Larson & Associates, Inc.
Environmental Consultants

3.1.06
WIPP 55'

February 25, 2006

VIA EMAIL: wayne.price@state.nm.us
CERTIFIED MAIL

Mr. Wayne Price, Chief
Oil Conservation Division – Environmental Bureau
State of New Mexico
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Work Plan to Investigate Historic Hydrocarbons, Unit Letter C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Price:

This letter is submitted to the State of New Mexico Oil Conservation Division ("OCD") on behalf of Chesapeake Energy Corporation ("Chesapeake") by Larson and Associates, Inc. ("LA"), its consultant, and presents a work plan to investigate historic hydrocarbons from a former tank battery ("Site") located in unit letter C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico. The Site is not affiliated with Chesapeake, but is located immediately north of its Ollie J. Boyd Tank Battery. The Site involves an area of historic hydrocarbons immediately north of the Ollie J. Boyd Tank Battery that measures approximately 100 x 200 feet. The historic hydrocarbons merge with an area of historic hydrocarbons about 150 feet northeast of the tank battery that measures approximately 100 x 150 feet. The latitude and longitude for the Site is North 32°, 22', 51.1" and West 103°, 08', 16.9". Contact information for Chesapeake is as follows:

Mr. Jace Marshall
Safety & Environmental Representative
Chesapeake Energy Corporation
6100 N. Western Avenue
Oklahoma City, Oklahoma 73118
(405) 767-4530
jmarshall2@chkenergy.com

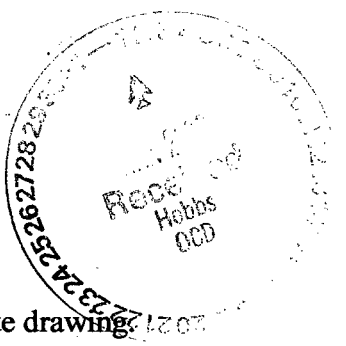


Figure 1 presents a location and topographic map. Figure 2 presents a Site drawing.

Setting

The Site is located about four (4) miles southeast of Eunice, New Mexico, at an elevation approximately 3,330 feet above mean sea level ("MSL"). The topography slopes

Facilities - fPAC0606052710
Application - pPAC0606152807
Chesapeake - 147179

to the east and southeast toward Monument Draw, which is located about 1.3-miles east of the Site. The nearest residence is located about 1-mile southeast of the Site, in unit letter P (SE/4, SE/4), Section 23, Township 22 South and Range 37 East. Ground water occurs at approximately 60 feet below ground surface ("bgs"), based on records from the New Mexico State Engineer, and no wells or surface water is located within 1,000 feet of the Site. Figure 1 presents the approximate locations of water wells and depth to ground water within one (1) mile of the Site. Appendix A presents photographs.

Proposal

Chesapeake proposes to characterize the historic hydrocarbons in accordance with OCD guidelines ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"). Soil samples will be collected at six (6) locations using a split-spoon or core sampler that will be advanced into the subsurface using an air rotary drill rig. Soil samples will be collected at ground surface and at approximately 3, 7, 11, 15, 20, 25 and 30 feet bgs or until the vertical extent of the hydrocarbons has been determined from field observations (i.e., odor, stain, etc.). The split-spoon or core sampler will be washed between samples with a solution of laboratory grade detergent and water, and rinsed with distilled water. Drilling equipment (i.e., bit, rods, etc.) will be washed between locations using a high-pressure hot water sprayer. A stainless steel hand auger will be used to collect shallow samples to about five (5) feet bgs at an area located north of the gas meter run. The soil samples will be examined using the Unified Soil Classification System ("USCS") and recorded on field log forms. Cuttings will be placed on the ground next to the drill holes, which will be plugged with bentonite. Figure 3 presents proposed sample locations.

Two (2) samples will be collected from each interval for headspace and possible laboratory analysis. The headspace samples will be collected in 8-ounce glass sample jars, which will be partially filled, covered with a layer of aluminum foil before securing the cap and allowed to warm to the ambient temperature (approximately 30 minutes). The headspace samples will be analyzed using a photoionization detector ("PID") that will be calibrated to an isobutylene span gas tested to 100 parts per million ("ppm"). The PID probe will be passed through the aluminum foil into the vacant headspace and the maximum PID reading will be recorded on the field log. The laboratory samples will be collected in clean 4-ounce glass jars, filled to zero headspace, labeled, chilled in an ice chest and delivered under chain-of-custody control to an environmental laboratory.

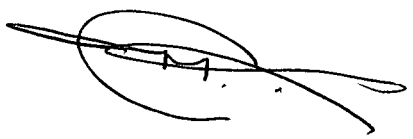
The laboratory samples corresponding with headspace samples exhibiting PID readings over 100 ppm will be analyzed by the laboratory for benzene, toluene, ethyl benzene and xylene ("BTEX"), total petroleum hydrocarbons ("TPH) and chloride. The laboratory will use methods SW-846-8021B (BTEX), SW-846-8015, including gasoline range organics ("GRO") and diesel range organics ("DRO") for TPH and SW-846-9253 (chloride). Additional samples may be analyzed for TPH and chloride. The synthetic

precipitation leaching procedure ("SPLP") may be used to assess leaching potential for BTEX and chloride from soil to ground water.

A report will be prepared and submitted to OCD within 45 days after receipt and review of the laboratory analysis. The report will include discussions of investigation procedures, headspace and laboratory analysis and recommendation for remediation. The boring logs and laboratory reports will be included as attachments and OCD will be notified at least 48 hours before fieldwork commences. Your approval of this proposal is requested. Please call Mr. Jace A. Marshall with Chesapeake at (405) 767-4530, myself at (432) 687-0901 or email jmarshall2@chkenergy or mark@laenvironmental.com, if you have questions.

Sincerely,

Larson and Associates, Inc.



Mark J. Larson, P.G., C.P.G., C.G.W.P.
Senior Project Manager/President

Enclosures

cc: Jace Marshall/Chesapeake
Paul Hagemeier/Chesapeake
Chris Williams/OCD – District 1

FIGURES

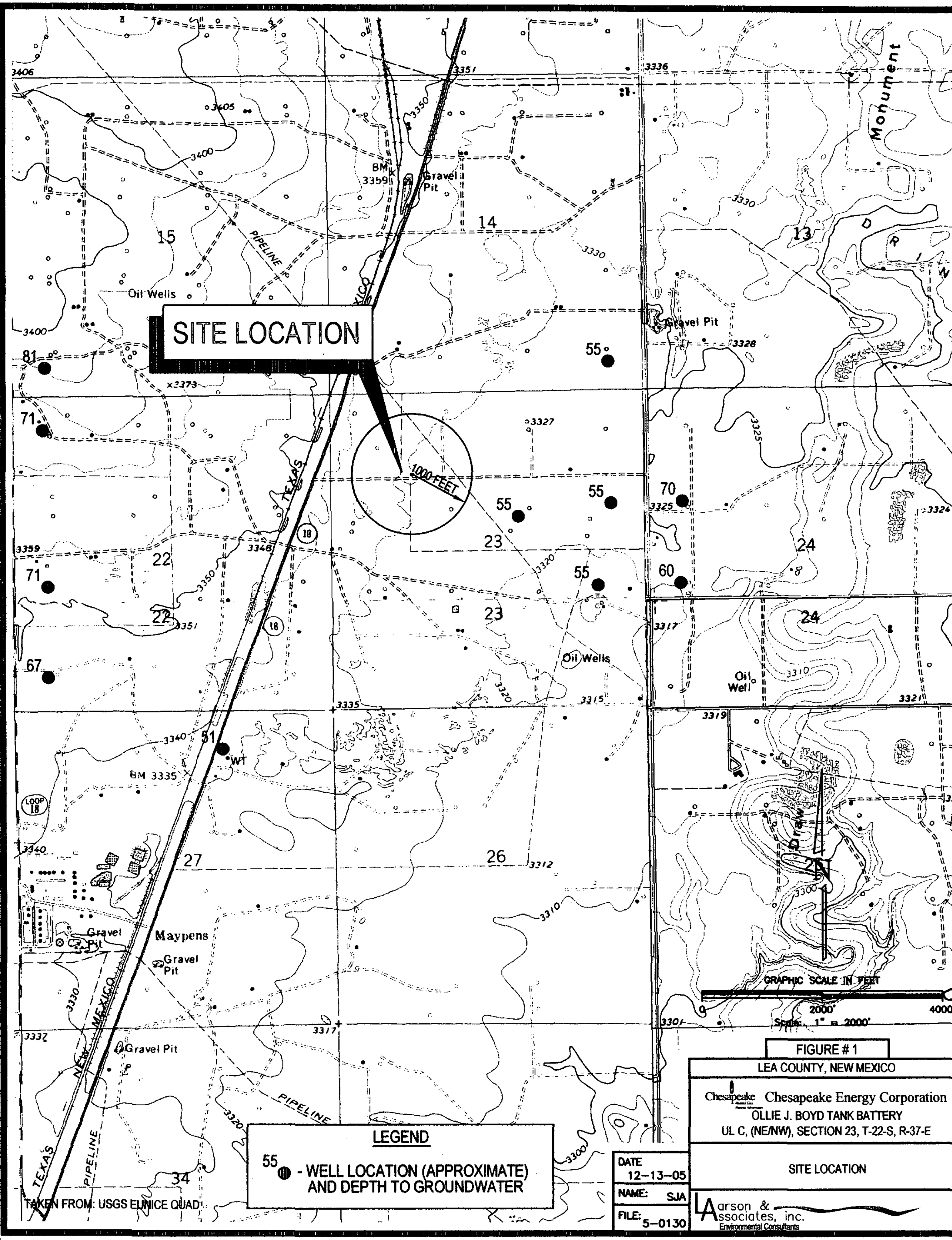


FIGURE # 1

LEA COUNTY, NEW MEXICO

Chesapeake Energy Corporation

OLLIE J. BOYD TANK BATTERY

UL C, (NE/NW), SECTION 23, T-22-S, R-37-E

SITE LOCATION

DATE 12-13-05

NAME: SJA

FILE: 5-0130

Larson & Associates, inc.
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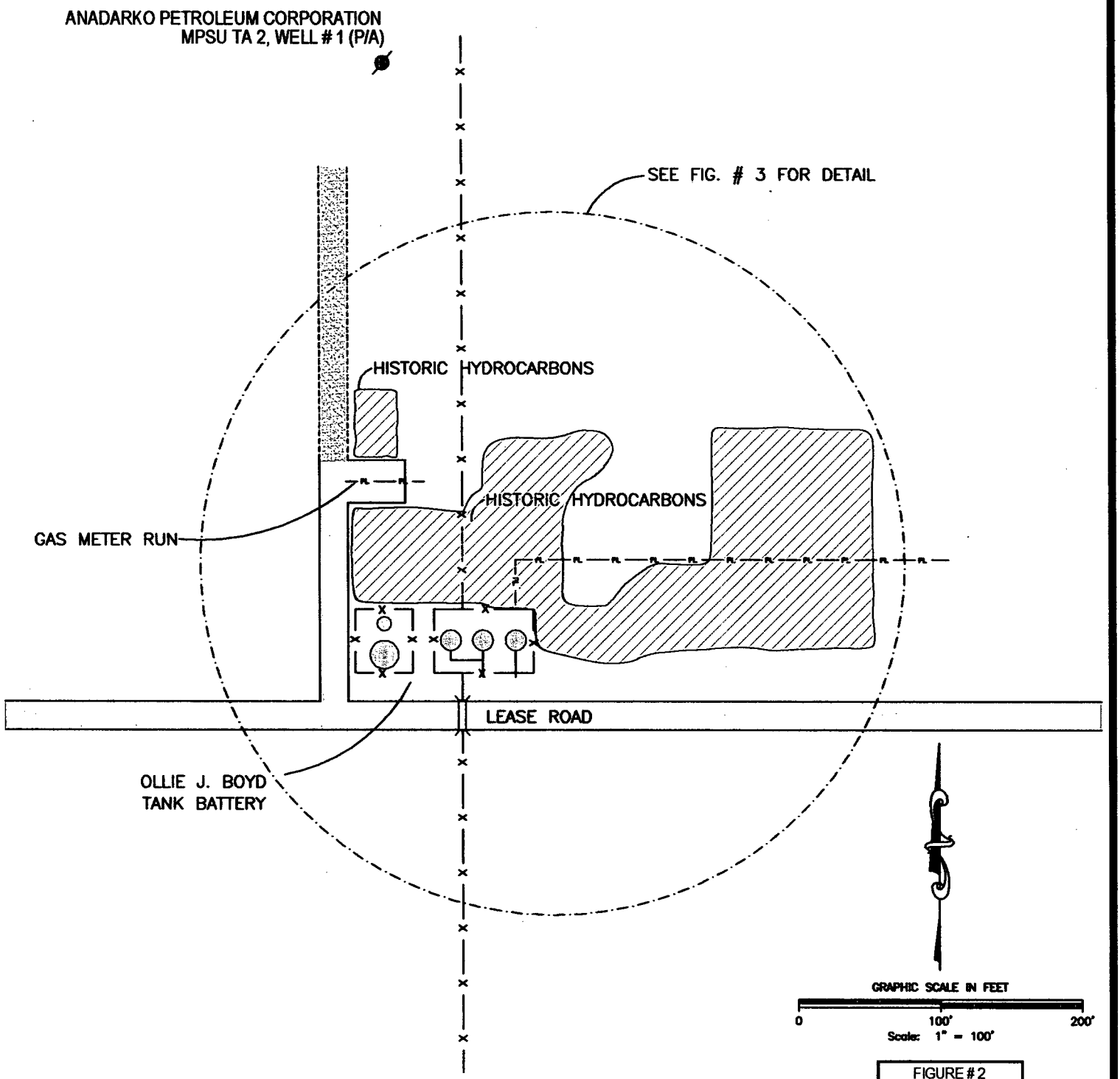


GRAPHIC SCALE IN FEET

0 100' 200'

Scale: 1" = 100'

LEGEND

– PLUGGED OIL WELL

FIGURE # 2

LEA COUNTY, NEW MEXICO

Chesapeake Energy Corporation

OLLIE J. BOYD TANK BATTERY

UL C, (NE/NW), SECTION 23, T-22-S, R-37-E

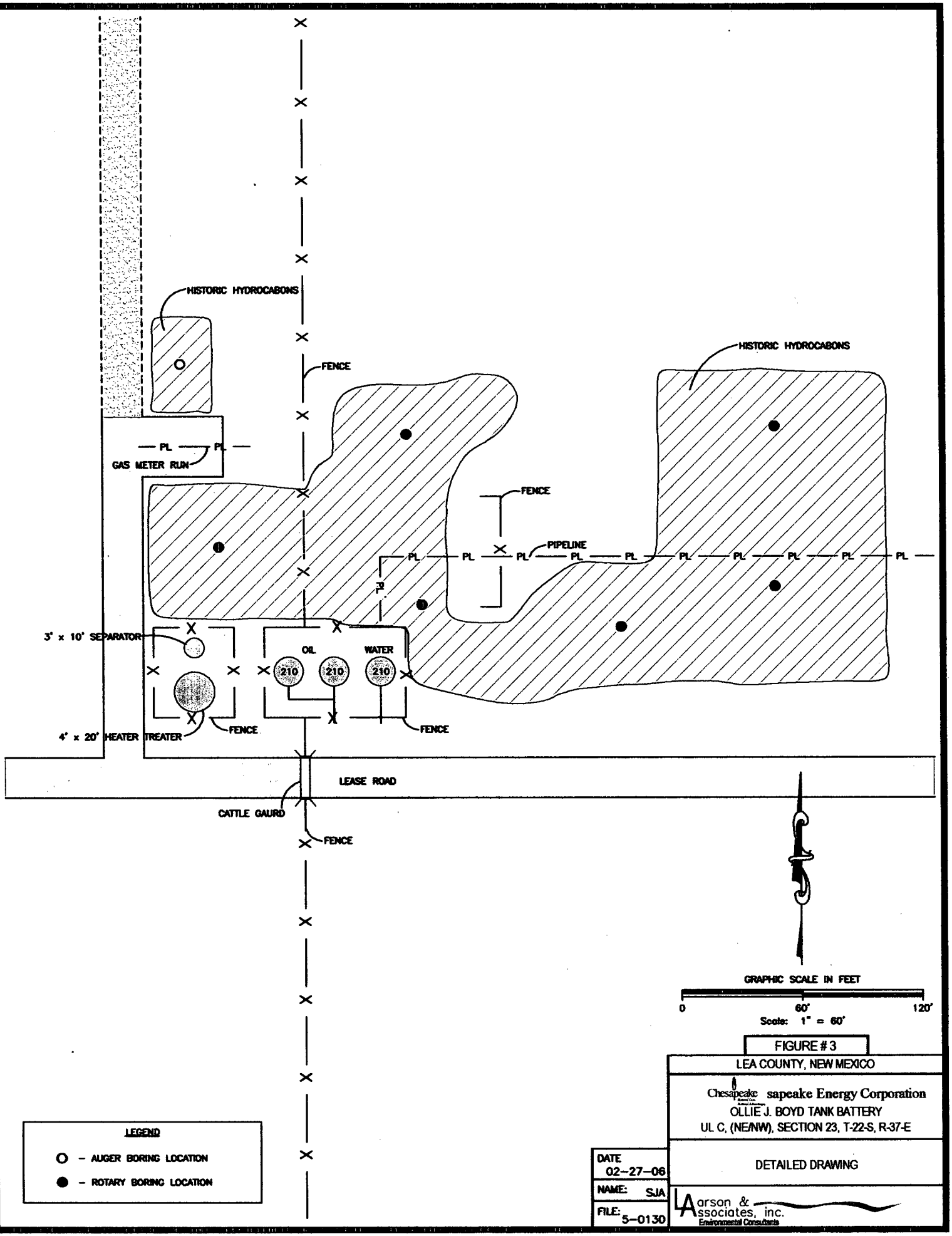
SITE DRAWING

DATE 02-27-06

NAME: SJA

FILE: 5-0130

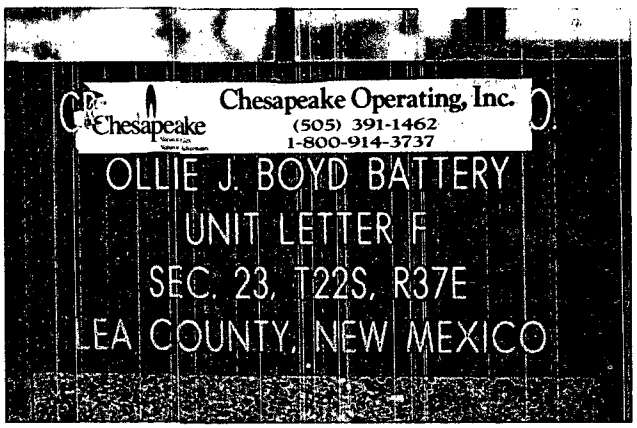
Larson & Associates, inc.
Environmental Consultants


HISTORIC HYDROCABONS
FENCE
HISTORIC HYDROCABONS
PL
PL
GAS METER RUN
FENCE
PIPELINE
PL PL PL PL PL PL PL PL PL PL
3' x 10' SEPARATOR
OIL
WATER
210
210
210
4' x 20' HEATER TREATER
FENCE
FENCE
LEASE ROAD
CATTLE GAURD
FENCE
LEGEND
O - AUGER BORING LOCATION
● - ROTARY BORING LOCATION
GRAPHIC SCALE IN FEET
0
60'
120'
Scale: 1" = 60'
FIGURE # 3
LEA COUNTY, NEW MEXICO
Chesapeake sapeake Energy Corporation
OLLIE J. BOYD TANK BATTERY
UL C, (NE/NW), SECTION 23, T-22-S, R-37-E
DETAILED DRAWING
DATE 02-27-06
NAME: SJA
FILE: 5-0130
Larson & Associates, inc.
Environmental Consultants

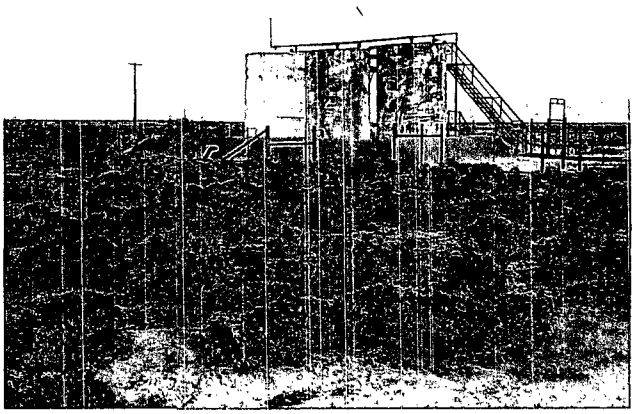
APPENDIX A

Photographs

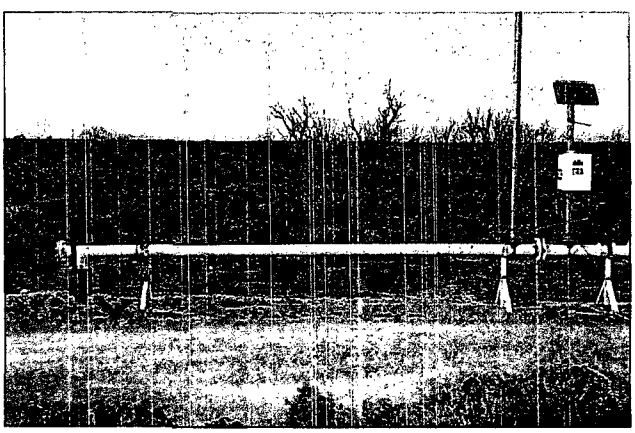
UL C, (NE/NW), SECTION 23, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO



1. Location sign

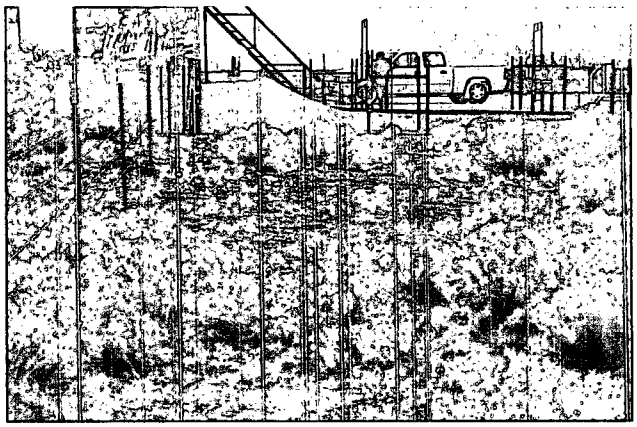


2. Historic hydrocarbons northwest of Ollie J. Boyd tank battery

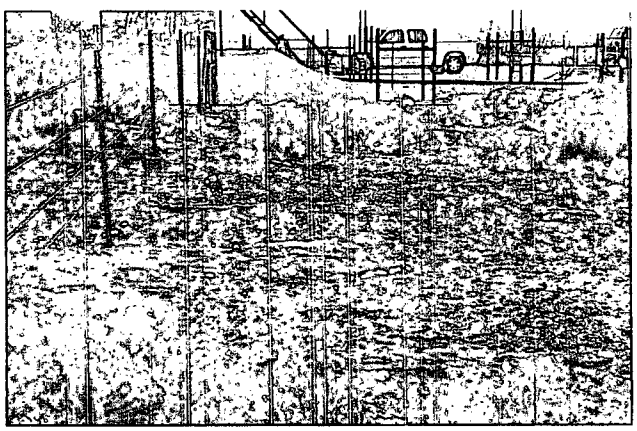


3. Historic hydrocarbons north of meter run

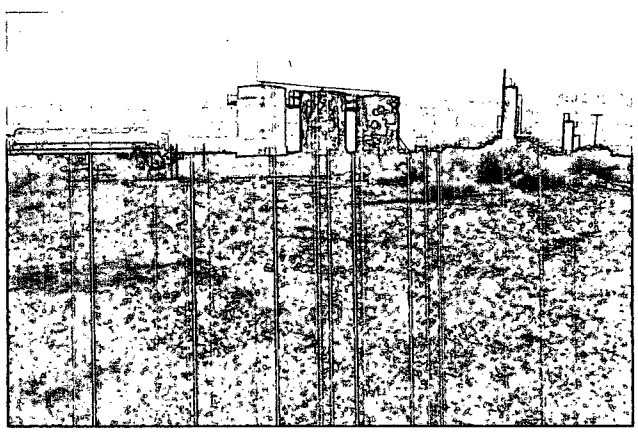
UL C, (NE/NW), SECTION 23, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO



4. Historic hydrocarbons northwest of Ollie J. Boyd tank battery

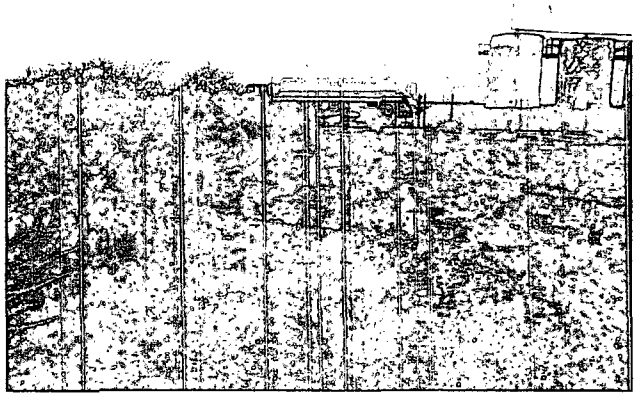


5. Historic hydrocarbons northwest of Ollie J. Boyd tank battery

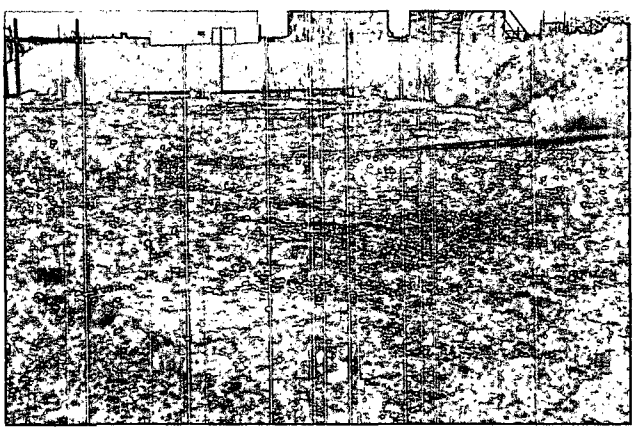


6. Historic hydrocarbons northeast of Ollie J. Boyd tank battery

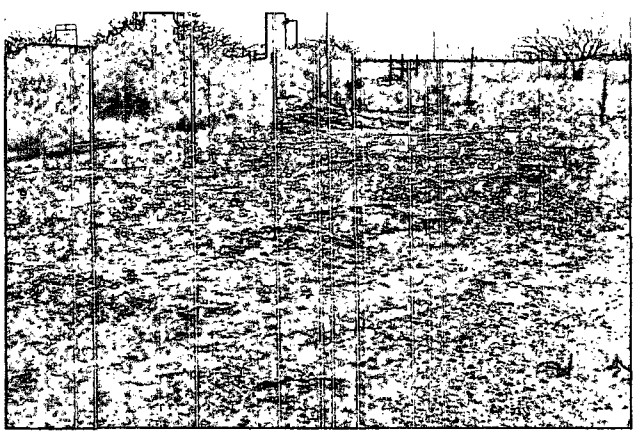
UL C, (NE/NW), SECTION 23, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO



7. Historic hydrocarbons northeast of Ollie J. Boyd tank battery

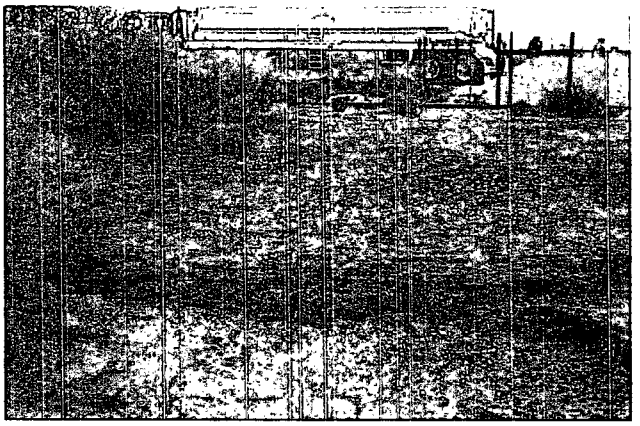


8. Historic hydrocarbons north of Ollie J. Boyd tank battery

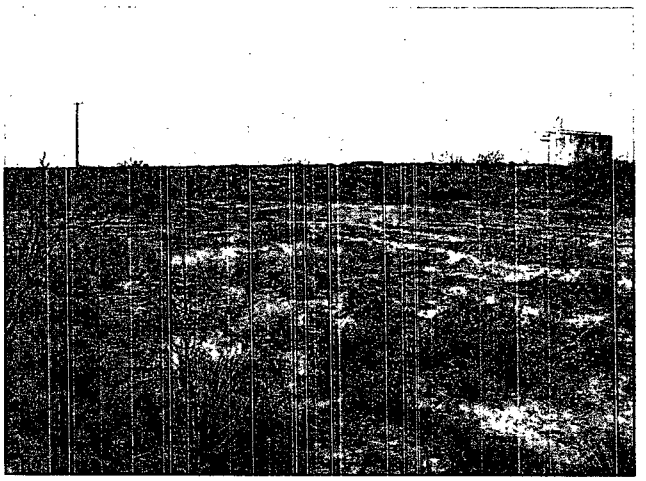


9. Historic hydrocarbons north of Ollie J. Boyd tank battery

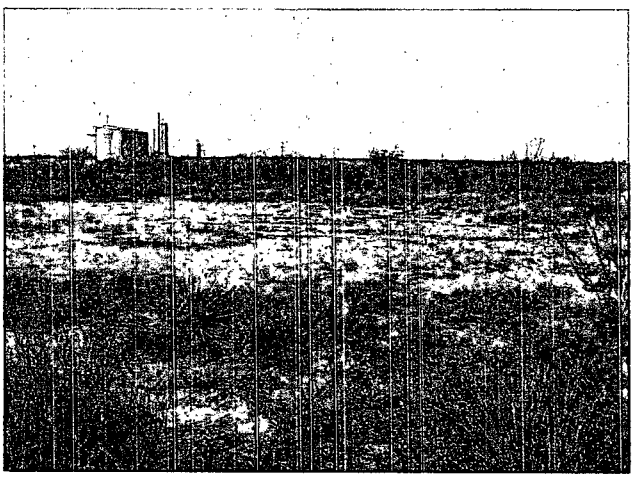
UL C, (NE/NW), SECTION 23, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO



11. Historic hydrocarbons east of Ollie J. Boyd tank battery



12. Historic Hydrocarbons Northeast of Tank Battery



13. Historic Hydrocarbons Northeast of Tank Battery