ENVIRONMENTAL PLUS, INC. Micro-Blaze Micro-Blaze Out™
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

WTR 76
Sidetrack for
1000 CLEAN UP

6 December 2005

Mr. Larry Johnson
Environmental Engineer Specialist
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

RE: Site Characterization
Chesapeake Energy-Quail State SWD (Ref. #160030)
UL-O of Section 11, T19S, R34E

Dear Mr. Johnson:

On September 17, 2005, approximately 115 barrels (bbls) of fluid were released onto the ground surface after lightening struck a 500 bbl fiberglass produced water tank. Approximately 55 bbls of production fluid were recovered by a vacuum truck with the remaining fluid seeping into the soil. Chesapeake Energy Corporation (Chesapeake) retained Environmental Plus, Inc. (EPI) in September 2005 to delineate the vertical extent of impacted soil at the site. This letter report documents the results of the delineation activities and recommends remedial procedures for cleanup of the impacted soil.

Site Background

The site is located in the SW¼ of the SE¼ of Section 11, Township 19 South, Range 34 East at an elevation of approximately 3,792 feet above mean sea level (reference *Figures 1 and 2*). The property is owned by the State of New Mexico. A search for area water wells was completed utilizing the *New Mexico Office of the State Engineers* website and a database maintained by the United States Geological Survey (USGS). No wells (domestic, agriculture or public) or bodies of surface water exist within a 1,000- foot radius of the site (reference *Figure 2*). However, there are three (3) water supply wells located within a 1.0- mile radius of the release area. Groundwater level data indicates an average water depth of approximately 76 feet below ground surface in the area (reference *Table 1*). Therefore, based on available information, it was determined the distance between the contamination and groundwater is approximately 70 feet. Utilizing this information, the New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this site are determined as follows:

API# 30025255360000
incident - nPAC0606153274
application - pPAC0606153450

Parameter	Remedial Goal
Benzene	10 parts per million
BTEX	50 parts per million
TPH	1,000 parts per million

* Chloride residuals may not be capable of impacting local groundwater above NMWQCC Standard of 250 mg/Kg

P.O. BOX 1558 ••• 2100 AVENUE O ••• EUNICE, NEW MEXICO 88231
TELEPHONE 505•394•3481 ••• FAX 505•394•2601

ENVIRONMENTAL PLUS, INC.

Field Work

On September 19, 2005, EPI performed an assessment of the surface area damage caused by the spill. The total spill area was surveyed and classified as a primary release area consisting of approximately 16,500 square feet (sf).

On October 18, 2005, EPI mobilized at the site to direct the placement and depth of two (2) soil borings within the perimeter of the release area to delineate the vertical extent of production fluid impacted soil (reference *Figure 4*). During the advancement of the soil borings, samples were collected at 5-foot intervals with a portion of the sample placed in a laboratory provided container and the remainder placed in a self sealing polyethylene bag. The samples in the laboratory provided containers were immediately placed on ice for transport to Environmental Lab of Texas in Odessa, Texas, for quantification of benzene, toluene, ethylbenzene and total xylenes (BTEX), gasoline range organics (GRO), diesel range organics (DRO) and chlorides. The portions of the samples in the self-sealing polyethylene bags were placed in a heated environment (i.e., cab of a truck) to allow the volatilization of organic vapors. After the samples had been allowed to equilibrate to ≈70° F, they were analyzed for the presence of organic vapors utilizing a MiniRae® photoionozation detector (PID) equipped with a 9.8 electron-volt (eV) lamp. In addition, the samples were analyzed in the field for the presence of chlorides using a LaMotte Chloride Test Kit.

The soil borings were advanced to a depth of 45 feet (BH-1) and 65 feet (BH-2) below ground surface (bgs) with samples being collected at 2-feet and 5-feet depths initially then at 5-foot intervals to total depth (TD) of the soil borings. Field analyses of the samples collected during the advancement of soil boring BH-1 indicated the presence of organic vapor concentrations ranging from 1.5 parts per million (ppm) at 20 feet bgs to 4.4 ppm at 2 feet bgs. Field analyses for chloride indicated concentrations ranging from 240 milligrams per kilogram (mg/Kg) at 45 feet bgs to 3,540 mg/Kg at 2 feet bgs. Field analyses of the samples collected during the advancement of soil boring BH-2 indicated the presence of organic vapor concentrations ranging from 1.1 ppm at 20 feet bgs to 3.0 ppm at 15 feet bgs. Field analyses for chlorides indicated concentrations ranging from 240 mg/Kg at 65 feet bgs to 3,120 mg/Kg at 2 feet bgs (reference *Table 1*).

During the advancement of the soil boring, the lithology was defined as caliche from ground surface to a depth of approximately 20 feet bgs, underlain by light tan sand from a depth of approximately 20 feet bgs to TD of each wells respective bore hole (reference *Attachment II*).

Analytical Data

Analytical results for soil samples collected from BH-1 at 2-feet bgs indicated TPH concentrations of 18.7 mg/Kg while benzene and BTEX were not detected at or above laboratory method detection limits (MDL). Samples collected at 5-feet bgs showed traces of toluene (0.0259mg/ Kg), ethylene benzene (0.0657 mg/Kg), m,p-xylenes (0.2680 mg/Kg), o-xylene (0.0890 mf/Kg) and BTEX (0.4486 mg/Kg) while TPH was not detected at or above laboratory MDL (reference *Table 1*).

Analytical results from samples collected from BH-2 at 2-feet and 5-feet bgs indicated benzene, BTEX and TPH were not detected at or above laboratory MDL (reference *Table 1*).

Chloride concentrations for the samples obtained during the advancement of soil boring BH-1 were reported ranging from 3,710 mg/Kg at 2-feet bgs to 214 mg/Kg at 15-feet bgs. Chloride concentrations for the samples obtained during the advancement of soil boring for BH-2 were reported ranging from 1,862 mg/Kg at 2-feet bgs to 172 mg/Kg at 15- feet. However, the concentrations from ground level to 5-feet bgs are above the New Mexico Water Quality Control Commission's (NMWQCC) standards for groundwater of 250 mg/Kg. Chloride concentrations from 5-feet bgs to total depth of well borings are below the 250 mg/Kg groundwater standards for both BH-1 and BH-2 (reference Table 1).

Summary

Analytical results for the samples collected during the advancement of soil borings for BH-1 indicate soil is slightly impacted with benzene, BTEX and TPH to a depth of approximately 5-feet bgs while samples for BH-2 indicate no impacted soil. However, the soil from BH-1 and BH-2 is impacted with chlorides which exceed NMOCD Remedial Goals as set forth in the Site Background section and could possibly impact groundwater above New Mexico Water Quality Control Commission's (NMWQCC) standards of 250 mg/Kg groundwater standards.

Based on field and analytical analysis, soil impacted above the NMOCD remedial thresholds extends to a depth of approximately 5-feet bgs within the confines of the release area (reference *Figure 3*). The release area is approximately 16,500 square feet in size, resulting in approximately 3,060 cubic yards of soil (*in situ*) impacted above NMOCD remedial guidelines for this site. It is unlikely that soil impacted above the NMOCD remedial guidelines for this site extends completely to 5 feet bgs across the entire release area and the actual volume of impacted soil may be less than 3,060 cubic yards.

Should you have any questions or concerns, please feel free to contact me at (505) 394-3481 or via e-mail at dduncan@envplus.net. Upon your approval, EPI will initiate the next phase of site remediation. All official correspondence should be submitted to Mr. Bradley Blevins at:

Mr. Bradley Blevins
Chesapeake Energy Corporation
P.O. Box 190
Hobbs, NM 88240-0190

(505) 391-1462, ext. 6224
bblevins@chkenergy.com

Sincerely,

ENVIRONMENTAL PLUS, INC.

David P. Duncan
Civil Engineer

cc: Bradley Blevins, Chesapeake Energy-Hobbs, NM
Curtis Blake, Chesapeake Energy-Hobbs, NM
Jace Marshall, Chesapeake Energy-Oklahoma City, OK

Myra Meyers, New Mexico State Land Office, Hobbs, NM
Cody Morrow, New Mexico State Land Office, Santa Fe, NM

encl. Figure 1 – Area Map
Figure 2 – Site Location Map
Figure 3 – Site Map
Figure 4 – Soil Boring Location Map
Table 1 – Summary of Soil Boring Analytical Results
Table 2 – Well Data
Attachment I – Site Photographs
Attachment II – Laboratory Results and Chain-of-Custody Form
Attachment III – Soil Boring Logs
Attachment IV – Copy of Initial C-141

FIGURES

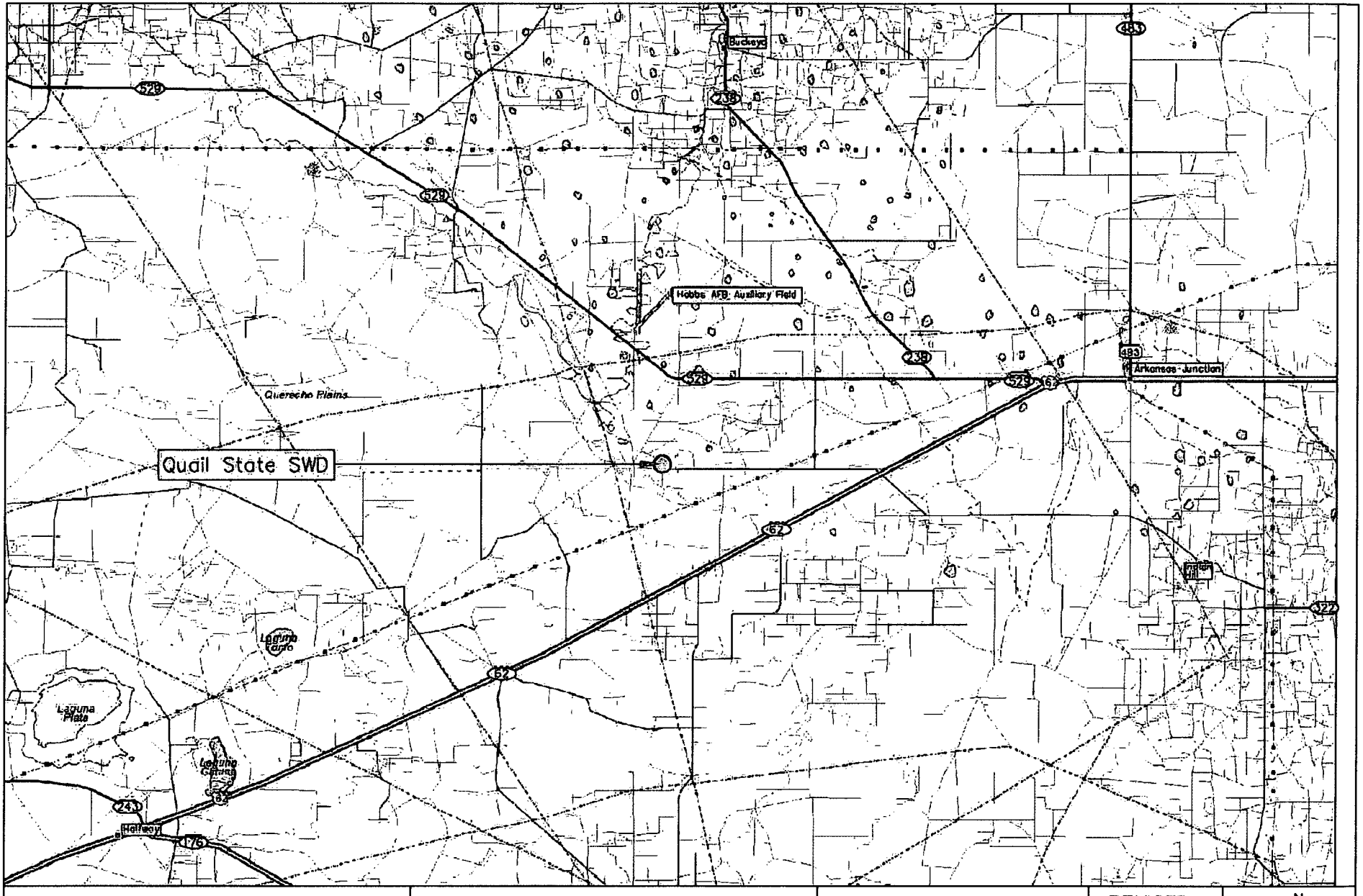

Figure 1 Area Map Chesapeake Energy Quail State SWD	Lea County, New Mexico SW 1/4 of the SE 1/4, Sec. 11, T19S, R34E N 32° 40' 10.5" W 103° 31' 43.0" Elevation: 3,972 feet amsl	DWG By: Jason Stegemoller September 2005	REVISED:
		0 3.0 6.0 Miles	SHEET

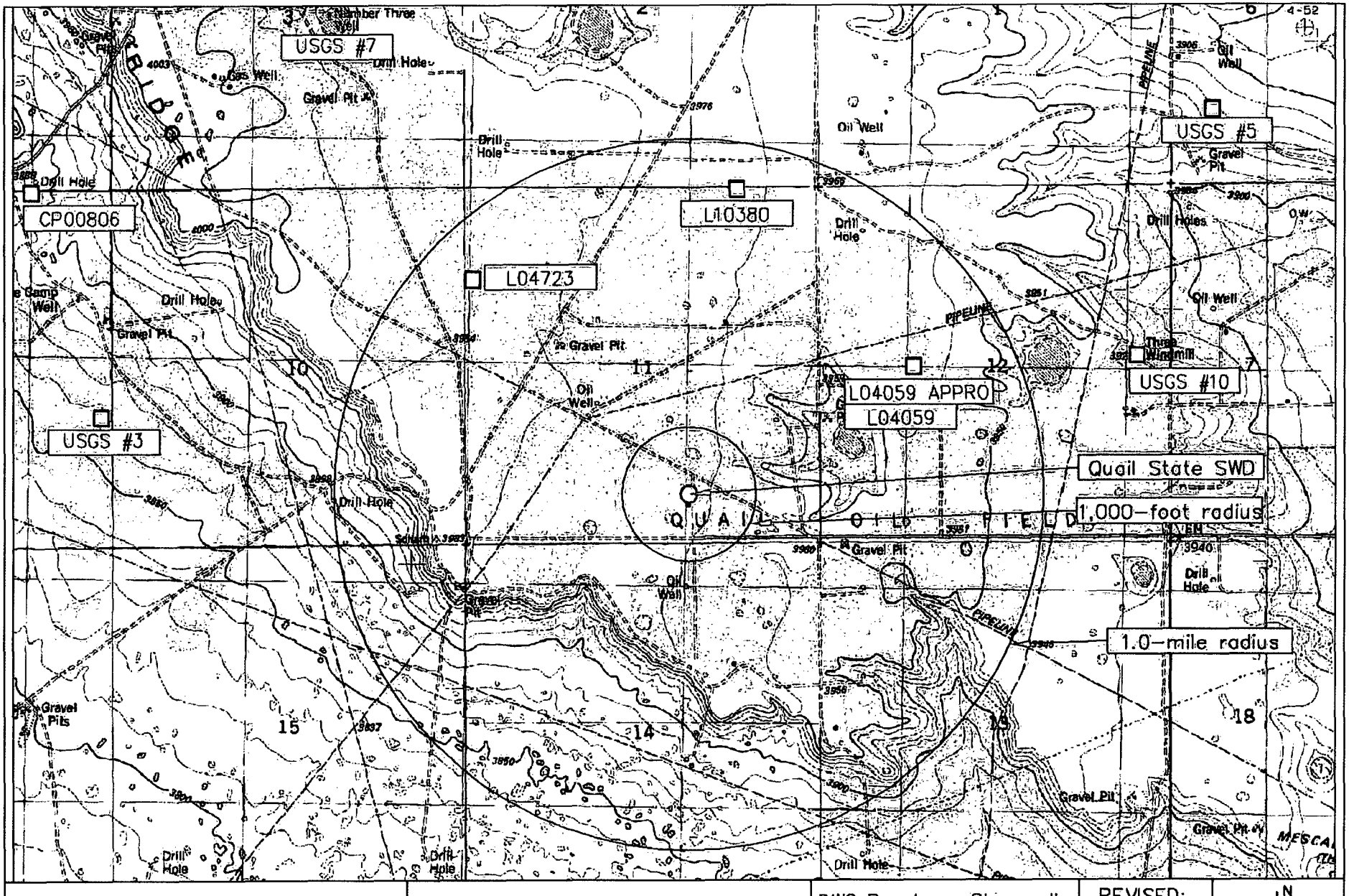

Figure 2
Site and Well Location Map
Chesapeake Energy
Quail State SWD

Lea County, New Mexico
SW 1/4 of the SE 1/4, Sec. 11, T19S, R34E
N 32° 40' 10.5" W 103° 31' 43.0"
Elevation: 3,972 feet amsl

DWG By: Jason Stegemoller
September 2005

REVISED:

0 2,000 4,000
Feet

SHEET
1 of 1

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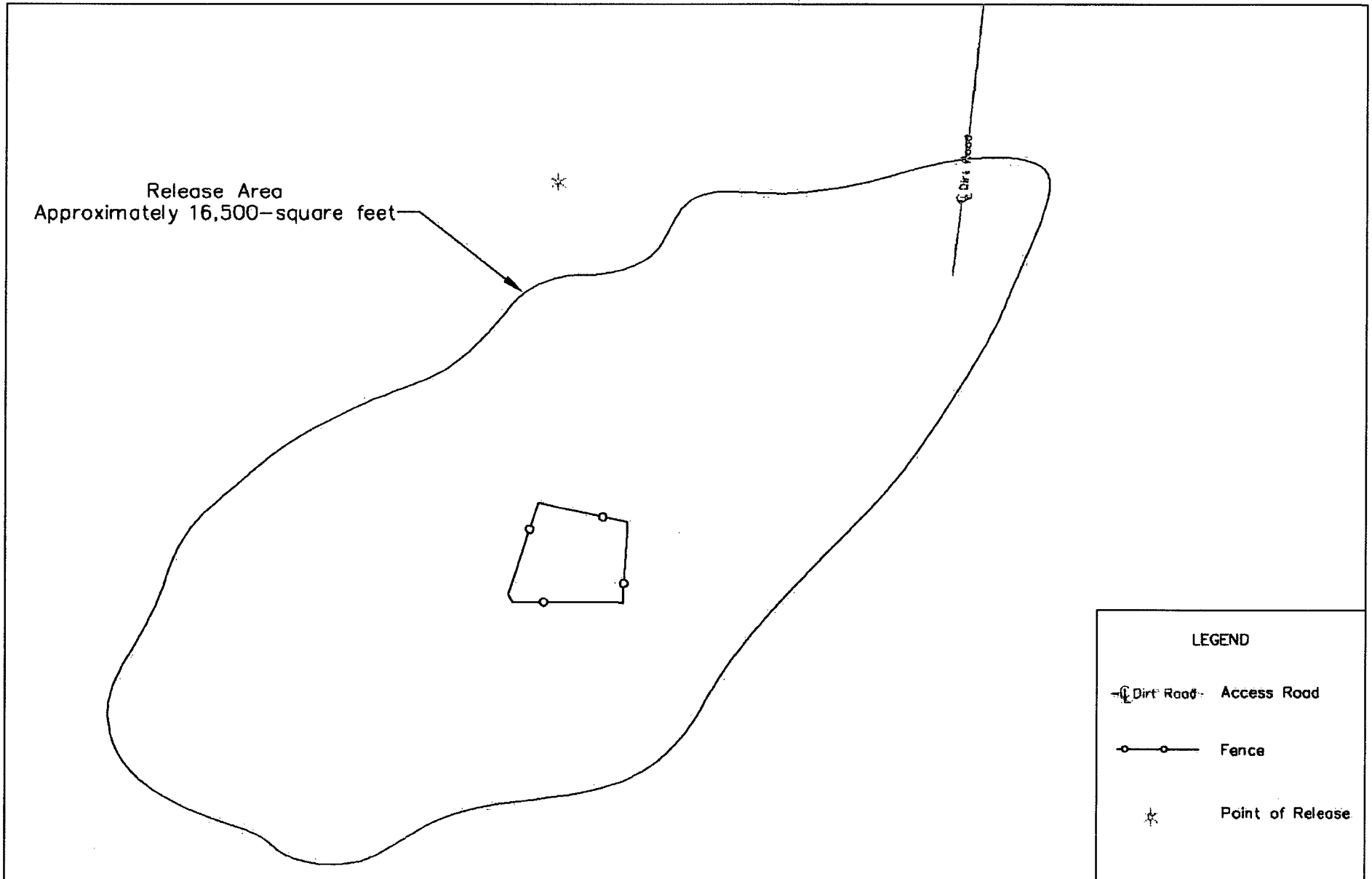


Figure 3 Site Map Chesapeake Energy Quail State SWD	Lea County, New Mexico SW 1/4 of the SE 1/4, Sec. 11, T19S, R34E N 32° 40' 10.5" W 103° 31' 43.0" Elevation: 3,972 feet amsl	DWG By: Jason Stegemoller September 2005 0 30 60 Feet	REVISED: SHEET 1 of 1	N

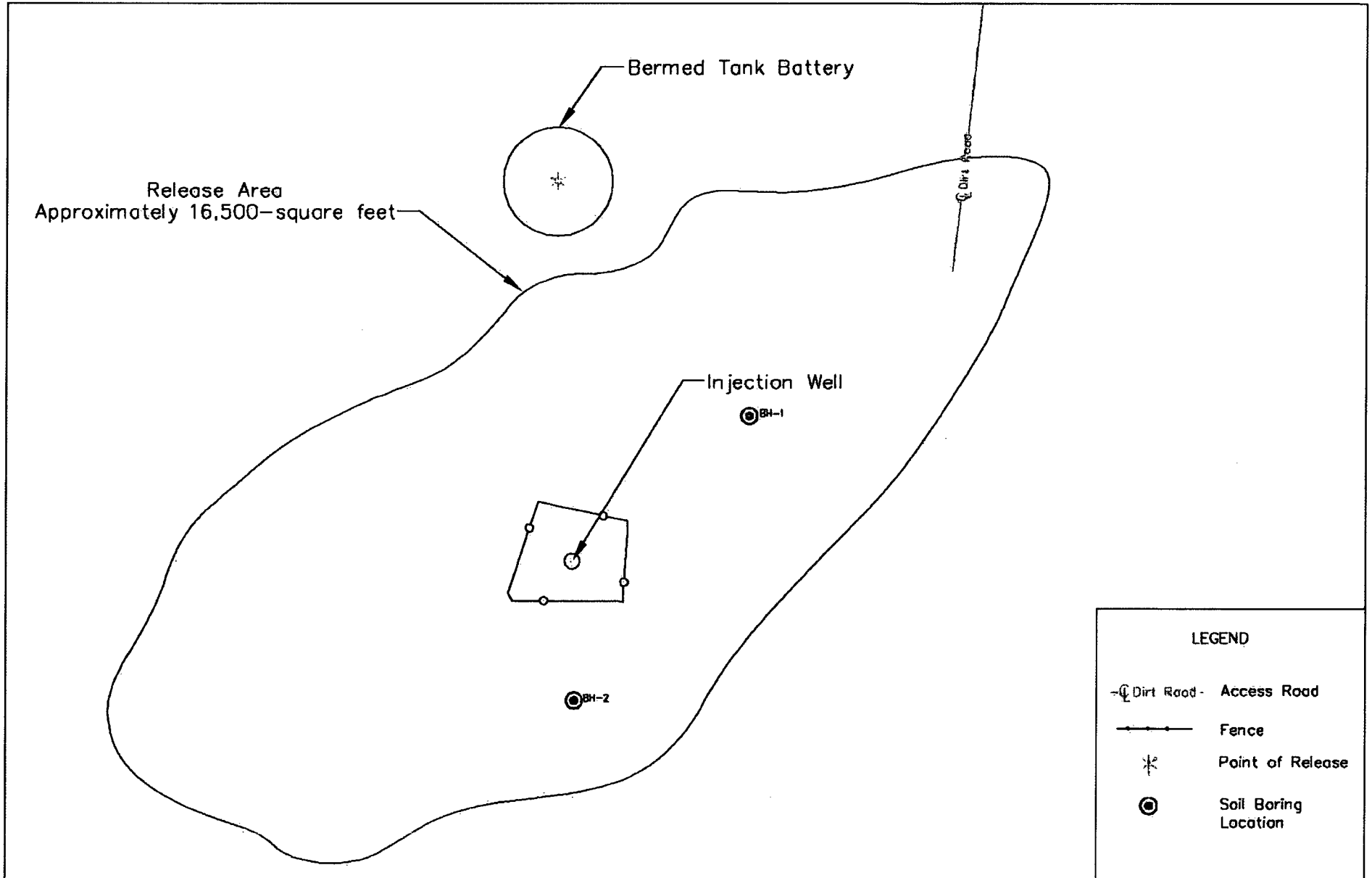


Figure 4 Soil Boring Location Map Chesapeake Energy Quail State SWD	Lea County, New Mexico SW 1/4 of the SE 1/4, Sec. 11, T19S, R34E N 32° 40' 10.5" W 103° 31' 43.0" Elevation: 3,972 feet amsl	DWG By: Jason Stegemoller September 2005 0 30 60 Feet	REVISED: Nov 2005 SHEET 1 of 1	N

TABLES

TABLE 1

Summary of Soil Boring Analytical Results

Chesapeake Energy Quail State SWD (Ref.#160030)

Soil Boring	Depth (feet)	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	m,p-Xylenes (mg/Kg)	o-Xylene (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
BH-1	2	18-Oct-05	4.4	3540	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	18.7	18.7	**3710**
	5	18-Oct-05	2	450	<0.0250	0.0259	0.0657	0.2680	0.0890	0.4486	<10.0	<10.0	<10.0	**652**
	10	18-Oct-05	5	400	--	--	--	--	--	--	--	--	--	133
	15	18-Oct-05	2.3	480	--	--	--	--	--	--	--	--	--	214
	20	18-Oct-05	1.5	400	--	--	--	--	--	--	--	--	--	--
	25	18-Oct-05	2.3	320	--	--	--	--	--	--	--	--	--	--
	30	18-Oct-05	1.5	320	--	--	--	--	--	--	--	--	--	--
	35	18-Oct-05	1.6	240	--	--	--	--	--	--	--	--	--	--
	40	18-Oct-05	3.1	240	--	--	--	--	--	--	--	--	--	--
	45	18-Oct-05	3.5	240	--	--	--	--	--	--	--	--	--	--
BH-2	2	18-Oct-05	2.6	3,120	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	**1860**
	5	18-Oct-05	2.3	1,280	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	**814**
	10	18-Oct-05	2.2	640	--	--	--	--	--	--	--	--	--	215
	15	18-Oct-05	3.0	500	--	--	--	--	--	--	--	--	--	172
	20	18-Oct-05	1.1	500	--	--	--	--	--	--	--	--	--	--
	25	18-Oct-05	1.9	480	--	--	--	--	--	--	--	--	--	--
	30	18-Oct-05	2.1	480	--	--	--	--	--	--	--	--	--	--
	35	18-Oct-05	1.4	400	--	--	--	--	--	--	--	--	--	--
	40	18-Oct-05	1.7	400	--	--	--	-	--	--	--	--	--	--
	45	18-Oct-05	1.5	400	--	--	--	--	--	--	--	--	-	--
	50	18-Oct-05	0.9	400	--	--	--	--	--	--	--	--	--	--
	55	18-Oct-05	0.2	320	--	--	--	--	--	--	--	--	--	--
	60	18-Oct-05	0.3	240	--	--	--	--	--	--	--	--	-	--
	65	18-Oct-05	0.2	240	--	--	--	--	--	--	--	--	--	--
NMOCD Remedial Thresholds			**100**[3]		**10**					**50**			**1,000**	**250**[4]

[1] *Bolded values are in excess of the NMOCD Remediation Thresholds*

[2] *"--": Not Analyzed*

[3] *In lieu of laboratory analyes of benzene, toluene, ethylbenzene and total xylenes.*

[4] *Chloride residuals may not be capable of impacting local groundwaterabove the NMWQCCstandard of 250 mg/L*

TABLE 2

Well Data

Chesapeake Energy Quail State SWD (Ref. #160030)

Well Number	Diversion[A]	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation[B]	Well Depth (ft bgs)	Depth to Water (ft bgs)
L04723	3	Cactus Drilling Company	PRO	19S	34E	11 1 1 1	N 32° 40' 42.06"	W 103° 32' 20.82"	24-Sep-61	3,986	145	123
L10380	3	Gillespie Charles B Jr	STK	19S	34E	02 4 4 3	N 32° 40' 55.32"	W 103° 31' 34.61"	11-Mar-94	3,965	153	100
CP00806	0	Smith Kenneth	STK	19S	34E	04 4 4	N 32° 40' 54.91"	W 103° 33' 38.15"		3,882	50	
CP00875	0	Matador Petroleum, Inc.	PRO	19S	34E	05 3 4 3	N 32° 40' 54.68"	W 103° 35' 10.86"	07-Jan-98	3,806	200	
L04059	3	Noble Drilling Co.	PRO	19S	34E	12 1 4	N 32° 40' 29.29"	W 103° 31' 3.72"	29-Jan-59		125	60
L04059 APPRO				19S	34E	12 1 4	N 32° 40' 29.29"	W 103° 31' 3.72"	29-Jan-59		125	60
CP00466 EXP	0	Gulf Oil Corporation	PRO	19S	34E	16 3 3 2	N 32° 39' 10.29"	W 103° 34' 24.43"		3,760		
CP00466 (2)E EXP	0	Inc. Pennzoil United	PRO	19S	34E	16 3 3 2	N 32° 39' 10.29"	W 103° 34' 24.43"		3,760		
CP00680 EXP	0	C.W. Trainer	OBS	19S	34E	25 4 3 3	N 32° 37' 26.49"	W 103° 30' 48.18"		3,732		
CP00683	3	C.W. Trainer	OBS	19S	34E	26 4 3 3	N 32° 37' 26.49"	W 103° 30' 48.18"	20-Jul-85	3,732	120	28
USGS #1				19S	35E	17 2 1 1	N 32° 39' 44"	W 103° 28' 40"	25-Jan-96	3,822	50	26.04
USGS #2				19S	35E	09 1 3 3	N 32° 40' 15"	W 103° 28' 08"	20-Mar-96	3,834	36	19.45
USGS #3				19S	34E	09 2 4 2	N 32° 40' 22"	W 103° 33' 26"	08-Mar-01	3,890	33	28.97
USGS #4				19S	34E	06 3 4 1	N 32° 40' 46"	W 103° 36' 04"	08-Mar-01	3,777	500	244.23
USGS #5				19S	35E	06 1 3 3	N 32° 41' 07"	W 103° 30' 11"	01-Feb-96	3,922	130	61.68
USGS #6				19S	35E	05 1 2 1	N 32° 41' 30"	W 103° 28' 49"	02-Jan-01	3,866	117	46.8
USGS #7				19S	34E	03 4 1 2			28-Jan-81			104.9
USGS #8				19S	34E	06 3 4 1			30-Jan-96			239.06
USGS #9				19S	34E	09 2 4 2			30-Jan-96			28.73
USGS #10				19S	34E	12 2 4 4			29-May-91			74.07
USGS #11				19S	34E	16 3 3 4			07-Apr-86			231.18
USGS #12				19S	34E	31 1 3 1			14-Mar-68			53.14
USGS #13				19S	34E	31 1 3 2			17-Nov-65			58.6
USGS #14				19S	34E	31 2 3 2			15-Dec-76			147.58
USGS #15				19S	34E	31 2 3 2			28-Jan-81			147.86

Data obtained from the New Mexico Office of the State Engineer Website (http://iwaters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet1) and the USGS Website (http://waterdata.usgs.gov/nwis).
Shaded areas indicate well locations shown on Figure 2

[A] = in acre feet per annum

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

STK = Livestock

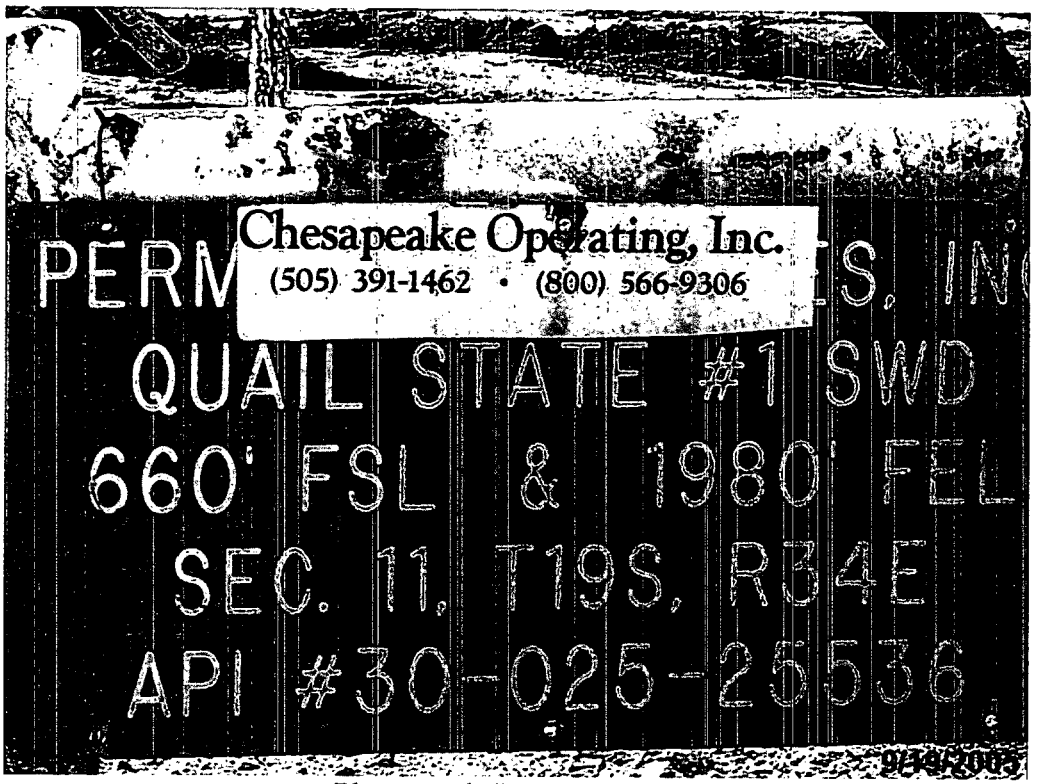
OBS = Observation

PRO = Prospecting or development of natural resources

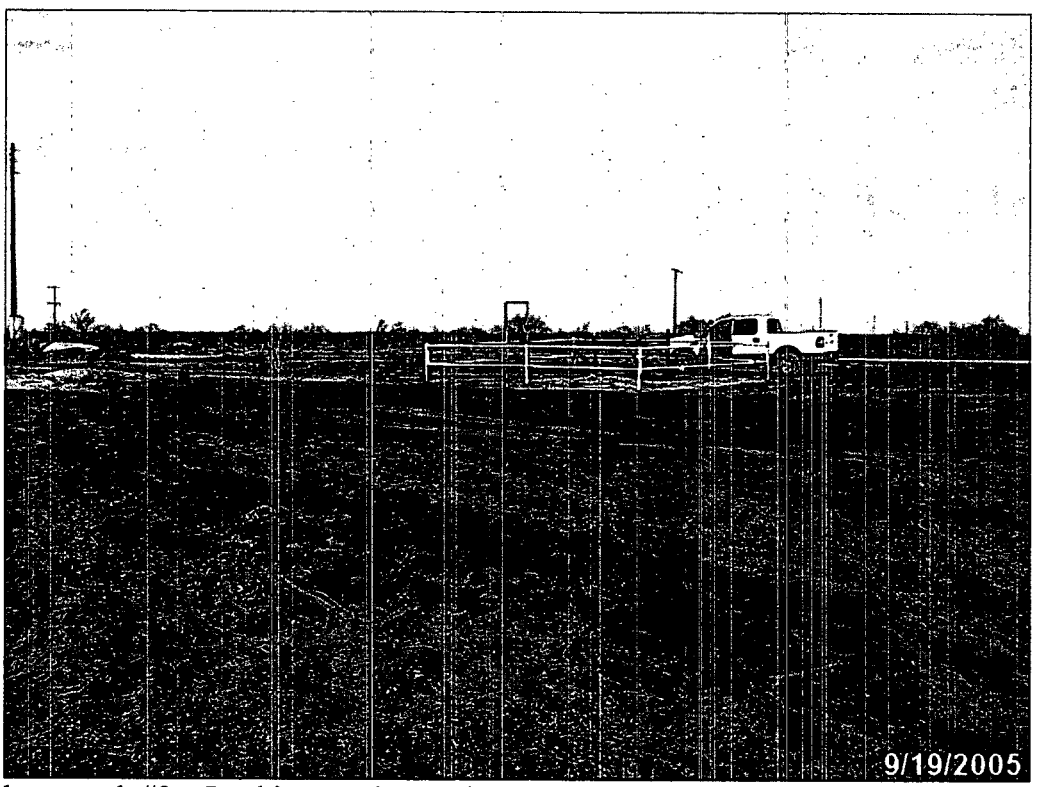
quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are biggest to smallest

Attachment I

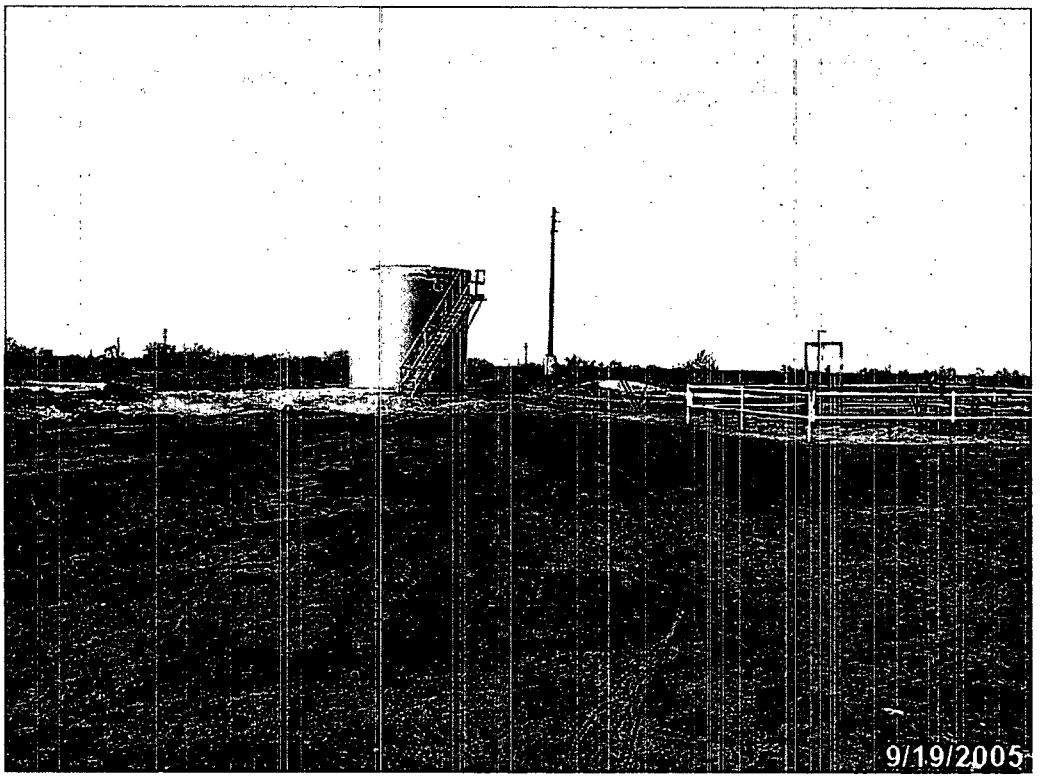
Site Photographs



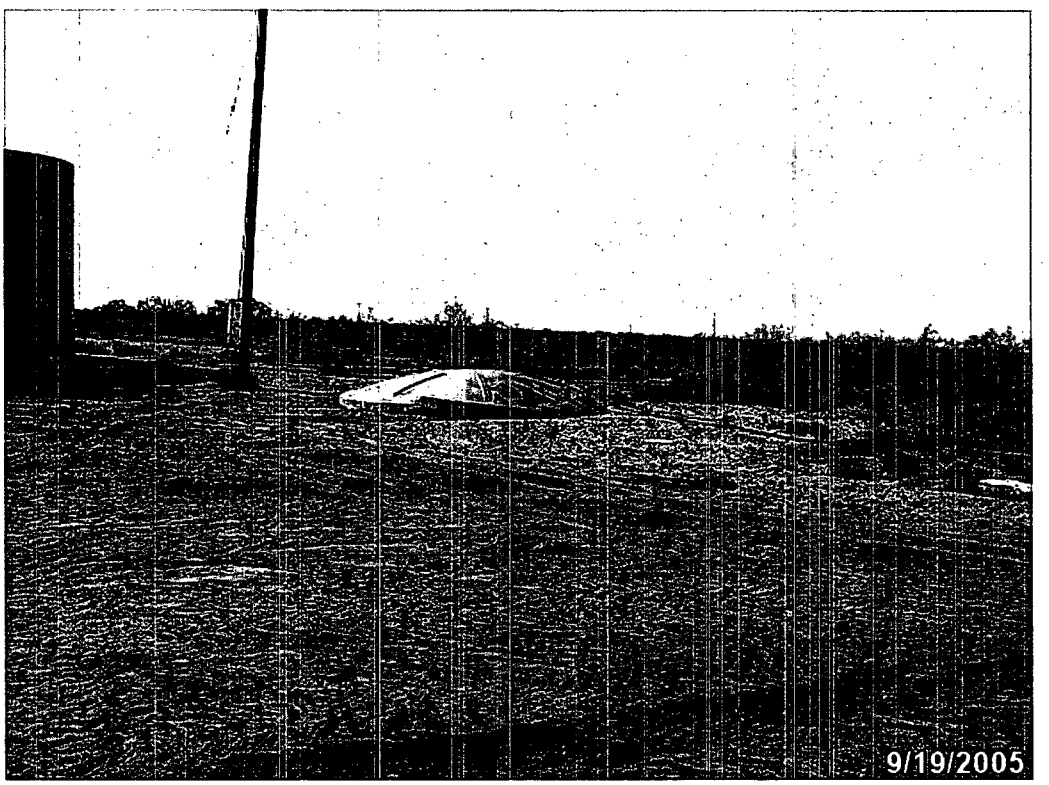
Photograph #1 – Lease Sign



Photograph #2 – Looking northeasterly at contaminated area around injection well



Photograph #3 – Looking north at contaminated area around the injection well



Photograph #4 – Looking northwesterly at 500 bbl fiberglass tank damaged by lightening

ATTACHMENT II

LABORATORY RESULTS
AND
CHAIN-OF-CUSTODY FORM

ATTACHMENT III

SOIL BORES

Log Of Test Borings

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

Project Number: 160030

Project Name: Chesapeake Quail State SWD

Location: UL-O, Section 11, Township 19 South, Range 34 East

Boring Number: BH-1 | Surface Elevation: 3,972

Start Date: 10/18/05 Time: 1245 hrs

Completion Date: 10/18/05 Time: 1415 hrs

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
1245				4.4			Rock, Top Soil, Black Clay
						2	
						5	
1259				2.4			Caliche, Rock
						10	
1310				4.5			Caliche, Rock
						15	
1320				2.3			Caliche, Rock
						20	
1330				1.5			Caliche, Rock
						25	
1335				2.3			SAND, Caliche
						30	
1345				1.5			SAND

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/18/05	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID

Backfill Method: Bentonite

Field Representative: JR

Log Of Test Borings

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

Project Number: 160030
Project Name: Chesapeake Quail State SWD
Location: UL-O, Section 11, Township 19 South, Range 34 East
Boring Number: BH-1 | Surface Elevation: 3,972

Start Date: 10/18/05 Time: 1245 hrs
Completion Date: 10/18/05 Time: 1415 hrs

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						35	
1355				1.6			SAND, Pebbles
						40	
1403				3.1			SAND, Pebbles
						45	
1415				3.5			SAND, Pebbles End of Boring at 45.0'
						50	
						55	
						60	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/18/05	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID
Backfill Method: Bentonite
Field Representative: JR

Log Of Test Borings

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

Project Number: 160030

Project Name: Chesapeake Quail State SWD

Location: UL-D, Section 11, Township 19 South, Range 34 East

Boring Number: BH-2 | Surface Elevation: 3,972

Start Date: 10/18/05 Time: 1443 hrs

Completion Date: 10/18/05 Time: 1630 hrs

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
1443				2.6		0	Rock, Top Soil, Black Clay
						2	
						5	
1447				2.3			Caliche
						10	
1500				2.2			Caliche
						15	
1510				3.0			Caliche
						20	
1518				1.1			Caliche
						25	
1523				1.9			Light Tan Sugar Sand
						30	
1526				2.1			Light Tan Sugar Sand

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/18/05	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID

Backfill Method: Bentonite

Field Representative: JR

Log Of Test Borings

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

Project Number: 160030

Project Name: Chesapeake Quail State SWD

Location: UL-D, Section 11, Township 19 South, Range 34 East

Boring Number: BH-2 | Surface Elevation: 3,972

Start Date: 10/18/05 Time: 1443 hrs

Completion Date: 10/18/05 Time: 1630 hrs

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						35	
1544				1.4			Light Tan Sugar Sand Pebbles
						40	
1547				1.7			Light Tan Sugar Sand Pebbles
						45	
1600				1.5			Light Tan Sugar Sand
						50	
1605				.9			Redish Tan Sugar Sand
						55	
1610				.2			Redish Tan Sugar Sand
						60	
1622				.3			Redish Tan Sugar Sand

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/18/05	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID

Backfill Method: Bentonite

Field Representative: JR

Log Of Test Borings

(NOTE - Page 3 of 3)

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

Project Number: 160030
Project Name: Chesapeake Quail State SWD
Location: UL-D, Section 11, Township 19 South, Range 34 East
Boring Number: BH-2 | Surface Elevation: 3,972

Start Date: 10/18/05 Time: 1443 hrs
Completion Date: 10/18/05 Time: 1630 hrs

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						65	
1630				.2			Redish Tan Sugar Sand End of Boring at 65.0'
						70	
						75	
						80	
						85	
						90	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/18/05	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: HSA 3.5" ID
Backfill Method: Bentonite
Field Representative: JR

ATTACHMENT IV

SITE METRICS FORM AND INFORMATIONAL COPY OF INITIAL C-141

Chesapeake
Information and Metrics

Incident Date: 17 September 2005	**NMOCD Notified:** 18 September 2005

Site: Quail State #1 SWD Battery	**Assigned Site Reference #:** 160030
Company: Chesapeake Energy	
Street Address: 5014 Carlsbad Highway	
Mailing Address: 5014 Carlsbad Highway	
City, State, Zip: Hobbs, New Mexico 88240	
Representative: Bradley Blevins	
Representative Telephone: (505) 391-1462 ext. 24	
Telephone:	
Fluid volume released (bbls): 115 barrels	**Recovered (bbls):** 55 barrels
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)	
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)	
Leak, Spill, or Pit (LSP) Name: Quail State SWD	
Source of contamination: 500 barrel fiberglass produced water tank struck by lightening.	
Land Owner, i.e., BLM, ST, Fee, Other: State of New Mexico	
LSP Dimensions: 230 feet by 110 feet	
LSP Area: ≈16,500 ft^2	
Location of Reference Point (RP):	
Location distance and direction from RP:	
Latitude: N 32° 40' 10.571"	
Longitude: W 103° 31' 43.001"	
Elevation above mean sea level: 3,972 feet	
Feet from South Section Line: 660	
Feet from East Section Line: 1980	
Location- Unit or ¼¼: SW¼ of the SE¼	**Unit Letter:** D
Location- Section: 11	
Location- Township: T19S	
Location- Range: R34E	
Surface water body within 1000 ' radius of site: none	
Domestic water wells within 1000' radius of site: none	
Agricultural water wells within 1000' radius of site: none	
Public water supply wells within 1000' radius of site: none	
Depth from land surface to ground water (DG): 50 to 100 feet	
Depth of contamination (DC): Unknown	
Depth to ground water (DG – DC = DtGW): 50 to 100 feet	

1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water Body
If Depth to GW <50 feet: *20 points*	If <1000' from water source, or;<200' from private domestic water source: *20 points*	<200 horizontal feet: *20 points*
If Depth to GW 50 to 99 feet: *10 points*		200-100 horizontal feet: *10 points*
If Depth to GW >100 feet: *0 points*	If >1000' from water source, or; >200' from private domestic water source: *0 points*	>1000 horizontal feet: *0 points*
Ground water Score = 10	*Wellhead Protection Area Score= 0*	*Surface Water Score= 0*
Site Rank (1+2+3) = 10		

Total Site Ranking Score and Acceptable Concentrations

Parameter	>19	10-19	0-9
Benzene[1]	10 ppm	10 ppm	10 ppm
BTEX[1]	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1,000 ppm	5,000 ppm

[1]100 ppm field VOC headspace measurement may be substituted for lab analysis

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Chesapeake Energy	**Contact:** Bradley Blevins
Address: 5014 Carlsbad Highway	**Telephone No.:** (505) 391-1462 ext. 24
Facility Name: Quail State SWD	**Facility Type:** Tank Battery

Surface Owner: State of New Mexico leased to Snyder Ranches	**Mineral Owner:** State of New Mexico	**Lease No.:** API #30-025-25536

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	11	19S	34E	660	South	1,980	East	Lea

Latitude: N 32° 40' 10.571" **Longitude:** W 103° 31' 43.001"

NATURE OF RELEASE

Type of Release: Produced Water	**Volume of Release:** 115 barrels	**Volume Recovered:** 55 barrels
Source of Release: Tank Battery	**Date and Hour of Occurrence:** September 17, 2005 P.M.	**Date and Hour of Discovery:** September 18, 2005 A.M.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?** NMOCD- Hobbs	
By Whom? Bradley Blevins, Chesapeake	**Date and Hour:** September 18, 2005 @ 1130 hours	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse:** Not Applicable	

If a Watercourse was Impacted, Describe Fully.* Not Applicable

Describe Cause of Problem and Remedial Action Taken.* Lightening strike on 500 barrel fiberglass water tank. Wells were shut in upon discovery.

Describe Area Affected and Cleanup Action Taken.* Approximately 16,500 square feet of surface area was impacted by the release. The site will be delineated and a Remediation/Closure Plan developed and submitted to the NMOCD>

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Bradley Blevins	**Approved by District Supervisor:**	
Title: Field Technician	**Approval Date:**	**Expiration Date:**
E-mail Address: bblevins@chkenergy.com	**Conditions of Approval:**	**Attached** ☐
Date: **Phone:** (505) 391-1462 ext. 24		

*** Attach Additional Sheets If Necessary**