CLOSURE DOCUMENTATION

"SV" CHIPSHOT RELEASE SITE
REF: #160037

UL-K (NE¼ OF THE SW¼) OF SECTION 11 T16S R36E
~2 MILES SOUTHEAST OF LOVINGTON
LEA COUNTY, NEW MEXICO
LATITUDE: N 32° 56' 11.70" LONGITUDE: W 103° 19' 32.42"

JUNE 2006

PREPARED BY:

ENVIRONMENTAL PLUS, INC.
2100 AVENUE O
EUNICE, NEW MEXICO 88231

PREPARED FOR:

Facility - fPAC0618753642
Incident - nPAC0618753748
application - pPAC0618753953
RP#950

Chesapeake

LETTER OF TRANSMITTAL

ENVIRONMENTAL PLUS, INC.

Date:	June 29, 2006
To:	**Larry Johnson**
Company Name:	NMOCD
Address:	1625 North French
City / State / Zip:	Hobbs, NM 88240
From:	Jason Stegemoller
CC:	Brad Blevins, Chesapeake-Hobbs, NM Curtis Blake, Chesapeake-Hobbs, NM Harlan Brown, Chesapeake-Tulsa, OK Pat Wise, City of Lovington-Lovington, NM
Project #:	160045
Project Name:	"SV" Chipshot
Subject:	**Closure Documentation**

# of originals	# of copies	Description
1		Closure Documentation

Dear Mr. Johnson:

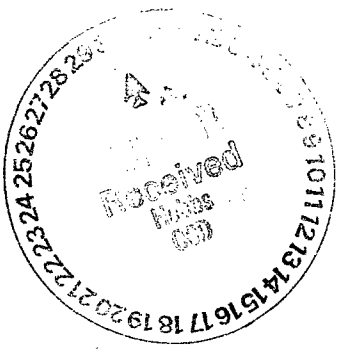
Enclosed is the *Closure Documentation* for the above-referenced site.

Should you have any questions or concerns, please feel free to contact Iain Olness or me at (505) 394-3481.

Sincerely,

Environmental Plus, Inc.

Jason Stegemoller



P. O. Box 1558
Eunice, NM 88240
(505) 394-3481
Fax: (505) 394-2601

Distribution List

Site Characterization

"SV" Chipshot

Ref. #160037

Name	Title	Company or Agency	Mailing Address	e-mail
Larry Johnson	Environmental Engineer	New Mexico Oil Conservation Division – Hobbs	1625 French Drive Hobbs, NM 88240	larry.johnson@state.nm.us
Bradley Blevins	Field Supervisor	Chesapeake Operating, Inc.	P.O. Box 190 Hobbs, NM 88240-0190	bblevins@chkenergy.com
Curtis Blake	Superintendent	Chesapeake Operating, Inc.	P.O. Box 190 Hobbs, NM 88240-0190	cblake@chkenergy.com
Harlan Brown	Senior Environmental Representative	Chesapeake Operating, Inc.	6100 N. Western Avenue Oklahoma City, OK 73118	hbrown@chkenergy.com
Pat Wise	City Manager	City of Lovington	P.O. Box 1268 Lovington, NM 88260	pwise@lovington-nm.org
File	- -	Environmental Plus, Inc.	P.O. Box 1558 Eunice, NM 88231-1558	jolness@envplus.net

STANDARD OF CARE

Site Characterization

"SV" Chipshot

Ref. #160037

The information provided in this report was collected consistent with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993), the NMOCD Unlined Surface Impoundment Closure Guidelines (February, 1993) and Environmental Plus, Inc. (EPI) Standard Operating Procedures and Quality Assurance/Quality Control Plan. The conclusions are based on field observations and laboratory analytical reports as presented in the report. Recommendations follow NMOCD guidance and represent the professional opinions of EPI staff. These opinions were derived using currently accepted geologic, hydrogeologic and engineering practices at this time and location. The report was prepared or reviewed by a certified or registered professional with a background in engineering, environmental and/or natural sciences.

This report was prepared by:

Jason Stegemoller — June 26, 2006
Jason Stegemoller
Environmental Scientist
Date

This report was reviewed by:

for Iain A. Olness, P.G. — 6/26/06
Iain A. Olness, P.G.
Technical Manager
Date

Table of Contents

1.0 PROJECT SYNOPSIS

Site Specific:

- ***Company Name:*** Chesapeake Operating, Inc.
- ***Facility Name:*** "SV" Chipshot
- ***Project Reference:*** 160037
- ***Company Contacts:*** Bradley Blevins
- ***Site Location:*** WGS84 N32° 56' 11.70"; W103° 19' 32.42"
- ***Legal Description:*** Unit Letter-K, (NE¼ of the SW¼), Section 11, T 16S, R 36E
- ***General Locattion:*** Approximately 2-miles southeast of Lovington, New Mexico
- ***Elevation:*** 3,895-ft amsl
- ***Depth to Ground Water:*** approximately ~77-ft bgs
- ***Land Ownership:*** City of Lovington

EPI Personnel: Project Consultant – Iain Olness
Site Foreman – John Robinson

Release Specific:

- ***Product Released:*** Crude oil
- ***Volume Released:*** Unknown ***Volume Recovered:*** None
- ***Time of Occurrence:*** Unknown ***Time of Discovery:*** November 4, 2005, 11:30 A.M.
- ***Release Source:*** Leak from tank battery
- ***Initial Surface Area Affected:*** ~ 3,200 square feet

Remediation Specific:

- ***Final Vertical extent of contamination:*** 12-feet bgs at maximum depth
- ***Water wells within 1,000-ft:*** 3 (L 05922, L 09389 and L 11093)
- ***Private domestic water sources within 200-ft:*** 0
- ***Surface water bodies within 1,000-ft:*** 0
- ***NMOCD Site Ranking Index:*** 30 points (<100-ft to top of water table and <1,000-ft from water source)
- ***Remedial goals for Soil:*** TPH – 100 mg/Kg; BTEX – 50 mg/Kg; Benzene – 10 mg/Kg; Chloride and sulfate residuals may not be capable of impacting groundwater above NMWQCC groundwater standards of 250 mg/Kg and 600 mg/Kg, respectively.
- ***RCRA Waste Classification:*** Exempt
- ***Remediation Option Selected:*** a) Impacted soil above NMOCD remedial goals was excavated and transported to Sundance Services for Disposal; b) laboratory analyses to confirm removal of soil impacted above NMOCD remedial thresholds and NMWQCC groundwater standards in excavation sidewalls; c) isolation of residual chlorides in excavation floor with a compacted clay barrier; d) backfill excavation with clean soil purchased from an off-site source.
- ***Treatment/Disposal Facility:*** Saunders Land Farm- Lovington New Mexico and Sundance Services – Hobbs, New Mexico
- ***Volume disposed:*** approximately 2,858-yd^3
- ***Project Completion Date:*** January 2, 2006

2.0 SITE AND RELEASE INFORMATION

2.1 ***Describe the land use and pertinent geographic features within 1,000 feet of the site.***
Land surrounding the area is pastureland and utilized for livestock grazing.

2.2 ***Identify and describe the source or suspected source(s) of the release.***
Leaking tank battery

2.3 ***What is the volume of the release? (if known):*** Unknown ***barrels of*** crude oil

2.4 ***What is the volume recovered? (if any):*** None

2.5 ***When did the release occur? (if known):*** Unknown

2.6 ***Geological Description***
The United States Geological Survey (USGS) Ground-Water Report 6, *"Geology and Ground-water Conditions in Southern Lea County, New Mexico," A. Nicholson and A. Clebsch, 1961*, describes the near surface geology of southern Lea County as "an intergrade of the Quaternary Alluvium (QA) sediments (i.e., fine to medium sand, with the mostly eroded Cenozoic Ogallala (CO) formation). Typically, the QA and CO formations in the area are capped by a thick interbed of caliche and generally overlain by sandy soil."

The release site is located in the High Plains physiographic subdivision, described by Nicholson & Clebsch as "a flat, gently sloping plain, treeless and marred only by slight undulations and covered with short prairie grass."

2.7 ***Ecological Description***
Vegetation in the High Plains consists primarily of short grass prairie grasses interspersed with Honey Mesquite (*Prosopis glandulosa*) and, annual and perennial forbs. Mammals represented, include Orrd's and Merriam's Kangaroo Rats, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, Mule Deer, Bobcat, Red Fox and Coyote. Reptiles, amphibians, and birds are numerous and typical of area. A survey of *Listed, Threatened*, or *Endangered* species was not conducted.

2.8 ***Area Groundwater***
The unconfined groundwater aquifer at this site is projected to be ~77-ft bgs based on water depth data obtained from the New Mexico State Engineers Office and the United States Geological Survey data base (reference *Table 1*).

2.9 ***Area Water Wells***
There are three public water supply wells located within a 1,000-foot radius of the release site. In addition, there are no private, domestic fresh water wells or springs used by less than five households for domestic or stock watering purposes located within a 200-foot radius of the release site (reference *Table 1* and *Figure 2*).

2.10 ***Area Surface Water Features***
There are no surface water features within a 1,000 foot radius of the release site (reference *Figure 2*).

3.0 NMOCD SITE RANKING

Contaminant delineation and remedial work done at this site indicate chemical parameters of the soil and physical parameters of the groundwater were characterized consistent with the characterization and remediation/abatement goals and objectives set forth in the following New Mexico Oil Conservation Division (NMOCD) publications:

- ***Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)***
- ***Unlined Surface Impoundment Closure Guidelines (February, 1993)***
- ***Pit and Below-Grade Tank Guidelines (November, 2004)***

Acceptable thresholds for contaminants/constituents of concern (CoC) were determined based on the NMOCD Ranking Criteria as follows:

- *Depth to Groundwater (i.e., distance from the lower most acceptable concentration to ground-water);*
- *Wellhead Protection Area (i.e., distance from fresh water supply wells);*
- *Distance to Surface Water Body (i.e., horizontal distance to all down gradient surface water bodies).*

Based on the proximity of the site to protectable area water wells, surface water bodies, and depth to groundwater from the lower most contamination, the NMOCD ranking score for the site is 30 points with the soil remedial goals highlighted in the Site Ranking table presented below:

1. GROUNDWATER	2. WELLHEAD PROTECTION AREA	3. DISTANCE TO SURFACE WATER
Depth to GW <50 feet: 20 points	If <1,000' from water source, or <200' from private domestic water source: ***20 points***	<200 horizontal feet: ***0 points***
Depth to GW 50 to 99 feet: ***10 points***		200-1,000 horizontal feet: ***10 points***
Depth to GW >100 feet: 0 points	If >1,000' from water source, or >200' from private domestic water source: ***0 points***	>1,000 horizontal feet: ***0 points***
Site Rank (1+2+3) = 10 +20 + 0 = 30 points		

Total Site Ranking Score and Acceptable Remedial Goal Concentrations			
Parameter	20 or >	10	0
Benzene[1]	10 ppm	10 ppm	10 ppm
BTEX[1]	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1,000 ppm	5,000 ppm

[1] A field soil vapor headspace measurement of 100 ppm can be substituted in lieu of laboratory analyses for benzene and BTEX.

4.0 EXCAVATED SOIL INFORMATION

4.1 ***Was soil excavated for off-site treatment or disposal?*** ☒ ***Yes*** ☐ ***No***

Date excavated: November 11, 2005 through December 14, 2005

Total volume removed: ~2,860 cubic yards

4.2 ***Indicated soil treatment type:***

- ☒ ***Disposal***
- ☒ ***Land Treatement***
- ☐ ***Composting/Biopiling***
- ☐ ***Other*** ( )

Name and location of treatment/disposal facility:
Sundance Services – Hobbs, New Mexico; ~ 280 cubic yards for disposal
Saunders Land Farm – Lovington, New Mexico; ~2,578 cubic yards for treatment

5.0 SAMPLING INFORMATION

5.1 Briefly describe the field screening methods used to distinguish contaminated from uncontaminated soil.

Organic Vapor Concentrations – A portion of each soil sample was placed in a polyethylene bag and allowed sufficient time and temperature for organic vapors to volatilize. The detector portion of a Photoionization Detector equipped with a 10.6 electron volt lamp was placed in the bag to analyze organic vapor concentration.

Chloride Concentrations – A La Motte Chloride Test Kit was utilized for field chloride concentration analyses.

5.2 Briefly describe the soil analytical sampling and handling procedures used.

Soil samples were collected during the advancement of the soil borings utilizing a hollow core drill. Soil samples collected from the excavation were collected utilizing hand and/or mechanical excavation equipment to gather the sample from at least 6-inches below/within the surface of the excavation.

Upon collection of each sample, a portion was immediately placed in a laboratory provided container, labeled and set on ice for transport to an independent laboratory for quantification of total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene and total xylenes (BTEX), sulfates and/or chloride concentrations. The remaining portion of each sample was utilized to conduct field analyses.

5.3 Discuss sample locations and provide rationale for their locations.

On November 10, 2005, a series of 3 soil borings (SB-1, SB-2 and SB-3) were advanced within the tank battery area. A soil sample was collected at 2 and 5-ft bgs and at 5-ft intervals thereafter. Soil borings were advanced until two consecutive field chloride anlyses indicated concentrations were below the NMWQCC groundwater standard of 250 mg/L. Maximum depths of soil borings were 30-ft bgs for SB-1, 15-ft bgs for SB-2 and 20-ft bgs for SB-3. Soil boring locations were chosen to delineate the vertical extent of impacted soil while providing adequate distance between soil borings (reference *Table 2* and *Figure 4*).

On November 29, 2005, after initial excavation activities, soil samples were collected from the excavation sidewalls and floor. Soil samples were collected from the excavation floor in 8 locations (BH-1 through BH-8) and from the sidewalls in 12 locations (SW-1 through SW-12). Soil sample depths from the excavation floor ranged from 6 to 12-ft bgs and from the excavation sidewalls ranged from 1 to 7-ft bgs (reference *Table 3* and *Figure 4*). Soil sample locations were chosen to provide the best representative example of soil within the excavation floor and sidewalls.

Based on analytical results, excavation activities resumed. Soil samples were collected on December 14 and 15, 2005 from the excavation sidewalls in 6 locations (SP-1 through SP-6). Sampling depths ranged from 1 to 3-ft bgs. Based on laboratory analytical data from the previous sampling event, excavation activities resumed in the areas of SP-1 through SP-5. Soil sampling locations SP-1 through SP-5 were sampled on December 20, 2005 (reference *Table 3* and *Figure 5*). Soil sample locations were chosen to provide the best representative example of soil within the excavation sidewalls.

6.0 ANALYTICAL RESULTS

6.1 Describe the vertical and horizontal extent and magnitude of soil contamination.

Laboratory analyses of soil samples collected during the advancement of soil boring SB-1 indicated TPH concentrations in excess of the NMOCD remedial threshold of 100 mg/Kg existed to 5-ft bgs and again at 20-ft bgs. BTEX constituent concentrations above the NMOCD remedial threshold of 50 mg/Kg were limited to 2-ft bgs. Reported chloride concentrations were above the NMWQCC groundwater standard of 250 mg/L to 20-ft bgs. Laboratory analyses indicated all other analytes and sampling intervals to total depth (TD) of 30-ft bgs were below each analytes respective NMOCD remedial threshold and/or NMWQCC groundwater standard (reference *Table 2* and *Figure 4*).

Laboratory analyses of soil samples collected during the advancement of soil boring SB-2 indicated TPH concentrations in excess of the NMOCD remedial threshold of 100 mg/Kg existed at 2-ft bgs. Reported chloride concentrations were above the NMWQCC groundwater standard of 250 mg/L to 5-ft bgs and sulfate concentrations above the NMWQCC groundwater standard of 600 mg/L at 5-ft bgs. Laboratory analyses indicated all other analytes and sampling intervals to TD 15-ft bgs were below each analytes respective NMOCD remedial threshold and/or NMWQCC groundwater standard (reference *Table 2* and *Figure 4*).

Laboratory analyses of soil samples collected during the advancement of soil boring SB-3 indicated TPH concentrations in excess of the NMOCD remedial threshold of 100 mg/Kg existed at 2-ft bgs. Reported chloride concentrations were above the NMWQCC groundwater standard of 250 mg/L to 10-ft bgs. Laboratory analyses indicated all other analytes and sampling intervals to TD of 20-ft bgs were below each analytes respective NMOCD remedial threshold and/or NMWQCC groundwater standard (reference *Table 2* and *Figure 4*).

Laboratory analyses of soil samples collected on November 29, 2005, after initial excavation activities, from the excavation floor (i.e., BH-1 through BH-8) indicated chloride concentrations, with the exception of soil sample BH-4, were in excess of the NMQCC groundwater standard of 250 mg/L. Laboratory analyses indicated all other analytes and sampling locations were below each analytes respective NMOCD remedial threshold and/or NMWQCC groundwater standard (reference *Table 3* and *Figure 4*).

Laboratory analyses of soil samples collected on November 29, 2005, after initial excavation activities, from the excavation sidewalls (i.e., SW-1 through SW-12) indicated benzene, BTEX and TPH concentrations were in excess of the NMOCD remedial threshold in sample SW-1. Reported TPH and chloride concentrations in sample SW-2 were in excess of the NMOCD TPH remedial threshold and NMWQCC groundwater standard of 250 mg/L. Chloride concentrations in soil samples SW-3, SW-5, SW-7, SW-8, SW-11 and SW-12 were reported above the NMWQCC groundwater standard of 250 mg/L. Additionally, the reported sulfate concentration in sample SW-10 was above the groundwater standard of 600 mg/L. Laboratory analyses of all other analytes and sample locations were below each analytes respective NMOCD remedial threshold and/or NMWQCC groundwater standard (reference *Table 3* and *Figure 4*).

After additional excavation activities to address contaminants detected during the initial sampling activities, soil samples were collected on December 14 and 15, 2005 from the excavation sidewalls (i.e., SP-1 through SP-6) indicated chloride concentrations in locations SP-1, SP-2, SP-3, SP-4 and SP-5 were in excess of the NMWQCC groundwater standard of 250 mg/L. Chloride concentrations in soil sample SP-6 were reported at 196 mg/Kg, below the NMWQCC groundwater standard. Reported TPH, BTEX constituent and sulfate

concentrations in soil samples SP-1 through SP-5 were ND at or above laboratory MDL (reference *Table 3* and *Figure 5*).

After additional excavation of chloride impacted southwestern sidewalls, samples were collected on December 20, 2005 from sample locations SP-1 through SP-5. Laboratory analyses indicated chloride concentrations in SP-1, SP-2, SP-3 and SP-5 ranged from 288 to 1,663 mg/Kg, above the NMWQCC groundwater standard of 250 mg/L. Reported chloride concentrations in soil sample SP-4 were reported at 160 mg/Kg, below the NMWQCC groundwater standard (reference *Table 3* and *Figure 5*).

6.2 Is surface soil contamination present at the site (i.e., soil in the uppermost two feet that is visibly stained, contaminated at greater than 10 ppm (PID) or hydrocarbon saturated)?

☐ *yes* ☒ *no*

If yes, attach a site map identifying extent(s) of surface soil contamination.

Visibly stained soil has been excavated and transported Saunders Land Farm and Sundance services for treatment and/or disposal.

7.0 DISCUSSION

7.1 Discuss the risks associated with the remaining soil contamination:

Chloride impacted soil above NMWQCC chloride groundwater standards may be capable of impacting local groundwater. Based on depth to groundwater (~77-ft bgs), an impermeable clay barrier was placed in the excavation floor to isolate residual chloride from downward migration.

7.2 Discuss the risks associated with the impacted groundwater: NA

7.3 Discuss other concerns not mentioned above: NA

FIGURES

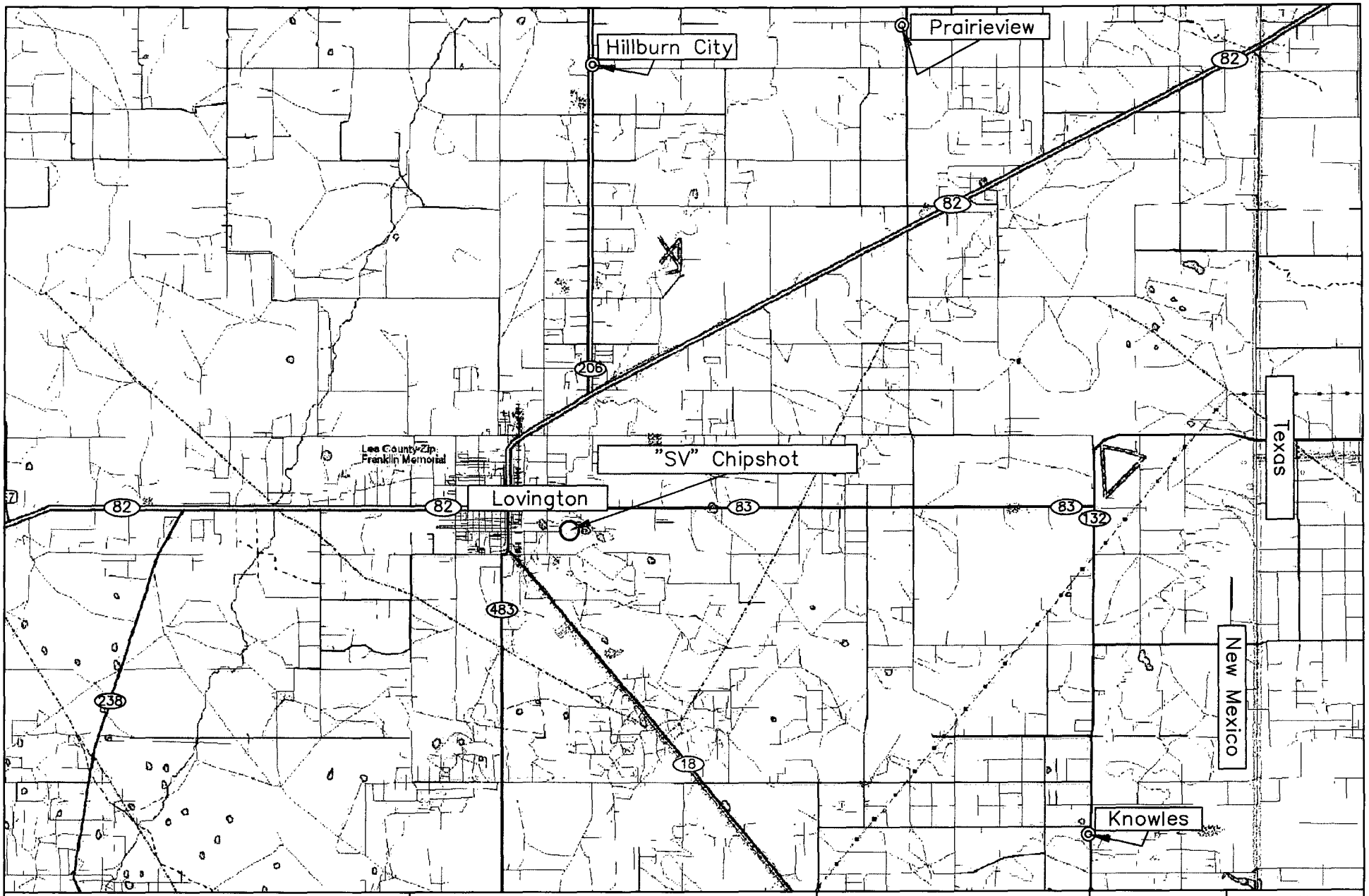


Figure 1
Area Map
Chesapeake Energy
"SV" Chipshot

Lea County, New Mexico
NE 1/4 of the SW 1/4, Sec. 11, T16S, R36E
N 32° 56' 11.70" W 103° 19' 32.42"
Elevation: 3,895 feet amsl

DWG By: Daniel Dominguez
November 2005

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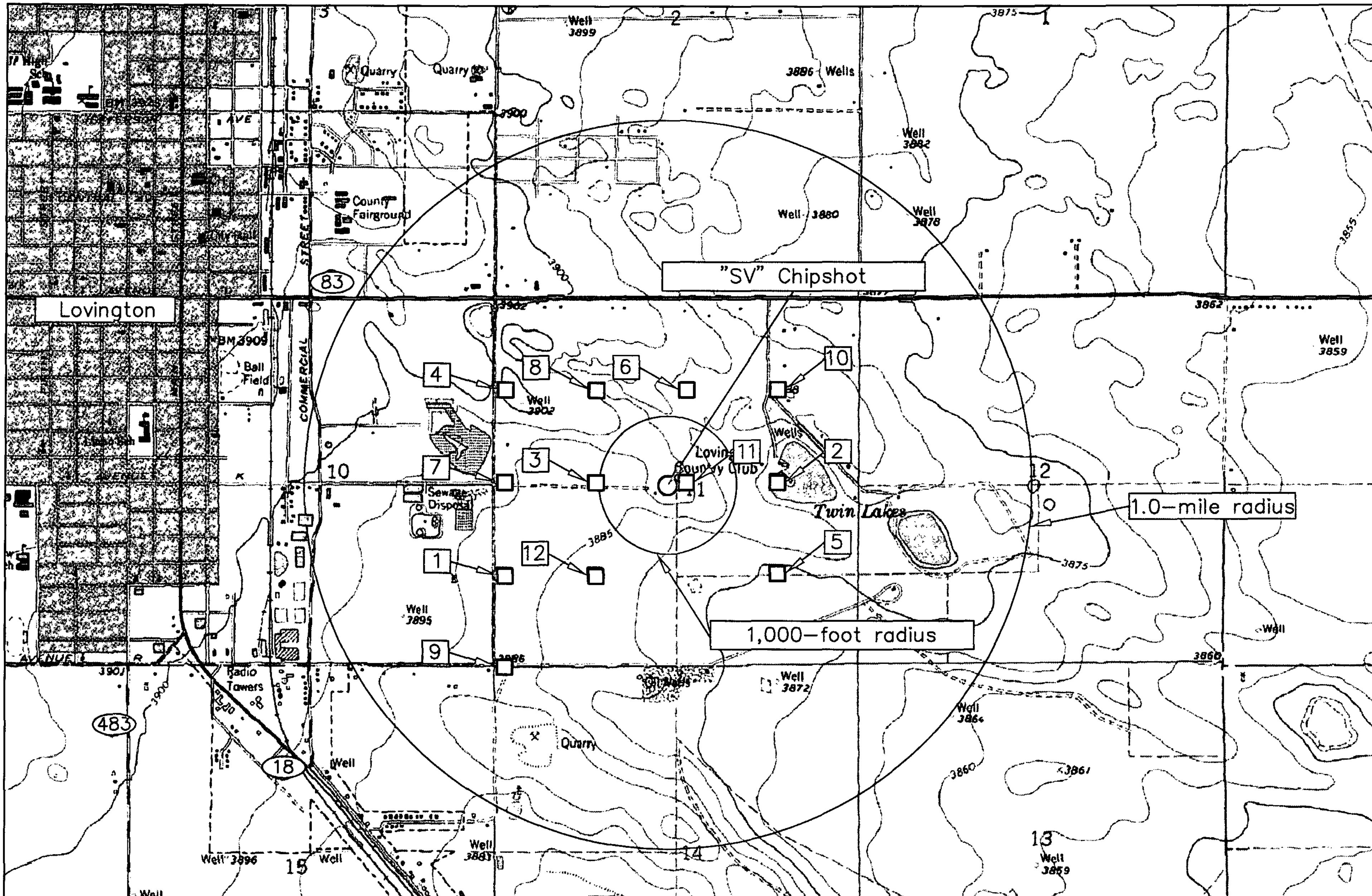


Figure 2 Site Location Map Chesapeake Energy "SV" Chipshot	Lea County, New Mexico NE 1/4 of the SW 1/4, Sec. 11, T16S, R36E N 32° 56' 11.70" W 103° 19' 32.42" Elevation: 3,895 feet amsl	DWG By: Daniel Dominguez November 2005 0 2000 4000 Feet	REVISED: SHEET 1 of 1	N

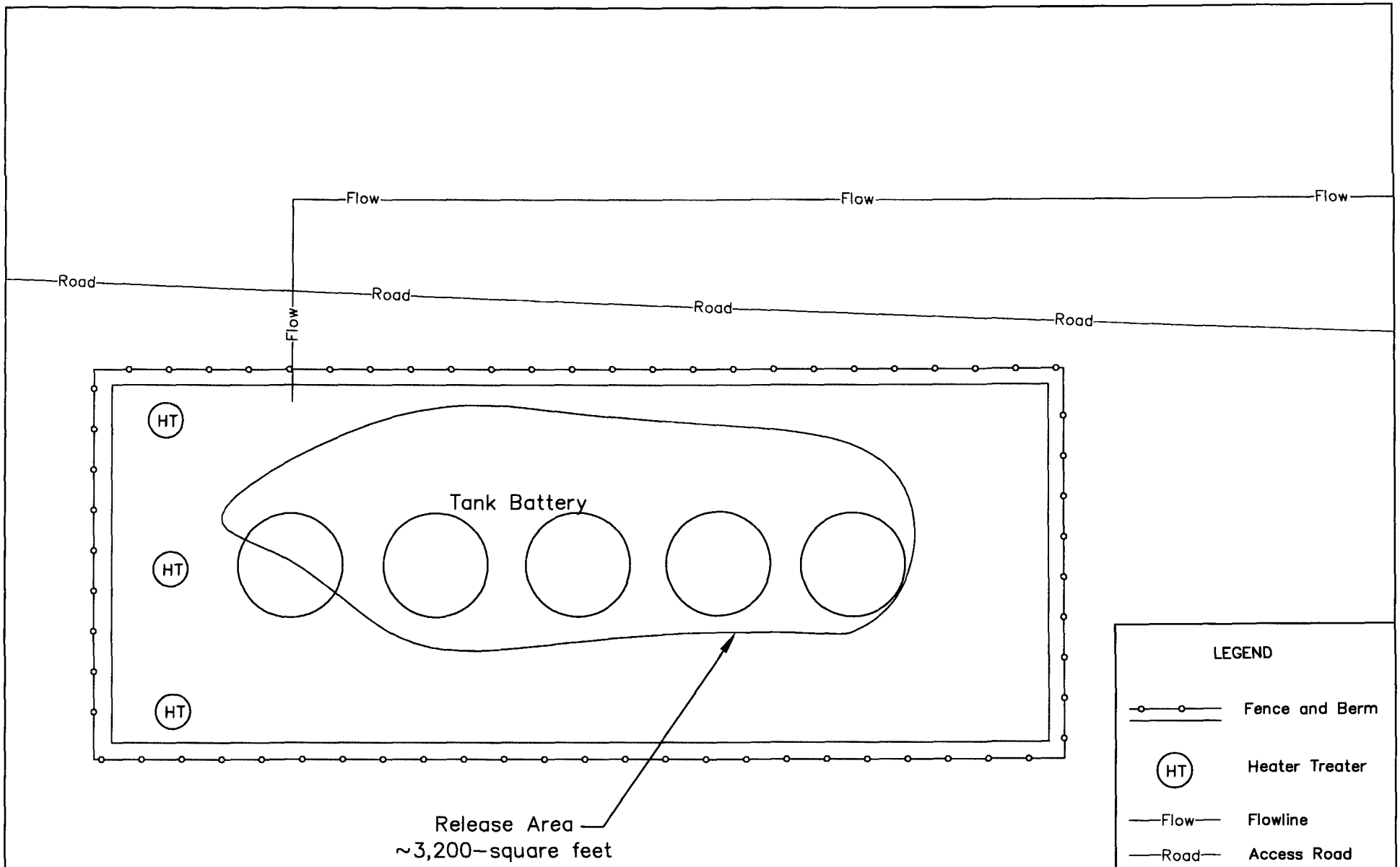
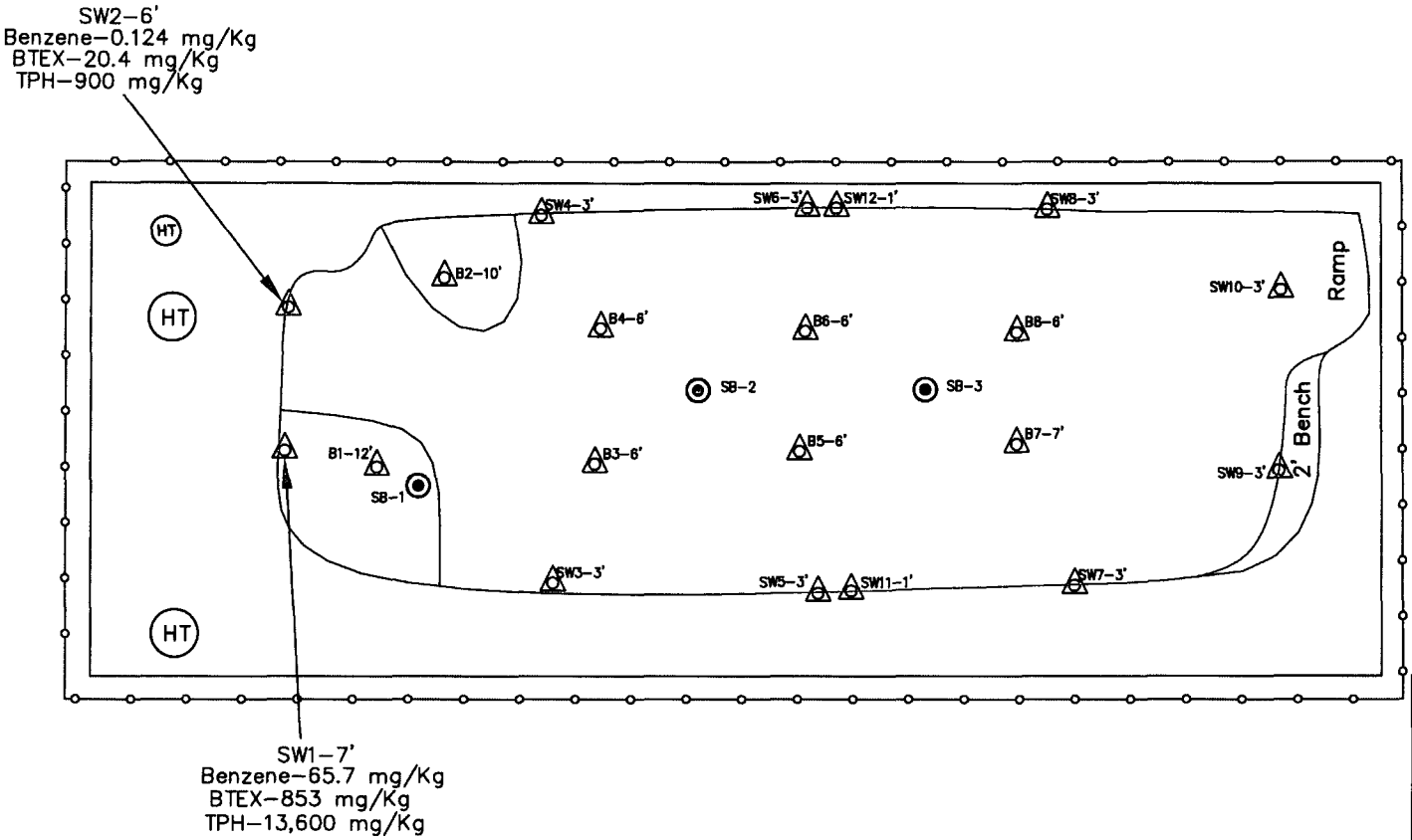


Figure 3 Site Map Chesapeake Energy "SV" Chipshot	Lea County, New Mexico NE 1/4 of the SW 1/4, Sec. 11, T16S, R36E N 32° 56' 11.70" W 103° 19' 32.42" Elevation: 3,895 feet amsl	DWG By: Daniel Dominguez November 2005 0 20 40 Feet	REVISED: SHEET 1 of 1 N



LEGEND

- Sample Location
- Fence and Berm
- HT — Heater Treater
- Soil Boring Location

Figure 4
Soil Boring and Sample Location Map, 11–10–05 through 11–29–05
Chesapeake Energy
"SV" Chipshot

Lea County, New Mexico
NE 1/4 of the SW 1/4, Sec. 11, T16S, R36E
N 32° 56' 11.70" W 103° 19' 32.42"
Elevation: 3,895 feet amsl

DWG By: Daniel Dominguez
December 2005

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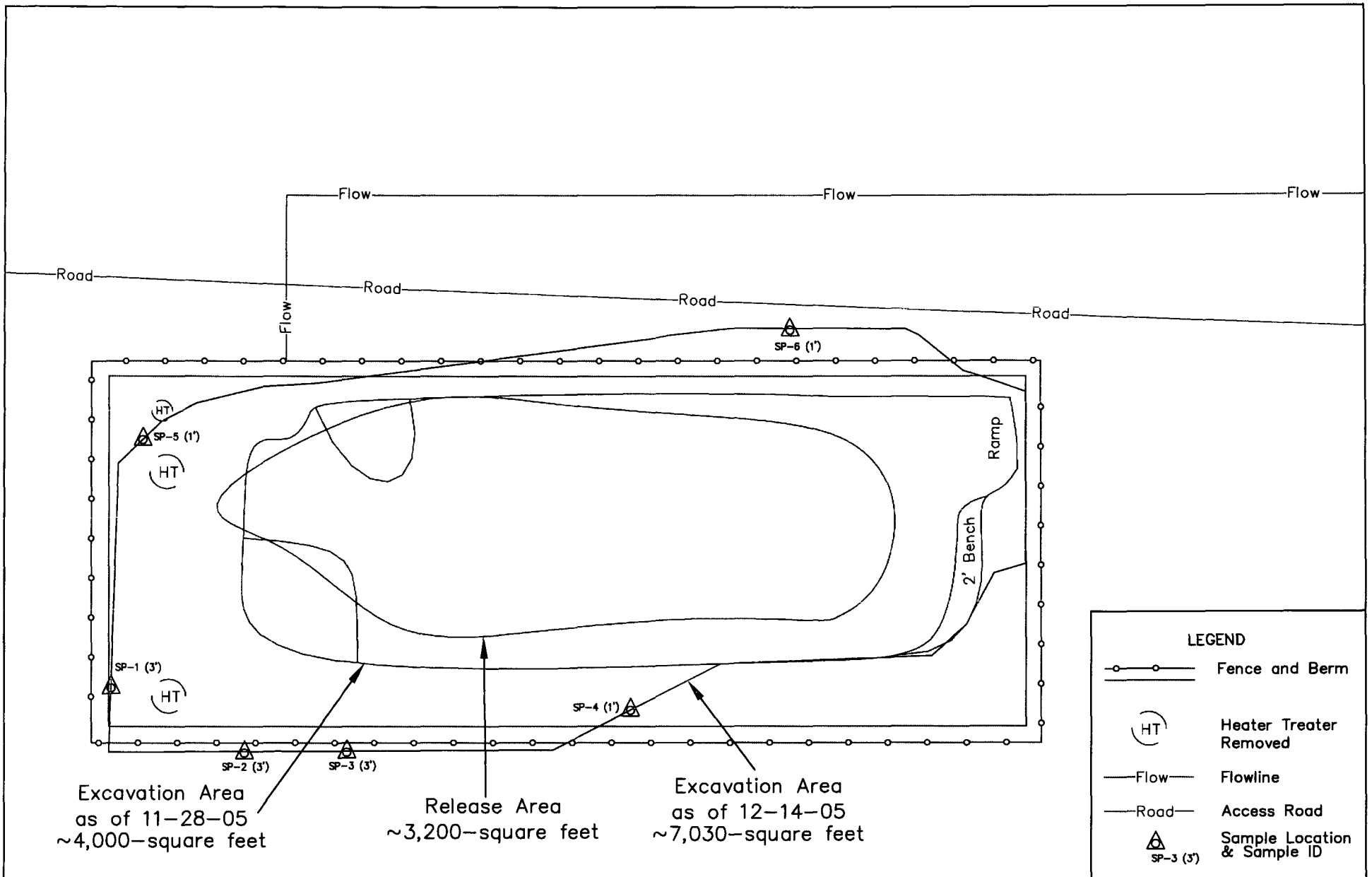

Figure 5 Sample Location Map, 12-14-05 through 12-20-05 Chesapeake Energy "SV" Chipshot	Lea County, New Mexico NE 1/4 of the SW 1/4, Sec. 11, T16S, R36E N 32° 56' 11.70" W 103° 19' 32.42" Elevation: 3,895 feet amsl	DWG By: Daniel Dominguez November 2005 0 20 40 Feet	REVISED: SHEET 1 of 1 N

TABLES

TABLE 1

Well Data

Chesapeake Energy - "SV" Chipshot (Ref. # 160037)

Ref #	Well Number	Diversion[A]	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation[B]	Well Depth (ft bgs)	Depth to Water (ft bgs)
	L 00265	16.2	CITY OF LOVINGTON	IRR	16S	36E	11 3 1 1	N 32° 55' 58.89"	W 103° 20' 0.23"		3,891		
1	L 00265	450	CITY OF LOVINGTON	IRR	16S	36E	11 3 1 1	N 32° 55' 58.89"	W 103° 20' 0.23"		3,891		
	L 07741	3	HULDA R. HEIDEL	DOM	16S	36E	11 3 1 2	N 32° 55' 58.89"	W 103° 20' 0.23"	14-Sep-77	3,891	142	78
	L 00307	435.8	LOVINGTON COUNTRY CLUB	IRR	16S	36E	11 2 4 1	N 32° 56' 12.16"	W 103° 19' 13.79"		3,881	100	
	L 00307 EXPLORE				16S	36E	11 2 4 3	N 32° 56' 12.16"	W 103° 19' 13.79"	27-Mar-02	3,881	205	
	L 00307 S				16S	36E	11 2 4 3	N 32° 56' 12.16"	W 103° 19' 13.79"	27-Mar-02	3,881	205	
	L 01984	3	J. T. EASLEY	DOM	16S	36E	11 2 4 4	N 32° 56' 12.16"	W 103° 19' 13.79"	28-Apr-53	3,881	95	55
	L 01984 APPRO				16S	36E	11 2 4 4	N 32° 56' 12.16"	W 103° 19' 13.79"	28-Apr-53	3,881	95	55
	L 04080	3	ROBERT W. WARD	DOM	16S	36E	11 2 4 4	N 32° 56' 12.16"	W 103° 19' 13.79"	04-Mar-59	3,881	103	75
	L 04080 APPRO				16S	36E	11 2 4 4	N 32° 56' 12.16"	W 103° 19' 13.79"	04-Mar-59	3,881	103	75
	L 04261	3	JERRY STOLTZ	DOM	16S	36E	11 2 4 4	N 32° 56' 12.16"	W 103° 19' 13.79"	07-Aug-59	3,881	110	94
2	L 04261 APPRO				16S	36E	11 2 4 4	N 32° 56' 12.16"	W 103° 19' 13.79"	07-Aug-59	3,881	110	94
	L 05717	3	RONALD O. CUNNINGHAM	DOM	16S	36E	11 2 4	N 32° 56' 12.16"	W 103° 19' 13.79"	20-Jan-66	3,881	110	67
	L 05857	3	INC. SOUTHWESTERN BUILDERS	DOM	16S	36E	11 2 4	N 32° 56' 12.16"	W 103° 19' 13.79"	08-Mar-66	3,881	100	65
	L 05863 EXP	0	A.T. MR. BINTZ	DOM	16S	36E	11 2 4	N 32° 56' 12.16"	W 103° 19' 13.79"		3,881		
	L 07992 EXP	0	BROOKS BLAIR	DOM	16S	36E	11 2 4	N 32° 56' 12.16"	W 103° 19' 13.79"		3,881		
	L 08783	3	RONALD O. CUNNINGHAM	STK	16S	36E	11 2 4 2	N 32° 56' 12.16"	W 103° 19' 13.79"	30-Jul-82	3,881		71
	L 09445	3	JERRY ROTAN	DOM	16S	36E	11 2 4	N 32° 56' 12.16"	W 103° 19' 13.79"	20-Apr-84	3,881		
	L 09471	3	LARRY HODGE	DOM	16S	36E	11 2 4	N 32° 56' 12.16"	W 103° 19' 13.79"	12-May-84	3,881	110	72
	L 11428	3	WILLIAM PALMER	DOM	16S	36E	11 2 4 3	N 32° 56' 12.16"	W 103° 19' 13.79"	04-Mar-03	3,881	156	
3	L 01427 APPRO	3	COMER G. HUDGENS	DOM	16S	36E	11 1 4	N 32° 56' 12.06"	W 103° 19' 44.75"		3,893		
	L 01524	3	R.H. & PAINTER, C.B. CULLOM	DOM	16S	36E	11 1 1 1	N 32° 56' 25.14"	W 103° 20' 0.22"		3,904		
	L 01524 APPRO				16S	36E	11 1 1 1	N 32° 56' 25.14"	W 103° 20' 0.22"		3,904		
4	L 04434	3	HARVEY BLANCET	DOM	16S	36E	11 1 1 1	N 32° 56' 25.14"	W 103° 20' 0.22"	06-Aug-60	3,904	100	74
	L 05685	3	JOE MATLOCK	STK	16S	36E	11 1 1	N 32° 56' 25.14"	W 103° 20' 0.22"	10-Aug-65	3,904	115	80
	L 11538	3	CAPROCK PIPE & SUPPLY, LP	SAN	16S	36E	11 1 1 1	N 32° 56' 25.14"	W 103° 20' 0.22"		3,904		
	L 03432	3	ERNEST MAHAN	DOM	16S	36E	11 4 2 2	N 32° 55' 59.03"	W 103° 19' 13.80"	05-Mar-57	3,878	110	68
5	L 03432 APPRO				16S	36E	11 4 2 2	N 32° 55' 59.03"	W 103° 19' 13.80"	05-Mar-57	3,878	110	68
	L 08423	3	LOVINGTON COUNTY CLUB	DOM	16S	36E	11 4 2 2	N 32° 55' 59.03"	W 103° 19' 13.80"	04-Jun-81	3,878	120	72
	A 03999	3	DAVID T. CAUDLE	DOM	16S	36E	11 2 1 4	N 32° 56' 25.23"	W 103° 19' 29.26"	19-Sep-58	3,894	95	65
	L 03999 APPRO				16S	36E	11 2 1 4	N 32° 56' 25.23"	W 103° 19' 29.26"	19-Sep-58	3,894	95	65
	L 05255	3	J.M. DENTON	STK	16S	36E	11 2 1	N 32° 56' 25.23"	W 103° 19' 29.26"	28-Sep-63	3,894	100	85
	L 05517	3	Y.N. CAMPBELL	DOM	16S	36E	11 2 1 2	N 32° 56' 25.23"	W 103° 19' 29.26"	16-Jan-65	3,894	95	75
	L 06498	3	W. W. SHUMAN	DOM	16S	36E	11 2 1 1	N 32° 56' 25.23"	W 103° 19' 29.26"	08-Oct-69	3,894	95	70
	L 07032	3	OLEN L. ELLIOTT	DOM	16S	36E	11 2 1 2	N 32° 56' 25.23"	W 103° 19' 29.26"	28-Apr-00	3,894	122	80
6	L 07954	3	BRUCE KENNEDY	DOM	16S	36E	11 2 1	N 32° 56' 25.23"	W 103° 19' 29.26"	17-Sep-78	3,894	120	85
	L 08682	3	DON ALLEN	DOM	16S	36E	11 2 1 4	N 32° 56' 25.23"	W 103° 19' 29.26"	19-Feb-82	3,894	124	70
	L 09053	3	JOSE VALENCIA	DOM	16S	36E	11 2 1 3	N 32° 56' 25.23"	W 103° 19' 29.26"	10-Apr-83	3,894	175	95
	L 09054	3	DAVID PEPPER	DOM	16S	36E	11 2 1 3	N 32° 56' 25.23"	W 103° 19' 29.26"	19-Jan-83	3,894	135	65
	L 09054 CLW				16S	36E	11 2 1 3	N 32° 56' 25.23"	W 103° 19' 29.26"	23-Aug-84	3,894	135	65
	L 09195	3	DAVID SONNENBERG	DOM	16S	36E	11 2 1 3	N 32° 56' 25.23"	W 103° 19' 29.26"	29-Jun-83	3,894	135	90
	L 09198	3	BARRY LOVEJOY	DOM	16S	36E	11 2 1 3	N 32° 56' 25.23"	W 103° 19' 29.26"	13-Apr-83	3,894	138	90

TABLE 1

Well Data

Chesapeake Energy - "SV" Chipshot (Ref. # 160037)

Ref #	Well Number	Diversion[A]	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation[B]	Well Depth (ft bgs)	Depth to Water (ft bgs)
6	L 09330	3	CHARLIE PRICE	DOM	16S	36E	11 2 1 3	N 32° 56' 25.23"	W 103° 19' 29.26"	21-Sep-83	3,894	140	90
	L 09331	3	TACK BALDWIN	DOM	16S	36E	11 2 1 3	N 32° 56' 25.23"	W 103° 19' 29.26"	21-Sep-83	3,894	140	90
	L 09340	3	ROBERT C. JR. DUNN	DOM	16S	36E	11 2 1 3	N 32° 56' 25.23"	W 103° 19' 29.26"	05-Oct-83	3,894	150	90
	L 09492	3	HUBERT CROUCH JR.	DOM	16S	36E	11 2 1 3	N 32° 56' 25.23"	W 103° 19' 29.26"	30-May-84	3,894	135	65
	L 09653	3	RUSS CHANCELLOR	DOM	16S	36E	11 2 1	N 32° 56' 25.23"	W 103° 19' 29.26"	16-Apr-85	3,894	135	65
	L 09746	3	DENNIES P. BAGAN	DOM	16S	36E	11 2 1	N 32° 56' 25.23"	W 103° 19' 29.26"	24-Sep-85	3,894	157	70
	L 10354	3	T.D.L. CONSTRUCTION	DOM	16S	36E	11 2 1 3	N 32° 56' 25.23"	W 103° 19' 29.26"	10-Oct-93	3,894	120	63
7	L 04005	3	CHARLES L. CAMPBELL	DOM	16S	36E	11 1	N 32° 56' 12.01"	W 103° 20' 0.22"	20-Sep-58	3,894	95	75
	L 04005 APPRO				16S	36E	11 1	N 32° 56' 12.01"	W 103° 20' 0.22"	20-Sep-58	3,894	95	75
	L 06102	3	RAUL CANUL	STK	16S	36E	11 1	N 32° 56' 12.01"	W 103° 20' 0.22"	02-Mar-67	3,894	100	75
8	L 04060	3	IRA TERRILL	DOM	16S	36E	11 1 2 1	N 32° 56' 25.19"	W 103° 19' 44.74"		3,899		
	L 04060 APPRO EXP				16S	36E	11 1 2 1	N 32° 56' 25.19"	W 103° 19' 44.74"		3,899		
	L 04099	3	H. H. CALDWELL	DOM	16S	36E	11 1 2 2	N 32° 56' 25.19"	W 103° 19' 44.74"	05-Apr-59	3,899	95	74
	L 04099 APPRO				16S	36E	11 1 2 2	N 32° 56' 25.19"	W 103° 19' 44.74"	05-Apr-59	3,899	95	74
	L 04739	3	IRA E. TERRILL	DOM	16S	36E	11 1 2 1	N 32° 56' 25.19"	W 103° 19' 44.74"		3,899		
	L 04739 APPRO EXP				16S	36E	11 1 2 1	N 32° 56' 25.19"	W 103° 19' 44.74"		3,899		
	L 05808	3	WINDFORD CARLILE	STK	16S	36E	11 1 2 2	N 32° 56' 25.19"	W 103° 19' 44.74"	21-Nov-65	3,899	116	85
	L 11540	3	CAPROCK PIPE & SUPPLY, LP	SAN	16S	36E	11 1 2 1	N 32° 56' 25.19"	W 103° 19' 44.74"		3,899		
9	L 04800	3	LOYD CROW	DOM	16S	36E	11	N 32° 55' 45.77"	W 103° 20' 0.23"		3,891		
	L 04800 APPRO EXP				16S	36E	11	N 32° 55' 45.77"	W 103° 20' 0.23"		3,891		
10	L 05182	3	LEA COUNTY BROADCASTING CO.	DOM	16S	36E	11 2 2 3	N 32° 56' 25.28"	W 103° 19' 13.79"	19-Jul-63	3,895	110	75
	L 06690 EXP	0	JOHN SANDERS	DOM	16S	36E	11 2 2	N 32° 56' 25.28"	W 103° 19' 13.79"		3,895		
	L 06836 EXP	0	JOE ANDREWS	DOM	16S	36E	11 2 2 2	N 32° 56' 25.28"	W 103° 19' 13.79"		3,895		
	L 11693	3	E.M. MYERS, JR.	DOM	16S	36E	11 2 2	N 32° 56' 25.28"	W 103° 19' 13.79"		3,895	150	
11	L 05922	3	SOUTHWESTERN BUILDERS	DOM	16S	36E	11 2	N 32° 56' 12.11"	W 103° 19' 29.27"	05-May-66	3,894	105	70
	L 09389	3	ALVIN SPARKS	DOM	16S	36E	11 2	N 32° 56' 12.11"	W 103° 19' 29.27"	13-Jan-84	3,894	110	
	L 11093	3	TIM OR SHARLA BOARD	DOM	16S	36E	11 2	N 32° 56' 12.11"	W 103° 19' 29.27"	13-Jul-00	3,894	120	70
12	L 07414	0	JAMES R. YATES	DOM	16S	36E	11 3 2 3	N 32° 55' 58.94"	W 103° 19' 44.75"		3,888	200	

[B] = Elevation interpolated from USGS topographical map based on referenced location.
IRR = Irrigation
DOM = Domestic
STK= Livestock watering
SAN = Sanitary in conjunction with commercial
quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are biggest to smallest

TABLE 2

Summary of Soil Boring Soil Sample Laboratory Analytical Results

Chesapeake "SV" Chipshot (Ref. #160037)

Soil Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)	Sulfate (mg/Kg)
SB-1	2	Excavated	10-Nov-05	634	1280	2.41	19.8	16.0	43.1	**81.3**	289	963	**1,252**	**2,463**	88.9
	5	Excavated	10-Nov-05	137.0	600.0	<0.005	0.0050	<0.005	0.0170	0.0220	<10.0	197	**197**	**976**	6.36
	10	Excavated	10-Nov-05	5.2	640.0	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	34	34	**944**	3.28
	15	In Situ	10-Nov-05	3.7	960.0	--	--	--	--	--	--	--	--	**944**	15.0
	20	In Situ	10-Nov-05	2.9	560.0	--	<0.005	<0.005	<0.015	<0.03	<10.0	103	**103**	**608**	1.88
	25	In Situ	10-Nov-05	2.0	160.0	--	<0.005	<0.005	<0.015	<0.03	<10.0	<10.0	<20.0	64	33.9
	30	In Situ	10-Nov-05	1.3	160.0	--	<0.005	<0.005	<0.015	<0.03	<10.0	<10.0	<20.0	128	22.5
SB-2	2	Excavated	10-Nov-05	491.0	1120.0	0.0060	0.0630	0.0140	3.71	3.79	41.8	434	**475**	**2,239**	17.4
	5	Excavated	10-Nov-05	3.5	320.0	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	<10.0	<20.0	**448**	**5,956**
	10	In Situ	10-Nov-05	3.3	160.0	--	--	--	--	--	--	--	--	80	211
	15	In Situ	10-Nov-05	3.0	80.0	--	--	--	--	--	--	--	--	187	187
SB-3	2	Excavated	10-Nov-05	212.0	1120.0	0.0060	0.369	0.177	2.29	2.84	20.1	488	**508**	**2,479**	20.1
	5	Excavated	10-Nov-05	16.2	480.0	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	66.9	66.9	**720**	24.6
	10	In Situ	10-Nov-05	3.9	400.0	--	--	--	--	--	--	--	--	**512**	22
	15	In Situ	10-Nov-05	1.4	200.0	--	--	--	--	--	--	--	--	144	9.48
	20	In Situ	10-Nov-05	2.0	160.0	--	--	--	--	--	--	--	--	48	16.0
NMOCD Remedial Thresholds				**100**		**10**				**50**			**100**	**250** [3]	**650** [3]

[1] ***Bolded*** *values are in excess of NMOCD Remediation Thresholds and/or NMWQCC groundwater standards.*

[2] *-- = Not Analyzed*

[3] *Chloride and sulfate residuals may not be capable of impacting local groundwater above the NMWQCC standards of 250 mg/L and 650 mg/L, respectively.*

TABLE 3

Summary of Excavation Soil Sample Laboratory Analytical Results

Chesapeake "SV" Chipshot (Ref. #160037)

Soil Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)	Sulfate (mg/Kg)
BH-1	12	In Situ	29-Nov-05	3	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**269**	73.6
BH-2	10	In Situ	29-Nov-05	7	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**1,200**	75.1
BH-3	6	In Situ	29-Nov-05	3.6	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**1,250**	163
BH-4	6	In Situ	29-Nov-05	3.2	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	29.1	29.1	103	120
BH-5	6	In Situ	29-Nov-05	4.3	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**908**	69.3
BH-6	6	In Situ	29-Nov-05	3.4	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**529**	52.1
BH-7	7	In Situ	29-Nov-05	2.0	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**428**	88.6
BH-8	6	In Situ	29-Nov-05	2	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**317**	53.2
SW-1	7	Excavated	29-Nov-05	2,932	--	**65.7**	310	166	311	**853**	5,790	7,800	**13,600**	219	68
SW-2	6	Excavated	29-Nov-05	1,358	--	0.124	4.49	4.60	11.2	20.4	239	661	**900**	**831**	91
SW-3	3	Excavated	29-Nov-05	6.1	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**984**	69
SW-4	3	Excavated	29-Nov-05	2.4	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	241	40.3
SW-5	3	Excavated	29-Nov-05	3.2	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**1,070**	72.2
SW-6	3	Excavated	29-Nov-05	2.3	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	246	46.9
SW-7	3	In Situ	29-Nov-05	1.1	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**252**	43.7
SW-8	3	In Situ	29-Nov-05	1.1	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**318**	37.8
SW-9	3	In Situ	29-Nov-05	2.1	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	236	43.8
SW-10	3	In Situ	29-Nov-05	1.3	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	129	**1,080**
SW-11	1	Excavated	29-Nov-05	1.4	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**3,170**	159
SW-12	1	Excavated	29-Nov-05	1.0	--	<0.0250	<0.0250	<0.0250	<0.0250	<0.10	<10.0	<10.0	<10.0	**492**	83.1
SP-1	3	Excavated	14-Dec-05	--	800	--	--	--	--	--	--	--	--	**704**	--
		In Situ	20-Dec-05			<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	<20.0	**448**	<1
SP-2	3	Excavated	14-Dec-05	--	800	--	--	--	--	--	--	--	--	**1,264**	--
		In Situ	20-Dec-05			<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	<20.0	**288**	<1
SP-3	3	Excavated	14-Dec-05	--	640	--	--	--	--	--	--	--	--	**832**	--
		In Situ	20-Dec-05			<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	<20.0	**1,568**	<1
SP-4	1	Excavated	14-Dec-05	--	720	--	--	--	--	--	--	--	--	**880**	--
		In Situ	20-Dec-05	--	--	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	<20.0	160	<1
SP-5	1	Excavated	15-Dec-05	--	--	--	--	--	--	--	--	--	--	128	--
		In Situ	20-Dec-05	--	--	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	<20.0	**1,663**	14.0
SP-6	1	In Situ	15-Dec-05	--	--	--	--	--	--	--	--	--	--	196	--
NMOCD Remedial Thresholds				**100**		**10**				**50**			**100**	**250** [3]	**650** [3]

[1] *Bolded values are in excess of NMOCD Remediation Thresholds and/or NMWQCC groundwater standards.*

[2] *-- = Not Analyzed*

[3] *Chloride and sulfate residuals may not be capable of impacting local groundwater above the NMWQCC standards of 250 mg/L and 650 mg/L, respectively.*

APPENDICES

APPENDIX I

LABORATORY ANALYTICAL REPORTS
AND
CHAIN-OF-CUSTODY FORM

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: IAIN OLNESS
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 11/11/05
Reporting Date: 11/17/05
Project Owner: CHESAPEAKE ENERGY (160037)
Project Name: "SV" CHIPSHOT
Project Location: UL-K, SEC11, T16S, R36E

Sampling Date: 11/10/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: HM
Analyzed By: BC

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		11/14/05	11/14/05	11/16/05	11/16/05	11/16/05	11/16/05
H10407-1	SB-1 (2')	289	963	2.41	19.8	16.0	43.1
H10407-2	SB-1 (5')	<10.0	197	<0.005	0.005	0.005	0.017
H10407-3	SB-1 (10')	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H10407-4	SB-1 (15')	-	-	-	-	-	-
H10407-5	SB-1 (20')	-	-	-	-	-	-
H10407-6	SB-1 (25')	-	-	-	-	-	-
H10407-7	SB-1 (30')	-	-	-	-	-	-
H10407-8	SB-2 (2')	41.8	434	0.006	0.063	0.014	3.71
H10407-9	SB-2 (5')	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H10407-10	SB-2 (10')	-	-	-	-	-	-
H10407-11	SB-2 (15')	-	-	-	-	-	-
H10407-12	SB-3 (2')	-	-	-	-	-	-
H10407-13	SB-3 (5')	20.1	488	0.006	0.369	0.177	2.29
H10407-14	SB-3 (10')	<10.0	66.9	<0.005	<0.005	<0.005	<0.015
H10407-15	SB-3 (15')	-	-	-	-	-	-
H10407-16	SB-3 (20')	-	-	-	-	-	-
Quality Control		800	761	0.093	0.092	0.096	0.295
True Value QC		800	800	0.100	0.100	0.100	0.300
% Recovery		100	95.1	92.8	91.9	95.7	98.2
Relative Percent Difference		1.2	1.0	4.3	3.4	4.2	4.0

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.

Burgess J.A. Cooke, Ph. D.

11/17/05
Date

H10407A.XLS

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: IAIN OLNESS
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 11/11/05
Reporting Date: 11/15/05
Project Owner: CHESAPEAKE ENERGY (160037)
Project Name: "SV" CHIPSHOT
Project Location: UL-K, SEC11, T16S, R36E

Sampling Date: 11/10/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: HM
Analyzed By: AH

LAB NUMBER	SAMPLE ID	SO_4 (mg/Kg)	Cl (mg/Kg)
ANALYSIS DATE:		11/15/05	11/15/05
H10407-1	SB-1 (2')	88.9	2463
H10407-2	SB-1 (5')	6.36	976
H10407-3	SB-1 (10')	3.28	944
H10407-4	SB-1 (15')	15.0	944
H10407-5	SB-1 (20')	1.88	608
H10407-6	SB-1 (25')	33.9	64
H10407-7	SB-1 (30')	22.5	128
H10407-8	SB-2 (2')	17.4	2239
H10407-9	SB-2 (5')	5956	448
H10407-10	SB-2 (10')	211	80
Quality Control		42.53	950
True Value QC		50.00	1000
% Recovery		85.1	95.0
Relative Percent Difference		3.2	5.0

METHODS:	EPA 600/4-79-020	375.4	SM 4500 Cl-B

Note: Analyses performed on 1:4 w:v aqueous extracts.

Amy Hill
Chemist

11-15-05
Date

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: IAIN OLNESS
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 11/11/05
Reporting Date: 11/15/05
Project Owner: CHESAPEAKE ENERGY (160037)
Project Name: "SV" CHIPSHOT
Project Location: UL-K, SEC11, T16S, R36E

Sampling Date: 11/10/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: HM
Analyzed By: AH

LAB NUMBER	SAMPLE ID	SO_4 (mg/Kg)	Cl (mg/Kg)
ANALYSIS DATE:		11/15/05	11/15/05
H10407-11	SB-2 (15')	187	187
H10407-12	SB-3 (2')	20.1	2479
H10407-13	SB-3 (5')	24.6	720
H10407-14	SB-3 (10')	21.8	512
H10407-15	SB-3 (15')	9.48	144
H10407-16	SB-3 (20')	16.0	48
Quality Control		42.53	950
True Value QC		50.00	1000
% Recovery		85.1	95.0
Relative Percent Difference		3.2	5.0

METHODS: EPA 600/4-79-020	375.4	SM 4500 Cl B

Note: Analyses performed on 1:4 w:v aqueous extracts.

Amy Hill
Chemist

11-15-05
Date

Environmental Plus, Inc.

Chain of Custody Form

2100 Avenue O, Eunice, NM 88231 *P.O. Box 1558, Eunice, NM 88231*
(505) 394-3481 FAX: (505) 394-2601

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Chesapeake Energy
Facility Name	"SV" Chipshot
Location	UL-K, Section 11, T 16 S, R 36 E
Project Reference	160037
EPI Sampler Name	George Blackburn

Bill To

Attn: Iain Olness
P.O. Box 1558
Eunice, NM 88231

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH			
H1040 7 – 1	SB-1 (2')	G	1			X					X		10-Nov-05	11:20	X	X	X	X							
2	SB-1 (5')	G	1			X					X		10-Nov-05	11:35	X	X	X	X							
3	SB-1 (10')	G	1			X					X		10-Nov-05	11:45	X	X	X	X		See Notes					
4	SB-1 (15')	G	1			X					X		10-Nov-05	12:01	X	X	X	X		See Notes					
5	SB-1 (20')	G	1			X					X		10-Nov-05	12:10	X	X	X	X		See Notes					
6	SB-1 (25')	G	1			X					X		10-Nov-05	12:20	X	X	X	X		See Notes					
7	SB-1 (30')	G	1			X					X		10-Nov-05	12:30	X	X	X	X		See Notes					
8	SB-2 (2')	G	1			X					X		10-Nov-05	13:13	X	X	X	X							
9	SB-2 (5')	G	1			X					X		10-Nov-05	13:23	X	X	X	X							
10	SB-2 (10')	G	1			X					X		10-Nov-05	13:34	X	X	X	X		See Notes					

ANALYSIS REQUEST

Sampler Relinquished:	Date Time	Received By:	E-mail results to: iolness@envplus.net
Relinquished by:	Date 11-11-05 Time 4:40	Received By: (lab staff)	NOTES: Only analyze each analyte if analytical results for the previous sample indicate TPH >100 ppm, benzene > 10 ppm and BTEX > 50 ppm. Analyze for chloride and/or sulfate until there are three consecutive samples with chloride > 250 ppm and/or sulfate is > 600 ppm. ANY QUESTIONS, PLEASE CONTACT IAIN OLNESS AT (505) 394-3481.
Delivered by:	Sample Cool & Intact (Yes) No	Checked By:	

Environmental Plus, Inc.

Chain of Custody Form

2100 Avenue O, Eunice, NM 88231 *P.O. Box 1558, Eunice, NM 88231*
(505) 394-3481 FAX: (505) 394-2601

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Chesapeake Energy
Facility Name	"SV" Chipshot
Location	UL-K, Section 11, T 16 S, R 36 E
Project Reference	160037
EPI Sampler Name	George Blackburn

Bill To

Attn: Iain Olness
P.O. Box 1558
Eunice, NM 88231

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO_4^{-2})	pH	TCLP	OTHER >>	PAH
H0407 - 1	SB-2 (15')	G	1			X					X		10-Nov-05	11:20	X	X	X	X		See Notes		
- 2	SB-3 (2')	G	1			X					X		10-Nov-05	11:35	X	X	X	X				
- 3	SB-3 (5')	G	1			X					X		10-Nov-05	11:45	X	X	X	X				
- 4	SB-3 (10')	G	1			X					X		10-Nov-05	12:01	X	X	X	X		See Notes		
- 5	SB-3 (15')	G	1			X					X		10-Nov-05	12:10	X	X	X	X		See Notes		
- 6	SB-3 (20')	G	1			X					X		10-Nov-05	12:20	X	X	X	X		See Notes		
7																						
8																						
9																						
10																						

Sampler Relinquished:	Date	Received By:	E-mail results to: iolness@envplus.net
	Time		
Relinquished by:	Date 11-11-05	Received By: (lab staff) Hope S. Morrow	NOTES: Only analyze each analyte if analytical results for the previous sample indicate TPH >100 ppm, benzene > 10 ppm and BTEX > 50 ppm. Analyze for chloride and/or sulfate until there are three consecutive samples with chloride > 250 ppm and/or sulfate is > 600 ppm. ANY QUESTIONS, PLEASE CONTACT IAIN OLNESS AT (505) 394-3481.
	Time 4:40		
Delivered by:	Sample Cool & Intact: (Yes) No	Checked By:	

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Iain Olness

Environmental Plus, Incorporated

P.O. Box 1558

Eunice, NM 88231

Project: Chesapeake/ SV Chipshot

Project Number: 160037

Location: UL-K, Sect. 11, T 16 S, R 36 E

Lab Order Number: 5K29023

Report Date: 12/01/05

Environmental Plus, Incorporated	Project: Chesapeake/ SV Chipshot	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160037	Reported:
Eunice NM, 88231	Project Manager: Iain Olness	12/01/05 08:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 12'	5K29023-01	Soil	11/29/05 10:20	11/29/05 16:45
BH-2 10'	5K29023-02	Soil	11/29/05 10:30	11/29/05 16:45
BH-3 6'	5K29023-03	Soil	11/29/05 10:40	11/29/05 16:45
BH-4 6'	5K29023-04	Soil	11/29/05 10:50	11/29/05 16:45
BH-5 6'	5K29023-05	Soil	11/29/05 11:00	11/29/05 16:45
BH-6 6'	5K29023-06	Soil	11/29/05 11:10	11/29/05 16:45
BH-7 7'	5K29023-07	Soil	11/29/05 11:20	11/29/05 16:45
BH-8 6'	5K29023-08	Soil	11/29/05 11:30	11/29/05 16:45
SW-1 7'	5K29023-09	Soil	11/29/05 11:40	11/29/05 16:45
SW-2 6'	5K29023-10	Soil	11/29/05 11:50	11/29/05 16:45
SW-3 3'	5K29023-11	Soil	11/29/05 12:10	11/29/05 16:45
SW-4 3'	5K29023-12	Soil	11/29/05 12:20	11/29/05 16:45
SW-5 3'	5K29023-13	Soil	11/29/05 12:30	11/29/05 16:45
SW-6 3'	5K29023-14	Soil	11/29/05 12:40	11/29/05 16:45
SW-7 3'	5K29023-15	Soil	11/29/05 12:50	11/29/05 16:45
SW-8 3'	5K29023-16	Soil	11/29/05 13:00	11/29/05 16:45
SW-9 3'	5K29023-17	Soil	11/29/05 13:10	11/29/05 16:45
SW-10 3'	5K29023-18	Soil	11/29/05 13:20	11/29/05 16:45
SW-11 1'	5K29023-19	Soil	11/29/05 13:30	11/29/05 16:45
SW-12 1'	5K29023-20	Soil	11/29/05 13:40	11/29/05 16:45

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-1 12' (5K29023-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*98.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.5 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	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		*93.6 %*	*70-130*		"	"	"	"	
BH-2 10' (5K29023-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*104 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.5 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*85.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*83.6 %*	*70-130*		"	"	"	"	
BH-3 6' (5K29023-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*100 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.8 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-3 6' (5K29023-03) Soil									
Surrogate: 1-Chlorooctane		*88.2 %*	*70-130*		*EK53001*	*11/30/05*	*11/30/05*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*86.8 %*	*70-130*		"	"	"	"	
BH-4 6' (5K29023-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*100 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.2 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	EPA 8015M	
Diesel Range Organics >C12-C35	**29.1**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**29.1**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*87.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*89.0 %*	*70-130*		"	"	"	"	
BH-5 6' (5K29023-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*101 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.5 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*77.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*75.2 %*	*70-130*		"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-6 6' (5K29023-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*102 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.0 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	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		*78.8 %*	*70-130*		"	"	"	"	
BH-7 7' (5K29023-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*103 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.8 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*76.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*77.0 %*	*70-130*		"	"	"	"	
BH-8 6' (5K29023-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*102 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.2 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-8 6' (5K29023-08) Soil									
Surrogate: 1-Chlorooctane		*93.6 %*	*70-130*		*EK53001*	*11/30/05*	*11/30/05*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*97.0 %*	*70-130*		"	"	"	"	
SW-1 7' (5K29023-09) Soil									
Benzene	**65.7**	0.500	mg/kg dry	500	EK53002	11/30/05	11/30/05	EPA 8021B	
Toluene	**310**	0.500	"	"	"	"	"	"	
Ethylbenzene	**166**	0.500	"	"	"	"	"	"	
Xylene (p/m)	**213**	0.500	"	"	"	"	"	"	
Xylene (o)	**97.9**	0.500	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*1050 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*96.5 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**5790**	100	mg/kg dry	10	EK53001	11/30/05	11/30/05	EPA 8015M	
Diesel Range Organics >C12-C35	**7800**	100	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**13600**	100	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*27.6 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*27.2 %*	*70-130*		"	"	"	"	*S-06*
SW-2 6' (5K29023-10) Soil									
Benzene	**0.124**	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	EPA 8021B	
Toluene	**4.49**	0.0250	"	"	"	"	"	"	
Ethylbenzene	**4.60**	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**7.54**	0.0250	"	"	"	"	"	"	
Xylene (o)	**3.63**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*172 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*143 %*	*80-120*		"	"	"	"	*S-04*
Gasoline Range Organics C6-C12	**239**	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	EPA 8015M	
Diesel Range Organics >C12-C35	**661**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**900**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*109 %*	*70-130*		"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SW-3 3' (5K29023-11) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*107 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.2 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*78.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*76.0 %*	*70-130*		"	"	"	"	
SW-4 3' (5K29023-12) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*97.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.2 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*92.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*90.4 %*	*70-130*		"	"	"	"	
SW-5 3' (5K29023-13) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*97.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.0 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SW-5 3' (5K29023-13) Soil									
Surrogate: 1-Chlorooctane		*79.4 %*	*70-130*		*EK53001*	*11/30/05*	*11/30/05*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*79.0 %*	*70-130*		"	"	"	"	
SW-6 3' (5K29023-14) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*98.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85.8 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	11/30/05	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		*91.6 %*	*70-130*		"	"	"	"	
SW-7 3' (5K29023-15) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*102 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.0 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	12/01/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*84.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*83.6 %*	*70-130*		"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SW-8 3' (5K29023-16) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*97.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.2 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	12/01/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*83.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*82.6 %*	*70-130*		"	"	"	"	
SW-9 3' (5K29023-17) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*89.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*81.2 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	12/01/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*79.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*77.8 %*	*70-130*		"	"	"	"	
SW-10 3' (5K29023-18) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*92.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.8 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	12/01/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

Organics by GC

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SW-10 3' (5K29023-18) Soil									
Surrogate: 1-Chlorooctane		*79.0 %*	*70-130*		*EK53001*	*11/30/05*	*12/01/05*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*79.0 %*	*70-130*		"	"	"	"	
SW-11 1' (5K29023-19) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*80.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.8 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	12/01/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*81.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*78.0 %*	*70-130*		"	"	"	"	
SW-12 1' (5K29023-20) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK53002	11/30/05	11/30/05	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		*93.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*81.8 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK53001	11/30/05	12/01/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*80.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*78.2 %*	*70-130*		"	"	"	"	

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Eunice NM, 88231	Project Manager: Iain Olness	12/01/05 08:25

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-1 12' (5K29023-01) Soil									
Chloride	269	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	13.8	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	73.6	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
BH-2 10' (5K29023-02) Soil									
Chloride	1200	20.0	mg/kg	40	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	12.6	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	75.1	20.0	mg/kg	40	EK53014	11/30/05	11/30/05	EPA 300.0	
BH-3 6' (5K29023-03) Soil									
Chloride	1250	20.0	mg/kg	40	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	15.7	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	163	20.0	mg/kg	40	EK53014	11/30/05	11/30/05	EPA 300.0	
BH-4 6' (5K29023-04) Soil									
Chloride	103	5.00	mg/kg	10	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	6.4	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	120	5.00	mg/kg	10	EK53014	11/30/05	11/30/05	EPA 300.0	
BH-5 6' (5K29023-05) Soil									
Chloride	908	20.0	mg/kg	40	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	9.4	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	69.3	20.0	mg/kg	40	EK53014	11/30/05	11/30/05	EPA 300.0	
BH-6 6' (5K29023-06) Soil									
Chloride	529	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	10.7	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	52.1	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	

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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
BH-7 7' (5K29023-07) Soil									
Chloride	428	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	9.7	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	88.6	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
BH-8 6' (5K29023-08) Soil									
Chloride	317	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	8.6	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	53.2	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
SW-1 7' (5K29023-09) Soil									
Chloride	219	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	7.2	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	68.3	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
SW-2 6' (5K29023-10) Soil									
Chloride	831	20.0	mg/kg	40	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	7.9	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	91.4	20.0	mg/kg	40	EK53014	11/30/05	11/30/05	EPA 300.0	
SW-3 3' (5K29023-11) Soil									
Chloride	984	20.0	mg/kg	40	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	5.9	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	68.8	20.0	mg/kg	40	EK53014	11/30/05	11/30/05	EPA 300.0	
SW-4 3' (5K29023-12) Soil									
Chloride	241	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	6.2	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	40.3	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SW-5 3' (5K29023-13) Soil									
Chloride	**1070**	20.0	mg/kg	40	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	**10.7**	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	**72.2**	20.0	mg/kg	40	EK53014	11/30/05	11/30/05	EPA 300.0	
SW-6 3' (5K29023-14) Soil									
Chloride	**246**	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	**7.1**	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	**46.9**	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
SW-7 3' (5K29023-15) Soil									
Chloride	**252**	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	**7.1**	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	**43.7**	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
SW-8 3' (5K29023-16) Soil									
Chloride	**318**	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	**5.5**	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	**37.8**	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
SW-9 3' (5K29023-17) Soil									
Chloride	**236**	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	**43.8**	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
SW-10 3' (5K29023-18) Soil									
Chloride	**129**	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	**8.2**	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	**1080**	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SW-11 1' (5K29023-19) Soil									
Chloride	**3170**	50.0	mg/kg	100	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	**16.1**	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	**159**	50.0	mg/kg	100	EK53014	11/30/05	11/30/05	EPA 300.0	
SW-12 1' (5K29023-20) Soil									
Chloride	**492**	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	
% Moisture	**17.6**	0.1	%	1	EK53003	11/29/05	11/30/05	% calculation	
Sulfate	**83.1**	10.0	mg/kg	20	EK53014	11/30/05	11/30/05	EPA 300.0	

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 EK53001 - Solvent Extraction (GC)										
Blank (EK53001-BLK1)				Prepared & Analyzed: 11/30/05						
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	*42.0*		*mg/kg*	*50.0*		*84.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*40.9*		*"*	*50.0*		*81.8*	*70-130*			
LCS (EK53001-BS1)				Prepared & Analyzed: 11/30/05						
Gasoline Range Organics C6-C12	382	10.0	mg/kg wet	500		76.4	75-125			
Diesel Range Organics >C12-C35	549	10.0	"	500		110	75-125			
Total Hydrocarbon C6-C35	931	10.0	"	1000		93.1	75-125			
Surrogate: 1-Chlorooctane	*42.9*		*mg/kg*	*50.0*		*85.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*44.5*		*"*	*50.0*		*89.0*	*70-130*			
Calibration Check (EK53001-CCV1)				Prepared: 11/30/05 Analyzed: 12/01/05						
Gasoline Range Organics C6-C12	407		mg/kg	500		81.4	80-120			
Diesel Range Organics >C12-C35	508		"	500		102	80-120			
Total Hydrocarbon C6-C35	915		"	1000		91.5	80-120			
Surrogate: 1-Chlorooctane	*56.8*		*"*	*50.0*		*114*	*70-130*			
Surrogate: 1-Chlorooctadecane	*53.8*		*"*	*50.0*		*108*	*70-130*			
Matrix Spike (EK53001-MS1)	**Source: 5K29023-01**			Prepared & Analyzed: 11/30/05						
Gasoline Range Organics C6-C12	492	10.0	mg/kg dry	580	ND	84.8	75-125			
Diesel Range Organics >C12-C35	615	10.0	"	580	ND	106	75-125			
Total Hydrocarbon C6-C35	1110	10.0	"	1160	ND	95.7	75-125			
Surrogate: 1-Chlorooctane	*53.8*		*mg/kg*	*50.0*		*108*	*70-130*			
Surrogate: 1-Chlorooctadecane	*51.5*		*"*	*50.0*		*103*	*70-130*			
Matrix Spike Dup (EK53001-MSD1)	**Source: 5K29023-01**			Prepared & Analyzed: 11/30/05						
Gasoline Range Organics C6-C12	506	10.0	mg/kg dry	580	ND	87.2	75-125	2.81	20	
Diesel Range Organics >C12-C35	626	10.0	"	580	ND	108	75-125	1.77	20	
Total Hydrocarbon C6-C35	1130	10.0	"	1160	ND	97.4	75-125	1.79	20	
Surrogate: 1-Chlorooctane	*54.6*		*mg/kg*	*50.0*		*109*	*70-130*			
Surrogate: 1-Chlorooctadecane	*51.1*		*"*	*50.0*		*102*	*70-130*			

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 EK53002 - EPA 5030C (GC)										
Blank (EK53002-BLK1)				Prepared & Analyzed: 11/30/05						
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	*42.8*		*ug/kg*	*40.0*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*36.3*		"	*40.0*		*90.8*	*80-120*			
LCS (EK53002-BS1)				Prepared & Analyzed: 11/30/05						
Benzene	0.0444	0.00100	mg/kg wet	0.0500		88.8	80-120			
Toluene	0.0537	0.00100	"	0.0500		107	80-120			
Ethylbenzene	0.0567	0.00100	"	0.0500		113	80-120			
Xylene (p/m)	0.105	0.00100	"	0.100		105	80-120			
Xylene (o)	0.0557	0.00100	"	0.0500		111	80-120			
Surrogate: a,a,a-Trifluorotoluene	*45.6*		*ug/kg*	*40.0*		*114*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.9*		"	*40.0*		*107*	*80-120*			
Calibration Check (EK53002-CCV1)				Prepared & Analyzed: 11/30/05						
Benzene	0.0403		mg/kg wet	0.0500		80.6	80-120			
Toluene	0.0444		"	0.0500		88.8	80-120			
Ethylbenzene	0.0430		"	0.0500		86.0	80-120			
Xylene (p/m)	0.0836		"	0.100		83.6	80-120			
Xylene (o)	0.0426		"	0.0500		85.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.9*		*ug/kg*	*40.0*		*99.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.5*		"	*40.0*		*81.2*	*80-120*			
Matrix Spike (EK53002-MS1)		Source: 5K29023-01		Prepared & Analyzed: 11/30/05						
Benzene	0.0491	0.00100	mg/kg dry	0.0580	ND	84.7	80-120			
Toluene	0.0565	0.00100	"	0.0580	ND	97.4	80-120			
Ethylbenzene	0.0582	0.00100	"	0.0580	ND	100	80-120			
Xylene (p/m)	0.109	0.00100	"	0.116	ND	94.0	80-120			
Xylene (o)	0.0572	0.00100	"	0.0580	ND	98.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.1*		*ug/kg*	*40.0*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.1*		"	*40.0*		*95.2*	*80-120*			

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 EK53002 - EPA 5030C (GC)										
Matrix Spike Dup (EK53002-MSD1)	**Source: 5K29023-01**			Prepared & Analyzed: 11/30/05						
Benzene	0.0467	0.00100	mg/kg dry	0.0580	ND	80.5	80-120	5.08	20	
Toluene	0.0531	0.00100	"	0.0580	ND	91.6	80-120	6.14	20	
Ethylbenzene	0.0551	0.00100	"	0.0580	ND	95.0	80-120	5.13	20	
Xylene (p/m)	0.104	0.00100	"	0.116	ND	89.7	80-120	4.68	20	
Xylene (o)	0.0545	0.00100	"	0.0580	ND	94.0	80-120	4.78	20	
Surrogate: a,a,a-Trifluorotoluene	*40.3*		*ug/kg*	*40.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.9*		"	*40.0*		*89.8*	*80-120*			

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 EK53003 - General Preparation (Prep)										
Blank (EK53003-BLK1)				Prepared: 11/29/05 Analyzed: 11/30/05						
% Solids	100		%							
Duplicate (EK53003-DUP1)		Source: 5K29001-01		Prepared: 11/29/05 Analyzed: 11/30/05						
% Solids	81.0		%		82.0			1.23	20	
Batch EK53014 - Water Extraction										
Blank (EK53014-BLK1)				Prepared & Analyzed: 11/30/05						
Sulfate	ND	0.500	mg/kg							
Chloride	ND	0.500	"							
LCS (EK53014-BS1)				Prepared & Analyzed: 11/30/05						
Chloride	8.09		mg/L	10.0		80.9	80-120			
Sulfate	8.73		"	10.0		87.3	80-120			
Calibration Check (EK53014-CCV1)				Prepared & Analyzed: 11/30/05						
Sulfate	9.36		mg/L	10.0		93.6	80-120			
Chloride	8.58		"	10.0		85.8	80-120			
Duplicate (EK53014-DUP1)		Source: 5K29023-01		Prepared & Analyzed: 11/30/05						
Sulfate	73.9	10.0	mg/kg		73.6			0.407	20	
Chloride	256	10.0	"		269			4.95	20	

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.
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: 12-01-05

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Plus, Inc.

Chain of Custody Form

2100 Avenue O, Eunice, NM 88231 P.O. Box 1558, Eunice, NM 88231
(505) 394-3481 FAX: (505) 394-2601

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Chesapeake Energy
Facility Name	"SV" Chipshot
Location	UL-K, Sect. 11, T 16 S, R 36 E
Project Reference	160037
EPI Sampler Name	George Blackburn

Bill To

Attn: Iain Olness
P.O. Box 1558
Eunice, NM 88231

LAB I.D.		SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH			
~~-01~~	1	BH-1 (12')	G	1			1					X		29-Nov-05	10:20	X	X	X	X							
~~-02~~	2	BH-2 (10')	G	1			1					X		29-Nov-05	10:30	X	X	X	X							
~~-03~~	3	BH-3 (6')	G	1			1					X		29-Nov-05	10:40	X	X	X	X							
~~-04~~	4	BH-4 (6')	G	1			1					X		29-Nov-05	10:50	X	X	X	X							
~~-05~~	5	BH-5 (6')	G	1			1					X		29-Nov-05	11:00	X	X	X	X							
~~-06~~	6	BH-6 (6')	G	1			1					X		29-Nov-05	11:10	X	X	X	X							
~~-07~~	7	BH-7 (7')	G	1			1					X		29-Nov-05	11:20	X	X	X	X							
~~-08~~	8	BH-8 (6')	G	1			1					X		29-Nov-05	11:30	X	X	X	X							
~~-09~~	9	SW-1 (7')	G	1			1					X		29-Nov-05	11:40	X	X	X	X							
~~-10~~	10	SW-2 (6')	G	1			1					X		29-Nov-05	11:50	X	X	X	X							

~~FX29023~~

Sampler Relinquished: Iain Olness	Date: 11/29/05 Time: 1425	Received By: Aaron Boone	E-mail results to: iolness@envplus.net
Relinquished by: Aaron Boone	Date: 11/29/05 Time: 16:45	Received By: (lab staff) Cecil Kelly	NOTES: RUSH
Delivered by:	Sample Cool & Intact: (Yes) No	Checked By: 5.0	labels/seal

Environmental Plus, Inc.

Chain of Custody Form

2100 Avenue O, Eunice, NM 88231 *P.O. Box 1558, Eunice, NM 88231*
(505) 394-3481 FAX: (505) 394-2601

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Chesapeake Energy
Facility Name	"SV" Chipshot
Location	UL-K, Sect. 11, T 16 S, R 36 E
Project Reference	160037
EPI Sampler Name	George Blackburn

Bill To

Attn: Iain Olness
P.O. Box 1558
Eunice, NM 88231

LAB I.D. 6K29023		SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH			
-11	1	SW-3 (3')	G	1			1					X		29-Nov-05	12:10	X	X	X	X							
-12	2	SW-4 (3')	G	1			1					X		29-Nov-05	12:20	X	X	X	X							
-13	3	SW-5 (3')	G	1			1					X		29-Nov-05	12:30	X	X	X	X							
-14	4	SW-6 (3')	G	1			1					X		29-Nov-05	12:40	X	X	X	X							
-15	5	SW-7 (3')	G	1			1					X		29-Nov-05	12:50	X	X	X	X							
-16	6	SW-8 (3')	G	1			1					X		29-Nov-05	13:00	X	X	X	X							
-17	7	SW-9 (3')	G	1			1					X		29-Nov-05	13:10	X	X	X	X							
-18	8	SW-10 (3')	G	1			1					X		29-Nov-05	13:20	X	X	X	X							
-19	9	SW-11 (1')	G	1			1					X		29-Nov-05	13:30	X	X	X	X							
-20	10	SW-12 (1')	G	1			1					X		29-Nov-05	13:40	X	X	X	X							

Sampler Relinquished: Iain Olness	Date 11/29/05 Time 14:25	Received By: Jaron Boone	E-mail results to: iolness@envplus.net
Relinquished by: Jaron Boone	Date 11/29/05 Time 16:45	Received By: (lab staff) Carrie Kelly	NOTES: RUSH labels/seal
Delivered by:	Sample Cool & Intact Yes No	Checked By: 5.0	

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: EPI

Date/Time: 11/29/05 16:45

Order #: 5K29023

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	5.0 C
Shipping container/cooler in good condition?	~~Yes~~	No	
Custody Seals intact on shipping container/cooler?	Yes	No	~~Not present~~
Custody Seals intact on sample bottles?	~~Yes~~	No	Not present
Chain of custody present?	~~Yes~~	No	
Sample Instructions complete on Chain of Custody?	~~Yes~~	No	
Chain of Custody signed when relinquished and received?	~~Yes~~	No	
Chain of custody agrees with sample label(s)	~~Yes~~	No	
Container labels legible and intact?	~~Yes~~	No	
Sample Matrix and properties same as on chain of custody?	~~Yes~~	No	
Samples in proper container/bottle?	~~Yes~~	No	
Samples properly preserved?	~~Yes~~	No	
Sample bottles intact?	~~Yes~~	No	
Preservations documented on Chain of Custody?	~~Yes~~	No	
Containers documented on Chain of Custody?	~~Yes~~	No	
Sufficient sample amount for indicated test?	~~Yes~~	No	
All samples received within sufficient hold time?	~~Yes~~	No	
VOC samples have zero headspace?	~~Yes~~	No	Not Applicable

Other observations:

Variance Documentation:

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

Regarding:

Corrective Action Taken:

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: IAIN OLNESS
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 12/14/05
Reporting Date: 1214/05
Project Owner: CHESAPEAKE
Project Name: NOT GIVEN
Project Location: CHIPSHOT BATT.

Analysis Date: 12/14/05
Sampling Date: 12/14/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl^- (mg/Kg)
H10503-1	SP1	704
H10503-2	SP2	1264
H10503-3	SP3	832
H10503-4	SP4	880
Quality Control		1000
True Value QC		1000
% Recovery		100
Relative Percent Difference		0.0

METHOD: Standard Methods	4500-ClB

Note: Analyses performed on 1:4 w:v aqueous extracts.

Jane L. Malone
Chemist

12-14-05
Date

H10503

Environmental Plus, Inc.

Chain of Custody Form

2100 Avenue O, Eunice, NM 88231 P.O. Box 1558, Eunice, NM 88231
(505) 394-3481 FAX: (505) 394-2601

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	chesapeake
Facility Name	
Location	Chisholm Butt
Project Reference	
EPI Sampler Name	John R.

Bill To

Attn: Iain Olness
PO Box 1558
Eunice, NM 88231

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	Drilling Mud	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH	Texas1005
H10503-1	1 SP1	G	1			X					X		10-14-05	9:30			X						
-2	2 SP2	G	1			X					X		10-14-05	9:45			X						
-3	3 SP3	G	1			X					X		10-14-05	10:00			X						
-4	4 SP4	G	1			X					X		10-14-05	10:30			X						
	5																						
	6																						
	7																						
	8																						
	9																						
	10																						

Sampler Relinquished:	Date	Received By:	E-mail results to: Iain Olness lolness@envplus.net
	Time		REMARKS:
Relinquished by: X John Robinson	Date 12/14/05 Time 2:30PM	Received By: (lab staff)	
Delivered by:	Sample Cool & Intact (Yes) No	Checked By:	

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: IAIN OLNESS
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 12/15/05
Reporting Date: 1215/05
Project Owner: CHESAPEAKE
Project Name: NOT GIVEN
Project Location: CHIPSHOT

Analysis Date: 12/15/05
Sampling Date: 12/15/05
Sample Type: 1)SOIL, 2)WATER
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl^- (mg/Kg)
H10506-1	SP5	* 128
		(mg/L)
H10506-2	SP6	196
Quality Control		990
True Value QC		1000
% Recovery		99
Relative Percent Difference		1.0

METHOD: Standard Methods	4500-ClˉB

Note: Analysis performed on a 1:4 w:v aqueous extract.

Hope S Moreno
Chemist

12-15-05
Date

H10506

Environmental Plus, Inc.

Chain of Custody Form

2100 Avenue O, Eunice, NM 88231 *P.O. Box 1558, Eunice, NM 88231*
(505) 394-3481 FAX: (505) 394-2601

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Chesapeake
Facility Name	
Location	chipshot
Project Reference	
EPI Sampler Name	John R

Bill To

Attn: Iain Olness
PO Box 1558
Eunice, NM 88231

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	Drilling Mud	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO_4^{-})	pH	TCLP	OTHER >>>	PAH	Texas1005		
H10506-1	SPS	G	1			✓					✓		12-15-05	8:46			✓								
-2	SPL	G	1		✓						✓		12-15-05	9:15			✓								
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									

Sampler Relinquished:	Date / Time	Received By:	E-mail results to: Iain Olness lolness@envplus.net
Relinquished by: John Robinson	Date 12-16-05 Time 9:19	Received By: (lab staff)	REMARKS:
Delivered by:	Sample Cool & Intact: Yes / No	Checked By:	

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: IAIN OLNESS
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 12/20/05
Reporting Date: 12/21/05
Project Owner: CHESAPEAKE
Project Name: NOT GIVEN
Project Location: CHIPSHOT

Sampling Date: 12/20/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: HM

LAB NUMBER	SAMPLE ID	SO_4 (mg/Kg)	Cl (mg/Kg)
ANALYSIS DATE:		12/20/05	12/21/05
H10521-1	SP1	<1	448
H10521-2	SP2	<1*	288
H10521-3	SP3	<1	1568
Quality Control		57.87	980
True Value QC		50.00	1000
% Recovery		116	98.0
Relative Percent Difference		6.0	2.0

METHODS: EPA 600/4-79-020	375.4	SM 4500 Cl B

Note: Analyses performed on 1:4 w:v aqueous extracts.
*Matrix intereference (color) observed.

Hope S. Moreno
Chemist

12-21-05
Date

H10521

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: IAIN OLNESS
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 12/20/05
Reporting Date: 12/21/05
Project Owner: CHESAPEAKE
Project Name: NOT GIVEN
Project Location: CHIPSHOT

Sampling Date: 12/20/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		12/20/05	12/20/05	12/21/05	12/21/05	12/21/05	12/21/05
H10521-1	SP1	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H10521-2	SP2	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H10521-3	SP3	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
Quality Control		751	783	0.092	0.094	0.100	0.304
True Value QC		800	800	0.100	0.100	0.100	0.300
% Recovery		93.8	97.9	91.7	93.9	99.6	101.0
Relative Percent Difference		2.0	6.3	4.1	<0.1	0.6	1.2

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.

Burgess J. A. Cooke Ph. D.

12/21/05
Date

H10521A.XLS

Environmental Plus, Inc.

Chain of Custody Form

2100 Avenue O, Eunice, NM 88231 P.O. Box 1558, Eunice, NM 88231
(505) 394-3481 FAX: (505) 394-2601

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Chesapeake
Facility Name	
Location	Chisholm
Project Reference	
EPI Sampler Name	John R

Bill To

Attn: Iain Olness
PO Box 1558
Eunice, NM 88231

ANALYSIS REQUEST

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	Drilling Mud	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH	Texas1005
H10521-1	1 SP1	G	1			✓					✓		12-20-05	7:55	✓	✓	✓	✓					
-2	2 SP2	G	1			✓					✓		12-20-05	8:00	✓	✓	✓	✓					
-3	3 SP3	G	1			✓					✓		12-20-05	4:05	✓	✓	✓	✓					
	4																						
	5																						
	6																						
	7																						
	8																						
	9																						
	10																						

Sampler Relinquished:	Date / Time	Received By:	E-mail results to: Iain Olness loiness@envplus.net
Relinquished by: John Rabun	Date 12/20/05 Time 4:20 PM	Received By: (lab staff)	REMARKS:
Delivered by:	Sample Cool & Intact: Yes / No	Checked By:	

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: IAIN OLNESS
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 12/20/05
Reporting Date: 12/23/05
Project Owner: CHESAPEAKE ENERGY
Project Name: NOT GIVEN
Project Location: CHIPSHOT

Sampling Date: 12/20/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: HM

LAB NUMBER	SAMPLE ID	SO_4 (mg/Kg)	Cl (mg/Kg)
ANALYSIS DATE:		12/20/05	12/20/05
H10522-1	SP4	<1	160
H10522-2	SP5	14	1663
Quality Control		51.24	990
True Value QC		50.00	1000
% Recovery		102	99.0
Relative Percent Difference		13.3	0

METHODS:	EPA 600/4-79-020	375.4	SM 4500 ClB

Note: Analyses performed on 1:4 w:v aqueous extracts.

Hope L. Moreno
Chemist

12-23-05
Date

H10522

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: IAIN OLNESS
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 12/20/05
Reporting Date: 12/2305
Project Owner: CHESAPEAKE
Project Name: NOT GIVEN
Project Location: CHIPSHOT

Sampling Date: 12/20/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		12/22/05	12/22/05	12/22/05	12/22/05	12/22/05	12/22/05
H10522-1	SP4	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H10522-2	SP5	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
Quality Control		761	786	0.098	0.095	0.100	0.304
True Value QC		800	800	0.100	0.100	0.100	0.300
% Recovery		95.2	98.2	97.6	94.6	99.6	101.0
Relative Percent Difference		0.1	0.1	6.1	0.7	0.2	

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.

Burgess J. A. Cooke, Ph. D.

12/23/05
Date

H10522A.XLS

Environmental Plus, Inc.

Chain of Custody Form

2100 Avenue O, Eunice, NM 88231 P.O. Box 1558, Eunice, NM 88231
(505) 394-3481 FAX: (505) 394-2601

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Chesapeake
Facility Name	
Location	Chipshot
Project Reference	
EPI Sampler Name	JA

Bill To

Attn: Iain Olness
PO Box 1558
Eunice, NM 88231

ANALYSIS REQUEST

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	Drilling Mud	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH	Texas1005		
H10522-1 1	SP4	G	1			✓					✓		12-20-05	8:15	✓	✓	✓	✓							
-2 2	SP5	G	1			✓					✓		12-20-05	8:30	✓	✓	✓	✓							
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									

Sampler Relinquished:	Date Time	Received By:	E-mail results to: Iain Olness lolness@envplus.net REMARKS:
Relinquished by: John Robinson	Date 12-20-05 Time 9:15 AM	Received By: (lab staff) Burgess A Cash	
Delivered by:	Sample Cool & Intact Yes / No	Checked By:	

LABORATORY TEST REPORT

PETTIGREW & ASSOCIATES, P.A.
1110 N. GRIMES
HOBBS, NM 88240
(505) 393-9827

AASHTO R18

DEBRA P. HICKS, P.E./L.S.I.
WILLIAM M. HICKS. III, P.E./P.S.

To: Environmental Plus
Attn: Roger Boone
P.O. Box 1558
Eunice, NM 88231

Material: Red Clay

Test Method: ASTM: D 2922

Project: SV Chip Shot
Project No. 2005.1060

Date of Test: December 22, 2005

Depth: 6' Below Finished Subgrade

Test No.	Location	Dry Density % Maximum	% Moisture	Depth
SG 9	20' E. & 20' N. of the SW Corner	102.0	13.2	
SG 10	15' S. & 15' E. of the NE Corner	103.6	13.2	
SG 11	20' S. & 45' E. of the NE Corner	105.0	12.9	

Control Density: 106.0
ASTM: D 698

Optimum Moisture: 18.8%

Required Compaction: 95%

Lab No.: 05 11302-11305

Copies To: Enviromental Plus

PETTIGREW & ASSOCIATES

BY: _____ P.E.

LABORATORY TEST REPORT

PETTIGREW & ASSOCIATES, P.A.

1110 N. GRIMES
HOBBS, NM 88240
(505) 393-9827

AASHTO R18

DEBRA P. HICKS, P.E./L.S.I.
WILLIAM M. HICKS. III, P.E./P.S.

To: Environmental Plus
Attn: Roger Boone
P.O. Box 1558
Eunice, NM 88231

Material: Red Clay

Test Method: ASTM: D 2922

Project: SV Chip Shot
Project No. 2005.1060

Date of Test: December 22, 2005

Depth: 5' Below Finished Subgrade

Reading Depth: 1'

Test No.	Location	Dry Density % Maximum	% Moisture	Depth
SG 12	15' S. & 15' E. of the NW Corner	99.2	13.6	
SG 13	25' W. & 15' N. of the SE Corner	100.0	12.9	
SG 14	35' E. & 15' S. of the NW Corner	104.0	13.1	

Control Density: 106.0
ASTM: D 698

Optimum Moisture: 18.8%

Required Compaction: 95%

Lab No.: 05 11306-11309

Copies To: Enviromental Plus

PETTIGREW & ASSOCIATES

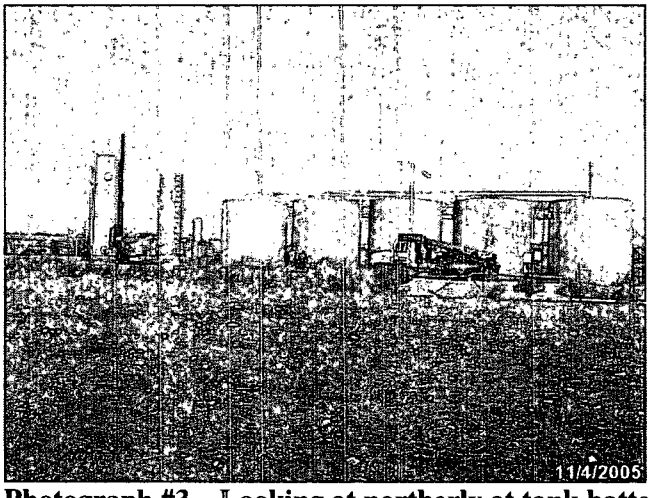
BY: _____ P.E.

APPENDIX II

PROJECT PHOTOGRAPHS

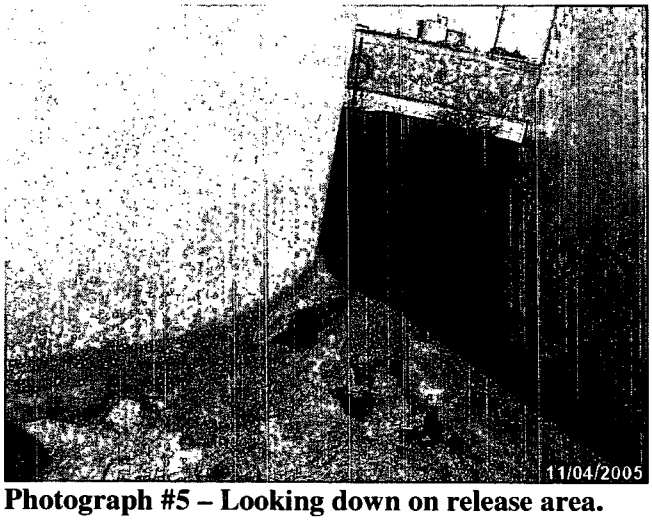
Photograph #1 – Lease Sign

Photograph #2 – Looking easterly at bermed tank battery.



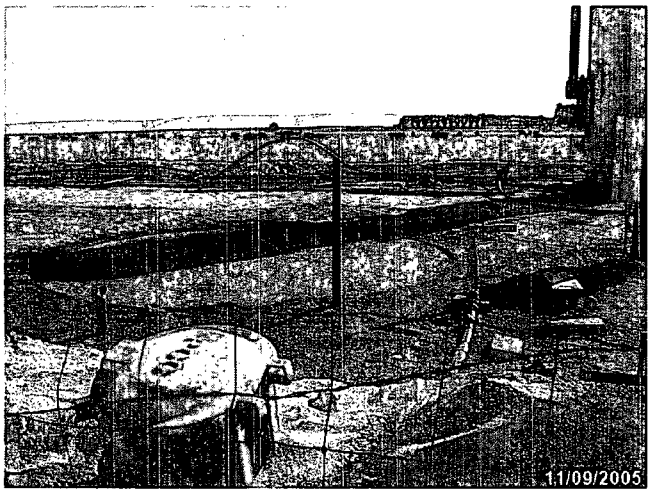
Photograph #3 – Looking at northerly at tank battery.

Photograph #4 – Tank battery area looking westerly.

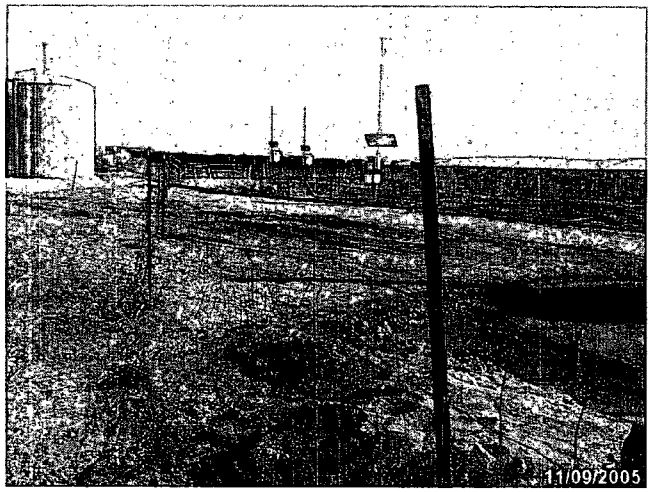


Photograph #5 – Looking down on release area. Stained soil indicates contamination.

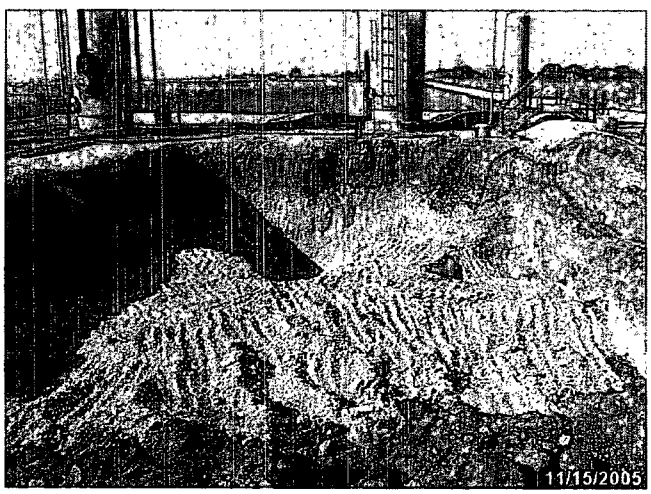
Photograph #6 – Looking down on release area. Stained soil indicates contamination.



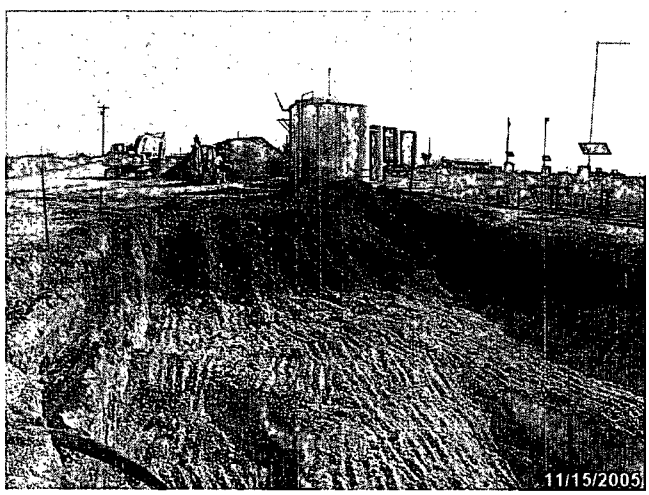
Photograph #7 – Looking at southerly at battery area with tanks removed. Stained soil indicates contamination.



Photograph #8 – Looking at southerly at battery area with tanks removed. Stained soil indicates contamination.

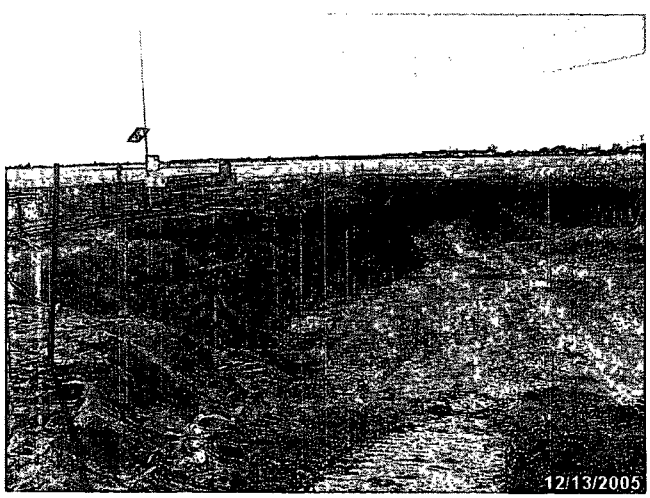


Photograph #9 – Looking westerly at initial excavation activities.



Photograph #10 – Looking easterly at initial excavation activities.

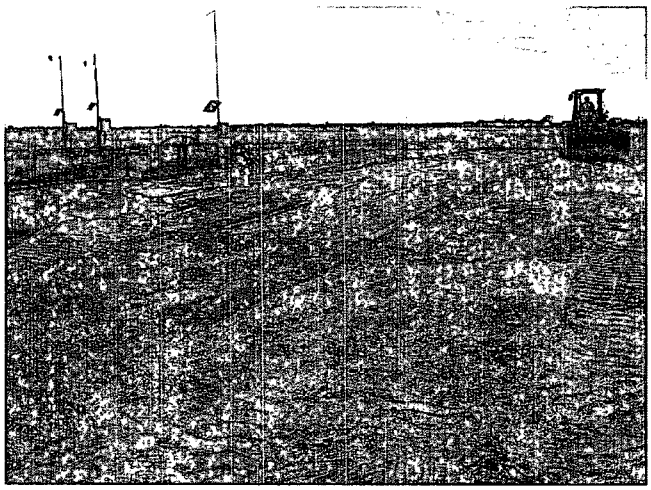
Photograph #11 – Looking westerly at excavation activities as of November 29, 2005.



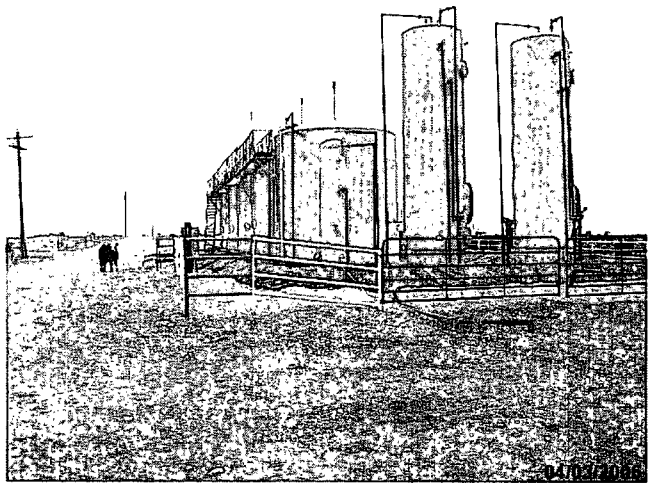
Photograph #12 – Looking westerly at excavation activities as of December 13, 2005.

Photograph #13 – Looking easterly at excavation activities as of December 14, 2005.

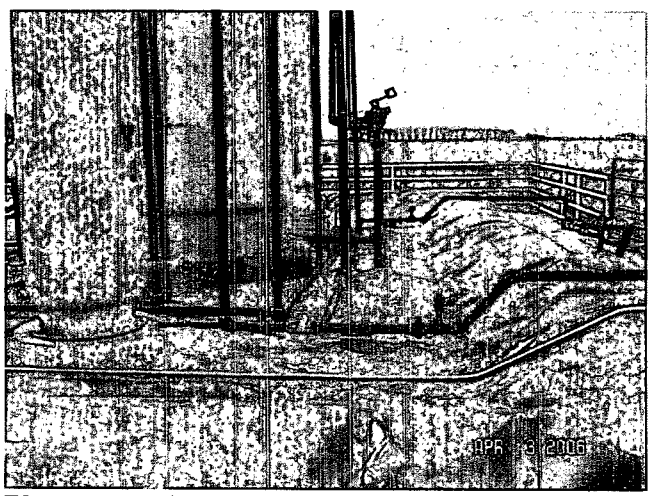
Photograph #14 – Looking easterly at excavation activities as of December 14, 2005.



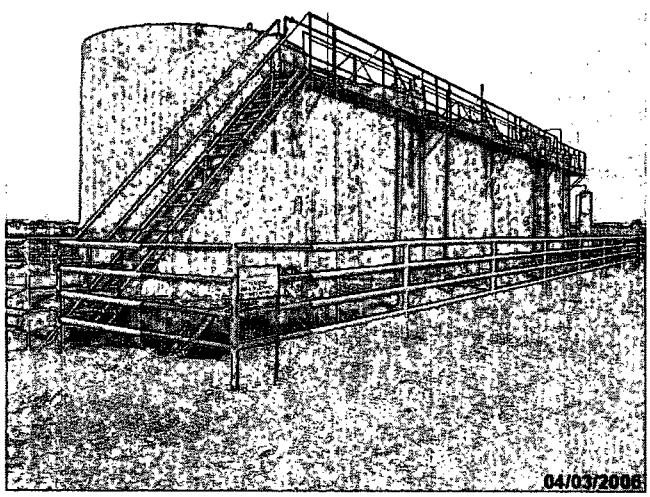
Photograph #15 – Looking westerly at site upon completion of backfilling on January 2, 2006.



Photograph #16 – Current status, looking easterly as of April 3, 2006.



Photograph #17 – Current status as of April 3, 2006, looking southerly



Photograph #17 – Current status as of April 3, 2006, looking westerly

APPENDIX III

SOIL BORING LOGS

Log Of Test Borings

(NOTE - Page 1 of 1)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE
505-394-3481

Project Number: 160037

Project Name: Chesapeake "SV" Chipshot

Location: UL-K, Section 11, Township 16 South, Range 36 East

Boring Number: SB-1 | Surface Elevation: 3,895

Start Date: 11/10/2005 Time: 1130 hrs

Completion Date: 11/10/2005 Time: 1220 hrs

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
1120	PS	12		634	1,280			2' Dark Black Soil
1125	PS	6		137	600		5	
1125	PS	8		5.2	640		10	
1151	PS	6		3.7	960		15	Caliche
1159	PS	7		2.9	560		20	
1210	PS	8		2.0	160		25	
1220	PS	6		1.3	160		30	End of Soil Boring at 31'

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
-	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID

Backfill Method: Bentonite

Field Representative: GB

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE
505-394-3481

Project Number: 160037

Project Name: Chesapeake "SV" Chipshot

Location: UL-K, Section 11, Township 16 South, Range 36 East

Boring Number: SB-2 | Surface Elevation: 3,895

Start Date: 11/10/2005 Time: 1303 hrs

Completion Date: 11/10/2005 Time: 1329

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
1303	PS	12		491	1,120			2' Dark Blue Soil
1313	PS	6		3.5	320		5	
1324	PS	8		3.3	160		10	Caliche
1329	PS	6		3.0	80		15	End of Soil Boring at 16'
							20	
							25	
							30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
-	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID

Backfill Method: Bentonite

Field Representative: GB

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE
505-394-3481

Project Number: 160037

Project Name: Chesapeake "SV" Chipshot

Location: UL-K, Section 11, Township 16 South, Range 36 East

Boring Number: SB-3 | Surface Elevation: 3,895

Start Date: 11/10/2005 Time: 1351 hrs

Completion Date: 11/10/2005 Time: 1424 hrs

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
1351	PS	12		212	1,120		0	2' Dark Black Soil
1400	PS	6		16.2	480		5	
1407	PS	8		3.9	400		10	Caliche
1424	PS	6		1.4	200		15	
1159	PS	7		2.0	160		20	End of Soil Boring at 21'
							25	
							30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
-	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID

Backfill Method: Bentonite

Field Representative: GB

APPENDIX IV

FINAL
NMOCD C-141 FORM

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Chesapeake Energy	**Contact:** Bradley Blevins
Address: 1616 West Bender	**Telephone No.:** (505) 391-1462 ext. 6224
Facility Name: "SV" Chipshot	**Facility Type:** Tank Battery

Surface Owner: City of Lovington	**Mineral Owner:**	**Lease No.:**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	11	16S	36E					Lea

Latitude: N 32° 56' 11.70" **Longitude:** W 103° 19' 32.42"

NATURE OF RELEASE

Type of Release: Oil	**Volume of Release:** Unknown	**Volume Recovered:** None
Source of Release: Tank Battery	**Date and Hour of Occurrence:** Unknown	**Date and Hour of Discovery:** November 4, 2005
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?** Larry Johnson	
By Whom? NA	**Date and Hour:** November 4, 2005 11:30AM	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse:** Not Applicable	

If a Watercourse was Impacted, Describe Fully.* Not Applicable

Describe Cause of Problem and Remedial Action Taken.* Leak from tank battery. The tank battery has been decommissioned and all equipment was replaced.

Describe Area Affected and Cleanup Action Taken.* Approximately 3,200 square feet of surface area was impacted by the release. Crude oil impacted soil above NMOCD remedial thresholds and/or NMWQCC groundwater standards was excavated and transported to Saunders Land Farm for treatment or to Sundance Services for disposal. NMOCD remedial thresholds for the site: 100 mg/Kg for TPH, 50 mg/Kg for BTEX and 10 mg/Kg for benzene.

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: Bradley Blevins	**OIL CONSERVATION DIVISION**
Printed Name:	**Approved by District ~~Supervisor~~:** ENVIRO ENGR
Title: Field Supervisor	**Approval Date:** 7.6.06 **Expiration Date:** —
E-mail Address: bblevins@chkenergy.com	**Conditions of Approval:** — **Attached** ☐
Date: 6-26-06 **Phone:** (505) 391-1462 ext. 24	

*** Attach Additional Sheets If Necessary**

Received
JUL 2006
Hobbs OCD