feet below ground surface (bgs). All excavated soil was placed on a poly-liner for future remedial action. Approximately 80 barrels of crude oil were released from the Plains Pipeline and 0 barrels were recovered.

Currently, there are two (2) monitoring wells (MW-2 and MW-3) and one (1) recovery well (RW-1) on site. Two (2) attempts to install an up gradient monitoring well proved futile due to drilling into limestone caverns. A hydrocarbon absorbent sock was installed in the recovery well to absorb the limited amount of crude oil on the groundwater and is replaced on a monthly basis.

FIELD ACTIVITIES

The site monitoring wells were gauged and sampled on 04 December 2004. During the initial sampling event, the monitoring wells, designated to be sampled, were purged of approximately 3 well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos Pump. Groundwater was allowed to recharge and samples were obtained using disposable Teflon samplers. Water samples were stored in clean, glass containers provided by the laboratory and

placed on ice in the field. Purge water was collected in polystyrene fifty-five gallon drums which remain on-site.

Locations of the monitoring wells, recovery well and the inferred groundwater elevations, which were constructed from the measurements collected during the initial 4th quarter monitoring event, are depicted on Figure 2, Inferred Groundwater Elevation Map. The groundwater elevation data are provided as Table 1. Research of the New Mexico State Engineers Office reflected a general south to southwest groundwater gradient in this area of Eddy County, New Mexico. The depth to groundwater, as measured from the top of the well casing, was 186.58 feet.

A measurable thickness of PSH was detected in RW-1 during the reporting period, refer to Figure 3, Groundwater Concentration and Inferred PSH Extent Map. A maximum thickness of 0.04 in RW-1 was measured and is shown on Table 1. A hydrocarbon absorbent sock was installed in the recovery well and is replaced on a monthly basis.

LABORATORY RESULTS

Groundwater samples were collected from the monitor wells MW-2 and MW-3 during the initial fourth quarter monitoring event and were delivered to Environmental Laboratory of Texas, Odessa, Texas for determination of Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) constituent concentrations by EPA Method SW846-8021b. A listing of BTEX constituent concentrations for 2004 is summarized in Table 2 and the laboratory reports are provided as Appendix A. Recovery well, RW-1, was not sampled due to the presence of PSH.

Laboratory results for the two (2) site groundwater samples, obtained during the 2004 annual period, indicate that benzene and total BTEX concentrations were below laboratory detection limits for monitor wells MW-2 and MW-3.

Laboratory analytical results were compared to NMOCD regulatory limits based on the New Mexico groundwater standards found in section 20.6.2.3103 of the New Mexico Administrative Code.

SUMMARY

This report presents the results of monitoring activities for the 2004 annual monitoring period. Currently, there are two (2) groundwater monitoring wells (MW-1 and MW-2) and one (1) recovery well (RW-1) on-site. During 2004, hydrocarbon absorbent socks were installed in RW-1 for passive product recovery. A measurable thickness of PSH was detected in RW-1 during the quarterly sampling event. A maximum thickness of 0.04 in RW-1 was measured and is shown on Table 1.

Laboratory results for the two (2) site groundwater samples, obtained during the 2004 annual period, indicated that benzene and BTEX constituent concentrations were below laboratory detection limits for monitor wells MW-2 and MW-3.

Based on the limited data, groundwater elevations at the site are relatively similar and groundwater gradient appears to be to the south. Research of the New Mexico State Engineers Office reflected a general south to southwest groundwater gradient.

As previously mentioned, several unsuccessful attempts were made to install an up gradient monitoring well. Based on the location of the recovery well RW-1 adjacent to the source area, the limited amount of PSH on the groundwater, the fact that the two (2) attempted up gradient monitor wells did not encounter impacted soils, and the two (2) down gradient monitor wells are not impacted, it appears the groundwater impacted area is very limited in extent and an up gradient monitor well is not warranted at this site.

ANTICIPATED ACTIONS

Groundwater monitoring and annual reporting will continue in 2005. A Remediation Work Plan has been submitted and remediation of the site will commence once approval is received from the regulatory agencies.

LIMITATIONS

Basin has prepared this Annual Monitoring Report to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin 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 has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin 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. 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 and/or Plains.

DISTRIBUTION

Copy 1: Ed Martin
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Copy 2: Van Barton
New Mexico Oil Conservation Division
1301 W. Grand Avenue
Artesia, New Mexico 88210

Copy 3: Camille Reynolds
Plains Marketing, L.P.
3112 Highway 82
Lovington, New Mexico 88260
cjreynolds@paalp.com

Copy 4: Jeff Dann
Plains Marketing, L.P.
333 Clay Street
Suite 1600
Houston, Texas 77002
jpdann@paalp.com

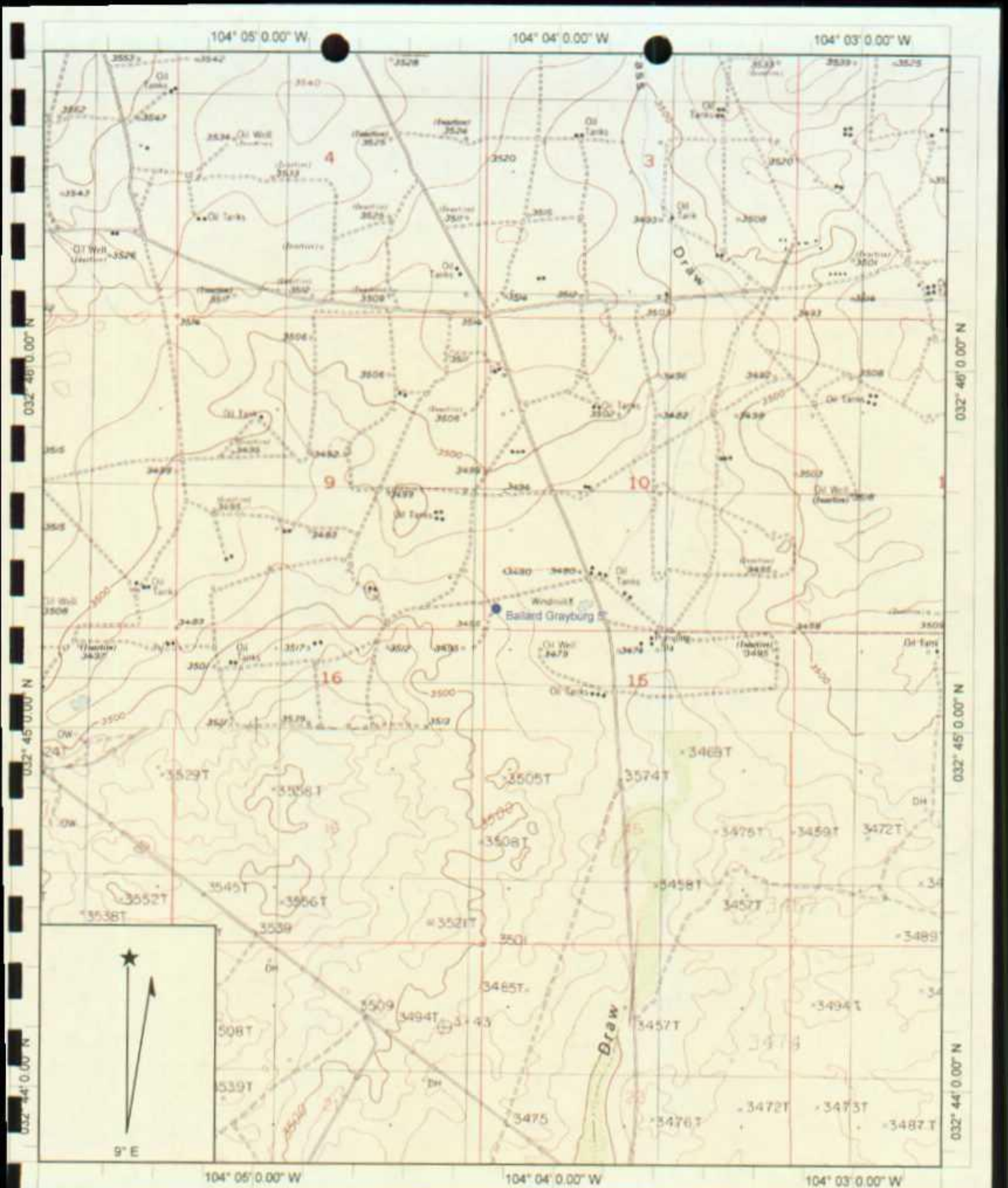
Copy 5: Basin Environmental Service Technologies, LLC
P. O. Box 301
Lovington, New Mexico 88260
kdutton@basinenv.com

Copy Number: 1

FIGURES

FIGURE 1

SITE LOCATION MAP



Name: RED LAKE SE
 Date: 3/10/2005
 Scale: 1 inch equals 2000 feet

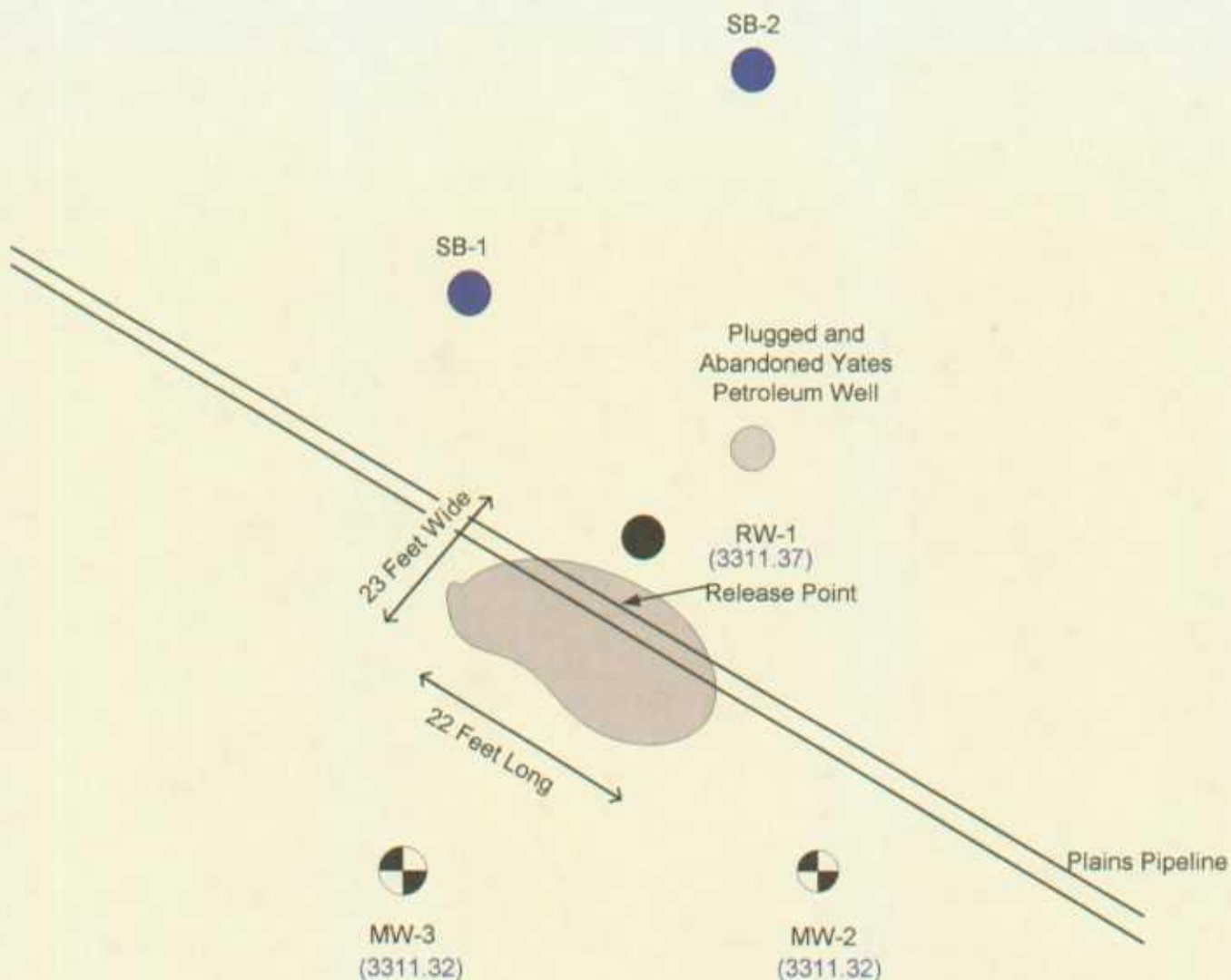
Location: 032° 45' 20.7" N 104° 04' 12.71" W
 Caption: Figure 1

SITE LOCATION MAP
 BALLARD-GRAYBURG 5"
 SIAUSAL S10 T18C R30E

FIGURE 2

INFERRED GROUNDWATER ELEVATION MAP

Plains Marketing, L.P.
 Ballard Grayburg 5"
 Unit M, S10, T18S, R29E
 Eddy County, New Mexico



Monitor Well Location

(3497.20)

Groundwater
Elevation in Feet

TITLE

Plains Marketing, L.P.
 Ballard Grayburg 5"
 Eddy County, NM

DESCRIPTION

Figure 2
 Inferred Groundwater Elevation
 Map
 04 Dec 04

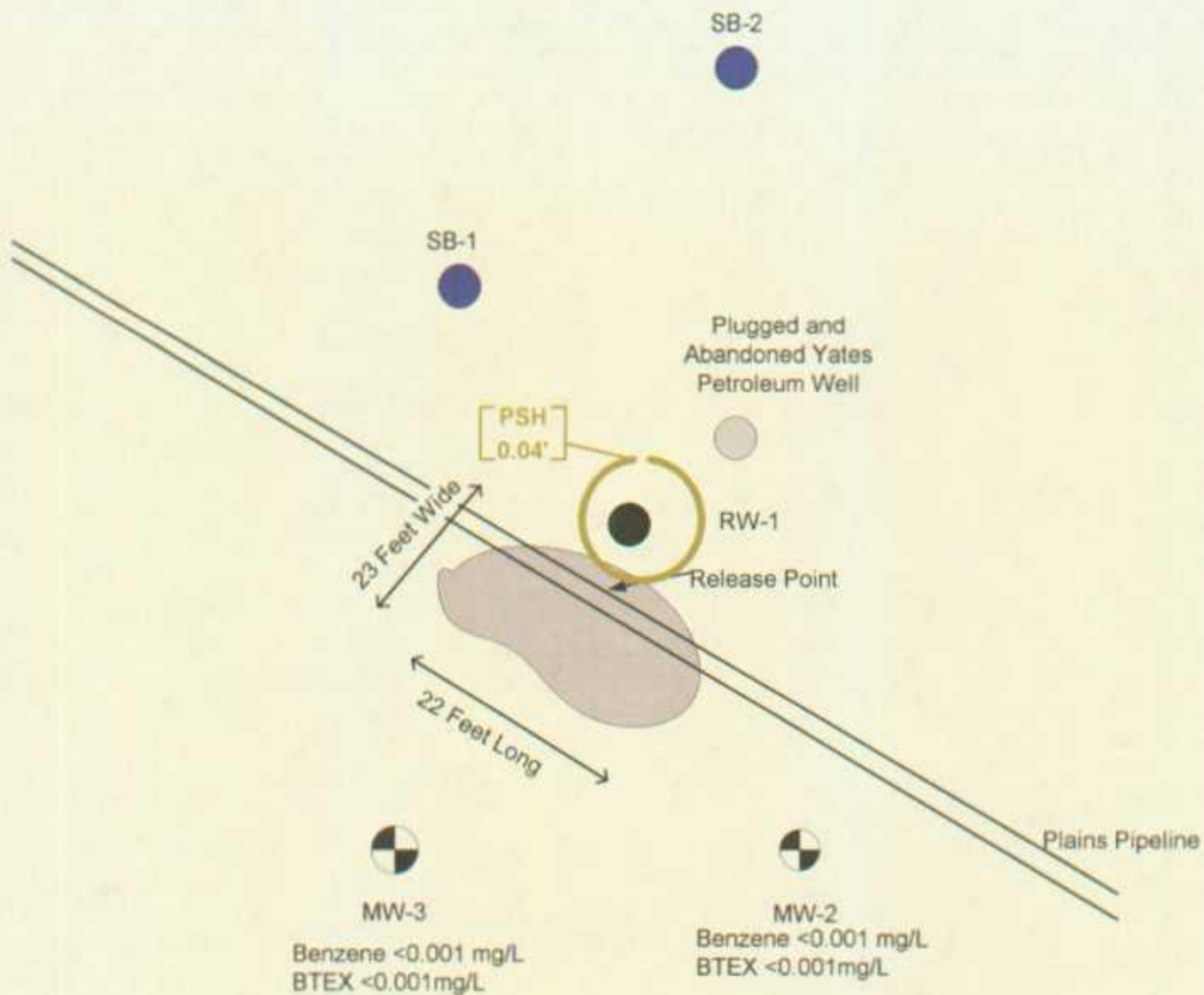
DRAWN BY

Basin Environmental
 Service Technologies
 kad

FIGURE 3

**GROUNDWATER CONCENTRATION AND
INFERRED PSH EXTENT MAP**

Plains Marketing, L.P.
 Ballard Grayburg 5"
 Unit M, S10, T18S, R29E
 Eddy County, New Mexico



Monitor Well Location



Inferred PSH Extent

TITLE	DESCRIPTION	DRAWN BY
Plains Marketing, L.P. Ballard Grayburg 5" Eddy County, NM	Figure 3 Groundwater Concentration and Inferred PSH Extent Map 04 Dec 04	Basin Environmental Service Technologies kad

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA (2004)

TABLE 1

GROUNDWATER ELEVATION DATA (2004)

PLAINS MARKETING, L.P.
 BALLARD-GRAYBURG 5"
 EDDY COUNTY, NEW MEXICO
 PLAINS EMS NO. 2004-00192

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 2	11/10/04	3,497.90	-	186.58	0.00	3,311.32
	12/04/04	3,497.90	-	186.58	0.00	3,311.32
MW - 2	01/17/05	3,497.90	-	186.57	0.00	3,311.33
	02/22/05	3,497.90	-	186.58	0.00	3,311.32
MW - 3	11/10/04	3,497.91	-	186.59	0.00	3,311.32
	12/04/04	3,497.91	-	186.59	0.00	3,311.32
MW - 3	01/17/05	3,497.91	-	186.58	0.00	3,311.33
	02/22/05	3,497.91	-	186.59	0.00	3,311.32
RW-1	11/10/04	3,497.94	186.56	186.60	0.04	3,311.37
	12/04/04	3,497.94	186.56	186.60	0.04	3,311.37
RW-1	01/17/05	3,497.94	186.57	186.60	0.03	3,311.37
	02/22/05	3,497.94	186.56	186.58	0.02	3,311.38

TABLE 2

**CONCENTRATIONS OF BENZENE AND BTEX IN
GROUNDWATER (2004)**

TABLE 2

CONCENTRATIONS OF BENZENE AND BTEX IN GROUNDWATER (2004)

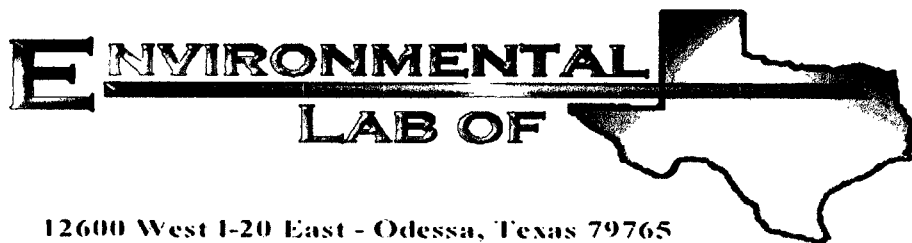
PLAINS MARKETING, L.P.
BALLARD-GRAYBURG 5"
EDDY COUNTY, NEW MEXICO
PLAINS EMS NO: 2004-00192

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B				
		BENZENE	TOLUENE	ETHYL-BENZENE	M,P-XYLENES	O-XYLENES
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NMOCD REGULATORY STANDARD		0.01	0.75	0.75	TOTAL XYLENES 0.62	
MW-2	12/04/04	<0.001	<0.001	<0.001	<0.001	<0.001
MW-3	12/04/04	<0.001	<0.001	<0.001	<0.001	<0.001

APPENDICES

APPENDIX A

LABORATORY REPORTS



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Ken Dutton

Basin Environmental Services

P.O. Box 301

Lovington, NM 88260

Project: Plain Marketing

Project Number: Ballard-Grayburg 5 inch

Location: Eddy County, NM

Lab Order Number: 4L06005

Report Date: 12/09/04

Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429
Reported:
12/09/04 17:29

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	4L06005-01	Water	12/02/04 13:05	12/06/04 09:30
MW-3	4L06005-02	Water	12/02/04 15:10	12/06/04 09:30

Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429
Reported:
12/09/04 17:29

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4L06005-01) Water									
Benzene	0.00111	0.00100	mg/L	1	EL40913	12/08/04	12/08/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		99.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %	80-120		"	"	"	"	

MW-3 (4L06005-02) Water

Benzene	ND	0.00100	mg/L	1	EL40913	12/08/04	12/08/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		114 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	80-120		"	"	"	"	

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429
Reported:
12/09/04 17:29

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4L06005-01) Water									
Total Dissolved Solids	7730	5.00	mg/L	1	EL40702	12/06/04	12/07/04	EPA 160.1	
MW-3 (4L06005-02) Water									
Total Dissolved Solids	8530	5.00	mg/L	1	EL40702	12/06/04	12/07/04	EPA 160.1	

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Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429
Reported:
12/09/04 17:29

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL40913 - EPA 5030C (GC)

Blank (EL40913-BLK1)

Prepared & Analyzed: 12/08/04

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	19.8		ug/l	20.0		99.0	80-120			
Surrogate: 4-Bromofluorobenzene	17.4		"	20.0		87.0	80-120			

LCS (EL40913-BS1)

Prepared & Analyzed: 12/08/04

Benzene	94.3		ug/l	100		94.3	80-120			
Toluene	97.6		"	100		97.6	80-120			
Ethylbenzene	96.2		"	100		96.2	80-120			
Xylene (p/m)	194		"	200		97.0	80-120			
Xylene (o)	99.5		"	100		99.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	17.8		"	20.0		89.0	80-120			
Surrogate: 4-Bromofluorobenzene	22.1		"	20.0		110	80-120			

LCS Dup (EL40913-BSD1)

Prepared & Analyzed: 12/08/04

Benzene	97.4		ug/l	100		97.4	80-120	3.23	20	
Toluene	100		"	100		100	80-120	2.43	20	
Ethylbenzene	102		"	100		102	80-120	5.85	20	
Xylene (p/m)	202		"	200		101	80-120	4.04	20	
Xylene (o)	103		"	100		103	80-120	3.46	20	
Surrogate: a,a,a-Trifluorotoluene	18.7		"	20.0		93.5	80-120			
Surrogate: 4-Bromofluorobenzene	22.2		"	20.0		111	80-120			

Calibration Check (EL40913-CCV1)

Prepared & Analyzed: 12/08/04

Benzene	97.0		ug/l	100		97.0	80-120			
Toluene	99.1		"	100		99.1	80-120			
Ethylbenzene	101		"	100		101	80-120			
Xylene (p/m)	199		"	200		99.5	80-120			
Xylene (o)	101		"	100		101	80-120			
Surrogate: a,a,a-Trifluorotoluene	19.4		"	20.0		97.0	80-120			
Surrogate: 4-Bromofluorobenzene	21.5		"	20.0		108	80-120			

Environmental Lab of Texas

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Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
12/09/04 17:29

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL40913 - EPA 5030C (GC)

Matrix Spike (EL40913-MS1)

Source: 4L06002-01

Prepared & Analyzed: 12/08/04

Benzene	102		ug/l	100	ND	102	80-120			
Toluene	102		"	100	ND	102	80-120			
Ethylbenzene	101		"	100	ND	101	80-120			
Xylene (p/m)	203		"	200	ND	102	80-120			
Xylene (o)	111		"	100	ND	111	80-120			
Surrogate: a,a,a-Trifluorotoluene	18.4		"	20.0		92.0	80-120			
Surrogate: 4-Bromofluorobenzene	19.5		"	20.0		97.5	80-120			

Environmental Lab of Texas

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Page 5 of 7

Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429
Reported:
12/09/04 17:29

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL40702 - General Preparation (WetChem)

Blank (EL40702-BLK1)

Prepared: 12/06/04 Analyzed: 12/07/04

Total Dissolved Solids ND 5.00 mg/L

Duplicate (EL40702-DUP1)

Source: 4L03001-01

Prepared: 12/06/04 Analyzed: 12/07/04

Total Dissolved Solids 4120 5.00 mg/L 4030 2.21 20

Environmental Lab of Texas

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Page 6 of 7

Basin Environmental Services
P.O. Box 301
Lovington NM, 88260

Project: Plain Marketing
Project Number: Ballard-Grayburg 5 inch
Project Manager: Ken Dutton

Fax: (505) 396-1429

Reported:
12/09/04 17:29

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By:

Raland K. Tuttle

Date:

12/9/2004

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

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Project Name: PLAINS MARKETING
Project #: BALLARD-GRAYBURG S"
Project Loc: EDDY COUNTY, NM
PO #: FHS: 2004-00192

Project Manager: KEN DUTTON
Company Name BASIN ENV. SVCS.
Company Address P.O. BOX 361
City/State/Zip LOVINGTON, NM 88240
Telephone No: 505/441-2224
Fax No: (505) 396-1429
Sampler Signature: [Signature]

[illegible]

Special Instructions:				Received by:		Date		Time		Sample Containers Intact?		Temperature Upon Receipt:		Laboratory Comments:	
Relinquished by: <i>Paul Dutton</i>				Received by: <i>James Johnson</i>		Date: <i>6 Dec 04</i>		Time: <i>7:30</i>		Sample Containers Intact? <i>Yes</i>		Temperature Upon Receipt: <i>Rec 3 °C</i>		Laboratory Comments: <i>11</i>	
Relinquished by: <i>Paul Dutton</i>				Received by: <i>Kal. dk 7.0</i>		Date: <i>12-06-04</i>		Time: <i>10:20</i>		Sample Containers Intact? <i>Yes</i>		Temperature Upon Receipt: <i>Rec 3 °C</i>		Laboratory Comments: <i>11</i>	

Environmental Lab of Texas

Variance / Corrective Action Report – Sample Log-In

Client: Basin Env. Suss

Date/Time: 12/6/04 12:35

Order #: 4606005

Initials: JLH

Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>3</u> C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Custody Seals intact on shipping container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>(Not present)</u>
Custody Seals intact on sample bottles?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>(Not present)</u>
Chain of custody present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Container labels legible and intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____
Regarding: _____

Corrective Action Taken:

APPENDIX B

**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-141
Revised October 10, 2003

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

Release Notification and Corrective Action

Name of Company Plains Marketing, LP		Contact Camille Reynolds
Address 5805 East Hwy. 80, Midland, TX 79706		Telephone No. 505-441-0965
Facility Name Ballard Greyburg 5" #2		Facility Type 5" Steel Pipeline
Surface Owner BLM	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter M	Section 10	Township 18S	Range 29E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude 32° 45' 27.1" Longitude 104° 04' 12.0"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 80 barrels	Volume Recovered 0 barrels
Source of Release 5" Steel Pipeline	Date and Hour of Occurrence 9-2-04 @ 06:00	Date and Hour of Discovery 9-2-04 @ 08:45
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Van Barton	
By Whom? Ken Dutton	Date and Hour 9-2-04 @ 14:32	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* External corrosion of the 5" steel pipeline. A line clamp was installed to mitigate the release. The line is a 5-inch steel gathering line that produces approximately 95 barrels of crude per day. The pressure on the line varies from 50 to 70 psi and the gravity of the sour crude oil is 39. The sour crude has an H ₂ S content of 20 ppm		
Describe Area Affected and Cleanup Action Taken.* The impacted soil was excavated and stockpiled on plastic. Aerial extent of surface impact was 10 x 6 feet, subsequent excavation of impacted soil resulted in an area of approximately 22 x 23 x 13 feet.		
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: <i>Camille Reynolds</i>	OIL CONSERVATION DIVISION	
Printed Name: Camille Reynolds	Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	Expiration Date:
E-mail Address: cgreynolds@paalp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 9-7-04	Phone: 505-441-0965	

* Attach Additional Sheets If Necessary