SITE CHARACTERIZATION 213141576

JULIO STATE #1 RELEASE SITE

EPI REF: #160052 **NMOCD RP #835** NMOCD ADMIN #PPAC0610937832

UL-D (NW¹/₄ OF THE NW¹/₄) OF SECTION 20 T20S R39E ~10 MILES NORTHEAST OF EUNICE

LEA COUNTY, NEW MEXICO

LATITUDE: N 32° 33' 49.44" LONGITUDE: W 103° 04' 26.54"

JULY 2006

PREPARED BY:

ENVIRONMENTAL PLUS, INC. 2100 AVENUE () EUNICE, NEW MEXICO 88231

PREPARED FOR:



Distribution List

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Site Characterization

Julio State #1

Ref. #160052

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Chesapeake Energy – Julio State #1 160052

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STANDARD OF CARE

Site Characterization

Julio State #1 Ref. #160052

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

This report was prepared by:

aron Ategemolt Jason Stegemoller

Environmental Scientist

<u>25 July 2006</u> Date

This report was reviewed by:

Iain A. Olness, P.G. Technical Manager

My 2006

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1.0 PROJECT SYNOPSIS

Site Specific:

- Company Name: Chesapeake Operating, Inc.
- Facility Name: Julio State #1
- Project Reference: 160052
- Company Contacts: Bradley Blevins
- Site Location: WGS84 N32° 33' 49.44"; W103° 04' 26.54"
- Legal Description: Unit Letter-D, (NW¼ of the NW¼), Section 20, T 20 S, R 39 E
- General Description: Approximately 10-miles northeast of Eunice, New Mexico
- *Elevation:* 3,515-ft amsl
- Land Ownership: McCasland Limited Partnership
- EPI Personnel: Project Consultant Iain Olness
 Site Foreman David Robinson

Release Specific:

- Product Released: Crude oil and production fluids
- Volume Released: ~10-barrels Volume Recovered: ~5-barrels
- Time of Occurrence: 8 March 2006 Time of Discovery: 8 March 2006
- Release Source: Well kicked during work over activities
- Initial Surface Area Affected: ~ 5,400 square feet with ~36,600 square feet impacted by overspray.

Remediation Specific:

- ♦ Final Vertical Extent of Contamination: <5-feet bgs
- Depth to Ground Water: Approximately 40-feet bgs
- Water Wells Within 1,000-ft: 2
- Private Domestic Water Sources Within 200-ft: 0
- Surface Water Bodies Within 1,000-ft: Ephemeral Stream and a Stock Pond
- NMOCD Site Ranking Index: 30 points (<50-ft to top of water table, <1,000-ft to surface water bodies)
- Remedial Goals for Soil: TPH 100 mg/Kg; BTEX 50 mg/Kg; Benzene 10 mg/Kg; Chloride and sulfate residuals may not be capable of impacting groundwater above NMWQCC groundwater standards of 250 mg/Kg and 600 mg/Kg, respectively.
- **RCRA Waste Classification:** Exempt
- Remediation Option Selected: a) Excavation of contaminated soil above NMOCD remedial goals and/or NMWQCC groundwater standards with disposal at Sundance Services, Inc.; b) laboratory analyses to confirm removal of soil impacted above NMOCD remedial thresholds and NMWQCC groundwater standards in excavation bottom; and, c) backfill the excavation
- Disposal Facility: Sundance Services, Inc.- Eunice, New Mexico
- Volume Disposed: 210-yd³
- Project Completion Date: May 12, 2006

2.0 <u>SITE AND RELEASE INFORMATION</u>

- 2.1 Describe the land use and pertinent geographic features within 1,000 feet of the site. Land surrounding the area is rangeland in native grasses and would be utilized for livestock grazing.
- 2.2 Identify and describe the source or suspected source(s) of the release. Well kicked during work over activities.
- 2.3 What is the volume of the release? (if known): <u>10</u> barrels of crude oil and production fluids
- 2.4 What is the volume recovered? (if any) <u>5</u> barrels
- 2.5 When did the release occur? (if known): <u>8 March 2006</u>

2.6 Geological Description

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

The release site is located in the Eunice Plains physiographic subdivision, described by Nicholson & Clebsch as an area that "is underlain by a hard caliche surface and is almost entirely covered by reddish-brown dune sand. The sand cover is 2 to 5 feet thick over most of the area."

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

The unconfined groundwater aquifer at this site is projected to be approximately 40-ft bgs based on water depth data obtained from the New Mexico State Engineers Office and the United States Geological Survey data base (reference *Table 1*).

2.9 Area Water Wells

There are two water supply wells located within a 1,000-foot radius of the release site as indicated by USGS water well data. However, there are no private, domestic fresh water wells or springs used by less than five households for domestic or stock watering purposes located within a 200-foot radius of the release site (reference *Figure 2*).

2.10 Area Surface Water Features

There is a pond utilized for livestock watering within a 1,000 foot radius of the release site.

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 characterized consistent with the characterization and remediation/abatement goals and objectives set forth in the following New Mexico Oil Conservation Division (NMOCD) publications:

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

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

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

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

1. GROU	JNDWATER	2. WELLHEAD PROTECTION AREA	3. DISTANCE TO SURFACE WATER
Depth to GW <5	60 feet: 20 points	If <1,000' from water source, or <200' from	<200 horizontal feet: 20 points
Depth to GW 50 10 points) to 99 feet:	private domestic water source: 20 points	200-1,000 horizontal feet: 10 points
Depth to GW >1	00 feet: 0 points	If >1,000' from water source, or >200' from private domestic water source: <i>0 points</i>	>1,000 horizontal feet: <i>0 points</i>
Site Rank (1+2+	-3) = 20 +20 +10 =	30 points	
	Total Site	Ranking Score and Acceptable Remedial Goa	I Concentrations
Parameter	20 0	or > 10	0
Benzene ¹	10 p	ppm 10 ppm	10 ppm
BTEX ¹	50 p	ppm 50 ppm	50 ppm
ТРН	100	ppm 1,000 ppm	5,000 ppm

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

4.0 EXCAVATED SOIL INFORMATION

4.1 Was soil excavated for off-site treatment or disposal? 🛛 🖾 Yes 🗌 No

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Date excavated: March 14 – 20, 2006

Total volume removed: Approximately 210 cubic yards

4.2 Indicated soil treatment type:

Disposal Land Treatement Composting/Biopiling Other (___)

Name and location of treatment/disposal facility: Sundance Services, Inc. – Eunice, New Mexico



5.0 SAMPLING INFORMATION

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

Organic Vapor Concentrations – A portion of each soil sample collected was inserted into a self-sealing polyethylene bag to allow volatilization of organic vapors. After the samples equilibrated to $\sim 70^{\circ}$ F, they were analyzed for organic vapors utilizing a MiniRae® Photoionization Detector (PID) equipped with a 10.6 electron volt (eV) lamp.

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

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

Soil samples collected from the excavation were collected utilizing hand and/or mechanical excavation equipment to gather the sample from at least 6-inches below/within the surface of the excavation.

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

5.3 Discuss sample locations and provide rationale for their locations.

On March 14, 2006, soil samples were collected from a background location, two sample locations within the excavation and excavated, stockpiled soil for field analyses. Soil sample locations were chosen to provide the best representative example of soil within the excavation sidewalls.

After further excavation, soil samples were collected on March 16, 2006 from the two locations in the north excavation floor [NBH-1(8") and NBH-2 (6")] and four locations in the south excavation floor [SBH-1(12"), SBH-2(12"), SBH-3(6") and SBH-4(6")] for field and laboratory analyses (reference *Figure 5*). Soil sample locations were chosen to provide the best representative example of soil within the excavation floor.

6.0 ANALYTICAL RESULTS

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

Field analyses of soil samples collected on March 14, 2006 from the excavation floor at one-foot bgs indicated organic vapor concentrations ranged from 22.6 to 37.6 parts per million (ppm). Chloride concentrations in the excavation floor samples were reported to range from 320 to 1,600 mg/Kg and the excavated, stockpiled soil were 640 mg/Kg. Field chloride analyses of the background sample indicated a concentration of 240 mg/Kg (reference *Table 2*).

Laboratory analyses of soil samples collected on March 16, 2006 from the excavation floor indicated TPH and BTEX constituent concentrations were ND at or above laboratory MDL. Reported chloride concentrations ranged from 47 to 749 mg/Kg (reference *Table 2, Figure 5* and *Appendix I*).

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

🗌 yes 🛛 no

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

Visibly stained soil has been excavated and transported to Sundance Services, Inc. for disposal. Field and laboratory analyses indicate hydrocarbon impacted soil has been excavated from the release area. Chloride impacted soil above the NMWQCC groundwater standard remains in the excavation floor.

7.0 **DISCUSSION**



7.1 Discuss the risks associated with the remaining soil contamination:

Based on depth to groundwater (approximately 40-ft bgs), chloride impacted soil above the NMWQCC groundwater standards should not be capable of impacting local groundwater.

- 7.2 Discuss the risks associated with the impacted groundwater: Not Applicable
- 7.3 Discuss other concerns not mentioned above: The overspray area from the initial release consisted of an area of approximately 36,000-square feet. A treatment of 60 gallons of a 6% solution of Microblaze (i.e., a commercial solution of petrophillic microbes) was applied to the overspray area to mitigate any hydrocarbon impacts. Additionally, a sheen of oil was detected on a nearby stock pond. An absorbent boom was utilized to collect the oil from the water surface.

FIGURES

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TABLES

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Well Data

Chesapeake Energy - Julio State #1 (Ref. # 160052)

_			_	_			Stati
Depth to Water	(ft bgs)	30.58P	29.5	45.22S	53.53	43.7	40
Surface Clevation ^B							-3,563
e Ired F		-76	16-1	0-63	-81	-96	- 88.
Dat Measu		10-Feb	16-Jan	25-Feb	04-Fet	31-Jan	17-Dec 17-Dec 14
							32 : : : : 31 : : : : : : : : : : : : : : : : : : :
ongitue							° 105' 4.3 • 105' 4.3 • 104' 48
_							W/102) W/1025 W/1033
ude							1-742 1-743 1-70
Latit							2°-32#1 2°-32#1 2°-32#1
61		3	3	4	1	2	EN 103 2 N 3
Sec q q		0 12	0 12	8 34	9 42	9 1 2 3	(0=43) (0=43 (0=44)
Rng		39E 2	39E 2	39E 1	39E 1	39E 1	-39E-6 139E-6 39E-3
Twsp		20S	20S	20S	20S	20S	S02 S02
Use							EXP.
vner							<u>dn</u>
ð							CASLA CASLA
							AS MC
							DALL DALL
ersion ^A							.0 3 13
Dive							
lber							
all Num							EXP
M		I# SDS(JSGS #2	SGS #3	JSGS #4	JSGS #5	

^B = Elevation interpolated from USGS topographical map based on referenced location.
 EXP = Exploration
 STK = 72-12-1 Livestock watering quarters are biggest to smallest
 Shaded area indicates wells not shown in Figure 2

TABLE 2

Summary of Soil Sample Analytical Results

Chesapeake Energy - Julio State #1 (Ref.# 160052)

Sample Location	Depth (feet)	Soil Status	Sample Date	Field Analysis for Organic Vapors (mg/Kg)	Field Chloride Analysis (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	Carbon Range C6- C12 (mg/Kg)	Carbon Range C12-C28 (mg/Kg)	Carbon Range C28-C35 (mg/Kg)	Total Hydrocarbon C6-C-35 (mg/Kg)	Chloride (mg/Kg)	Sulfate (mg/Kg)
SP-1	1	Excavated	14-Mar-06	22.6	1,600	1	1	;	;	1	1	1	1	1	:	1
SP-2	1	Excavated	14-Mar-06	37.6	320	ł	1	1	1	1	1	1	ł	1	1	;
Stockpile		Excavated	14-Mar-06	-	640	1	3	1	1	-	ł	-	-	1	1	1
Background	-	In Situ	14-Mar-06	1	240	+	-	-	;	-	-	1	ŀ		;	1
NBH-1 (8")	0.67	In Situ	16-Mar-06	25.7	880	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	14.8	<10.0	14.8	749	64.7
NBH-2 (6")	0.5	In Situ	16-Mar-06	38.8	600	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	<10.0	187	62.4
SBH-1 (12")	1	In Situ	16-Mar-06	13.6	320	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	<10.0	47	21.8
SBH-2 (12")	-	In Situ	16-Mar-06	3.5	560	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	13.3	<10.0	13.3	400	35.9
SBH-3 (6")	0.5	In Situ	16-Mar-06	17.8	720	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	8.11 ^C	<10.0	<10.0	603	72.3
SBH-4 (6")	0.5	In Situ	16-Mar-06	12.1	760	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	10.2	<10.0	10.2	632	68.2
NMI	OCD Rem	edial Thresh	olds	100		10				50				100	250 ^B	600 ⁸

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

 $^{\mathsf{A}}$ Estimated concentration; analyte decrected below method detection limits

^bChloride residuals may not be capable of impacting local groundwater above the NMWQCC standards of 250 mg/L and 600 mg/L, respectively.

 $^{\rm C}$ Detected, but below the Reporting Limit: therefore, result is an estimated concentration.

APPENDICES

APPENDIX I

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORM



Analytical Report

Prepared for:

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

Project: Chesapeake/ Julio State #1 Project Number: 160052 Location: UL-D, Sec. 20, T 20 S, R 39 E

Lab Order Number: 6C17002

Report Date: 03/20/06

Environmental Plus, Incorporated	Project: Chesapeake/ Julio State #1	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160052	Reported:
Eunice NM, 88231	Project Manager: Iain Olness	03/20/06 13:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NBH-1 8"	6C17002-01	Soil	03/16/06 09:20	03/17/06 10:05
SBH-1 12"	6C17002-02	Soil	03/16/06 09:40	03/17/06 10:05
ŚBH-2 12"	6C17002-03	Soil	03/16/06 09:42	03/17/06 10:05
SBH-3 6"	6C17002-04	Soil	03/16/06 09:43	03/17/06 10:05
SBH-4 6"	6C17002-05	Soil	03/16/06 13:20	03/17/06 10:05
NBH-2 6"	6C17002-06	Soil	03/16/06 13:25	03/17/06 10:05

Project: Chesapeake/ Julio State #1 Project Number: 160052 Project Manager: Iain Olness

Reported: 03/20/06 13:00

Organics by GC

Environmental Lab of Texas

	Derrit	Reporting	I 1		. .	р. (
	Kesuit			Dilution	Batch	Prepared	Analyzed	Method	Notes
NBH-1 8" (0C17002-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC62002	03/18/06	03/19/06	EPA 8021B	
Toluene	ND	0.0250	п	••	"	"	п	"	
Ethylbenzene	ND	0.0250	"	"	Ħ	"	11	u	
Xylene (p/m)	ND	0.0250	"		н	11	11	"	
Xylene (o)	ND	0.0250	14	"	**	H	**	"	
Surrogate: a,a,a-Trifluorotoluene		90.5 %	80-1	120	"	"	n	"	
Surrogate: 4-Bromofluorobenzene		96.2 %	80-1	120	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC61706	03/17/06	03/18/06	EPA 8015M	
Carbon Ranges C12-C28	14.8	10.0	n		"	н	н	W	
Carbon Ranges C28-C35	ND	10.0	n	••	"	"	n	"	
Total Hydrocarbon C6-C35	14.8	10.0	"	11	"	"	11	"	
Surrogate: 1-Chlorooctane		98.0 %	70-1	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		99.2 %	70-1	130	"	"	"	"	
SBH-1 12" (6C17002-02) Soil							· · · · · · · · · · · · · · · · · · ·		
Benzene	ND	0.0250	mg/kg dry	25	EC62002	03/18/06	03/19/06	EPA 8021B	
Toluene	ND	0.0250	"	*	"		н	"	
Ethylbenzene	ND	0.0250	"	"	u	"	"	"	
Xylene (p/m)	ND	0.0250	"	**	"	н	"	и	
Xylene (o)	ND	0.0250		н	"	"		"	
Surrogate: a,a,a-Trifluorotoluene		90.2 %	80-1	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	80-1	120	"	"	"	n	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC61706	03/17/06	03/18/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	**	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	Ħ		*	n	'n	w	
Total Hydrocarbon C6-C35	ND	10.0	н	"	и	н	n	n	
Surrogate: 1-Chlorooctane		98.6 %	70-1	130	0	"	"	"	
Surrogate: 1-Chlorooctadecane		99.8 %	70-1	130	"	"	"	"	
SBH-2 12'' (6C17002-03) Soil			. <u></u>						
Benzene	ND	0.0250	mg/kg dry	25	EC62002	03/18/06	03/19/06	EPA 8021B	
Toluene	ND	0.0250	"	*	"	11	"	"	
Ethylbenzene	ND	0.0250	"	"	**		"	n	
Xylene (p/m)	ND	0.0250	11	"	"	**	н	H	
Xylene (o)	ND	0.0250	"	"	н	"	"	н	
Surrogate: a,a,a-Trifluorotoluene		96.0 %	80-1	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.5 %	80-1	120	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC61706	03/17/06	03/18/06	EPA 8015M	
Environmental Lab of Texas			The re.	sults in this	report apply to	o the samples ar	ulyzed in accora	lance with the sampl	les

received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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

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Project: Chesapeake/ Julio State #1 Project Number: 160052 Project Manager: Iain Olness

Reported: 03/20/06 13:00

Organics by GC

Environmental Lab of Texas

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SBH-2 12" (6C17002-03) Soil									
Carbon Ranges C12-C28	13.3	10.0	mg/kg dry	1	EC61706	03/17/06	03/18/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	н		"	u	
Total Hydrocarbon C6-C35	13.3	10.0	п	"	**		н	*1	
Surrogate: 1-Chlorooctane		102 %	70-13	80	"	"	"	"	
Surrogate: 1-Chlorooctadecane		103 %	70-13	80	"	"	"	"	
SBH-3 6'' (6C17002-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC62002	03/18/06	03/19/06	EPA 8021B	
Toluene	ND	0.0250	n	н	"	"	**	"	
Ethylbenzene	ND	0.0250	11	11	"	н	"	"	
Xylene (p/m)	ND	0.0250		"	"	"	н		
Xylene (0)	ND	0.0250	н	"	**	**	н	n	
Surrogate: a,a,a-Trifluorotoluene		88.5 %	80-12	20	"	"	n	"	
Surrogate: 4-Bromofluorobenzene		102 %	80-12	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC61706	03/17/06	03/18/06	EPA 8015M	
Carbon Ranges C12-C28	J [8.11]	10.0	н	н	n	u	u	n	J
Carbon Ranges C28-C35	ND	10.0	"	н	"	"	11	"	
Total Hydrocarbon C6-C35	ND	10.0	n	"	н	"	10	"	
Surrogate: 1-Chlorooctane		96.0 %	70-13	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		96.2 %	70-13	80	"	"	"	"	
SBH-4 6'' (6C17002-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC62002	03/18/06	03/19/06	EPA 8021B	
Toluene	ND	0.0250	0	"	"	ч	и	u	
Ethylbenzene	ND	0.0250	11		"	"	14	"	
Xylene (p/m)	ND	0.0250	"			"	и	n	
Xylene (o)	ND	0.0250	11		"	"	н	"	
Surrogate: a,a,a-Trifluorotoluene		93.2 %	80-12	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.0 %	80-12	20	"	п	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC61706	03/17/06	03/18/06	EPA 8015M	
Carbon Ranges C12-C28	10.2	10.0	н		"	н	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	н	"	"	"	
Total Hydrocarbon C6-C35	10.2	10.0	и	"	11	"	"		
Surrogate: 1-Chlorooctane		87.0 %	70-13	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		87.2 %	70-13	80	"	"	п	"	

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Project: Chesapeake/ Julio State #1 Project Number: 160052 Project Manager: Iain Olness

Reported: 03/20/06 13:00

Organics by GC

Environmental Lab of Texas

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NBH-2 6" (6C17002-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC62002	03/18/06	03/19/06	EPA 8021B	
Toluene	ND	0.0250	"		"	"	"	*	
Ethylbenzene	ND	0.0250	н	"		"	н	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"		"	n	н	"	
Surrogate: a,a,a-Trifluorotoluene		90.2 %	80-1	20	"	"	"	"	·
Surrogate: 4-Bromofluorobenzene		81.0 %	80-1	20	"	"	н	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC61706	03/17/06	03/18/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	н	"	"	"		"	
Carbon Ranges C28-C35	ND	10.0	"	n	n	n	n	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	н	"		
Surrogate: 1-Chlorooctane		95.8 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		95.2 %	70-1	30	**	"	"	"	

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Project: Chesapeake/ Julio State #1 Project Number: 160052 Project Manager: Iain Olness

Reported: 03/20/06 13:00

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NBH-1 8" (6C17002-01) Soil									
Chloride	749	10.0	mg/kg	20	EC62001	03/17/06	03/20/06	EPA 300.0	
% Moisture	9.4	0.1	%	1	EC62006	03/17/06	03/20/06	% calculation	
Sulfate	64.7	10.0	mg/kg	20	EC62001	03/20/06	03/20/06	EPA 300.0	
SBH-1 12'' (6C17002-02) Soil									
Chloride	47.1	5.00	mg/kg	10	EC62001	03/17/06	03/20/06	EPA 300.0	
% Moisture	8.5	0.1	%	1	EC62006	03/17/06	03/20/06	% calculation	
Sulfate	21.8	5.00	mg/kg	10	EC62001	03/20/06	03/20/06	EPA 300.0	
SBH-2 12" (6C17002-03) Soil					-				
Chloride	400	10.0	mg/kg	20	EC62001	03/17/06	03/20/06	EPA 300.0	
% Moisture	8.3	0.1	%	1	EC62006	03/17/06	03/20/06	% calculation	
Sulfate	35.9	10.0	mg/kg	20	EC62001	03/20/06	03/20/06	EPA 300.0	
SBH-3 6" (6C17002-04) Soil									
Chloride	603	10.0	mg/kg	20	EC62001	03/17/06	03/20/06	EPA 300.0	
% Moisture	6.2	0.1	%	1	EC62006	03/17/06	03/20/06	% calculation	
Sulfate	72.3	10.0	mg/kg	20	EC62001	03/20/06	03/20/06	EPA 300.0	
SBH-4 6'' (6C17002-05) Soil									
Chloride	632	10.0	mg/kg	20	EC62001	03/17/06	03/20/06	EPA 300.0	
% Moisture	4.6	0.1	%	1	EC62006	03/17/06	03/20/06	% calculation	
Sulfate	68.2	10.0	mg/kg	20	EC62001	03/20/06	03/20/06	EPA 300.0	
NBH-2 6'' (6C17002-06) Soil					_				
Chloride	187	10.0	mg/kg	20	EC62001	03/17/06	03/20/06	EPA 300.0	
% Moisture	6.7	0.1	%	1	EC62006	03/17/06	03/20/06	% calculation	
Sulfate	62.4	10.0	mg/kg	20	EC62001	03/20/06	03/20/06	EPA 300.0	

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Environmental Plus, Incorporated P.O. Box 1558 Eunice NM, 88231 Project: Chesapeake/ Julio State #1 Project Number: 160052 Project Manager: Iain Olness Fax: 505-394-2601

Reported: 03/20/06 13:00

Organics by GC - Quality Control

		Reporting	_	Spike	Source		%REC		RPD		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	
Batch EC61706 - Solvent Extraction (GC)											
Blank (EC61706-BLK1)				Prepared &	: Analyzed:	03/17/06					
Carbon Ranges C6-C12	ND 10.0 mg/kg wet										
Carbon Ranges C12-C28	ND	10.0									
Carbon Ranges C28-C35	ND	10.0	"								
Total Hydrocarbon C6-C35	ND	10.0	"								
Surrogate: 1-Chlorooctane	50.5		mg/kg	50.0		101	70-130				
Surrogate: 1-Chlorooctadecane	49.7		"	50.0		99.4	70-130				
LCS (EC61706-BS1)				Prepared &	: Analyzed:	03/17/06					
Carbon Ranges C6-C12	527	10.0	mg/kg wet	500	<u></u>	105	75-125				
Carbon Ranges C12-C28	489	10.0	"	500		97.8	75-125				
Total Hydrocarbon C6-C35	1020	10.0		1000		102	75-125				
Surrogate: 1-Chlorooctane	58.8		mg/kg	50.0		118	70-130				
Surrogate: 1-Chlorooctadecane	51.9		"	50.0		104	70-130				
Calibration Check (EC61706-CCV1)				Prepared: 0)3/17/06 Ai	nalyzed: 03	/18/06				
Carbon Ranges C6-C12	276		mg/kg	250		110	80-120				
Carbon Ranges C12-C28	297		н	250		119	80-120				
Total Hydrocarbon C6-C35	573		"	500		115	80-120				
Surrogate: 1-Chlorooctane	55.1		"	.50.0		110	70-130				
Surrogate: 1-Chlorooctadecane	52.4		"	50.0		105	70-130				
Matrix Spike (EC61706-MS1)	Source: 6C17009-03 Prepared & Analyzed: 03/17/06										
Carbon Ranges C6-C12	560	10.0	mg/kg dry	522	ND	107	75-125				
Carbon Ranges C12-C28	534	10.0	н	522	25.1	97.5	75-125				
Carbon Ranges C28-C35	ND	10.0	'n	0.00	ND		75-125				
Total Hydrocarbon C6-C35	1090	10.0	"	1040	25.1	102	75-125				
Surrogate: 1-Chlorooctane	54.7		mg/kg	50.0	. <u> </u>	109	70-130				
Surrogate: 1-Chlorooctadecane	48.4		"	50.0		96.8	70-130				

Environmental Lab of Texas

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Project: Chesapeake/ Julio State #1 Project Number: 160052 Project Manager: Iain Olness

Reported: 03/20/06 13:00

Organics by GC - Quality Control

Environmental Lab of Texas

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch EC61706 - Solvent Extraction (GC)

Matrix Spike Dup (EC61706-MSD1)	Sourc	e: 6C17009	-03	Prepared &	Analyzed:	03/17/06				
Carbon Ranges C6-C12	553	10.0	mg/kg dry	522	ND	106	75-125	1.26	20	
Carbon Ranges C12-C28	522	10.0	"	522	25.1	95.2	75-125	2.27	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbon C6-C35	1080	10.0	"	1040	25.1	101	75-125	0.922	20	
Surrogate: I-Chlorooctane	53.9	······	mg/kg	50.0		108	70-130			
Surrogate: 1-Chlorooctadecane	47.1		"	50.0		94.2	70-130			

Batch EC62002 - EPA 5030C (GC)

Blank (EC62002-BLK1)				Prepared: 03/18/	/06 Analyzed: 03	3/19/06	
Benzene	ND	0.0250	mg/kg wet				
Toluene	ND	0.0250	н				
Ethylbenzene	ND	0.0250	"				
Xylene (p/m)	ND	0.0250	11				
Xylene (0)	ND	0.0250	"				
Surrogate: a,a,a-Trifluorotoluene	37.1		ug/kg	40.0	92.8	80-120	
Surrogate: 4-Bromofluorobenzene	39.0		"	40.0	97.5	80-120	
LCS (EC62002-BS1)				Prepared: 03/18/	/06 Analyzed: 03	3/20/06	
Benzene	1.01	0.0250	mg/kg wet	1.25	80.8	80-120	
Tolucne	1.10	0.0250	н	1.25	88.0	80-120	

Ethylbenzene	1.26	0.0250	"	1.25	101	80-120
Xylene (p/m)	2.63	0.0250	11	2.50	105	80-120
Xylene (o)	1.28	0.0250		1.25	102	80-120
Surrogate: a,a,a-Trifluorotoluene	34.1		ug/kg	40.0	85.2	80-120
Surrogate: 4-Bromofluorobenzene	42.2		"	40.0	106	80-120

Environmental Lab of Texas

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Page 7 of 10

Environmental Plus, Incorporated	Project: Chesapeak	e/ Julio State #1	Fax: 505-394-2601
P.O. Box 1558	Project Number: 160052		Reported:
Eunice NM, 88231	Project Manager: Iain Olness	5	03/20/06 13:00

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 EC62001 - Water Extraction									<u></u>	
Blank (EC62001-BLK1)				Prepared: (03/17/06	Analyzed: 03	3/20/06			
Chloride	ND	0.500	mg/kg							
Sulfate	ND	0.500	"							
LCS (EC62001-BS1)			8/20/06							
Chloride	8.53		mg/L	10.0		85.3	80-120			
Sulfate	8.26		n	10.0		82.6	80-120			
Calibration Check (EC62001-CCV1)				Prepared: (03/17/06	Analyzed: 03	3/20/06			
Chloride	8.81		mg/L	10.0		88.1	80-120			
Sulfate	8.94		"	10.0		89.4	80-120			
Duplicate (EC62001-DUP1)	Sou	irce: 6C16019-	06	Prepared: (03/17/06	Analyzed: 03	3/20/06			
Sulfate	166	10.0	mg/kg		170			2.38	20	
Chloride	159	10.0	"		160			0.627	20	
Batch EC62006 - General Preparation (Prep)										
Blank (EC62006-BLK1)				Prepared: (03/17/06	Analyzed: 03	3/20/06			
% Solids	100		%							
Duplicate (EC62006-DUP1)	Sou	rce: 6C16020-	01	Prepared: (03/17/06	Analyzed: 03	3/20/06			
% Solids	90.5		%		90.8			0.331	20	
Duplicate (EC62006-DUP2)	Sou	irce: 6C17001-	03	Prepared: (03/17/06	Analyzed: 03	/20/06			
% Moisture	0.0	0.1	%		0.0				20	
Duplicate (EC62006-DUP3)	Sou	rce: 6C13017-	-02	Prepared: (03/17/06	Analyzed: 03	8/20/06			
% Solids	90.8		%		90.9			0.110	20	

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Project: Chesapeake/ Julio State #1 Project Number: 160052 Project Manager: Iain Olness

Reported: 03/20/06 13:00

Organics by GC - Quality Control

Environmental Lab of Texas

		Reporting		Spike	Source		%REC		RPD		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	
Batch EC62002 - EPA 5030C (GC)		_		_							
Calibration Check (EC62002-CCV1)				Prepared: (03/18/06 A	nalyzed: 03	/19/06				
Benzene	41.3		ug/kg	50.0		82.6	80-120				
Toluene	42.6		n	50.0		85.2	80-120				
Ethylbenzene	43.8		11	50.0		87.6	80-120				
Xylene (p/m)	90.4		*	100		90.4	80-120				
Xylene (o)	45.5		"	50.0		91.0	80-120				
Surrogate: a,a,a-Trifluorotoluene	38.0		"	40.0		95.0	80-120				
Surrogate: 4-Bromofluorobenzene	32.5		"	40.0		81.2	80-120				
Matrix Spike (EC62002-MS1)	Source: 6C17002-06 Prepared: 03/18/06 Analyzed: 03/19/06										
Benzene	1.12	0.0250	mg/kg dry	1.34	ND	83.6	80-120				
Toluene	1.32	0.0250	"	1.34	ND	98.5	80-120				
Ethylbenzene	1.48	0.0250	"	1.34	ND	110	80-120				
Xylene (p/m)	3.04	0.0250	**	2.68	ND	113	80-120				
Xylene (o)	1.46	0.0250	"	1.34	ND	109	80-120				
Surrogate: a,a,a-Trifluorotoluene	42.2		ug/kg	40.0		106	80-120				
Surrogate: 4-Bromofluorobenzene	34.8		"	40.0		87.0	80-120				
Matrix Spike Dup (EC62002-MSD1)	Sour	ce: 6C17002	2-06	Prepared: (03/18/06 A	nalyzed: 03	/19/06				
Benzene	1.12	0.0250	mg/kg dry	1.34	ND	83.6	80-120	0.00	20		
Toluenc	1.31	0.0250	u	1.34	ND	97.8	80-120	0.713	20		
Ethylbenzene	1.48	0.0250	н	1.34	ND	110	80-120	0.00	20		
Xylene (p/m)	3.02	0.0250	ч	2.68	ND	113	80-120	0.00	20		
Xylene (o)	1.47	0.0250	"	1.34	ND	110	80-120	0.913	20		
Surrogate: a,a,a-Trifluorotoluene	40.7		ug/kg	40.0		102	80-120				
Surrogate: 4-Bromofluorobenzene	36.3		"	40.0		90.8	80-120				

Environmental Lab of Texas

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	Environmen	tal Plus, Incorporated	Project:	Chesapeake/ Julio State #1	Fax: 505-394-260
Ì	P.O. Box 15	58	Project Number:	160052	Reported:
	Eunice NM,	88231	Project Manager:	03/20/06 13:00	
•			Notes and De	finitions	1
	J	Detected but below the Reporting Limit; therefore, r	esult is an estimated	d concentration (CLP J-Flag).	
	DET	Analyte DETECTED			
	ND	Analyte NOT DETECTED at or above the reporting limit			
	NR	Not Reported			
	dry	Sample results reported on a dry weight basis			
	RPD	Relative Percent Difference			
	LCS	Laboratory Control Spike			
	MS	Matrix Spike			

Dup Duplicate

Report Approved By:

Raland Kituts

3/20/2006

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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Sampler Tablinguished Relinguished by: Relinguished by: USC UNC Delivered by: Sample Sample	Company NameEnvironmental PlusEPI Project Managerlain OlnessMailing AddressP.O. BOX 1558City, State, ZipEunice New MexicoEPI Phone#/Fax#505-394-3481 / 505-38441 / 505-	Environmental Plus, Inc. 2100 Avenue O, Eunice, NM 88231 (505) 394-3481 FAX: (505) 394-2601
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Page 1 of 1

ANALYSIS ANALYSIS Lat: FL: 1-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 3-1558 6-Mar-06 9:20 X X TPH 8015M 1-1255 X X X X 1-1700 X	Delivered by: Sample Cool & Intact Checked By: Yes No	Relinquished by. Dain: Recarved By. (lab staff)	Time REMARKS:	Sampler Relinquished: Date Received By: Received By: REMARKS:	Date December 1 Provide Provid			9	2	7	6 NBH-2 (6") X 1 X 1 X 1	5 SBH-4 (6") X 1 X 1	4 SBH-3 (6'') X 1 X 1 X 1	3 SBH-2 (12") X 1 X 1	2 SBH-1 (12") X 1 X X 1	1 NBH-1 (6") X 1 X 1 X 1	(G)RAB OR (C)OM # CONTAINERS GROUND WATER WASTEWATER SOIL CRUDE OIL SLUDGE OTHER: ACID/BASE ICE/COOL OTHER	n MATRIX PRESERV.	EPI Sampler Name David Robinson Eunice, NM 882	Project Reference 160052 PO Box 15	Location UL-D, Sec. 20, T 20 S, R 39 E Attn: lain Oli	Facility Name Julio State #1	Client Company Chesapeake Energy	EPI Phone#/Fax# 505-394-3481 / 505-394-2601	City, State, Zip Eunice New Mexico 88231	Mailing Address P.O. BOX 1558	EPI Project Manager lain Olness	Company Name Environmental Plus, Inc. Bill To	2100 Avenue O, Eunice, NM 88231 P.O. Box 1558, Eunice, NM 88231 (505) 394-3481 FAX: (505) 394-2601	
39 Emilie, MM 8231 39 Bill To 39 Ath:: Iain Olness 39 Funce, MM 8231 39 Funce, MM 8231 39 Ath:: Iain Olness PO Box 1558, Eunice, MM 8231-1558 PO Box 1558, Funce, MM 8231-1558 PO Box 1558, Eunice, MM 8231-1558 PO Box 1558, Eunice, MM 8231-1558 PO Box 1558, Eunice, MM 8231-1558 PO Box 1558, Funce, MM 8231-1558 PO Box 1558, Fun	iampie Coo Yes	Reg		Reo	Dad I						×	×	×	×	×	×	(G)RAB OR (C)OM	P.			20 S, R		Υß	05-394-	lico 882			^y lus, Inc	<i>P</i> .0	
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Page 1 of 1

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

Client:	Plains
Date/Time:	3/17/06 10:05
Order #:	6017002
Initials:	RQ

Sample Receipt Checklist

Temperature of container/cooler?	Yes	Na I	CrO CI
Shipping container/cooler in good condition?	Kes	No	1
Custody Seals intact on shipping container/cooler?	Yes	No	Not presery
Custody Seals intact on sample bottles?	XES	No	Not present
Chain of custody present?	1 2005 1	No	······································
Sample instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinguished and received?	Yes	No	, , , , , , , , , , , , , , , , , , ,
Chain of custody agrees with sample label(s)	Pes	No	
Container labels legible and intact?	Xes.	No	
Sample Matrix and properties same as on chain of custody?	1 CB	No	
Samples in proper container/bottle?	1 225	No I	
Samples properly preserved?	tes	No I	
Sample bottles intact?	YES	No I	
Preservations documented on Chain of Custody?	1 XES	No I	
Containers documented on Chain of Custody?	KED	No	
Sufficient sample amount for indicated test?	YES	NO I	
All samples received within sufficient hold time?	100	I No	
VOC samples have zero headspace?	YES	No	Not Applicable

Other observations:

Contact Person: Regarding:	Variance Documentation: Date/Time:	_ Contacted by:
Corrective Action Taken:		

المراجعة العدين عن من المراجع ا المراجع المراجع		

Jeanne McMurrey

From:	"lain Olness" <iolness@envplus.net></iolness@envplus.net>
To:	"Jeanne McMurrey" <jeanne@elabtexas.com></jeanne@elabtexas.com>
Sent:	Friday, March 17, 2006 5:04 PM
Attach:	EPI Chain of Custody.pdf
Subject:	Chesapeake Operating Julio State #1 (Ref. #160052)

Dear Ms. McMurrey:

Attached is the revised COC for the above-referenced site. Should you have any questions or concerns, please feel free to contact me at (505) 394-3481 or via e-mail at <u>iolness@envplus.net</u>.

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain A. Olness, P.G. Hydrogeologist

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

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

Scanned by McAfee e250 Appliance

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

APPENDIX II

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PROJECT PHOTOGRAPHS



Photograph #1 – Lease Sign



Photograph #2 – Looking north-northeasterly at release area.



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Photograph #3 – Looking at northeasterly at overspray area.



Photograph #4 – Excavation area looking southerly.



Photograph #5 – Excavation area looking westerly.



Photograph #6 – Excavation area looking southerly.



Photograph #7 -- Looking southeasterly at backfilling activities.



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APPENDIX III

FINAL NMOCD C-141 FORM

District I 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505 Release	State of Energy Minerals Oil Conser 1220 South Santa Fe Notification a	New Mexico and Natural Re vation Divisi St. Francis I e, NM 87505 and Correc	esources on Dr. tive Action	Rev Submit 2 C District (wi	Form C-141 vised October 10, 2003 Copies to appropriate Office in accordance th Rule 116 on back side of form
	OPERATOR		🗍 Initia	l Report	Final Report
Name of Company: Chesapeake Ener	gy	Contact: Bra	adley Blevins		
Address: P.O. Box 190	<u> </u>	Telephone N	lo.: (505) 391	-1462 ext. 622	24
Facility Name: Julio State #1		Facility Typ	e: Tank Batter	Ω.	
Surface Owner: McCasland Limited Partnership	Mineral Own	ier:		Lease No Admin. # p	-:! RP #835 PAC0610938028
	LOCATION (OF RELEAS	E		
Unit LetterSectionTownshipRangeD2020S39E	Feet from the No.	rth/South Line	Feet from the	East/West Line	County Lea
Latitude: <u>N</u>	<u>32° 33' 49.44"</u> L	ongitude: <u>W</u>	103° 04' 26.5	<u>4''</u>	
The CD Level 1/ 1/	NATURE O	F RELEASE		Values Dava	
Source of Release: Well kicked during work over a	activities.	Date and Hou	r of Occurrence:	Date and Hou	ir of Discovery:
		8 March 2006		8 March 2006	
Was Immediate Notice Given?	o 🖂 Not Required	If YES, To W	hom?		
By Whom?		Date and Hou	r:		
Was a Watercourse Reached?		If YES, Volume Impacting the Watercourse: Sheen due to overspray.			
If a Watercourse was Impacted, Describe Fully.* water surface. Depth to Groundwater: ~40 feet	* Stock pond had a lig	ht sheen from ove	rspray; booms and	absorbent pads w	ere utilized to clean
Describe Cause of Problem and Remedial Action 10 barrels of crude oil, which impacted approximate 36,600 square feet of pasture land. A vacuum truck solution, was applied to the overspray area Describe Area Affected and Cleanup Action Tak of Microblaze at a 6% solution was immediately ap cubic yards of soil impacted above NMOCD remed I hereby certify that the information given above is and regulations all operators are required to report a endanger public health or the environment. The acc operator of liability should their operations have fai surface water, human health or the environment. In for compliance with any other federal, state, or loca	Taken.* The well kinely 5,400 square feet of was retained to recover the acceptance of a C-141 relation of a C-141 relation addition, NMOCD and laws and/or regulation	cked during work of the pad. In addi er approximately 2,000 square-feet area to enhance n avated and dispos he best of my kno ase notifications a port by the NMO stigate and remed cceptance of a C-1 ons.	over activities resu tion, overspray fro 5 barrels of pooled of surface area wa atural biodegradat sed of at Sundance owledge and unders nd perform correct CD marked as "Fir iate contamination 141 report does not	Iting in the release m the release impa crude oil and micr is impacted by the ion of overspray. A Services. stand that pursuant ive actions for relevant that pose a threat relieve the operate	e of approximately acted approximately roblaze, in a 6% release. 60 gallons Approximately 210 to NMOCD rules eases which may ot relieve the to ground water, or of responsibility
		<u>OI</u>	L CONSERV	ATION DIVIS	SION
Signature: Bradley Ble		EWUIDO ENGR Approved by District Supervisor:			
Title: Field Supervisor		Annewal Data	8.7.04	Evnimetin D	
E-mail Address: bblevins@chkenergy.com		Conditions of A	oproval:		ttached
Date: 8-2-06 Phone: (505) 391-146	52 ext. 6224	· · · · · · · · · · · · · · · · · · ·			
Attach Additional Sheets If Necessary application - pA	C0610931	7832			RP#83.