CLOSURE REPORT

BARBER-ADKINS #8-2 DRILLING PIT

EPI REF: 160015
NMOCD REF: 1RP - 750

UL-L (NW¼ OF THE SW¼) OF SECTION 8 T20S R37E
~13.5 MILES SOUTHWEST OF HOBBS
LEA COUNTY, NEW MEXICO
LATITUDE: N 32° 35' 05.0" LONGITUDE: W 103° 16' 49.5"

FEBRUARY 2007

WTR-30'

PREPARED BY:

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

PREPARED FOR:

Chesapeake

Distribution List

Site Closure Report

Chesapeake Operating - Barber-Adkins No. 8-2 Drilling Pit

NMOCD Ref: 1RP-750; EPI Ref: 160015

Name	Title	Company or Agency	Mailing Address	e-mail
Chris Williams	District I Supervisor	New Mexico Oil Conservation Division-Hobbs	1625 N. French Drive Hobbs, New Mexico 88240	chris.williams@state.nm.us
Bradley Blevins	Field Supervisor	Chesapeake Operating, Inc.	P.O. Box 190 Hobbs, New Mexico 88240-0190	bblevins@chkenergy.com
Harlan M. Brown	Senior Environmental Representative	Chesapeake Energy Corporation	6100 N. Western Avenue Oklahoma City, Oklahoma 73118	hbrown@chkenergy.com
Jimmie T. Cooper	Property Owner	- -	P.O. Box 55 Monument, New Mexico 88265	(505) 397-2045 (Home) (505) 369-7108 (Mobile)
File	--	Environmental Plus, Inc.	2100 Avenue O P.O. Box 1558 Eunice, NM 88231	dduncan@envplus.net

STANDARD OF CARE

Closure Report

Barber-Adkins #8-2 Drilling Pit

(EPI Ref: 160015)

(NMOCD Ref: 1RP-750)

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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1.0 PROJECT SYNOPSIS

Site Specific:

- ***Company Name:*** Chesapeake Operating, Inc.
- ***Facility Name:*** Barber-Adkins #8-2 Drilling Pit
- ***Project Reference:*** NMOCD Ref: 1RP-750; EPI Ref: 160015
- ***Company Contacts:*** Bradley Blevins
- ***Site Location:*** WGS84 N32° 35' 05.0"; W103° 16' 49.5"
- ***Legal Description:*** Unit Letter-L, (NW¼ of the SW¼), Section 8, T 20S, R 37E
- ***General Description:*** Approximately 13.5 miles southwest of Hobbs, New Mexico
- ***Elevation:*** 3,543-ft amsl
- ***Land Ownership:*** Jimmie T. Cooper
- ***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:*** Not applicable

Remediation Specific:

- ***Final Vertical extent of contamination:*** Not applicable
- ***Depth to Ground Water:*** <50-ft
- ***Water wells within 1,000-ft:*** None
- ***Private domestic water sources within 200-ft:*** None
- ***Surface water bodies within 1,000-ft:*** None
- ***NMOCD Site Ranking Index:*** 20 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 drilling mud from the pit area including the liner to depth of at least six (6) inches below bottom of the pit; b) collected soil samples from excavation floor as well as 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 Sundance Services Inc. for disposal; e) installed polyethelyne barrier in bottom of pit over areas of high chloride concentrations to prevent vertical migration of contaminants; f) backfilled excavation with clean soil and graded/contoured to allow natural drainage; g) will seed remediation area with a blend suitable to the landowner.
- ***Disposal Facility:*** Sundance Services Inc.
- ***Volume disposed:*** Drilling mud ~ 2,786 yds^3; Impacted soil ~ 2,530 yds^3
- ***Project Completion Date:*** 24 July 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 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 drill pit is located in the Eunice Plain 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 cover 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 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 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 <50-ft bgs based on water depth data obtained from the New Mexico State Engineers Office and the United States Geological Survey data base. No groundwater was encountered during excavation of the drilling mud or from the soil sample points dug in the bottom of the drill pit. Groundwater gradient in this area is generally to the west-southwest.

2.9 Area Water Wells
No water wells exist within a 1,000-foot radius of the site. However, twenty-six (26) wells exist within a 1-mile radius of the site. (reference *Figure 2*).

2.10 Area Surface Water Features
No surface water features exist within a 1,000-foot radius of the point of release (reference *Figure 2*).

3.0 NMOCD SITE RANKING

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

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

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

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

Based on the proximity of the site to protectable area water wells, surface water bodies, and depth to groundwater from the lower most contamination, the NMOCD ranking score for the site is 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 + 0 + 0 = 20 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: Drilling mud: 10-18-05 through 10-26-05; Impacted soil: 6-29-06 through 7-14-06

Total volume removed: Impacted soil: 2,786 yds^3; Drilling mud: 2,530 yds^3

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

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

Name and location of treatment/disposal facility:
Sundance Services 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 November 16, 2005, nine (9) grab samples were collected from the bottom and eight (8) from the side walls of the excavated drill pit (reference *Figure 5* for locations and *Table 2* for laboratory analytical data). Sample locations within the pit area were chosen to provide the best representative sample to delineate the vertical extent of impacted soil.

Based on field and laboratory analytical data from the November 16, 2005 soil samples, additional samples were taken on interval dates (June 29-30, July 5, July 7, July 11-13 2006) in areas showing elevated chloride concentrations (reference *Table 2* for laboratory analytical data).

Per field and laboratory analytical data, two additional soil samples were taken on July 11 and July 13, 2006 respectively (reference *Table 2* for laboratory analytical data).

6.0 ANALYTICAL RESULTS

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

From October 26, 2005 through July 7, 2006 soil samples were taken from the sidewalls/floor of the excavation pit area and submitted for laboratory quantification of benzene, toluene, ethylbenzene, total xylenes (BTEX), total petroleum hydrocarbons (TPH), sulfate, and chloride concentrations (reference *Table 2* for laboratory analytical data).

Based on laboratory analytical data from soil samples taken on October 26, 2005 through July 7, 2006 additional impacted soil was excavated.

Laboratory analytical results for soil samples collected on July 11, 2006 indicated TPH and BTEX concentrations were not detected at or above each analytes method detection limit (MDL). Both chloride and sulfate concentrations were below NMOCD remediation thresholds (reference *Table 2* for laboratory analytical data).

Laboratory analytical results for samples collected on July 13, 2006 indicated TPH and BTEX concentrations were not detected at or above each analytes MDL. Chloride concentrations were reported at 936 mg/Kg and sulfate concentrations at 1,990 mg/Kg (reference *Table 2* 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 of 250 mg/L, areas of high 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 high concentrations of chlorides. The polyethylene liner was sandwiched between two (2) one (1) foot layers of cushion sand. After backfilling was 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

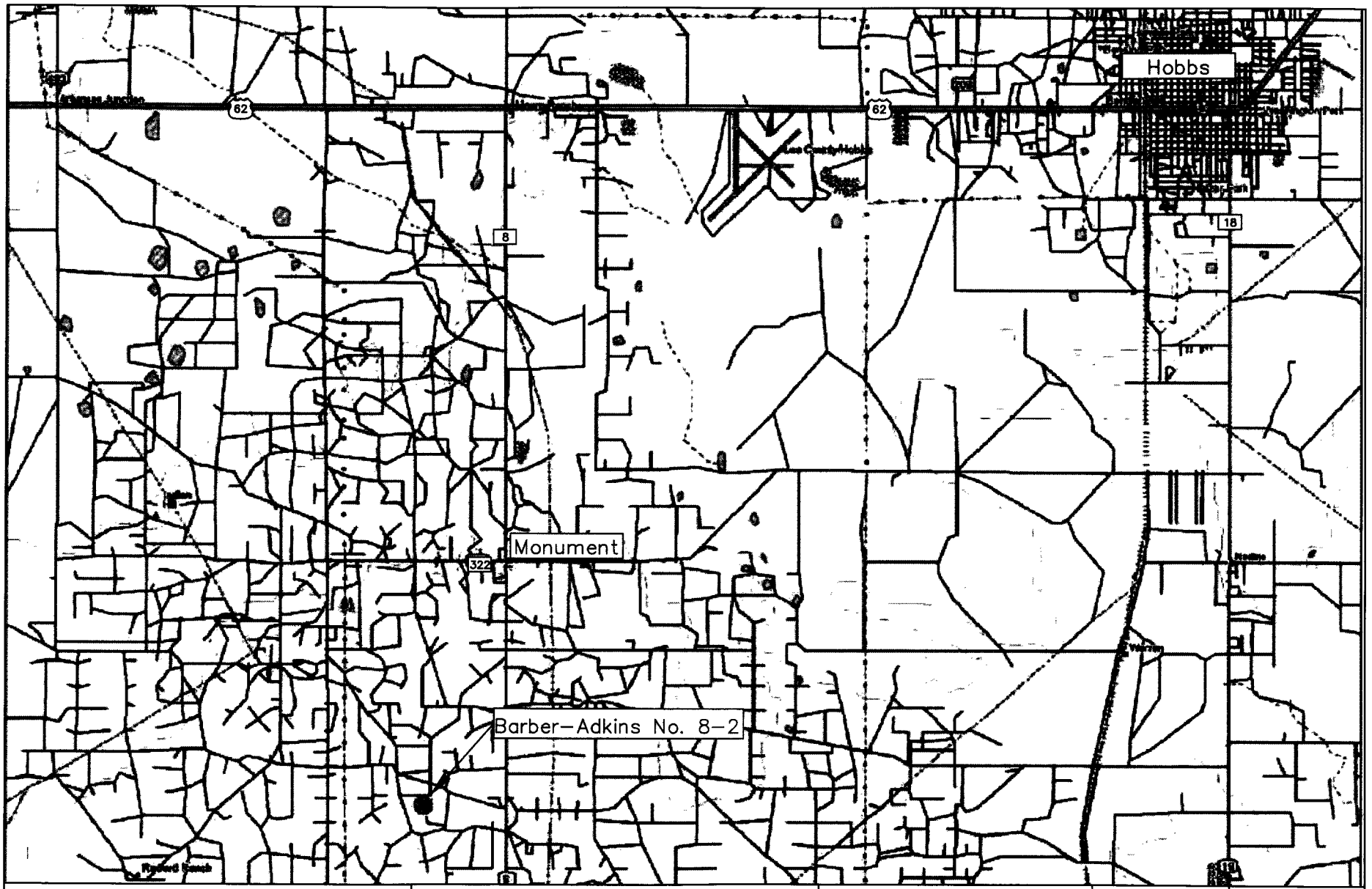

Figure 1 Area Map Chesapeake Energy Barber–Adkins No. 8–2	Lea County, New Mexico NW 1/4 of the SW 1/4, Sec. 08, T20S, R37E N 32° 35' 05.0" W 103° 16' 49.5" Elevation: 3,543 feet amsl	DWG By: Iain Olness October 2005	REVISED:	N
		0 1.5 3.0 Miles	SHEET 1 of 1	

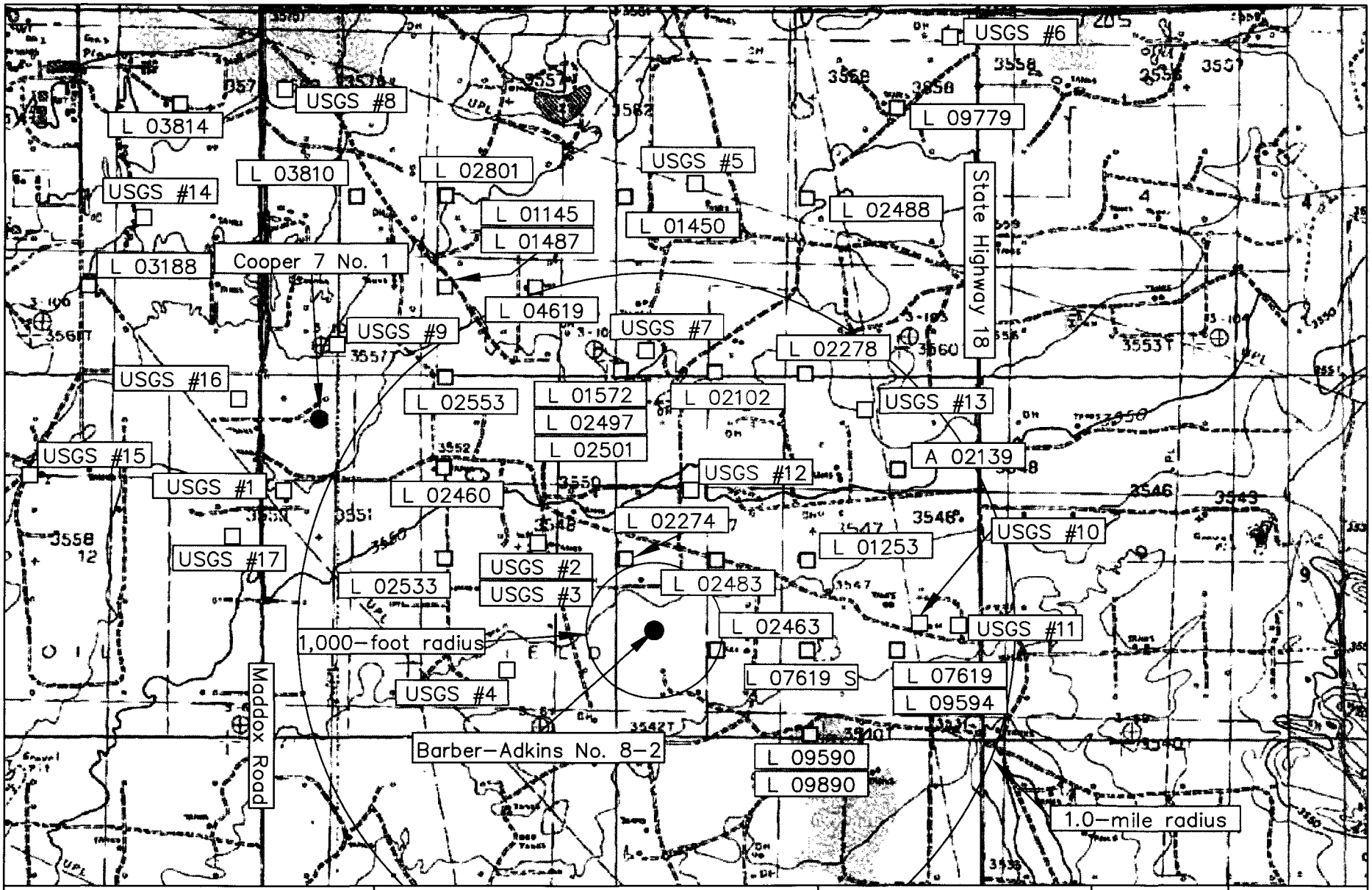

Figure 2
Site and Well Location Map
Chesapeake Energy
Barber-Adkins No. 8-2

Lea County, New Mexico
NW 1/4 of the SW 1/4, Sec. 08, T20S, R37E
N 32° 35' 05.0" W 103° 16' 49.5"
Elevation: 3,543 feet amsl

DWG By: Iain Olness
Oct. 2005

REVISED:

0 2,000 4,000
Feet

SHEET
1 of 1

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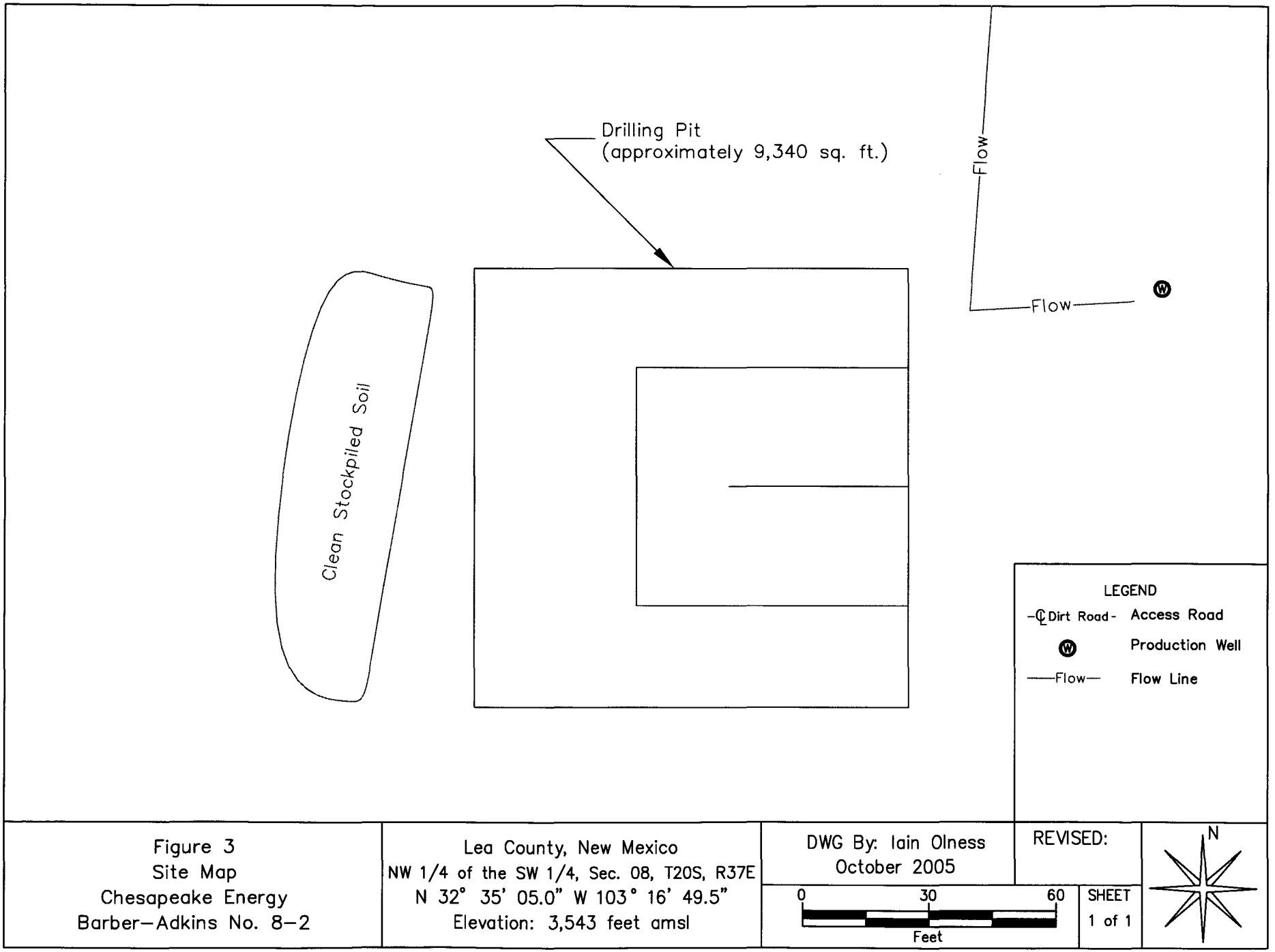


Figure 3 Site Map Chesapeake Energy Barber–Adkins No. 8–2	Lea County, New Mexico NW 1/4 of the SW 1/4, Sec. 08, T20S, R37E N 32° 35' 05.0" W 103° 16' 49.5" Elevation: 3,543 feet amsl	DWG By: Iain Olness October 2005 0 30 60 Feet	REVISED: SHEET 1 of 1	N

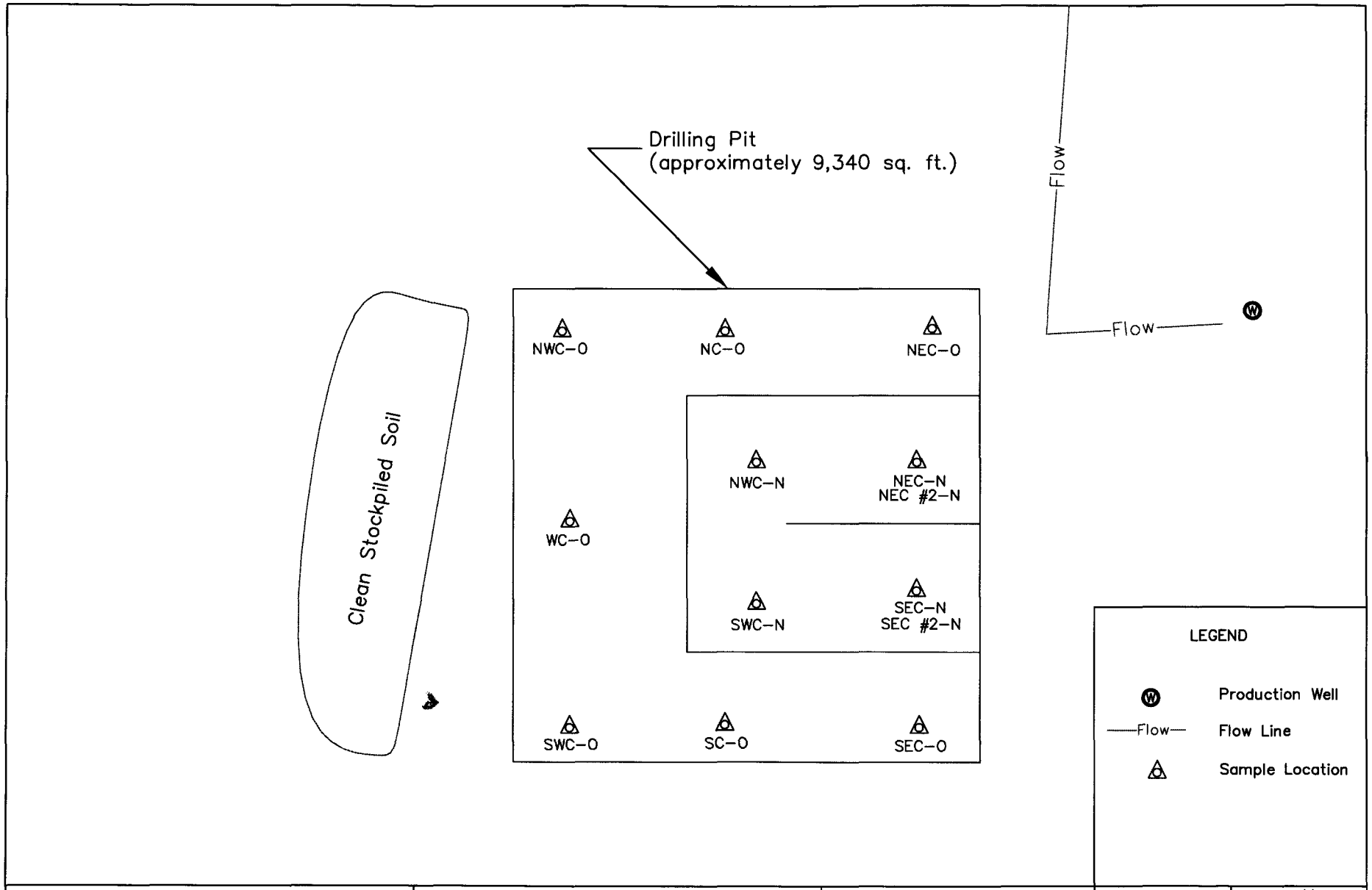


Figure 4 Sample Location Map 10–26–05 Chesapeake Energy Barber–Adkins No. 8–2	Lea County, New Mexico NW 1/4 of the SW 1/4, Sec. 08, T20S, R37E N 32° 35' 05.0" W 103° 16' 49.5" Elevation: 3,543 feet amsl	DWG By: Iain Olness October 2005	REVISED: Nov 2005	SHEET 1 of 1

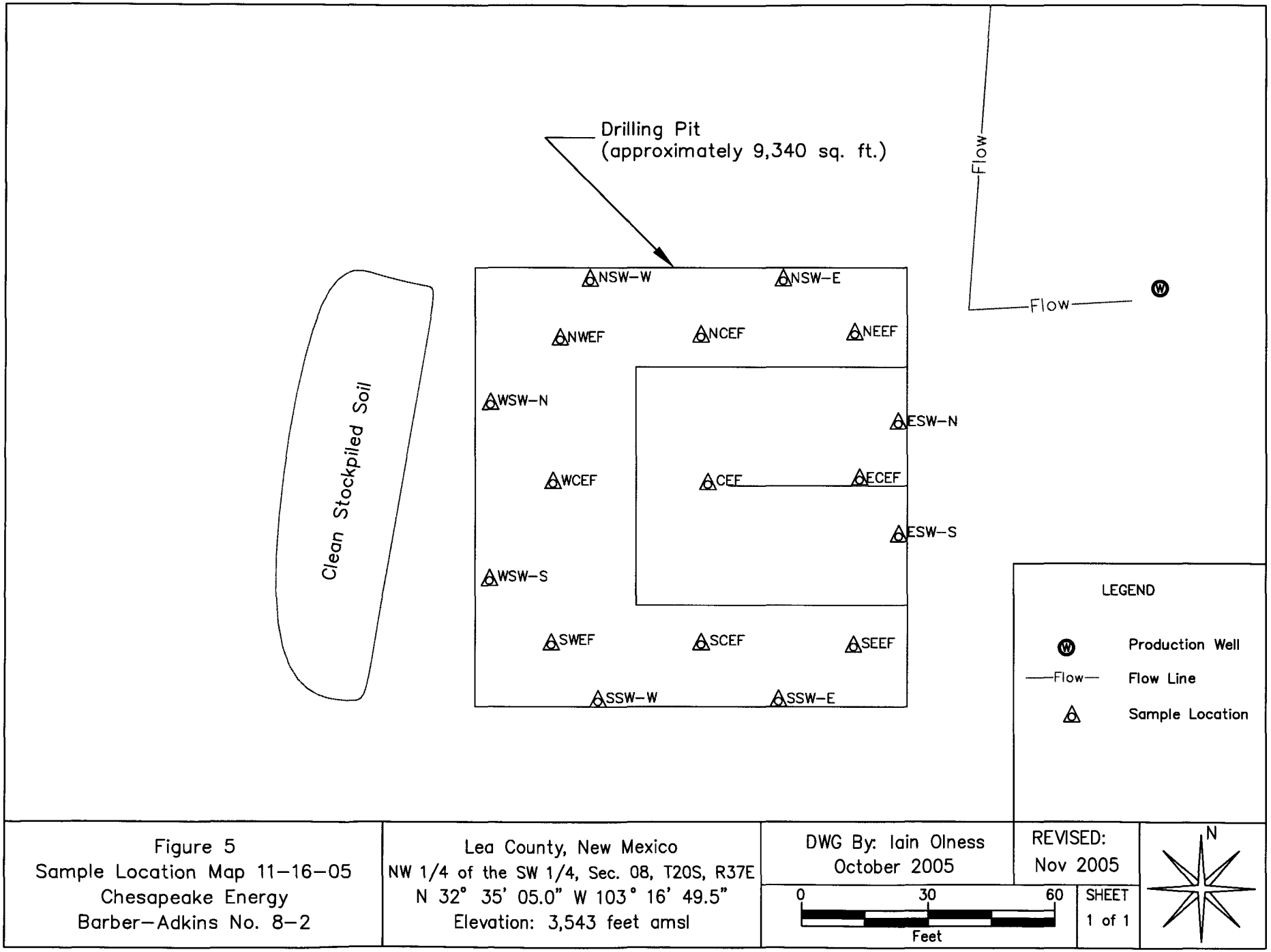


Figure 5 Sample Location Map 11–16–05 Chesapeake Energy Barber–Adkins No. 8–2	Lea County, New Mexico NW 1/4 of the SW 1/4, Sec. 08, T20S, R37E N 32° 35' 05.0" W 103° 16' 49.5" Elevation: 3,543 feet amsl	DWG By: Iain Olness October 2005	REVISED: Nov 2005	SHEET 1 of 1

TABLES

TABLE 1

Well Data

Chesapeake Energy Barber-Adkins No. 8-2 (NMOCD Ref. 1RP- 750; EPI Ref. #160015)

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)
L 02460	3	Moran Drilling Co.	PRO	20 S	37 E	07 2 1	N 32° 35' 28.41"	W 103° 17' 25.25"	09-Jan-54	82	38
L 02533	0	Moran Drilling Co.	PRO	20 S	37 E	07 2 3	N 32° 35' 15.33"	W 103° 17' 25.23"	24-Apr-54	82	34
USGS #1				20 S	37 E	07 1 3 1			10-Apr-68		27.04
USGS #2				20 S	37 E	07 2 4 3			29-Jan-91		25.06
USGS #3				20 S	37 E	07 2 4 3			29-Mar-54		26.37
USGS #4				20 S	37 E	07 4 3 2			10-Apr-68		26.44
L 01450	3	Ohio Oil Co.	PRO	20 S	37 E	05 1 3	N 32° 36' 7.65"	W 103° 16' 54.36"			
L 01572	3	Exploration Drilling Co.	PRO	20 S	37 E	05 3 3 1	N 32° 35' 41.47"	W 103° 16' 54.37"	16-Sep-52	70	
L 02102	3	E. F. Moran, Inc.	PRO	20 S	37 E	05 3 4	N 32° 35' 41.43"	W 103° 16' 38.9"	20-Mar-53	70	46
L 02278	3	Laughlin Estate	DOM	20 S	37 E	05 4 3	N 32° 35' 41.39"	W 103° 16' 23.43"	01-Feb-61	65	37
L 02488	3	The Texas Co.	PRO	20 S	37 E	05 2 3	N 32° 36' 7.57"	W 103° 16' 23.45"	03-Feb-54	63	32
L 02497	3	Amerada Petroleum Corp.	PRO	20 S	37 E	05 3 3 3	N 32° 35' 41.47"	W 103° 16' 54.37"	10-Mar-54		35
L 02501	3	Amerada Petroleum Corp.	PRO	20 S	37 E	05 3 3 3	N 32° 35' 41.47"	W 103° 16' 54.37"			
L 09779	3	Dolores Nash Davis	DOM	20 S	37 E	05 2 2 2	N 32° 36' 20.62"	W 103° 16' 8.01"	15-Jan-85	50	40
USGS #5				20 S	37 E	05 1 3 4			14-Mar-06		30.75
USGS #6				20 S	37 E	05 2 2 2			30-Jan-76		26.82
USGS #7				20 S	37 E	05 3 3 3			10-Apr-68		30.2
L 01145	3	Gulf Oil Corporation	PRO	20 S	37 E	06 4 1 4	N 32° 35' 54.6"	W 103° 17' 25.25"	01-May-37	75	35
L 01487	3	Gulf Oil Corporation	PRO	20 S	37 E	06 4 1 4	N 32° 35' 54.6"	W 103° 17' 25.25"			
L 02553	3	Gulf Oil Corporation	PRO	20 S	37 E	06 4 3 4	N 32° 35' 41.49"	W 103° 17' 25.26"	13-May-54	85	40
L 02801	3	Amerada Petroleum Corp.	PRO	20 S	37 E	06 2 3 3	N 32° 36' 7.7"	W 103° 17' 25.24"			
L 03810	3	The Texas Co.	PRO	20 S	37 E	06 1 4 4	N 32° 36' 7.72"	W 103° 17' 40.67"	09-Mar-58	86	37
L 04619	3	Gulf Oil Corporation	PRO	20 S	37 E	06 4 2 3	N 32° 35' 54.58"	W 103° 17' 9.81"	29-Mar-61	86	36
USGS #8				20 S	37 E	06 1 1 3			12-Feb-81		22.94
USGS #9				20 S	37 E	06 3 3 4			23-Jan-96		28.81
L 01253	3	Gulf Oil Corporation	PRO	20 S	37 E	08 2 3 1	N 32° 35' 15.21"	W 103° 16' 23.42"			
A 02139	3	Gackle Drilling Co.	PRO	20 S	37 E	08 2 2 2	N 32° 35' 28.26"	W 103° 16' 7.95"	19-Mar-53	80	38
L 02274	3	Sinclair Oil & Gas Co.	PRO	20 S	37 E	08 1 3	N 32° 35' 15.28"	W 103° 16' 54.35"	05-Jul-53	70	38
L 02463	3	Amerada Petroleum Corp.	PRO	20 S	37 E	08 3 2 1	N 32° 35' 2.16"	W 103° 16' 38.87"	22-Jan-54	86	30
L 02483	3	Moran Drilling Co.	PRO	20 S	37 E	08 1 4 4	N 32° 35' 15.25"	W 103° 16' 38.88"	16-Feb-54	84	34
L 07619	15.57	Jim Cooper	IRR	20 S	37 E	08 4 2 2	N 32° 35' 2.08"	W 103° 16' 7.95"			
L 07619 S		Jim Cooper	IRR	20 S	37 E	08 4 1 1	N 32° 35' 2.12"	W 103° 16' 23.41"			
L 09590	3	Jimmy Cooper	DOM	20 S	37 E	08 4	N 32° 34' 49.04"	W 103° 16' 23.41"	03-Dec-84	70	35
L 09594	0	Jimmy Cooper	DOM	20 S	37 E	08 4 2	N 32° 35' 2.08"	W 103° 16' 7.95"			
L 09890	0	Jimmy Cooper	EXP	20 S	37 E	08 4	N 32° 34' 49.04"	W 103° 16' 23.41"	03-Dec-84	70	35
USGS #10				20 S	37 E	08 4 2 3			04-Feb-76		19.86
USGS #11				20 S	37 E	08 4 2 4			03-Mar-66		40.43
USGS #12				20 S	37 E	17 1 3 2			23-Jan-96		26.6
USGS #13				20 S	37 E	18 2 1 2			29-Jan-91		27.28

TABLE 1

Well Data

Chesapeake Energy Barber-Adkins No. 8-2 (NMOCD Ref. 1RP- 750; EPI Ref. #160015)

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)
L 03188	3	Amerada Petroleum Corp.	PRO	20 S	36 E	01 4 1 2	N 32° 35' 54.66"	W 103° 18' 26.59"			
L 03814	3	W. C. Byrd	DOM	20 S	36 E	01 2 2 2	N 32° 36' 20.84"	W 103° 18' 11.05"	04-Sep-58	60	40
USGS #14				20 S	36 E	01 4 1 2			11-Apr-68		26.28
USGS #15				20 S	36 E	12 1 4 1			11-Apr-68		29.65R
									27-Jan-71		28.25
USGS #16				20 S	36 E	12 2 2 2			08-Sep-67		27.72
USGS #17				20 S	36 E	12 2 4 4			01-Mar-61		25.65

* = Data obtained from the New Mexico Office of the State Engineer Website (http://iwaters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet) and a USGS Database on file at EPI's Office. Well locations shown on Figure 2

[A] = in acre feet per annum

PRO = 72-12-1 Prospecting or Development of a Natural Resource

IRR = Irrigation

DOM = Domestic

EXP = Exploration

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 - Barber-Adkins No. 8-2 (NMOCD Ref. 1RP - 750; EPI Ref.# 160015)

Sample I.D.	Depth (feet)	SampleDate	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toulene (mg/Kg)	Ethylben-zene (mg/Kg)	Xylene (p/m) (mg/Kg)	Xylene (o) (mg/Kg)	Total BTEX (mg/Kg)	TPH (as Diesel) (mg/Kg)	TPH (as gasoline) (mg/Kg)	Total TPH (mg/Kg)	Sulfates (SO_4^-) (mg/Kg)	Chloride (mg/Kg)
NEC-O	6	26-Oct-05	18.0	3,360	--	--	--	--	--	--	--	--	--	--	--
NC-O	6	26-Oct-05	16.5	1,600	--	--	--	--	--	--	--	--	--	--	--
NWC-O	6	26-Oct-05	7.0	6,800	--	--	--	--	--	--	--	--	--	--	--
WC-O	6	26-Oct-05	18.7	400	--	--	--	--	--	--	--	--	--	--	--
SWC-O	6	26-Oct-05	21.2	200	--	--	--	--	--	--	--	--	--	--	--
SC-O	6	26-Oct-05	22.5	1,200	--	--	--	--	--	--	--	--	--	--	--
SWC-O	6	26-Oct-05	14.3	200	--	--	--	--	--	--	--	--	--	--	--
NWC-N	6	26-Oct-05	17.4	400	--	--	--	--	--	--	--	--	--	--	--
NEC-N	6	26-Oct-05	13.1	--	--	--	--	--	--	--	--	--	--	--	--
SEC-N	6	26-Oct-05	43.0	--	--	--	--	--	--	--	--	--	--	--	--
SWC-N	6	26-Oct-05	36.4	400	--	--	--	--	--	--	--	--	--	--	--
NEC-#2N	6	26-Oct-05	14.2	7,000	--	--	--	--	--	--	--	--	--	--	--
SEC-#2N	6	26-Oct-05	2.2	400	--	--	--	--	--	--	--	--	--	--	--
SWEF	0.5	16-Nov-05	7.3	2,080	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	371	22.8	**394**	522	**3,210**
WCEF	0.5	16-Nov-05	1.8	2,080	--	--	--	--	--	--	<10.0	<10.0	<10.0	197	**1,930**
NWEF	0.5	16-Nov-05	0.9	4,000	--	--	--	--	--	--	<10.0	<10.0	<10.0	526	**3,640**
NCEF	0.5	16-Nov-05	0.8	>8,000	--	--	--	--	--	--	<10.0	<10.0	<10.0	**888**	**10,700**
NEEF	0.5	16-Nov-05	0.8	240	--	--	--	--	--	--	<10.0	<10.0	<10.0	94.4	106
SEEF	0.5	16-Nov-05	1.7	2,080	--	--	--	--	--	--	501	30.4	**531**	461	**2,230**
SCEF	0.5	16-Nov-05	2.3	1,840	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	132	14.9	**147**	165	**1,700**
CEF	0.5	16-Nov-05	0.7	1,520	--	--	--	--	--	--	<10.0	<10.0	<10.0	103	**1,300**
ECEF	0.5	16-Nov-05	0.9	>8,000	--	--	--	--	--	--	<10.0	<10.0	<10.0	**2,080**	**35,100**
ESW-N	3	16-Nov-05	0.5	3,040	--	--	--	--	--	--	<10.0	<10.0	<10.0	163	**2,680**
ESW-S	3	16-Nov-05	1.0	240	--	--	--	--	--	--	<10.0	<10.0	<10.0	50.7	77.4
SSW-E	3	16-Nov-05	0.9	240	--	--	--	--	--	--	<10.0	<10.0	<10.0	28.7	12.4
SSW-W	3	16-Nov-05	0.6	880	--	--	--	--	--	--	<10.0	<10.0	<10.0	134	**1,120**
WSW-S	3	16-Nov-05	0.8	1,200	--	--	--	--	--	--	<10.0	<10.0	<10.0	66	**1,310**
WSW-N	3	16-Nov-05	0.7	>8,000	--	--	--	--	--	--	<10.0	<10.0	<10.0	**911**	**13,300**
NSW-W	3	16-Nov-05	1.1	480	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	79.9	**278**
NSW-E	3	16-Nov-05	0.7	240	--	--	--	--	--	--	<10.0	<10.0	<10.0	30.3	63.1
ECEF-N	7	29-Jun-06	28.5 - 34.5	400	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	134	53.2
ECEF-S	7	29-Jun-06	0.9 - 20.2	400	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	238	128
ESW-N A	6	29-Jun-06	1.5 - 8.1	360	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	139	ND
NCEF A	8	29-Jun-06	11.2 - 18.4	440	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	74.7	7.14 [J]	74.7	307	213
NC B	8	29-Jun-06	0.0 - 0.0	2,800	--	--	--	--	--	--	--	--	--	--	--
NCEF B	14	30-Jun-06	24.3 - 25.5	720	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	**1,180**	**617**
WN-B	14	30-Jun-06	0.4 - 1.2	1,200	--	--	--	--	--	--	--	--	--	--	--

TABLE 2

Summary of Soil Sample Laboratory Analytical Results

Chesapeake Energy - Barber-Adkins No. 8-2 (NMOCD Ref. 1RP - 750; EPI Ref.# 160015)

Sample I.D.	Depth (feet)	SampleDate	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toulene (mg/Kg)	Ethylben-zene (mg/Kg)	Xylene (p/m) (mg/Kg)	Xylene (o) (mg/Kg)	Total BTEX (mg/Kg)	TPH (as Diesel) (mg/Kg)	TPH (as gasoline) (mg/Kg)	Total TPH (mg/Kg)	Sulfates ($SO_4^{=}$) (mg/Kg)	Chloride (mg/Kg)
NC-B	10	30-Jun-06	21.5 - 26.7	1,600	--	--	--	--	--	--	--	--	--	--	--
NC-B	12	30-Jun-06	17.9 - 22.4	1,000	--	--	--	--	--	--	--	--	--	--	--
WCEF-N	15	05-Jul-06	3.8 - 6.8	440	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	338	**287**
WCEF-S	15	05-Jul-06	2.9 - 2.2	400	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	334	**308**
WCEF-N	15	05-Jul-06	13.8 - 19.2	2,800	--	--	--	--	--	--	--	--	--	--	--
WCEF-S	15	05-Jul-06	10.3 - 5.8	1,160	--	--	--	--	--	--	--	--	--	--	--
SWEF A	10	07-Jul-06	20.2 - 36.1	600	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	15.0	5.31 [J]	15.0	**632**	255
WSW-N A	8	07-Jul-06	0.2 - 0.6	760	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	**1,260**	**638**
SSW-W A	8	07-Jul-06	0.5 - 7.8	360	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	--	--
CEF A	10	07-Jul-06	0.5 - 0.4	480	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	168	128
WSW-S A	8	07-Jul-06	0.0 - 0.0	800	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	**1,720**	**702**
WSW-N2	8	07-Jul-06	23.1 - 25.6	1,200	--	--	--	--	--	--	--	--	--	--	--
WSW-S	8	07-Jul-06	18.9 - 28.8	1,280	--	--	--	--	--	--	--	--	--	--	--
BOTT C	6	07-Jul-06	17.1 - 26.3	1,400	--	--	--	--	--	--	--	--	--	--	--
SEEF A	10	11-Jul-06	6.0 - 10.5	400	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	109	53.2
	10	11-Jul-06	9.6 - 14.2	2,200	--	--	--	--	--	--	--	--	--	--	--
	12	11-Jul-06	7.3 - 12.0	2,800	--	--	--	--	--	--	--	--	--	--	--
	13	12-Jul-06	0.0 - 0.0	1,800	--	--	--	--	--	--	--	--	--	--	--
	14	12-Jul-06	0.0 - 0.0	4,000	--	--	--	--	--	--	--	--	--	--	--
	15	12-Jul-06	0.0 - 0.0	4,000	--	--	--	--	--	--	--	--	--	--	--
SCEF A	16	13-Jul-06	4.7 - 7.5	800	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	**1,990**	**936**
NMOCD Remedial Thresholds					**10**					**50**			**100**	**600** [3]	**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.*

[3] *Sulfate ($SO_4^{=}$) residuals may not be capable of impacting local groundwater above the NMWQCC standards of 600 mg/L*

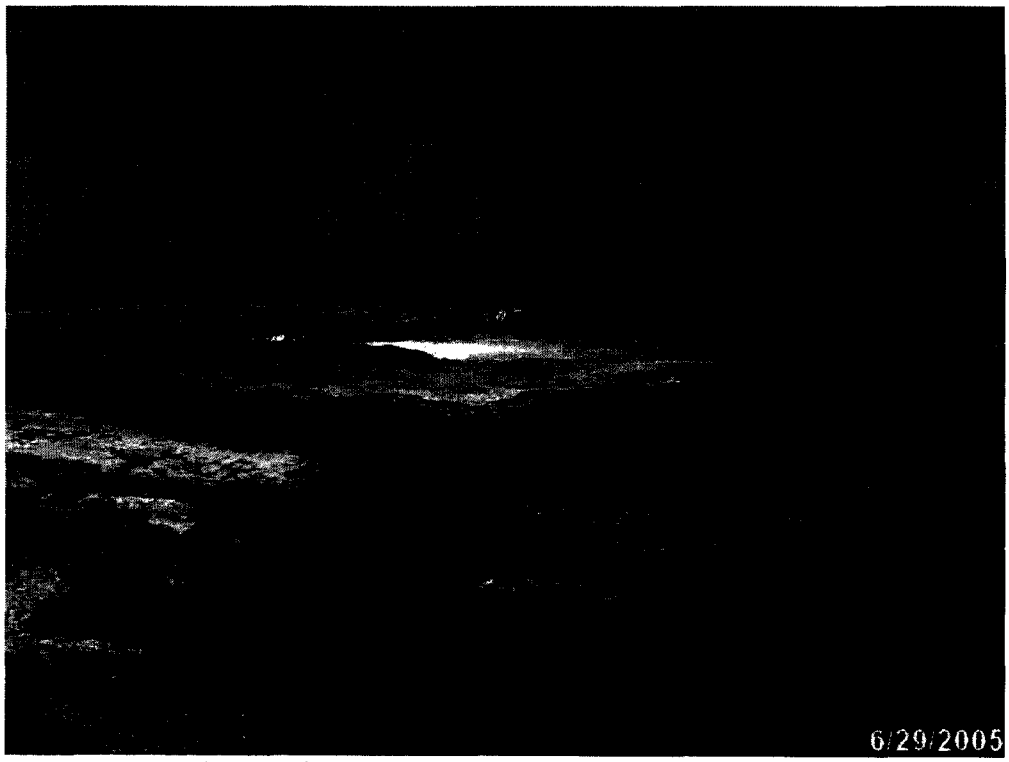
-- Not Analyzed

APPENDICES

APPENDIX I

PROJECT PHOTOGRAPHS

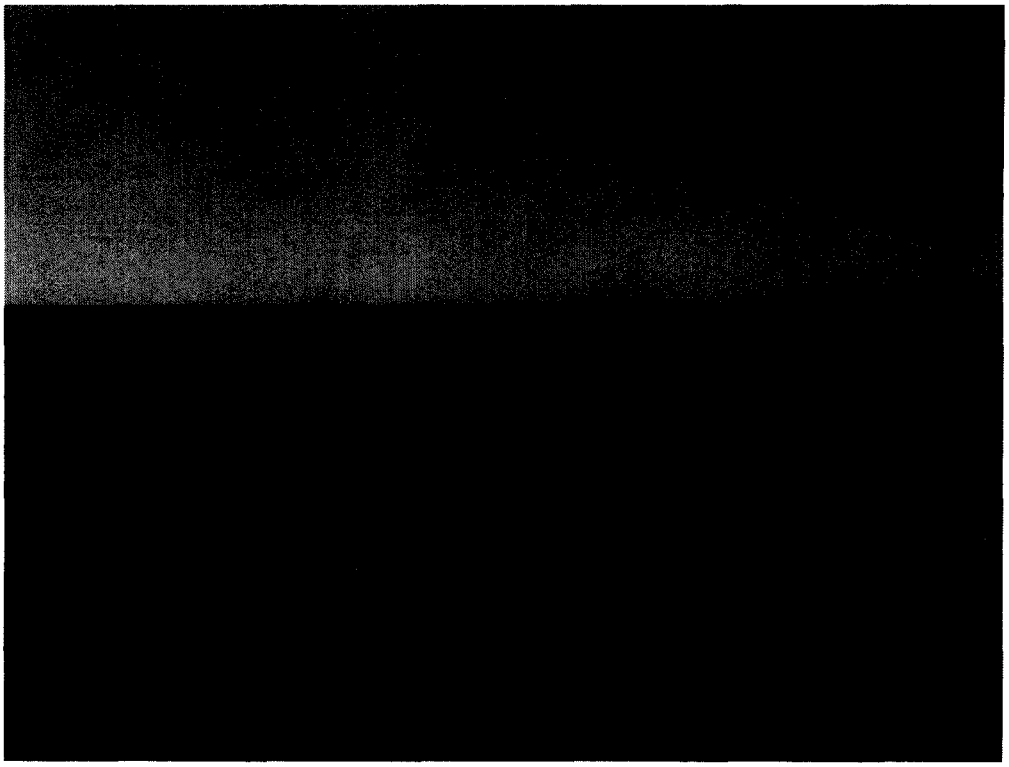
Photograph #1 – Lease sign.



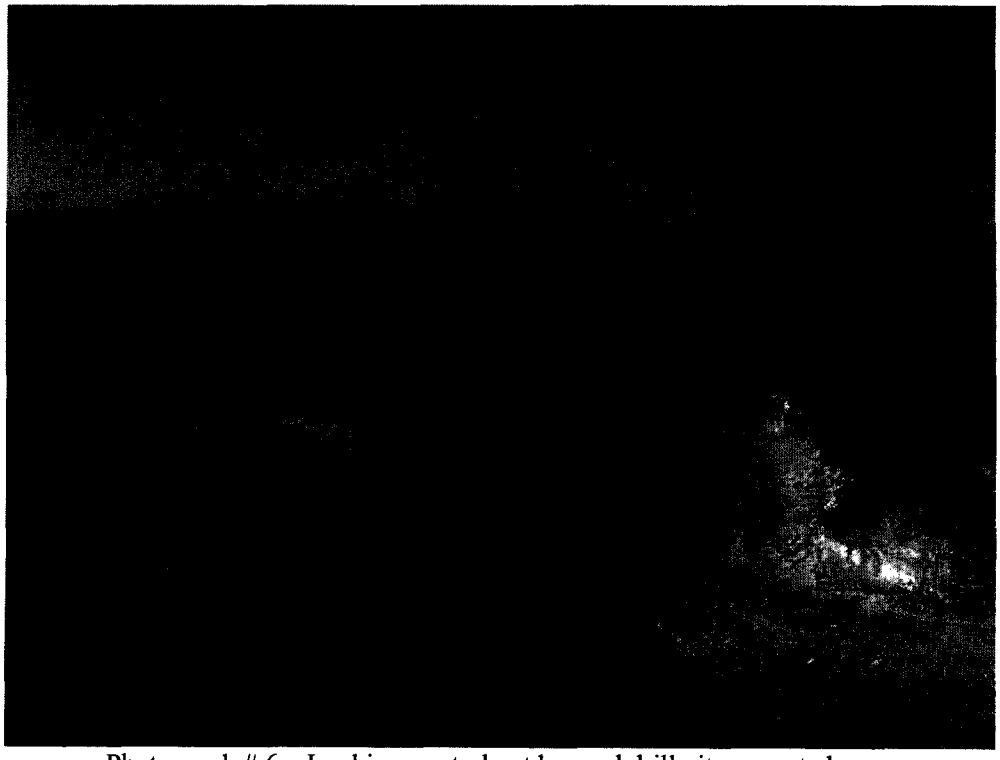
Photograph #2 – Looking southwesterly at drill pit liner.

Photograph #3 – Looking east at original pit, liner and production well.


Photograph #4 – Looking westerly at pit, berm and liner.



Photograph #5 – Looking southwesterly at drill pit excavated area.



Photograph # 6 – Looking westerly at bermed drill pit excavated area.

Photograph #7 - Looking westerly at installation of liner.

Photograph #8 - Looking southerly at beginning of backfilling.

Photograph #9 - Looking northwesterly at closed site, contoured and ready for seeding.

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

APPENDIX II

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORMS

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/ Barber Adkins 8-2

Project Number: 160015

Location: UL-L, Sect. 08, T 20 S, R 37 E

Lab Order Number: 5K17011

Report Date: 11/28/05

Environmental Plus, Incorporated	Project: Chesapeake/ Barber Adkins 8-2	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160015	**Reported:**
Eunice NM, 88231	Project Manager: Iain Olness	11/28/05 08:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SWEF (6 inch)	5K17011-01	Soil	11/16/05 07:00	11/17/05 13:50
WCEF (6 inch)	5K17011-02	Soil	11/16/05 07:10	11/17/05 13:50
NWEF (6 inch)	5K17011-03	Soil	11/16/05 07:20	11/17/05 13:50
NCEF (6 inch)	5K17011-04	Soil	11/16/05 07:30	11/17/05 13:50
NEEF (6 inch)	5K17011-05	Soil	11/16/05 07:40	11/17/05 13:50
SEEF (6 inch)	5K17011-06	Soil	11/16/05 07:50	11/17/05 13:50
SCEF (6 inch)	5K17011-07	Soil	11/16/05 08:00	11/17/05 13:50
CEF (6 inch)	5K17011-08	Soil	11/16/05 08:10	11/17/05 13:50
ECEF (6 inch)	5K17011-09	Soil	11/16/05 08:20	11/17/05 13:50
ESW-N (3')	5K17011-10	Soil	11/16/05 08:30	11/17/05 13:50
ESW-S (3')	5K17011-11	Soil	11/16/05 08:40	11/17/05 13:50
SSW-E (3')	5K17011-12	Soil	11/16/05 08:50	11/17/05 13:50
SSW-W (3')	5K17011-13	Soil	11/16/05 09:00	11/17/05 13:50
WSW-W (3')	5K17011-14	Soil	11/16/05 09:10	11/17/05 13:50
WSW-N (3')	5K17011-15	Soil	11/16/05 09:20	11/17/05 13:50
NSW-W (3')	5K17011-16	Soil	11/16/05 09:30	11/17/05 13:50
NSW-E (3')	5K17011-17	Soil	11/16/05 09:40	11/17/05 13:50

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SWEF (6 inch) (5K17011-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK51813	11/18/05	11/18/05	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		*107 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**22.8**	10.0	"	1	EK51815	11/18/05	11/18/05	EPA 8015M	
Diesel Range Organics >C12-C35	**371**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**394**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*95.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*104 %*	*70-130*		"	"	"	"	
WCEF (6 inch) (5K17011-02) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/18/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*71.8 %*	*70-130*		"	"	"	"	
NWEF (6 inch) (5K17011-03) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/18/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*92.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*82.4 %*	*70-130*		"	"	"	"	
NCEF (6 inch) (5K17011-04) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/18/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*88.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*74.2 %*	*70-130*		"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NEEF (6 inch) (5K17011-05) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/18/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*83.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*70.2 %*	*70-130*		"	"	"	"	
SEEF (6 inch) (5K17011-06) Soil									
Gasoline Range Organics C6-C12	**30.4**	10.0	mg/kg dry	1	EK51815	11/18/05	11/18/05	EPA 8015M	
Diesel Range Organics >C12-C35	**501**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**531**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*107 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*128 %*	*70-130*		"	"	"	"	
SCEF (6 inch) (5K17011-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK51813	11/18/05	11/18/05	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		*96.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.0 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**14.9**	10.0	"	1	EK51815	11/18/05	11/18/05	EPA 8015M	
Diesel Range Organics >C12-C35	**132**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**147**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*89.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*87.4 %*	*70-130*		"	"	"	"	
CEF (6 inch) (5K17011-08) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/18/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*82.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*82.6 %*	*70-130*		"	"	"	"	

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Organics by GC

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
ECEF (6 inch) (5K17011-09) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/18/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*82.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*70.6 %*	*70-130*		"	"	"	"	
ESW-N (3') (5K17011-10) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/18/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*87.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*79.8 %*	*70-130*		"	"	"	"	
ESW-S (3') (5K17011-11) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/18/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*83.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*73.0 %*	*70-130*		"	"	"	"	
SSW-E (3') (5K17011-12) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/19/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*87.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*71.6 %*	*70-130*		"	"	"	"	
SSW-W (3') (5K17011-13) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/19/05	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		*75.0 %*	*70-130*		"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WSW-W (3') (5K17011-14) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/19/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*92.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*75.2 %*	*70-130*		"	"	"	"	
WSW-N (3') (5K17011-15) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/19/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*81.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*70.8 %*	*70-130*		"	"	"	"	
NSW-W (3') (5K17011-16) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK51813	11/18/05	11/18/05	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*97.4 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	"	1	EK51815	11/18/05	11/19/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*72.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*73.4 %*	*70-130*		"	"	"	"	
NSW-E (3') (5K17011-17) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK51815	11/18/05	11/19/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*91.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*76.4 %*	*70-130*		"	"	"	"	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SWEF (6 inch) (5K17011-01) Soil									
Chloride	**3210**	50.0	mg/kg	100	EK52111	11/18/05	11/21/05	EPA 300.0	
% Moisture	**4.9**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**522**	50.0	mg/kg	100	EK52111	11/18/05	11/21/05	EPA 300.0	
WCEF (6 inch) (5K17011-02) Soil									
Chloride	**1930**	25.0	mg/kg	50	EK52111	11/18/05	11/21/05	EPA 300.0	
% Moisture	**6.4**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**197**	25.0	mg/kg	50	EK52111	11/18/05	11/21/05	EPA 300.0	
NWEF (6 inch) (5K17011-03) Soil									
Chloride	**3640**	50.0	mg/kg	100	EK52111	11/18/05	11/21/05	EPA 300.0	
% Moisture	**7.8**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**526**	50.0	mg/kg	100	EK52111	11/18/05	11/21/05	EPA 300.0	
NCEF (6 inch) (5K17011-04) Soil									
Chloride	**10700**	200	mg/kg	400	EK52111	11/18/05	11/21/05	EPA 300.0	
% Moisture	**7.2**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**888**	200	mg/kg	400	EK52111	11/18/05	11/21/05	EPA 300.0	
NEEF (6 inch) (5K17011-05) Soil									
Chloride	**106**	5.00	mg/kg	10	EK52111	11/18/05	11/21/05	EPA 300.0	
% Moisture	**1.5**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**94.4**	5.00	mg/kg	10	EK52111	11/18/05	11/21/05	EPA 300.0	
SEEF (6 inch) (5K17011-06) Soil									
Chloride	**2230**	50.0	mg/kg	100	EK52111	11/18/05	11/21/05	EPA 300.0	
% Moisture	**2.3**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**461**	50.0	mg/kg	100	EK52111	11/18/05	11/21/05	EPA 300.0	
SCEF (6 inch) (5K17011-07) Soil									
Chloride	**1700**	25.0	mg/kg	50	EK52111	11/18/05	11/21/05	EPA 300.0	
% Moisture	**2.6**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**165**	25.0	mg/kg	50	EK52111	11/18/05	11/21/05	EPA 300.0	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CEF (6 inch) (5K17011-08) Soil									
Chloride	**1300**	20.0	mg/kg	40	EK52111	11/18/05	11/21/05	EPA 300.0	
% Moisture	**0.4**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**103**	20.0	mg/kg	40	EK52111	11/18/05	11/21/05	EPA 300.0	
ECEF (6 inch) (5K17011-09) Soil									
Chloride	**35100**	500	mg/kg	1000	EK52111	11/18/05	11/21/05	EPA 300.0	
% Moisture	**10.7**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**2080**	500	mg/kg	1000	EK52111	11/18/05	11/21/05	EPA 300.0	
ESW-N (3') (5K17011-10) Soil									
Chloride	**2680**	50.0	mg/kg	100	EK52112	11/18/05	11/21/05	EPA 300.0	
% Moisture	**4.5**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**163**	50.0	mg/kg	100	EK52112	11/18/05	11/21/05	EPA 300.0	
ESW-S (3') (5K17011-11) Soil									
Chloride	**77.4**	5.00	mg/kg	10	EK52112	11/18/05	11/21/05	EPA 300.0	
% Moisture	**13.7**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**50.7**	5.00	mg/kg	10	EK52112	11/18/05	11/21/05	EPA 300.0	
SSW-E (3') (5K17011-12) Soil									
Chloride	**12.4**	5.00	mg/kg	10	EK52112	11/18/05	11/21/05	EPA 300.0	
% Moisture	**7.8**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**28.7**	5.00	mg/kg	10	EK52112	11/18/05	11/21/05	EPA 300.0	
SSW-W (3') (5K17011-13) Soil									
Chloride	**1120**	20.0	mg/kg	40	EK52112	11/18/05	11/21/05	EPA 300.0	
% Moisture	**13.3**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**134**	20.0	mg/kg	40	EK52112	11/18/05	11/21/05	EPA 300.0	
WSW-W (3') (5K17011-14) Soil									
Chloride	**1310**	20.0	mg/kg	40	EK52112	11/18/05	11/21/05	EPA 300.0	
% Moisture	**8.6**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**66.0**	20.0	mg/kg	40	EK52112	11/18/05	11/21/05	EPA 300.0	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WSW-N (3') (5K17011-15) Soil									
Chloride	**13300**	200	mg/kg	400	EK52112	11/18/05	11/21/05	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**911**	200	mg/kg	400	EK52112	11/18/05	11/21/05	EPA 300.0	
NSW-W (3') (5K17011-16) Soil									
Chloride	**278**	10.0	mg/kg	20	EK52112	11/18/05	11/21/05	EPA 300.0	
% Moisture	**7.3**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**79.9**	10.0	mg/kg	20	EK52112	11/18/05	11/21/05	EPA 300.0	
NSW-E (3') (5K17011-17) Soil									
Chloride	**63.1**	5.00	mg/kg	10	EK52112	11/18/05	11/21/05	EPA 300.0	
% Moisture	**4.2**	0.1	%	1	EK51804	11/17/05	11/18/05	% calculation	
Sulfate	**30.3**	5.00	mg/kg	10	EK52112	11/18/05	11/21/05	EPA 300.0	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK51813 - EPA 5030C (GC)										
Blank (EK51813-BLK1)				Prepared & Analyzed: 11/18/05						
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	*0.0414*		"	*0.0400*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0431*		"	*0.0400*		*108*	*80-120*			
LCS (EK51813-BS1)				Prepared & Analyzed: 11/18/05						
Benzene	0.0553	0.00100	mg/kg wet	0.0500		111	80-120			
Toluene	0.0600	0.00100	"	0.0500		120	80-120			
Ethylbenzene	0.0578	0.00100	"	0.0500		116	80-120			
Xylene (p/m)	0.105	0.00100	"	0.100		105	80-120			
Xylene (o)	0.0568	0.00100	"	0.0500		114	80-120			
Surrogate: a,a,a-Trifluorotoluene	*0.0441*		"	*0.0400*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0357*		"	*0.0400*		*89.2*	*80-120*			
Calibration Check (EK51813-CCV1)				Prepared & Analyzed: 11/18/05						
Benzene	52.6		ug/kg	50.0		105	80-120			
Toluene	55.6		"	50.0		111	80-120			
Ethylbenzene	52.2		"	50.0		104	80-120			
Xylene (p/m)	95.0		"	100		95.0	80-120			
Xylene (o)	51.3		"	50.0		103	80-120			
Surrogate: a,a,a-Trifluorotoluene	*0.0468*		*mg/kg wet*	*0.0400*		*117*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0347*		"	*0.0400*		*86.8*	*80-120*			
Matrix Spike (EK51813-MS1)	**Source: 5K17010-06**			Prepared & Analyzed: 11/18/05						
Benzene	1.39	0.0250	mg/kg dry	1.34	ND	104	80-120			
Toluene	1.42	0.0250	"	1.34	ND	106	80-120			
Ethylbenzene	1.34	0.0250	"	1.34	ND	100	80-120			
Xylene (p/m)	2.50	0.0250	"	2.67	ND	93.6	80-120			
Xylene (o)	1.34	0.0250	"	1.34	ND	100	80-120			
Surrogate: a,a,a-Trifluorotoluene	*0.0492*		"	*0.0427*		*115*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0344*		"	*0.0427*		*80.6*	*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 EK51813 - EPA 5030C (GC)										
Matrix Spike Dup (EK51813-MSD1)	**Source: 5K17010-06**			Prepared & Analyzed: 11/18/05						
Benzene	1.43	0.0250	mg/kg dry	1.34	ND	107	80-120	2.84	20	
Toluene	1.54	0.0250	"	1.34	ND	115	80-120	8.14	20	
Ethylbenzene	1.57	0.0250	"	1.34	ND	117	80-120	15.7	20	
Xylene (p/m)	2.87	0.0250	"	2.67	ND	107	80-120	13.4	20	
Xylene (o)	1.55	0.0250	"	1.34	ND	116	80-120	14.8	20	
Surrogate: a,a,a-Trifluorotoluene	*0.0500*		"	*0.0427*		*117*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0496*		"	*0.0427*		*116*	*80-120*			
Batch EK51815 - Solvent Extraction (GC)										
Blank (EK51815-BLK1)				Prepared & Analyzed: 11/18/05						
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	*40.1*		*mg/kg*	*50.0*		*80.2*	*70-130*			
Surrogate: 1-Chlorooctadecane	*35.7*		"	*50.0*		*71.4*	*70-130*			
LCS (EK51815-BS1)				Prepared & Analyzed: 11/18/05						
Gasoline Range Organics C6-C12	394	10.0	mg/kg wet	500		78.8	75-125			
Diesel Range Organics >C12-C35	558	10.0	"	500		112	75-125			
Total Hydrocarbon C6-C35	952	10.0	"	1000		95.2	75-125			
Surrogate: 1-Chlorooctane	*53.1*		*mg/kg*	*50.0*		*106*	*70-130*			
Surrogate: 1-Chlorooctadecane	*48.0*		"	*50.0*		*96.0*	*70-130*			
Calibration Check (EK51815-CCV1)				Prepared: 11/18/05 Analyzed: 11/19/05						
Gasoline Range Organics C6-C12	431		mg/kg	500		86.2	80-120			
Diesel Range Organics >C12-C35	584		"	500		117	80-120			
Total Hydrocarbon C6-C35	1020		"	1000		102	80-120			
Surrogate: 1-Chlorooctane	*47.6*		"	*50.0*		*95.2*	*70-130*			
Surrogate: 1-Chlorooctadecane	*64.4*		"	*50.0*		*129*	*70-130*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK51815 - Solvent Extraction (GC)										
Matrix Spike (EK51815-MS1)	**Source: 5K17011-01**			Prepared & Analyzed: 11/18/05						
Gasoline Range Organics C6-C12	455	10.0	mg/kg dry	526	22.8	82.2	75-125			
Diesel Range Organics >C12-C35	852	10.0	"	526	371	91.4	75-125			
Total Hydrocarbon C6-C35	1310	10.0	"	1050	394	87.2	75-125			
Surrogate: 1-Chlorooctane	*54.4*		*mg/kg*	*50.0*		*109*	*70-130*			
Surrogate: 1-Chlorooctadecane	*56.4*		*"*	*50.0*		*113*	*70-130*			
Matrix Spike Dup (EK51815-MSD1)	**Source: 5K17011-01**			Prepared & Analyzed: 11/18/05						
Gasoline Range Organics C6-C12	444	10.0	mg/kg dry	526	22.8	80.1	75-125	2.45	20	
Diesel Range Organics >C12-C35	853	10.0	"	526	371	91.6	75-125	0.117	20	
Total Hydrocarbon C6-C35	1300	10.0	"	1050	394	86.3	75-125	0.766	20	
Surrogate: 1-Chlorooctane	*55.5*		*mg/kg*	*50.0*		*111*	*70-130*			
Surrogate: 1-Chlorooctadecane	*56.9*		*"*	*50.0*		*114*	*70-130*			

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 EK51804 - General Preparation (Prep)										
Blank (EK51804-BLK1)				Prepared: 11/17/05 Analyzed: 11/18/05						
% Solids	100		%							
Duplicate (EK51804-DUP1)	**Source: 5K17002-01**			Prepared: 11/17/05 Analyzed: 11/18/05						
% Solids	90.2		%		90.2			0.00	20	
Batch EK52111 - Water Extraction										
Blank (EK52111-BLK1)				Prepared: 11/18/05 Analyzed: 11/21/05						
Chloride	ND	0.500	mg/kg							
Sulfate	ND	0.500	"							
LCS (EK52111-BS1)				Prepared: 11/18/05 Analyzed: 11/21/05						
Sulfate	8.69		mg/L	10.0		86.9	80-120			
Chloride	8.42		"	10.0		84.2	80-120			
Calibration Check (EK52111-CCV1)				Prepared: 11/18/05 Analyzed: 11/21/05						
Chloride	8.73		mg/L	10.0		87.3	80-120			
Sulfate	9.03		"	10.0		90.3	80-120			
Duplicate (EK52111-DUP1)	**Source: 5K17004-01**			Prepared: 11/18/05 Analyzed: 11/21/05						
Chloride	311	20.0	mg/kg		311			0.00	20	
Sulfate	1750	20.0	"		1740			0.573	20	
Batch EK52112 - Water Extraction										
Blank (EK52112-BLK1)				Prepared: 11/18/05 Analyzed: 11/21/05						
Chloride	ND	0.500	mg/kg							
Sulfate	ND	0.500	"							

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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 EK52112 - Water Extraction										
LCS (EK52112-BS1)				Prepared: 11/18/05 Analyzed: 11/21/05						
Sulfate	8.74		mg/L	10.0		87.4	80-120			
Chloride	8.57		"	10.0		85.7	80-120			
Calibration Check (EK52112-CCV1)				Prepared: 11/18/05 Analyzed: 11/21/05						
Sulfate	8.80		mg/L	10.0		88.0	80-120			
Chloride	8.59		"	10.0		85.9	80-120			
Duplicate (EK52112-DUP1)	**Source: 5K17011-10**			Prepared: 11/18/05 Analyzed: 11/21/05						
Sulfate	152	50.0	mg/kg		163			6.98	20	
Chloride	2770	50.0	"		2680			3.30	20	

Notes and Definitions

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

Report Approved By: Raland K Tuttle Date: 11/28/2005

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Chain of Custody Form

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Facility Name	Barber Adkins 8-2
Location	UL-L, Sect. 08, T 20 S, R 37 E
Project Reference	160015
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P.O. Box 1558
Eunice, NM 88231

LAB I.D. (5K17011)	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>	PAH			
-01	SWEF (6")	G	1			1					X		16-Nov-05	7:00	X	X	X	X							
-02	WCEF (6")	G	1			1					X		16-Nov-05	7:10		X	X	X							
-03	NWEF (6")	G	1			1					X		16-Nov-05	7:20		X	X	X							
-04	NCEF (6")	G	1			1					X		16-Nov-05	7:30		X	X	X							
-05	NEEF (6")	G	1			1					X		16-Nov-05	7:40		X	X	X							
-06	SEEF (6")	G	1			1					X		16-Nov-05	7:50		X	X	X							
-07	SCEF (6")	G	1			1					X		16-Nov-05	8:00	X	X	X	X							
-08	CEF (6")	G	1			1					X		16-Nov-05	8:10		X	X	X							
-09	ECEF (6")	G	1			1					X		16-Nov-05	8:20		X	X	X							
-10	ESW-N (3')	G	1			1					X		16-Nov-05	8:30		X	X	X							

Sampler Relinquished: [signature] Date: 11/17/05 Time: 1045 Received By: [signature]

Relinquished by: [signature] Date: 11-17-05 Time: 1350 Received By: (lab staff) [signature]

Delivered by:

Sample Cool & Intact 3.0 (Yes) No Checked By:

E-mail results to: iolness@envplus.net

NOTES: Labels w/ Seals

Environmental Plus, Inc.

Chain of Custody Form

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

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Chesapeake Energy
Facility Name	Barber Adkins 8-2
Location	UL-L, Sect. 08, T 20 S, R 37 E
Project Reference	160015
EPI Sampler Name	George Blackburn

Bill To

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

ANALYSIS REQUEST

LAB I.D. 5K17011	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO_4^{-2})	pH	TCLP	OTHER >>>	PAH			
11	ESW-S (3')	G	1			1					X		16-Nov-05	8:40		X	X	X							
12	SSW-E (3')	G	1			1					X		16-Nov-05	8:50		X	X	X							
13	SSW-W (3')	G	1			1					X		16-Nov-05	9:00		X	X	X							
14	WSW-S (3')	G	1			1					X		16-Nov-05	9:10		X	X	X							
15	WSW-N (3')	G	1			1					X		16-Nov-05	9:20		X	X	X							
16	NSW-W (3')	G	1			1					X		16-Nov-05	9:30	X	X	X	X							
17	NSW-E (3')	G	1			1					X		16-Nov-05	9:40		X	X	X							
8																									
9																									
10																									

Sampler Relinquished: Iain Olness	Date 11/17/05 Time 1045	Received By: Aaron Boone
Relinquished by: Aaron Boone	Date 11-17-05 Time 1350	Received By: (lab staff) Kalandra Jones
Delivered by:	Sample Cool & Intact 5.0 Yes / No	Checked By:

E-mail results to: iolness@envplus.net

NOTES: Labels w/ seals

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

Client: EPI

Date/Time: 11-17-05 @ 1350

Order #: 5K17011

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	-3.0 C
Shipping container/cooler in good condition?	Yes	No	N/A
Custody Seals intact on shipping container/cooler?	Yes	No	Not present N/A
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:

_____

_____

_____

_____

_____

_____

_____

_____

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/ Barber Adkins 8-2

Project Number: 160015

Location: UL-L. Sect. 08, T 20 S, R 37 E

Lab Order Number: 6G07012

Report Date: 07/12/06

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

Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ECEF-N 7'	6G07012-01	Soil	06/29/06 08:15	07/07/06 11:20
ECEF-S 7'	6G07012-02	Soil	06/29/06 09:10	07/07/06 11:20
ESW-N A 6'	6G07012-03	Soil	06/29/06 09:12	07/07/06 11:20
NCEF A 8'	6G07012-04	Soil	06/29/06 13:00	07/07/06 11:20
NCEF B 14'	6G07012-05	Soil	06/30/06 07:45	07/07/06 11:20
WCEF-N 15'	6G07012-06	Soil	07/05/06 09:30	07/07/06 11:20
WCEF-S 15'	6G07012-07	Soil	07/05/06 09:32	07/07/06 11:20

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
ECEF-N 7' (6G07012-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61103	07/11/06	07/12/06	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		*94.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62601	07/07/06	07/08/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*99.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*101 %*	*70-130*		"	"	"	"	
ECEF-S 7' (6G07012-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61103	07/11/06	07/11/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*93.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62601	07/07/06	07/08/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*97.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*97.8 %*	*70-130*		"	"	"	"	
ESW-N A 6' (6G07012-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61103	07/11/06	07/11/06	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		*91.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62601	07/07/06	07/08/06	EPA 8015M	

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

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

Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
ESW-N A 6' (6G07012-03) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EF62601	07/07/06	07/08/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*96.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*97.4 %*	*70-130*		"	"	"	"	
NCEF A 8' (6G07012-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61103	07/11/06	07/11/06	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		*96.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	**J [7.14]**	10.0	mg/kg dry	1	EF62601	07/07/06	07/08/06	EPA 8015M	J
Carbon Ranges C12-C28	**74.7**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**ND**	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	**74.7**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*105 %*	*70-130*		"	"	"	"	
NCEF B 14' (6G07012-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61103	07/11/06	07/11/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62601	07/07/06	07/08/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*103 %*	*70-130*		"	"	"	"	

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Environmental Plus, Incorporated	Project: Chesapeake/ Barber Adkins 8-2	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160015	
Eunice NM, 88231	Project Manager: Iain Olness	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WCEF-N 15' (6G07012-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61103	07/11/06	07/11/06	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		*98.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62324	07/07/06	07/10/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*104 %*	*70-130*		"	"	"	"	
WCEF-S 15' (6G07012-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61103	07/11/06	07/11/06	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		*91.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62601	07/07/06	07/08/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*103 %*	*70-130*		"	"	"	"	

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

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

Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
ECEF-N 7' (6G07012-01) Soil									
Chloride	**53.2**	20.0	mg/kg Wet	2	EG61005	07/10/06	07/11/06	SW 846 9253	
% Moisture	**4.5**	0.1	%	1	EG61010	07/07/06	07/10/06	% calculation	
Sulfate	**134**	25.0	mg/kg	5	EG61104	07/10/06	07/11/06	EPA 9038	
ECEF-S 7' (6G07012-02) Soil									
Chloride	**128**	20.0	mg/kg Wet	2	EG61005	07/10/06	07/11/06	SW 846 9253	
% Moisture	**9.1**	0.1	%	1	EG61010	07/07/06	07/10/06	% calculation	
Sulfate	**238**	25.0	mg/kg	5	EG61104	07/10/06	07/11/06	EPA 9038	
ESW-N A 6' (6G07012-03) Soil									
Chloride	ND	20.0	mg/kg Wet	2	EG61005	07/10/06	07/11/06	SW 846 9253	
% Moisture	**6.0**	0.1	%	1	EG61010	07/07/06	07/10/06	% calculation	
Sulfate	**139**	25.0	mg/kg	5	EG61104	07/10/06	07/11/06	EPA 9038	
NCEF A 8' (6G07012-04) Soil									
Chloride	**213**	20.0	mg/kg Wet	2	EG61005	07/10/06	07/11/06	SW 846 9253	
% Moisture	**4.2**	0.1	%	1	EG61010	07/07/06	07/10/06	% calculation	
Sulfate	**307**	25.0	mg/kg	5	EG61104	07/10/06	07/11/06	EPA 9038	
NCEF B 14' (6G07012-05) Soil									
Chloride	**617**	20.0	mg/kg Wet	2	EG61005	07/10/06	07/11/06	SW 846 9253	
% Moisture	**12.3**	0.1	%	1	EG61010	07/07/06	07/10/06	% calculation	
Sulfate	**1180**	125	mg/kg	25	EG61104	07/10/06	07/11/06	EPA 9038	
WCEF-N 15' (6G07012-06) Soil									
Chloride	**287**	20.0	mg/kg Wet	2	EG61005	07/10/06	07/11/06	SW 846 9253	
% Moisture	**14.1**	0.1	%	1	EG61010	07/07/06	07/10/06	% calculation	
Sulfate	**338**	25.0	mg/kg	5	EG61104	07/10/06	07/11/06	EPA 9038	
WCEF-S 15' (6G07012-07) Soil									
Chloride	**308**	20.0	mg/kg Wet	2	EG61005	07/10/06	07/11/06	SW 846 9253	
% Moisture	**9.2**	0.1	%	1	EG61010	07/07/06	07/10/06	% calculation	
Sulfate	**334**	25.0	mg/kg	5	EG61104	07/10/06	07/11/06	EPA 9038	

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

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Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

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 EF62324 - Solvent Extraction (GC)										
Blank (EF62324-BLK1)				Prepared: 07/07/06 Analyzed: 07/08/06						
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 nC6-nC35	ND	10.0	"							
Surrogate: 1-Chlorooctane	*49.6*		*mg/kg*	*50.0*		*99.2*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.3*		*"*	*50.0*		*94.6*	*70-130*			
LCS (EF62324-BS1)				Prepared: 07/07/06 Analyzed: 07/08/06						
Carbon Ranges C6-C12	523	10.0	mg/kg wet	500		105	75-125			
Carbon Ranges C12-C28	533	10.0	"	500		107	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbon nC6-nC35	1060	10.0	"	1000		106	75-125			
Surrogate: 1-Chlorooctane	*57.8*		*mg/kg*	*50.0*		*116*	*70-130*			
Surrogate: 1-Chlorooctadecane	*49.9*		*"*	*50.0*		*99.8*	*70-130*			
Calibration Check (EF62324-CCV1)				Prepared: 07/07/06 Analyzed: 07/09/06						
Carbon Ranges C6-C12	270		mg/kg	250		108	80-120			
Carbon Ranges C12-C28	293		"	250		117	80-120			
Total Hydrocarbon nC6-nC35	563		"	500		113	80-120			
Surrogate: 1-Chlorooctane	*64.0*		*"*	*50.0*		*128*	*70-130*			
Surrogate: 1-Chlorooctadecane	*60.0*		*"*	*50.0*		*120*	*70-130*			
Matrix Spike (EF62324-MS1)	**Source: 6G07012-06**			Prepared: 07/07/06 Analyzed: 07/08/06						
Carbon Ranges C6-C12	553	10.0	mg/kg dry	582	ND	95.0	75-125			
Carbon Ranges C12-C28	570	10.0	"	582	ND	97.9	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbon nC6-nC35	1120	10.0	"	1160	ND	96.6	75-125			
Surrogate: 1-Chlorooctane	*61.6*		*mg/kg*	*50.0*		*123*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.2*		*"*	*50.0*		*104*	*70-130*			

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

Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

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 EF62324 - Solvent Extraction (GC)										
Matrix Spike Dup (EF62324-MSD1)	**Source: 6G07012-06**			Prepared: 07/07/06 Analyzed: 07/08/06						
Carbon Ranges C6-C12	555	10.0	mg/kg dry	582	ND	95.4	75-125	0.361	20	
Carbon Ranges C12-C28	577	10.0	"	582	ND	99.1	75-125	1.22	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbon nC6-nC35	1130	10.0	"	1160	ND	97.4	75-125	0.889	20	
Surrogate: 1-Chlorooctane	*64.0*		*mg/kg*	*50.0*		*128*	*70-130*			
Surrogate: 1-Chlorooctadecane	*54.8*		*"*	*50.0*		*110*	*70-130*			
Batch EF62601 - Solvent Extraction (GC)										
Blank (EF62601-BLK1)				Prepared: 07/07/06 Analyzed: 07/08/06						
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 nC6-nC35	ND	10.0	"							
Surrogate: 1-Chlorooctane	*47.9*		*mg/kg*	*50.0*		*95.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.0*		*"*	*50.0*		*94.0*	*70-130*			
LCS (EF62601-BS1)				Prepared: 07/07/06 Analyzed: 07/08/06						
Carbon Ranges C6-C12	511	10.0	mg/kg wet	500		102	75-125			
Carbon Ranges C12-C28	517	10.0	"	500		103	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbon nC6-nC35	1030	10.0	"	1000		103	75-125			
Surrogate: 1-Chlorooctane	*56.8*		*mg/kg*	*50.0*		*114*	*70-130*			
Surrogate: 1-Chlorooctadecane	*48.1*		*"*	*50.0*		*96.2*	*70-130*			
Calibration Check (EF62601-CCV1)				Prepared: 07/07/06 Analyzed: 07/10/06						
Carbon Ranges C6-C12	272		mg/kg	250		109	80-120			
Carbon Ranges C12-C28	277		"	250		111	80-120			
Total Hydrocarbon nC6-nC35	549		"	500		110	80-120			
Surrogate: 1-Chlorooctane	*46.9*		*"*	*50.0*		*93.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*44.9*		*"*	*50.0*		*89.8*	*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 EF62601 - Solvent Extraction (GC)										
Matrix Spike (EF62601-MS1)	**Source: 6G07010-02**			Prepared: 07/07/06 Analyzed: 07/08/06						
Carbon Ranges C6-C12	509	10.0	mg/kg dry	541	ND	94.1	75-125			
Carbon Ranges C12-C28	521	10.0	"	541	ND	96.3	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbon nC6-nC35	1030	10.0	"	1080	ND	95.4	75-125			
Surrogate: 1-Chlorooctane	*55.8*		*mg/kg*	*50.0*		*112*	*70-130*			
Surrogate: 1-Chlorooctadecane	*48.6*		*"*	*50.0*		*97.2*	*70-130*			
Matrix Spike Dup (EF62601-MSD1)	**Source: 6G07010-02**			Prepared: 07/07/06 Analyzed: 07/08/06						
Carbon Ranges C6-C12	513	10.0	mg/kg dry	541	ND	94.8	75-125	0.783	20	
Carbon Ranges C12-C28	522	10.0	"	541	ND	96.5	75-125	0.192	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbon nC6-nC35	1040	10.0	"	1080	ND	96.3	75-125	0.966	20	
Surrogate: 1-Chlorooctane	*58.7*		*mg/kg*	*50.0*		*117*	*70-130*			
Surrogate: 1-Chlorooctadecane	*49.6*		*"*	*50.0*		*99.2*	*70-130*			
Batch EG61103 - EPA 5030C (GC)										
Blank (EG61103-BLK1)				Prepared & Analyzed: 07/11/06						
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	*40.9*		*ug/kg*	*40.0*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.8*		*"*	*40.0*		*102*	*80-120*			
LCS (EG61103-BS1)				Prepared & Analyzed: 07/11/06						
Benzene	1.34	0.0250	mg/kg wet	1.25		107	80-120			
Toluene	1.33	0.0250	"	1.25		106	80-120			
Ethylbenzene	1.29	0.0250	"	1.25		103	80-120			
Xylene (p/m)	2.89	0.0250	"	2.50		116	80-120			
Xylene (o)	1.40	0.0250	"	1.25		112	80-120			
Surrogate: a,a,a-Trifluorotoluene	*36.8*		*ug/kg*	*40.0*		*92.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.9*		*"*	*40.0*		*107*	*80-120*			

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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 EG61103 - EPA 5030C (GC)										
Calibration Check (EG61103-CCV1)				Prepared & Analyzed: 07/11/06						
Benzene	56.1		ug/kg	50.0		112	80-120			
Toluene	54.6		"	50.0		109	80-120			
Ethylbenzene	55.7		"	50.0		111	80-120			
Xylene (p/m)	114		"	100		114	80-120			
Xylene (o)	55.6		"	50.0		111	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.1*		"	*40.0*		*97.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.7*		"	*40.0*		*99.2*	*80-120*			
Matrix Spike (EG61103-MS1)		**Source: 6G10004-03**		Prepared & Analyzed: 07/11/06						
Benzene	1.45	0.0250	mg/kg dry	1.29	ND	112	80-120			
Toluene	1.47	0.0250	"	1.29	ND	114	80-120			
Ethylbenzene	1.45	0.0250	"	1.29	ND	112	80-120			
Xylene (p/m)	3.03	0.0250	"	2.58	ND	117	80-120			
Xylene (o)	1.49	0.0250	"	1.29	ND	116	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.2*		*ug/kg*	*40.0*		*98.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.2*		"	*40.0*		*116*	*80-120*			
Matrix Spike Dup (EG61103-MSD1)		**Source: 6G10004-03**		Prepared & Analyzed: 07/11/06						
Benzene	1.40	0.0250	mg/kg dry	1.29	ND	109	80-120	2.71	20	
Toluene	1.40	0.0250	"	1.29	ND	109	80-120	4.48	20	
Ethylbenzene	1.35	0.0250	"	1.29	ND	105	80-120	6.45	20	
Xylene (p/m)	2.99	0.0250	"	2.58	ND	116	80-120	0.858	20	
Xylene (o)	1.43	0.0250	"	1.29	ND	111	80-120	4.41	20	
Surrogate: a,a,a-Trifluorotoluene	*37.1*		*ug/kg*	*40.0*		*92.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.5*		"	*40.0*		*96.2*	*80-120*			

Environmental Plus, Incorporated
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Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

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 EG61005 - General Preparation (WetChem)										
Blank (EG61005-BLK1)				Prepared: 07/10/06 Analyzed: 07/11/06						
Chloride	ND	20.0	mg/kg Wet							
LCS (EG61005-BS1)				Prepared & Analyzed: 07/11/06						
Chloride	84.0		mg/kg	100		84.0	80-120			
Matrix Spike (EG61005-MS1)	**Source: 6G07011-30**			Prepared: 07/10/06 Analyzed: 07/11/06						
Chloride	489	20.0	mg/kg Wet	500	0.00	97.8	80-120			
Matrix Spike Dup (EG61005-MSD1)	**Source: 6G07011-30**			Prepared: 07/10/06 Analyzed: 07/11/06						
Chloride	489	20.0	mg/kg Wet	500	0.00	97.8	80-120	0.00	20	
Reference (EG61005-SRM1)				Prepared & Analyzed: 07/11/06						
Chloride	52.1		mg/kg	50.0		104	80-120			
Batch EG61010 - General Preparation (Prep)										
Blank (EG61010-BLK1)				Prepared: 07/07/06 Analyzed: 07/11/06						
% Moisture	ND	0.1	%							
Duplicate (EG61010-DUP1)	**Source: 6G07002-01**			Prepared: 07/07/06 Analyzed: 07/10/06						
% Solids	92.8		%		94.6			1.92	20	
Duplicate (EG61010-DUP2)	**Source: 6G07004-12**			Prepared: 07/07/06 Analyzed: 07/10/06						
% Solids	86.8		%		87.8			1.15	20	
Duplicate (EG61010-DUP3)	**Source: 6G07007-03**			Prepared: 07/07/06 Analyzed: 07/10/06						
% Solids	90.1		%		89.0			1.23	20	

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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 EG61010 - General Preparation (Prep)										
Duplicate (EG61010-DUP4)	**Source: 6G07012-03**			Prepared: 07/07/06 Analyzed: 07/10/06						
% Solids	95.2		%		94.0			1.27	20	
Batch EG61104 - Water Extraction										
Blank (EG61104-BLK1)				Prepared: 07/10/06 Analyzed: 07/11/06						
Sulfate	ND	25.0	mg/kg							
LCS (EG61104-BS1)				Prepared & Analyzed: 07/11/06						
Sulfate	24.1	5.00	mg/kg	25.0		96.4	80-120			
Calibration Check (EG61104-CCV1)				Prepared & Analyzed: 07/11/06						
Sulfate	51.8		mg/kg	50.0		104	80-120			
Duplicate (EG61104-DUP1)	**Source: 6G07012-01**			Prepared: 07/10/06 Analyzed: 07/11/06						
Sulfate	132	25.0	mg/kg		134			1.50	20	

Notes and Definitions

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: 7/12/2006

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.

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

LAB ELT

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	Barber Adkins 8-2
Location	UL-L, Sect. 08, T 20 S, R 37 E
Project Reference	160015
EPI Sampler Name	Felix Hernandez

Bill To

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: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>	PAH			
01	1 ECEF-N (7')	G	1			1					X		29-Jun-06	8:15	X	X	X	X							
02	2 ECEF-S (7')	G	1			1					X		29-Jun-06	9:10	X	X	X	X							
03	3 ESW-N(A) (6')	G	1			1					X		29-Jun-06	9:12	X	X	X	X							
04	4 NCEF(A) (8')	G	1			1					X		29-Jun-06	13:00	X	X	X	X							
05	5 NCEF (B) (14')	G	1			1					X		30-Jun-06	7:45	X	X	X	X							
06	6 WCEF-N (15')	G	1			1					X		05-Jul-06	9:30	X	X	X	X							
07	7 WCEF-S (15')	G	1			1					X		05-Jul-06	9:32	X	X	X	X							
	8																								
	9																								
	10																								

Sampler Relinquished: Iain Olness
Date: 7 July 06 Time: 08 36
Received By: Jason Boone

Relinquished by: Jason Boone
Date: 7/7/06 Time: 11:20
Received By: (lab staff) Cori Kelly

Delivered by:
Sample Cool & Intact: (Yes) No
Checked By:

E-mail results to: iolness@envplus.net

NOTES:
0.5 4oz glass w/ label

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

ient: EPI

ate/Time: 7/7/06 11:20

rder #: 660702

itials: UK

Sample Receipt Checklist

emperature of container/cooler?	Yes	No	0.5 C
hipping container/cooler in good condition?	Yes	No	
ustody Seals intact on shipping container/cooler?	Yes	No	Not present
ustody Seals intact on sample bottles?	Yes	No	Not present
hain of custody present?	Yes	No	
ample Instructions complete on Chain of Custody?	Yes	No	
hain of Custody signed when relinquished and received?	Yes	No	
hain of custody agrees with sample label(s)	Yes	No	
ontainer labels legible and intact?	Yes	No	
ample Matrix and properties same as on chain of custody?	Yes	No	
amples in proper container/bottle?	Yes	No	
amples properly preserved?	Yes	No	
ample bottles intact?	Yes	No	
reservations documented on Chain of Custody?	Yes	No	
ontainers documented on Chain of Custody?	Yes	No	
ufficient sample amount for indicated test?	Yes	No	
ll samples received within sufficient hold time?	Yes	No	
OC samples have zero headspace?	Yes	No	Not Applicable

)ther observations:

_____

_____

_____

Variance Documentation:

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

Regarding:

_____

_____

_____

Corrective Action Taken:

_____

_____

_____

_____

_____

_____

_____

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/ Barber Adkins 8-2

Project Number: 160015

Location: UL-L, Sect. 08, T 20 S, R 37 E

Lab Order Number: 6G10004

Report Date: 07/11/06

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

Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SWEF A 10'	6G10004-01	Soil	07/07/06 08:50	07/10/06 10:55
WSW-N A 8'	6G10004-02	Soil	07/07/06 12:30	07/10/06 10:55
SSW-W A 8'	6G10004-03	Soil	07/07/06 12:33	07/10/06 10:55
CEF A 10'	6G10004-04	Soil	07/07/06 12:37	07/10/06 10:55
WSW-S A 8'	6G10004-05	Soil	07/07/06 13:00	07/10/06 10:55

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SWEF A 10' (6G10004-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61103	07/11/06	07/11/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*97.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	**J [5.31]**	10.0	mg/kg dry	1	EF62314	07/10/06	07/10/06	EPA 8015M	J
Carbon Ranges C12-C28	**15.0**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	**15.0**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*89.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*88.6 %*	*70-130*		"	"	"	"	
WSW-N A 8' (6G10004-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61103	07/11/06	07/11/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*103 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62314	07/10/06	07/10/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*93.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*91.2 %*	*70-130*		"	"	"	"	
SSW-W A 8' (6G10004-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61103	07/11/06	07/11/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*93.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62314	07/10/06	07/10/06	EPA 8015M	

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Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SSW-W A 8' (6G10004-03) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EF62314	07/10/06	07/10/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*95.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*93.8 %*	*70-130*		"	"	"	"	
CEF A 10' (6G10004-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61103	07/11/06	07/11/06	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		*99.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62314	07/10/06	07/10/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*92.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*90.4 %*	*70-130*		"	"	"	"	
WSW-S A 8' (6G10004-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61103	07/11/06	07/11/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*104 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62314	07/10/06	07/10/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*124 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*129 %*	*70-130*		"	"	"	"	

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

Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SWEF A 10' (6G10004-01) Soil									
Chloride	**255**	20.0	mg/kg Wet	2	EG61008	07/10/06	07/10/06	SW 846 9253	
% Moisture	**12.8**	0.1	%	1	EG61101	07/10/06	07/11/06	% calculation	
Sulfate	**632**	10.0	mg/kg	2	EG61104	07/10/06	07/11/06	EPA 9038	
WSW-N A 8' (6G10004-02) Soil									
Chloride	**638**	20.0	mg/kg Wet	2	EG61008	07/10/06	07/10/06	SW 846 9253	
% Moisture	**14.0**	0.1	%	1	EG61101	07/10/06	07/11/06	% calculation	
Sulfate	**1260**	125	mg/kg	25	EG61104	07/10/06	07/11/06	EPA 9038	
SSW-W A 8' (6G10004-03) Soil									
Chloride	ND	20.0	mg/kg Wet	2	EG61008	07/10/06	07/10/06	SW 846 9253	
% Moisture	**3.0**	0.1	%	1	EG61101	07/10/06	07/11/06	% calculation	
Sulfate	ND	25.0	mg/kg	5	EG61104	07/10/06	07/11/06	EPA 9038	
CEF A 10' (6G10004-04) Soil									
Chloride	**128**	20.0	mg/kg Wet	2	EG61008	07/10/06	07/10/06	SW 846 9253	
% Moisture	**7.1**	0.1	%	1	EG61101	07/10/06	07/11/06	% calculation	
Sulfate	**168**	25.0	mg/kg	5	EG61104	07/10/06	07/11/06	EPA 9038	
WSW-S A 8' (6G10004-05) Soil									
Chloride	**702**	20.0	mg/kg Wet	2	EG61008	07/10/06	07/10/06	SW 846 9253	
% Moisture	**16.8**	0.1	%	1	EG61101	07/10/06	07/11/06	% calculation	
Sulfate	**1720**	125	mg/kg	25	EG61104	07/10/06	07/11/06	EPA 9038	

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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 EF62314 - Solvent Extraction (GC)										
Blank (EF62314-BLK1)				Prepared & Analyzed: 07/10/06						
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 nC6-nC35	ND	10.0	"							
Surrogate: 1-Chlorooctane	*43.5*		*mg/kg*	*50.0*		*87.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*40.9*		*"*	*50.0*		*81.8*	*70-130*			
LCS (EF62314-BS1)				Prepared & Analyzed: 07/10/06						
Carbon Ranges C6-C12	502	10.0	mg/kg wet	500		100	75-125			
Carbon Ranges C12-C28	486	10.0	"	500		97.2	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbon nC6-nC35	988	10.0	"	1000		98.8	75-125			
Surrogate: 1-Chlorooctane	*60.2*		*mg/kg*	*50.0*		*120*	*70-130*			
Surrogate: 1-Chlorooctadecane	*58.7*		*"*	*50.0*		*117*	*70-130*			
Calibration Check (EF62314-CCV1)				Prepared: 07/10/06 Analyzed: 07/11/06						
Carbon Ranges C6-C12	273		mg/kg	250		109	80-120			
Carbon Ranges C12-C28	284		"	250		114	80-120			
Total Hydrocarbon nC6-nC35	557		"	500		111	80-120			
Surrogate: 1-Chlorooctane	*47.9*		*"*	*50.0*		*95.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*44.9*		*"*	*50.0*		*89.8*	*70-130*			
Matrix Spike (EF62314-MS1)	**Source: 6G10004-01**			Prepared & Analyzed: 07/10/06						
Carbon Ranges C6-C12	559	10.0	mg/kg dry	573	5.31	96.6	75-125			
Carbon Ranges C12-C28	574	10.0	"	573	15.0	97.6	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbon nC6-nC35	1130	10.0	"	1150	15.0	97.0	75-125			
Surrogate: 1-Chlorooctane	*60.0*		*mg/kg*	*50.0*		*120*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.4*		*"*	*50.0*		*101*	*70-130*			

Environmental Plus, Incorporated
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Project: Chesapeake/ Barber Adkins 8-2
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Fax: 505-394-2601

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 EF62314 - Solvent Extraction (GC)										
Matrix Spike Dup (EF62314-MSD1)	**Source: 6G10004-01**			Prepared & Analyzed: 07/10/06						
Carbon Ranges C6-C12	549	10.0	mg/kg dry	573	5.31	94.9	75-125	1.81	20	
Carbon Ranges C12-C28	560	10.0	"	573	15.0	95.1	75-125	2.47	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbon nC6-nC35	1110	10.0	"	1150	15.0	95.2	75-125	1.79	20	
Surrogate: 1-Chlorooctane	*61.5*		*mg/kg*	*50.0*		*123*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.5*		*"*	*50.0*		*105*	*70-130*			
Batch EG61103 - EPA 5030C (GC)										
Blank (EG61103-BLK1)				Prepared & Analyzed: 07/11/06						
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	*40.9*		*ug/kg*	*40.0*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.8*		*"*	*40.0*		*102*	*80-120*			
LCS (EG61103-BS1)				Prepared & Analyzed: 07/11/06						
Benzene	1.34	0.0250	mg/kg wet	1.25		107	80-120			
Toluene	1.33	0.0250	"	1.25		106	80-120			
Ethylbenzene	1.29	0.0250	"	1.25		103	80-120			
Xylene (p/m)	2.89	0.0250	"	2.50		116	80-120			
Xylene (o)	1.40	0.0250	"	1.25		112	80-120			
Surrogate: a,a,a-Trifluorotoluene	*36.8*		*ug/kg*	*40.0*		*92.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.9*		*"*	*40.0*		*107*	*80-120*			

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

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Project: Chesapeake/ Barber Adkins 8-2
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Project Manager: Iain Olness

Fax: 505-394-2601

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 EG61103 - EPA 5030C (GC)										
Calibration Check (EG61103-CCV1)				Prepared & Analyzed: 07/11/06						
Benzene	56.1		ug/kg	50.0		112	80-120			
Toluene	54.6		"	50.0		109	80-120			
Ethylbenzene	55.7		"	50.0		111	80-120			
Xylene (p/m)	114		"	100		114	80-120			
Xylene (o)	55.6		"	50.0		111	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.1*		"	*40.0*		*97.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.7*		"	*40.0*		*99.2*	*80-120*			
Matrix Spike (EG61103-MS1)	**Source: 6G10004-03**			Prepared & Analyzed: 07/11/06						
Benzene	1.45	0.0250	mg/kg dry	1.29	ND	112	80-120			
Toluene	1.47	0.0250	"	1.29	ND	114	80-120			
Ethylbenzene	1.45	0.0250	"	1.29	ND	112	80-120			
Xylene (p/m)	3.03	0.0250	"	2.58	ND	117	80-120			
Xylene (o)	1.49	0.0250	"	1.29	ND	116	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.2*		*ug/kg*	*40.0*		*98.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.2*		"	*40.0*		*116*	*80-120*			
Matrix Spike Dup (EG61103-MSD1)	**Source: 6G10004-03**			Prepared & Analyzed: 07/11/06						
Benzene	1.40	0.0250	mg/kg dry	1.29	ND	109	80-120	2.71	20	
Toluene	1.40	0.0250	"	1.29	ND	109	80-120	4.48	20	
Ethylbenzene	1.35	0.0250	"	1.29	ND	105	80-120	6.45	20	
Xylene (p/m)	2.99	0.0250	"	2.58	ND	116	80-120	0.858	20	
Xylene (o)	1.43	0.0250	"	1.29	ND	111	80-120	4.41	20	
Surrogate: a,a,a-Trifluorotoluene	*37.1*		*ug/kg*	*40.0*		*92.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.5*		"	*40.0*		*96.2*	*80-120*			

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

Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

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 EG61008 - Water Extraction										
Blank (EG61008-BLK1)				Prepared & Analyzed: 07/10/06						
Chloride	ND	20.0	mg/kg Wet							
LCS (EG61008-BS1)				Prepared & Analyzed: 07/10/06						
Chloride	83.0		mg/kg	100		83.0	80-120			
Matrix Spike (EG61008-MS1)		**Source: 6G10004-03**		Prepared & Analyzed: 07/10/06						
Chloride	489	20.0	mg/kg Wet	500	0.00	97.8	80-120			
Matrix Spike Dup (EG61008-MSD1)		**Source: 6G10004-03**		Prepared & Analyzed: 07/10/06						
Chloride	489	20.0	mg/kg Wet	500	0.00	97.8	80-120	0.00	20	
Reference (EG61008-SRM1)				Prepared & Analyzed: 07/10/06						
Chloride	51.0		mg/kg	50.0		102	80-120			
Batch EG61101 - General Preparation (Prep)										
Blank (EG61101-BLK1)				Prepared: 07/10/06 Analyzed: 07/11/06						
% Moisture	ND	0.1	%							
Duplicate (EG61101-DUP1)		**Source: 6G10004-01**		Prepared: 07/10/06 Analyzed: 07/11/06						
% Moisture	14.2	0.1	%		12.8			10.4	20	
Batch EG61104 - Water Extraction										
Blank (EG61104-BLK1)				Prepared: 07/10/06 Analyzed: 07/11/06						
Sulfate	ND	25.0	mg/kg							

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 EG61104 - Water Extraction										
LCS (EG61104-BS1)				Prepared & Analyzed: 07/11/06						
Sulfate	24.1	5.00	mg/kg	25.0		96.4	80-120			
Calibration Check (EG61104-CCV1)				Prepared & Analyzed: 07/11/06						
Sulfate	51.8		mg/kg	50.0		104	80-120			
Duplicate (EG61104-DUP1)	**Source: 6G07012-01**			Prepared: 07/10/06 Analyzed: 07/11/06						
Sulfate	132	25.0	mg/kg		134			1.50	20	

Environmental Plus, Incorporated	Project: Chesapeake/ Barber Adkins 8-2	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160015	
Eunice NM, 88231	Project Manager: Iain Olness	

Notes and Definitions

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: 7/11/2006

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.

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

LAB ELT

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	Barber Adkins 8-2
Location	UL-L, Sect. 08, T 20 S, R 37 E
Project Reference	160015
EPI Sampler Name	Felix Hernandez

Bill To

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

ANALYSIS REQUEST

LAB I.D. (lab#10004)	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO_4^{-2})	pH	TCLP	OTHER >>>	PAH
-01 1	SWEF(A) (10')	G	1			1					X		07-Jul-06	8:50	X	X	X	X				
-02 2	WSW-N(A) (8')	G	1			1					X		07-Jul-06	12:30	X	X	X	X				
-03 3	SSW-W(A) (8')	G	1			1					X		07-Jul-06	12:33	X	X	X	X				
-04 4	CEF(A) (10')	G	1			1					X		07-Jul-06	12:37	X	X	X	X				
-05 5	WSW-S(A) (8')	G	1			1					X		07-Jul-06	13:00	X	X	X	X				
6																						
7																						
8																						
9																						
10																						

Sampler Relinquished: Iain Olness	Date: 10 July 06 Time: 7:12	Received By:	E-mail results to: iolness@envplus.net
Relinquished by:	Date: 10 July 06 Time: 10:55	Received By: (lab staff)	NOTES: **RUSH** 05
Delivered by:	Sample Cool & Intact: Yes / No	Checked By:	4oz glass w/ jar seals & label

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

Client: EPI

Date/Time: 7/10/04

Order #: 6G10004

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:

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/ Barber Adkins 8-2

Project Number: 160015

Location: UL-L, Sect. 08, T 20 S, R 37 E

Lab Order Number: 6G13011

Report Date: 07/14/06

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

Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SEEF A 10'	6G13011-01	Soil	07/11/06 07:10	07/13/06 14:15
SCEF A 16'	6G13011-02	Soil	07/13/06 07:20	07/13/06 14:15

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Project: Chesapeake/ Barber Adkins 8-2
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Project Manager: Iain Olness

Fax: 505-394-2601

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SEEF A 10' (6G13011-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61315	07/13/06	07/13/06	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		*94.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG61310	07/13/06	07/14/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*106 %*	*70-130*		"	"	"	"	
SCEF A 16' (6G13011-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG61315	07/13/06	07/13/06	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		*88.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG61310	07/13/06	07/14/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*105 %*	*70-130*		"	"	"	"	

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

Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SEEF A 10' (6G13011-01) Soil									
Chloride	**53.2**	20.0	mg/kg Wet	2	EG61313	07/13/06	07/13/06	SW 846 9253	
% Moisture	**5.6**	0.1	%	1	EG61401	07/13/06	07/14/06	% calculation	
Sulfate	**109**	25.0	mg/kg	5	EG61403	07/13/06	07/14/06	EPA 9038	
SCEF A 16' (6G13011-02) Soil									
Chloride	**936**	20.0	mg/kg Wet	2	EG61313	07/13/06	07/13/06	SW 846 9253	
% Moisture	**16.7**	0.1	%	1	EG61401	07/13/06	07/14/06	% calculation	
Sulfate	**1990**	250	mg/kg	50	EG61403	07/13/06	07/14/06	EPA 9038	

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Project: Chesapeake/ Barber Adkins 8-2
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Fax: 505-394-2601

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 EG61310 - Solvent Extraction (GC)										
Blank (EG61310-BLK1)				Prepared: 07/13/06 Analyzed: 07/14/06						
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 nC6-nC35	ND	10.0	"							
Surrogate: 1-Chlorooctane	*54.9*		*mg/kg*	*50.0*		*110*	*70-130*			
Surrogate: 1-Chlorooctadecane	*55.2*		"	*50.0*		*110*	*70-130*			
LCS (EG61310-BS1)				Prepared: 07/13/06 Analyzed: 07/14/06						
Carbon Ranges C6-C12	484	10.0	mg/kg wet	500		96.8	75-125			
Carbon Ranges C12-C28	498	10.0	"	500		99.6	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbon nC6-nC35	982	10.0	"	1000		98.2	75-125			
Surrogate: 1-Chlorooctane	*58.3*		*mg/kg*	*50.0*		*117*	*70-130*			
Surrogate: 1-Chlorooctadecane	*55.4*		"	*50.0*		*111*	*70-130*			
Calibration Check (EG61310-CCV1)				Prepared: 07/13/06 Analyzed: 07/14/06						
Carbon Ranges C6-C12	211		mg/kg	250		84.4	80-120			
Carbon Ranges C12-C28	277		"	250		111	80-120			
Total Hydrocarbon nC6-nC35	489		"	500		97.8	80-120			
Surrogate: 1-Chlorooctane	*61.7*		"	*50.0*		*123*	*70-130*			
Surrogate: 1-Chlorooctadecane	*60.7*		"	*50.0*		*121*	*70-130*			
Matrix Spike (EG61310-MS1)	**Source: 6G13003-01**			Prepared: 07/13/06 Analyzed: 07/14/06						
Carbon Ranges C6-C12	544	10.0	mg/kg dry	573	ND	94.9	75-125			
Carbon Ranges C12-C28	648	10.0	"	573	95.8	96.4	75-125			
Carbon Ranges C28-C35	8.33	10.0	"	0.00	10.3		75-125			J
Total Hydrocarbon nC6-nC35	1190	10.0	"	1150	106	94.3	75-125			
Surrogate: 1-Chlorooctane	*58.8*		*mg/kg*	*50.0*		*118*	*70-130*			
Surrogate: 1-Chlorooctadecane	*56.2*		"	*50.0*		*112*	*70-130*			

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

Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

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 EG61310 - Solvent Extraction (GC)										
Matrix Spike Dup (EG61310-MSD1)	**Source: 6G13003-01**			Prepared: 07/13/06 Analyzed: 07/14/06						
Carbon Ranges C6-C12	535	10.0	mg/kg dry	573	ND	93.4	75-125	1.67	20	
Carbon Ranges C12-C28	636	10.0	"	573	95.8	94.3	75-125	1.87	20	
Carbon Ranges C28-C35	7.78	10.0	"	0.00	10.3		75-125	6.83	20	J
Total Hydrocarbon nC6-nC35	1170	10.0	"	1150	106	92.5	75-125	1.69	20	
Surrogate: 1-Chlorooctane	*59.5*		*mg/kg*	*50.0*		*119*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.2*		*"*	*50.0*		*104*	*70-130*			
Batch EG61315 - EPA 5030C (GC)										
Blank (EG61315-BLK1)				Prepared & Analyzed: 07/13/06						
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	*36.8*		*ug/kg*	*40.0*		*92.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*36.8*		*"*	*40.0*		*92.0*	*80-120*			
LCS (EG61315-BS1)				Prepared & Analyzed: 07/13/06						
Benzene	1.30	0.0250	mg/kg wet	1.25		104	80-120			
Toluene	1.35	0.0250	"	1.25		108	80-120			
Ethylbenzene	1.29	0.0250	"	1.25		103	80-120			
Xylene (p/m)	2.83	0.0250	"	2.50		113	80-120			
Xylene (o)	1.39	0.0250	"	1.25		111	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.8*		*ug/kg*	*40.0*		*94.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.4*		*"*	*40.0*		*98.5*	*80-120*			

Environmental Plus, Incorporated
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Eunice NM, 88231

Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
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Fax: 505-394-2601

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 EG61315 - EPA 5030C (GC)										
Calibration Check (EG61315-CCV1)				Prepared & Analyzed: 07/13/06						
Benzene	0.0579		mg/kg wet	0.0500		116	80-120			
Toluene	0.0582		"	0.0500		116	80-120			
Ethylbenzene	0.0571		"	0.0500		114	80-120			
Xylene (p/m)	0.118		"	0.100		118	80-120			
Xylene (o)	0.0584		"	0.0500		117	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.8*		*ug/kg*	*40.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*37.9*		"	*40.0*		*94.8*	*80-120*			
Matrix Spike (EG61315-MS1)		**Source: 6G13011-01**		Prepared & Analyzed: 07/13/06						
Benzene	1.38	0.0250	mg/kg dry	1.32	ND	105	80-120			
Toluene	1.40	0.0250	"	1.32	ND	106	80-120			
Ethylbenzene	1.37	0.0250	"	1.32	ND	104	80-120			
Xylene (p/m)	3.04	0.0250	"	2.65	ND	115	80-120			
Xylene (o)	1.51	0.0250	"	1.32	ND	114	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.2*		*ug/kg*	*40.0*		*98.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*41.6*		"	*40.0*		*104*	*80-120*			
Matrix Spike Dup (EG61315-MSD1)		**Source: 6G13011-01**		Prepared & Analyzed: 07/13/06						
Benzene	1.46	0.0250	mg/kg dry	1.32	ND	111	80-120	5.56	20	
Toluene	1.46	0.0250	"	1.32	ND	111	80-120	4.61	20	
Ethylbenzene	1.42	0.0250	"	1.32	ND	108	80-120	3.77	20	
Xylene (p/m)	3.15	0.0250	"	2.65	ND	119	80-120	3.42	20	
Xylene (o)	1.55	0.0250	"	1.32	ND	117	80-120	2.60	20	
Surrogate: a,a,a-Trifluorotoluene	*40.2*		*ug/kg*	*40.0*		*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.1*		"	*40.0*		*100*	*80-120*			

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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 EG61313 - Water Extraction										
Blank (EG61313-BLK1)				Prepared & Analyzed: 07/13/06						
Chloride	ND	20.0	mg/kg Wet							
LCS (EG61313-BS1)				Prepared & Analyzed: 07/13/06						
Chloride	84.0		mg/kg	100		84.0	80-120			
Matrix Spike (EG61313-MS1)		Source: 6G12001-01		Prepared & Analyzed: 07/13/06						
Chloride	553	20.0	mg/kg Wet	500	106	89.4	80-120			
Matrix Spike Dup (EG61313-MSD1)		Source: 6G12001-01		Prepared & Analyzed: 07/13/06						
Chloride	553	20.0	mg/kg Wet	500	106	89.4	80-120	0.00	20	
Reference (EG61313-SRM1)				Prepared & Analyzed: 07/13/06						
Chloride	51.0	10.0	mg/kg Wet	50.0		102	80-120			
Batch EG61401 - % Solids										
Duplicate (EG61401-DUP1)		Source: 6G12010-01		Prepared & Analyzed: 07/14/06						
% Solids	97.1		%		97.1			0.00	20	
Duplicate (EG61401-DUP2)		Source: 6G13002-16		Prepared & Analyzed: 07/14/06						
% Solids	95.7		%		96.2			0.521	20	
Batch EG61403 - Water Extraction										
Blank (EG61403-BLK1)				Prepared & Analyzed: 07/14/06						
Sulfate	ND	25.0	mg/kg							

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

Project: Chesapeake/ Barber Adkins 8-2
Project Number: 160015
Project Manager: Iain Olness

Fax: 505-394-2601

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 EG61403 - Water Extraction										
LCS (EG61403-BS1)				Prepared & Analyzed: 07/14/06						
Sulfate	24.3	5.00	mg/kg	25.0		97.2	80-120			
Duplicate (EG61403-DUP1)		Source: 6G13011-01		Prepared: 07/13/06 Analyzed: 07/14/06						
Sulfate	104	25.0	mg/kg		109			4.69	20	
Reference (EG61403-SRM1)				Prepared & Analyzed: 07/14/06						
Sulfate	52.0		mg/kg	50.0		104	80-120			

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Notes and Definitions

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: 7-14-06

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.

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

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

LAB ELT

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	Barber Adkins 8-2
Location	UL-L, Sect. 08, T 20 S, R 37 E
Project Reference	160015
EPI Sampler Name	Felix Hernandez

Bill To

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

ANALYSIS REQUEST

LAB I.D. 6413011	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH			
-01 1	SEEF(A) (10')	G	1			1					X		11-Jul-06	7:10	X	X	X	X							
-02 2	SCEF(A) (16')	G	1			1					X		13-Jul-06	7:20	X	X	X	X							
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									

Sampler Relinquished: Iain Olness	Date 13 July 06 Time 8:17	Received By: Jason Boone	E-mail results to: iolness@envplus.net
Relinquished by: Jason Boone	Date 7/13/06 Time 2:15	Received By: (lab staff)	NOTES: RUSH for Class
Delivered by:	Sample Cool & Intact Yes / No	Checked By:	3.5

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

Client: EPI

Date/Time: 7/13/06 2:15

Order #: 606130 11

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	3.5 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:

_____

_____

_____

_____

_____

_____

_____

_____

APPENDIX III

NMOCD FORM C-103

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐
Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: Chesapeake Operating, Inc. Telephone: 505-391-1462 ext.6224 e-mail address: bblevins@chkenergy.com

Address: P.O. Box 190 1616 West Bender Street Hobbs, New Mexico 88240-0190

Facility or well name: Barber-Adkins No. 8-2 API #: 30-025-36717 Unit Letter (UL): L Qtr/Qtr: NW¼ SW¼ Section: 8, T20S, R37E

County: Lea Latitude: N 32°35'05.0" Longitude: W 103°16'49.5" NAD: 1927 ☐ 1983 ☐ WGS 84 ☒

Surface Owner: Federal ☐ State ☐ Private ☒ (Jimmie T. Cooper) Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐	Volume: bbl Type of fluid:	
Lined ☒ Unlined ☐	Construction material:	
Liner type: Synthetic ☒ Thickness 20 mil Clay ☐	Double-walled, with leak detection? Yes ☐ If not, explain why not.	
Pit Volume: ~3,000 bbl		
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) <50' bgs	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) ☒ (10 points) ☐ (0 points) ☐
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) ☐ (0 points) ☒
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1,000 feet 1,000 feet or more	(20 points) ☐ (10 points) ☐ (0 points) ☒
	Ranking Score (Total Points)	**20**

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☒ offsite ☐ If offsite, name of facility Sundance Services, Inc. . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: This pit has been closed consistent with the NMOCD Pit and Below-Grade Tank Guidelines, November 1, 2004 as promulgated under NMOCD Rule 50 (19.15.2.50 NMAC).

Pit Status: Liner intact ☒ Liner punctured or torn ☐

Method of Closure: Drilling mud was stiffened and excavated from the pit area including the liner to depth of at least six (6) inches below bottom of the pit. Soil samples were collected from excavation floor as well as sidewalls and submitted to an independent laboratory for quantification of TPH, BTEX constituents, chloride and sulfate concentrations. Based on laboratory analyses, additional impacted soil was excavated as necessary. Impacted soil was transported to Sundance Services Inc. for disposal. EPI installed a 20-mil thick polyethylene barrier in bottom of pit over areas of high chloride concentrations to prevent vertical migration of contaminants. The excavation was backfilled with clean soil and graded/contoured to allow natural drainage. EPI will seed 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 the above-described pit or below-grade tank will be closed according to NMOCD guidelines ☒, a general permit ☒, or an (attached) alternative OCD-approved plan ☐.**

Date: 6-6-07 Printed Name/Title Mr. Bradley Blevins, Field Supervisor Signature Bradley Blevins

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title _____ Signature _____ Date: _____

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.: 30-025-36717

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: Barber-Adkins No. 8-2

8. Well Number: No. 8-2

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: L: 1,650 **feet from the** South **line and** 660 **feet from the** West **line**

Section: 8 **Township:** 20 South **Range** 37 East **NMPM** ____ **County** Lea

11. Elevation ***(Show whether DR, RKB, RT, GR, etc.)***
3,543 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 drilling mud from the pit area including the liner to depth of at least six (6) inches from the bottom of the pit; 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 Sundance Services Inc. for disposal; e) installed polyethelyne barrier in bottom of pit area over high 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 [signature] **TITLE** Field Technician **DATE** 6-6-07

Type or print name: Bradley Blevins **E-mail address:** bblevins@chkenergy.com **Telephone No.:** (505) 391-1462 ext. ~~34~~ 6224

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APPROVED BY: [signature] **TITLE** ENVIRO ENGR **DATE** 6·6·07

Conditions of Approval (if any):