

## **STANDARD OF CARE**

## **Site Closure Report** Chesapeake Energy – NH No. 35-1 NMOCD Ref. 1RP#1346; EPI Ref. #160056

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.

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6/19/07

Reviewed by:

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## PROJECT SYNOPSIS

## Site Specific:

- *Company Name:* Chesapeake Operating, Inc.
- Facility Name: NH No. 35-1
- *Project Reference:* NMOCD 1RP#1346; EPI Ref. #160056
- Company Contact(s): Bradley Blevins
- Site Location: WGS84 N32° 58' 2.28"; W 103° 34' 55.20"
- Legal Description: Unit Letter-O (SW<sup>1</sup>/<sub>4</sub> of the SE<sup>1</sup>/<sub>4</sub>), Section 35, T 15 S, R 33 E
- General Description: Approximately 14-miles west of Lovington, New Mexico
- *Elevation:* ~4,145-ft amsl
- Land Ownership: Dan Field
- *EPI Personnel:* Project Consultant David P. Duncan Site Foremen – Kirt Tyree

## **Release Specific:**

- **Product Released:** Crude oil
- Volume Released: 135 bbls
- ♦ Volume Recovered: 0 bbls
- *Time of Occurrence:* May 16, 2006 @ 23:30 hrs
- Time of Discovery: May 17, 2006
- **Release Source**: Tank Battery
- ◆ Initial Surface Area Affected: Surface Area ~ 3,600 ft<sup>2</sup>

## **Remediation Specific:**

- Final Vertical extent of contaminates: ~ 6-feet bgs
- *Water wells within 1,000-ft:* One (1)
- Private domestic water sources within 200-ft: None
- ♦ Depth to Ground Water: ~ 88-ft bgs
- Surface water bodies within 1,000-ft: None
- ♦ NMOCD Site Ranking Index: Thirty (30) points
- *Remedial goals for Soil:* TPH 100 mg/Kg; BTEX 50 mg/Kg; Benzene 10 mg/Kg
- **RCRA Waste Classification:** Exempt
- Remediation Option Proposed: a) Excavated soil impacted above NMOCD Remedial Threshold Goals were disposed at Artesia Aeration, L.L.C.; b) laboratory analysis confirmed removal of soil impacted above NMOCD Remedial Threshold goals in sidewalls and bottom of excavation; c) backfilled excavated area with caliche overlain with topsoil in select areas; d) release site graded for natural drainage of the area; and e) selected remedial areas seeded with a blend suitable to the landowner.
- Treatment/Disposal Facility: Artesia Aeration, L.L.C., Hobbs, Lea County, New Mexico
- Volume disposed: Approximately 2,972-yds<sup>3</sup>
- Project Completion Date: July 31, 2006

## 2.0 SITE AND RELEASE INFORMATION

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

Surface rights for the land surrounding the release site are owned by Mr. Dan Field. The area is an established oil field with pump jacks, tank batteries, pipelines, lease roads and other petroleum related facilities. The surrounding terrain is rangeland used for livestock grazing.

- **2.2** *Identify and describe the source or suspected source(s) of the release.* Release is attributed to a cow kicking open a valve on a tank battery.
- 2.3 What was the volume of the release? (if known): ~135 bbls
- 2.4 What was the volume recovered? (if known): 0 bbls
- 2.5 When did the release occur? (if known): May 16, 2006 @ 23:30 hrs

## 2.6 Geological Description

<u>The United States Geological Survey (USGS) Ground-Water Report 6, "Geology</u> <u>and Ground-Water Conditions in Southern Lea County, New Mexico," A.</u> <u>Nicholson and A. Clebsch, 1961</u>, describes the near surface geology of southern Lea County as "an inter-grade 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 inter-bed of caliche and generally overlain by sandy soil." The release site is located in the High Plains physiographic subdivision, described by Nicholson & Clebsch as "a flat, gently sloping plain, treeless and marred only by slight undulations and covered with short prairie grass."

## 2.7 Ecological Description

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of sandy soil covered with short semi-arid grasses, interspersed with Honey Mesquite 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

Information obtained from the New Mexico Office of the State Engineer's website and United States Geological Survey (USGS) database indicate groundwater in the unconfined aquifer at this site was projected to be ~88-ft bgs (reference *Table 1*).

## 2.9 Area Water Wells

One (1) water supply well exists within 1,000 feet of the release site (reference *Figure 2* and *Table 1*)

## 2.10 Area Surface Water Features

No surface water features exist within 1,000 feet of the release site (reference *Figure 2*)

## 3.0 <u>NMOCD SITE RANKING</u>

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

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

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

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

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

1. GROU	NDWATER		ELLHEAD CTION AREA	3. D	ISTANCE TO SURFACE WATER	
Depth to GV 20 points	W <50 feet:		m water source, or rivate domestic	<200 horizontal feet: 20 poin		
Depth to GV 10 points	W 50 to 99 feet:			200-1,000 horizontal feet: 10 points		
Depth to GV <i>0 points</i>	W >100 feet:	If >1,000' from water source, or >200' from private domestic water source: 0 points			)0 horizontal feet: <i>0 points</i>	
Site Rank (1	+2+3) = 10 + 20	0 + 0 = 30 points				
1	<b>Total Site Ranki</b>	ng Score and A	cceptable Remedial	Goal (	Concentrations	
Site Rank	20 o	r >	10		0	
Benzene <sup>1</sup>	10 p	pm	10 ppm		10 ppm	
BTEX <sup>1</sup>	STEX <sup>1</sup> 50 ppm		50 ppm		50 ppm	
ТРН	100 p	pm 1,000 ppm			5,000 ppm	

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?

Date excavated: May 19 through June 20, 2006

*Total volume removed:* 2,972- yds<sup>3</sup>

4.2 Indicated soil treatment type:

Disposal Land Treatment Composting/Biopiling Other ( )

Yes

No No

*Name and location of treatment/disposal facility:* Artesia Aeration, L.L.C., Lea County, New Mexico

 $\boxtimes$ 

## 5.0 <u>SAMPLING INFORMATION</u>

## 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 for volatilization of organic vapors. After allowed to equilibrate to  $\sim 70^{\circ}$  F, the soil sample was analyzed for organic vapor concentrations utilizing a MiniRae® Photo-ionization Detector (PID) equipped with a 10.6 electron volt (eV) lamp and calibrated for benzene vapors.

Chloride Concentrations – A LaMotte Chloride Test Kit (Titration Method) was used for analyses of chloride concentrations.

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

Soil samples collected from the release area were analyzed in the field for organic vapor and chloride concentrations. Soil samples with elevated organic vapor and chloride concentrations were selected for laboratory analytical analyses. Selected soil samples collected from these sample points were immediately labeled, put into laboratory containers and placed on ice for transported to an independent laboratory under standard Chain-of-Custody (CoC) protocol. The soil samples were analyzed for gasoline and diesel range organics (TPH); benzene, toluene, ethylbenzene and total xylenes (BTEX constituents); sulfate and chloride concentrations.

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

On May 25, 2006 eleven (11) soil samples were collected during excavation activities from the release area bottom and sidewalls (reference *Figure 4* for location). Soil samples were collected to determine extent of vertical and horizontal soil contamination remaining in situ.

On June 20 and 29, 2006 a total of twelve (12) soil samples were collected during excavation activities from the release area bottom and sidewalls (reference *Figure 5* for location). Soil samples were collected to determine extent of horizontal soil contamination remaining in situ.

## 6.0 <u>ANALYTICAL RESULTS</u>

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

Laboratory analytical data for the soil samples collected May 25, 2006 indicated TPH constituent concentrations ranged from ND to 1,520 mg/Kg (BH-2 @ 6-ft bgs and SW-1 @ 3-ft bgs). BTEX constituent concentrations ranged from ND to 2.01 mg/Kg (BH-2 @ 6-ft bgs and SW-1 @ 3-ft bgs). Chloride concentrations ranged from 26.7 mg/Kg to 685 mg/Kg (BH-6 @ 4-ft bgs and SW-6 @ 4-ft bgs). Sulfate concentrations ranged from 29.5 mg/Kg to 105 mg/Kg (SW-2 @ 3-ft bgs and SW-7 @ 4-ft bgs) (reference *Table 2* and *Figure 4*).

Laboratory analytical data for the soil samples collected June 20 and 29, 2006 indicated TPH constituent concentrations ranged from ND to 42.3 mg/Kg (BH-1 @ 7-ft bgs and SW-2 @ 3-ft bgs). BTEX constituent concentrations were ND at or above Laboratory MDL. Due to chloride and sulfate concentrations being below Remedial Threshold Goals of 250 mg/Kg and 600 mg/Kg respectively from soil samples collected on May 25, 2006, no laboratory analyses were performed for these constituents (reference *Table 2* and *Figure 5*).

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

🗌 yes 🛛 🖾 no

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

## 7.0 DISCUSSION

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

Based on laboratory analytical data for soil samples collected indicating chloride and sulfate concentrations below remedial threshold goals and depth to groundwater (~88-ft bgs), chloride and sulfate residual concentrations remaining in-situ should not be capable of impacting groundwater above NMWQCC Groundwater Standards of 250 mg/L and 600 mg/L, respectively.

Note: Soil sample collected from SW-6 @ 4-ft bgs indicated a chloride concentration of 685 mg/Kg. However, comparison of laboratory results from soil samples collected near the vicinity indicated the chloride concentration to be an anomaly. The sidewall in which this soil sample was collected was excavated to ensure removal of in situ chlorides.

- 7.2 Discuss the risks associated with the impacted groundwater: Not Applicable
- 7.3 Discuss other concerns not mentioned above: Not Applicable

#### 8.0 <u>CONCLUSIONS AND RECOMMENDATIONS</u>

8.1 Recommendation for the site:

Site Closure

Additional Groundwater Monitoring Corrective Action

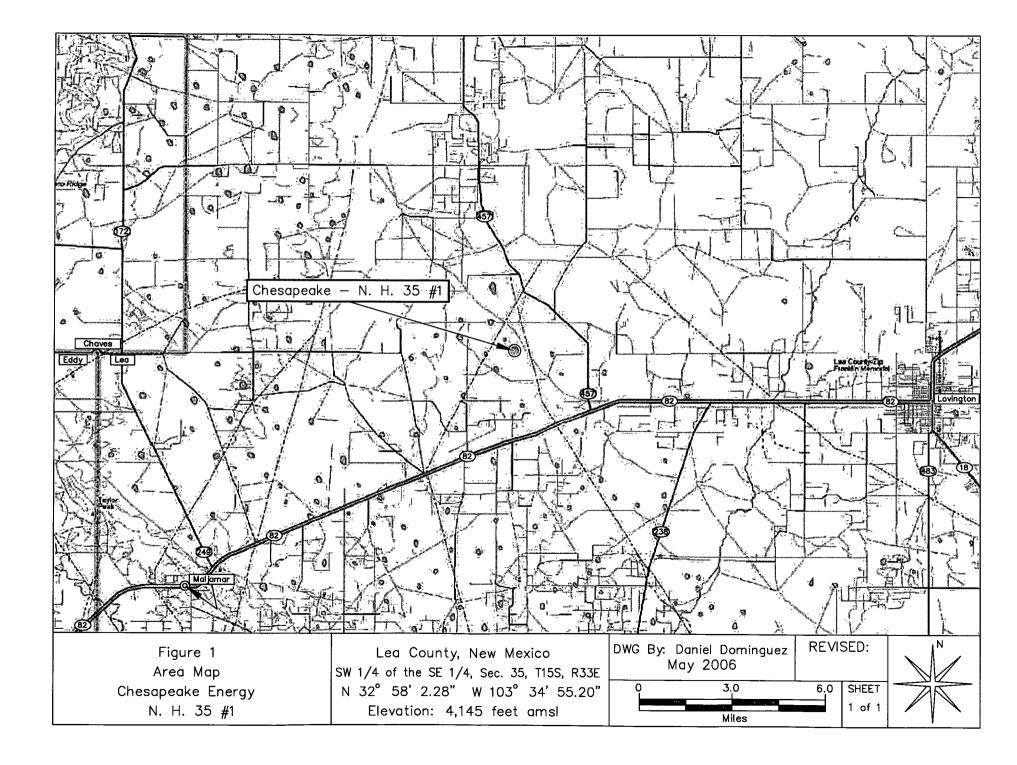
8.2 Base the recommendation above on <u>Guidelines for Remediation of Leaks, Spills</u> and <u>Releases (August 13, 1993)</u>. Describe below how you applied the policy to support your recommendation. If closure is recommended, please summarize significant site investigative events and describe how site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

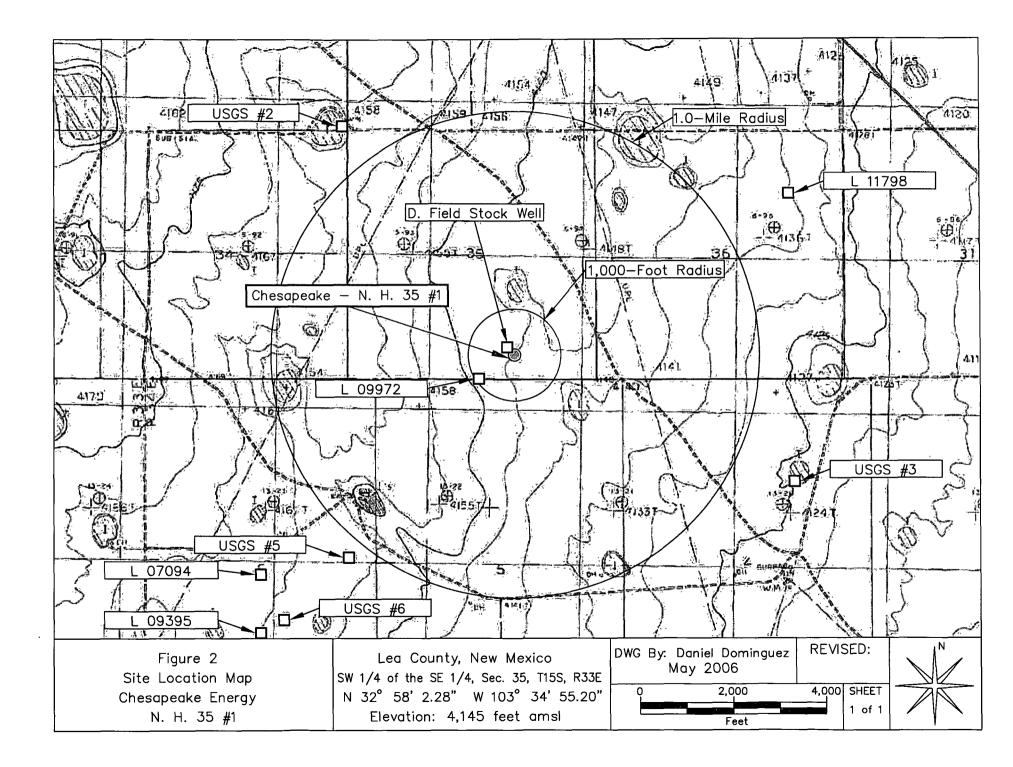
From May 19 through June 22, 2006 approximately 2,972-yds<sup>3</sup> of impacted soil were excavated and transported with disposal at Artesia Aeration, L.L.C. Laboratory analysis confirmed removal of soil impacted above NMOCD Remedial Threshold goals in sidewalls and bottom of the excavations. A review of Table 2, *Summary of Soil Sample Analytical Results*, indicated chloride and sulfate concentrations below NMOCD Remedial Threshold goals. Based on this data and with knowledge of depth to groundwater (~88-ft bgs), chloride and sulfate residual concentrations remaining in situ should not be capable of impacting groundwater above NMWQCC Groundwater Standards of 250 mg/L and 600 mg/L, respectively.

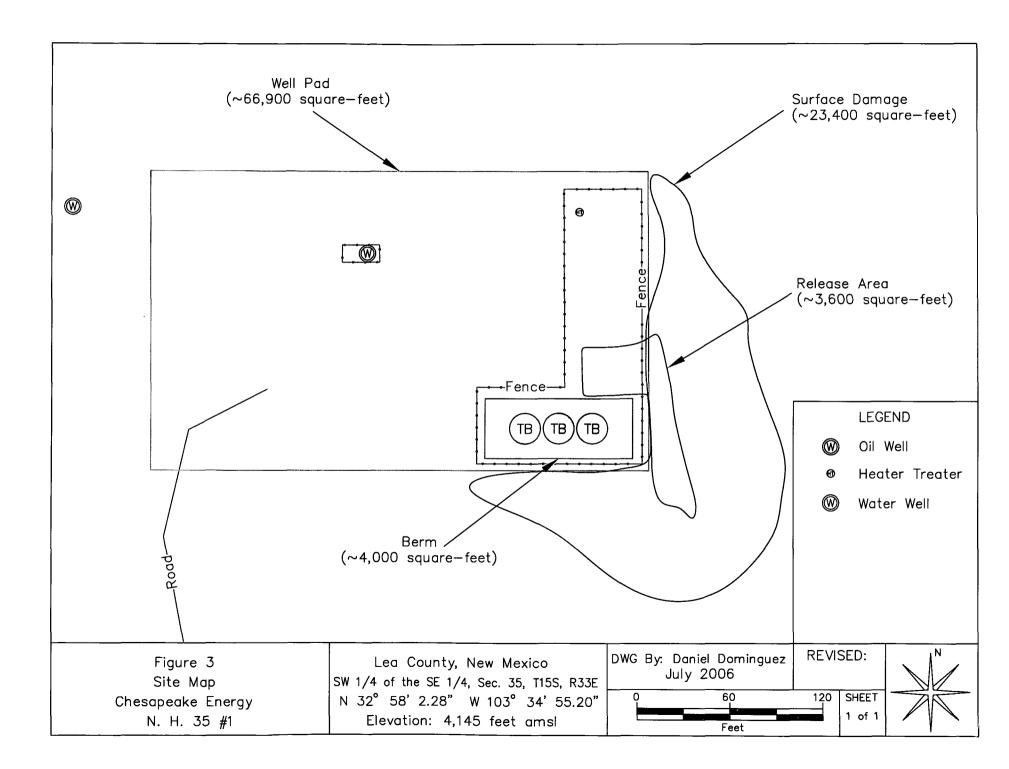
From May 19 to July 5, 2006 approximately 1,960 cubic yards of caliche plus 392 cubic yards of topsoil were transported from local pits to the excavation site. This material was stockpiled on the job site in preparation for backfill operations. After cleaning and leveling the excavation bottom, EPI backfilled some areas with caliche to top of existing pad. Selected areas were backfilled with caliche to within two (2) feet of original ground. The remainder of the excavation was backfilled with clean top soil. The entire area was contoured to allow natural drainage. Selected remedial areas have been seeded with a grass blend approved by the land owner.

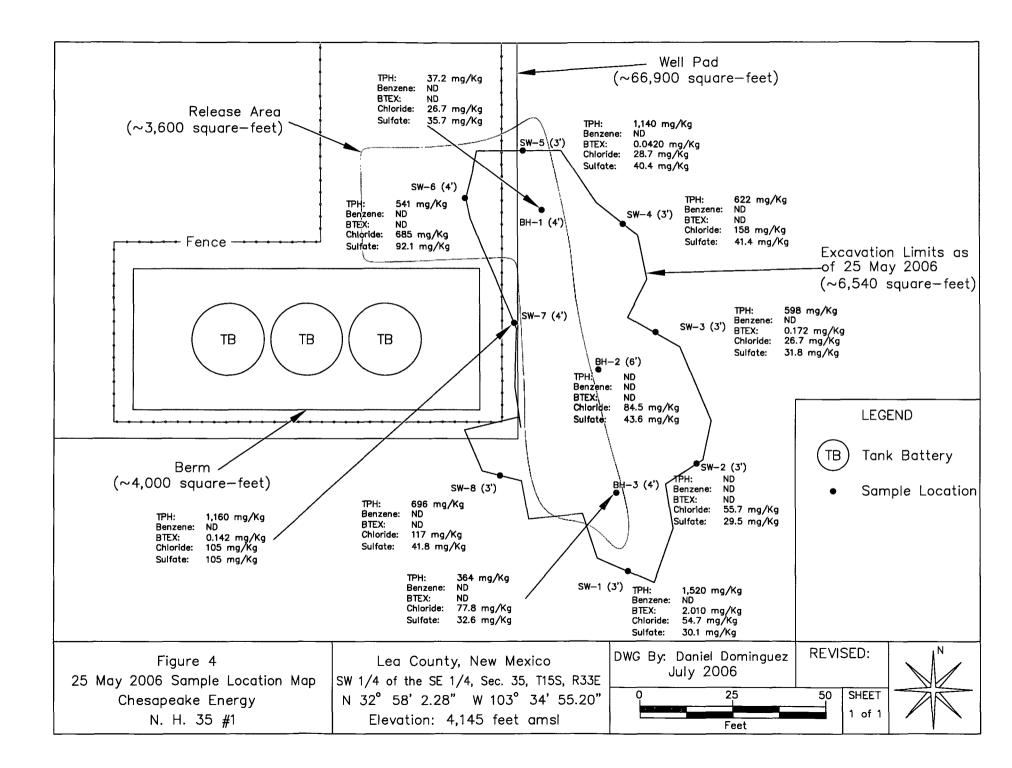
- 8.3 If additional groundwater and monitoring is recommended, indicate the proposed monitoring schedule and frequency. Conduct quarterly monitoring until the NMOCD responds to this report. Not Applicable
- 8.4 If corrective action is recommended, provide a conceptual approach. Not Applicable

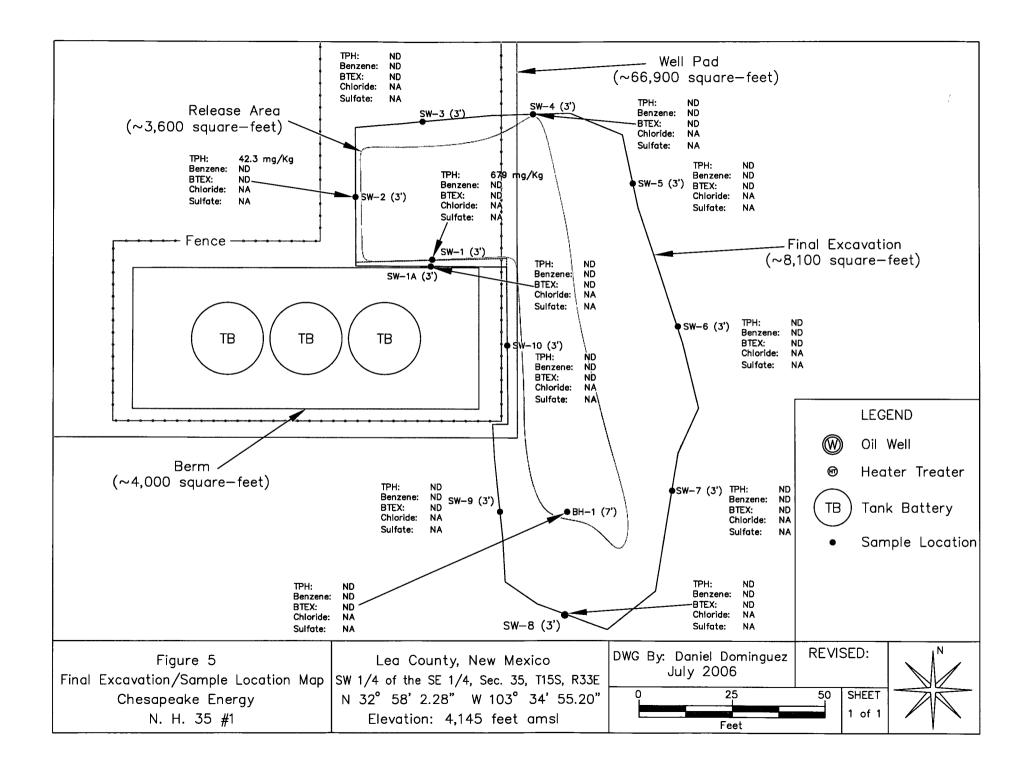
NII 35 #1 160056











#### TABLE 1

#### Well Data

#### Chesapeake Energy - N. H. 35 #1 (Ref. # 160056)

Well Number	Diversion <sup>A</sup>	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation <sup>B</sup>	Depth to Water (ft bgs)
L_09972	0	SANTA FE ENERGY OPERATING	PRO	15S	33E	35 433	N32° 57' 57.21"	W103° 35' 4.17"	18-Dec-87	4,154	88
L 11798	3	BRANCH RANCH	STK	15S	33E	36 222	N32° 58' 36.40"	W103° 33' 46.39"		4,140	
L 07094	0	CONCHO RESOURCES	PRO	16S	34E	6 213	N32° 57' 16.10"	W103° 35' 59.36"		4,167	
L 09395	3	DAISY C. CLAYTON	STK	16S	34E	62	N32° 57' 3.05"	W103° 35' 59.37"	15-Feb-84	4,163	115
USGS #2				15S	33E	27 444		+	23-Jan-81	4,163	99.07
USGS #3				16S	34E	4 2 3 2			20-Feb-96	4,129	88.56
USGS #5				16S	34E	6 2 4 4			01-Apr-81	4,160	105.62
USGS #6				16S	34E	6 4 1 3			01-Apr-81	4,163	112.23
L 09919 EXP	0 💒	WEK	PRO	15S	33E	26 1	N32° 59' 15.51"	W103° 35' 35.26"	و کارور جور ا	4,177	
L 04566		CITY OF CARLSBAD	COM	16 <b>S</b> (	34E	5	N32° 56' 37.07"	W103° 35' 28:32"		4,150	
L 09973 译 《《本》 条 ()	0	SANTA FE ENEGRY	PRO	16 <b>S</b>	34E	5 4 3	N32° 56' 37.23"	W103° 34' 57 32"	21-Jan-88	4,140	- 2135
L 05534		CITY OF CARLSBAD	IND	; 16 <b>S</b> (	<u>3</u> 4E	6	N32256' 36.83"	W103° 36' 27:34"	and States	4,167	
L基 07094 (E)截 👘 著	。 10 11	MORANCO	PRO	216S	34E	6	N32 56' 36.83"	W103%36' 27.34"	15-Jul-73	4,167	* 148
L 07519	1 <b>0</b>	MARK PRODUCTION CO	PRO	_16S	34E	6 333	N32° 56' 36.83"	W103° 36' 27.34"	03-Feb-77	- 4,167	× 128,
L 08444 EXP		DAISY (TCH RANCH, INC CLAYTON	STK	16S_	<u>_</u> 34Ē	6 4 1	N32° 56' 50.00"	W103° 35' 59 38"		4,163	
L_10190 EXP_	*** <b>0</b>	KAISER-FRANCIS OIL	* PRO	16S	<b>34</b> E	6 4 4	N32° 56 37.01"	W103° 35' 43:85"	31-May-91	4,157	80
USGS #1		激励に 教告 こう はかかっか 三なき 「補助	33 18 M	13S	33E	25: 2,3:2 🔅			02-Jan-96	4,140	- 82.56
USGS #4			<u>_ د ^</u>	±16S <sup>®</sup> ,	₩34E	4 4 3 4			09-Apr-91	4,121	89.86

 $^{A}$  = In acre feet per annum

 $^{B}$  = Elevation interpolated from USGS topographical map based on referenced location. PRO = 72-12-1 Prospecting or development of natural resource

COM = Commercial

STK = 72-12-1 Livestock watering

IND = Industrial

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

Shaded area indicates wells not shown in Figure 2

#### TABLE 2

#### Summary of Excavation Soil Sample Analytical Results

#### Chesapeake - NH 35 #1 (Ref. #160056)

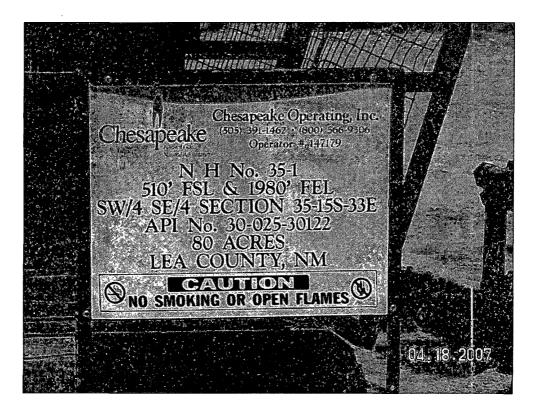
Soil Sample I.D.	Depth (feet)	Sample Date	Soil Status	PID Reading (ppm)	Field Chloride Analysis (ppm)	Benzene	Toluene (mg/Kg)	Ethyl- benzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	Carbon Ranges (C6-C12) (mg/Kg)	Carbon Ranges (C12-C28) (mg/Kg)	Carbon Ranges (C28-C35) (mg/Kg)	TPH	Chloride (mg/Kg)	
BH-1 (4')	4	25-May-06	Examinated	(ppm)	(ppm)	<0.0250	<0.0250	<0.0250	<0 050	<0.125	<10.0	37.2	<10.0	37.2	26.7	35.7
BH-2 (6')	6	25-May-06				<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	<10.0	84.5	43.6
BH-3 (4')	4	25-May-06		**		<0.0250	<0.0250	<0.0250	<0.050	<0.125	61.3	290	12.2	364	77.8	32.6
SW-1 (3')	3	25-May-06				<0.0250	0.0984	0.361	1.55	2.01	222	1,210	86.0	1,520	54 7	30.1
SW-2 (3')	3	25-May-06		+ +		<0.0250	<0.0250	<0.0250	< 0.050	<0.125	<10.0	<10.0	<10.0	<10.0	55.7	29.5
SW-3 (2')	2	25-May-06				0.0116 <sup>A</sup>	0.393	0.0290	0.103	0.525	40.5	512	45.4	598	26 7	31.8
SW-4 (3')	3	25-May-06				<0.0110	<0 0250	<0.0250	< 0.050	<0 125	69.6	515	37.1	622	158	41.4
SW-5 (3')	3	25-May-06				<0.0250	0.0132^	0.0165 <sup>A</sup>	0.0420	0.0420	89.4	955	90.7	1,140	287	40.4
SW-6 (4')	4	25-May-06				< 0.0250	<0.0250	<0.0250	<0.050	<0.125	42.2	472	26.8	541	685	92.1
SW-7 (4')	4	25-May-06		+ +	 - +	< 0.0250	0.0430	0 0346	0.0640	0.142	24.7	1,030	103	1.160	105	105
SW-8 (3')	3	25-May-06				<0.0250	<0.0250	< 0.0250	<0.050	<0.125	42.5	609	44.6	696	117	41.8
BH-1 (7')	7	20-Jun-06	In Situ	2.5		< 0.0250	< 0.0250	<0 0250	< 0.050	<0.125	<10.0	<10.0	<10 0	<10.0		
SW-1 (3')	3	20-Jun-06	Excavated	18.8		< 0.0250	<0.0250	< 0.0250	<0 050	<0.125	7.27	601	68.1	679		
SW-1A (3')	3	29-Jun-06	In Situ	1.5		< 0.0250	< 0.0250	< 0.0250	< 0.050	< 0.125	<10.0	<10.0	<10.0	<10.0		1
SW-2 (3')	3	20-Jun-06	In Situ	4 4		< 0.0250	< 0.0250	< 0.0250	< 0.050	<0.125	<10.0	42 3	<10.0	42.3		
SW-3 (2')	2	20-Jun-06	In Situ	4.6		< 0.0250	< 0.0250	< 0.0250	< 0.050	<0.125	<10.0	<10.0	<10.0	<10 0		1
SW-4 (3')	3	20-Jun-06	In Situ	8.4		< 0.0250	< 0.0250	< 0.0250	<0 050	<0.125	<10.0	<10.0	<10 0	<10.0		
SW-5 (3')	3	20-Jun-06	In Situ	59		< 0.0250	< 0.0250	< 0.0250	< 0.050	<0.125	<10.0	<10.0	<10.0	<10 0		
, SW-6 (3')	3	20-Jun-06	In Situ	7.1		< 0.0250	<0 0250	< 0.0250	< 0.050	< 0.125	<10 0	<10.0	<10.0	<10 0		
SW-7 (3')	3	20-Jun-06	In Situ	6.1		<0 0250	< 0.0250	< 0.0250	< 0.050	<0.125	<10.0	<10.0	<10.0	<100		
SW-8 (3')	3	20-Jun-06	In Situ	5.0		< 0.0250	<0 0250	<0 0250	< 0.050	<0.125	<10.0	<10.0	<10.0	<10.0		
SW-9 (3')	3	20-Jun-06	In Situ	2.7		< 0.0250	<0 0250	<0 0250	<0 050	<0.125	<10.0	<10.0	<10.0	<10.0		
SW-10 (3')	3	20-Jun-06	In Sıtu	5.2		< 0.0250	< 0.0250	<0 0250	<0 050	<0.125	<10.0	<10.0	<10.0	<10.0		
NMOO	CD Remed	lial Thresho	lds	100		10				50				100	250 <sup>A</sup>	600 <sup>A</sup>

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

--= Not Analyzed

<sup>J</sup> Detected below laboratory method detection limits, therefore an estimate

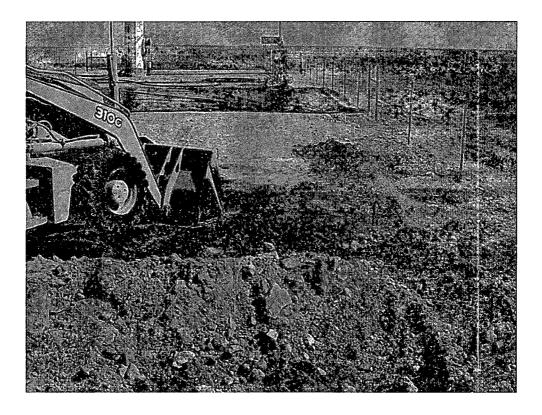
<sup>A</sup> Chloride and sulfate residuals may not be capable of impacting groundwater above NMWQCC Groundwater Standards of 250 mg/Kg and 600 mg/Kg, respectively



Photograph #1 – Lease sign.



Photograph #2 – Release site.



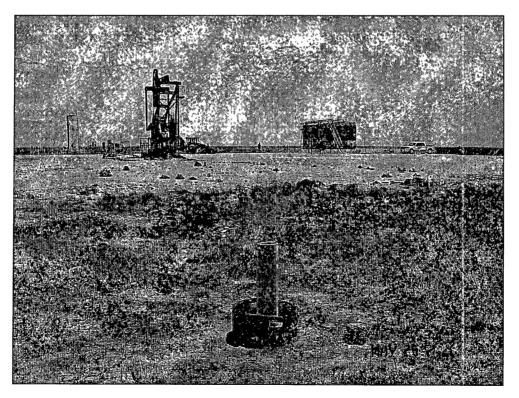
Photograph #3 - Looking north at release area



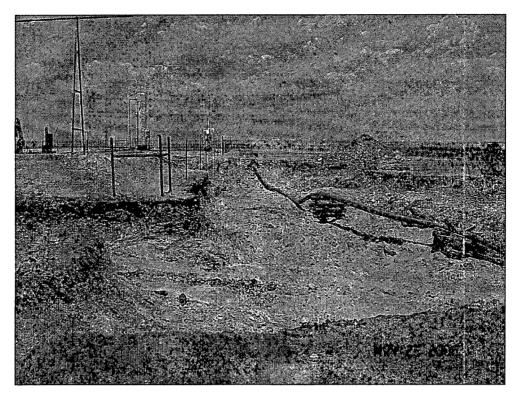
Photograph #4 - Looking east at release area and remediation activities



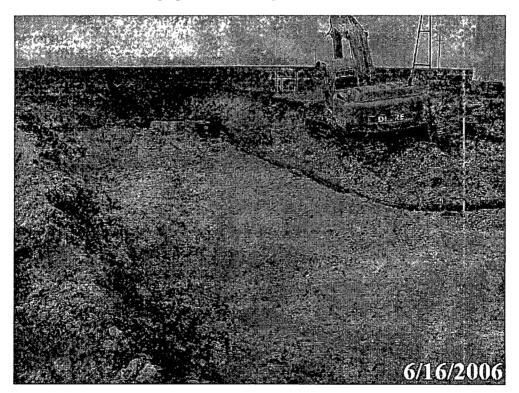
Photograph #5 – Looking west at impacted soil



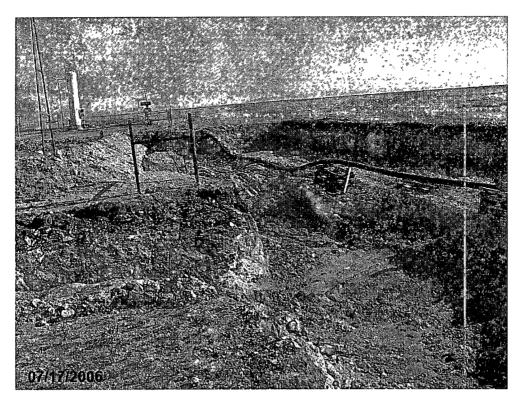
Photograph #6 – Looking east at water well



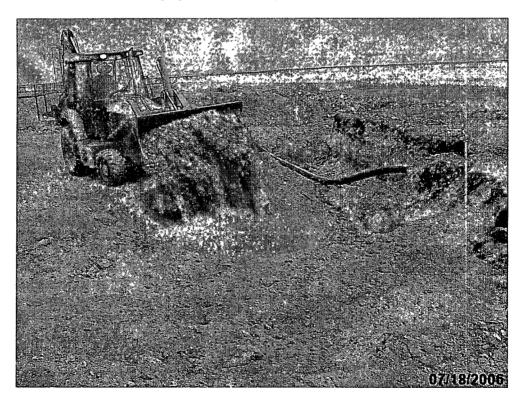
Photograph #7 – Looking north at excavation



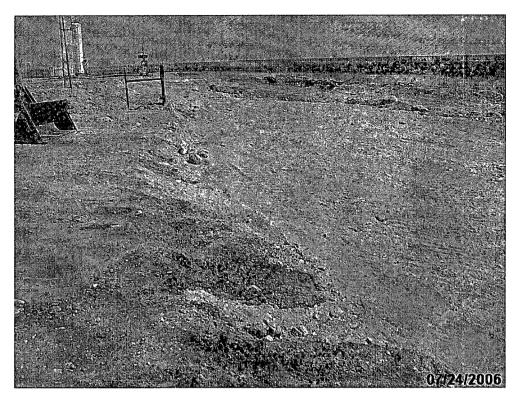
Photograph #8 – Looking south at excavation



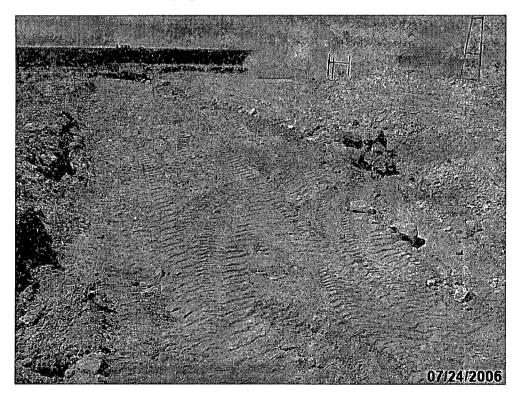
Photograph #9 – Looking north at excavation



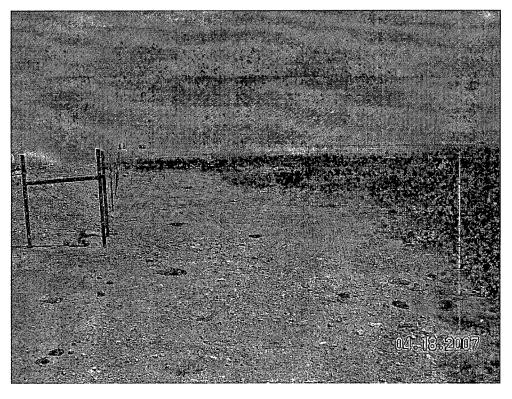
Photograph #10 – Backfilling excavation



Photograph #11 - Backfilling excavation

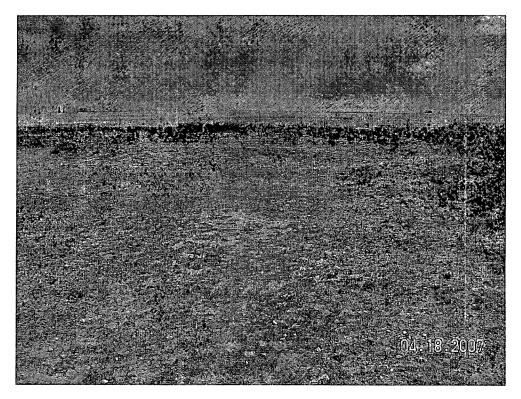


Photograph #12 – Backfilling excavation

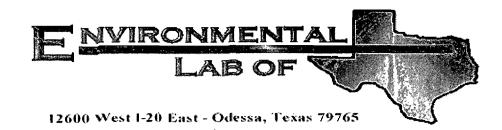


Photograph #13 - Remediated, reseeded site

.



Photograph #14 – Remediated, reseeded site



## Analytical Report

## **Prepared for:**

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

Project: Chesapeake/ NH 35 #1 Project Number: 160056 Location: UL-O, Sec. 35, T 15 S, R 33 E

Lab Order Number: 6E26008

Report Date: 06/07/06

Environmental Plus, Incorporated	Project. Chesapeake/ NH 35 #1	Fax 505-394-2601
P O Box 1558	Project Number: 160056	Reported:
Eunice NM, 88231	Project Manager Iain Olness	06/07/06 13 01

#### ANALYTICAL REPORT FOR SAMPLES

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Sample 1D	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 (4')	6E26008-01	Soil	05/25/06 13.15	05/26/06 09.52
BH-2 (6')	6E26008-02	Soil	05/25/06 13 20	05/26/06 09 52
BH-3 (4')	6E26008-03	Soil	05/25/06 13 26	05/26/06 09.52
SW-1 (3')	6E26008-04	Soil	05/25/06 13.30	05/26/06 09.52
SW-2 (3')	6E26008-05	Soil	05/25/06 13 34	05/26/06 09.52
SW-3 (2')	6E26008-06	Soil	05/25/06 13.40	05/26/06 09.52
SW-4 (3')	6E26008-07	Soil	05/25/06 13.45	05/26/06 09 52
SW-5 (3')	6E26008-08	Soil	05/25/06 13 50	05/26/06 09.52
SW-6 (4')	6E26008-09	Soil	05/25/06 13.55	05/26/06 09 52
SW-7 (4')	6E26008-10	Soil	05/25/06 14 00	05/26/06 09.52
SW-8 (3')	6E26008-11	Soil	05/25/06 14.08	05/26/06 09.52

Project Chesapeake/ NH 35 #1 Project Number 160056 Project Manager. Iain Olness

**Reported:** 06/07/06 13.01

### Organics by GC

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batab	Propered	Analyzed	Mathed	Moto
BH-1 (4') (6E26008-01) Soil	Kesun	Linitt		Dilution	Batch	Prepared	Analyzed	Method	Note
Benzene	ND	0.0250	mg/kg dry	25	EF60301	06/03/06	06/04/06	EPA 8021B	
Toluene	ND	0.0250		"	11	"	"	11	
Ethylbenzene	ND	0.0250			"	"	Ш	**	
Xylene (p/m)	ND	0.0250			"	0	ц		
Xylene (o)	ND	0 0250	"	"	"		н	**	
Surrogate a,a,a-Trìfluorotoluene		98 2 %	80-1	20	"	"	"	"	
Surrogate 4-Bromofluorobenzene		85 2 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	37.2	10 0	н	"	"	"	**	"	
Carbon Ranges C28-C35	ND	10.0	"	п		"	н	**	
Total Hydrocarbon nC6-nC35	37.2	10 0	n 	"	"	"	"	"	
Surrogate · 1-Chlorooctane		840%	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		82 2 %	70-1	30	"	"	"	"	
BH-2 (6') (6E26008-02) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF60301	06/03/06	06/04/06	EPA 8021B	
Toluene	ND	0.0250	II.	"		"	"		
Ethylbenzene	ND	0.0250	н	*		н	н	11	
Xylene (p/m)	ND	0.0250	11	"		н			
Xylene (o)	ND	0 0250	11	"	"	11	"	"	
Surrogate a,a,a-Trifluorotoluene		84.2 %	80-1	20	"	"	"	"	
Surrogate 4-Bromofluorobenzene		89.0 %	80-1.	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10 0	"	п		"	н	н	
Carbon Ranges C28-C35	ND	10.0	"	"	н	**	u		
Total Hydrocarbon nC6-nC35	ND	10.0		"		"	"		
Surrogate 1-Chlorooctane		99.6 %	70-1.	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		95.4 %	70-1.	30	"	"	"	"	
BH-3 (4') (6E26008-03) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF60302	06/03/06	06/05/06	EPA 8021B	
Toluene	ND	0 0250	"	"	"	"	"	н	
Ethylbenzene	ND	0.0250	н	"			"		
Xylene (p/m)	ND	0 0250	н	**	н	н	н	п	
Xylene (o)	ND	0.0250	11		11	н	н	н	
Surrogate a,a,a-Trifluorotoluene		91.8 %	80-1.	20	"	"	"	"	
Surrogate 4-Bromofluorobenzene		955%	80-1.	20	"	"	"	"	
Carbon Ranges C6-C12	61.3		mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	

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Environmental Plus, Incorporated P O. Box 1558 Eunice NM, 88231 ProjectChesapeake/ NH 35 #1Project Number160056Project Manager.Iain Olness

Fax. 505-394-2601

**Reported:** 06/07/06 13.01

#### Organics by GC

#### **Environmental Lab of Texas**

	<b>D</b> •	Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
BH-3 (4') (6E26008-03) Soil									
Carbon Ranges C12-C28	290	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C28-C35	12.2	10 0		11		"		н	
Total Hydrocarbon nC6-nC35	364	10.0	н	"			"	11	
Surrogate 1-Chlorooctane		101 %	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		99.2 %	70-1	30	"	"	"	"	
SW-1 (3') (6E26008-04) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF60302	06/03/06	06/05/06	EPA 8021B	
Toluene	0.0984	0 0250			"	"	"	"	
Ethylbenzene	0.361	0 0250	"	11	"	"	"	11	
Xylene (p/m)	1.08	0.0250			"		"	**	
Xylene (o)	0.471	0 0250	11	"	н	"	u		
Surrogate a,a,a-Trifluorotoluene		952%	80-1	20	"	"	и	"	
Surrogate 4-Bromofluorobenzene		117 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	222	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	1210	10 0	"	"		"		11	
Carbon Ranges C28-C35	86.0	10.0	"	"		"	11	11	
Total Hydrocarbon nC6-nC35	1520	10.0			"	"	11	**	
Surrogate 1-Chlorooctane		102 %	70-1	30	"	"	"	11	
Surrogate 1-Chlorooctadecane		111 %	70-1	30	"	"	"	"	
SW-2 (3') (6E26008-05) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF60302	06/03/06	06/05/06	EPA 8021B	
Toluene	ND	0 0250	"	"		"	"	**	
Ethylbenzene	ND	0.0250	"	"		"	u.	**	
Xylene (p/m)	ND	0.0250		"	"	п	"	н	
Xylene (o)	ND	0.0250		"	"	п	"	н	
Surrogate a,a,a-Trifluorotoluene		90 5 %	80-1.	20	"	"	"	"	
Surrogate <sup>.</sup> 4-Bromofluorobenzene		938%	80-1.	20	"	n	"	"	
Carbon Ranges C6-C12	ND	10 0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	n	**	
Carbon Ranges C28-C35	ND	10 0	n	"	"	"	н	"	
Total Hydrocarbon nC6-nC35	ND	10.0	н	"	"	"	п		
Surrogate 1-Chlorooctane		956%	70-1.	30		n	"	"	
Surrogate <sup>•</sup> 1-Chlorooctadecane		94.8 %	70-1.	30	"	"	"	"	

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ProjectChesapeake/ NH 35 #1Project Number160056Project ManagerIaın Olness

**Reported:** 06/07/06 13.01

#### Organics by GC

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SW-3 (2') (6E26008-06) Soil			-		Guten	riepareu	, maryzed	inculou	Note:
Benzene	J [0.0116]	0 0250	mg/kg dry	25	EF60302	06/03/06	06/05/06	EPA 8021B	
Toluene	0.0393	0.0250	"	"		"		**	
Ethylbenzene	0.0290	0 0250		"	"		"	**	
Xylene (p/m)	0.0742	0.0250	н	"		u	"		
Xylene (o)	0.0292	0 0250	ш	"		н	н		
Surrogate a,a,a-Trifluorotoluene		96 5 %	80-12	20	"	"	"	"	
Surrogate 4-Bromofluorobenzene		102 %	80-12	20	n	"	n	"	
Carbon Ranges C6-C12	40.5	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	512	10 0	"	11	"	"	н	и	
Carbon Ranges C28-C35	45.4	10.0	"	"		"	11	н	
Total Hydrocarbon nC6-nC35	598	10 0	"	*1	н	"	"	"	
Surrogate 1-Chlorooctane		97.4 %	70-1.	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		99.8 %	70-1	30	"	"	"	IJ	
SW-4 (3') (6E26008-07) Soil									
Benzene	ND	0.00100	mg/kg dry	1	EF60302	06/03/06	06/05/06	EPA 8021B	
Toluene	ND	0.00100	11	и	"		"		
Ethylbenzene	ND	0 00100	11	"	31	"	"	**	
Xylene (p/m)	ND	0 00100	"	"	**	н		19	
Xylene (o)	ND	0 00100	"	"	"	н	н	11	
Surrogate a,a,a-Trifluorotoluene		89.2 %	80-12	20	"	"	"	"	
Surrogate 4-Bromofluorobenzene		102 %	80-12	20	"	"	"	"	
Carbon Ranges C6-C12	69.6	10 0	mg/kg dry	"	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	515	10 0	"	"	*1	п	"	н	
Carbon Ranges C28-C35	37.1	10 0	н	**	"	н	"	"	
Total Hydrocarbon nC6-nC35	622	10 0	н		"	11	"	"	
Surrogate 1-Chlorooctane		107 %	70-13	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		107 %	70-13	30	"	n	"	"	
SW-5 (3') (6E26008-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EF60302	06/03/06	06/05/06	EPA 8021B	
Toluene	J [0.0132]	0.0250	"	"	"			н	
Ethylbenzene	J [0.0165]	0.0250	"	"	"	11		"	
Xylene (p/m)	0.0420	0.0250	"	"	"	11	"	**	
Xylene (o)	ND	0.0250	n 	"	11	n	"		
Surrogate a,a,a-Trifluorotoluene		86 2 %	80-12	20	"	"	"	"	
Surrogate. 4-Bromofluorobenzene		102 %	80-12	20	"	"	"	"	
Carbon Ranges C6-C12	89.4	10 0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
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P.O. Box 1558 Eunice NM, 88231		Project N Project M	-	<b>Reported:</b> 06/07/06 13.01					
		O	rganics b	y GC					
		Environ	mental L	ab of Te	exas				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SW-5 (3') (6E26008-08) Soil									
Carbon Ranges C12-C28	955	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C28-C35	90.7	10.0	"		**	ц	**	**	
Total Hydrocarbon nC6-nC35	1140	10 0	"	11	"	н	μ		
Surrogate 1-Chlorooctane		93.0 %	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		101 %	70-1	30	"	"	"	n	
SW-6 (4') (6E26008-09) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF60302	06/03/06	06/05/06	EPA 8021B	
Toluene	ND	0 0250	"		"	"		и	
Ethylbenzene	ND	0.0250	"		11	н	"	"	
Xylene (p/m)	ND	0.0250	**	0	н	"	11	34	
Xylene (o)	ND	0 0250	"	н	11	n	"	"	
Surrogate a,a,a-Trifluorotoluene		80 8 %	80-1	20	"	n	"	"	
Surrogate 4-Bromofluorobenzene		89 2 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	42.2	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	472	10 0		п	"	"	"	11	
Carbon Ranges C28-C35	26.8	10.0	"	**	"		"		
Total Hydrocarbon nC6-nC35	541	10 0	H	11	"	11	"	**	
Surrogate 1-Chlorooctane		986%	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		101 %	70-1	30	"	"	"	"	
SW-7 (4') (6E26008-10) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF60302	06/03/06	06/05/06	EPA 8021B	
Toluene	0.0430	0.0250	"	н	"	"	"	**	
Ethylbenzene	0.0346	0.0250	"	11	"	"	"	**	
Xylene (p/m)	0.0640	0 0250	н		11	н		**	
Xylene (o)	J [0.0196]	0 0250	11		n	11	и	11	
Surrogate a,a,a-Trifluorotoluene		93 2 %	80-1.	20	"	"	"	"	
Surrogate · 4-Bromofluorobenzene		93.5 %	80-1.	20	"	"	"	"	
Carbon Ranges C6-C12	24.7	10 0	mg/kg dry	l	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	1030	10 0	**	н	"	"	"	n	
Carbon Ranges C28-C35	103	10.0	н	"	"			н	
Total Hydrocarbon nC6-nC35	1160	10 0	н	"	"	"	**		
Surrogate <sup>.</sup> 1-Chlorooctane		96.2 %	70-1.	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		109 %	70-1.	30	"	"	"	"	

Project. Chesapeake/ NH 35 #1

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Fax 505-394-2601

Environmental Plus, Incorporated P.O. Box 1558 Eunice NM, 88231 Project Number 160056 Project Manager. Iam Olness Fax 505-394-2601

**Reported:** 06/07/06 13.01

#### Organics by GC

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SW-8 (3') (6E26008-11) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EF60302	06/03/06	06/05/06	EPA 8021B	
Toluene	ND	0 0250		"	"	11	"	"	
Ethylbenzene	ND	0.0250	"	"	"		"	"	
Xylene (p/m)	ND	0 0250	**	"	*	"	"	"	
Xylene (o)	ND	0 0250			"	**	"		
Surrogate a,a,a-Trifluorotoluene		80.2 %	80-1	20	"	"	"	11	
Surrogate 4-Bromofluorobenzene		91.0 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	42.5	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	609	10 0	н	"	"	"	"	"	
Carbon Ranges C28-C35	44.6	10.0	н	н	"		н		
Total Hydrocarbon nC6-nC35	696	10.0	н	"	"		"	"	
Surrogate 1-Chlorooctane		928%	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		101 %	70-1	30	"	"	"	п	

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

#### Project. Chesapeake/ NH 35 #1 Project Number. 160056 Project Manager. Iain Olness

**Reported:** 06/07/06 13.01

#### General Chemistry Parameters by EPA / Standard Methods

#### **Environmental Lab of Texas**

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-1 (4') (6E26008-01) Soil									
Chloride	26.7	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
% Moisture	6.0	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
Sulfate	35.7	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
BH-2 (6') (6E26008-02) Soil									
Chloride	84.5	5 00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
% Moisture	6.4	01	%	1	EE62901	05/26/06	05/27/06	% calculation	
Sulfate	43.6	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
BH-3 (4') (6E26008-03) Soil									
Chloride	77.8	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
% Moisture	8.0	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
Sulfate	32.6	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
SW-1 (3') (6E26008-04) Soil									
Chloride	54.7	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
% Moisture	8.3	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
Sulfate	30.1	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
SW-2 (3') (6E26008-05) Soil									
Chloride	55.7	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
% Moisture	10.9	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
Sulfate	29.5	5 00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
SW-3 (2') (6E26008-06) Soil									
Chloride	26.7	5 00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
% Moisture	3.4	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
Sulfate	31.8	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
SW-4 (3') (6E26008-07) Soil									
Chloride	158	5 00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
% Moisture	3.5	01	%	1	EE62901	05/26/06	05/27/06	% calculation	
Sulfate	41.4	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	

Environmental Lab of Texas

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

# Project.Chesapeake/ NH 35 #1Project Number160056Project ManagerIaın Olness

## **Reported:** 06/07/06 13 01

#### General Chemistry Parameters by EPA / Standard Methods

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SW-5 (3') (6E26008-08) Soil	1								
Chloride	28.7	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300.0	
% Moisture	3.8	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
Sulfate	40.4	5 00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
SW-6 (4') (6E26008-09) Soi	1								
Chloride	685	10.0	mg/kg	20	EE63006	05/29/06	05/29/06	EPA 300 0	
% Moisture	4.2	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
Sulfate	92.1	10.0	mg/kg	20	EE63006	05/29/06	05/29/06	EPA 300 0	
SW-7 (4') (6E26008-10) Soi	1								
Chloride	105	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
% Moisture	4.4	01	%	1	EE62901	05/26/06	05/27/06	% calculation	
Sulfate	105	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
SW-8 (3') (6E26008-11) Soi	1								
Chloride	117	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	
% Moisture	1.0	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
Sulfate	41.8	5.00	mg/kg	10	EE63006	05/29/06	05/29/06	EPA 300 0	

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**Reported:** 06/07/06 13 01

#### **Organics by GC - Quality Control**

#### **Environmental Lab of Texas**

Prepared: 05/31/06       Analyzed. 06/01/06         Batch EE63114-BLK1)       Prepared: 05/31/06       Analyzed. 06/01/06         Carbon Ranges C12-C28       ND       100       ""         Carbon Ranges C24-C35       ND       100       "         Carbon Ranges C24-C35       ND       100       "       70       S00       91 20       70-130         CCS (EEG3114-BS1)       Prepared:       500       1112       75-125         Carbon Ranges C6-C12       518       mg/kg       500       108       70       3         Carbon Ranges C6-C12       S	Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
Bank (EE63114-BLK1)         Prepared: $05/31/06$ Analyzed. $06/01/06$ Carbon Ranges C6-C12         ND         10 0         mg/kg wet           Carbon Ranges C12-C28         ND         10 0         "           Darbon Ranges C28-C35         ND         10 0         "           Carbon Ranges C28-C35         ND         10 0         "           Darbon Ranges C28-C35         ND         10.0         "           Carbon Ranges C4-C12         S0 0         91 8         70-130           C5 (EE63114-BS1)         Prepared. 05/31/06         Analyzed. 06/01/06           C3 (EE63114-BS1)         Prepared. 05/31/06         Analyzed. 06/01/06           Carbon Ranges C26-C12         S61         10 0         mg/kg wet         S00         112         75-125           Carbon Ranges C26-C12         S61         10 0         "         000         75-125           Carbon Ranges C26-C12         S64         10 0         "         1000         113         75-125           Carbon Ranges C26-C35         ND         10 0         "         000         70-130           Carbon Ranges C12-C28         S0 0         108         70-130         113         75-125           Carbon Ranges C2-C35         ND	· · · · · · · · · · · · · · · · · · ·		2.1111	0			,						
Carbon Ranges C6-C12ND10mg/kg wetCarbon Ranges C12-C28ND10"Carbon Ranges C28-C35ND10"Folal Hydrocarbon nC6-nC35ND10.0"imrogate 1-Chlorooctane45mg/kg50.091.870-130" $30.0$ 94.070-130imrogate 1-Chlorooctane47.0" $30.0$ 94.0CS (EE63114-BS1)Prepared. 05/31/06Analyzed. 06/01/06CS (EE63114-BS1)Prepared. 05/31/06Analyzed. 06/01/06CS (EE63114-C10)56110.0"500113CS (EE63114-C22856410.0"500113Carbon Ranges C28-C35ND10.0"00075-125Carbon Ranges C4-C1253.8mg/kg30.010.870-130iurogate 1-Chlorooctane53.8mg/kg30.010.870-130iurogate 1-Chlorooctane53.8mg/kg30.010.870-130iurogate 1-Chlorooctane53.8mg/kg50.011375-125Carbon Ranges C4-C12288mg/kg25011480-120Carbon Ranges C4-C12288"25011480-120Carbon Ranges C12-C28284"25011480-120Carbon Ranges C12-C28284"50.011480-120Carbon Ranges C12-C2858910.0mg/kg vis 71ND10.3Surrogate 1-Chlorooctane61.9*50.0 <td>Batch EE63114 - Solvent Extraction (GC)</td> <td></td>	Batch EE63114 - Solvent Extraction (GC)												
Carbon Ranges C12-C28         ND         10 0         "           Carbon Ranges C28-C35         ND         10 0         "           Constance         MD         10.0         "           Constance         MD         10.0         "           Constance         45 9         mg/kg         50 0         91 8         70-130           Constance         47 0         "         50 0         94 0         70-130           CCS (EE63114-BS1)         Prepared. 05/31/06         Analyzed. 06/11/06         Constance         75-125           Carbon Ranges C28-C35         ND         10 0         "mg/kg         50 0         113         75-125           Carbon Ranges C28-C35         ND         10 0         "         000         113         75-125           Carbon Ranges C28-C35         ND         10 0         "         000         113         75-125           Carbon Ranges C28-C35         ND         10 0         "         000         108         70-130           Carbon Ranges C28-C35         ND         10 0         "         1000         113         75-125           Contains Carbon Ranges C28-C35         ND         10 0         "         1000         100	Blank (EE63114-BLK1)				Prepared: (	05/31/06 A	nalyzed. 06	5/01/06					
arbon Range C12-C23       ND       10 0       "         arbon Range C28-C35       ND       10 0       "         foil Hydrocarbon RC6-R235       ND       10 0       "         furrogate 1-Chlorooctane       45 9       mg/g       50 0       91 8       70-130         furrogate 1-Chlorooctadecane       47 0       "       50 0       91 8       70-130         LCS (EE63114-BS1)       Prepared. 05/31/06       Analyzed. 06/01/06       100       100       113       75-125         Carbon Ranges C28-C35       ND       10 0       "       500       113       75-125         Carbon Ranges C28-C35       ND       10 0       "       1000       75-125         Carbon Ranges C28-C35       ND       10 0       "       1000       75-125         Carbon Ranges C28-C35       ND       10 0       "       1000       75-125         Carbon Ranges C4-C12       38       mg/g       50 0       113       75-125         Carbon Ranges C4-C12       288       mg/g       50 0       114       80-120         Carbon Ranges C4-C12       288       "       50 0       124       70-130         Surrogate 1-Chlorooctane       61 9       "	Carbon Ranges C6-C12	ND	10 0	mg/kg wet									
Alton Raige C26-C35       ND       10.0       "         Folal Hydrocarbon nC6-nC35       ND       ng/kg       50 0       91 8       70-130         iurrogate 1-Chlorooctade       47 0       "       50 0       94 0       70-130         CS (EE63114-BS1)       Prepared. 05/31/06       Analyzed. 06/01/06         Carbon Ranges C6-C12       561       10 0       mg/kg wet       500       112       75-125         Carbon Ranges C28-C35       ND       10 0       "       000       75-125         Iofal Hydrocarbon nC6-nC35       1130       10 0       "       000       75-125         Iofal Hydrocarbon nC6-nC35       1130       10 0       "       000       113       75-125         Iofal Hydrocarbon nC6-nC35       1130       10 0       "       000       108       70-130         Surrogate 1-Chlorooctade       53 8       mg/kg       50 0       92 6       70-130         Calibration Check (EE63114-CCV1)       Prepared       05/31/06       Analyzed       06/01/06         Carbon Ranges C2-C12       288       mg/kg       250       114       80-120         Carbon Ranges C12-C28       284       "       250       114       80-120	Carbon Ranges C12-C28	ND	10 0	**									
Aurogate1-Chlorooctane45 9 $m_R R_g$ 50 091 870-130Surogate1-Chlorooctadecane47 0"50 094 070-130LCS (EE63114-BS1)Prepared. 05/31/06Analyzed. 06/01/06Carbon Ranges C6-C1256110 0 $m_g R_g$ wet50011375-125Carbon Ranges C28-C35ND10 0"00075-125Cotal Hydrocarbon nC6-nC35113010 0"100011375-125Carbon Ranges C6-C12288 $m_g R_g$ 50 010870-130Carbon Ranges C6-C12288 $m_g R_g$ 25011580-120Carbon Ranges C6-C12288 $m_g R_g$ 25011480-120Carbon Ranges C6-C12288 $m_g R_g$ 25011480-120Carbon Ranges C6-C12288 $m_g R_g$ 25011480-120Carbon Ranges C6-C1228 $m_g R_g$ 25011480-120Carbon Ranges C6-C1228 $m_g R_g$ 50 012470-130Surrogate1-Chlorooctane62 5"50 012470-130Surrogate1-Chlorooctane62 5"50 012470-130Carbon Ranges C6-C1258910 0 $m_g R_g R_g$ 7012470-130Surrogate1-Chlorooctane62 5"50 012470-130Carbon Ranges C6-C1258910 0 $m_g R_g R_g$ 75-12570-130Carbon Ranges C6-C12589	Carbon Ranges C28-C35	ND	10 0	**									
Number of the second	Total Hydrocarbon nC6-nC35	ND	10.0	"									
unragate       1/0       500       90       70-130         LCS (EE63114-BS1)       Prepared. 05/31/06       Analyzed. 06/01/06         Carbon Ranges C6-C12       561       100       mg/kg wet       500       112       75-125         Carbon Ranges C28-C35       ND       100       "       000       75-125         Forlal Hydroarbon nC6-nC35       1130       100       "       000       113       75-125         Gaibard L-Chlorooctane       53.8       mg/kg       50.0       108       70-130         Carbon Ranges C12-C28       288       mg/kg       50.0       108       70-130         Carbon Ranges C1-CC2       288       mg/kg       250       115       80-120         Carbon Ranges C12-C28       284       "       250       114       80-120         Carbon Ranges C12-C28       284       "       250       114       80-120         Carbon Ranges C12-C28       284       "       50.0       124       70-130         Surrogate 1-Chlorooctane       62.5       "       50.0       124       70-130         Surrogate 1-Chlorooctane       61.9       "       50.0       124       70-130         Surogate 1-Chlorooctane <td>Surrogate 1-Chlorooctane</td> <td>45 9</td> <td></td> <td>mg/kg</td> <td>50 0</td> <td></td> <td>918</td> <td>70-130</td> <td></td> <td></td> <td></td>	Surrogate 1-Chlorooctane	45 9		mg/kg	50 0		918	70-130					
Carbon Ranges C6-C12       561       10 0       mg/kg wet       500       112       75-125         Carbon Ranges C12-C28       564       10 0       "       500       113       75-125         Carbon Ranges C28-C35       ND       10 0       "       000       75-125         Fotal Hydrocarbon nC6-nC35       1130       10 0       "       1000       113       75-125         Surrogate 1-Chlorooctane       53 8       mg/kg       50 0       108       70-130         Calibration Check (EE63114-CCV1)       Prepared       05/31/06       Analyzed       06/01/06         Carbon Ranges C6-C12       288       mg/kg       250       114       80-120         Carbon Ranges C12-C28       284       "       250       114       80-120         Surrogate 1-Chlorooctane       62 5       "       50 0       125       70-130         Surrogate 1-Chlorooctane       62 5       "       50 0       124       80-120         Surrogate 1-Chlorooctane       62 5       "       50 0       124       70-130         Surrogate 1-Chlorooctane       62 5       "       50 0       124       70-130         Surrogate 1-Chlorooctane       61 9       "       <	Surrogate 1-Chlorooctadecane	470		"	500		94 0	70-130					
Carbon Ranges C12-C28       564       10 0       "       500       113       75-125         Carbon Ranges C28-C35       ND       10 0       "       000       113       75-125         Not al Hydrocarbon nC6-nC35       1130       10 0       "       1000       113       75-125         Surrogate 1-Chlorooctane       53 8       mg/kg       50 0       108       70-130         Calibration Check (EE63114-CCV1)       Prepared       05/31/06       Analyzed       06/01/06         Calibration Check (EE63114-CCV1)       Prepared       05/31/06       Analyzed       06/01/06         Carbon Ranges C6-C12       288       mg/kg       250       115       80-120         Carbon Ranges C12-C28       284       "       250       114       80-120         Surrogate 1-Chlorooctane       62 5       "       50 0       125       70-130         Surrogate 1-Chlorooctane       62 5       "       50 0       124       70-130         Surrogate 1-Chlorooctane       62 5       "       50 0       124       70-130         Surrogate 1-Chlorooctane       61 9       "       50 0       124       70-130         Matrix Spike (EE63114-MS1)       Source: 6E26006-03	LCS (EE63114-BS1)				Prepared. 05/31/06 Analyzed. 06/01/06								
Carbon Ranges C28-C35       ND       10.0       "       0.00       75-125         Fotal Hydrocarbon nC6-nC35       1130       10.0       "       1000       113       75-125         Fotal Hydrocarbon nC6-nC35       1130       10.0       "       1000       113       75-125         Fotal Hydrocarbon nC6-nC35       53.8       mg/kg       50.0       10.8       70-130         Shurrogate I-Chlorooctadecane       46.3       "       50.0       92.6       70-130         Calibration Check (EE63114-CCV1)       Prepared       05/31/06       Analyzed       06/01/06         Carbon Ranges C6-C12       288       mg/kg       250       115       80-120         Carbon Ranges C12-C28       284       "       250       114       80-120         Sturrogate 1-Chlorooctane       62.5       "       50.0       124       70-130         Sturrogate 1-Chlorooctadecane       61.9       "       50.0       124       70-130         Matrix Spike (EE63114-MS1)       Source: 6E26006-03       Prepared. 05/31/06       Analyzed. 06/01/06         Carbon Ranges C12-C28       589       10.0       mg/kg dry       571       ND       10.3       75-125         Carbon Ranges C12-C28 <td>Carbon Ranges C6-C12</td> <td>561</td> <td>10 0</td> <td>mg/kg wet</td> <td>500</td> <td></td> <td>112</td> <td>75-125</td> <td></td> <td></td> <td></td>	Carbon Ranges C6-C12	561	10 0	mg/kg wet	500		112	75-125					
Iterate       Iteration       Iteration <thiteration< th=""> <thiteration< th=""></thiteration<></thiteration<>	Carbon Ranges C12-C28	564	10 0		500		113	75-125					
Note Hydrodation (Concess)       1150       1150       100       1150	Carbon Ranges C28-C35	ND	10 0	"	0 00			75-125					
Surrogate 1-Chlorooctadecane       46.3       "       50 0       92 6       70-130         Calibration Check (EE63114-CCV1)       Prepared 05/31/06       Analyzed 06/01/06         Carbon Ranges C6-C12       288       mg/kg       250       115       80-120         Carbon Ranges C12-C28       284       "       250       114       80-120         Carbon Ranges C12-C28       284       "       50 0       125       70-130         Surrogate 1-Chlorooctane       62 5       "       50 0       125       70-130         Surrogate 1-Chlorooctane       62 5       "       50 0       124       70-130         Matrix Spike (EE63114-MS1)       Source: 6E26006-03       Prepared. 05/31/06       Analyzed. 06/01/06         Carbon Ranges C12-C28       598       10 0       mg/kg dry       571       ND       103       75-125         Carbon Ranges C12-C28       598       10 0       "       571       32.4       99.1       75-125         Carbon Ranges C12-C28       ND       10 0       "       000       ND       75-125         Carbon Ranges C12-C28       ND       10 0       "       000       ND       75-125         Carbon Ranges C12-C28       ND       <	Total Hydrocarbon nC6-nC35	1130	10 0	"	1000		113	75-125					
Marrogate       1-Chlorooctadecane       40.3       50.0       92.0       70-130         Calibration Check (EE63114-CCV1)       Prepared       05/31/06       Analyzed       06/01/06         Carbon Ranges C6-C12       288       mg/kg       250       115       80-120         Carbon Ranges C12-C28       284       "       250       114       80-120         Fotal Hydrocarbon nC6-nC35       572       "       500       114       80-120         Surrogate       1-Chlorooctane       62.5       "       50.0       125       70-130         Surrogate       1-Chlorooctadecane       61.9       "       50.0       124       70-130         Matrix Spike (EE63114-MS1)       Source: 6E26006-03       Prepared.       05/31/06       Analyzed       06/01/06         Carbon Ranges C12-C28       589       10.0       mg/kg dry       571       ND       10.3       75-125         Carbon Ranges C12-C28       598       10.0       "       571       32.4       99.1       75-125         Carbon Ranges C28-C35       ND       10.0       "       0.00       ND       75-125         Carbon Ranges C28-C35       ND       10.0       "       1140       32.4	Surrogate 1-Chlorooctane	538		mg/kg	50 0		108	70-130					
Carbon Ranges C6-C12       288       mg/kg       250       115       80-120         Carbon Ranges C12-C28       284       "       250       114       80-120         Total Hydrocarbon nC6-nC35       572       "       500       114       80-120         Surrogate 1-Chlorooctane       62 5       "       50 0       125       70-130         Surrogate 1-Chlorooctadecane       61 9       "       50 0       124       70-130         Matrix Spike (EE63114-MS1)       Source: 6E26006-03       Prepared. 05/31/06       Analyzed. 06/01/06         Carbon Ranges C12-C28       598       10 0       "       571       ND       103       75-125         Carbon Ranges C28-C35       ND       10 0       "       000       ND       75-125         Fotal Hydrocarbon nC6-nC35       1190       10 0       "       1140       32 4       102       75-125	Surrogate 1-Chlorooctadecane	46.3		n	50 0		92 6	70-130					
Carbon Ranges C12-C28       284       "       250       114       80-120         Fotal Hydrocarbon nC6-nC35       572       "       500       114       80-120         Surrogate 1-Chlorooctane       62 5       "       500       125       70-130         Surrogate. 1-Chlorooctadecane       61 9       "       500       124       70-130         Matrix Spike (EE63114-MS1)       Source: 6E26006-03       Prepared. 05/31/06       Analyzed. 06/01/06         Carbon Ranges C6-C12       589       100       mg/kg dry       571       ND       103       75-125         Carbon Ranges C12-C28       598       100       "       571       324       99 1       75-125         Carbon Ranges C28-C35       ND       100       "       000       ND       75-125         Carbon Ranges C28-C35       1190       100       "       1140       324       102       75-125	Calibration Check (EE63114-CCV1)				Prepared 0	)5/31/06 A	nalyzed 06	/01/06					
Fotal Hydrocarbon nC6-nC35       572       "       500       114       80-120         Surrogate 1-Chlorooctane       62 5       "       50 0       125       70-130         Surrogate. 1-Chlorooctadecane       61 9       "       50 0       124       70-130         Matrix Spike (EE63114-MS1)       Source: 6E26006-03       Prepared. 05/31/06       Analyzed. 06/01/06         Carbon Ranges C6-C12       589       10 0       mg/kg dry       571       ND       103       75-125         Carbon Ranges C12-C28       598       10 0       "       571       32 4       99 1       75-125         Carbon Ranges C28-C35       ND       10 0       "       000       ND       75-125         Carbon Ranges C28-C35       1190       10 0       "       1140       32 4       102       75-125	Carbon Ranges C6-C12	288		mg/kg	250		115	80-120					
Sturrogate 1-Chlorooctane       512       500       114       80-120         Sturrogate 1-Chlorooctane       62 5       "       500       125       70-130         Surrogate. 1-Chlorooctadecane       61 9       "       500       124       70-130         Matrix Spike (EE63114-MS1)       Source: 6E26006-03       Prepared. 05/31/06       Analyzed. 06/01/06         Carbon Ranges C6-C12       589       100       mg/kg dry       571       ND       103       75-125         Carbon Ranges C12-C28       598       100       "       571       32.4       99.1       75-125         Carbon Ranges C28-C35       ND       100       "       000       ND       75-125         Fotal Hydrocarbon nC6-nC35       1190       100       "       1140       32.4       102       75-125	Carbon Ranges C12-C28	284		*	250		114	80-120					
Matrix Spike (EE63114-MS1)       Source: 6E26006-03       Prepared. 05/31/06       Analyzed. 06/01/06         Carbon Ranges C12-C28       598       10 0       mg/kg dry       571       ND       103       75-125         Carbon Ranges C28-C35       ND       10 0       "       000       ND       75-125         Corbon Ranges C28-C35       1190       10 0       "       1140       32 4       102       75-125	Total Hydrocarbon nC6-nC35	572		"	500		114	80-120					
Matrix Spike (EE63114-MS1)         Source: 6E26006-03         Prepared. 05/31/06         Analyzed. 06/01/06           Carbon Ranges C6-C12         589         10 0         mg/kg dry         571         ND         103         75-125           Carbon Ranges C12-C28         598         10 0         "         571         32 4         99 1         75-125           Carbon Ranges C28-C35         ND         10 0         "         000         ND         75-125           Corbon Ranges C28-C35         1190         10 0         "         1140         32 4         102         75-125	Surrogate 1-Chlorooctane	62 5		n	50 0		125	70-130					
Carbon Ranges C6-C12       589       10 0 mg/kg dry       571       ND       103       75-125         Carbon Ranges C12-C28       598       10 0       "       571       32 4       99 1       75-125         Carbon Ranges C28-C35       ND       10 0       "       0 00       ND       75-125         Fotal Hydrocarbon nC6-nC35       1190       10 0       "       1140       32 4       102       75-125	Surrogate. 1-Chlorooctadecane	619		"	500		124	70-130					
Carbon Ranges C12-C28         598         100         "         571         32.4         99.1         75-125           Carbon Ranges C28-C35         ND         10.0         "         0.00         ND         75-125           Fotal Hydrocarbon nC6-nC35         1190         10.0         "         1140         32.4         102         75-125	Matrix Spike (EE63114-MS1)	Source: 6E26006-03		Prepared. 05/31/06 Analyzed. 06			/01/06						
Carbon Ranges C28-C35         ND         10 0         "         0 00         ND         75-125           Fotal Hydrocarbon nC6-nC35         1190         10 0         "         1140         32 4         102         75-125	Carbon Ranges C6-C12	589	10 0	mg/kg dry	571	ND	103	75-125					
Fotal Hydrocarbon nC6-nC35         1190         100         "         1140         32.4         102         75-125	Carbon Ranges C12-C28	598	10 0	"	571	32 4	99 1	75-125					
· · · · · · · · · · · · · · · · · · ·	Carbon Ranges C28-C35	ND	10 0	"	0 00	ND		75-125					
Surrogate 1-Chlorooctane 51.9 mg/kg 50.0 104 70-130	Total Hydrocarbon nC6-nC35	1190	10 0	11	1140	32 4	102	75-125					
	Surrogate 1-Chlorooctane	519		mg/kg	50 0		104	70-130					

"

500

457

Environmental Lab of Texas

Surrogate 1-Chlorooctadecane

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

914

70-130

#### Project: Chesapeake/ NH 35 #1 Project Number 160056 Project Manager: Iaın Olness

Fax. 505-394-2601

**Reported:** 06/07/06 13 01

#### **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 EE63114 - Solvent Extraction (GC)										
Matrix Spike Dup (EE63114-MSD1)	4-MSD1) Source: 6E26006-03			Prepared.	05/31/06 A	nalyzed. 06				
Carbon Ranges C6-C12	579	10 0	mg/kg dry	571	ND	101	75-125	171	20	
Carbon Ranges C12-C28	589	10 0	H	571	32.4	97 5	75-125	1 52	20	
Carbon Ranges C28-C35	ND	10 0		0 00	ND		75-125		20	
Total Hydrocarbon nC6-nC35	1170	10 0	*	1140	32 4	99 8	75-125	1 69	20	
Surrogate 1-Chlorooctane	51 0		mg/kg	50 0		102	70-130			
Surrogate 1-Chlorooctadecane	44 7		"	50 0		894	70-130			
Batch EF60301 - EPA 5030C (GC)										
Blank (EF60301-BLK1)				Prepared. (	06/03/06 A	nalyzed. 06	5/04/06			
Benzene	ND	0 0250	mg/kg wet							
Foluene	ND	0 0250	"							
Ethylbenzene	ND	0 0250	"							
Xylene (p/m)	ND	0 0250	"							
Xylene (0)	ND	0 0250	**							
Surrogate a,a,a-Trifluorotoluene	37 0		ug/kg	40 0		92 5	80-120			
Surrogate 4-Bromofluorobenzene	38 7		"	40 0		96 8	80-120			
LCS (EF60301-BS1)				Prepared.	)6/03/06 A	nalyzed 06	/04/06			
Benzene	1 04	0.0250	mg/kg wet	1 25		83 2	80-120			
Foluene	1.03	0 0250	"	1 25		82 4	80-120			
Ethylbenzene	1 13	0 0250	**	1 25		90 4	80-120			
Xylene (p/m)	2 41	0 0250	**	2.50		96 4	80-120			
Xylene (0)	1 18	0 0250	**	1 25		94 4	80-120			
Surrogate a,a,a-Trifluorotoluene	36 6		ug/kg	40 0		915	80-120			

"

40 0

44 7

Surrogate 4-Bromofluorobenzene

Environmental Lab of Texas

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

112

80-120

# ProjectChesapeake/ NH 35 #1Project Number.160056Project ManagerIain Olness

Fax 505-394-2601

**Reported:** 06/07/06 13.01

#### **Organics by GC - Quality Control**

#### **Environmental Lab of Texas**

	- ·	Reporting		Spike	Source	0/852	%REC	0.00	RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EF60301 - EPA 5030C (GC)								Contra a		
Calibration Check (EF60301-CCV1)				Prepared.	06/03/06 A	nalyzed. 06	/05/06			
Benzene	40 3		ug/kg	50 0		80 6	80-120			
Toluene	40 3		"	50 0		80 6	80-120			
Ethylbenzene	42 0			50 0		84 0	80-120			
Xylene (p/m)	85.4			100		85 4	80-120			
Xylene (0)	43 8			50 0		87 6	80-120			
Surrogate a,a,a-Trifluorotoluene	37 2		"	40.0		93 0	80-120			
Surrogate 4-Bromofluorobenzene	45 3		"	40 0		113	80-120			
Matrix Spike (EF60301-MS1)	Sou	rce: 6E26005	-05	Prepared: (	06/03/06 Ai	nalyzed · 06	/05/06			
Benzene	1 02	0 0250	mg/kg dry	1 26	ND	81.0	80-120			
Toluene	1 01	0 0250		1 26	ND	80 2	80-120			
Ethylbenzene	1 03	0 0250	"	1 26	ND	817	80-120			
Xylene (p/m)	2 28	0 0250	"	2 52	ND	90 5	80-120			
Xylene (o)	1 1 1	0 0250	"	1.26	ND	88 1	80-120			
Surrogate a,a,a-Trifluorotoluene	36 7		ug/kg	40 0		918	80-120			
Surrogate 4-Bromofluorobenzene	37 8		"	40 0		94 5	80-120			
Matrix Spike Dup (EF60301-MSD1)	Sou	rce: 6E26005	-05	Prepared. (	06/03/06 A1	nalyzed 06	/05/06			
Benzenc	1 02	0 0250	mg/kg dry	1 26	ND	81.0	80-120	0 00	20	
Tolucne	1 02	0 0250	н	1 26	ND	81 0	80-120	0 993	20	
Ethylbenzene	1 02	0 0250	н	1 26	ND	81 0	80-120	0 860	20	
Xylene (p/m)	2 24	0 0250	н	2 52	ND	88 9	80-120	1 78	20	
Xylene (o)	1 08	0 0250		1 26	ND	85.7	80-120	2 76	20	
Surrogate a,a,a-Trifluorotoluene	38 0		ug/kg	40 0		95 0	80-120			
Surrogate 4-Bromofluorobenzene	378		"	40 0		94 5	80-120			
Batch EF60302 - EPA 5030C (GC)										
Blank (EF60302-BLK1)				Prepared.	06/03/06 A1	nalyzed <sup>,</sup> 06	/05/06			-
Benzene	ND	0 0250	mg/kg wet							
Toluene	ND	0 0250	н							
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	369		"	40 0		92 2	80-120			

Environmental Lab of Texas

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Reported: 06/07/06 13 01

#### **Organics by GC - Quality Control**

#### **Environmental Lab of Texas**

	<b>.</b> .	Reporting		Spike	Source	0/5-5-5	%REC	D.5-5	RPD	NI -
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EF60302 - EPA 5030C (GC)										
LCS (EF60302-BS1)				Prepared (	06/03/06 A	nalyzed 06	/05/06			
Benzene	1 05	0 0250	mg/kg wet	1 25		84 0	80-120			
Tolucne	1 02	0.0250		1 25		81.6	80-120			
Ethylbenzene	1 05	0 0250	н	1 25		84 0	80-120			
Xylene (p/m)	2 27	0 0250	н	2 50		90.8	80-120			
Xylene (0)	1 11	0 0250	11	1 25		88 8	80-120			
Surrogate <sup>•</sup> a,a,a-Trifluorotoluene	38 7		ug/kg	40 0		968	80-120			.,
Surrogate 4-Bromofluorobenzene	40 I		"	40 0		100	80-120			
Calibration Check (EF60302-CCV1)				Prepared (	06/03/06 A	nalyzed 06	/06/06			
Benzene	40 8		ug/kg	50 0		81.6	80-120			
Toluene	40 2		"	50 0		80 4	80-120			
Ethylbenzene	44 3		**	50 0		88 6	80-120			
Xylene (p/m)	90 4		н	100	1	90 4	80-120			
Xylene (0)	45 9		н	50 0		91 8	80-120			
Surrogate a,a,a-Trifluorotoluene	36 2		"	40 0		90 5	80-120			
Surrogate 4-Bromofluorobenzene	40 4		"	400		101	80-120			
Matrix Spike (EF60302-MS1)	Sou	rce: 6E31001	-01	Prepared (	06/03/06 A	nalyzed. 06	/05/06			
Benzene	1 04	0 0250	mg/kg dry	1 28	ND	812	80-120			
Toluene	1 02	0 0250	"	1 28	ND	79 7	80-120			S-0
Ethylbenzene	1 27	0 0250		1 28	ND	99.2	80-120			
Xylene (p/m)	2 18	0 0250		2 55	ND	85 5	80-120			
Xylene (0)	1 06	0 0250	"	1 28	ND	82 8	80-120			
Surrogate a,a,a-Trifluorotoluene	38.0		ug/kg	40 0		950	80-120			
Surrogate 4-Bromofluorobenzene	45.4		"	40 0		114	80-120			
Matrix Spike Dup (EF60302-MSD1)	Sou	rce: 6E31001	-01	Prepared. (	)6/03/06 A	nalyzed. 06	/05/06			
Benzene	1 03	0 0250	mg/kg dry	1 28	ND	80 5	80-120	0 866	20	
Toluenc	1 03	0 0250	"	1 28	ND	80 5	80-120	0 999	20	
Ethylbenzene	1 33	0 0250		1 28	ND	104	80-120	4 72	20	
Xylene (p/m)	2 29	0 0250	"	2 55	ND	89 8	80-120	4 91	20	
Xylenc (0)	1 13	0 0250		1 28	ND	88 3	80-120	6 43	20	
Surrogate a,a,a-Trifluorotoluene	36.2		ug/kg	40 0	_	90 5	80-120			
Surrogate 4-Bromofluorobenzene	408		"	40 0		102	80-120			

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

#### **Reported:** -06/07/06 13.01

#### General Chemistry Parameters by EPA / Standard Methods - Quality Control

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result		%REC Limits	RPD	RPD Limit	Notes
Batch EE62901 - General Preparation (Prep)										
Blank (EE62901-BLK1)				Prepared.	05/26/06	Analyzed. 05	/30/06			
% Moisture	ND	01	%							
Blank (EE62901-BLK2)				Prepared.	05/26/06	Analyzed. 05	/30/06			
% Moisture	ND	01	%							
Duplicate (EE62901-DUP1)	Sou	rce: 6E26001-0	01	Prepared	05/26/06	Analyzed. 05	/27/06			
% Solids	79 6		%		79 2			0 504	20	
Duplicate (EE62901-DUP2)	Sou	rce: 6E26001-2	21	Prepared	05/26/06	Analyzed 05	/27/06			
% Solids	99 5		%		99 4			0 101	20	
Duplicate (EE62901-DUP3)	Sou	rce: 6E26001-4	11	Prepared.	05/26/06	Analyzed 05	/27/06			
% Solids	99 1		%		991			0 00	20	
Duplicate (EE62901-DUP4)	Sou	rce: 6E26001-6	51	Prepared	05/26/06	Analyzed 05	/27/06			
% Solids	75 2		%		76 2			1 32	20	
Duplicate (EE62901-DUP5)	Sou	rce: 6E26003-0	07	Prepared:	05/26/06	Analyzed 05	/27/06			
% Solids	98 0		%		98 3			0 306	20	
Duplicate (EE62901-DUP6)	Sou	rce: 6E26004-0	)7	Prepared	05/26/06	Analyzed 05	/27/06			
% Solids	97 9		%	<b>*</b>	96 7			1 23	20	
Duplicate (EE62901-DUP7)	Sou	rce: 6E26005-0	)6	Prepared	05/26/06	Analyzed. 05	/27/06			
% Solids	99.3		%	·^	99 5			0 201	20	
Duplicate (EE62901-DUP8)	Sou	rce: 6E26008-0	)4	Prepared.	05/26/06	Analyzed: 05	/27/06			
% Solids	98.6		%	•	91.7			7 25	20	

Environmental Lab of Texas

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

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Environmental Plus, Incorporated	Project. Chesapeake/ NH 35 #1	Fax 505-394-2601
P O Box 1558	Project Number. 160056	Reported:
Eunice NM, 88231	Project Manager Iain Olness	06/07/06 13 01

#### General Chemistry Parameters by EPA / Standard Methods - Quality Control

#### **Environmental Lab of Texas**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EE63006 - Water Extraction										
Blank (EE63006-BLK1)				Prepared &	Analyzed:	: 05/29/06				
Chloride	ND	0 500	mg/kg							
Sulfate	ND	0 500	11							
LCS (EE63006-BS1)				Prepared &	Analyzed	05/29/06				
Sulfate	8 10	0.500	mg/kg	10 0		81.0	80-120			
Chloride	9 89	0 500	н	10 0		98 9	80-120			
Calibration Check (EE63006-CCV1)				Prepared &	Analyzed.	05/29/06				
Chloride	9 82		mg/L	10 0		98 2	80-120			
Sulfate	8 15		н	10 0		81.5	80-120			
Duplicate (EE63006-DUP1)	Sou	rce: 6E26008-	-01	Prepared &	Analyzed.	05/29/06				
Sulfate	35 9	5 00	mg/kg		35.7			0 559	20	
Chloride	25 6	5 00	н		26 7			4 21	20	
Matrix Spike (EE63006-MS1)	Sou	rce: 6E26008-	-01	Prepared &	. Analyzed	05/29/06				
Chloride	118	5 00	mg/kg	100	26 7	91.3	80-120			
Sulfate	102	5.00	"	100	35 7	66 3	80-120			

Environmental Lab of Texas

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**Reported:** 06/07/06 13 01

#### **Notes and Definitions**

- Š-07 Recovery outside Laboratory historical or method prescribed limits.
- 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:

Kaland K Junes Date:

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.

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

Environmental Lab of Texas

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6/7/2006

Page 15 of 15

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(505) 394-3481	,							· ,		,.											-					
Company Name		Environm	ental Plus,	, inc	2.			Bill To							ANALYSIS REQUEST											
EPI Project Mana	ager	lain Olnes																			$\square$			Т		T
Mailing Address		P.O. BOX	1558												8											
City, State, Zip		Eunice Ne	w Mexico	882	31									E				ľ		i I					1	
EPI Phone#/Fax	ŧ	505-394-3	481 / 505-3	94-	260	1								F	,F		l i		(							
<b>Client Company</b>		Chesapeak	e Energy											m	T					1						
Facility Name		NH 35 #1												86	I				1							
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					6.6	<u> </u>		MA	<b>TRIX</b>			PR	ESE	RV.	SAMPLI	NG										
	BH-1 (4') BH-2 (6') BH-3 (4') SW-1 (3') SW-2 (3') SW-3 (2') SW-4 (3')	SAMPLE I.I	).	××××××××× (G)RAB OR (C)OMP.	+ - + CONTAINERS 46	GROUND WATER	WASTEWATER			SLUDGE	ОТНЕЯ:	ACID/BASE		ОТНЕК	DATE 25-May-06 25-May-06 25-May-06 25-May-06 25-May-06 25-May-06	TIME 13:15 13:20 13:26 13:30 13:34 13:40 13:45	X X X X X X BTEX 8021B	X X X X X X TPH 8015M	X X X X	$\times \times \times \times \times \times \times \times \times$ sulfates (so <sup>4</sup> )	Hd	TCLP	0THER >>>	РАН		
	SW-5 (3')	. <u></u>		X	1			X	-			-	x		25-May-06	13:50	Îx	X		x						-+
	SW-6 (4')			X	1			X		┝──		┢──	x		25-May-06	13:55	Îx	$\frac{1}{x}$		-	┢─┥	┢━┥			+	-+
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#### Chain of Custody Form

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2100 Avenue O, (505) 394-3481	Eunice, NM 8823: FAX: (505) 394-26		Р.(	0. E	lox	155	8, E	uni	ce, i	NM	882	31								I	lab:	EL	T			
Company Name	Enviro	nmental Plus	, In	c.					Ē.			E	<b>SIL</b> E	Го			85	A	NAI	YS	IS F	(EQ	(UE!	STŚ	ISB	
EPI Project Mana	ager lain Ol																Ī			Ē	Ē	Γ	Γ	<u> </u>	Γ	T
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City, State, Zip	Eunice	New Mexico	882	231			1						E													
EPI Phone#/Fax#	\$ 505-39	4-3481 / 505-3	394-	260	1		]						F	٦,F												
<b>Client Company</b>	Chesap	eake Energy					ļ						T	T									ļ			l
Facility Name	NH 35	#1					1						Q 6	2												
Location	UL-0, 5	Sec. 35, T 15	S, F	33	E		1				Att	n: (	ain	Olness												
Project Reference	e 160056		-											1558,												
EPI Sampler Nan	ne Roger	Boone		22						Ει	inic	e, N	IM 8	8231-1558							[ '	1		1		
			Γ.	202			MA	TRIX			PR	ESE	RV.	SAMPL	NG	1									l	
LAB I.D. 6E <sup>26008</sup>	SAMPLE SW-8 (3')	E I.D.	× (G)RAB OR (C)OMP.	# CONTAINERS	GROUND WATER	WASTEWATER	X SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	× ICE/COOL	ОТНЕЯ	DATE	TIME	< BTEX 8021B	< TPH 8015M	× CHLORIDES (CI)	<u> </u>		TCLP	OTHER >>>	РАН			
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Semple/ Relinquisted: Aun (1) Relinquished by: Aunon (3) Delivered by.	nlos 10ns 10ns	5611 A 206 1100 7-02 Date 05-26-06 1100 0-952 Sample Sample	Red Coo		<u>-1000</u> By: (1 Cen	B ab sta	771 	<u> </u>	<u>nu</u> ecked	By:			ail r ARKS	esults to: iolnes	ss@envplu	JS.N	ət						<u> </u>			

## **Environmental Plus, Inc.**

Chain of Custody Form

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

Client <u>E</u>	PI
Date/Time:	05-26-06 @ 0952
Order #:	6E26008

Initials: JMM

#### Sample Receipt Checklist

Temperature of container/cooler?	(Yes) No	4,0 CI
Shipping container/cooler in good condition?	Yes No	N/A
Custody Seals intact on shipping container/cooler?	Yes No	Not present MA
Custody Seals intact on sample bottles?	(Fes) NO	Not present
Chain of custody present?	(FES NO	
Sample Instructions complete on Chain of Custody?	. (Tes) No	
Chain of Custody signed when relinquished and received?	YES NO	
Chain of custody agrees with sample label(s)	(res) No	
Container labels legible and intact?	(reg) No	
Sample Matrix and properties same as on chain of custody?	(Yes No	
Samples in proper container/bottle?	(res) 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?	(Yés) No	
Sufficient sample amount for indicated test?	Yes No	
All samples received within sufficient hold time?	Kes No	
VOC samples have zero headspace?	(Yès) No	Not Applicable

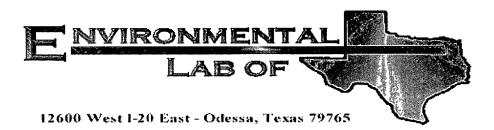
Other observations:

Variance Documentation: Date/Time:

\_\_\_\_\_

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Contact Person: Regarding:	Date/Time:	Contacted by:	
Corrective Action Taken:			
، بر بایک بر ایک میں ایک میں ایک میں کو کو <sup>ر</sup> ا کی ہوری ہے کہ کا کو میں ہے کہ ایک کو میں ہے کہ ایک میں کر ایک می			



## Analytical Report

#### **Prepared for:**

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

Project: Chesapeake/ NH 35 #1 Project Number: 160056 Location: UL-O, Sec. 35, T 15 S, R 33 E

Lab Order Number: 6F21006

Report Date: 06/27/06

Environmental Plus, Incorporated	Project	Chesapeake/ NH 35 #1	Fax 505-394-2601
P.O. Box 1558	Project Number.	160056	
Eunice NM, 88231	Project Manager:	Iain Olness	

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 7'	6F21006-01	Soil	06/20/06 09 05	06/21/06 11 07
SW-1 3'	6F21006-02	Soil	06/20/06 09 10	06/21/06 11.07
SW-2 3'	6F21006-03	Soil	06/20/06 09.15	06/21/06 11.07
SW-3 2'	6F21006-04	Soil	06/20/06 09 20	06/21/06 11.07
SW-4 3'	6F21006-05	Soil	06/20/06 09.25	06/21/06 11.07
SW-5 3'	6F21006-06	Soil	06/20/06 09:30	06/21/06 11.07
SW-6 3'	6F21006-07	Soil	06/20/06 09.35	06/21/06 11.07
SW-7 3'	6F21006-08	Soil	06/20/06 09:40	06/21/06 11.07
SW-8 3'	6F21006-09	Soil	06/20/06 09 45	06/21/06 11:07
SW-9 3'	6F21006-10	Soil	06/20/06 09.50	06/21/06 11.07
SW-10 3'	6F21006-11	Soil	06/20/06 09 55	06/21/06 11.07

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Project Chesapeake/ NH 35 #1 Project Number 160056 Project Manager, Iain Olness

#### Organics by GC

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
BH-1 7' (6F21006-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EF62208	06/22/06	06/22/06	EPA 8021B	
Toluene	ND	0.0250	11	"	11	н	"	"	
Ethylbenzene	ND	0.0250	11	n	"	"	п	"	
Xylene (p/m)	ND	0.0250	**	u	"	"	н	"	
Xylene (o)	ND	0.0250	11	ш	"	"	н	11	
Surrogate a,a,a-Trifluorotoluene		98.2 %	80-12	0	"	"	"	"	
Surrogate 4-Bromofluorobenzene		103 %	80-12	0	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62206	06/22/06	06/23/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"		"	11	н	
Carbon Ranges C28-C35	ND	10.0	"		"	"	"	н	
Total Hydrocarbon nC6-nC35	ND	10 0		"		"	"	н	
Surrogate 1-Chlorooctane		718%	70-13	0	• "	n	"	"	
Surrogate 1-Chlorooctadecane		70.6 %	70-13	0	"	"	"	n	
SW-1 3' (6F21006-02) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF62208	06/22/06	06/22/06	EPA 8021B	
Toluene	ND	0 0250			**	11	"	**	
Ethylbenzene	ND	0 0250	п	н		11	н		
Xylene (p/m)	ND	0 0250	н	н		11			
Xylene (o)	ND	0 0250	11	n	"	ц	"		
Surrogate a,a,a-Trifluorotoluene		97.0 %	80-12	0	"	"	"	11	
Surrogate 4-Bromofluorobenzene		98.2 %	80-12	0	"	"	"	"	
Carbon Ranges C6-C12	J [7.27]	10 0	mg/kg dry	1	EF62206	06/22/06	06/23/06	EPA 8015M	
Carbon Ranges C12-C28	601	10.0	"	"	"	н	11	"	
Carbon Ranges C28-C35	78.1	10.0	"	"	"	н	н	"	
Total Hydrocarbon nC6-nC35	679	10.0		п	"	11	"		
Surrogate 1-Chlorooctane		768%	70-13	0	"	"	"	"	
Surrogate 1-Chlorooctadecane		79.2 %	70-13	0	"	"	"	"	
SW-2 3' (6F21006-03) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF62208	06/22/06	06/22/06	EPA 8021B	
Toluene	ND	0.0250	н	"	"	"		**	
Ethylbenzene	ND	0 0250	*	"	"	"	н	**	
Xylene (p/m)	ND	0.0250	"	н	"	"	н		
Xylene (o)	ND	0.0250	"	"	n	"	11	н	
Surrogate a,a,a-Trifluorotoluene		99.5 %	80-12	0	"	"	"	"	
Surrogate 4-Bromofluorobenzene		95.8 %	80-12	0	"	"	"	"	
Carbon Ranges C6-C12	ND	10 0	mg/kg dry	1	EF62206	06/22/06	06/23/06	EPA 8015M	

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Project Chesapeake/ NH 35 #1 Project Number 160056 Project Manager. Iaun Olness

#### Organics by GC

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dalater	Dat-L	Decen	A	Math-4	NI
Analyte	Kesun		Cints	Dilution	Batch	Prepared	Analyzed	Method	Note
SW-2 3' (6F21006-03) Soil					11 - 12				
Carbon Ranges C12-C28	42.3	10.0	mg/kg dry	1	EF62206	06/22/06	06/23/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	п		11	"	п	**	
Total Hydrocarbon nC6-nC35	42.3	10.0	"	"		н			
Surrogate 1-Chlorooctane		72.8 %	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		73.0 %	70-1	30	"	"	"	"	
SW-3 2' (6F21006-04) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF62208	06/22/06	06/22/06	EPA 8021B	
Toluene	ND	0.0250	11	н	**	11	"	*1	
Ethylbenzene	ND	0 0250	11	н	**	"	"	11	
Xylene (p/m)	ND	0 0250		п	**	"	"	11	
Xylene (o)	ND	0.0250	н	н	"	н	"	11	
Surrogate a,a,a-Trifluorotoluene		96.5 %	80-1	20	"	"	"	"	
Surrogate 4-Bromofluorobenzene		97.0 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62114	06/21/06	06/23/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	n	м	"	11	"	, "	
Carbon Ranges C28-C35	ND	10 0	"	n		0	"	**	
Total Hydrocarbon nC6-nC35	ND	10 0	11	п		"		**	
Surrogate 1-Chlorooctane		75.8 %	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		74 0 %	70-1	30	"	"	"	"	
SW-4 3' (6F21006-05) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF62208	06/22/06	06/22/06	EPA 8021B	
Toluene	ND	0.0250	"	"		"	۳.		
Ethylbenzene	ND	0.0250	"	м	"		н	11	
Xylene (p/m)	ND	0.0250	"	н	"	"	11	н	
Xylene (o)	ND	0.0250	"	н	"	U.	ш	**	
Surrogate a,a,a-Trifluorotoluene		978%	80-1	20	"	"	"	n	
Surrogate 4-Bromofluorobenzene		96 2 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62114	06/21/06	06/23/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	**	"		0	11	31	
Carbon Ranges C28-C35	ND	10.0	"	"	"	0	"	н	
Total Hydrocarbon nC6-nC35	ND	10.0	"		11	"		11	
Surrogate 1-Chlorooctane		790%	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		76.2 %	70-1	30	"	"	"	"	

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#### Organics by GC

#### **Environmental Lab of Texas**

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SW-5 3' (6F21006-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EF62208	06/22/06	06/22/06	EPA 8021B	_
Toluene	ND	0.0250	11	**	"	"	н	н	
Ethylbenzene	ND	0.0250	11	**	"	"	**	и	
Xylene (p/m)	ND	0 0250	"		"	"			
Xylene (o)	ND	0.0250		"	11	"	"		
Surrogate <sup>•</sup> a,a,a-Trifluorotoluene		95.8 %	80-1	20	"	"	"	"	
Surrogate 4-Bromofluorobenzene		98.0 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62320	06/23/06	06/23/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10 0		"	"	"	11	*	
Carbon Ranges C28-C35	ND	10 0	11	"		"	"		
Total Hydrocarbon nC6-nC35	ND	10 0	**	н	"	"	"	91	
Surrogate 1-Chlorooctane		70.4 %	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		71.2 %	70-1	30	"	"	"	n	
SW-6 3' (6F21006-07) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF62208	06/22/06	06/22/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	**	
Ethylbenzene	ND	0 0250	"	"	"	w	"	"	
Xylene (p/m)	ND	0.0250			н	и			
Xylene (o)	ND	0.0250		"	11	"	"	11	
Surrogate a,a,a-Trifluorotoluene		95.2 %	80-1	20	"	"	"	"	
Surrogate 4-Bromofluorobenzene		89.0 %	80-1.	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62320	06/23/06	06/23/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"		11	
Carbon Ranges C28-C35	ND	10.0	"	"	н	п	**		
Total Hydrocarbon nC6-nC35	ND	10 0	"	"	u.	11	41	и	
Surrogate 1-Chlorooctane	· ·	82.8 %	70-1.	30	",	"	"	"	
Surrogate 1-Chlorooctadecane		79.6 %	70-1.	30	"	"	"	"	
SW-7 3' (6F21006-08) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF62208	06/22/06	06/22/06	EPA 8021B	
Toluene	ND	0.0250	"			и	"	п	
Ethylbenzene	ND	0 0250	"	н		"	"	н	
Xylene (p/m)	ND	0 0250	н	н	*1	"	ч	п	
Xylene (o)	ND	0.0250		н	"	"	"	11	
Surrogate a,a,a-Trifluorotoluene		91 5 %	80-1.	20	"	"	"	"	
Surrogate 4-Bromofluorobenzene		95.2 %	80-1.	20	"	"	"	n	
Carbon Ranges C6-C12	ND	10 0	mg/kg dry	1	EF62320	06/23/06	06/23/06	EPA 8015M	

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#### Organics by GC

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SW-7 3' (6F21006-08) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EF62320	06/23/06	06/23/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	п	*		"	"	**	
Total Hydrocarbon nC6-nC35	ND	10.0	н	**		"	**	11	
Surrogate 1-Chlorooctane		74.6 %	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		74.6 %	70-1	30	"	"	"	"	
SW-8-3' (6F21006-09) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EF62208	06/22/06	06/22/06	EPA 8021B	
Toluene	ND	0.0250	**	н	"	и	n		
Ethylbenzene	ND	0.0250	"	11	"	и	"		
Xylene (p/m)	ND	0 0250	**	"	"	"	"	н	
Xylene (o)	ND	0 0250		"	"	n	"	н	
Surrogate a,a,a-Trifluorotoluene		930%	80-1	20	"	"	"	"	
Surrogate 4-Bromofluorobenzene		958%	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10 0	mg/kg dry	1	EF62320	06/23/06	06/23/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10 0	11			"	"	н	
Carbon Ranges C28-C35	ND	10.0	"	"	0		"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	н	"	"		"	
Surrogate 1-Chlorooctane		72.8 %	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		71.2 %	70-1	30	"	"	"	n	
SW-9 3' (6F21006-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EF62208	06/22/06	06/22/06	EPA 8021B	
Toluene	ND	0.0250	н	"	н	11	"	11	
Ethylbenzene	ND	0 0250	11		11	"		**	
Xylene (p/m)	ND	0 0250	**		"	"		"	
Xylene (o)	ND	0 0250	"	"	"	"	"	"	
Surrogate a,a,a-Trifluorotoluene		100 %	80-1	20	"	"	"	"	
Surrogate 4-Bromofluorobenzene		93.2 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10 0	mg/kg dry	1	EF62320	06/23/06	06/23/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10 0	н	"	"	"	н	п	
Carbon Ranges C28-C35	ND	10 0	"	"	н	11	н	н	
Total Hydrocarbon nC6-nC35	ND	10 0	"	"	н	"		н	
Surrogate I-Chlorooctane		75.6 %	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		76.2 %	70-1	30	"	"	"	"	

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### Organics by GC

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SW-10 3' (6F21006-11) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EF62208	06/22/06	06/22/06	EPA 8021B	
Toluene	ND	0 0250	"	11	н	"	"	н	
Ethylbenzene	ND	0.0250	"	11		"	"	н	
Xylene (p/m)	ND	0.0250	"	11	н	"	"	**	
Xylene (o)	ND	0.0250	"	"	н	н	н	31	
Surrogate a,a,a-Trifluorotoluene		98.0 %	80-1.	20	"	"	"	"	
Surrogate. 4-Bromofluorobenzene		91.0 %	80-12	20	"	"	"	7	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62320	06/23/06	06/23/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	**	"	11	11	n	
Carbon Ranges C28-C35	ND	10.0	"	"	"	11	**	"	
Total Hydrocarbon nC6-nC35	ND	10 0	"		"	11	"	11	
Surrogate 1-Chlorooctane		79.0 %	70-1.	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		77.4 %	70-1.	30	"	"	"	"	

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#### Project Chesapeake/ NH 35 #1 Project Number. 160056 Project Manager lain Olness

#### General Chemistry Parameters by EPA / Standard Methods

#### **Environmental Lab of Texas**

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
BH-1 7' (6F21006-01) Soil									
% Moisture	8.4	0 1	%	1	EF62202	06/21/06	06/22/06	% calculation	
SW-1 3' (6F21006-02) Soil									
% Moisture	4.9	0 1	%	1	EF62202	06/21/06	06/22/06	% calculation	
SW-2 3' (6F21006-03) Soil									
% Moisture	2.1	0.1	%	1	EF62202	06/21/06	06/22/06	% calculation	
SW-3 2' (6F21006-04) Soil									
% Moisture	4.1	0.1	%	1	EF62202	06/21/06	06/22/06	% calculation	
SW-4-3' (6F21006-05) Soil									
% Moisture	9.5	0.1	%	1	EF62202	06/21/06	06/22/06	% calculation	
SW-5 3' (6F21006-06) Soil									
% Moisture	1.9	0.1	%	1	EF62202	06/21/06	06/22/06	% calculation	
SW-6-3' (6F21006-07) Soil									
% Moisture	2.1	0.1	%	1	EF62202	06/21/06	06/22/06	% calculation	
SW-7 3' (6F21006-08) Soil									
% Moisture	1.1	0 1	%	1	EF62202	06/21/06	06/22/06	% calculation	
SW-8 3' (6F21006-09) Soil									
% Moisture	0.4	0.1	%	1	EF62202	06/21/06	06/22/06	% calculation	
SW-9 3' (6F21006-10) Soil									
% Moisture	0.1	0 1	%	1	EF62202	06/21/06	06/22/06	% calculation	
SW-10 3' (6F21006-11) Soil									
% Moisture	1.4	0.1	%	1	EF62202	06/21/06	06/22/06	% calculation	

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#### Project Chesapeake/ NH 35 #1 Project Number. 160056 Project Manager. Iain Olness

#### **Organics by GC - Quality Control**

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#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF62114 - Solvent Extraction (GC)										
Blank (EF62114-BLK1)				Prepared (	06/21/06 Ai	nalyzed 06	/23/06			
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	37 1		mg/kg	50 0		74 2	70-130			
Surrogate 1-Chlorooctadecane	36.4		"	50 0		72 8	70-130			
LCS (EF62114-BS1)				Prepared (	06/21/06 Ai	nalyzed 06	/23/06			
Carbon Ranges C6-C12	497	10 0	mg/kg wet	`∗ 500		99 4	75-125			
Carbon Ranges C12-C28	479	10 0	11	500		95 8	75-125			
Carbon Ranges C28-C35	ND	10 0	"	0 00			75-125			
Total Hydrocarbon nC6-nC35	976	10 0		1000		97 6	75-125			
Surrogate 1-Chlorooctane	42 3		mg/kg	50 0		84 6	70-130			
Surrogate 1-Chlorooctadecane	35 8		"	50 0		716	70-130			
Calibration Check (EF62114-CCV1)				Prepared (	)6/21/06 A1	nalyzed. 06	/23/06			
Carbon Ranges C6-C12	258		mg/kg	250		103	80-120			
Carbon Ranges C12-C28	288		"	250		115	80-120			
Total Hydrocarbon nC6-nC35	546		"	500		109	80-120			
Surrogate 1-Chlorooctane	498		"	50 0		99 6	70-130			
Surrogate 1-Chlorooctadecane	437		"	50 0		874	70-130			
Matrix Spike (EF62114-MS1)	Sou	rce: 6F20011	-12	Prepared: (	)6/21/06 Ar	nalyzed 06	/23/06			
Carbon Ranges C6-C12	448	10 0	mg/kg dry	501	ND	89 4	75-125			
Carbon Ranges C12-C28	450	10 0		501	ND	89 8	75-125			
Carbon Ranges C28-C35	ND	10 0	"	0 00	ND		75-125			
Total Hydrocarbon nC6-nC35	898	10 0	11	1000	ND	89 8	75-125			
Surrogate 1-Chlorooctane	36 5		mg/kg	50 0		73 0	70-130			
Surrogate 1-Chlorooctadecane	388		"	50 0		77 6	70-130			

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#### **Environmental Lab of Texas**

1		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EF62114 - Solvent Extraction (GC)										
- Matrix Spike Dup (EF62114-MSD1)	Sour	rce: 6F20011	-12	Prepared: 0	06/21/06 Ar	nalyzed: 06	/23/06			
Carbon Ranges C6-C12	464	10 0	mg/kg dry	501	ND	92 6	75-125	3 51	20	
Carbon Ranges C12-C28	485	10 0	н	501	ND	96 8	75-125	7 49	20	
Carbon Ranges C28-C35	ND	10 0	"	0 00	ND		75-125		20	
Total Hydrocarbon nC6-nC35	949	10 0	"	1000	ND	94 9	75-125	5 52	20	
Surrogate 1-Chlorooctane	399		mg/kg	50 0		79 8	70-130			
Surrogate 1-Chlorooctadecane	36 5		"	50 0		730	70-130			
Batch EF62206 - Solvent Extraction (GC)										
Blank (EF62206-BLK1)				Prepared &	ε Analyzed.	06/22/06				
Carbon Ranges C6-C12	ND	10 0	mg/kg wet							
Carbon Ranges C12-C28	ND	10 0	u							
Carbon Ranges C28-C35	ND	10 0	11							
Total Hydrocarbon nC6-nC35	ND	10 0	**							
Surrogate 1-Chlorooctane	53,7		mg/kg	50 0		107	70-130			
Surrogate 1-Chlorooctadecane	514		"	50 0		103	70-130			
LCS (EF62206-BS1)				Prepared &	Analyzed	06/22/06				
Carbon Ranges C6-C12	483	10 0	mg/kg wet	500		96 6	75-125			
Carbon Ranges C12-C28	482	10 0		500		96 4	75-125			
Carbon Ranges C28-C35	ND	10 0	*1	0 00			75-125			
Total Hydrocarbon nC6-nC35	965	10 0	и	1000		96 5	75-125			
Surrogate 1-Chlorooctane	41 7		mg/kg	50 0		83 4	70-130			
Surrogate 1-Chlorooctadecane	35 6		"	50 0		71 2	70-130			
Calibration Check (EF62206-CCV1)				Prepared. 0	)6/22/06 Ar	nalyzed. 06	/23/06			
Carbon Ranges C6-C12	240		mg/kg	250		96 0	80-120			
Carbon Ranges C12-C28	284		n	250		114	80-120			
Total Hydrocarbon nC6-nC35	524		"	500		105	80-120			
Surrogate 1-Chlorooctane	46 8		"	50 0		93 6	70-130			
Surrogate 1-Chlorooctadecane	42 0		"	50 0		84 0	70-130			

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#### **Environmental Lab of Texas**

A	n t	Reporting	T	Spike	Source	0/ 850	%REC	0.00	RPD	NT
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EF62206 - Solvent Extraction (GC)	•									
Matrix Spike (EF62206-MS1)	Sour	ce: 6F21014	-01	Prepared &	Analyzed.	06/22/06				
Carbon Ranges C6-C12	556	10.0	mg/kg dry	539	73 6	89.5	75-125			
Carbon Ranges C12-C28	904	10 0		539	479	78 8	75-125			
Carbon Ranges C28-C35	15 6	10 0	۳	0 00	118		75-125			
Total Hydrocarbon nC6-nC35	1480	10 0	"	1080	564	84 8	75-125			
Surrogate 1-Chlorooctane	47 9		mg/kg	50 0		958	70-130			
Surrogate 1-Chlorooctadecane	43 3		"	50 0		86 6	70-130			
Matrix Spike Dup (EF62206-MSD1)	Sour	ce: 6F21014	-01	Prepared &	Analyzed	06/22/06				
Carbon Ranges C6-C12	572	10 0	mg/kg dry	539	73 6	92 5	75-125	2 84	20	
Carbon Ranges C12-C28	912	10 0	н	539	479	80 3	75-125	0 881	20	
Carbon Ranges C28-C35	13 6	10 0	*	0.00	118		75-125	13 7	20	
Total Hydrocarbon nC6-nC35	1500	10 0	ч	1080	564	86 7	75-125	1 34	20	
Surrogate 1-Chlorooctane	49 9		mg/kg	50 0		99 8	70-130			
Surrogate 1-Chlorooctadecane	45 1		"	50 0		90 2	70-130			
Batch EF62208 - EPA 5030C (GC)										
Blank (EF62208-BLK1)				Prepared &	Analyzed:	06/22/06				
·				I toparcu o		-				
Benzene	ND	0 0250	mg/kg wet	T Tepareu &						
Benzene Toluene	ND ND	0 0250 0 0250	mg/kg wet	T Tepareu a						
Toluene	ND	0 0250	н	Trepared &						
Toluene Ethylbenzene	ND ND	0 0250 0 0250	n n	Trepared a						
Toluene Ethylbenzene Xylene (p/m)	ND ND ND	0 0250 0 0250 0 0250	11 11	40 0		99 5	80-120			
Toluene Ethylbenzene Xylene (p/m) Xylene (o) Surrogate a.a.a-Trifluorotoluene	ND ND ND	0 0250 0 0250 0 0250	11 11 11 11			99 5 97 0	80-120 80-120			
Toluene Ethylbenzene Xylene (p/m) Xylene (o)	ND ND ND 39 8	0 0250 0 0250 0 0250	"" " " ug/kg	40 0	Analyzed:	97 0				
Toluene Ethylbenzene Xylene (p/m) Xylene (o) Surrogate a.a.a-Trifluorotoluene Surrogate 4-Bromofluorobenzene	ND ND ND 39 8	0 0250 0 0250 0 0250	"" " " ug/kg	40 0 40 0	Analyzed:	97 0				
Toluene Ethylbenzene Xylene (p/m) Xylene (o) Surrogate a,a,a-Trifluorotoluene Surrogate 4-Bromofluorobenzene LCS (EF62208-BS1) Benzene	ND ND ND 39 8 38 8	0 0250 0 0250 0 0250 0 0250	" " " <i>ug/kg</i>	40 0 40 0 Prepared &	Analyzed:	97 0 06/22/06	80-120			
Toluene Ethylbenzene Xylene (p/m) Xylene (o) Surrogate a,a,a-Trifluorotoluene Surrogate 4-Bromofluorobenzene LCS (EF62208-BS1) Benzene Toluene	ND ND ND 39 8 38 8	0 0250 0 0250 0 0250 0 0250	" " ug/kg " mg/kg wet	40 0 40 0 Prepared & 1.25	Analyzed:	97 0 06/22/06 102	80-120 80-120			
Toluene Ethylbenzene Xylene (p/m) Xylene (o) Surrogate a.a.a-Trifluorotoluene Surrogate 4-Bromofluorobenzene LCS (EF62208-BS1) Benzene Toluene Ethylbenzene	ND ND ND 39 8 38 8 1 28 1 42	0 0250 0 0250 0 0250 0 0250 0 0250 0 0250 0 0250	" " " <i>ug/kg</i> " mg/kg wct	40 0 40 0 Prepared & 1.25 1 25	Analyzed:	97 0 06/22/06 102 114	80-120 80-120 80-120			
Toluene Ethylbenzene Xylene (p/m) Xylene (o) Surrogate a.a.a-Trifluorotoluene Surrogate 4-Bromofluorobenzene LCS (EF62208-BS1)	ND ND ND 39 8 38 8 1 28 1 42 1 28	0 0250 0 0250 0 0250 0 0250 0 0250 0 0250 0 0250 0 0250	" " " <i>ug/kg</i> " mg/kg wet	40 0 40 0 Prepared & 1.25 1 25 1 25	Analyzed:	97 0 06/22/06 102 114 102	80-120 80-120 80-120 80-120			
Toluene Ethylbenzene Xylene (p/m) Xylene (o) Surrogate a.a.a-Trifluorotoluene Surrogate 4-Bromofluorobenzene LCS (EF62208-BS1) Benzene Toluene Ethylbenzene Xylene (p/m)	ND ND ND 39 8 38 8 1 28 1 42 1 28 2 98	0 0250 0 0250 0 0250 0 0250 0 0250 0 0250 0 0250 0 0250 0 0250	" " " <i>ug/kg</i> " " mg/kg wet	40 0 40 0 Prepared & 1.25 1 25 1 25 2 50	Analyzed:	97 0 06/22/06 102 114 102 119	80-120 80-120 80-120 80-120 80-120			

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#### **Organics by GC - Quality Control**

**Environmental Lab of Texas** 

Analyte	Result	Reporting Lunit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF62208 - EPA 5030C (GC)										
Calibration Check (EF62208-CCV1)	_			Prepared &	z Analyzed	06/22/06				
Benzene	53 1		ug/kg	50 0	_	106	80-120			
Toluene	57 5		"	50 0		115	80-120			
Ethylbenzene	54 7		"	50.0		109	80-120			
Xylene (p/m)	114		"	100		114	80-120			
Xylene (0)	58 4		"	50 0		117	80-120			
Surrogate a,a,a-Trifluorotoluene	43 1		"	40 0		108	80-120			
Surrogate · 4-Bromofluorobenzene	41 2		"	40 0		103	80-120			
Matrix Spike (EF62208-MS1)	Sou	rce: 6F21006	-01	Prepared &	h Analyzed	06/22/06				
Benzene	1.43	0 0250	mg/kg dry	1.36	ND	105	80-120			
Toluene	1.58	0 0250	"	1.36	ND	116	80-120			
Ethylbenzene	1 55	0 0250	"	1 36	ND	114	80-120			
Xylene (p/m)	3 20	0 0250	"	2 73	ND	117	80-120			
Xylene (o)	1 58	0 0250	11	1 36	ND	116	80-120			
Surrogate a,a,a-Trifluorotoluene	41 9		ug/kg	40 0		105	80-120			
Surrogate 4-Bromofluorobenzene	47 6		"	40 0		119	80-120			
Matrix Spike Dup (EF62208-MSD1)	Sou	rce: 6F21006	-01	Prepared &	k Analyzed.	06/22/06				
Benzene	1 41	0 0250	mg/kg dry	1 36	ND	104	80-120	0 957	20	
Toluene	1 57	0 0250	11	1 36	ND	115	80-120	0 866	20	
Ethylbenzene	1 54	0 0250	11	1 36	ND	113	80-120	0 881	20	
Xylene (p/m)	3 20	0 0250	*1	2 73	ND	117	80-120	0 00	20	
Xylene (0)	1 62	0 0250	**	1 36	ND	119	80-120	2 55	20	
Surrogate a,a,a-Trifluorotoluene	43 2		ug/kg	40 0		108	80-120			
Surrogate 4-Bromofluorobenzene	44 2		"	40 0		110	80-120			
Batch EF62320 - Solvent Extraction (GC)										
Blank (EF62320-BLK1)				Prepared &	z Analyzed.	06/23/06				
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	н							
Surrogate 1-Chlorooctane	37 7		mg/kg	50 0		75 4	70-130			
Surrogate 1-Chlorooctadecane	35 0		"	50 0		70 0	70-130			

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#### **Environmental Lab of Texas**

		Reporting		Spike	Source		%REC	_	RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EF62320 - Solvent Extraction (GC)										
LCS (EF62320-BS1)				Prepared &	Analyzed:	06/23/06				
Carbon Ranges C6-C12	511	10 0	mg/kg wet	500		102	75-125			
Carbon Ranges C12-C28	491	10 0	•	500		98 2	75-125			
Carbon Ranges C28-C35	ND	10 0		0 00			75-125			
Total Hydrocarbon nC6-nC35	1000	10 0	"	1000		100	75-125			
Surrogate 1-Chlorooctane	61 1		mg/kg	50 0		122	70-130			
Surrogate 1-Chlorooctadecane	54 8		n	50 0		110	70-130			
Calibration Check (EF62320-CCV1)				Prepared &	2 Analyzed	06/23/06				
Carbon Ranges C6-C12	231		mg/kg	250		92 4	80-120			
Carbon Ranges C12-C28	279		"	250		112	80-120			
Total Hydrocarbon nC6-nC35	510		"	500		102	80-120			
Surrogate 1-Chlorooctane	82 1		"	100		82 1	70-130			
Surrogate 1-Chlorooctadecane	82 1		"	100		82 1	70-130			
Matrix Spike (EF62320-MS1)	Sou	rce: 6F22013	-01	Prepared &	Analyzed	06/23/06				
Carbon Ranges C6-C12	609	10 0	mg/kg dry	594	ND	103	75-125			
Carbon Ranges C12-C28	591	10 0		594	ND	99.5	75-125			
Carbon Ranges C28-C35	ND	10 0	н	0 00	ND		75-125			
Total Hydrocarbon nC6-nC35	1200	10 0	"	1190	ND	101	75-125			
Surrogate 1-Chlorooctane	61 4		mg/kg	50 0		123	70-130			
Surrogate 1-Chlorooctadecane	55 6		"	50 0		111	70-130			
Matrix Spike Dup (EF62320-MSD1)	Sou	rce: 6F22013	-01	Prepared &	. Analyzed	06/23/06				
Carbon Ranges C6-C12	663	10 0	mg/kg dry	594	ND	112	75-125	8 49	20	
Carbon Ranges C12-C28	637	10 0	"	594	ND	107	75-125	7.49	20	
Carbon Ranges C28-C35	ND	10 0	"	0 00	ND		75-125		20	
Total Hydrocarbon nC6-nC35	1300	10 0	"	1190	ND	109	75-125	8.00	20	
Surrogate 1-Chlorooctane	62 8		mg/kg	50 0		126	70-130			
Surrogate I-Chlorooctadecane	64 7		"	50 0		129	70-130			

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

#### General Chemistry Parameters by EPA / Standard Methods - Quality Control

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Lımıts	RPD	RPD Limit	Notes
Batch EF62202 - General Preparation (Prep)										
Blank (EF62202-BLK1)				Prepared. 0	)6/21/06 A	nalyzed. 06	/22/06			
% Moisture	ND	01	%							
Duplicate (EF62202-DUP1)	Sou	rce: 6F20008-(	)1	Prepared. 0	)6/21/06 A	nalyzed. 06	/22/06			
% Moisture	99	01	%		10 1			2 00	20	

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#### **Notes and Definitions**

l	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	Duphcate

Report Approved By:

Raland K Junes

6/27/2006

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.

Date:

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Environmental Lab of Texas

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(505) 394-3481	-						,		,														_			
Company Name	E	nvironmental Plus,	Inc				Ś					B		0				A	VAL	YSI	IS P	EQI	JES	T		
EPI Project Man	ager la	in Olness																		Π	$\square$				Т	
Mailing Address	P	.O. BOX 1558											1	l									l			
City, State, Zip	E	unice New Mexico	882	88231				231																		
EPI Phone#/Fax	# 5	05-394-3481 / 505-3	94-2	260	1						•															
<b>Client Company</b>	c	hesapeake Energy											Π	T												
Facility Name	N	H 35 #1			_											[										
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	SW-2 (3')		X	1			X					X		20-Jun-06	9:15	-	X						$\square$	_		
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	SW-4 (3')		X	_			X					X		20-Jun-06	9:25	X	X							_	_↓	
	SW-5 (3')		X	1			X					X		20-Jun-06	9:30	X	X	Ļ'						_	_	
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	SW-7 (3')		X	1			X			L_	$\square$	X		20-Jun-06	9:40	X	X		<b></b>		<b></b> '				_	_
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### **Environmental Plus, Inc.**

Chain of Custody Form

Page 2 of 2

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

	1011011001	001100410
ent	EPI	
te/Time:	6/2/06	11:07
der #:	6F210	
tials:	Cle	

### Sample Receipt Checklist

noerature of container/cooler?	Yes	No	2.5 CI
pping container/cooler in good condition?	© !	No	
stody Seals intact on shipping container/cooler?	Yes	No	Not present
stody Seals intact on sample bottles?	100	No	Not present 1
ain of custody present?	6	No	
mple Instructions complete on Chain of Custody?	YES	No	
ain of Custody signed when relinquished and received?	YES	No	
ain of custody agrees with sample label(s)	Ø	No	
ntainer labels legible and intact?	1 Cos	No	
mple Matrix and properties same as on chain of custody?	œ	No	
mples in proper container/bottle?	1	No	· ·
imples properly preserved?	X as	No	í í
imple bottles intact?	1 Es	l No	
eservations documented on Chain of Custody?	1 ÆS	No	1
ontainers occumented on Chain of Custody?	XES	No	
ifficient sample amount for indicated test?	(Es	No	
I samples received within sufficient hold time?	Yes	No No	
DC samples have zero headspace?	1 PB	No	Not Applicable

ther observations:

Variance Documentation:

legarding.

Contact Person. -\_\_\_\_\_ Date/Time; \_\_\_\_\_ Contacted by: \_\_\_\_\_

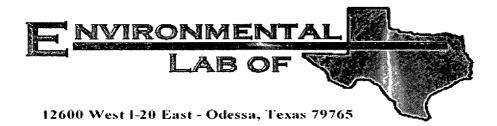
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Corrective Action Taken.

\_\_\_\_\_



## Analytical Report

#### **Prepared for:**

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

Project: Chesapeake/ NH 35 #1 Project Number: 160056 Location: UL-O, Sec. 35, T 15, S, R 33 E

Lab Order Number: 6F30009

Report Date: 07/10/06

Environmental Plus, Incorporated	Project	Chesapeake/ NH 35 #1	Fax 505-394-2601
P.O. Box 1558	Project Number.	160056	
Eunice NM, 88231	Project Manager.	laın Olness	

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW-1A 3'	6F30009-01	Soil	06/29/06 08.45	06/30/06 10 15

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Project Chesapeake/ NH 35 #1 Project Number. 160056 Project Manager. Iam Olness

#### Organics by GC

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SW-1A 3' (6F30009-01) Soil					Batch	Trepared	Analyzeu		Notes
Benzene	ND	0 0250	mg/kg dry	25	EF63020	06/30/06	07/03/06	EPA 8021B	
Toluene	ND	0 0250	"	"		31		"	
Ethylbenzene	ND	0.0250	*	п	"	n	u		
Xylene (p/m)	ND	0 0250	11	"	"	н		11	
Xylene (o)	ND	0.0250		0	"	,	и	"	
Surrogate a,a,a-Trifluorotoluene		93 5 %	80-1	20	"	n	"	"	
Surrogate <sup>•</sup> 4-Bromofluorobenzene		85.8 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10 0	mg/kg dry	1	EF61504	06/30/06	07/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	н	"	н	u.	
Carbon Ranges C28-C35	ND	10.0				"	н	н	
Total Hydrocarbon nC6-nC35	ND	10 0	"		н	11	"	51	
Surrogate 1-Chlorooctane		75.4 %	70-1	30	"	"	"	"	
Surrogate 1-Chlorooctadecane		740%	70-1	30	"	"	"	"	

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#### Project. Chesapeake/ NH 35 #1 Project Number. 160056 Project Manager lan Olness

#### General Chemistry Parameters by EPA / Standard Methods

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SW-1A 3' (6F30009-01) Soil									
% Moisture	1.9	0.1	%	1	EG60301	06/30/06	07/03/06	% calculation	

Environmental Lab of Texas

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Page 3 of 8

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF61504 - Solvent Extraction (GC)										
Blank (EF61504-BLK1)				Prepared &	z Analyzed	06/30/06		_		
Carbon Ranges C6-C12	ND	10 0	mg/kg wet							
Carbon Ranges C12-C28	ND	10 0	u							
Carbon Ranges C28-C35	ND	10 0	11							
Total Hydrocarbon nC6-nC35	ND	10 0	"							
Surrogate 1-Chlorooctane	54 7		mg/kg	50.0		109	70-130			
Surrogate 1-Chlorooctadecane	52 0		"	50 0		104	70-130			
LCS (EF61504-BS1)				Prepared &	. Analyzed	. 06/30/06				
Carbon Ranges C6-C12	513	10 0	mg/kg wet	500		103	75-125	_		
Carbon Ranges C12-C28	517	10 0	н	500		103	75-125			
Carbon Ranges C28-C35	ND	10 0		0 00			75-125			
Total Hydrocarbon nC6-nC35	1030	10 0	н	1000		103	75-125			
Surrogate 1-Chlorooctane	54 2		mg/kg	50 0		108	70-130			
Surrogate 1-Chlorooctadecane	44 9		"	50 0		89 8	70-130			
Calibration Check (EF61504-CCV1)				Prepared (	)6/30/06 A	nalyzed 07	/01/06			
Carbon Ranges C6-C12	208		mg/kg	250		83 2	80-120	· ·		
Carbon Ranges C12-C28	298		"	250		119	80-120			
Total Hydrocarbon nC6-nC35	505			500		101	80-120			
Surrogate 1-Chlorooctane	55 4		"	50 0		111	70-130			
Surrogate 1-Chlorooctadecane	53 6		"	50 0		107	70-130			
Matrix Spike (EF61504-MS1)	Sou	rce: 6F30007	-01	Prepared &	Analyzed:	06/30/06				
Carbon Ranges C6-C12	595	10 0	mg/kg dry	559	ND	106	75-125			
Carbon Ranges C12-C28	601	10 0	11	559	ND	108	75-125			
Carbon Ranges C28-C35	ND	10 0	н	0 00	ND		75-125			
Total Hydrocarbon nC6-nC35	1200	10 0	"	1120	ND	107	75-125			
Surrogate 1-Chlorooctane	61 8		mg/kg	50 0		124	70-130			
Surrogate 1-Chlorooctadecane	54.1		"	50 0		108	70-130			

Environmental Lab of Texas

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#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF61504 - Solvent Extraction (GC)										
Matrix Spike Dup (EF61504-MSD1)	Sou	rce: 6F30007	-01	Prepared &	analyzed.	06/30/06				
Carbon Ranges C6-C12	580	10 0	mg/kg dry	559	ND	104	75-125	2 55	20	
Carbon Ranges C12-C28	592	10 0	n	559	ND	106	75-125	1 51	20	
Carbon Ranges C28-C35	ND	10 0	11	0 00	ND		75-125		20	
Total Hydrocarbon nC6-nC35	1170	10 0	н	1120	ND	104	75-125	2 53	20	
Surrogate 1-Chlorooctane	599		mg/kg	50 0		120	70-130			
Surrogate 1-Chlorooctadecane	518		"	50 0		104	70-130			
Batch EF63020 - EPA 5030C (GC)										
Blank (EF63020-BLK1)				Prepared (	)6/30/06 A	nalyzed 07	/05/06			
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 4		ug/kg	40 0		910	80-120			
Surrogate 4-Bromofluorobenzene	39 3		"	40 0		98 2	80-120			
LCS (EF63020-BS1)				Prepared (	06/30/06 A	nalyzed 07	/03/06			
Benzene	1 28	0 0250	mg/kg wet	1 25		102	80-120			
Toluene	1 37	0 0250	11	1 25		110	80-120			
Ethylbenzene	1 32	0 0250	**	1 25		106	80-120			
Xylene (p/m)	2 75	0 0250	"	2 50		110	80-120			
Xylene (o)	1 36	0 0250	**	1 25		109	80-120			
Surrogate a,a,a-Trifluorotoluene	45 8		ug/kg	40 0		114	80-120			

400

387

Surrogate a,a,a-Trifluorotoluene Surrogate 4-Bromofluorobenzene

Environmental Lab of Texas

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80-120

**Environmental Lab of Texas** 

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF63020 - EPA 5030C (GC)										
Calibration Check (EF63020-CCV1)	-			Prepared.	06/30/06 A	nalyzed. 07	//05/06			
Benzene	51 7		ug/kg	50 0		103	80-120			
Toluene	55 7		11	50 0		111	80-120			
Ethylbenzene	57 1		и	50 0		114	80-120			
Xylene (p/m)	113		"	100		113	80-120			
Xylene (o)	56 8		"	50 0		114	80-120			
Surrogate a,a,a-Trifluorotoluene	40 9		"	40 0		102	80-120			
Surrogate 4-Bromofluorobenzene	39 2		n	40 0		98 0	80-120			
Matrix Spike (EF63020-MS1)	Sou	ırce: 6F30004	-01	Prepared: (	06/30/06 A	nalyzed 07	//05/06			
Benzene	1 23	0 0250	mg/kg dry	1 26	ND	97 6	80-120			
Toluene	1.33	0.0250	"	1 26	ND	106	80-120			
Ethylbenzene	1 28	0 0250	"	1 26	ND	102	80-120			
Xylene (p/m)	2 79	0 0250		2 52	ND	111	80-120			
Xylene (o)	1 34	0 0250	"	1 26	ND	106	80-120			
Surrogate a,a,a-Trifluorotoluene	40 7		ug/kg	40 0		102	80-120			
Surrogate 4-Bromofluorobenzene	36 6		"	40 0		915	80-120			
Matrix Spike Dup (EF63020-MSD1)	Sou	ırce: 6F30004	-01	Prepared. (	06/30/06 A	nalyzed 07	/05/06			
Benzene	1.19	0 0250	mg/kg dry	1 26	ND	94.4	80-120	3 33	20	
Toluene	1 32	0 0250	"	1 26	ND	105	80-120	0 948	20	
Ethylbenzene	1 30	0 0250	**	1 26	ND	103	80-120	0 976	20	
Xylene (p/m)	2 76	0 0250	п	2 52	ND	110	80-120	0 905	20	
Xylene (o)	1 41	0 0250	n	1 26	ND	112	80-120	5 50	20	
Surrogate a,a,a-Trifluorotoluene	35 9		ug/kg	40 0		89 8	80-120			
Surrogate 4-Bromofluorobenzene	38 4		"	40 0		96 0	80-120			

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

#### 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 EG60301 - General Preparation	ı (Prep)									
Blank (EG60301-BLK1)				Prepared. (	)6/30/06 A	nalyzed. 07	/03/06			
% Solids	100		%							
Duplicate (EG60301-DUP1)	Sourc	ce: 6F30001-0	1	Prepared. (	)6/30/06 A	nalyzed. 07	/03/06			
% Solids .	97 9		%		97 5			0 409	20	
Duplicate (EG60301-DUP2)	Sourc	ce: 6F30010-0	9	Prepared. 0	06/30/06 A	analyzed 07.	/03/06			
% Solids	96 5		%		98 6			2 15	20	
Duplicate (EG60301-DUP3)	Sourc	ce: 6F30011-1	8	Prepared. 0	06/30/06 A	analyzed. 07	/03/06			
% Solids	90 1		%		90 0			0 11 1	20	
Duplicate (EG60301-DUP4)	Sourc	ce: 6F30012-1	1	Prepared. 0	06/30/06 A	nalyzed. 07	/03/06		1	
% Solids	73 9		%		74 7			1 08	20	
Duplicate (EG60301-DUP5)	Sourc	ce: 6F30018-0	1	Prepared. 0	6/30/06 A	nalyzed 07	/03/06			
% Solids	99.9		%		100			0 100	20	

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#### **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 Kituts

Date: 7/10/2006

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.

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

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Page 8 of 8

Environmental Plus, Inc.	2100 Avenue O, Eunice, NM 88231 P.O. Box 1558, Eunice, NM 88231 (505) 394-3481 FAX: (505) 394-2601	pany Name Environmental Plus, Inc. Bill To . ANALYSIS REQUEST	EPI Project Manager lain Olness		Eunice New Mexico 88231	EPI Phone#/Fax# 505-394-3481 / 505-394-2601				eference 160056	Euni	ATRIX		(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	SAMPLE L.D. SAMPLE	Parent of the second se								Pelinguished     Date     Permit     Reward By     E-mail results to: iolness@envplus.net       Image     Image     Prev     Model     Prevented By       Image     Image     Prev     Model     Prevented By       Image     Image     Prevented By     Prevented By     Prevented By       Image     Image     Prevented By     Prevented By     Prevented By       Image     Image     Collected By     Prevented By     Prevented By
	2100 Avenue O (505) 394-3481	Company Name	EPI Project	Mailing Add	City, State, Zip	EPI Phone#	Client Company	Facility Name	Location	Project Ref	EPI Sample		turm <b>e</b> tt	cászt szyában.	LABID	A POO	j.	5						Sampler Helinquished Refinquished by:

Page 🎝 of 👌

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

Client	EPI	1999 - 1911 - 1911 - 1911 - 1911 - 1911 - 1911 - 1911 - 1911 - 1911 - 1911 - 1911 - 1911 - 1911 - 1911 - 1911 -
Date/Time	6/20/04	10:15
Order #:	101530	
Initials:	Ne	

#### Sample Receipt Checklist

Temperature of container/cooler?	Yes	tio	36 CI
Snipping container/cooler in good condition?	Y=3, 1	No	
Custody Seals intact on shipping container/cooler?	YES	No	ATCT present
Custody Seals intact on sample bottles?	XES	No	Not present
Chain of custody present?	1/23	No I	
Sample Instructions complete on Chain of Custody?	ES I	Na	
Chain of Custody signed when relinquished and received?	Ses,	No	
Chain of custody agrees with sample label(s)	Tes 1	No	
Container labels legible and intact?	Ves 1	No	
Sample Matrix and properties same as on chain of custody?	YES	No	
Samples in proper container/bottle?	1 Yes	No	
Samples properly preserved?	TES	No	
Sample bottles intact?	(es	No	and the second
Preservations documented on Chain of Custody?	1 /3	No	
Containers documented on Chain of Custody?	YES	l No	
Sufficient sample amount for indicated test?	1255	No	
All samples received within sufficient hold time?	1 9723	No No	
VOC samples have zero headspace?	1-465	No	Not Accircable

-

Other observations:

#### Variance Documentation: Date/Time:

Contact Person Regarding:	Date/Time:	Contacted by:	
Corractive Action Taken:			
······································			

	A	Incident Date: 16 May 2006	NMOCD N 17 May 200	
С	hesapeake	10 May 2000	17 Way 200	0
	tion and Metrics	(		
			<b>D</b> • <b>f</b> • • • • #1/	
Site: N. H. 35		Assigned	Site Reference : #16	00056
	Chesapeake Energy			
	s: 1616 West Bender	····		
	ess: P.O. Box 190	00240		
	p: Hobbs, New Mexico	88240		
	e: Bradley Blevins	14(2 + (224		
Representativ	e Telephone: (505) 391	-1462 ext. 6224	<u></u>	
Telephone:				
Fluid volume	released (bbls): 135 bbls		ecovered (bbls): 0 b	
		OCD verbally within 24 hrs oplies to unauthorized release		
5-25	bbls: Submit form C-141 wi	thin 15 days (Also applies to	o unauthorized releas	es of 50-500 mcf Natural Gas)
Leak, Spill, or	· Pit (LSP) Name: N. H. 3	35 #1		
	tamination: Tank Battery			
	i.e., BLM, ST, Fee, Other			
	ons: 30 feet by 120 feet			
LSP Area: ~3				
	eference Point (RP):			
	ince and direction from F	<u></u>		
Latitude: N 3				
	/ 103° 34' 55.20"			
	ve mean sea level: 4,145	feet	······	
	th Section Line: 510			
	t Section Line: 1,980			
	t or $\frac{1}{4}$ : SW <sup>1</sup> / <sub>4</sub> of the SE	Unit Lo	etter: 0	
Location- Sec			<u> </u>	
	vnship: 15 South		·····	
Location- Ran				
Surface water	body within 1000 ' radiu	is of site: none		
	er wells within 1000' radi			
	vater wells within 1000' r			
	supply wells within 1000'			
	nd surface to groundwate			
	amination (DC): unknow			
	ndwater (DG – DC = DtC			······································
	Groundwater	2. Wellhead Prot	ection Area	3. Distance to Surface Water Body
	<pre>/ &lt;50 feet: 20 points</pre>	If <1000' from water sou		<200 horizontal feet: 20 points
	/ 50 to 99 feet: 10 points	private domestic water so	ource: 20 points	200-1000 horizontal feet: 10 point
If Depth to GW	/ >100 feet: 0 points	If >1000' from water sou private domestic water so		>1000 horizontal feet: 0 points
				I
If Depth to GW	(+3) = 10 + 20 + 0 = 30			
If Depth to GW		te Ranking Score and Ac	ceptable Concentra	tions
If Depth to GW Site Rank (1+2		te Ranking Score and Ac		tions 0-9
If Depth to GW Site Rank (1+2 Parameter	<b>Total Si</b> >19	10-	-19	0-9
If Depth to GW Site Rank (1+2 Parameter Benzene <sup>1</sup>	Total Si           >19           10 ppm	10- 10 r	-19 ppm	0-9 10 ppm
If Depth to GW	<b>Total Si</b> >19	10- 10 r 50 r	-19 ppm	0-9

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<u>District I</u> 1625 N. French D <u>District II</u> 1301 W. Grand A				State Energy Mine		New Mexico nd Natural R			Form C-141 Revised October 10, 2003				
District III 1000 Rio Brazos I District IV 1220 S. St. Franci	Road, Aztec,	NM 87410		1220 S	outh	ation Divisi St. Francis 1 , NM 87505		Submi Dist	Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form				
		F	Release	e Notificatio		nd Correc	_						
Name of C	omnan	Chesane	ake End	OPERAT		RInitial ReportFinal ReportContact: Bradley Blevins							
Address: H				<u></u>			<b>No.:</b> (505) 391		6224				
Facility Na							e: Tank Batte						
Surface O	wner: D	an Field		Mineral (	Owne	er:	10-00-00-00-00-00-00-00-00-00-00-00-00-0	API N	o.: 3002530122				
· · · · · · · · · · · · · · · · · · ·				LOCATIO	)N O	F RELEAS	E						
Unit Letter O						th/South Line South	Feet from the 1,980	East/West L East	ine County Lea				
	Latitude: <u>N 32° 58' 2.28"</u> Longitude: <u>W 103° 34' 55.20"</u>												
				NATUR	E OF	RELEASE							
Type of Relea Source of Rele						Volume of Release: 135 bbls         Volume Recovered: 0 bbls           Date and Hour of Occurrence:         Date and Hour of Discovery							
						16 May 2006 (	@ 23:30 p.m.	17 May 20					
Was Immedia	te Notice (		Yes 🗍	No 🛛 Not Requ	uired	If YES, To W Larry Johnson							
By Whom? Bi	adley Blev					-	r: May 17, 2006						
Was a Watero	ourse Rea		Yes 🛛 I	No		If YES, Volume Impacting the Watercourse: Not Applicable							
Depth to wate If a Watercou			ribe Fully	.* Not Applicable									
Describe Cause ktcking open a Describe Area was shut off ar I hereby certify and regulations endanger public operator of hat surface water,	se of Probl valve on the Affected ad saturatect that the in s all operate c health or bility should human hea	em and Remo ne tank battery and Cleanup I soil excavate formation giv ors are require the environmed d their operati- th or the envir	edial Action The valid Action Taid and store en above is d to report ent. The a cons have f	on Taken.* Approve was shut off and we was shut off and aken.* Approxima kpiled. is true and complet t and/or file certain cceptance of a C-1 ailed to adequately	oximate d satura tely 3, tely 3, releas 41 rep v invest CD acc	ated soil excavat 600 square-feet e best of my kno e notifications a ort by the NMO tigate and remec ceptance of a C- 18.	ed and stockpiled of surface area wa owledge and under nd perform correc CD marked as "Fi hate contaminatio 141 report does no	s impacted by t rstand that purs cuve actions for inal Report" do n that pose a th ot relieve the op	reat to ground water, erator of responsibility				
	·		·	2		<u>OI</u>	L CONSERV	ATION DI	VISION				
Signature:	$\underline{\otimes}$	adly.	S.	em									
Printed Name	: Bradley B	Blevins			A	Approved by Di	strict Supervisor						
Title: Field Su	pervisor				A	Approval Date:		Expiration Date:					
E-mail Addre					C	Conditions of A	Attached 🔲						
				462 ext. 6224									
* Attach Ad	attional	Sheets If ]	Necessa	ıry									

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1675 N French Dr. Hobbs NM X8740	te of New Mexico Form C-141 nerals and Natural Resources Revised October 10, 2003							
District III         Oil C           1000 Rio Brazos Road, Aztec, NM 87410         1220           District IV         12200	Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of forma Fe, NM 87505							
Release Notificat	ion and Corrective Action							
OPERA								
Name of Company: Chesapeake Energy	Contact: Bradley Blevins							
Address: P.O. Box 190	<b>Telephone No.:</b> (505) 391-1462 ext. 6224							
Facility Name: N. H. 35 #1	Facility Type: Tank Battery							
Surface Owner: Dan Field Minera	<b>Owner: API No.:</b> 3002530122							
LOCAT	ON OF RELEASE							
Unit Letter OSection 35Township 15SRange 33EFeet from the 510								
Latituda: N 22º 58' 2'	<u>28"</u> Longitude: <u>W 103° 34' 55.20"</u>							
NATU	RE OF RELEASE         1 RP- 1346							
Type of Release: Crude oil Source of Release: Battery	Volume of Release: 135 bbls         Volume Recovered: 0 bbls           Date and Hour of Occurrence:         Date and Hour of Discovery:							
	16 May 2006 @ 23:30 p.m. 17 May 2006							
Was Immediate Notice Given?	quired Larry Johnson, NMOCD							
By Whom? Bradley Blevins	Date and Hour: May 17, 2006							
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse:							
	Not Applicable							
Depth to water. ~88 ft bgs           If a Watercourse was Impacted, Describe Fully.* Not Applicated to the second								
<b>Describe Cause of Problem and Remedial Action Taken.</b> * Ap kicking open a valve on the tank battery. The valve was shut off a	proximately 135 bbls of oil were released, with 0 bbls recovered, due to a cow							
Describe Area Affected and Cleanup Action Taken.* Approxin was shut off and saturated soil excavated and stockpiled. Soil imp Artesia Aeration, L.L.C. Laboratory analysis confirmed removal bottom of excavation. Excavated area backfilled with caliche ove the area and area seeded with a blend suitable to the landowner. I hereby certify that the information given above is true and comp and regulations all operators are required to report and/or file cert endanger public health or the environment. The acceptance of a C operator of liability should their operations have failed to adequat surface water, human health or the environment. In addition, NM	hately 3,600 square-feet of surface area was impacted by the release. The valve acted above NMOCD Remedial Threshold Goals excavated with disposal at of soil impacted above NMOCD Remedial Threshold goals in sidewalls and lain with topsoil in select areas. Remediated site graded for natural drainage of ete to the best of my knowledge and understand that pursuant to NMOCD rules in release notifications and perform corrective actions for releases which may -141 report by the NMOCD marked as "Final Report" does not relieve the ly investigate and remediate contamination that pose a threat to ground water, DCD acceptance of a C-141 report does not relieve the operator of responsibility							
for compliance with any other federal, state, or local laws and/or r	OIL CONSERVATION DIVISION							
Signature: Franklay Blow	ENVIRO ENER							
Printed Name: Bradley Blevins	Approved by District Supervisor:							
Title: Field Supervisor	Approval Date: 7.6.07 Expiration Date:							
E-mail Address: bblevins@chkenergy.com	Conditions of Approval:							
Date: >-=== Phone: (505) 391-1462 ext. 6224								
* Attach Additional Sheets If Necessary								

## Environmental Plus Inc



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		Daily	Dispatch	
Date 6-18	-07	120	Sandy	OBR -
Chesapea		112	Scott	
Berm Cor		PJ Fed Ros		
F/S	Kirt	120G		
L	Junior	DZ504		
L	Zeb	W130		
Chesapea	ke	Trico Powe	r	
Berm Completion		Excavate		Shop
F/S	George	W130		Bud
LW	Jaron ~	LX290		Eddie, Josh Joe L.
	Rene	1 week shu	t down	Wake
<u></u>	•		· ·	
Site Asse		Rust Co. Tr		
ET	Jacob	6:30 AM	Fabian	
	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		Tommy	
130027 S	S-9 Line		Donnie	
Backfill			Eddie	
F/S	Sebastain		Bodie	Shipp.
LW130	Jesus S.			SL120/ Cisco ??
310G	Raul		Morris	SL120/Old
200LC	Joe R.		David	122/ no tags
Thomas P	roScreen		Mike	118/ Spring
				310G trans lubbock
130022 H	obbs Booster	· · · · · · · · · · · · · · · · · · ·		106
ET	Kirby			108
		Haul Calich	ne to vard	
		F/S	Danny	Yard Astronomy
		W130	Eddie	Shaker
		D6M	Jesus A.	Shredder
		122	Jesus V	PU06
		119	Johnny	200LC
		117	Donna	LX210
··· · · · ·		114	Royce	D6H
		116	ViVi	JD4960
		108	Aldeberto	310E
6/19/2007		106	Lex	310SG
Drill for H	lighlander			121
		160180 Ben	son Shugart	
		310SG	Haul to yard	
		544G	Haul to yard	
Sales	Eddie Joe			

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