

SITE CLOSURE REPORT

J. A. AKENS -A- OIL UNIT TANK BATTERY

EPI REF: #160043

NMOCD: IRP#~~936~~ 836

NMOCD ADMIN: #PPAC0610938028

UL-T (SW¼ OF THE SW¼) OF SECTION 3, T 21 S, R 36 E

~8 MILES NORTHWEST OF EUNICE,

LEA COUNTY, NEW MEXICO

LATITUDE: N 32° 30' 10.54"

LONGITUDE: W 103° 15' 36.76"

OCTOBER 2006

PREPARED BY:

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



PREPARED FOR:


Chesapeake



Distribution List

Site Closure Report

J. A. Akens -A- Oil Unit Tank Battery

NMOC D Ref. 1RP#386: EPI Ref. #160043

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STANDARD OF CARE

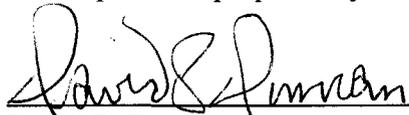
Site Closure Report

J. A. Akens -A- Oil Unit Tank Battery

NMOCD Ref. 1RP #386: EPI Ref. #160043

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:



David P. Duncan
Civil Engineer

10/26/06
Date

This report was reviewed by:



Jason Stegemoller, MS
Environmental Scientist

October, 26, 2006
Date



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1.0 PROJECT SYNOPSIS

Site Specific:

- ◆ **Company Name:** Chesapeake Operating, Inc.
- ◆ **Facility Name:** J. A. Akens -A- Oil Unit Tank Battery
- ◆ **Project Reference:** NMOCD Ref. 1RP #386; EPI Ref. #160043
- ◆ **Company Contacts:** Bradley Blevins
- ◆ **Site Location:** WGS84 N32° 30' 10.54"; W103° 15' 36.76"
- ◆ **Legal Description:** Unit Letter-T, (SW¼ of the SW¼), Section 3, T 21 S, R 36 E
- ◆ **General Description:** Approximately 8-miles northwest of Eunice, New Mexico
- ◆ **Elevation:** 3,579-ft amsl
- ◆ **Land Ownership:** Millard Deck Estate
- ◆ **EPI Personnel:** Project Consultant – Iain Olness
Site Foreman – Kirt Tyree

Release Specific:

- ◆ **Product Released:** Crude oil
- ◆ **Volume Released:** 277-bbl
- ◆ **Volume Recovered:** 144-bbbl
- ◆ **Time of Occurrence:** January 1, 2006
- ◆ **Time of Discovery:** January 2, 2006
- ◆ **Release Source:** Steel storage tank developed a leak in the sidewall
- ◆ **Initial Surface Area Affected:** Release Area ~ 1,070-ft²; Overspray Area ~ 10,100 ft²

Remediation Specific:

- ◆ **Final Vertical extent of contamination:** 7-feet bgs
- ◆ **Water wells within 1,000-ft:** None
- ◆ **Private domestic water sources within 200-ft:** None
- ◆ **Depth to Groundwater:** >100 ft bgs
- ◆ **Surface water bodies within 1,000-ft:** None
- ◆ **NMOCD Site Ranking Index:** Zero (0) points (>100-ft to top of water table)
- ◆ **Remedial goals for Soil:** TPH – 5,000 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/L and 600 mg/L, respectively.
- ◆ **RCRA Waste Classification:** Exempt
- ◆ **Remediation Option Selected:** a) Excavation of contaminated soil above NMOCD remedial goals with repository at a disposal facility; b) laboratory analyses to confirm removal of impacted soil above NMOCD remedial threshold goals; c) backfill excavation with caliche to original ground surface; d) grade area to a smooth, level gradient
- ◆ **Disposal Facility:** J & L Landfarm, Inc. (Hobbs, NM) and Sundance Services, Inc. (Eunice, NM)
- ◆ **Volume disposed:** ~ 322-yd³
- ◆ **Project Completion Date:** April 26, 2006



2.0 SITE AND RELEASE INFORMATION

2.1 *Describe the land use and pertinent geographic features within 1,000 feet of the site.*

The release site is located within the confines of an established oil field. Surrounding land is used for grazing purposes

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

An existing steel storage tank located in a tank battery developed a leak in the sidewall

2.3 *What was the volume of the release? (if known): 277 barrels*

2.4 *What was the volume recovered ? (if known): 144 barrels*

2.5 *When did the release occur? (if known): January 1, 2006*

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 Eunice physiographic subdivision, described by Nicholson & Clebsch as an area "underlain by a hard caliche surface and is almost entirely covered by reddish-brown dune sand." The thickness of the sand ranges from 2-5 feet in most areas to as much as 20-30 feet in drift areas.

2.7 *Ecological Description*

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of sandy soil covered with short semi-arid grasses, interspersed with Honey Mesquite, 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 the 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 ~198-ft bgs based on water depth data obtained from the New Mexico State Engineers Office and United States Geological Survey data base (reference *Table 1*). Groundwater was not encountered during the advancement of SB-1 (20-ft bgs) and SB-2 (16-ft bgs).

2.9 *Area Water Wells*

No public water supply wells exist within 1,000-feet of the release site. Similarly, no private, domestic fresh water wells or springs used by less than five (5) households for domestic or stock watering purposes exist within 200-feet of the release site. However, four (4) water supply wells are located within one (1) mile of the release site (reference *Figure 2 and Table 1*).

2.10 *Area Surface Water Features*

No surface water features exist within 1,000- feet 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 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 Zero (0) 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) = 0 + 0 + 0 = 0 points					
Total Site Ranking Score and Acceptable Remedial Goal Concentrations					
Parameter	20 or >	10	10	0	0
Benzene ¹	10 ppm	10 ppm	10 ppm	10 ppm	10 ppm
BTEX ¹	50 ppm	50 ppm	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1,000 ppm	1,000 ppm	5,000 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: February 28 through March 29, 2006

Total volume removed: ~322 cubic yards

4.2 *Indicated soil treatment type:*

<input checked="" type="checkbox"/>	<i>Disposal</i>
<input type="checkbox"/>	<i>Land Treatment</i>
<input type="checkbox"/>	<i>Composting/Biopiling</i>
<input type="checkbox"/>	<i>Other ()</i>

Name and location of treatment/disposal facility:
J & L Landfarm, Inc. (Hobbs, NM) and Sundance Services, Inc. (Eunice, NM)



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 collected was inserted into a self-sealing polyethylene bag to allow volatilization of organic vapors. After the samples equilibrated to ~70° F, they were analyzed for organic vapors utilizing a MiniRae® Photoionization Detector (PID) equipped with a 10.6 electron volt (eV) lamp.

Chloride Concentrations – A LaMotte Chloride Test Kit was utilized for field analyses of chloride concentration.

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

Soil samples were collected during the advancement of two (2) soil borings utilizing a hollow core drill. Initial soil samples were collected at three (3) and five (5) feet below ground surface (bgs), then at five (5) foot intervals to total depth (TD) of each respective well (reference *Table 2*). During excavation of impacted soil from the release site, soil samples were collected from the bottom and sidewalls of the excavation at different locales and depth. The soil samples were analyzed in the field for organic vapor and chloride concentrations. Excavation of impacted soil continued until organic vapor concentrations were below 100 parts per million (ppm) (reference *Table 3*).

Upon collecting each soil sample, a portion was immediately put into an approved sample container, labeled and placed on ice for submittal to an independent laboratory under standard Chain-of-Custody protocol for quantification of total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene and total xylenes (BTEX), chloride and/or sulfate concentrations. Remaining portions of each soil sample were analyzed in the field for chloride and organic vapor concentrations utilizing methods described in Section 5.0, *Sampling Information*, Article 5.1.

5.3 *Discuss sample locations and provide rationale for their locations.*

On February 27, 2006 two (2) soil borings were advanced within the confines of the release site. BH-1 was advanced to a total depth (TD) of 20-feet bgs and SB-2 to a TD of 16-feet bgs. The locales chosen were near the point of release in order to delineate the vertical extent of impacted soils (reference *Figure 4*).

From February 28 through March 30, 2006 the release site and earthen berm surrounding the tank battery area were excavated for removal of visibly impacted soils. Impacted soil was temporarily stockpiled “on-site” for transportation to a state approved disposal facility. During the removal activities, soil samples were collected from the bottom and sidewalls of the excavation. Locales and depth of the sample points were determined from visual inspection of the soil and assisted by field analyses of chloride and organic vapor concentrations. Laboratory analytical results were used to verify removal of soil impacted above NMOCD remedial threshold limits.



6.0 ANALYTICAL RESULTS

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

Laboratory analytical data on soil samples collected February 27, 2006 from soil boring BH-1 indicated BTEX constituent concentrations ranged from at or below laboratory analytical method detection limits (MDL) (19.5'-20' bgs) to 817 mg/Kg (2'-3' bgs). While the latter concentration is above NMOCD remedial threshold goals of 50 mg/Kg, a review of *Table 1* indicated concentrations of BTEX diminished with depth. TPH concentrations ranged from 38.7 mg/Kg (19.5'-20' bgs) to 15,800 mg/Kg (2'-3' bgs). Elevated TPH concentrations ranged from ground surface to 9.5'-10 feet bgs after which they were below NMOCD remedial threshold goals. Reported chloride and sulfate concentrations from ground surface to the 14.5'-15' bgs intervals were below New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards of 250 mg/Kg and 600 mg/Kg, respectively (reference *Table 2*).

Laboratory analytical data for soil samples collected February 27, 2006 from soil boring BH-2 indicated BTEX concentrations ranged from at or below laboratory analytical MDL to 33.8 mg/Kg (2'-3' bgs). TPH concentrations ranged from at or below laboratory analytical MDL (14.5-15' bgs) to 4,590 mg/Kg (2'-3'), below NMOCD remedial threshold goals of 5,000 mg/Kg. Chloride concentrations ranged from 30.6 mg/Kg (2'-3' bgs) to 287 mg/Kg (4.5'-5' bgs) with the latter concentration above NMWQCC Groundwater Standards of 250 mg/Kg. Sulfate concentrations were below NMOCD remedial threshold goals of 600 mg/Kg from ground surface to the well bore TD (14.5'-15' bgs) (reference *Table 2*).

On March 3, 2006 eleven (11) soil samples were collected at various locations and depth from the excavation. Soil samples were analyzed for concentrations of BTEX and TPH. Benzene concentrations ranged from at or below laboratory analytical MDL in several sample points to 6.70 mg/Kg (SP-6 @ 8"). Benzene concentrations were below NMOCD remedial threshold goals of 10 mg/Kg at all sample points. Total BTEX concentrations ranged from at or below laboratory analytical MDL in several sample points to 150 mg/Kg (SP-6 @ 8"). Laboratory analytical data for BTEX concentrations for the eleven (11) sample points indicated only two (2) were above NMOCD remedial goals of 50 mg/Kg (SP-6 @ 8" bgs and SP-8 @ 2' bgs). Laboratory analytical data for TPH concentrations ranged from at or below laboratory analytical MDL in three (3) sample points (SP-1 @ 2', SP-4 @ 0.67' and SP-5 @ 0.67') to 12,230 mg/Kg (SP-8 @ 2' bgs). TPH concentrations were above NMOCD remedial threshold goals of 5,000 mg/L in two (2) of the eleven (11) sample points (SP-8 @ 2' and SP-9 @ 2') (reference *Figure 5* and *Table 3*).

Based on laboratory analytical data from the March 3, 2006 sampling event, additional soil which exceeded NMOCD remedial threshold goals were excavated on March 10, 2006. On March 13, 2006 three (3) soil samples were collected from sample points in areas with contaminant concentrations elevated above NMOCD remedial threshold goals. Benzene concentrations ranged from at or below laboratory analytical MDL in two (2) soil sample points (SP-6A @ 3' and SP-8A @ 7') to 0.014 mg/Kg (SP-9A @ 2.5'), below NMOCD remedial threshold goals of 10 mg/Kg. BTEX concentrations ranged from at or below laboratory analytical MDL (SP-8A @ 7') to 22.4 mg/Kg (SP-9A @ 2.5') with all three (3) soil samples below NMOCD remedial threshold goals of 50 mg/Kg. Concentrations for TPH ranged from 44.9 mg/kg (SP-8A @ 7') to 8,460 mg/Kg (SP-6A @ 3'). Two (2) of the three (3) soil samples were above NMOCD remedial threshold goals of 5,000 mg/Kg with the third sample indicating TPH concentration of 4,498 mg/Kg (SP-6A @ 3') (reference *Figure 6* and *Table 3*).



After the areas of elevated contamination identified in the March 13, 2006 sampling event were excavated, four (4) soil samples were collected on March 30, 2006 from the sidewalls and bottom of the excavation. Benzene concentrations were below NMOCD remedial threshold goals of 10 mg/Kg. BTEX constituent concentrations ranged from at or below laboratory analytical MDL (NSW @ 3.5') to 76.9 mg/Kg (BH @ 7') above NMOCD remedial threshold goals of 50 mg/Kg. TPH concentrations ranged from 84 mg/Kg (NSW @ 3.5') to 5,600 mg/Kg (BH @ 7') above NMOCD remedial threshold goals of 5,000 mg/Kg. Chloride concentrations ranged from 17 mg/Kg (ESW @ 3.5') to 1,200 mg/Kg (WSW @ 3.5') exceeding NMWQCC Groundwater Standards of 250 mg/Kg. Sulfate concentrations were below NMOCD remedial threshold goals of 600 mg/Kg for all samples (reference *Figure 7 and Table 3*).

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 was excavated and disposed at J & L Landfarm, Inc. The overspray area (~10,100-ft²) was immediately sprayed with Micro-Blaze Spill Control[®] to remediate surface contamination.



7.0 **DISCUSSION**

7.1 ***Discuss the risks associated with the remaining soil contamination:***

Based on laboratory analytical results from the March 30, 2006 sampling event, possibility of groundwater contamination from either TPH or chlorides is remote due to depth of groundwater (~198-ft bgs) and dense caliche formation overlaying the groundwater bearing strata.

7.2 ***Discuss the risks associated with the impacted groundwater:*** Not applicable

7.3 ***Discuss other concerns not mentioned above:*** Not applicable



8.0 CONCLUSIONS AND RECOMMENDATIONS

- 8.1 **Recommendation for the site:**
- Site Closure**
 - Additional Groundwater Monitoring**
 - Corrective Action**

- 8.2 **Base the recommendation above on Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993). Describe below how you applied the policy to support your recommendation. If closure is recommended, please summarize significant site investigative events and describe how site specific risk issues have been adequately addressed or minimized to acceptable low risk levels.**

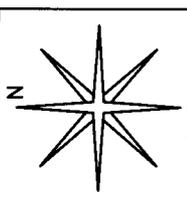
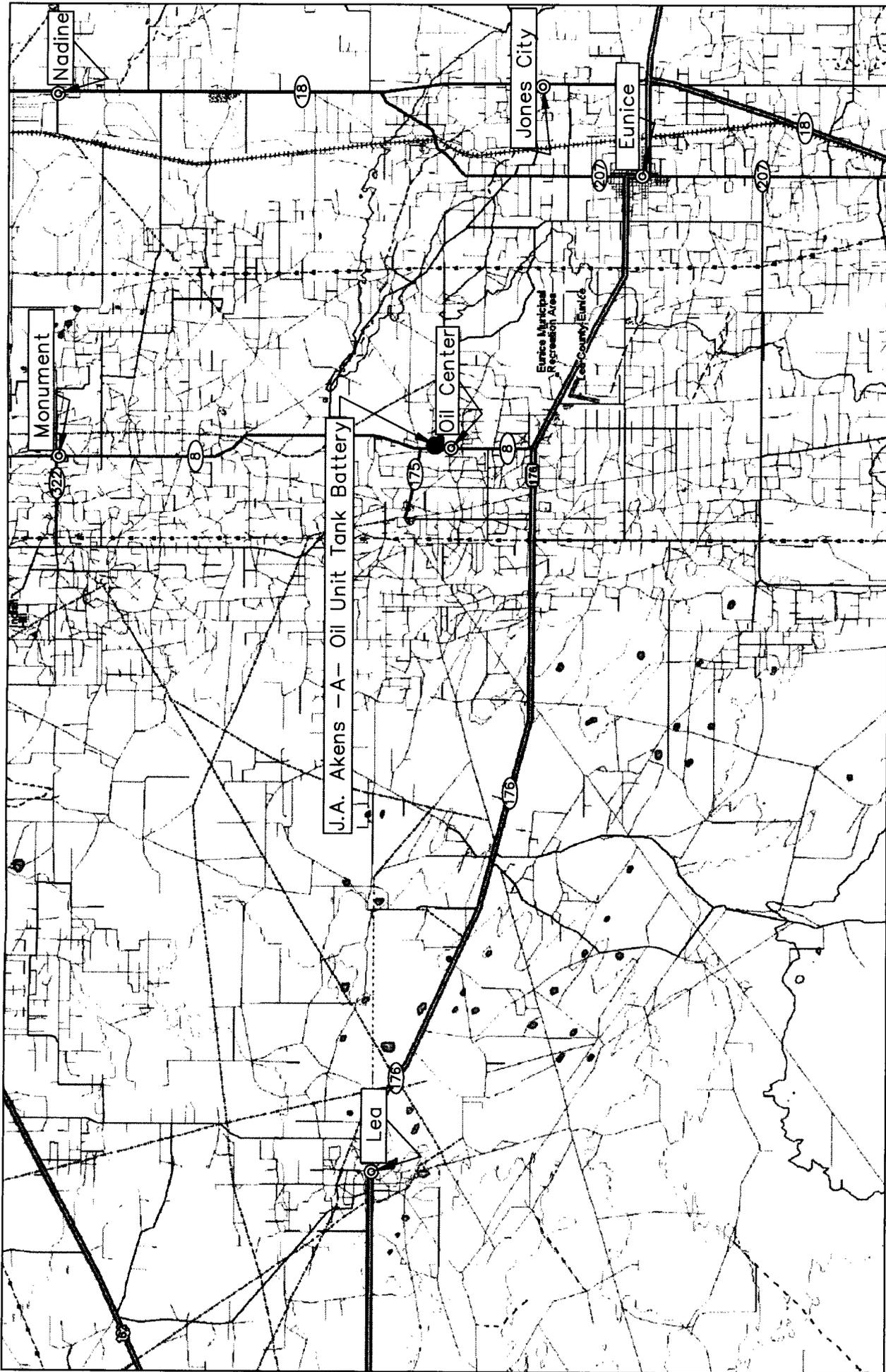
The majority of hydrocarbon impacted soil above NMOCD remedial thresholds for TPH constituents and chloride was excavated from the release area. TPH concentrations are slightly above NMOCD remedial threshold goals of 5,000 mg/Kg while chloride concentrations exceeded respective values of 250 mg/Kg in three (3) areas. However, these contaminants should have no effect on groundwater. Both sidewalls and bottom of the excavated areas are composed of caliche starting at approximately 3.5-feet bgs. This impermeable overburden will retard vertical migration of contaminants.

Soil impacted above the NMOCD remedial thresholds goals was disposed at J & L Landfarm, Inc., (Hobbs, New Mexico) and Sundance Services, Inc., (Eunice, New Mexico).

In accordance with Chesapeake Operating, Inc., specifications, a polyvinyl chloride (PVC) liner was placed on top of the backfilled area. After the tanks were erected and plumbed, an earthen berm was constructed around the perimeter to provide a containment basin. The PVC liner advanced up the sidewalls and overlapped the top of the earthen berm to provide a leak proof barrier (note Appendix II, *Project Photographs*).

- 8.3 **If additional groundwater and monitoring is recommended, indicate the proposed monitoring schedule and frequency. Conduct quarterly monitoring until the NMOCD responds to this report.** Not applicable
- 8.4 **If corrective action is recommended, provide a conceptual approach.** Not applicable

FIGURES



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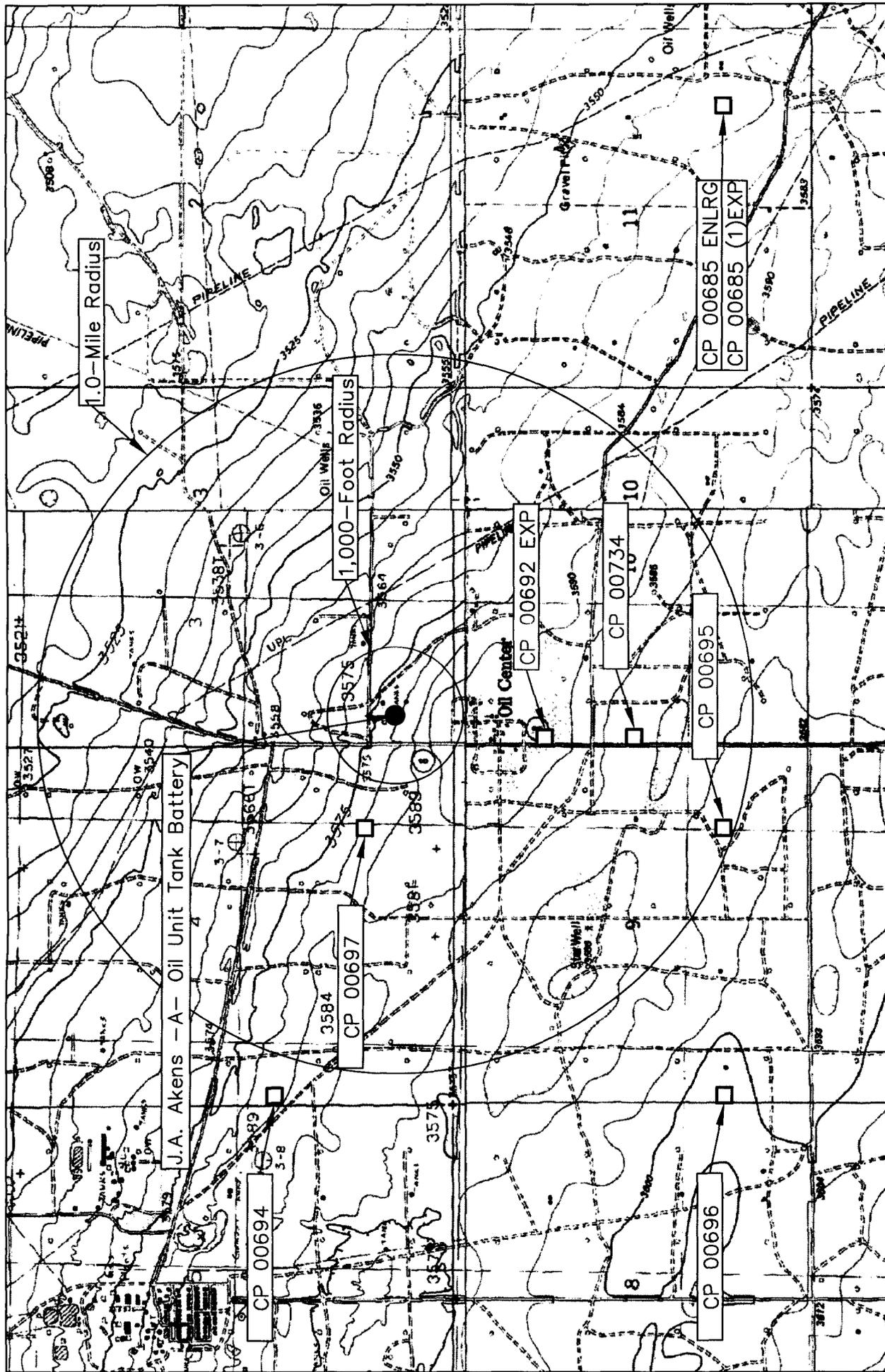
DWG By: Daniel Dominguez
January 2006

Lea County, New Mexico
SW 1/4 of the SW 1/4, Sec. 3, T21S, R36E
N 32° 30' 10.54" W 103° 15' 36.76"
Elevation: 3,579 feet amsl

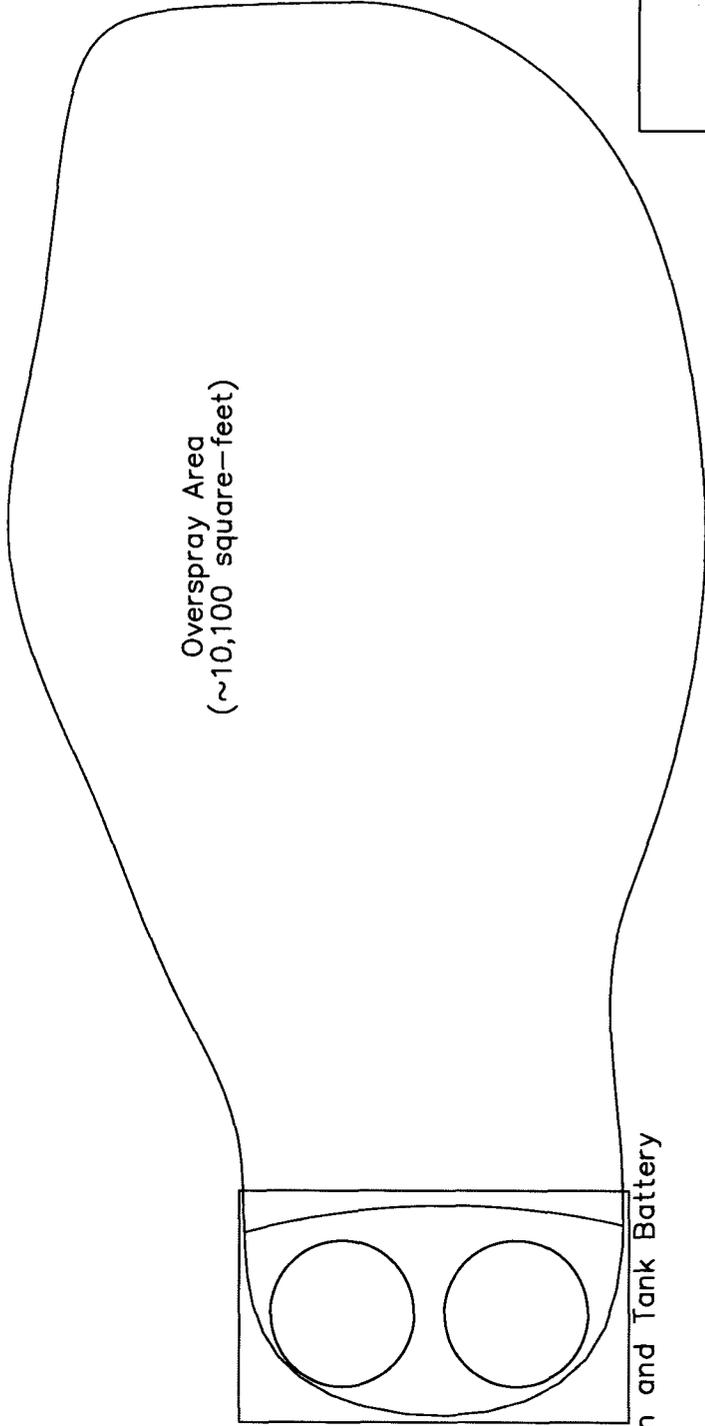
Figure 1
Area Map
Chesapeake Energy
J.A. Akens - A - Oil Unit Tank Battery

SHEET
1 of 1





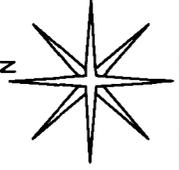
<p>Figure 2 Site Location Map Chesapeake Energy J.A. Akens - A - Oil Unit Tank Battery</p>	<p>Lea County, New Mexico SW 1/4 of the SW 1/4, Sec. 3, T21S, R36E N 32° 30' 10.54" W 103° 15' 36.76" Elevation: 3,579 feet amsl</p>	<p>DWG By: Daniel Dominguez January 2006</p>	<p>REVISED:</p>
	<p>0 2000 4000 Feet</p>	<p>4000 SHEET 1 of 1</p>	



Berm and Tank Battery

Overspray Area
(~10,100 square-foot)

LEGEND



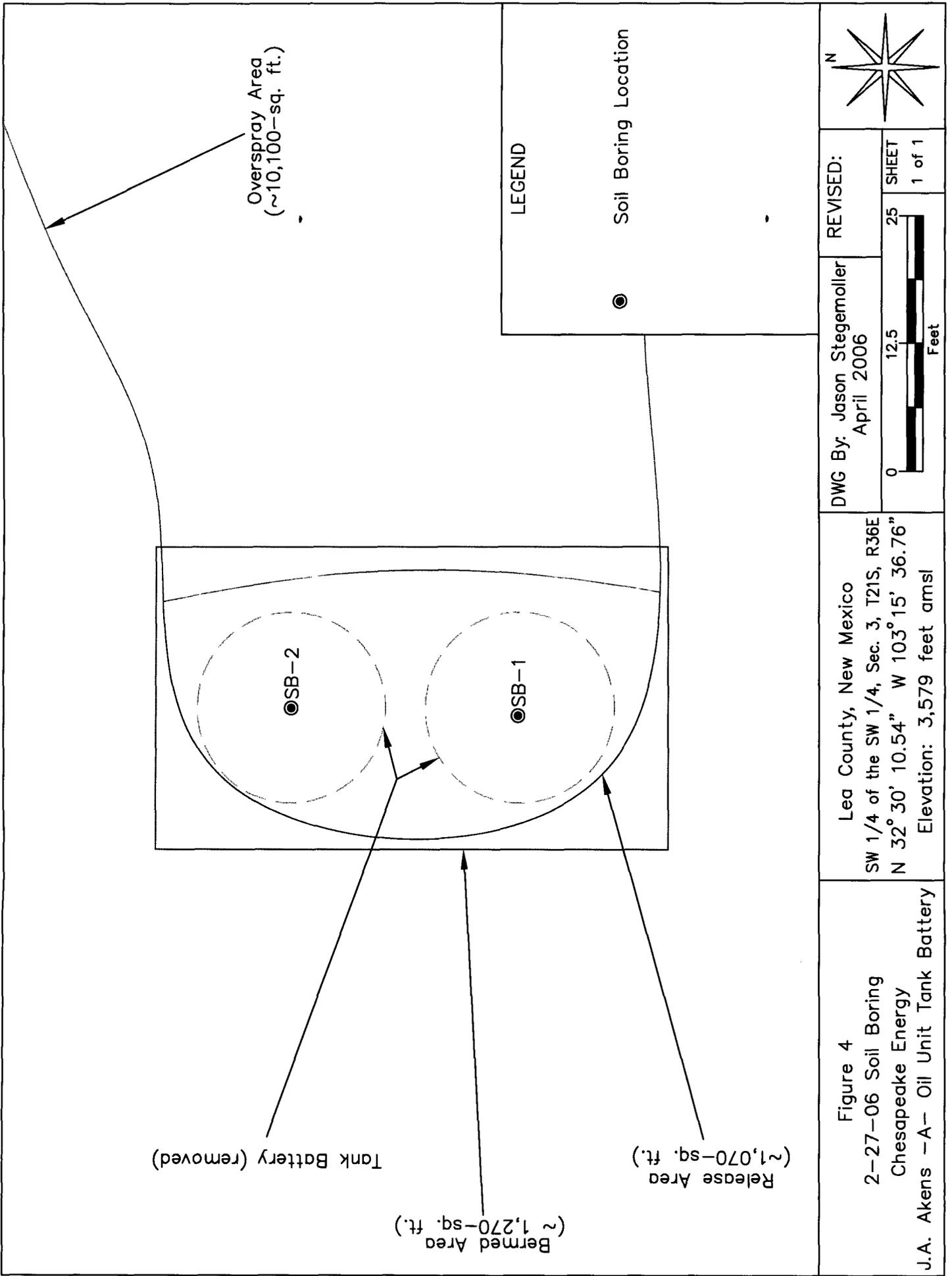
DWG By: Daniel Dominguez
January 2006

REVISED:



Lea County, New Mexico
SW 1/4 of the SW 1/4, Sec. 3, T21S, R36E
N 32° 30' 10.54" W 103° 15' 36.76"
Elevation: 3,579 feet amsl

Figure 3
Site Map
Chesapeake Energy
J.A. Akens -A- Oil Unit Tank Battery



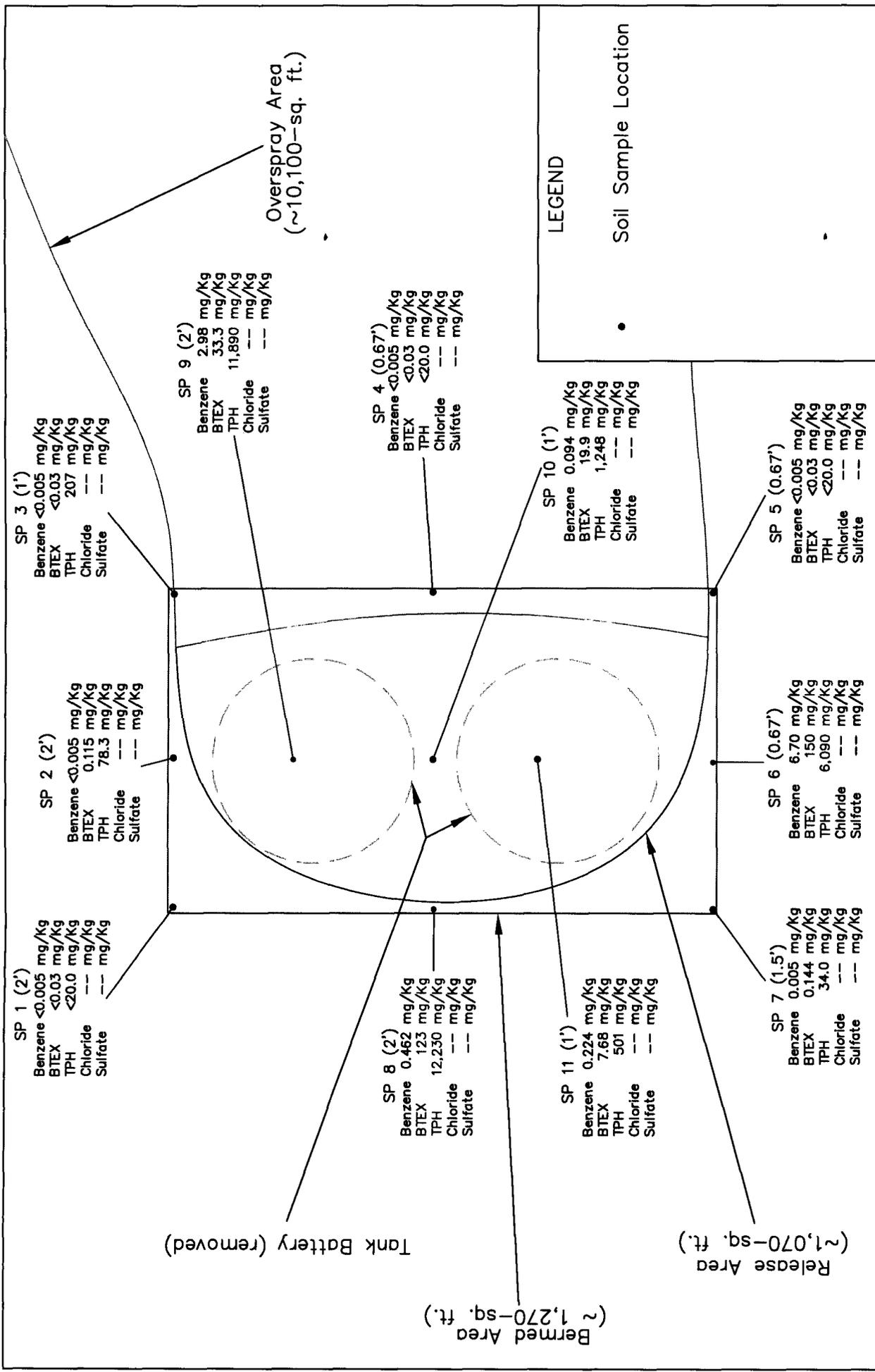


Figure 5
 3-3-06 Sample Location Map
 Chesapeake Energy
 J.A. Akens -A- Oil Unit Tank Battery

Lea County, New Mexico
 SW 1/4 of the SW 1/4, Sec. 3, T21S, R36E
 N 32° 30' 10.54" W 103° 15' 36.76"
 Elevation: 3,579 feet amsl

DWG By: Jason Stegemoller
 April 2006

REVISED:

0 12.5 25 Feet

SHEET
 1 of 1

Bermed Area
(~1,270-sq. ft.)

Tank Battery (removed)

SP 8A (7')
Benzene <0.002 mg/Kg
BTEX <0.012 mg/Kg
TPH 44.9 mg/Kg
Chloride 64 mg/Kg
Sulfate 5 mg/Kg

Overspray Area
(~10,100-sq. ft.)

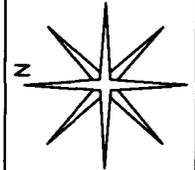
SP 9A (2.5')
Benzene 0.014 mg/Kg
BTEX 22.4 mg/Kg
TPH 9,790 mg/Kg
Chloride 32 mg/Kg
Sulfate 93 mg/Kg

Release Area
(~1,070-sq. ft.)

SP 6A (3')
Benzene <0.005 mg/Kg
BTEX 3.61 mg/Kg
TPH 4,500 mg/Kg
Chloride 656 mg/Kg
Sulfate 7 mg/Kg

LEGEND

• Soil Sample Location



REVISED:

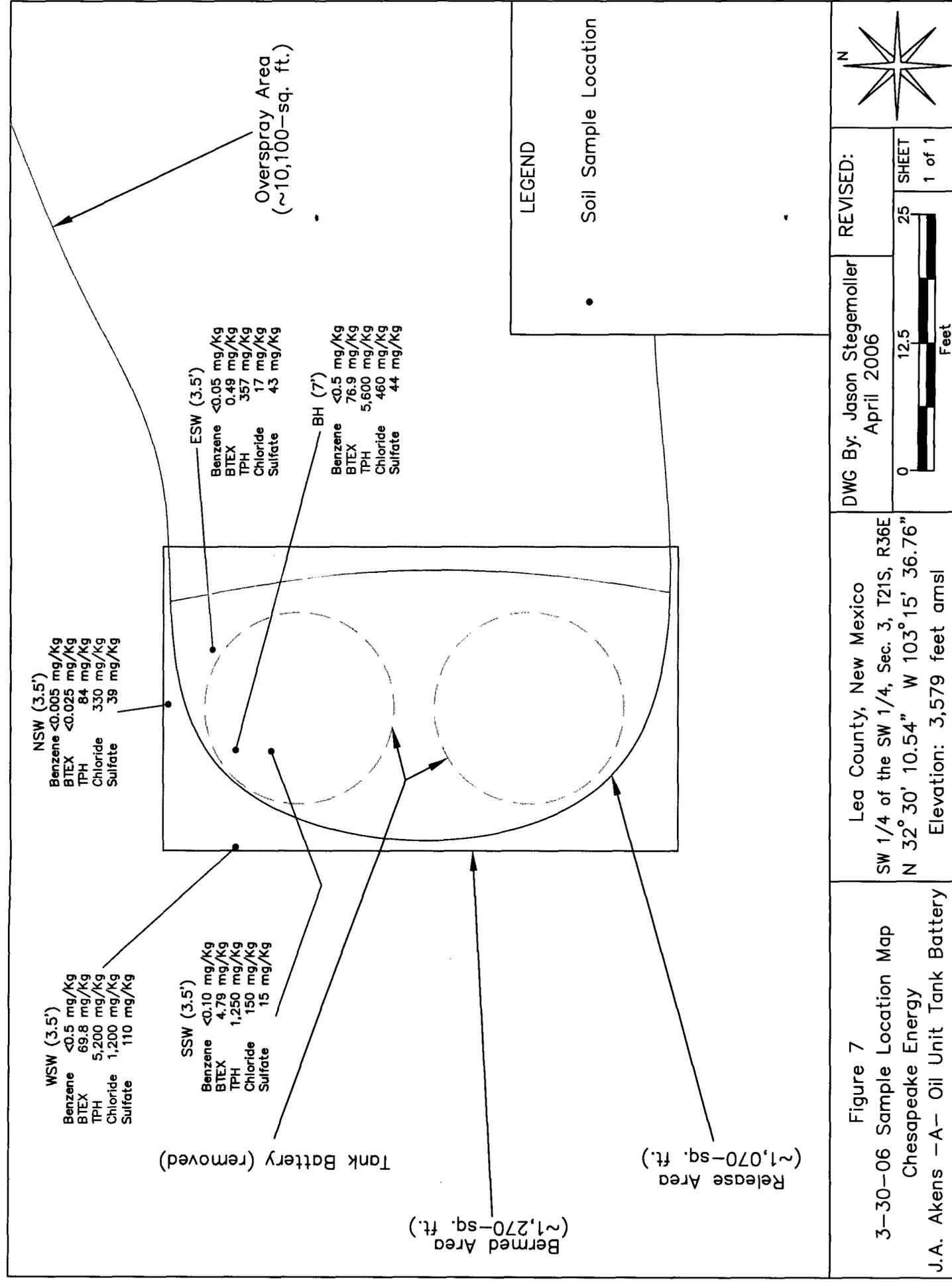
DWG By: Jason Stegemoller
April 2006

SHEET
1 of 1



Lea County, New Mexico
SW 1/4 of the SW 1/4, Sec. 3, T21S, R36E
N 32° 30' 10.54" W 103° 15' 36.76"
Elevation: 3,579 feet amsl

Figure 6
3-13-06 Sample Location Map
Chesapeake Energy
J.A. Akens -A- Oil Unit Tank Battery



TABLES

TABLE 1

Well Data

Chesapeake Energy - J.A. Akens -A- Oil Unit Tank Battery (Ref. # 160043)

Well Number	Diversion ^A	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation ^B	Depth to Water (ft bgs)
CP 00694	0	CHEVRON U.S.A. INC.	SRO	21S	36E	04 1	N32° 30' 28.08"	W103° 16' 42.46"		3,589	
CP 00697	0	CHEVRON U.S.A. INC.	SRO	21S	36E	04 4 2 3	N32° 30' 14.93"	W103° 15' 56.01"		3,586	
CP 00695	0	CHEVRON U.S.A. INC.	SRO	21S	36E	09 4 2 4	N32° 29' 22.69"	W103° 15' 56.00"		3,589	
CP 00696	0	CHEVRON U.S.A. INC.	SRO	21S	36E	09 3 1 1	N32° 29' 22.78"	W103° 16' 42.39"		3,606	
CP 00692 EXP	0	W.L. VAN NOY	DOM	21S	36E	10 1 1 3	N32° 29' 48.76"	W103° 15' 40.54"		3,586	
CP 00734	3	W.L. VAN NOY	DOM	21S	36E	10 1	N32° 29' 35.71"	W103° 15' 40.54"	22-Jun-88	3,580	200
CP 00685 ENLRG	0	WILL J. MCCASLAND	COM	21S	36E	11 4 2	N32° 29' 22.71"	W103° 13' 52.54"		3,571	
CP 00685 (I) EXP	0	USA INC. CHEVRON	PRO	21S	36E	11 4 2	N32° 29' 22.71"	W103° 13' 52.54"		3,571	

^B = Elevation interpolated from USGS topographical map based on referenced location.

COM = Commercial

PRO = Prospecting or development of a natural resource

DOM = Domestic

SRO = Secondary recovery of oil

SAN = Sanitary in conjunction with commercial

quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are biggest to smallest

Shaded area indicates wells not shown in Figure 2

TABLE 2

Summary of Soil Boring Field Analyses and Laboratory Analytical Results

Chesapeake Operating, Inc. - J. A. Akens -A- Oil Unit Tank Battery (Ref. #160043)

Soil Boring	Soil Sample I.D.	Depth (feet)	Sample Date	Soil Status	PID Reading (ppm)	Field Chloride Analyses (ppm)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	Carbon Ranges (C6-C12) (mg/Kg)	Carbon Ranges (C12-C28) (mg/Kg)	Carbon Ranges (C28-C35) (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)	Sulfate (mg/Kg)			
SB-1	SB-1 2'-3'	2-3	27-Feb-06	Excavated	1,336	160	49.2	250	112	406	817	6,210	7,970	1,650	15,800	17.3	32			
	SB-1 4.5'-5'	4.5-5	27-Feb-06	Excavated	850	160	3.72	18.3	10.1	32.3	64.4	549	1,540	325	2,410	36.1	25.9			
	SB-1 9.5'-10'	9.5-10	27-Feb-06	In Situ	436	160	0.268	2.00	2.17	20.9	23.4	1,140	3,600	614	5,350	20.9	41.4			
	SB-1 14.5'-15'	14.5-15	27-Feb-06	In Situ	9.0	160	<0.0250	<0.0250	<0.0250	<0.0500	<0.125	<10.0	124	77.0	201	90.5	114			
	SB-1 19.5'-20'	19.5-20	27-Feb-06	In Situ	2.9	--	--	--	--	--	--	<10.0	38.7	8.90 ^A	38.7	--	--			
SB-2	SB-2 2'-3'	2-3	27-Feb-06	Excavated	786	240	1.03	4.00	3.03	25.8	33.8	1,610	2,590	393	4,590	30.6	30.7			
	SB-2 4.5'-5'	4.5-5	27-Feb-06	Excavated	145	320	<0.0250	0.173	0.216	0.688	1.08	81.5	316	64.4	462	287	37.2			
	SB-2 9.5'-10'	9.5-10	27-Feb-06	In Situ	9.6	400	<0.0250	<0.0250	<0.0250	<0.0500	<0.125	<10.0	35.6	10.3	45.9	213	16.8			
	SB-2 14.5'-15'	14.5-15	27-Feb-06	In Situ	2.6	320	<0.0250	<0.0250	<0.0250	<0.0500	<0.125	<10.0	<10.0	<10.0	<10.0	<10.0	52.0	27.2		
NMOC Remedial Thresholds															100	10	50	5,000	250^B	600^B

Bolded values are in excess of the NMOC Remediation Thresholds and/or NMWQCC groundwater standards.

-- = Not Analyzed

^A Detected below laboratory method detection limits, therefore an estimate.

^B Chloride and sulfate residuals may not be capable of impacting groundwater above NMWQCC groundwater standards of 250 ppm and 600 ppm, respectively.

Table 3

Summary of Excavation Soil Sample Field Analyses and Laboratory Analytical Results

Chesapeake Operating, Inc. - J.A. Akens - A - Oil Unit Battery (Ref. #160043)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	Gasoline Range Organics (mg/Kg)	Diesel Range Organics (mg/Kg)	C ₂₉ -C ₃₅ Range Organics	Total Petroleum Hydrocarbons (mg/Kg)	Chloride (mg/Kg)	Sulfates (mg/Kg)
SP-1 (2')	2	In-Situ	03-Mar-06	3.9	--	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	--	<20.0	--	--
SP-2 (2')	2	In Situ	03-Mar-06	791	--	<0.005	<0.005	0.014	0.101	0.115	<10.0	78.3	--	78.3	--	--
SP-3 (1')	1	In Situ	03-Mar-06	30	--	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	207	--	207	--	--
SP-4 (8")	0.67	In-Situ	03-Mar-06	10	--	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	--	<20.0	--	--
SP-5 (8")	0.67	In Situ	03-Mar-06	38.6	--	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	--	<20.0	--	--
SP-7 (15")	1.42	In Situ	03-Mar-06	81.7	--	0.005	0.043	0.025	0.071	0.144	<10.0	34	--	34.0	--	--
SP-10 (1')	1	In Situ	03-Mar-06	802	--	0.094	0.045	4.73	15.0	19.9	301	947	--	1,248	--	--
SP-11 (1')	1	In Situ	03-Mar-06	1,332	--	0.224	1.92	1.21	4.33	7.68	103	398	--	501	--	--
SP-6A (3')	3	In Situ	13-Mar-06	388	--	<0.005	<0.005	0.139	3.47	3.61	268	4,230	--	4,498	656	7
SP-8A (7')	7	In Situ	13-Mar-06	2.6	--	<0.002	<0.002	<0.002	<0.006	<0.012	<10.0	44.9	--	44.9	64	5
BH (7')	7	In Situ	30-Mar-06	588	320	<0.5	0.98	15	61	77	1,700	3,900	<100	5,600	460	44
WSW (3.5')	3.5	In Situ	30-Mar-06	1,005	720	<0.5	0.82	19	50	70	1,400	3,800	<100	5,200	1,200	110
NSW (3.5')	3.5	In Situ	30-Mar-06	38	400	<0.005	<0.005	<0.005	<0.010	<0.025	<10	84	<10	84	330	39
ESW (3.5')	3.5	In Situ	30-Mar-06	210	320	<0.050	<0.050	0.19	0.30	0.49	47	310	<10	357	17	43
SSW (3.5')	3.5	In Situ	30-Mar-06	210	320	<0.10	0.19	1.3	3.3	4.8	150	1,100	<20	1,250	150	15
NMOC Remedial Thresholds																
				100		10				50				5,000	250¹	600¹

Bolded values are in excess of NMOC Remediation Thresholds

-- = Not Analyzed

¹ = Chloride and sulfate residuals may not be capable of impacting local groundwater above NMWQCC Groundwater Standards of 250 mg/L and 600 mg/L, respectively.

APPENDICES

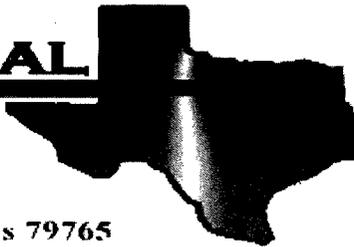
APPENDIX I

LABORATORY ANALYTICAL REPORTS

AND

CHAIN-OF-CUSTODY FORM

E NVIRONMENTAL
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/ J.A. Akens

Project Number: 160043

Location: UL-T, Sect. 03, T 21 S, R 36 E

Lab Order Number: 6B28014

Report Date: 03/02/06

Environmental Plus, Incorporated
P.O. Box 1558
Eunice NM, 88231

Project: Chesapeake/ J.A. Akens
Project Number: 160043
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
03/02/06 09:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 2'-3'	6B28014-01	Soil	02/27/06 08:00	02/28/06 15:15
SB-1 4.5'-5'	6B28014-02	Soil	02/27/06 08:24	02/28/06 15:15
SB-1 9.5'-10'	6B28014-03	Soil	02/27/06 08:48	02/28/06 15:15
SB-1 14.5'-15'	6B28014-04	Soil	02/27/06 09:44	02/28/06 15:15
SB-1 19.5'-20'	6B28014-05	Soil	02/27/06 11:00	02/28/06 15:15
SB-2 2'-3'	6B28014-06	Soil	02/27/06 11:50	02/28/06 15:15
SB-2 4.5'-5'	6B28014-07	Soil	02/27/06 12:00	02/28/06 15:15
SB-2 9.5'-10'	6B28014-08	Soil	02/27/06 12:20	02/28/06 15:15
SB-2 14.5'-15'	6B28014-09	Soil	02/27/06 13:00	02/28/06 15:15

Environmental Plus, Incorporated
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Eunice NM, 88231

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Project Number: 160043
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
03/02/06 09:58

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 2'-3' (6B28014-01) Soil									
Benzene	49.2	5.00	mg/kg dry	5000	EC60106	03/01/06	03/01/06	EPA 8021B	
Toluene	250	5.00	"	"	"	"	"	"	
Ethylbenzene	112	5.00	"	"	"	"	"	"	
Xylene (p/m)	307	5.00	"	"	"	"	"	"	
Xylene (o)	99.1	5.00	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		101 %		80-120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.8 %		80-120	"	"	"	"	
Carbon Ranges C6-C12	6210	100	mg/kg dry	10	EC60108	03/01/06	03/02/06	EPA 8015M	
Carbon Ranges C12-C28	7970	100	"	"	"	"	"	"	
Carbon Ranges C28-C35	1650	100	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	15800	100	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		17.9 %		70-130	"	"	"	"	S-06
Surrogate: 1-Chlorooctadecane		10.4 %		70-130	"	"	"	"	S-06
SB-1 4.5'-5 (6B28014-02) Soil									
Benzene	3.72	1.00	mg/kg dry	1000	EC60106	03/01/06	03/01/06	EPA 8021B	
Toluene	18.3	1.00	"	"	"	"	"	"	
Ethylbenzene	10.1	1.00	"	"	"	"	"	"	
Xylene (p/m)	23.3	1.00	"	"	"	"	"	"	
Xylene (o)	9.00	1.00	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		90.8 %		80-120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.0 %		80-120	"	"	"	"	
Carbon Ranges C6-C12	549	20.0	mg/kg dry	2	EC60108	03/01/06	03/02/06	EPA 8015M	
Carbon Ranges C12-C28	1540	20.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	325	20.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	2410	20.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		53.6 %		70-130	"	"	"	"	S-06
Surrogate: 1-Chlorooctadecane		55.8 %		70-130	"	"	"	"	S-06
SB-1 9.5'-10' (6B28014-03) Soil									
Benzene	0.268	0.100	mg/kg dry	100	EC60106	03/01/06	03/01/06	EPA 8021B	
Toluene	2.00	0.100	"	"	"	"	"	"	
Ethylbenzene	2.17	0.100	"	"	"	"	"	"	
Xylene (p/m)	14.4	0.100	"	"	"	"	"	"	
Xylene (o)	6.52	0.100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		106 %		80-120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		154 %		80-120	"	"	"	"	S-04
Carbon Ranges C6-C12	1140	20.0	mg/kg dry	2	EC60108	03/01/06	03/02/06	EPA 8015M	

Environmental Lab of Texas

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Environmental Plus, Incorporated
P.O. Box 1558
Eunice NM, 88231

Project: Chesapeake/ J.A. Akens
Project Number: 160043
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
03/02/06 09:58

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 9.5'-10' (6B28014-03) Soil									
Carbon Ranges C12-C28	3600	20.0	mg/kg dry	2	EC60108	03/01/06	03/02/06	EPA 8015M	
Carbon Ranges C28-C35	614	20.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	5350	20.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		60.0 %	70-130	"	"	"	"	"	S-06
<i>Surrogate: 1-Chlorooctadecane</i>		51.6 %	70-130	"	"	"	"	"	S-06
SB-1 14.5'-15' (6B28014-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC60106	03/01/06	03/01/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.8 %	80-120	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		93.2 %	80-120	"	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60108	03/01/06	03/02/06	EPA 8015M	
Carbon Ranges C12-C28	124	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	77.0	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	201	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		103 %	70-130	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		104 %	70-130	"	"	"	"	"	
SB-1 19.5'-20' (6B28014-05) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60108	03/01/06	03/02/06	EPA 8015M	
Carbon Ranges C12-C28	38.7	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	J [8.90]	10.0	"	"	"	"	"	"	J
Total Hydrocarbon C6-C35	38.7	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		96.6 %	70-130	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		98.4 %	70-130	"	"	"	"	"	
SB-2 2'-3' (6B28014-06) Soil									
Benzene	1.03	0.0250	mg/kg dry	25	EC60106	03/01/06	03/01/06	EPA 8021B	
Toluene	4.00	0.0250	"	"	"	"	"	"	
Ethylbenzene	3.03	0.0250	"	"	"	"	"	"	
Xylene (p/m)	21.2	0.0250	"	"	"	"	"	"	
Xylene (o)	4.57	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		2650 %	80-120	"	"	"	"	"	S-04
<i>Surrogate: 4-Bromofluorobenzene</i>		219 %	80-120	"	"	"	"	"	S-04
Carbon Ranges C6-C12	1610	10.0	mg/kg dry	1	EC60108	03/01/06	03/02/06	EPA 8015M	

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Environmental Plus, Incorporated
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Eunice NM, 88231

Project: Chesapeake/ J.A. Akens
Project Number: 160043
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
03/02/06 09:58

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2 2'-3' (6B28014-06) Soil									
Carbon Ranges C12-C28	2590	10.0	mg/kg dry	1	EC60108	03/01/06	03/02/06	EPA 8015M	
Carbon Ranges C28-C35	393	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	4590	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		121 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		149 %	70-130		"	"	"	"	S-04
SB-2 4.5'-5' (6B28014-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC60106	03/01/06	03/01/06	EPA 8021B	
Toluene	0.173	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.216	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.552	0.0250	"	"	"	"	"	"	
Xylene (o)	0.136	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		117 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	81.5	10.0	mg/kg dry	1	EC60108	03/01/06	03/02/06	EPA 8015M	
Carbon Ranges C12-C28	316	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	64.4	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	462	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		101 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		105 %	70-130		"	"	"	"	
SB-2 9.5'-10' (6B28014-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC60106	03/01/06	03/01/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		85.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60108	03/01/06	03/02/06	EPA 8015M	
Carbon Ranges C12-C28	35.6	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	10.3	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	45.9	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		102 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		103 %	70-130		"	"	"	"	

Environmental Plus, Incorporated
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Project: Chesapeake/ J.A. Akens
Project Number: 160043
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
03/02/06 09:58

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2 14.5'-15' (6B28014-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC60106	03/01/06	03/01/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60108	03/01/06	03/02/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		105 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		109 %	70-130		"	"	"	"	

Environmental Plus, Incorporated
P.O. Box 1558
Eunice NM, 88231

Project: Chesapeake/ J.A. Akens
Project Number: 160043
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
03/02/06 09:58

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 2'-3' (6B28014-01) Soil									
Chloride	17.3	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
% Moisture	15.5	0.1	%	1	EC60101	02/28/06	03/01/06	% calculation	
Sulfate	31.8	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
SB-1 4.5'-5' (6B28014-02) Soil									
Chloride	36.1	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
% Moisture	10.6	0.1	%	1	EC60101	02/28/06	03/01/06	% calculation	
Sulfate	25.9	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
SB-1 9.5'-10' (6B28014-03) Soil									
Chloride	20.9	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
% Moisture	7.3	0.1	%	1	EC60101	02/28/06	03/01/06	% calculation	
Sulfate	41.4	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
SB-1 14.5'-15' (6B28014-04) Soil									
Chloride	90.5	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
% Moisture	11.4	0.1	%	1	EC60101	02/28/06	03/01/06	% calculation	
Sulfate	114	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
SB-1 19.5'-20' (6B28014-05) Soil									
% Moisture	7.0	0.1	%	1	EC60101	02/28/06	03/01/06	% calculation	
SB-2 2'-3' (6B28014-06) Soil									
Chloride	30.6	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
% Moisture	14.0	0.1	%	1	EC60101	02/28/06	03/01/06	% calculation	
Sulfate	30.7	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
SB-2 4.5'-5' (6B28014-07) Soil									
Chloride	287	10.0	mg/kg	20	EC60111	02/28/06	03/01/06	EPA 300.0	
% Moisture	10.7	0.1	%	1	EC60101	02/28/06	03/01/06	% calculation	
Sulfate	37.2	10.0	mg/kg	20	EC60111	02/28/06	03/01/06	EPA 300.0	

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Project: Chesapeake/ J.A. Akens
Project Number: 160043
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:
03/02/06 09:58

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2 9.5'-10' (6B28014-08) Soil									
Chloride	213	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
% Moisture	6.3	0.1	%	1	EC60101	02/28/06	03/01/06	% calculation	
Sulfate	16.8	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
SB-2 14.5'-15' (6B28014-09) Soil									
Chloride	52.0	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	
% Moisture	12.0	0.1	%	1	EC60101	02/28/06	03/01/06	% calculation	
Sulfate	27.2	5.00	mg/kg	10	EC60111	02/28/06	03/01/06	EPA 300.0	

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Reported:
03/02/06 09:58

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EC60106 - EPA 5030C (GC)

Blank (EC60106-BLK1)

Prepared & Analyzed: 03/01/06

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	32.0		ug/kg	40.0		80.0	80-120			
Surrogate: 4-Bromofluorobenzene	32.7		"	40.0		81.8	80-120			

LCS (EC60106-BS1)

Prepared & Analyzed: 03/01/06

Benzene	0.0431	0.00100	mg/kg wet	0.0500		86.2	80-120			
Toluene	0.0486	0.00100	"	0.0500		97.2	80-120			
Ethylbenzene	0.0554	0.00100	"	0.0500		111	80-120			
Xylene (p/m)	0.116	0.00100	"	0.100		116	80-120			
Xylene (o)	0.0567	0.00100	"	0.0500		113	80-120			
Surrogate: a,a,a-Trifluorotoluene	35.4		ug/kg	40.0		88.5	80-120			
Surrogate: 4-Bromofluorobenzene	37.6		"	40.0		94.0	80-120			

Calibration Check (EC60106-CCV1)

Prepared & Analyzed: 03/01/06

Benzene	40.6		ug/kg	50.0		81.2	80-120			
Toluene	41.2		"	50.0		82.4	80-120			
Ethylbenzene	42.7		"	50.0		85.4	80-120			
Xylene (p/m)	88.9		"	100		88.9	80-120			
Xylene (o)	43.8		"	50.0		87.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	33.3		"	40.0		83.2	80-120			
Surrogate: 4-Bromofluorobenzene	32.8		"	40.0		82.0	80-120			

Matrix Spike (EC60106-MS1)

Source: 6B28014-09

Prepared & Analyzed: 03/01/06

Benzene	1.20	0.0250	mg/kg dry	1.42	ND	84.5	80-120			
Toluene	1.30	0.0250	"	1.42	ND	91.5	80-120			
Ethylbenzene	1.47	0.0250	"	1.42	ND	104	80-120			
Xylene (p/m)	3.11	0.0250	"	2.84	ND	110	80-120			
Xylene (o)	1.51	0.0250	"	1.42	ND	106	80-120			
Surrogate: a,a,a-Trifluorotoluene	33.2		ug/kg	40.0		83.0	80-120			
Surrogate: 4-Bromofluorobenzene	36.5		"	40.0		91.2	80-120			

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Reported:
03/02/06 09:58

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EC60106 - EPA 5030C (GC)

Matrix Spike Dup (EC60106-MSD1)

Source: **6B28014-09**

Prepared & Analyzed: 03/01/06

Benzene	1.19	0.0250	mg/kg dry	1.42	ND	83.8	80-120	0.832	20	
Toluene	1.29	0.0250	"	1.42	ND	90.8	80-120	0.768	20	
Ethylbenzene	1.46	0.0250	"	1.42	ND	103	80-120	0.966	20	
Xylene (p/m)	3.09	0.0250	"	2.84	ND	109	80-120	0.913	20	
Xylene (o)	1.50	0.0250	"	1.42	ND	106	80-120	0.00	20	
Surrogate: a,a,a-Trifluorotoluene	32.4		ug/kg	40.0		81.0	80-120			
Surrogate: 4-Bromofluorobenzene	33.0		"	40.0		82.5	80-120			

Batch EC60108 - Solvent Extraction (GC)

Blank (EC60108-BLK1)

Prepared: 03/01/06 Analyzed: 03/02/06

Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	46.8		mg/kg	50.0		93.6	70-130			
Surrogate: 1-Chlorooctadecane	46.4		"	50.0		92.8	70-130			

LCS (EC60108-BS1)

Prepared: 03/01/06 Analyzed: 03/02/06

Carbon Ranges C6-C12	544	10.0	mg/kg wet	500		109	75-125			
Carbon Ranges C12-C28	496	10.0	"	500		99.2	75-125			
Total Hydrocarbon C6-C35	1040	10.0	"	1000		104	75-125			
Surrogate: 1-Chlorooctane	62.9		mg/kg	50.0		126	70-130			
Surrogate: 1-Chlorooctadecane	59.3		"	50.0		119	70-130			

Calibration Check (EC60108-CCV1)

Prepared: 03/01/06 Analyzed: 03/02/06

Carbon Ranges C6-C12	238		mg/kg	250		95.2	80-120			
Carbon Ranges C12-C28	264		"	250		106	80-120			
Total Hydrocarbon C6-C35	502		"	500		100	80-120			
Surrogate: 1-Chlorooctane	57.4		"	50.0		115	70-130			
Surrogate: 1-Chlorooctadecane	54.3		"	50.0		109	70-130			

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Reported:
03/02/06 09:58

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EC60108 - Solvent Extraction (GC)

Matrix Spike (EC60108-MS1)

Source: 6B24010-14

Prepared: 03/01/06 Analyzed: 03/02/06

Carbon Ranges C6-C12	510	10.0	mg/kg dry	534	ND	95.5	75-125			
Carbon Ranges C12-C28	465	10.0	"	534	34.9	80.5	75-125			
Total Hydrocarbon C6-C35	975	10.0	"	1070	45.1	86.9	75-125			
Surrogate: 1-Chlorooctane	55.6		mg/kg	50.0		111	70-130			
Surrogate: 1-Chlorooctadecane	52.1		"	50.0		104	70-130			

Matrix Spike Dup (EC60108-MSD1)

Source: 6B24010-14

Prepared: 03/01/06 Analyzed: 03/02/06

Carbon Ranges C6-C12	510	10.0	mg/kg dry	534	ND	95.5	75-125	0.00	20	
Carbon Ranges C12-C28	462	10.0	"	534	34.9	80.0	75-125	0.647	20	
Total Hydrocarbon C6-C35	972	10.0	"	1070	45.1	86.6	75-125	0.308	20	
Surrogate: 1-Chlorooctane	56.0		mg/kg	50.0		112	70-130			
Surrogate: 1-Chlorooctadecane	52.3		"	50.0		105	70-130			

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Fax: 505-394-2601

Reported:
03/02/06 09:58

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EC60101 - General Preparation (Prep)

Blank (EC60101-BLK1)				Prepared: 02/28/06 Analyzed: 03/01/06						
% Solids	100		%							
Duplicate (EC60101-DUP1)				Source: 6B28005-01 Prepared: 02/28/06 Analyzed: 03/01/06						
% Solids	79.6		%		81.9			2.85	20	
Duplicate (EC60101-DUP2)				Source: 6B28014-06 Prepared: 02/28/06 Analyzed: 03/01/06						
% Solids	86.5		%		86.0			0.580	20	

Batch EC60111 - Water Extraction

Blank (EC60111-BLK1)				Prepared: 02/28/06 Analyzed: 03/01/06						
Sulfate	ND	0.500	mg/kg							
Chloride	ND	0.500	"							
LCS (EC60111-BS1)				Prepared: 02/28/06 Analyzed: 03/01/06						
Sulfate	8.46	0.500	mg/kg	10.0		84.6	80-120			
Chloride	9.28	0.500	"	10.0		92.8	80-120			
Calibration Check (EC60111-CCV1)				Prepared: 02/28/06 Analyzed: 03/01/06						
Chloride	9.77		mg/L	10.0		97.7	80-120			
Sulfate	9.34		"	10.0		93.4	80-120			
Duplicate (EC60111-DUP1)				Source: 6B28014-01 Prepared: 02/28/06 Analyzed: 03/01/06						
Chloride	17.3	5.00	mg/kg		17.3			0.00	20	
Sulfate	32.0	5.00	"		31.8			0.627	20	

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Reported:
03/02/06 09:58

Notes and Definitions

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

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

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

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By: _____

Raland K Tuttle

Date: _____

3/2/2006

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.

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

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

Environmental Plus, Inc.

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

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form

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 J.A. Akens Location UL-T, Section 03, T 21 S, R 36 E Project Reference 160043 EPI Sampler Name George Blackburn		Bill To  Attn: Iain Olness P.O. Box 1558 Eunice, NM 88231		ANALYSIS REQUEST															
LAB I.D.	SAMPLE I.D.	# CONTAINERS	MATRIX				PRESERV.			DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO ₄)	PH	TCLP	OTHER >>>	PAH
			GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE										
		G 1				X						X	X	X					
	1 SB-1 (2'-3')	G 1				X						X	X	X					
	2 SB-1 (4.5'-5')	G 1				X						X	X	X					
	3 SB-1 (9.5'-10')	G 1				X						X	X	X					
	4 SB-1 (14.5'-15')	G 1				X						X	X	X					
	5 SB-1 (19.5'-20') *see note	G 1				X						X	X	X					
	6 SB-2 (2'-3')	G 1				X						X	X	X					
	7 SB-2 (4.5'-5')	G 1				X						X	X	X					
	8 SB-2 (9.5'-10')	G 1				X						X	X	X					
	9 SB-2 (14.5'-15')	G 1				X						X	X	X					
	10																		

E-mail results to: iainness@envplus.net
RUSH 24 Hour 2/28/06
 NOTES: 4oz glass w/ seal jar / labels

Received By: *Jean Boone*
 Date: 2/28/06
 Time: 2:10
 Received By: (lab staff)
 Date: 2/28/06
 Time: 3:15
 Checked By: *COE*
 Sample Cool & Intact: Yes No
 4.5

Attn: Iain Olness → 2/28/06 Thru 2/28/06

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

Client: EPI
 Date/Time: 2/28/06 3:15
 Order #: WB28014
 Initials: ck

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	4.5 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	*JTB
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable *JTB

Other observations:

* All samples except SB-1 19.5-20' has no seal, headspace and may not be enough sample.

Variance Documentation:

Contact Person: Jaron B. Date/Time: 2/28/06 3:15 Contacted by: Carmel K.
 Regarding:

Headspace, sample amount

Corrective Action Taken:

As discussed - proceed w/ analysis.

Jeanne McMurrey

From: "Iain Olness" <iolness@hotmail.com>
To: "Jeanne McMurrey" <jeanne@elabtxas.com>
Sent: Tuesday, February 28, 2006 4:20 PM
Subject: J. A. Akens Samples (Ref. #160043)

Dear Ms. McMurrey:

Please analyze sample *SB-1 (19.5'-20')* for total petroleum hydrocarbons only at this time. Should enough sample remain upon completion of the analysis, and there be a need, I will notify ELT of any other analyses I would like completed.

Should you have any questions or concerns, please feel free to contact me at (505) 394-3481 or via e-mail at iolness@envplus.net.

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain A. Olness, P.G.
Hydrogeologist

Environmental Plus, Inc.
P.O. Box 1558
Eunice, NM 88231

(505) 394-3481
(505) 394-2601 (facsimile)

--
This message has been scanned for viruses and dangerous content by BasinBroadband, and is believed to be clean.

2/28/2006



ARDINAL 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

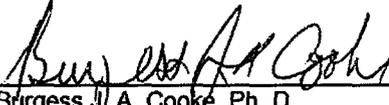
FAX TO: (505) 394-2601

Receiving Date: 03/03/06
Reporting Date: 03/08/06
Project Owner: CHESAPEAKE
Project Name: AIKEN
Project Location: NOT GIVEN

Sampling Date: 03/03/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NO.	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:		03/06/06	03/06/06	03/07/06	03/07/06	03/07/06	03/07/06
H10848-1	SP 1 2'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H10848-2	SP 2 2'	<10.0	78.3	<0.005	<0.005	0.014	0.101
H10848-3	SP 3 1'	<10.0	207	<0.005	<0.005	<0.005	<0.015
H10848-4	SP 4 8"	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H10848-5	SP 5 8"	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H10848-6	SP 6 8"	2050	4040	6.70	52.2	25.4	65.6
H10848-7	SP 7 1'5"	<10.0	34.0	0.005	0.043	0.025	0.071
H10848-8	SP 8 2'	4680	7550	0.462	4.68	7.93	110
H10848-9	SP 9 2'	4310	7580	2.98	1.51	6.86	21.9
H10848-10	SP 10 1'	301	947	0.094	0.045	4.73	15.0
H10848-11	SP 11 1'	103	398	0.224	1.92	1.21	4.33
Quality Control		756	761	0.097	0.097	0.091	0.267
True Value QC		800	800	0.100	0.100	0.100	0.300
% Recovery		94.5	95.1	96.7	96.7	91.3	88.9
Relative Percent Difference		4.0	8.2	0.9	3.5	0.3	1.5

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


Burgess J. A. Cooke, Ph. D.

3/8/06
Date

H10848.XLS

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

Environmental Plus, Inc.

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 P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form

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 ALLEN AIXEN Project Reference EPI Sampler Name 6-20-06		Bill To  Attn: Iain Olness PO Box 1558 Eunice, NM 88231		ANALYSIS REQUEST TPH 8015M CHLORIDES (Cl) SULFATES (SO ₄) PH TCLP OTHER >>> PAH Texas 1006																				
LAB I.D. H10648-11 2 3 4 5 6 7 8 9 10	SAMPLE I.D. SPII 11		(GRAB OR (COMP # CONTAINERS		GROUND WATER		WASTEWATER		SOIL		CRUDE OIL		SLUDGE		OTHER:		ACID/BASE		ICE/COOL		Drilling Mud		DATE 3-3-06 TIME 11:22 AM	
	MATRIX		PRESERV.		SAMPLING		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
	RECEIVED BY: 		DATE 3-3-06 TIME 2:00		RECEIVED BY: (lab staff) 		SAMPLE COOL & INTACT Yes <input checked="" type="radio"/> No <input type="radio"/>		CHECKED BY: Checked By:		REMARKS: E-mail results to: iain Olness iolness@envplus.net													



ARDINAL LABORATORIES

PHONE (325) 873-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC.

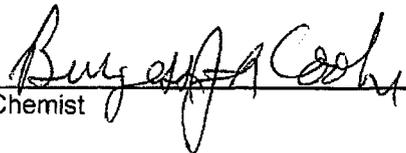
ATTN: IAIN OLNESS
PO BOX 1558
EUNICE, NM 88231
FAX TO: 505-394-2601

Receiving Date: 3/14/06
Reporting Date: 3/20/06
Project Number: #160043
Project Name: J.A. AKENS
Project Location: UL-T, SECTION 03, T 21 S, R 36 E

Sampling Date: 3/13/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: HM
Analyzed By: JC

LAB NUMBER	SAMPLE ID	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYLBENZENE (mg/kg)	TOTAL XYLENES (mg/kg)
ANALYSIS DATE:		03/16/06	03/16/06	03/16/06	03/16/06
H10895-1	SP-6A(3')	<0.005	<0.005	0.139	3.47
H10895-2	SP-8A (7')	<0.002	<0.002	<0.002	<0.006
H10895-3	SP-9A (2.5')	0.014	0.885	2.8	18.7
Quality Control		0.097	0.094	0.098	0.297
True Value QC		0.100	0.100	0.100	0.300
% Recovery		97	94	98	99
Relative Percent Difference		9.2	5.7	4.7	5.2

METHODS: EPA - SW 846-8021B, 5030B; Gas Chromatography


Chemist

3/20/06
Date



**ARDINAL
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: 03/14/06
Reporting Date: 03/18/06
Project Number: CHESAPEAKE ENERGY (160043)
Project Name: J.A. AKENS
Project Location: UL-T, SECTION 03, T 21 S, R 36 E

Sampling Date: 03/13/06
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)
ANALYSIS DATE:		03/17/06	03/17/06
H10895-1	SP-6A (3')	268	4230
H10895-2	SP-8A (7')	<10.0	44.9
H10895-3	SP-9A (2.5')	1330	8460
Quality Control		810	791
True Value QC		800	800
% Recovery		101	98.9
Relative Percent Difference		3.5	3.1

METHOD: SW-846 8015 M

Iain Olness
Chemist

3/18/06
Date

H10895A.XLS

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

argon laboratories

ENVIRONMENTAL PLUS, INC.
2100 AVENUE O
EUNICE, NM 88231

REPORT DATE: 04/07/06
SAMPLE DATE: 03/30/06

ATTN: IAIN OLNESS
CLIENT PROJ. ID: 160043
J.A. AKENS
UL-T, Section 03, T 21 S, R 36 E

AL JOB #: A03011

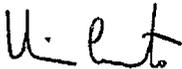
Project Summary:

On March 31, 2006, this laboratory received 5 soil samples.

Samples were analyzed according to instructions in accompanying chain-of-custody. Results of analysis are summarized on the following pages. Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Sample Control at (505) 397-0295


Hiram Cueto
Lab Manager

argon laboratories

Environmental Plus, Inc.
2100 Avenue O
Eunice, NM 88231

Project Number: 160043
Project Name: J.A. Akens
Project Manager: Iain Olness

Work Order #: -
A03011

Total Petroleum Hydrocarbons - EPA Method 8015M

Analyte	Result	Reporting		Dilution	Analyzed	Method	Notes
		Limit	Units				
WSW (3.5') (A03011 Soil) Sampled: 03/30/06 Received: 03/31/06							
Gas Range Organics	1,400	100	mg/Kg	10	04/05/06	8015M	
Diesel Range Organics	3,800	"	"	"	"	"	
C29 - C35 Range Organics	ND	"	"	"	"	"	
Total Petroleum Hydrocarbons	5,200	"	"	"	"	"	

Volatile Organics - EPA Method 8021B

WSW (3.5') (A03011 Soil) Sampled: 03/30/06 Received: 03/31/06							
Benzene	ND	0.5	mg/Kg	100	03/31/06	EPA 8021B	
Toluene	0.82	"	"	"	"	"	
Ethyl Benzene	19	"	"	"	"	"	
Xylenes	50	1.0	"	"	"	"	

Surrogate Recovery: 106%

Anions by Ion Chromatography - EPA Method 300.0

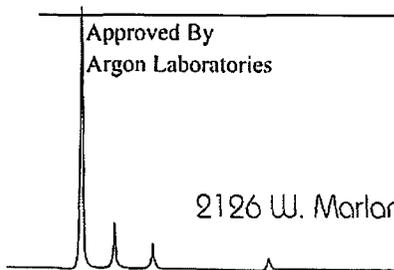
WSW (3.5') (A03011 Soil) Sampled: 03/30/06 Received: 03/31/06							
Chloride	1,200	250	mg/Kg	25	04/04/06	EPA 300.0	
Sulfate	110	25	"	5	"	"	

Approved By
Argon Laboratories


QC Officer

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296

email: info@argonlabs.com



argon laboratories

Environmental Plus, Inc.
2100 Avenue O
Eunice, NM 88231

Project Number: 160043
Project Name: J.A. Akens
Project Manager: Iain Olness

Work Order #: -
A03011

Total Petroleum Hydrocarbons - EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
NSW (3.5') (A03012 Soil) Sampled: 03/30/06 Received: 03/31/06							
Gas Range Organics	ND	10	mg/Kg	1	04/05/06	8015M	
Diesel Range Organics	84	"	"	"	"	"	
C29 - C35 Range Organics	ND	"	"	"	"	"	
Total Petroleum Hydrocarbons	84	"	"	"	"	"	

Volatile Organics - EPA Method 8021B

NSW (3.5') (A03012 Soil) Sampled: 03/30/06 Received: 03/31/06							
Benzene	ND	0.005	mg/Kg	1	03/31/06	EPA 8021B	
Toluene	ND	"	"	"	"	"	
Ethyl Benzene	ND	"	"	"	"	"	
Xylenes	ND	0.010	"	"	"	"	

Surrogate Recovery: 98%

Anions by Ion Chromatography - EPA Method 300.0

NSW (3.5') (A03012 Soil) Sampled: 03/30/06 Received: 03/31/06							
Chloride	330	50	mg/Kg	5	04/04/06	EPA 300.0	
Sulfate	39	10	"	2	"	"	

Approved By
Argon Laboratories


QC Officer

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email: info@argonlabs.com

argon laboratories

Environmental Plus, Inc.
2100 Avenue O
Eunice, NM 88231

Project Number: 160043
Project Name: J.A. Akens
Project Manager: Iain Olness

Work Order #: -
A03011

Total Petroleum Hydrocarbons - EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
ESW (3.5') (A03013 Soil) Sampled: 03/30/06 Received: 03/31/06							
Gas Range Organics	47	10	mg/Kg	1	04/05/06	8015M	
Diesel Range Organics	310	"	"	"	"	"	
C29 - C35 Range Organics	ND	"	"	"	"	"	
Total Petroleum Hydrocarbons	357	"	"	"	"	"	

Volatile Organics - EPA Method 8021B

ESW (3.5') (A03013 Soil) Sampled: 03/30/06 Received: 03/31/06							
Benzene	ND	0.050	mg/Kg	10	03/31/06	EPA 8021B	
Toluene	ND	"	"	"	"	"	
Ethyl Benzene	0.19	"	"	"	"	"	
Xylenes	0.30	0.10	"	"	"	"	

Surrogate Recovery: 106%

Anions by Ion Chromatography - EPA Method 300.0

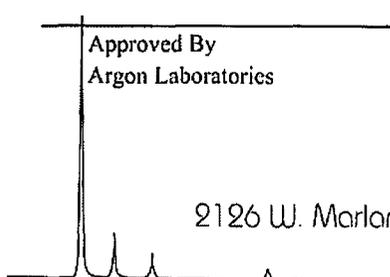
ESW (3.5') (A03013 Soil) Sampled: 03/30/06 Received: 03/31/06							
Chloride	17	10	mg/Kg	1	04/04/06	EPA 300.0	
Sulfate	43	10	"	2	"	"	

Approved By
Argon Laboratories


QC Officer

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296

email: info@argonlabs.com



argon laboratories

Environmental Plus, Inc.
2100 Avenue O
Eunice, NM 88231

Project Number: 160043
Project Name: J.A. Akens
Project Manager: Iain Olness

Work Order #: -
A03011

Total Petroleum Hydrocarbons - EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SSW (3.5') (A03014 Soil) Sampled: 03/30/06 Received: 03/31/06							
Gas Range Organics	150	20	mg/Kg	2	04/05/06	8015M	
Diesel Range Organics	1,100	"	"	"	"	"	
C29 - C35 Range Organics	ND	"	"	"	"	"	
Total Petroleum Hydrocarbons	1,250	"	"	"	"	"	

Volatile Organics - EPA Method 8021B

SSW (3.5') (A03014 Soil) Sampled: 03/30/06 Received: 03/31/06							
Benzene	ND	0.10	mg/Kg	20	03/31/06	EPA 8021B	
Toluene	0.19	"	"	"	"	"	
Ethyl Benzene	1.3	"	"	"	"	"	
Xylenes	3.3	0.20	"	"	"	"	

Surrogate Recovery: 98%

Anions by Ion Chromatography - EPA Method 300.0

SSW (3.5') (A03014 Soil) Sampled: 03/30/06 Received: 03/31/06							
Chloride	150	20	mg/Kg	2	04/04/06	EPA 300.0	
Sulfate	15	5	"	1	"	"	

Approved By
Argon Laboratories


QC Officer

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296

email: info@argonlabs.com

argon laboratories

Environmental Plus, Inc. 2100 Avenue O Eunice, NM 88231	Project Number: 160043 Project Name: J.A. Akens Project Manager: Iain Olness	Work Order #: - A03011
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Total Petroleum Hydrocarbons - EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH (7') (A03015 Soil) Sampled: 03/30/06 Received: 03/31/06							
Gas Range Organics	1,700	100	mg/Kg	10	04/05/06	8015M	
Diesel Range Organics	3,900	"	"	"	"	"	
C29 - C35 Range Organics	ND	"	"	"	"	"	
Total Petroleum Hydrocarbons	5,600	"	"	"	"	"	

Volatile Organics - EPA Method 8021B

BH (7') (A03015 Soil) Sampled: 03/30/06 Received: 03/31/06							
Benzene	ND	0.5	mg/Kg	100	03/31/06	EPA 8021B	
Toluene	0.98	"	"	"	"	"	
Ethyl Benzene	15	"	"	"	"	"	
Xylenes	61	1.0	"	"	"	"	

Surrogate Recovery: 98%

Anions by Ion Chromatography - EPA Method 300.0

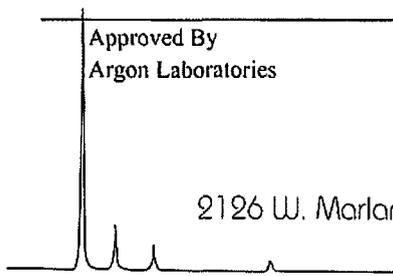
BH (7') (A03015 Soil) Sampled: 03/30/06 Received: 03/31/06							
Chloride	460	50	mg/Kg	5	04/04/06	EPA 300.0	
Sulfate	44	10	"	2	"	"	

Approved By
Argon Laboratories


QC Officer

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296

email: info@argonlabs.com



Argon Laboratories Sample Receipt Checklist

Client Name: Environmental Plus, Inc. Date & Time Received: 3/31/2006 08:41 AM

Project Name: J. A. Akens - UL-T, Section 03, Client Project Number: 160043

Received By: HC Matrix: Water Soil

Sample Carrier: Client Laboratory Fed Ex UPS Other

Argon Labs Project Number: A03011

Shipper Container in good condition? N/A Yes No Samples received in proper containers? Yes No

Samples received intact? Yes No

Samples received under refrigeration? Yes No Sufficient sample volume for requested tests? Yes No

Chain of custody present? Yes No Samples received within holding time? Yes No

Chain of Custody signed by all parties? Yes No Do samples contain proper preservative? N/A Yes No

Chain of Custody matches all sample labels? Yes No Do VOA vials contain zero headspace? (None submitted) Yes No

ANY "No" RESPONSE MUST BE DETAILED IN THE COMMENTS SECTION BELOW

Date Client Contacted: _____ Person Contacted: _____

Contacted By: _____ Subject: _____

Comments: _____

Action Taken: _____

ADDITIONAL TEST(S) REQUEST / OTHER

Contacted By: _____ Date: _____ Time: _____

Call Received By: _____

Comments: _____

Environmental Plus, Inc.

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

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form

Laboratory: Argon

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 J.A. Akens Location UL-T, Section 03, T 21 S, R 36 E Project Reference 160043 EPI Sampler Name Felix Hernandez		 Attn: Iain Olness P.O. Box 1558 Eunice, NM 88231		ANALYSIS REQUEST																	
LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.		SAMPLING		TPH 8015M	BTX 8021B	CHLORIDES (Cl ⁻)	SULFATES (SO ₄ ⁻²)	PH	TCLP	OTHER >>>	PAH
				WASTEWATER	GROUND WATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE								
1	WSW (3.5')	G 1	1	X								X	X	X	X	X	X				
2	NSW (3.5')	G 1	1	X								X	X	X	X	X	X				
3	ESW (3.5')	G 1	1	X								X	X	X	X	X	X				
4	SSW (3.5')	G 1	1	X								X	X	X	X	X	X				
5	BH (7')	G 1	1	X								X	X	X	X	X	X				
6																					
7																					
8																					
9																					
10																					

E-mail results to: iolness@envplus.net

NOTES:

Received By:

Date: 3/31/06
Time: 08:41

Received By: (lab staff)

Date: 3/31/06
Time: 08:41

Sample Cool & Intact

Yes No

Checked By:

Sampler-Relinquished:

Relinquished by:

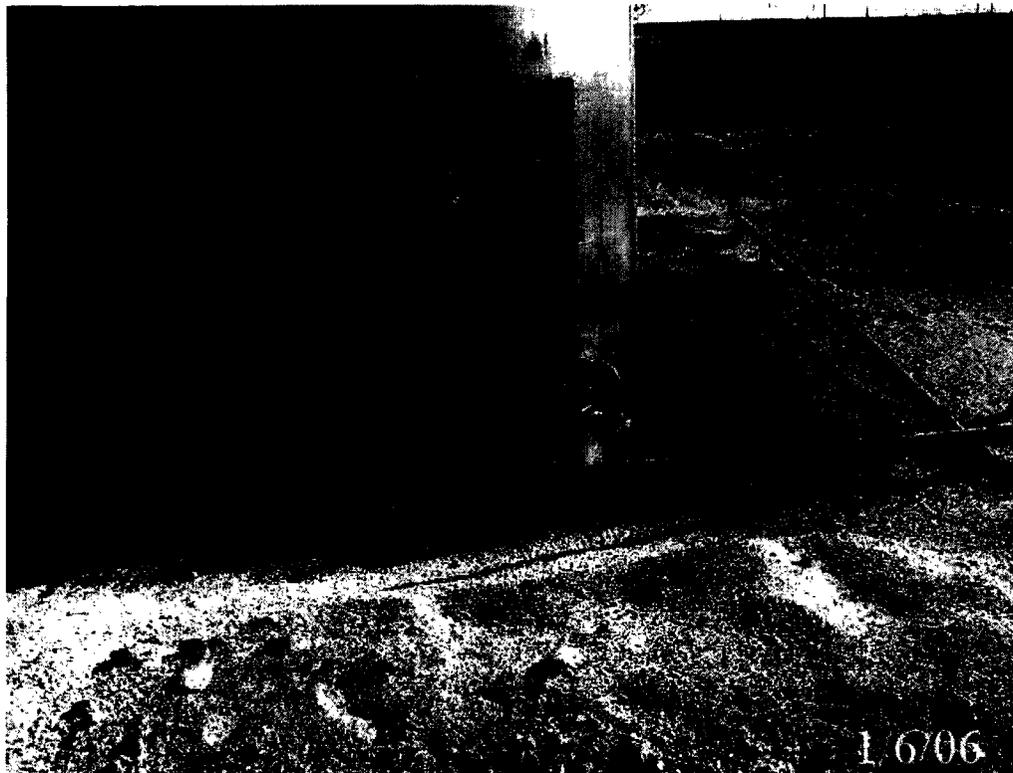
Delivered by:

APPENDIX II

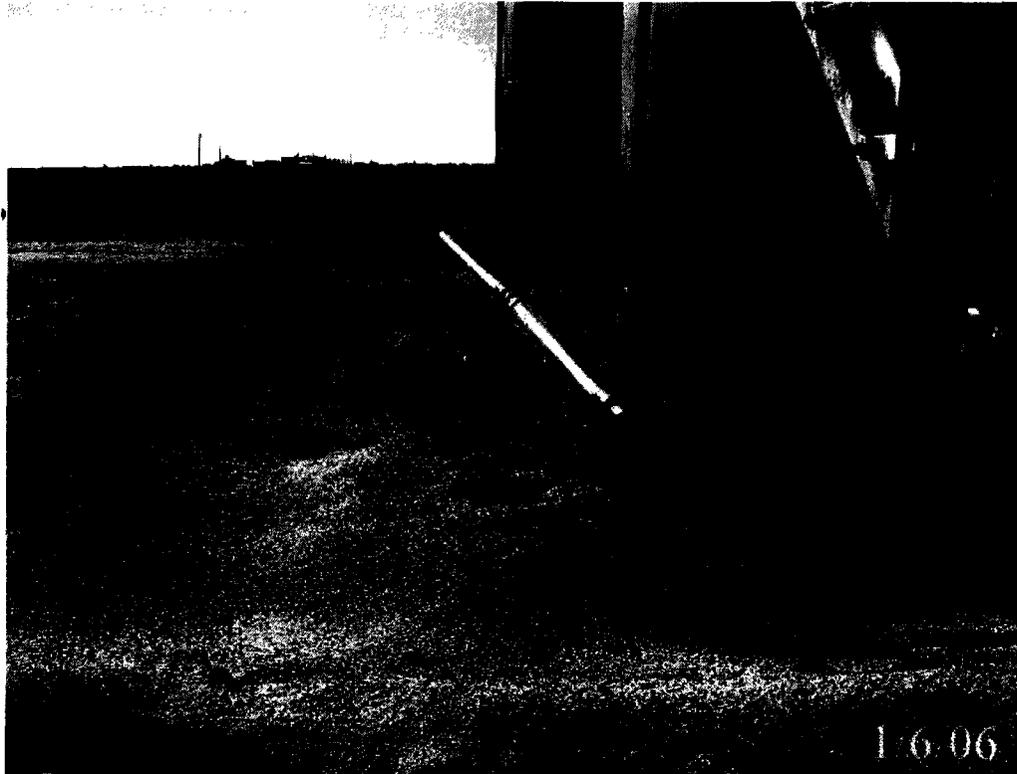
PROJECT PHOTOGRAPHS



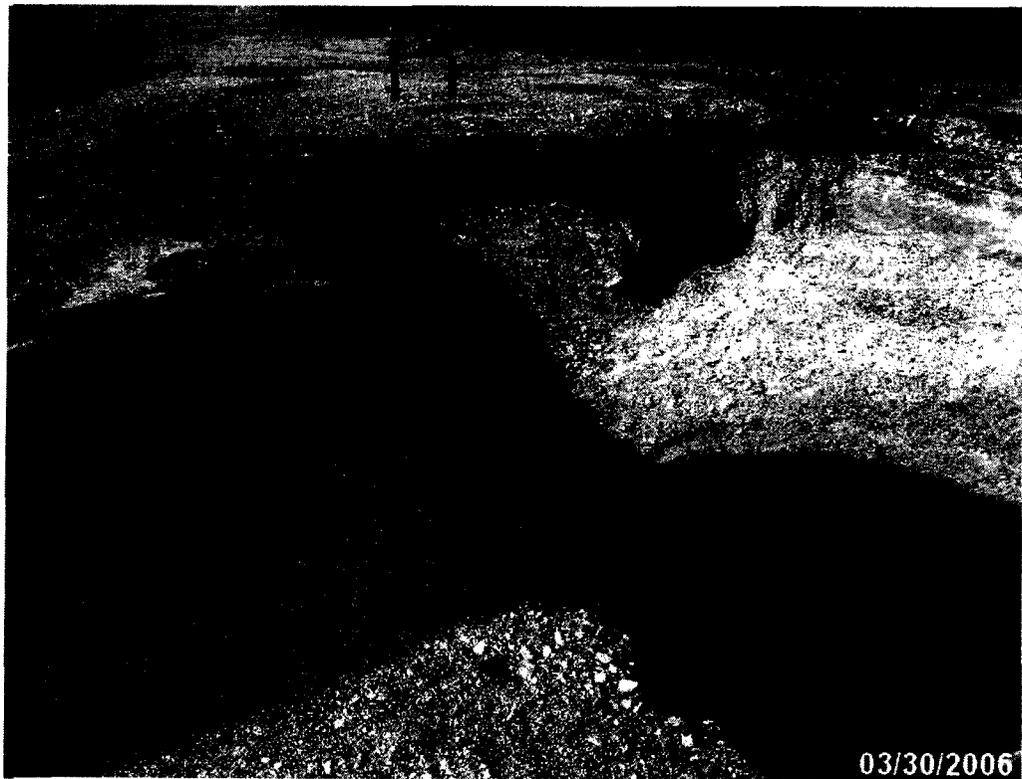
Photograph #1 – Lease Sign



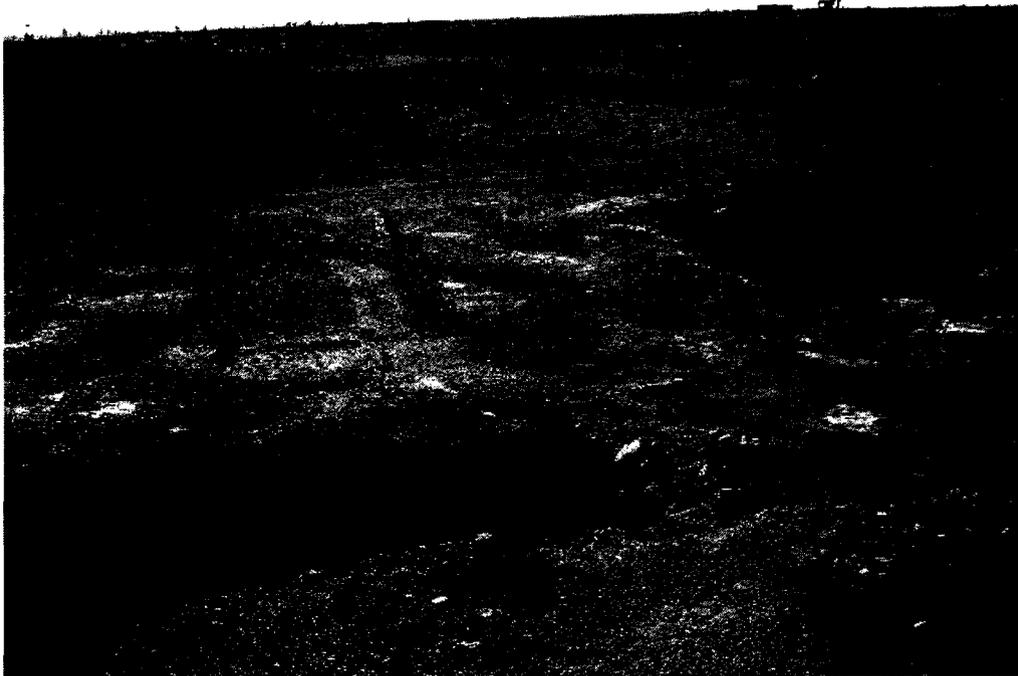
Photograph #2 – Looking east from southwest corner of bermed area at contamination



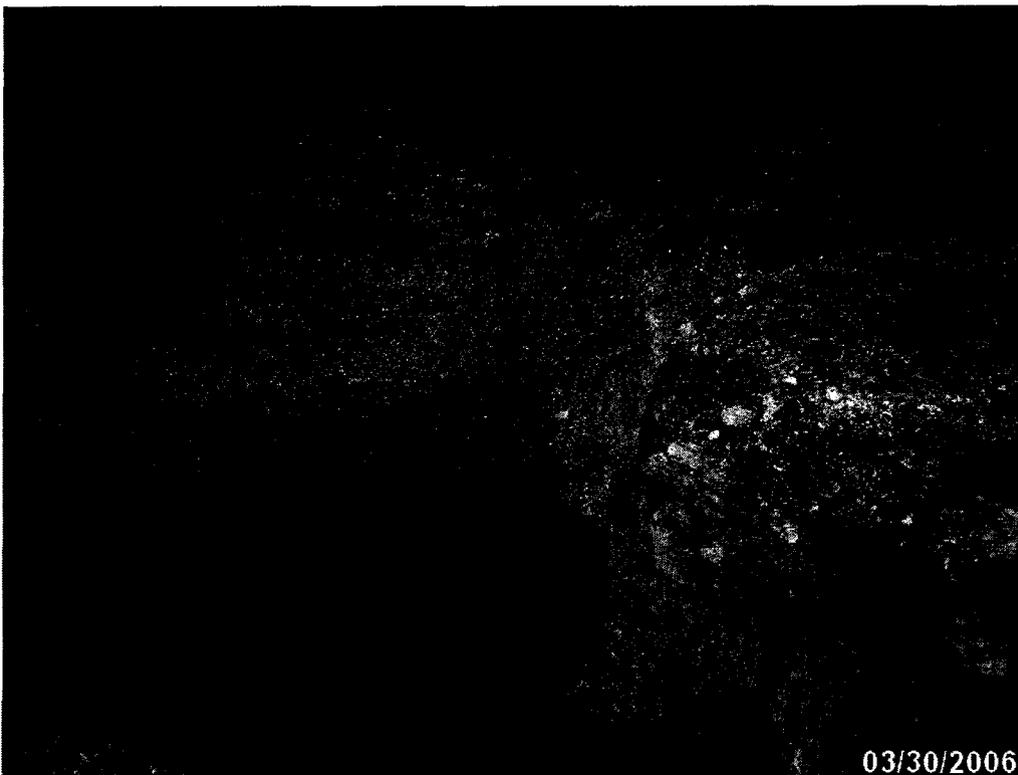
Photograph #3 – Looking southeasterly from the northwesterly corner of bermed area



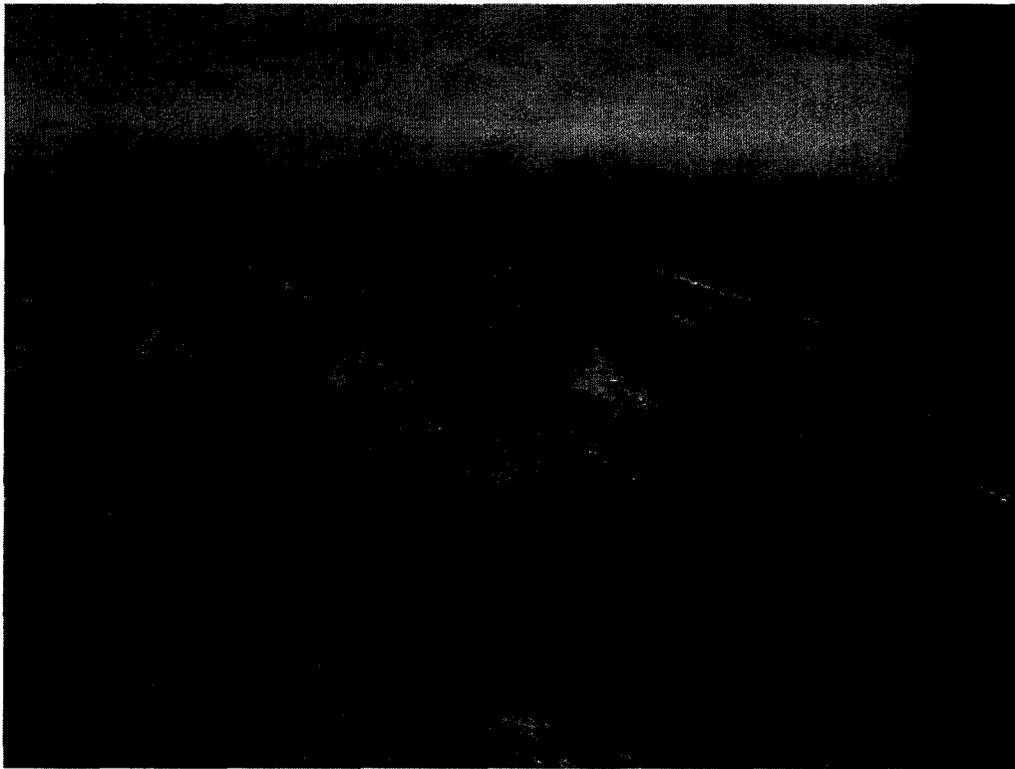
Photograph #4- Looking north at west sidewall of the excavation



Photograph #5 – Looking southeasterly at end of the excavation



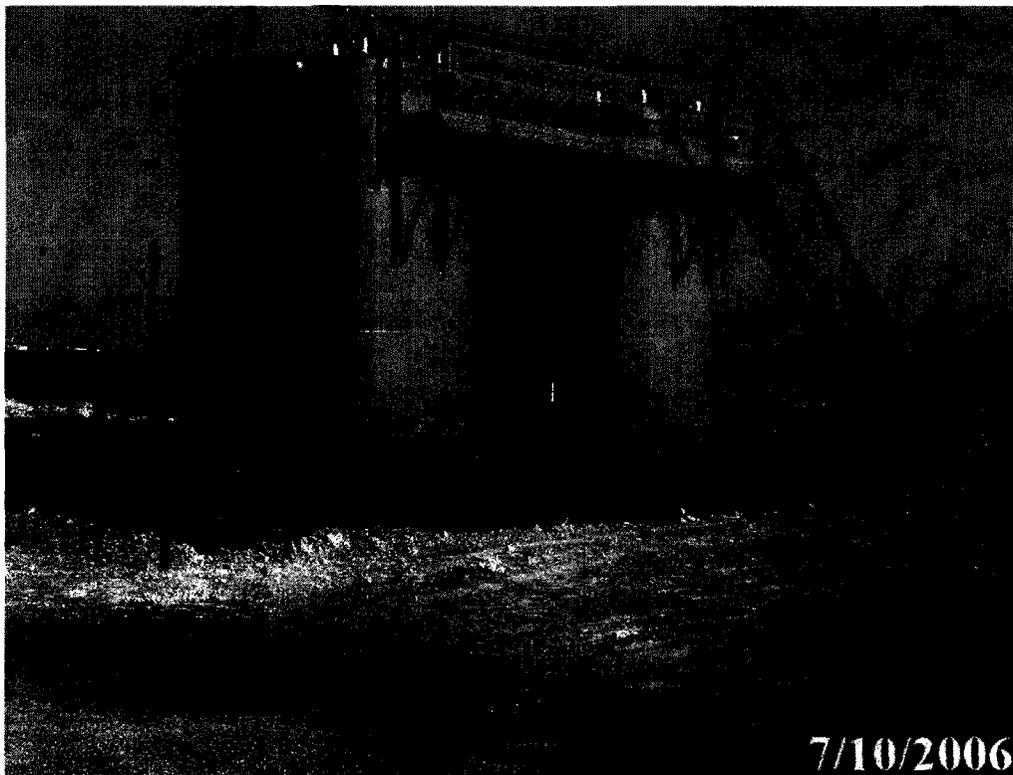
Photograph # 6 – Looking at northerly end of the excavation



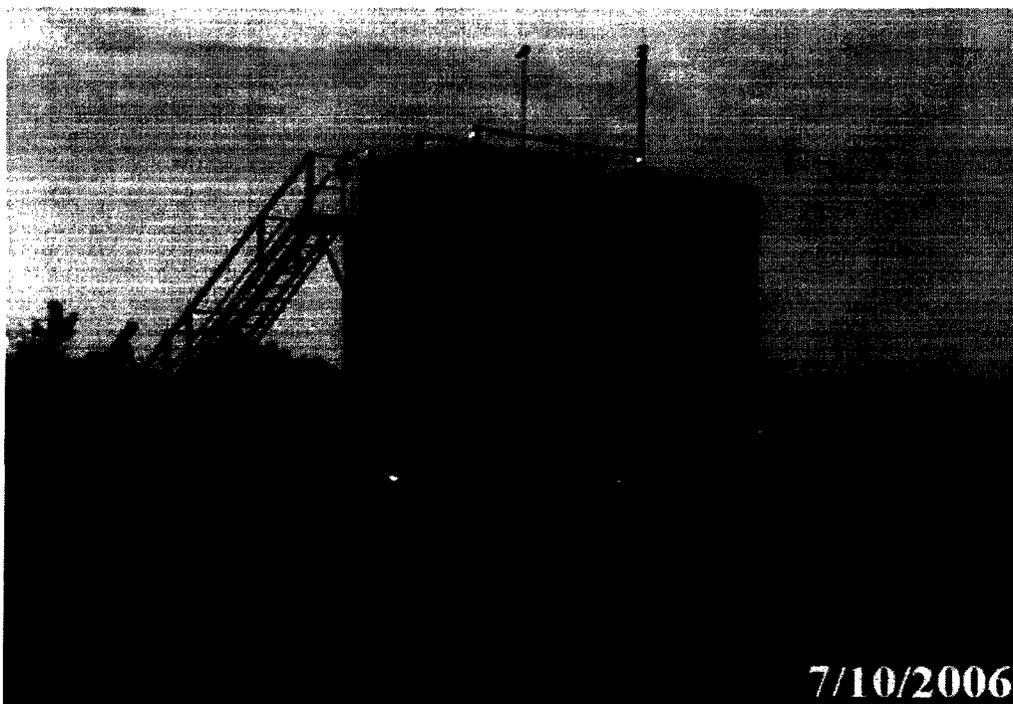
Photograph #7 – Looking southerly at backfilled and graded area



Photograph #8 – Looking northwesterly at backfilled and graded area



Photograph #9 – Looking westerly at completed Tank Battery and PVC liner



Photograph #10 – Looking southeasterly at Tank Battery and piping

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: 160043

Project Name: Chesapeake J.A. Akens-A-Oil Unit Battery

Location: UL-M, Section 3, Township 21 South, Range 36 East

Boring Number: SB-1

Surface Elevation: 3,579-feet amsl

Time	Sample Type	Recovery (Inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
								Start Date: <u>2-27-06</u> Time: <u>0715 hrs</u> Completion Date: <u>2-27-06</u> Time: <u>1136 hrs</u>
0800	DS	6	DRY	1,336	160			SAND, Brown to Tan/CALICHE
0824	SS	6	DRY	850	160		5	
0848	SS	6	DRY	436	160		10	
0944	SS	6	DRY	9.0	160		15	
1100	SS	6	DRY	2.9			20	
							25	End of Soil Boring at 20' bgs
							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

(NOTE - Page 1 of 1)



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

Project Number: 160043

Project Name: Chesapeake J.A. Akens-A-011 Unit Battery

Location: UL-M, Section 3, Township 21 South, Range 36 East

Boring Number: SB-2

Surface Elevation: 3,579-feet amsl

Time	Sample Type	Recovery (Inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
								Start Date: <u>2-27-06</u> Time: <u>1140 hrs</u>
								Completion Date: <u>2-27-06</u> Time: <u>1510 hrs</u>
1150	DS		DRY	786	240			SAND, Red to Tan/CALICHE
1200	SS	6	DRY	145	320	5		
1220	SS	6	DRY	9.6	400	10		
1300	SS	6	DRY	2.6	320	15		
								End of Soil Boring at 16' bgs

Water Level Measurements (feet)						Drilling Method: HSA 3.5' ID	
Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level	Backfill Method: Bentonite	
-	-	-	-	-	-	Field Representative: GB	

APPENDIX IV

FINAL COPY OF

NMOCD C-141 FORM



Information and Metrics

Incident Date:
1 January 2006

NMOCD Notified:
2 January 2006

Site: J.A. Akens -A- Oil Unit Tank Battery		Assigned Site Reference : #160043	
Company: Chesapeake Energy			
Street Address: 1616 West Bender			
Mailing Address: P.O. Box 190			
City, State, Zip: Hobbs, New Mexico 88240			
Representative: Bradley Blevins			
Representative Telephone: (505) 391-1462 ext. 6224			
Telephone:			
Fluid volume released (bbls): ~277 barrels		Recovered (bbls): ~144 barrels	
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
Leak, Spill, or Pit (LSP) Name: J.A. Akens -A- Oil Unit Tank Battery			
Source of contamination: Tank Battery			
Land Owner, i.e., BLM, ST, Fee, Other: Millard Deck Estate			
LSP Dimensions: 100 feet by 101 feet			
LSP Area: ~10,100 ft ²			
Location of Reference Point (RP):			
Location distance and direction from RP:			
Latitude: N 32° 30' 10.54"			
Longitude: W 103° 15' 36.76"			
Elevation above mean sea level: 3,579 feet			
Feet from North Section Line:			
Feet from West Section Line:			
Location- Unit or ¼¼: SW¼ of the SW¼		Unit Letter: T	
Location- Section: 3			
Location- Township: T21S			
Location- Range: R36E			
Surface water body within 1000' radius of site: none			
Domestic water wells within 1000' radius of site: none			
Agricultural water wells within 1000' radius of site: none			
Public water supply wells within 1000' radius of site: none			
Depth from land surface to groundwater (DG): ~198 feet			
Depth of contamination (DC): unknown			
Depth to groundwater (DG - DC = DtGW): ~198 feet			
1. Groundwater		2. Wellhead Protection Area	
If Depth to GW <50 feet: <i>20 points</i>		If <1000' from water source, or; <200' from private domestic water source: <i>20 points</i>	
If Depth to GW 50 to 99 feet: <i>10 points</i>		If >1000' from water source, or; >200' from private domestic water source: <i>0 points</i>	
If Depth to GW >100 feet: <i>0 points</i>			
		3. Distance to Surface Water Body	
		<200 horizontal feet: <i>20 points</i>	
		200-1000 horizontal feet: <i>10 points</i>	
		>1000 horizontal feet: <i>0 points</i>	
Site Rank (1+2+3) = 0			
Total Site Ranking Score and Acceptable Concentrations			
Parameter	>19	10-19	0-9
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

¹100 ppm field VOC headspace measurement may be substituted for lab analysis

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

Form C-141
Revised October 10, 2003

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

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: P.O. Box 190	Telephone No.: (505) 391-1462 ext. 6224
Facility Name: J.A. Akens -A- Oil Unit Tank Battery	Facility Type: Tank Battery

Surface Owner: Millard Deck Estate	Mineral Owner:	Lease No.:
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
T	3	21S	36E					Lea

Latitude: N 32° 30' 10.54" **Longitude:** W 103° 15' 36.76"

NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: ~ 277 bbls	Volume Recovered: ~144 bbls
Source of Release: Tank Battery	Date and Hour of Occurrence: January 1, 2006, P. M.	Date and Hour of Discovery: January 2, 2006, A. M.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Gary Wink, NMOCD	
By Whom? Ralph Skinner	Date and Hour: January 2, 2006, A. M.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.* A steel storage tank located in a tank battery developed a leak in the sidewall near the interface with the bottom. Approximately 277 barrels of crude oil were released on the ground with recovery of approximately 144 barrels. After remedial action on the location is completed, a new tank battery will be erected within the confines of an earthen berm and underlain with a polyvinyl chloride liner acting as an impervious barrier.

Describe Area Affected and Cleanup Action Taken.* The primary release area consisted of approximately 1,070 ft² with an overspray area of approximately 10,100 ft². The overspray area was immediately sprayed with MicroBlaze to treat surface contamination. Remediation activities for the release area were conducted as follows: a.) approximately 322 cubic yards of contaminated soil were excavated with disposal at J & L Landfarm, Inc. and Sundance Services, Inc.; b.) laboratory analyses confirmed removal of soil above NMOCD remedial threshold goals with the exception of some isolated areas; c.) areas with elevated chloride and TPH concentrations should not be capable of impacting groundwater above NMWQCC groundwater standards due to depth of groundwater and dense caliche overburden; d.) backfilled excavated areas with caliche to top of original ground; e.) graded disturbed area to a level, uniform gradient; f) demolished old facilities and replaced with new tankage and piping system underlain with a polyethylene barrier and enclosed within an earthen berm

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:	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Bradley Blevins	Approved by District Supervisor <i>Enrico Enge</i>	
Title: Field Supervisor	Approval Date: 11.8.06	Expiration Date:
E-mail Address: bblevins@chkenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 16 February 2006 Phone: (505) 391-1462 ext. 6224		

* Attach Additional Sheets If Necessary

IRP# 386

LETTER OF TRANSMITTAL

ENVIRONMENTAL PLUS, INC.



Date: October 26, 2006
To: **Mr. Larry Johnson**
Company Name: New Mexico Oil Conservation Division - Hobbs
Address: 1625 North French Drive
City / State / Zip: Hobbs, New Mexico 88240
From: David P. Duncan
CC: Bradley Blevins – Chesapeake Energy – Hobbs, NM
Curtis Blake – Chesapeake Energy – Hobbs, NM
Harlan Brown – Chesapeake Energy – Oklahoma City, OK
Tim Wolters – Estate Manager – Midland, TX
Project #: NMOCD Ref.1RP#386; EPI Ref. #160043
Project Name: J.A. Akens –A- Oil Unit Tank Battery
Subject: **Closure Report**

# of originals	# of copies	Description
1		Chesapeake Operating : J.A. Akens –A- Oil Unit Tank Battery

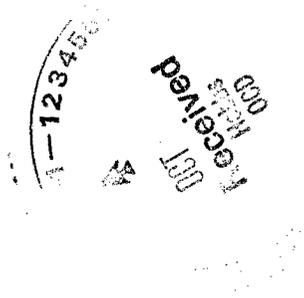
Remarks:

Dear Mr. Johnson:

Enclosed is the Closure Report for the above referenced site. Copies of the report were distributed to appropriate Chesapeake Operating personnel and the Estate Manager for the Millard Deck Estate as noted above. Should you have any questions or concerns, please contact me at (505) 394-3481 or via email at dduncan@envplus.net.

Sincerely,

David P. Duncan
Civil Engineer



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