CLOSURE REPORT

WILL 7A FEE #1 DRILLING PIT

EPI REF: 160025

UL=A (NE¼ OF THE NE¼) OF SECTION 7 T23S R28E

~9.0 MILES SOUTHEAST OF CARLSBAD

EDDY COUNTY, NEW MEXICO

LATITUDE: N 32° 19' 30.76" LONGITUDE: W 104° 07' 16.97"

FEBRUARY 2007

PREPARED BY:

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

PREPARED FOR:

Chesapeake

Distribution List

Will 7A Fee #1 Drilling Pit

(EPI Ref. #160025)

Name	Title	Company or Agency	Mailing Address	e-mail
Mike Bratcher	Environmental Engineer	NMOCD	1301 West Grand Avenue Artesia, NM 88210	mbratcher@state.nm.us
Harlan M. Brown	Senior Environmental Representative	Chesapeake Energy Corporation	6100 N. Western Avenue Oklahoma City, Oklahoma 73118	hbrown@chkenergy.com
Bradley Blevins	Field Supervisor	Chesapeake Operating, Inc.	P.O. Box 190 Hobbs, New Mexico 88240-0190	bblevins@chkenergy.com
John Brantley	Landowner	--	1304 West Riverside Drive Carlsbad, NM 88220	--
File	--	EPI	P. O. Box 1558 Eunice, NM 88231	dduncan@envplus.net

NMOCD - New Mexico Oil Conservation Division
EPI - Environmental Plus, Inc.

STANDARD OF CARE

Closure Report

Will 7A Fee #1 Drilling Pit

(EPI Ref. #160025)

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:

Brandon Farrar
Environmental Consultant

3/2/07
Date

This report was reviewed by:

David P. Duncan
Civil Engineer

3-02-07
Date

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APPENDICES

1.0 PROJECT SYNOPSIS

Site Specific:

- ***Company Name:*** Chesapeake Operating, Inc.
- ***Facility Name:*** Will 7A Fee #1
- ***Project Reference:*** EPI Ref. #160025
- ***Company Contacts:*** Bradley Blevins
- ***Site Location:*** WGS84 N32° 19' 30.76"; W104° 07' 16.97"
- ***Legal Description:*** Unit Letter-A, (NE¼ of the NE¼), Section 7, T 23S, R 28E
- ***General Description:*** Approximately 9.0 miles southeast of Carlsbad, New Mexico
- ***Elevation:*** 3,041-ft amsl
- ***Land Ownership:*** John Brantley
- ***EPI Personnel:*** Project Consultant – David Duncan

Release Specific:

- ***Product Released:*** Not applicable
- ***Volume Released:*** Not applicable
- ***Volume Recovered:*** Not applicable
- ***Time of Occurrence:*** Not applicable
- ***Time of Discovery:*** Not applicable
- ***Release Source:*** Not applicable
- ***Initial Surface Area Affected:*** ~22,800-ft^2

Remediation Specific:

- ***Final Vertical extent of contamination:*** Not applicable
- ***Depth to Ground Water:*** <50-ft
- ***Water wells within 1,000-ft:*** four (4)
- ***Private domestic water sources within 200-ft:*** None
- ***Surface water bodies within 1,000-ft:*** None
- ***NMOCD Site Ranking Index:*** 40 points
- ***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/L and 600 mg/L, respectively.
- ***RCRA Waste Classification:*** Exempt
- ***Remediation Option Selected:*** a) stiffened and excavated all drilling mud from pit area including the liner to at least six (6) inches below drill pit bottom; b) collected soil samples from excavation floor and sidewalls with submittal to an independent laboratory for quantification of TPH, BTEX constituents, chloride and sulfate concentrations; c) based on laboratory analyses, additional impacted soil was excavated as necessary; d) transported impacted soil to Controlled Recovery Inc. for disposal; e) installed 20-mil polyethylene liner in bottom of the drill pit over areas of elevated chloride concentrations to prevent vertical migration of contaminants; f) backfilled excavation with clean soil and graded/contoured to allow natural drainage; g) will seed the remediation area with a blend suitable to the landowner.
- ***Disposal Facility:*** Controlled Recovery, Inc.
- ***Volume disposed:*** approximately 3,940 yds^3 (combination of drilling mud and impacted soil)
- ***Project Completion Date:*** 29 March 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 rangeland in native grasses utilized for livestock grazing along with oilfield operations.

2.2 ***Identify and describe the source or suspected source(s) of the release.***
Not applicable.

2.3 ***What is the volume of the release? (if known):*** Not applicable ***barrels of*** Not applicable

2.4 ***What is the volume recovered? (if any):*** Not applicable ***barrels***

2.5 ***When did the release occur? (if known):*** Not applicable

2.6 ***Geological Description***
The New Mexico Bureau of Mines and Mineral Resources Ground-Water Report 3, "Geology and Ground-Water Resources of Eddy County, New Mexico," G.E. Hendrickson and R.S. Jones, 1952, describes the near surface geology near the release site as "Quaternary deposits" composed of older "Quartzose conglomerate that ranges in thickness from a feather edge to more than 300 feet and consists of clay, silt, sand, gravel and conglomerate."

2.7 ***Ecological Description***
The area is typically of the Upper Chihuahuan Desert Biome consisting primarily of sandy soil covered with short semi-arid grasses, interspersed with Honey Mesquite and forbs. Mammals represented include Ord'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 <50-ft bgs based on water depth data obtained from the New Mexico State Engineers Office and United States Geological Survey data base. Groundwater was encountered at approximately 17-ft bgs during the advancement of soil borings BH-1 and BH-2 on October 20, 2005.

2.9 ***Area Water Wells***
Four (4) water supply wells exist within a 1,000 foot radius of the release site (reference *Figure 2*).

2.10 ***Area Surface Water Features***
No surface water features exist within a 1,000-foot radius of the release site.

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 groundwater);*
- *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 twenty (20) 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: *20 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) = 20 + 20 + 0 = 40 points		

Total Site Ranking Score and Acceptable Remedial Goal Concentrations			
Ranking Score	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: 09-29-05 through 10-14-05

Total volume removed: approximately 3,940 yds^3 (combination of drilling mud and impacted soil)

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

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

Name and location of treatment/disposal facility:
Controlled Recovery Inc., Lea County, New Mexico

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 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 and calibrated for benzene response.

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 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. Prior to the collection of each sample, the sampling instrument was decontaminated with an Alconox solution.

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), chloride and sulfate concentrations.

5.3 Discuss sample locations and provide rationale for their locations.

On October 12, 2005 nine (9) soil samples were collected from the pit floor. On October 14, 2005 eight (8) soil samples were collected from the pit sidewalls (reference *Figure 4* for locations).

On October 20, 2005 two soil borings (BH-1 and BH-2) were advanced to approximately 20-feet bgs. Soil samples were collected from the soil borings at intervals 10-, 15- and 20-feet bgs (reference *Figure 5* for locations).

On March 8, 2006 eight (8) soil samples were collected from the pit floor (reference *Figure 6* for locations).

Sample locations within the pit area were chosen to provide the best representative area to delineate vertical extent of impacted soil.

6.0 ANALYTICAL RESULTS

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

Laboratory analytical results for soil samples collected on October 12, 2005 indicated chloride concentrations ranged from 96 mg/Kg (WSSW-12 @ 4-ft bgs) to 4,000 mg/Kg (SESW-10 @ 4-ft bgs) (reference *Table 1* for laboratory analytical data).

Laboratory analytical results for soil samples collected on October 14, 2005 indicated chloride concentrations ranged from 512 mg/Kg (WM-4 @ 8-ft bgs) to 15,900 mg/Kg (NWC-9 @ 8-ft bgs) (reference *Table 1* for laboratory analytical data).

A review of Table 3, *Summary of Soil Boring Soil Sample Field and Laboratory Analytical Results*, for soil samples collected on October 20, 2005 from soil boring BH-1 and BH-2 indicated BTEX and TPH constituents were not detected at or above each analytes respective MDL. However, analytical data indicated chloride concentrations ranged from 455 mg/Kg (BH-2 @ 20-ft bgs) to 3,120 mg/Kg (BH-1 @ 10-ft bgs).

Laboratory analytical results for soil samples collected on March 8, 2006 indicated chloride concentrations ranged from 128 mg/Kg (SP-1 @ 1-ft bgs) to 5,198 mg/Kg (SP-8 @ 2.5-ft bgs) (reference *Table 1* for laboratory analytical data).

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.

Not applicable.

7.0 DISCUSSION

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

While chloride impacted soil remaining in-situ may be capable of impacting groundwater above NMWQCC groundwater standards, areas with elevated chloride impacted soils were covered by 20-mil polyethylene liner to abate vertical migration of contaminants.

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.***

An impervious 20-ml thick polyethylene liner was installed in the bottom of the pit over areas of elevated chloride concentrations. The polyethylene liner was sandwiched between two (2) one (1) foot layers of cushion sand. After backfilling operations were completed, the disturbed area was graded and contoured to allow natural drainage.

8.3 ***If additional groundwater 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

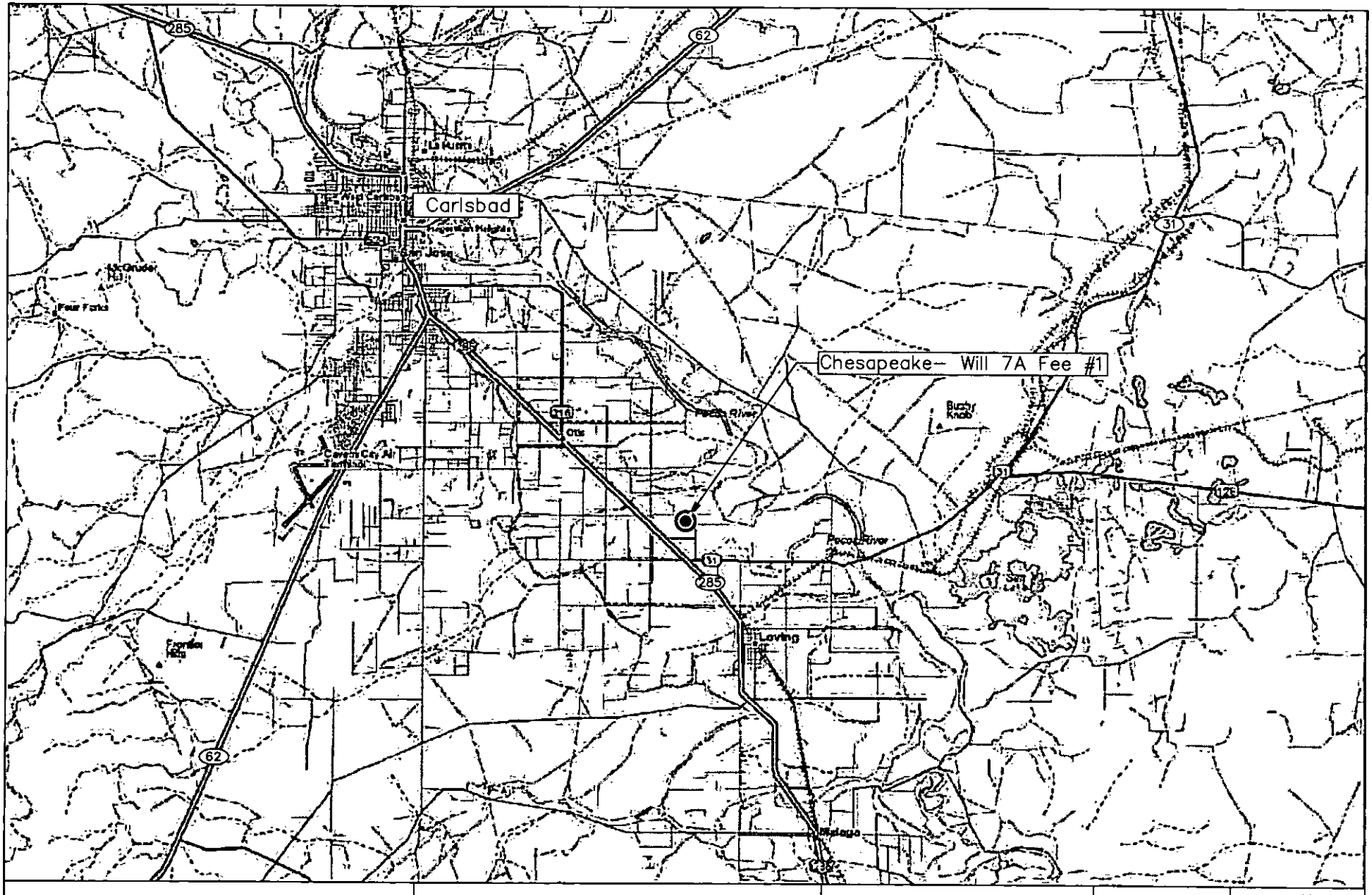


Figure 1 Area Map Chesapeake Will 7A Fee #1	Eddy County, New Mexico NE 1/4 of the NE 1/4, Sec. 7, T23S, R28E N 32° 19' 30.76" W 104° 07' 16.97" Elevation: 3,041 feet amsl	DWG By: Jason Stegemoller August 2005	REVISED:
		0 3.0 6.0 Miles	SHEET 1 of 1
			N

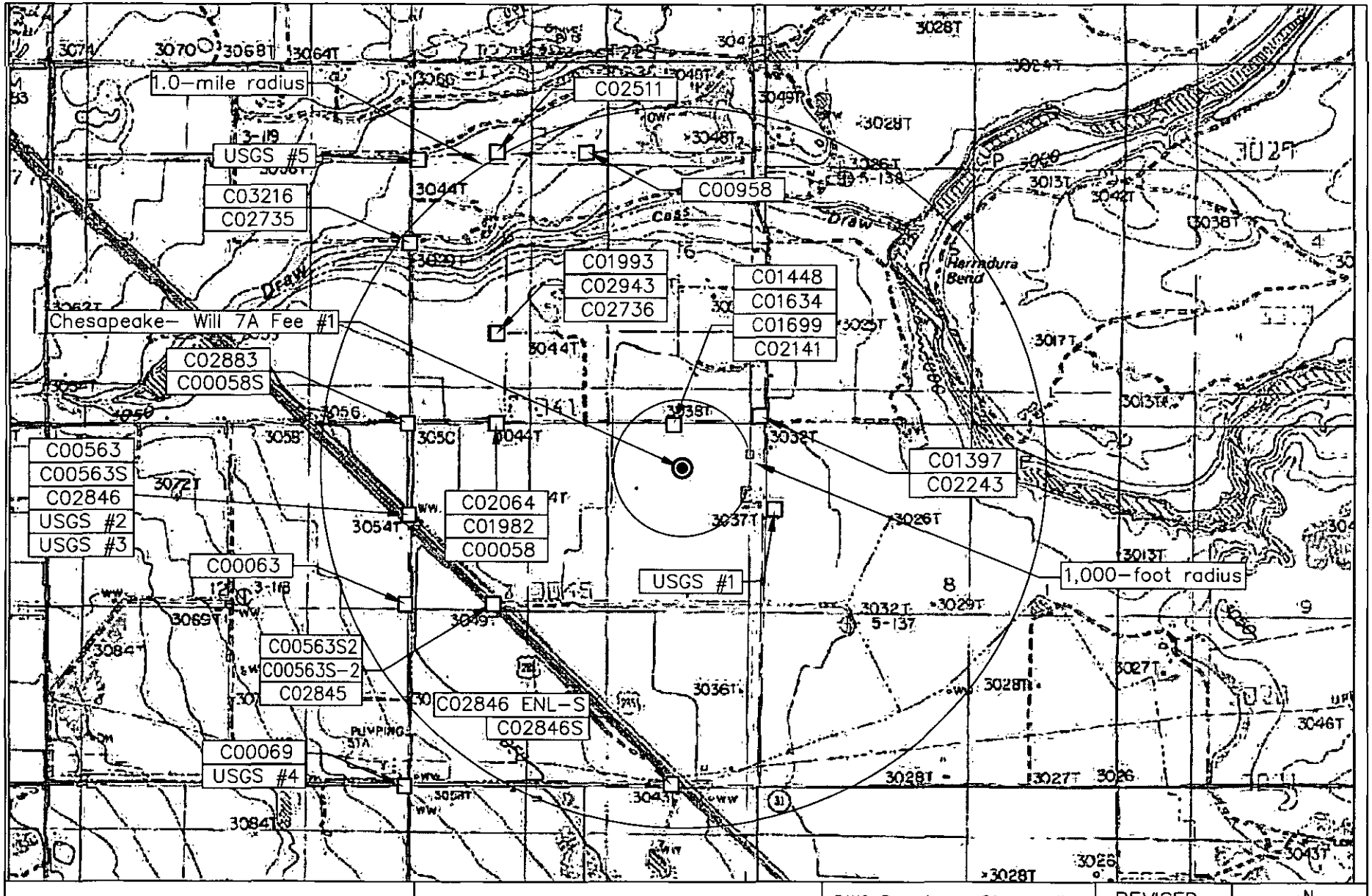


Figure 2 Site and Well Location Map Chesapeake Will 7A Fee #1	Eddy County, New Mexico NE 1/4 of the NE 1/4, Sec. 7, T23S, R28E N 32° 19' 30.76" W 104° 07' 16.97" Elevation: 3,041 feet amsl	DWG By: Jason Stegemoller August 2005	REVISED:
		0 2,000 4,000 Feet	SHEET 1 of 1

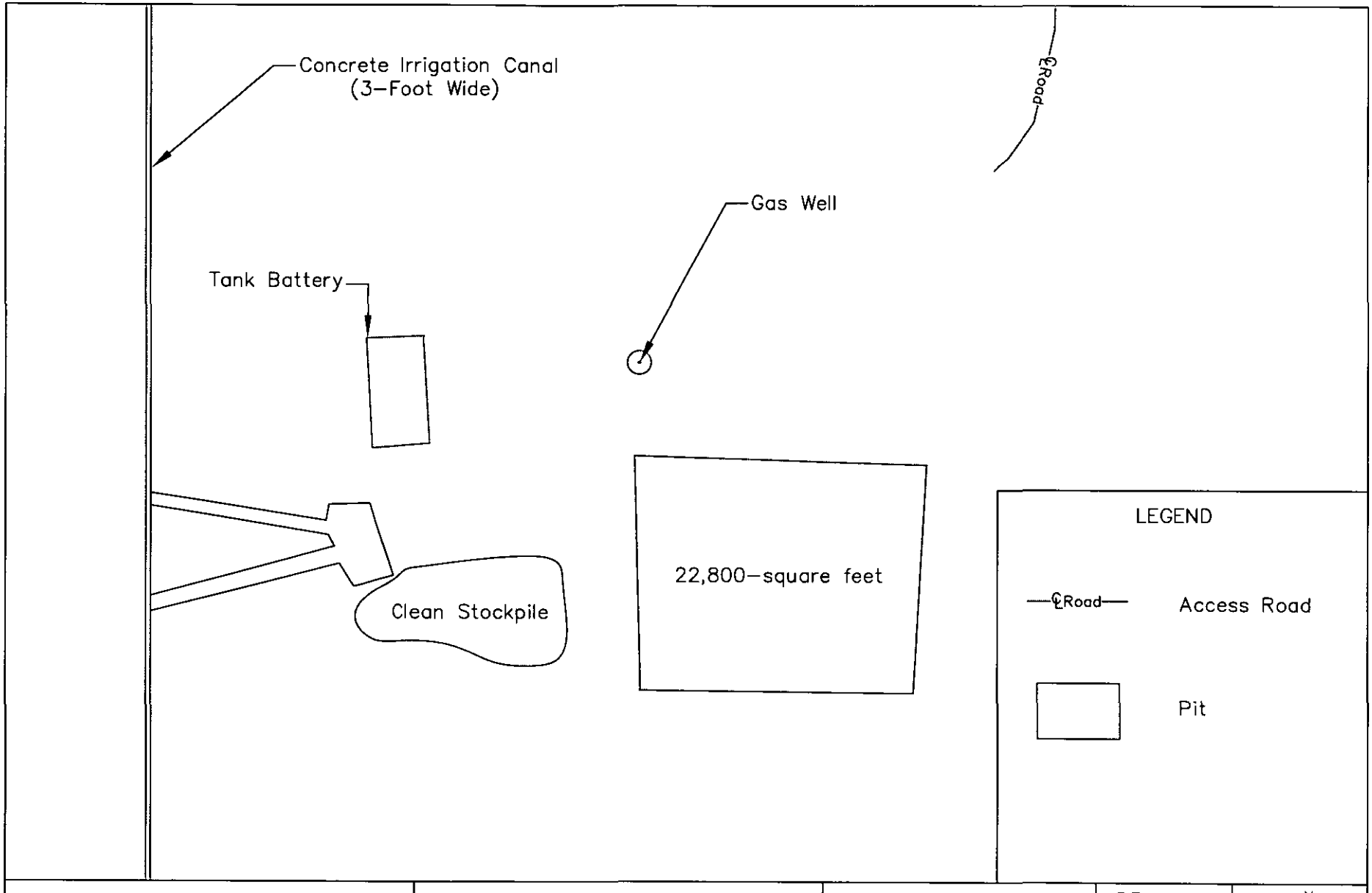


Figure 3 Site Map Chesapeake Will 7A Fee #1	Eddy County, New Mexico NE 1/4 of the NE 1/4, Sec. 7, T23S, R28E N 32° 19' 30.76" W 104°07' 16.97" Elevation: 3,041 feet amsl	DWG By: Jason Stegemoller August 2005 REVISED: 0 90 180 Feet SHEET 1 of 1	N

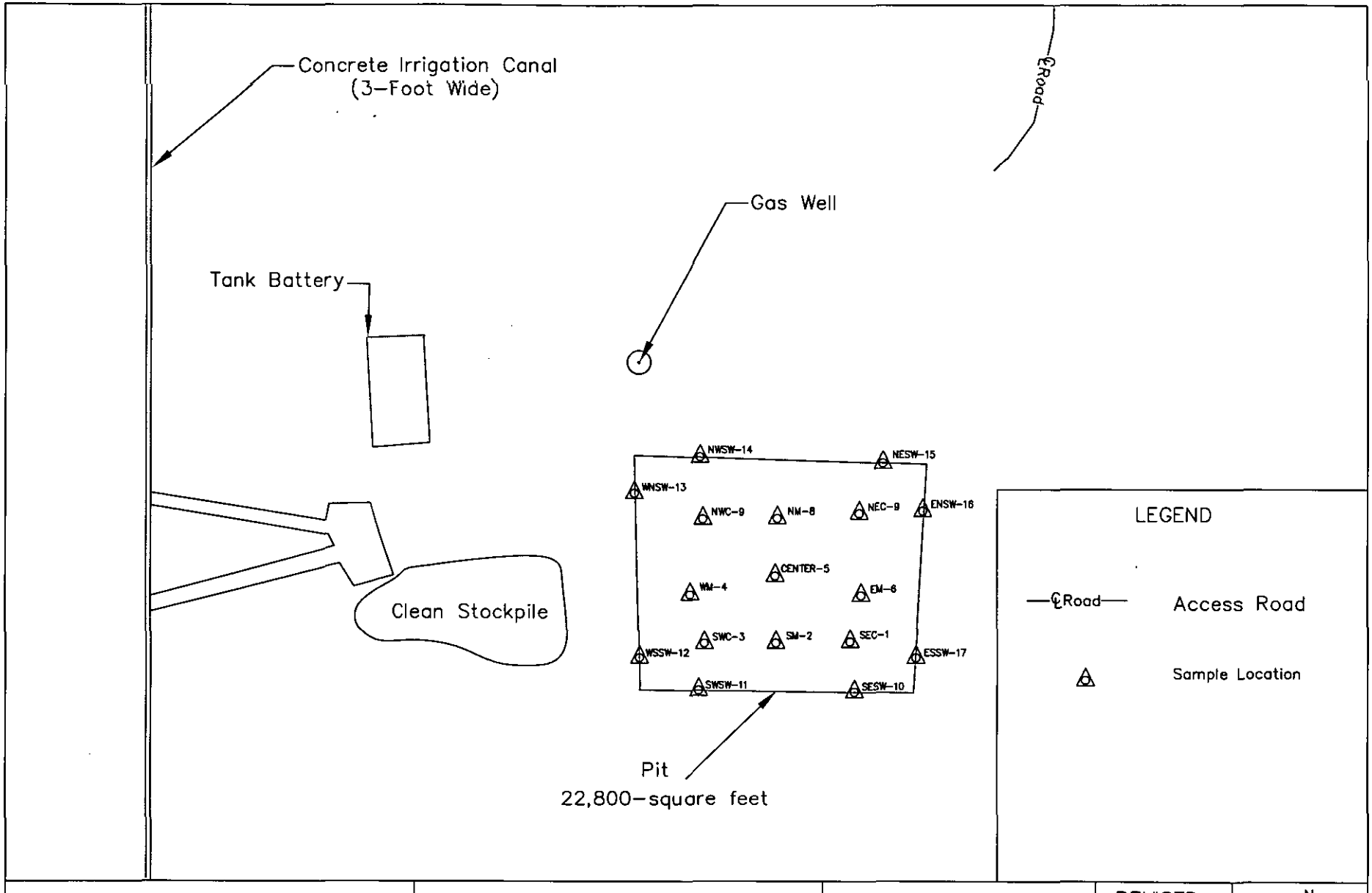


Figure 4 Sample Location Map – 10/12/05 Chesapeake Will 7A Fee #1	Eddy County, New Mexico NE 1/4 of the NE 1/4, Sec. 7, T23S, R28E N 32° 19' 30.76" W 104°07' 16.97" Elevation: 3,041 feet amsl	DWG By: Jason Stegemoller August 2005	REVISED: Nov 2005	N
		0 90 180 Feet	SHEET 1 of 1	

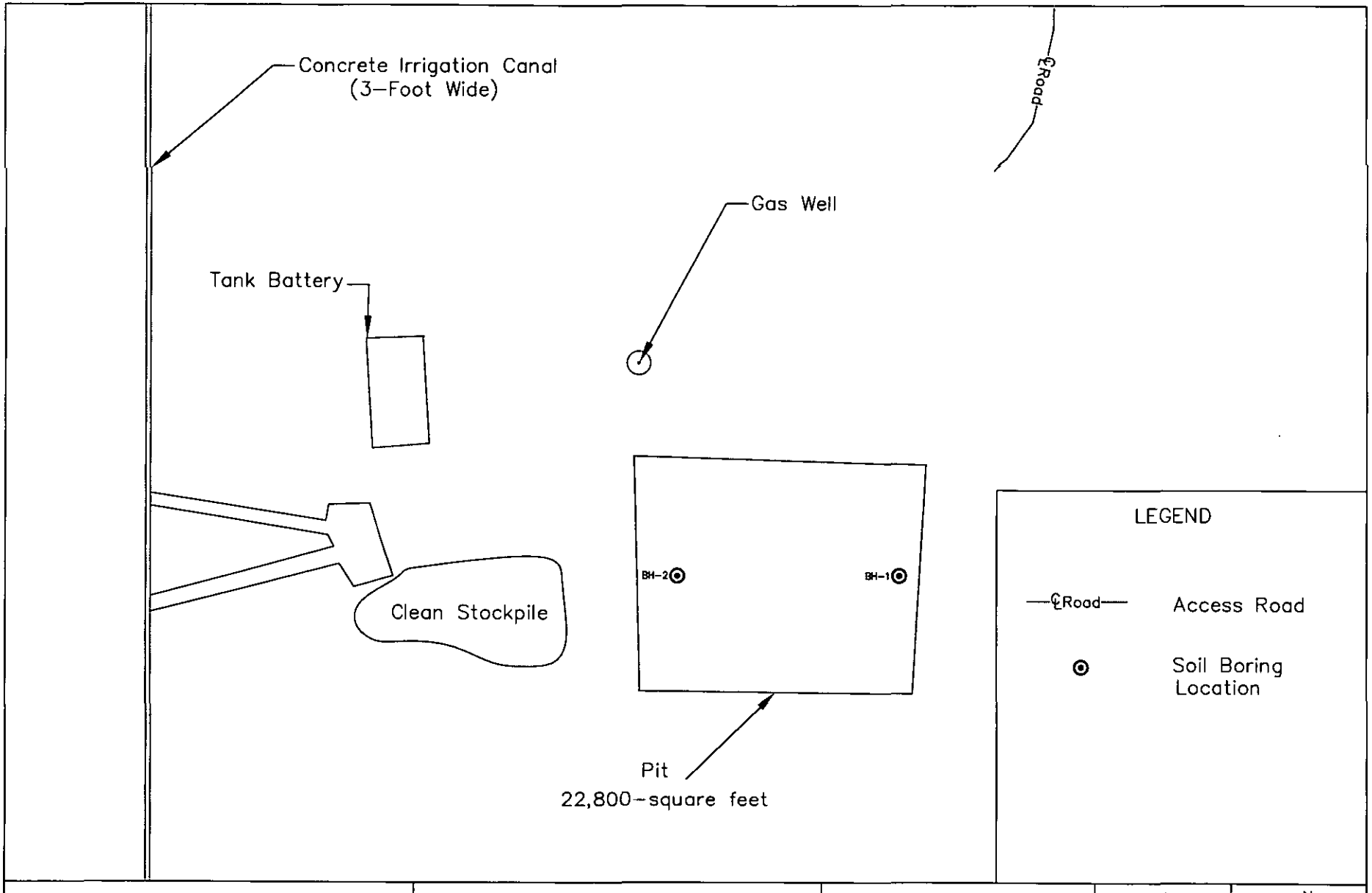


Figure 5 Soil Boring Location Map – 10/20/05 Chesapeake Will 7A Fee #1	Eddy County, New Mexico NE 1/4 of the NE 1/4, Sec. 7, T23S, R28E N 32° 19' 30.76" W 104°07' 16.97" Elevation: 3,041 feet amsl	DWG By: Jason Stegemoller August 2005	REVISED: Nov 2005	N
		0 90 180 Feet	SHEET 1 of 1	

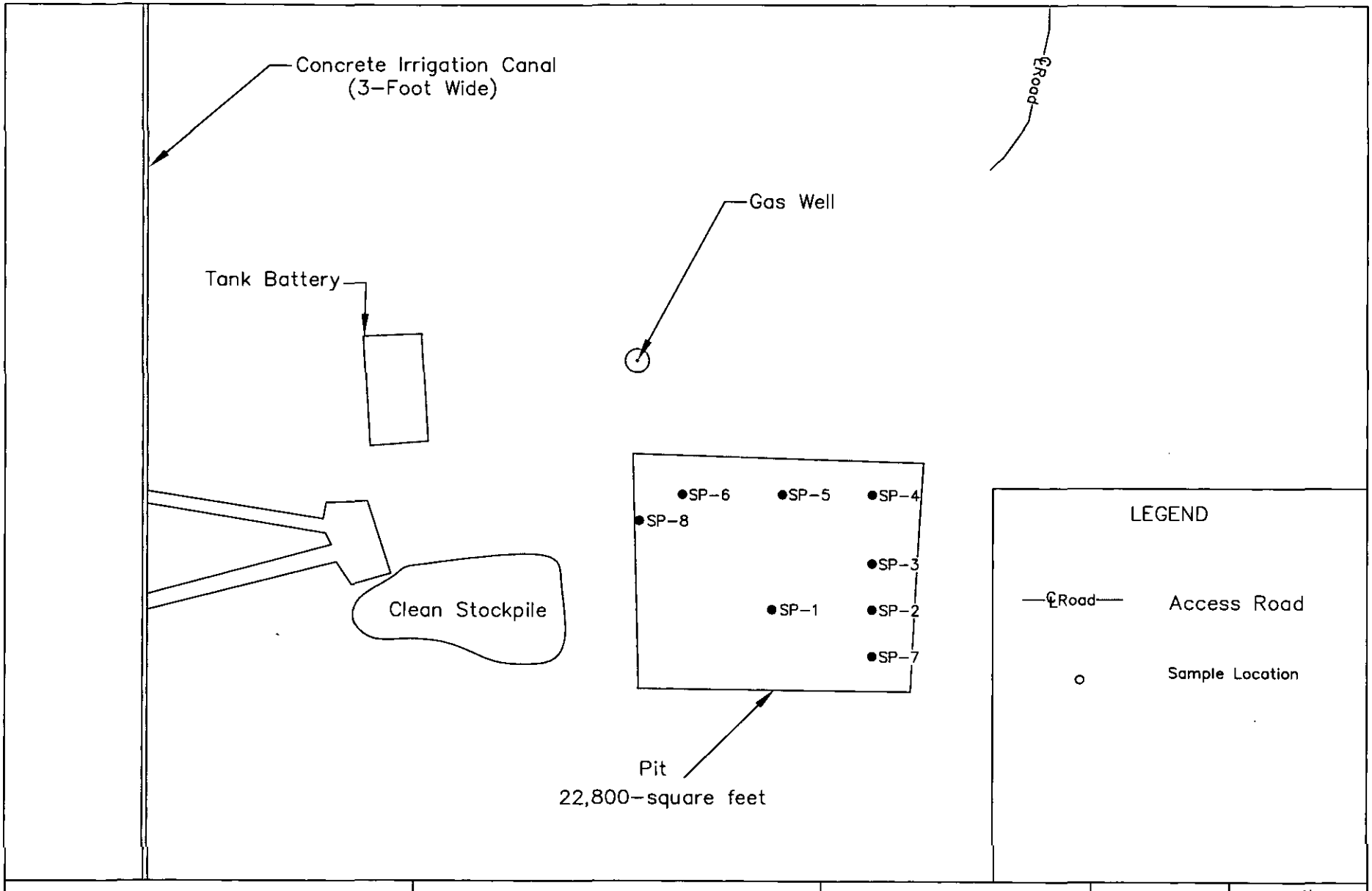


Figure 6 Sample Location Map – 3/8/06 Chesapeake Will 7A Fee #1	Eddy County, New Mexico NE 1/4 of the NE 1/4, Sec. 7, T23S, R28E N 32° 19' 30.76" W 104°07' 16.97" Elevation: 3,041 feet amsl	DWG By: Jason Stegemoller August 2005 0 90 180 Feet	REVISED: Feb 2007 SHEET 1 of 1

TABLES

TABLE 1

Well Data

Chesapeake Energy Will 7A #1 (Ref. #160025)

Well Number	Diversion[A]	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Well Depth (ft bgs)	Depth to Water (ft bgs)
C 00563	45	Brantley Draper	IRR	23S	28E	07 1 1 3	32° 19' 24.11"	104° 08' 4.32"			
C 00563 S		Brantley Draper		23S	28E	07 1 1 3	32° 19' 24.11"	103° 08' 4.32"			
C 00563 S-2		Brantley Draper		23S	28E	07 1 4 3	32° 19' 11"	103° 07' 49.37"			
C 00063	120	W W Galton	IRR	23S	28E	07 1 3 1	32° 19' 10.93"	103° 08' 4.46"	31-Dec-45	130	
C 00069	234.537	Juan H. Villa	IRR	23S	28E	07 3 3 3	32° 18' 44.58"	104° 08' 4.75"			
C 00069	328.5	Miguela C. Villa	IRR	23S	28E	07 3 3 3	32° 18' 44.58"	104° 08' 4.75"			
C 00069	351.215	New Mexico Interstate Stream Commission	IRR	23S	28E	07 3 3 3	32° 18' 44.58"	104° 08' 4.75"			
C 00563	1,113	Brantley Draper	IRR	23S	28E	07 1 1 3	32° 19' 24.11"	103° 08' 4.32"			
C 00563 S		Brantley Draper		23S	28E	07 1 1 3	32° 19' 24.11"	103° 08' 4.32"			
C 00563	15	Brantley Draper		23S	28E	07 1 1 3	32° 19' 24.11"	103° 08' 4.32"			
C 00563 S		Brantley Draper		23S	28E	07 1 1 3	32° 19' 24.11"	103° 08' 4.32"			
C 00563 S-2		Brantley Draper		23S	28E	07 1 4 3	32° 19' 11"	103° 07' 49.37"			
C 00563 S2		Brantley Draper		23S	28E	07 1 4 3	32° 19' 11"	103° 07' 49.37"			
C 02845	0	Brantley Bros.	EXP	23S	28E	07 1 4 3	32° 19' 11"	103° 07' 49.37"		220	
C 02846	57	Brantley Bros.	COM	23S	28E	07 1 1 4	32° 19' 24.11"	103° 08' 4.32"	31-Dec-38	60	50
C 02846 ENL-S		Brantley Bros.		23S	28E	07 4 4 4	32° 18' 44.81"	103° 07' 18.72"			
C 02846 S		Brantley Bros.		23S	28E	07 4 4 4	32° 18' 44.81"	103° 07' 18.72"	18-Apr-03	150	40
C 00058	392.1	Farm Credit of New Mexico	IRR	23S	28E	06 3 4 3	32° 19' 37.33"	103° 07' 49.14"	06-May-48	185	20
C 00058 S		Farm Credit of New Mexico		23S	28E	06 3 3 3	32° 19' 37.29"	103° 08' 4.17"	13-Mar-02	202	60
C 00058	186.3	Joe N. Carrasco	IRR	23S	28E	06 3 4 3	32° 19' 37.33"	103° 07' 49.14"	06-May-48	185	20
C 00958	3	Jerry F. Ballard	DOM	23S	28E	06 2 1 2	32° 20' 16.9"	104° 07' 33.42"	09-Aug-61		
C 01397	0	Gomez Ramon	IRR	23S	28E	06 4 4					
C 01448	0	Gomez Ramon	IRR	23S	28E	06 4 4	32° 19' 37.45"	104° 07' 18.35"			
C 01634	3	Grady O. Dodson	DOM	23S	28E	06 4 2	32° 19' 50.62"	103° 07' 18.21"	03-Feb-76	185	85
C 01699	3	Tom McIlvain	DOM	23S	28E	06 4 2	32° 19' 50.62"	103° 07' 18.21"	15-Jul-77	90	65
C 01982	0	Justin Magby	DOM	23S	28E	06 3 4	32° 19' 37.33"	103° 07' 49.14"			
C 01993	3	Read & Stevens	PRO	23S	28E	06 3 2	32° 19' 50.51"	103° 07' 49.01"	27-Nov-81	164	45
C 02064	3	Justin Magby	DOM	23S	28E	06 3 4	32° 19' 37.33"	103° 07' 49.14"	25-Sep-83	90	45
C 02141	3	Edgar Magby	DOM	23S	28E	06 4 4	32° 19' 37.45"	104° 07' 18.35"	09-May-88	65	36
C 02243	3	Edgar Magby	DOM	23S	28E	06 4 4 4			29-Nov-92	160	40
C 02511	3	Hernandez Daniel	DOM	23S	28E	06 1 2 1	32° 20' 16.86"	103° 07' 48.76"	03-Mar-97	60	35
C 02735	3	Julius Roberson	DOM	23S	28E	06 1 2 4	32° 20' 3.65"	103° 08' 3.88"			
C 02736	3	Julius Roberson	STK	23S	28E	06 3 2 4	32° 19' 50.51"	103° 07' 49.01"			
C 00058 S	0	Julius Roberson	EXP	23S	28E	06 3 3 3	32° 19' 37.29"	103° 08' 4.17"	13-Mar-02	202	60
C 02883		Julius Roberson Jr.		23S	28E	06 3 3 1	32° 19' 37.29"	103° 08' 4.17"	13-Mar-02	202	58
C 02883	3	Julius Roberson	STK	23S	28E	06 3 3 1	32° 19' 37.29"	103° 08' 4.17"	13-Mar-02	202	
C 02943	3	William J. and Diana Redfearn	DOM	23S	28E	06 1 1 2	32° 19' 50.51"	103° 07' 49.01"	25-Jan-03	69	43
C 02736	0	Nadel & Gussan Permian LLC	PRO	23S	28E	06 3 2 4	32° 19' 50.51"	103° 07' 49.01"			
C 02736	0	Chesapeake Operating	PRO	23S	28E	06 3 2 4	32° 19' 50.51"	103° 07' 49.01"			
C 03216	3	Judy Parker	DOM	23S	28E	06 1 3 4	32° 20' 3.65"	103° 08' 3.88"			
USGS #1				23S	28E	07 1 1 3	32° 19' 25"	103° 07' 01"	27-Jan-03	195	39.79
USGS #2				23S	28E	07 1 1 3			03-Jan-78		58.14
USGS #3				23S	28E	07 1 1 3			24-Jan-96		25.3
USGS #4				23S	28E	07 3 3 3			12-Aug-48		45.1
USGS #5				23S	28E	06 1 3 1			10-Jan-75		25.79

* = Data obtained from the New Mexico Office of the State Engineer Website (http://iwaters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet1)
Well locations shown on Figure 2
[A] = in acre feet per annum
[B] = Elevation interpolated from USGS topographical map based on referenced location.
IND = Industrial
IRR = Irrigation
DOM = Domestic
EXP = Exploration
PRO= Prospecting or Development of Natural Resources
STK= Livestock Watering
quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are biggest to smallest

TABLE 2

Summary of Soil Sample Laboratory Analytical Results

Chesapeake Energy - Will 7 Fee (Ref.# 160025)

Sample Location	Sample I.D.	Depth (feet)	Soil Status	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Sample Date	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)
Pit Sidewall	SESW-10	4	In Situ	5.8	3,600	14-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**4,000**
	SWSW-11	4	In Situ	15.5	760	14-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**672**
	WSSW-12	4	In Situ	7.1	200	14-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	96
	WNSW-13	4	In Situ	15.5	6,000	14-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**5,730**
	NWSW-14	4	In Situ	3	1,800	14-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**1,790**
	NESW-15	4	In Situ	3.5	1,360	14-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**1,360**
	ENSW-16	4	In Situ	0.1	1,400	14-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**1,839**
	ESSW-17	4	In Situ	0.1	1,600	14-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**1,580**
Pit Floor	SEC-1	8	In Situ	10.5	8,960	12-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**12,100**
	SM-2	8	In Situ	0.0	1,280	12-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**6,960**
	SWC-3	8	In Situ	0.0	2,720	12-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**3,420**
	EM-6	8	In Situ	0.0	480	12-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**13,000**
	CENTER-5	8	In Situ	0.0	5,520	12-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**1,710**
	WM-4	8	In Situ	0.0	13,640	12-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**512**
	NWC-9	8	In Situ	0.0	2,960	12-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**15,900**
	NM-8	8	In Situ	0.0	5,120	12-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**6,480**
	NEC-9	8	In Situ	0.0	12,000	12-Oct-05	<0.005	<0.005	<0.005	<0.015	<0.10	<10.0	<10.0	<10.0	**6,080**

TABLE 2

Summary of Soil Sample Laboratory Analytical Results

Chesapeake Energy - Will 7 Fee (Ref.# 160025)

Sample Location	Sample I.D.	Depth (feet)	Soil Status	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Sample Date	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)
Pit Floor	SP-1	1	In Situ	0.0	220	08-Mar-06	--	--	--	--	--	--	--	--	128
	SP-2	2.5	In Situ	0.0	800	08-Mar-06	--	--	--	--	--	--	--	--	**1,200**
	SP-3	2.5	In Situ	0.0	560	08-Mar-06	--	--	--	--	--	--	--	--	**400**
	SP-4	2.5	In Situ	0.0	2,500	08-Mar-06	--	--	--	--	--	--	--	--	240
	SP-5	2.5	In Situ	0.0	4,000	08-Mar-06	--	--	--	--	--	--	--	--	**1,679**
	SP-6	2.5	In Situ	0.0	560	08-Mar-06	--	--	--	--	--	--	--	--	**928**
	SP-7	2.5	In Situ	0.0	3,560	08-Mar-06	--	--	--	--	--	--	--	--	**4,639**
	SP-8	2.5	In Situ	0.0	4,000	08-Mar-06	--	--	--	--	--	--	--	--	**5,198**
NMOCD Remedial Thresholds							**10**				**50**			**1,000**	**250** [2]

Bolded *values are in excess of NMOCD Remediation Thresholds*

[1] *Estimated concentration;analyte dectected below method detection limits*

[2] *Chloride residuals may not be capable of impacting local groundwater above the NMWQCC standards of 250 mg/L.*

-- = not analyzed

TABLE 3

Summary of Soil Boring Soil Sample Laboratory Analytical Results

Chesapeake Energy - Will 7 Fee (Ref.# 160025)

Sample I.D.	Depth (feet)	Soil Status	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Sample Date	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)
BH-1	10	In Situ	2.9	2,560	20-Oct-05	<0.0250	<0.0250	<0.0250	<0.0750	<0.10	<10.0	<10.0	<10.0	**3,120**
	15	In Situ	3.6	1,280	20-Oct-05	<0.0250	<0.0250	<0.0250	<0.0750	<0.10	<10.0	<10.0	<10.0	**939**
	20	In Situ	4.3	1,040	20-Oct-05	<0.0250	<0.0250	<0.0250	<0.0750	<0.10	<10.0	<10.0	<10.0	**1,240**
BH-2	10	In Situ	4.5	880	20-Oct-05	<0.0250	<0.0250	<0.0250	<0.0750	<0.10	<10.0	<10.0	<10.0	**719**
	15	In Situ	5.0	560	20-Oct-05	<0.0250	<0.0250	<0.0250	<0.0750	<0.10	<10.0	<10.0	<10.0	**463**
	20	In Situ	4.3	800	20-Oct-05	<0.0250	<0.0250	<0.0250	<0.0750	<0.10	<10.0	<10.0	<10.0	**455**
NMOCD Remedial Thresholds						**10**				**50**			**1,000**	**250** [2]

Bolded *values are in excess of NMOCD Remediation Thresholds*

[1] *Estimated concentration/analyte dectected below method detection limits*

[2] *Chloride residuals may not be capable of impacting local groundwater above the NMWQCC standards of 250 mg/L.*

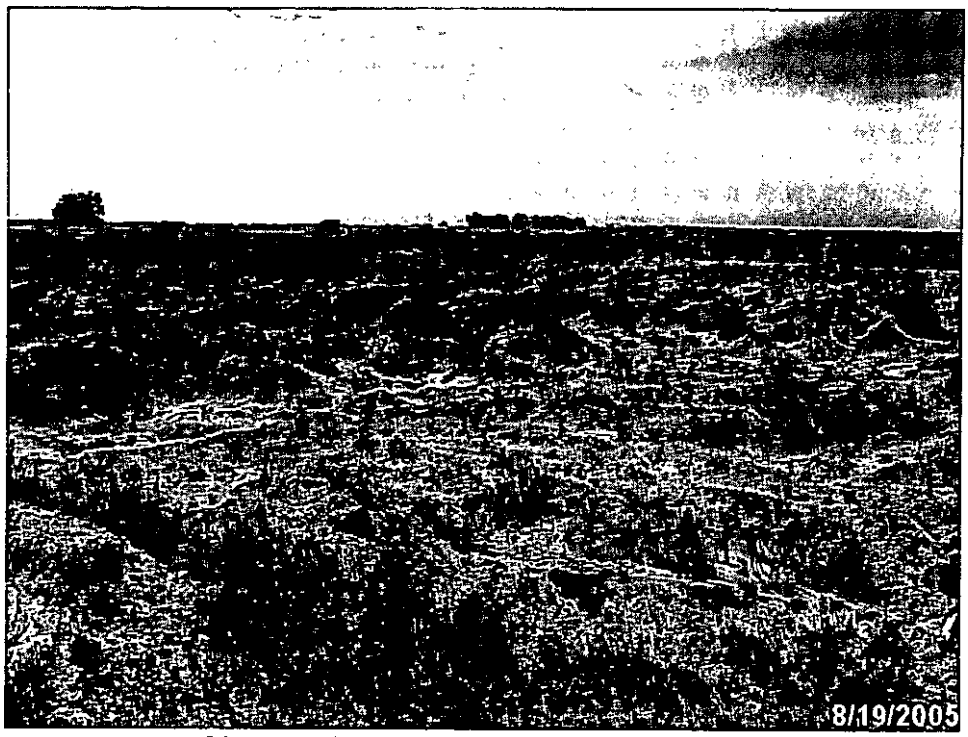
APPENDICES

APPENDIX I

PROJECT PHOTOGRAPHS

Photograph #1 – Lease sign.

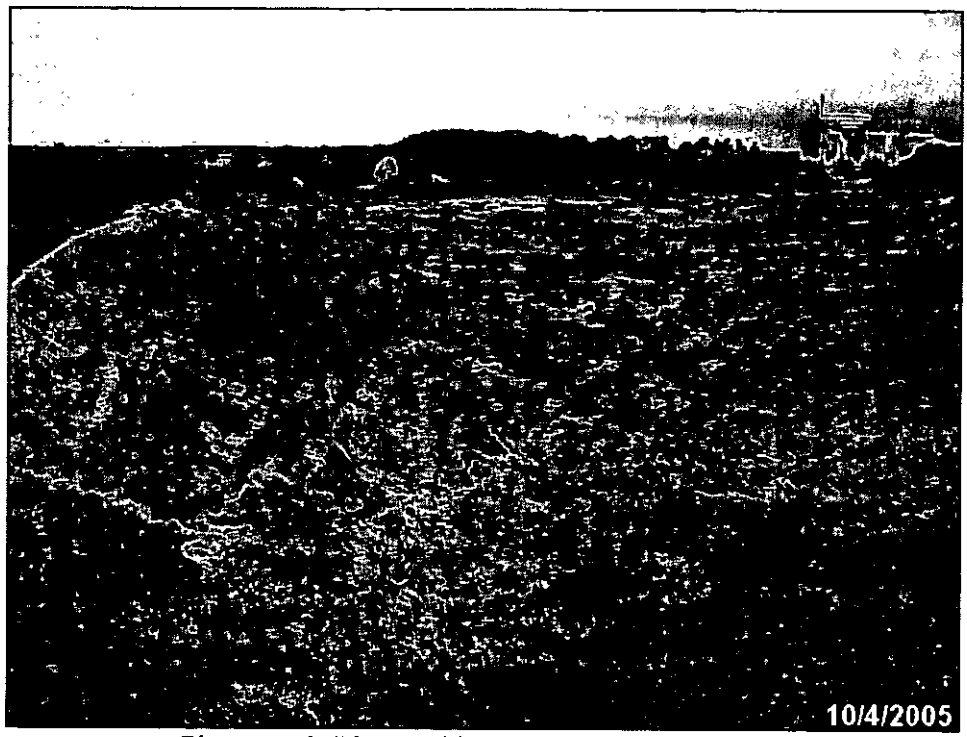
Photograph #2 – Looking westerly at pit area and liner.



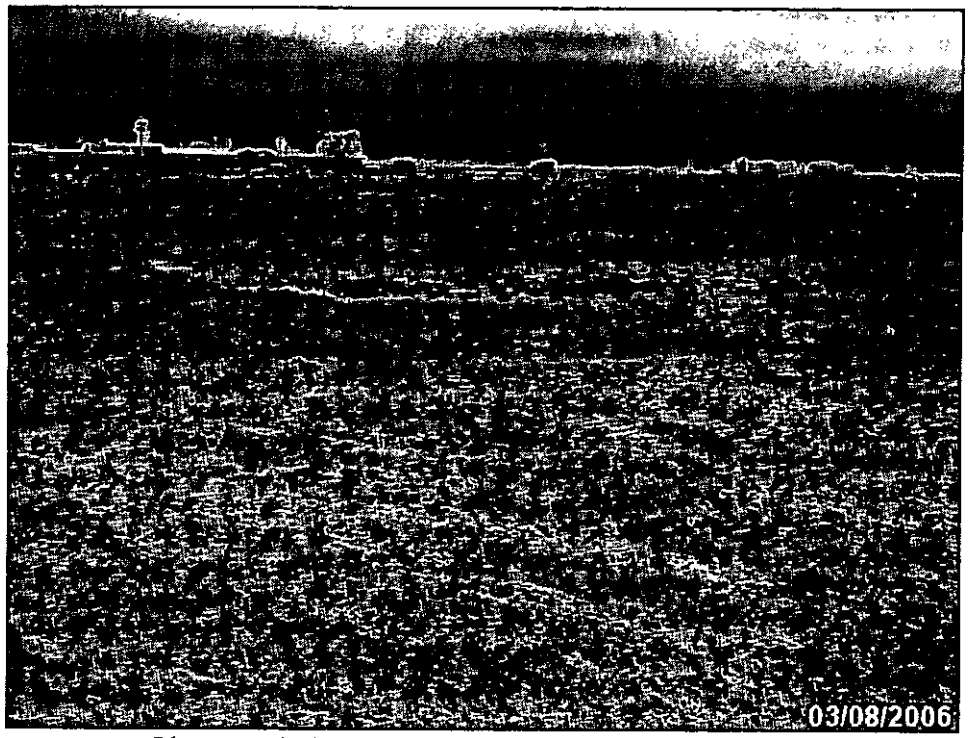
Photograph #3 – Looking easterly at pit area.

Photograph #4 – Looking southwesterly at excavation and clean stockpile.

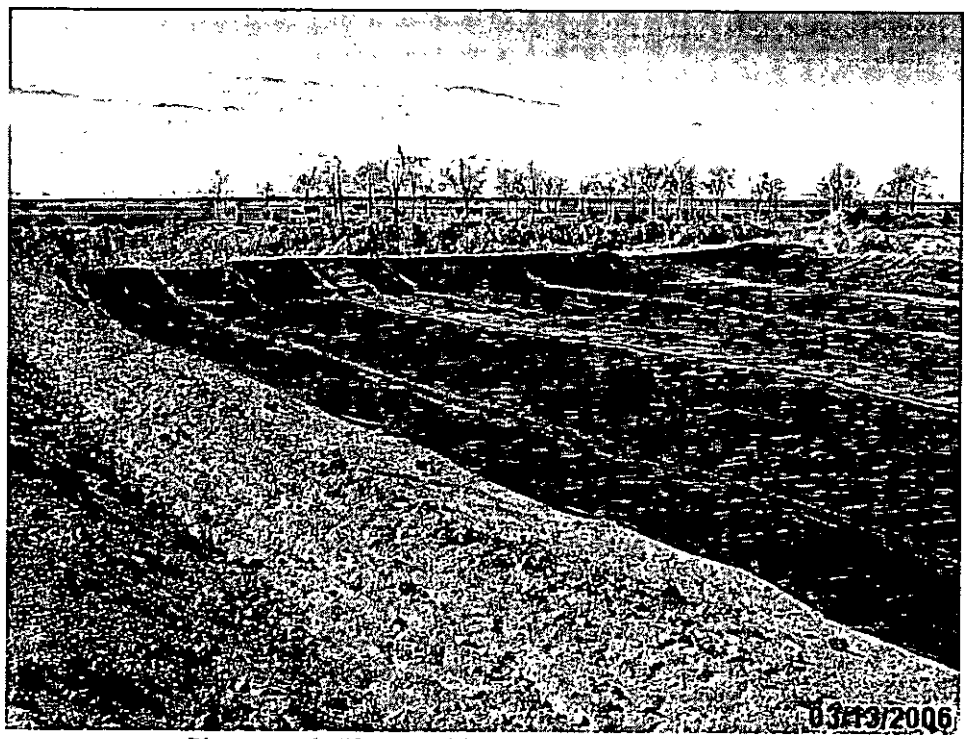
Photograph #5 – Looking northeasterly at excavation.



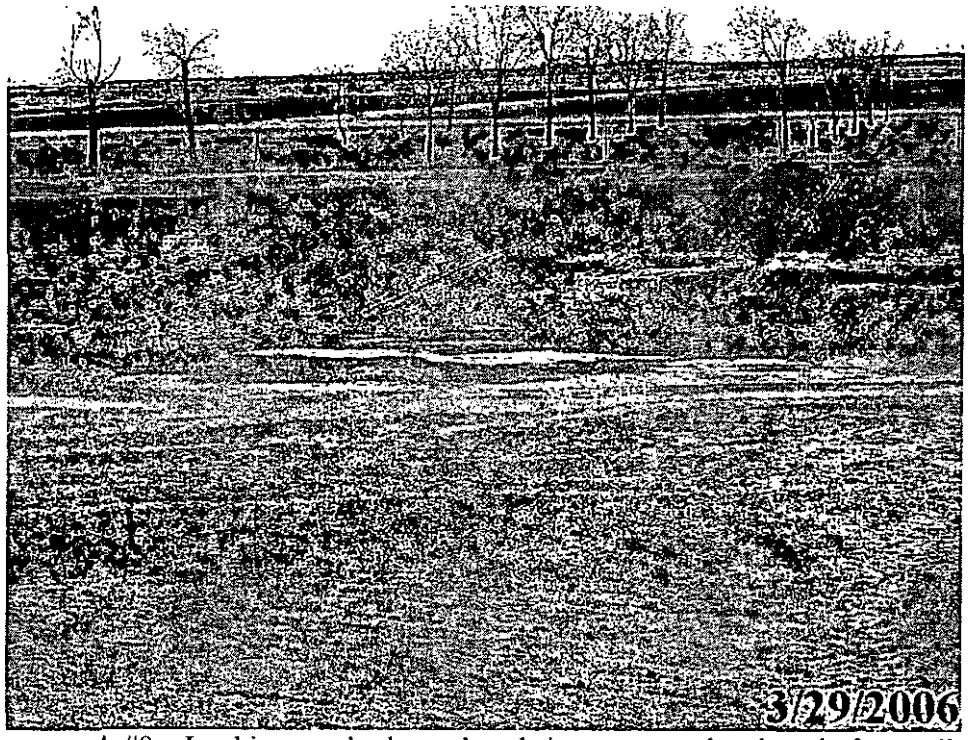
Photograph #6 – Looking westerly at excavation.



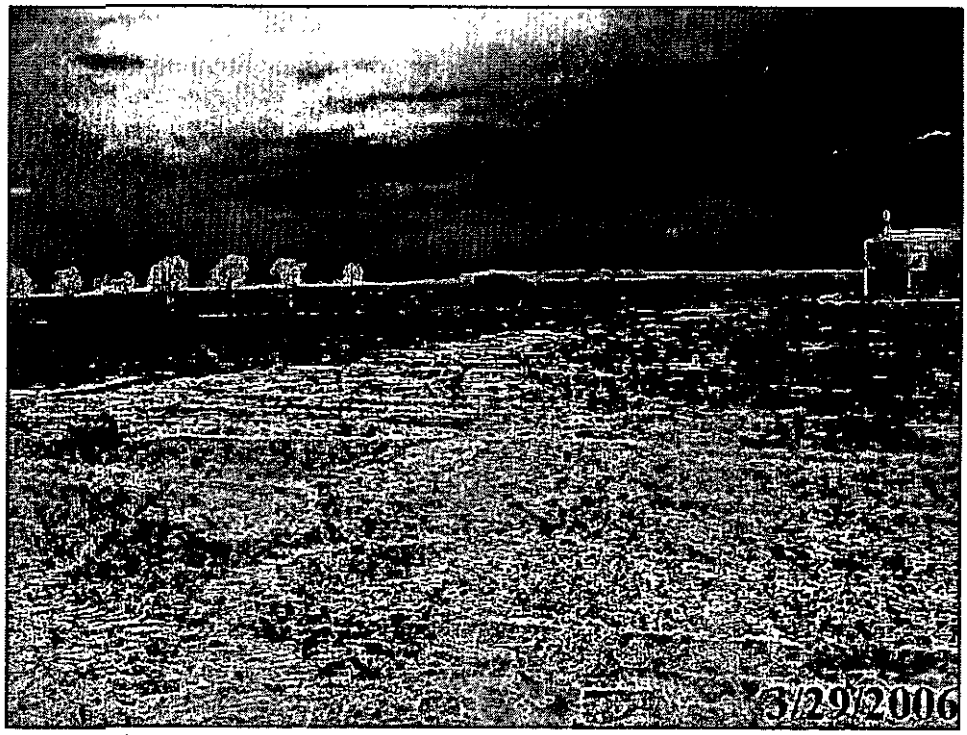
Photograph #7 – Looking northeasterly at excavation.



Photograph #8 – Looking southwesterly at liner.



Photograph #9 – Looking southerly at closed site, contoured and ready for seeding.



Photograph #10 - Looking west at closed site, contoured and ready for seeding.

APPENDIX II

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORMS

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 FAX TO: (505) 394-2601

Receiving Date: 10/17/05
Reporting Date: 10/20/05
Project Owner: CHESAPEAKE OPERATING (#160025)
Project Name: WILL 7 FEE
Project Location: UL-A SEC. 7, T23S, R28E

Sampling Date: 10/12/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: HM

LAB NUMBER	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		10/18/05	10/18/05	10/18/05	10/18/05
H10310-1	SEC-1 (8')	<0.005	<0.005	<0.005	<0.015
H10310-2	SM-2 (8')	<0.005	<0.005	<0.005	<0.015
H10310-3	SWC-3 (8')	<0.005	<0.005	<0.005	<0.015
H10310-4	EM-6 (8')	<0.005	<0.005	<0.005	<0.015
H10310-5	CENTER-5 (8')	<0.005	<0.005	<0.005	<0.015
H10310-6	WM-4 (8')	<0.005	<0.005	<0.005	<0.015
H10310-7	NWC-9 (8')	<0.005	<0.005	<0.005	<0.015
H10310-8	NM-8 (8')	<0.005	<0.005	<0.005	<0.015
H10310-9	NEC-9 (8')	<0.005	<0.005	<0.005	<0.015
Quality Control		0.091	0.091	0.096	0.293
True Value QC		0.100	0.100	0.100	0.300
% Recovery		90.6	91.2	96.3	97.7
Relative Percent Difference		4.0	4.3	2.3	0.9

METHOD: EPA SW-846 8260

Chemist

10/20/05
Date

H10310.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: 10/17/05
Reporting Date: 10/20/05
Project Owner: CHESAPEAKE OPERATING (#160025)
Project Name: WILL 7 FEE
Project Location: UL-A SEC. 7, T23S, R28E

Sampling Date: 10/12/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC/HM

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		10/18/05	10/18/05	10/18/05
H10310-1	SEC-1 (8')	<10	<10	12100
H10310-2	SM-2 (8')	<10	<10	6960
H10310-3	SWC-3 (8')	<10	<10	3420
H10310-4	EM-6 (8')	<10	<10	13000
H10310-5	CENTER-5 (8')	<10	<10	1710
H10310-6	WM-4 (8')	<10	<10	512
H10310-7	NWC-9 (8')	<10	<10	15900
H10310-8	NM-8 (8')	<10	<10	6480
H10310-9	NEC-9 (8')	<10	<10	6080
Quality Control		754	770	990
True Value QC		800	800	1000
% Recovery		94.3	96.2	99.0
Relative Percent Difference		0.5	1.0	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl^-: Std. Methods 4500-Cl^-B
*Analyses performed on 1:4 w:v aqueous extracts.

Chemist

10/20/05
Date

H10310A.XLS

Environmental Plus, Inc.

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

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 Operating
Facility Name	Will 7 Fee
Location	UL-A, Sect. 7, T 23 S, R 28 E
Project Reference	160025
EPI Sampler Name	Felix Hernandez

Bill To

EPI

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	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: CRUDE OIL	MATRIX: SLUDGE	MATRIX: OTHER:	PRESERV.: ACID/BASE	PRESERV.: ICE/COOL	PRESERV.: OTHER	SAMPLING: DATE	SAMPLING: TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^=$)	pH	TCLP	OTHER >>>	PAH			
H10310-1	1	SEC-1 (8')	G	1			1							12-Oct-05	14:00	X	X	X								
-2	2	SM-2 (8')	G	1			1							12-Oct-05	14:05	X	X	X								
-3	3	SWC-3 (8')	G	1			1							12-Oct-05	14:10	X	X	X								
-4	4	EM-4 (8') OM-6 (8')	G	1			1							12-Oct-05	14:15	X	X	X								
-5	5	Center-5 (8')	G	1			1							12-Oct-05	14:20	X	X	X								
-6	6	WM-6 (8') WM-4 (8') [illegible]	G	1			1							12-Oct-05	14:25	X	X	X								
-7	7	NWC-7 (8') NWC-5 (8') [illegible]	G	1			1							12-Oct-05	14:30	X	X	X								
-8	8	NM-8 (8')	G	1			1							12-Oct-05	14:35	X	X	X								
-9	9	NEC-9 (8') NEC-4 (8') [illegible]	G	1			1							12-Oct-05	14:40	X	X	X								
	10																									

Sampler Relinquished:	Date Time	Received By:	E-mail results to: iolness@envplus.net REMARKS:
Relinquished by: [signature]	Date 10-17-05 Time 10:55	Received By: (lab staff) [signature]	
Delivered by:	Sample Cool & Intact: Yes (circled) 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 FAX TO: (505) 394-2601

Receiving Date: 10/17/05
Reporting Date: 10/20/05
Project Owner: CHESAPEAKE OPERATING (#160025)
Project Name: WILL 7 FEE
Project Location: UL-A SEC. 7, T23S, R28E

Sampling Date: 10/14/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: HM

LAB NUMBER	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		10/18/05	10/18/05	10/18/05	10/18/05
H10311-1	SESW-10 (4')	<0.005	<0.005	<0.005	<0.015
H10311-2	SWSW-11 (4')	<0.005	<0.005	<0.005	<0.015
H10311-3	WSSW-12 (4')	<0.005	<0.005	<0.005	<0.015
H10311-4	WNSW-13 (4')	<0.005	<0.005	<0.005	<0.015
H10311-5	NWSW-14 (4')	<0.005	<0.005	<0.005	<0.015
H10311-6	NESW-15 (4')	<0.005	<0.005	<0.005	<0.015
H10311-7	ENSW-16 (4')	<0.005	<0.005	<0.005	<0.015
H10311-8	ESSW-17 (4')	<0.005	<0.005	<0.005	<0.015
Quality Control		0.091	0.091	0.096	0.293
True Value QC		0.100	0.100	0.100	0.300
% Recovery		90.6	91.2	96.3	97.7
Relative Percent Difference		4.0	4.3	2.3	0.9

METHOD: EPA SW-846 8260

Chemist

10/20/05
Date

H10311BXS

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: 10/17/05
Reporting Date: 10/20/05
Project Owner: CHESAPEAKE OPERATING (#160025)
Project Name: WILL 7 FEE
Project Location: UL-A SEC. 7, T23S, R28E

Sampling Date: 10/14/05
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC/HM

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		10/18/05	10/18/05	10/18/05
H10311-1	SESW-10 (4')	<10	<10	4000
H10311-2	SWSW-11 (4')	<10	<10	672
H10311-3	WSSW-12 (4')	<10	<10	96
H10311-4	WNSW-13 (4')	<10	<10	5730
H10311-5	NWSW-14 (4')	<10	<10	1790
H10311-6	NESW-15 (4')	<10	<10	1360
H10311-7	ENSW-16 (4')	<10	<10	1839
H10311-8	ESSW-17 (4')	<10	<10	1580
Quality Control		754	770	990
True Value QC		800	800	1000
% Recovery		94.3	96.2	99.0
Relative Percent Difference		0.5	1.0	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl⁻: Std. Methods 4500-Cl⁻B
*Analyses performed on 1:4 w:v aqueous extracts.

Chemist

10/20/05
Date

H10311A.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 Operating
Facility Name	Will 7 Fee
Location	UL-A, Sect. 7, T 23 S, R 28 E
Project Reference	160025
EPI Sampler Name	Felix Hernandez

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	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: CRUDE OIL	MATRIX: SLUDGE	MATRIX: OTHER:	PRESERV.: ACID/BASE	PRESERV.: ICE/COOL	PRESERV.: OTHER	SAMPLING: DATE	SAMPLING: TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl⁻)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH			
H10311-1	1	SESW-10 (4')	G	1			1							14-Oct-05	11:45	X	X	X								
-2	2	SWSW-11 (4')	G	1			1							14-Oct-05	11:55	X	X	X								
-3	3	WSSW-12 (4')	G	1			1							14-Oct-05	12:00	X	X	X								
-4	4	WNSW-13 (4')	G	1			1							14-Oct-05	12:18	X	X	X								
-5	5	NWSW-14 (4')	G	1			1							14-Oct-05	12:25	X	X	X								
-6	6	NESW-15 (4')	G	1			1							14-Oct-05	11:40	X	X	X								
-7	7	ENSW-16 (4')	G	1			1							14-Oct-05	12:55	X	X	X								
-8	8	ESSW-17 (4')	G	1			1							14-Oct-05	12:46	X	X	X								
	9																									
	10																									

Sampler Relinquished:	Date / Time	Received By:	E-mail results to: iolness@envplus.net
Relinquished by: [signature]	Date 10-17-05 Time 10:53	Received By: (lab staff) [signature]	REMARKS:
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/ Will 7 Fee

Project Number: 160025

Location: UL-A, Sect. 7, T 23 S, R 28 E

Lab Order Number: 5J25002

Report Date: 10/31/05

Environmental Plus, Incorporated	Project: Chesapeake/ Will 7 Fee	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160025	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	10/31/05 11:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 (10')	5J25002-01	Soil	10/20/05 08:31	10/24/05 16:20
BH-1 (15')	5J25002-02	Soil	10/20/05 08:52	10/24/05 16:20
BH-1 (20')	5J25002-03	Soil	10/20/05 09:00	10/24/05 16:20
BH-2 (10')	5J25002-04	Soil	10/20/05 09:29	10/24/05 16:20
BH-2 (15')	5J25002-05	Soil	10/20/05 09:35	10/24/05 16:20
BH-1 (20')	5J25002-06	Soil	10/20/05 09:48	10/24/05 16:20

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-1 (10') (5J25002-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ52509	10/25/05	10/26/05	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		*85.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.2 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ52504	10/25/05	10/26/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*86.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*124 %*	*70-130*		"	"	"	"	
BH-2 (10') (5J25002-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ52509	10/25/05	10/26/05	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		*105 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.8 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ52504	10/25/05	10/26/05	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		*82.0 %*	*70-130*		"	"	"	"	
BH-2 (15') (5J25002-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EJ52509	10/25/05	10/26/05	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		*92.5 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ52504	10/25/05	10/26/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

Environmental Plus, Incorporated	Project: Chesapeake/ Will 7 Fee	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160025	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	10/31/05 11:19

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-2 (15') (5J25002-05) Soil									
Surrogate: 1-Chlorooctane		*98.2 %*		*70-130*	*EJ52504*	*10/25/05*	*10/26/05*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*95.0 %*		*70-130*	*"*	*"*	*"*	*"*	

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Environmental Plus, Incorporated	Project: Chesapeake/ Will 7 Fee	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160025	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	10/31/05 11:19

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-1 (10') (5J25002-01) Soil									
Chloride	**3120**	100	mg/kg	200	EJ52617	10/25/05	10/26/05	EPA 300.0	
% Moisture	**11.4**	0.1	%	1	EJ52603	10/25/05	10/26/05	% calculation	
BH-1 (15') (5J25002-02) Soil									
Chloride	**939**	20.0	mg/kg	40	EJ52617	10/25/05	10/26/05	EPA 300.0	
BH-1 (20') (5J25002-03) Soil									
Chloride	**1240**	20.0	mg/kg	40	EJ52617	10/25/05	10/26/05	EPA 300.0	
BH-2 (10') (5J25002-04) Soil									
Chloride	**719**	10.0	mg/kg	20	EJ52617	10/25/05	10/26/05	EPA 300.0	
% Moisture	**3.3**	0.1	%	1	EJ52603	10/25/05	10/26/05	% calculation	
BH-2 (15') (5J25002-05) Soil									
Chloride	**463**	10.0	mg/kg	20	EJ52617	10/25/05	10/26/05	EPA 300.0	
% Moisture	**19.3**	0.1	%	1	EJ52603	10/25/05	10/26/05	% calculation	
BH-1 (20') (5J25002-06) Soil									
Chloride	**455**	10.0	mg/kg	20	EJ52617	10/25/05	10/26/05	EPA 300.0	

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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 EJ52504 - Solvent Extraction (GC)										
Blank (EJ52504-BLK1)				Prepared: 10/25/05 Analyzed: 10/26/05						
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	*49.8*		*mg/kg*	*50.0*		*99.6*	*70-130*			
Surrogate: 1-Chlorooctadecane	*48.8*		"	*50.0*		*97.6*	*70-130*			
LCS (EJ52504-BS1)				Prepared: 10/25/05 Analyzed: 10/26/05						
Gasoline Range Organics C6-C12	462	10.0	mg/kg wet	500		92.4	75-125			
Diesel Range Organics >C12-C35	439	10.0	"	500		87.8	75-125			
Total Hydrocarbon C6-C35	901	10.0	"	1000		90.1	75-125			
Surrogate: 1-Chlorooctane	*53.4*		*mg/kg*	*50.0*		*107*	*70-130*			
Surrogate: 1-Chlorooctadecane	*57.9*		"	*50.0*		*116*	*70-130*			
Calibration Check (EJ52504-CCV1)				Prepared: 10/25/05 Analyzed: 10/26/05						
Gasoline Range Organics C6-C12	434		mg/kg	500		86.8	80-120			
Diesel Range Organics >C12-C35	405		"	500		81.0	80-120			
Total Hydrocarbon C6-C35	839		"	1000		83.9	80-120			
Surrogate: 1-Chlorooctane	*49.2*		"	*50.0*		*98.4*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.1*		"	*50.0*		*104*	*70-130*			
Matrix Spike (EJ52504-MS1)	**Source: 5J25001-02**			Prepared: 10/25/05 Analyzed: 10/27/05						
Gasoline Range Organics C6-C12	587	10.0	mg/kg dry	576	ND	102	75-125			
Diesel Range Organics >C12-C35	570	10.0	"	576	13.6	96.6	75-125			
Total Hydrocarbon C6-C35	1160	10.0	"	1150	13.6	99.7	75-125			
Surrogate: 1-Chlorooctane	*47.5*		*mg/kg*	*50.0*		*95.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*59.2*		"	*50.0*		*118*	*70-130*			
Matrix Spike Dup (EJ52504-MSD1)	**Source: 5J25001-02**			Prepared: 10/25/05 Analyzed: 10/26/05						
Gasoline Range Organics C6-C12	530	10.0	mg/kg dry	576	ND	92.0	75-125	10.2	20	
Diesel Range Organics >C12-C35	508	10.0	"	576	13.6	85.8	75-125	11.5	20	
Total Hydrocarbon C6-C35	1040	10.0	"	1150	13.6	89.3	75-125	10.9	20	
Surrogate: 1-Chlorooctane	*54.3*		*mg/kg*	*50.0*		*109*	*70-130*			
Surrogate: 1-Chlorooctadecane	*58.1*		"	*50.0*		*116*	*70-130*			

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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 EJ52509 - EPA 5030C (GC)										
Blank (EJ52509-BLK1)				Prepared & Analyzed: 10/25/05						
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	*38.0*		*ug/kg*	*40.0*		*95.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.4*		*"*	*40.0*		*101*	*80-120*			
LCS (EJ52509-BS1)				Prepared & Analyzed: 10/25/05						
Benzene	0.0526	0.00100	mg/kg wet	0.0500		105	80-120			
Toluene	0.0537	0.00100	"	0.0500		107	80-120			
Ethylbenzene	0.0587	0.00100	"	0.0500		117	80-120			
Xylene (p/m)	0.114	0.00100	"	0.100		114	80-120			
Xylene (o)	0.0575	0.00100	"	0.0500		115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*38.6*		*ug/kg*	*40.0*		*96.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*45.1*		*"*	*40.0*		*113*	*80-120*			
Calibration Check (EJ52509-CCV1)				Prepared: 10/25/05 Analyzed: 10/26/05						
Benzene	49.8		ug/kg	50.0		99.6	80-120			
Toluene	49.8		"	50.0		99.6	80-120			
Ethylbenzene	54.2		"	50.0		108	80-120			
Xylene (p/m)	103		"	100		103	80-120			
Xylene (o)	54.8		"	50.0		110	80-120			
Surrogate: a,a,a-Trifluorotoluene	*34.8*		*"*	*40.0*		*87.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*36.0*		*"*	*40.0*		*90.0*	*80-120*			
Matrix Spike (EJ52509-MS1)	**Source: 5J25005-02**			Prepared: 10/25/05 Analyzed: 10/26/05						
Benzene	1.29	0.0250	mg/kg dry	1.34	ND	96.3	80-120			
Toluene	1.34	0.0250	"	1.34	0.0127	99.1	80-120			
Ethylbenzene	1.55	0.0250	"	1.34	0.0225	114	80-120			
Xylene (p/m)	2.93	0.0250	"	2.68	0.0609	107	80-120			
Xylene (o)	1.45	0.0250	"	1.34	0.0264	106	80-120			
Surrogate: a,a,a-Trifluorotoluene	*35.3*		*ug/kg*	*40.0*		*88.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.2*		*"*	*40.0*		*106*	*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 EJ52509 - EPA 5030C (GC)										
Matrix Spike Dup (EJ52509-MSD1)	**Source: 5J25005-02**			Prepared: 10/25/05 Analyzed: 10/26/05						
Benzene	1.24	0.0250	mg/kg dry	1.34	ND	92.5	80-120	4.03	20	
Toluene	1.29	0.0250	"	1.34	0.0127	95.3	80-120	3.91	20	
Ethylbenzene	1.51	0.0250	"	1.34	0.0225	111	80-120	2.67	20	
Xylene (p/m)	2.91	0.0250	"	2.68	0.0609	106	80-120	0.939	20	
Xylene (o)	1.51	0.0250	"	1.34	0.0264	111	80-120	4.61	20	
Surrogate: a,a,a-Trifluorotoluene	*33.6*		*ug/kg*	*40.0*		*84.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.6*		*"*	*40.0*		*109*	*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 EJ52603 - General Preparation (Prep)										
Blank (EJ52603-BLK1)				Prepared: 10/25/05 Analyzed: 10/26/05						
% Solids	100		%							
Duplicate (EJ52603-DUP1)		**Source: 5J25001-01**		Prepared: 10/25/05 Analyzed: 10/26/05						
% Solids	88.7		%		88.7			0.00	20	
Duplicate (EJ52603-DUP2)		**Source: 5J25006-08**		Prepared: 10/25/05 Analyzed: 10/26/05						
% Solids	97.3		%		97.2			0.103	20	
Batch EJ52617 - Water Extraction										
Blank (EJ52617-BLK1)				Prepared: 10/25/05 Analyzed: 10/26/05						
Chloride	ND	0.500	mg/kg							
LCS (EJ52617-BS1)				Prepared: 10/25/05 Analyzed: 10/26/05						
Chloride	8.21		mg/L	10.0		82.1	80-120			
Calibration Check (EJ52617-CCV1)				Prepared: 10/25/05 Analyzed: 10/26/05						
Chloride	8.37		mg/L	10.0		83.7	80-120			
Duplicate (EJ52617-DUP1)		**Source: 5J21002-03**		Prepared: 10/25/05 Analyzed: 10/26/05						
Chloride	766	10.0	mg/kg		712			7.31	20	

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Environmental Plus, Incorporated	Project: Chesapeake/ Will 7 Fee	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160025	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	10/31/05 11:19

Notes and Definitions

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

Report Approved By: Celey D. Keene Date: 10/31/2005

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

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

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 Operating
Facility Name	Will 7 Fee
Location	UL-A, Sect. 7, T 23 S, R 28 E
Project Reference	160025
EPI Sampler Name	John Robinson

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	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: CRUDE OIL	MATRIX: SLUDGE	MATRIX: OTHER:	PRESERV.: ACID/BASE	PRESERV.: ICE/COOL	PRESERV.: OTHER	SAMPLING: DATE	SAMPLING: TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH			
5325002																									
-01	BH-1 (10')	G	1			1							20-Oct-05	8:31	X	X	X								
-02	BH-1 (15')	G	1			1							20-Oct-05	8:52			X								
-03	BH-1 (20')	G	1			1							20-Oct-05	9:00			X								
-04	BH-2 (10')	G	1			1							20-Oct-05	9:29	X	X	X								
-05	BH-2 (15')	G	1			1							20-Oct-05	9:35	X	X	X								
-06	BH-2 (20')	G	1			1							20-Oct-05	9:48			X								
7																									
8																									
9																									
10																									

Sampler Relinquished: John Robinson
Date: 10-24-05 Time: 01:30
Received By: Gene Mills

Relinquished by: Gene Mills
Date: 10/25/05 Time: 9:20
Received By: (lab staff) Carrie Kelly

Delivered by:
Sample Cool & Intact: Yes / No 05c
Checked By:

E-mail results to: iolness@envplus.net

REMARKS:
4oz glass
plastic bags for Cl only samples

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

Client: EPI

Date/Time: 10/24/05 4:20

Order #: 5525002

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	0.5 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	
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 (915) 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: 03/09/06
Reporting Date: 03/10/06
Project Owner: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 03/09/06
Sampling Date: 03/08/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: AB

LAB NUMBER	SAMPLE ID	Cl^- (mg/Kg)
H10878-1	SP-1	128
H10878-2	SP-2	1200
H10878-3	SP-3	400
H10878-4	SP-4	240
H10878-5	SP-5	1679
H10878-6	SP-6	928
H10878-7	SP-7	4639
H10878-8	SP-8	5198
Quality Control		510
True Value QC		500
% Recovery		102.0
Relative Percent Difference		2.0

METHOD: Standard Methods	4500-ClB

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

Hope S. Moreno
Chemist

03-10-06
Date

H10878

CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 (325) 673-7001 Fax (325) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

Page ____ of ____

Company Name:	EPI
Project Manager:	Tain Olness
Address:	
City:	State: Zip:
Phone #:	Fax #:
Project #:	Project Owner:
Project Name:	
Project Location:	
Sampler Name:	

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	C / -
H10879-1	SP-1	G	1			X					X		3/8/06		X
-2	SP-2	G	1			X					X				X
-3	SP-3	G	1			X					X				X
-4	SP-4	G	1			X					X				X
-5	SP-5	G	1			X					X				X
-6	SP-6	G	1			X					X				X
-7	SP-7	G	1			X					X				X
-8	SP-8	G	1			X					X		↓		X

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 the client for the 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 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.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: Tain Olness	Date: 3/9/06 Time: 1030	Received By:	Phone Result: ☐ Yes ☐ No
Relinquished By:	Date: Time:	Received By: (Lab Staff) Nick Fullerton	Fax Result: ☐ Yes ☐ No REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Temp, °C; Intact? ☒ Yes ☐ No	Checked By: (Initials) NF	

† Cardinal cannot accept verbal changes. Please fax written changes to (325) 673-7020.

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: 160025

Project Name: Chesapeake Will 7A Fee #1

Location: UL-A, Section 7, Township 23 South, Range 28 East

Boring Number: BH-1 | Surface Elevation: 3,041

Start Date: 10/20/05 Time: 0831 hrs

Completion Date: 10/20/05 Time: 0900 hrs

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (Feet)	Description
						5	8' Bottom of Excavation
0831				2.9		10	Brown Sand Clay Rock Mix
						15	
0852			Moist	3.6			Tan Coarse Sand Pebbles
						20	Groundwater encountered at 17.0'
0900				4.3			Brown Sand Clay Mix End of Boring at 20.0'
						25	
						30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/20/05	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5' ID

Backfill Method: Bentonite

Field Representative: JR

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: 160025

Project Name: Chesapeake Will 7A Fee #1

Location: UL-A, Section 7, Township 23 South, Range 28 East

Boring Number: BH-2 | Surface Elevation: 3,041

Start Date: 10/20/05 Time: 0929 hrs

Completion Date: 10/20/05 Time: 0948 hrs

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						5	8' Bottom of Excavation
0929				4.5		10	Coarse Sand Rock
						15	
0935				5.0			Red Brown Clay
						20	
0948				4.3			Sandy Brown Clay
							End of Boring at 20.0'
						25	
						30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/20/05	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID

Backfill Method: Bentonite

Field Representative: JR

APPENDIX IV

NMOCD FORM C-103

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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-103
May 27, 2004

WELL API NO.: 30-015-32064

5. Indicate Type of Lease STATE ☐ FEE ☒

6. State Oil & Gas Lease No.:

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Will 7A Fee #1

8. Well Number: No. 1

1. Type of Well: Oil Well ☐ **Gas Well** ☒ **Other** ____

2. Name of Operator: Chesapeake Operating, Inc.

9. OGRID Number:

3. Address of Operator: 5014 Carlsbad Highway
Hobbs, NM 88240

10. Pool name or Wildcat

4. Well Location

Unit Letter: A : ___ **feet from the** ____ **line and** ___ **feet from the** ____ **line**

Section: 7 **Township:** 23 South **Range** 28 East **NMPM** ____ **County** Eddy

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3,041 feet above mean sea level

Pit or Below-grade Tank Application ☐ **or Closure** ☒

Pit type: Drilling **Depth to Groundwater:** <50 feet **Distance from nearest fresh water well:** < 1,000 feet **Distance from nearest surface water:** > 1,000 feet

Pit Liner Thickness: 20 - mil **Below-Grade Tank: Volume:** ____ **bbls; Construction Material:** ____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
OTHER: ____ ☐		OTHER: Pit Closure ☒	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Chesapeake Operating, Inc. (Chesapeake) conducted the pit closure according to NMOCD guidelines. As the depth to groundwater is < 50 feet below ground surface (bgs), Chesapeake a) stiffened and excavated all drilling mud from pit area including the liner to at least six (6) inches below bottom of drill pit bottom; b) collected soil samples from excavation floor/sidewalls and submitted to an independent laboratory for quantification of TPH, BTEX constituents, chloride and sulfate concentrations; c) based on laboratory analyses, excavated additional soil as necessary; d) transported impacted soil to Controlled Recovery Inc. for disposal; e) installed polyethelyne barrier below bottom of drill pit over area of elevated chloride concentrations to prevent vertical migration of contaminants; f) backfilled excavation with clean soil and graded/contoured to allow natural drainage; g) will seed the remediation area with a blend suitable to the landowner.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE _____ **TITLE** Field Technician **DATE** ____

Type or print name: Bradley Blevins **E-mail address:** bblevins@chkenergy.com **Telephone No.:** (505) 391-1462 ext. 24

For State Use Only

APPROVED BY: _____ **TITLE** _____ **DATE** _____

Conditions of Approval (if any):