

ONSHORE ORDER NO. 1  
Chesapeake Agent for BOPCO  
PLU Big Sinks 14-25-30 USA 1H  
SL: 300' FSL & 1980' FWL  
BL: 350' FNL & 1980' FWL  
Section 14-25S-30E  
Eddy County, NM

CONFIDENTIAL – TIGHT HOLE  
**SURFACE USE PLAN**  
**REVISED 8/22/2011**  
Lease No. NMNM063873A

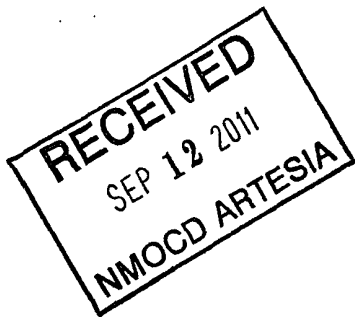
Page 1

ONSHORE OIL & GAS ORDER NO. 1  
Approval of Operations on Onshore  
Federal and Indian Oil and Gas Leases

30-015-39508

1. EXISTING ROADS

- a. The proposed 292.8 feet of road will intersect an existing two track road. This two-track road used to be an Eddy County road (*Rock Dove Road*), but the county no longer maintains it. Chesapeake plans to upgrade this two-track road starting from the proposed road northeast to Buck Jackson County Road. The length of two-track to be upgraded is approximately 4,000 feet. The two-track road will be upgraded to have a 16 feet wide driving surface with the maximum disturbance of 30 feet width for construction. The driving surface grade and ditch design will be the same as the proposed road as shown on Exhibit H-2. Six inches of surfacing material will be compacted for the driving surface.
- b. One turnout will be constructed. See Exhibit H-1.
- c. Driving directions are from the junction of McDonald and Twin Wells, go Southwest 1.3 miles to lease road, on lease road go South 0.5 miles to lease road, on lease road go west to PLU 111 pad and proposed lease road. From Loving North on Carter Road to State Hwy 31 to State hwy 128. East on 128 to Twin Wells Road. South on Twin Wells Road to Buck Jackson. From the junction of Buck Thorn and Buck Jackson, Go Westerly turning Northerly for 3.1 Miles to lease Road (old Rock Daisy), Go Southeast on Lease Road For 0.8 Miles to Proposed Lease Road.
- d. See Exhibits A-1 to A-5.



2. NEW OR RECONSTRUCTED ACCESS ROADS

- a. The proposed new road will be 292.8' in length. The maximum width of the driving surface will be 14 feet. The road will be crowned and ditched with a 2% slope from tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche. Right-of-Way will be 20 ft in width.

- b. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.
  - c. See Exhibits H-1\_to\_H-2.
- 3. LOCATION OF EXISTING WELLS WITHIN A 1-MILE RADIUS OF THE PROPOSED LOCATION – see Exhibit B.
- 4. LOCATION OF PRODUCTION FACILITIES
  - a. It is anticipated that production facilities will be located on the well pad and oil to be sold at the wellhead and/or tank battery.
  - b. Initially this will be a standalone battery but we plan to build it with capability to handle offsite wells.
  - c. Pipeline will come from SUG.
  - d. Oil and gas measurement will be installed on this well location.
  - e. See Exhibit C.
- 5. LOCATION AND TYPES OF WATER SUPPLY
  - a. Water will be obtained from a private water source.
  - b. Chesapeake staked a 250' x 360' fresh water pond east of the proposed location.
  - c. Water to be hauled in.
  - d. The pond will be 10' deep top of berm to bottom.
  - e. A temporary 10" aluminum transfer line will run approx. 4800' from the pond to the location..
  - f. See Exhibit E-1 to E-3.

6. CONSTRUCTION MATERIALS

No construction materials will be used from Section 14-25S-30E. All material (i.e. shale) will be acquired from private or commercial sources.

7. METHODS FOR HANDLING WASTE DISPOSAL

- a. A closed system will be utilized consisting of above ground steel tanks.
- b. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in a state approved facility.

8. ANCILLARY FACILITIES  
None

9. WELLSITE LAYOUT

- a. The proposed site layout will be a 320' x 300' pad.
- b. The plat is attached showing the Patterson Rig #62 orientation and equipment location.
- c. See Exhibit D.

10. PLANS FOR RECLAMATION OF THE SURFACE

Interim reclamation will be delayed to allow another well to be drilled on the proposed well pad, alternate well location unknown at this time.

Final Reclamation Procedure: Upon final abandonment of the well, caliche material from the well pad and access road will be removed and utilized to recontour to a final contour that blends with the surrounding topography as much as possible. Any caliche material not used will be utilized to repair roads within the lease. Topsoil will be distributed over the reclamation area and cross ripped to control erosion, the site will be seeded with an approved BLM mixture.

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The location will be restored to as near as original condition as possible. Reclamation of the surface shall be done in strict compliance with the existing New Mexico Oil Conservation Division regulations and BLM.

11. SURFACE & BHLOC MINERAL OWNERSHIP

United States of America  
Department of Interior  
Bureau of Land Management

GRAZING LESSEE

Richardson Cattle Co.  
P.O. Box 487  
Carlsbad, NM 88220  
575-885-6175

**(Chesapeake Operating, Inc. has an agreement with the grazing lessee)**

12. ADDITIONAL INFORMATION

A Class III cultural resource inventory report was prepared by Boone Archaeological Services, Carlsbad, New Mexico for the proposed location. A copy of the report has been sent to the BLM office under separate cover and is also attached for reference.

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Eddy County, NM

CONFIDENTIAL – TIGHT HOLE  
OPERATOR CERTIFICATION

Lease No. NMNM 063873A

CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

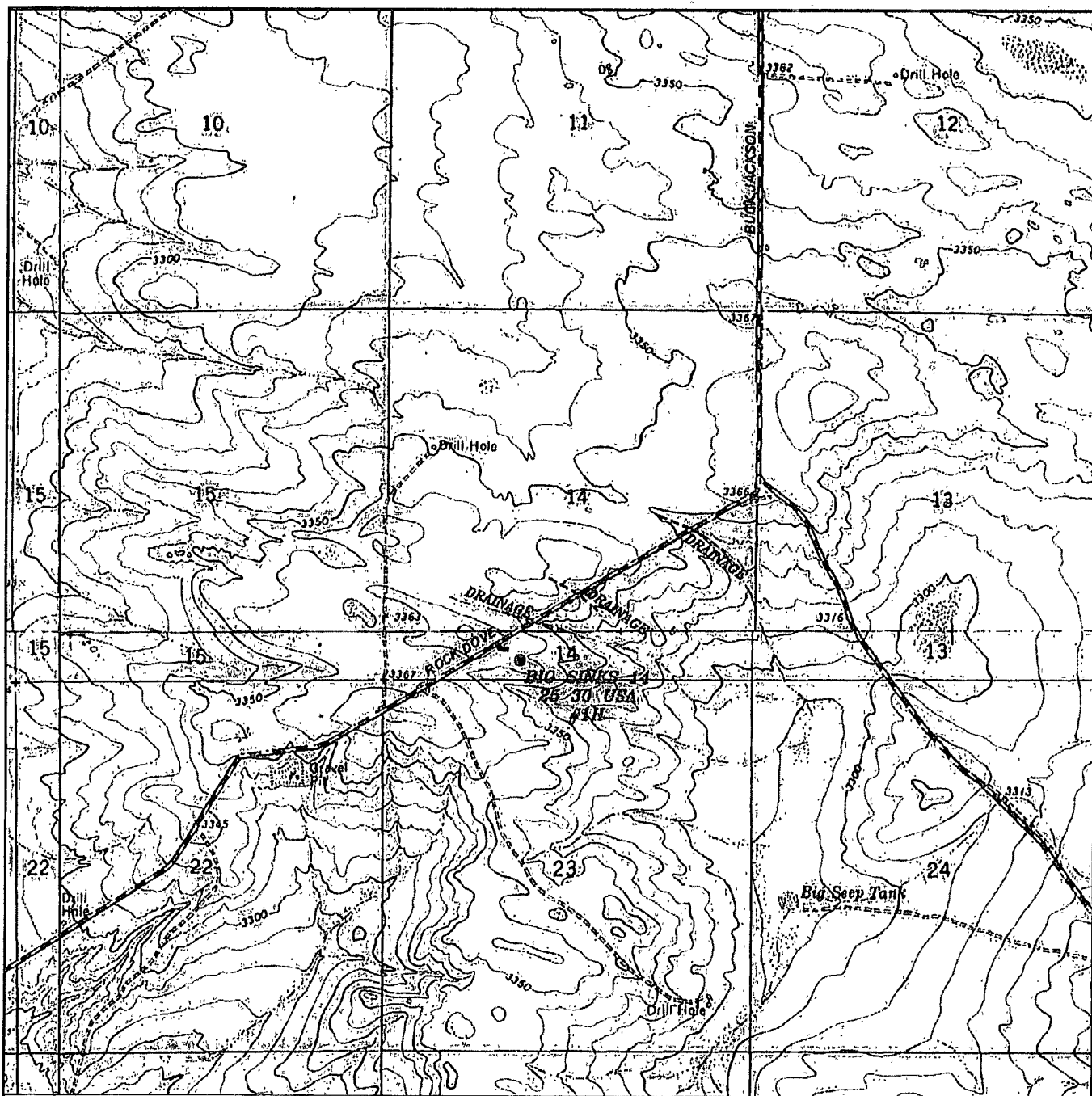
Executed this 19<sup>th</sup> day of July, 2011

Name: Toby Reid  
Toby Reid - Field Representative

Address: 2010 Rankin Highway, Midland, TX 79701

Telephone: 575-725-8497

E-mail: toby.reid@chk.com



PLU BIG SINKS 14 25 30 USA #1H

Located 300' FSL and 1980' FWL

Section 14, Township 25 South, Range 30 East,  
N.M.P.M., Eddy County, New Mexico.

**basin**  
**surveys**  
focused on excellence  
in the oilfield

P.O. Box 1786  
1120 N. West County Rd.  
Hobbs, New Mexico 88241  
(575) 393-7316 - Office  
(575) 392-2206 - Fax  
basinsurveys.com

W.O. Number: JMS 24811

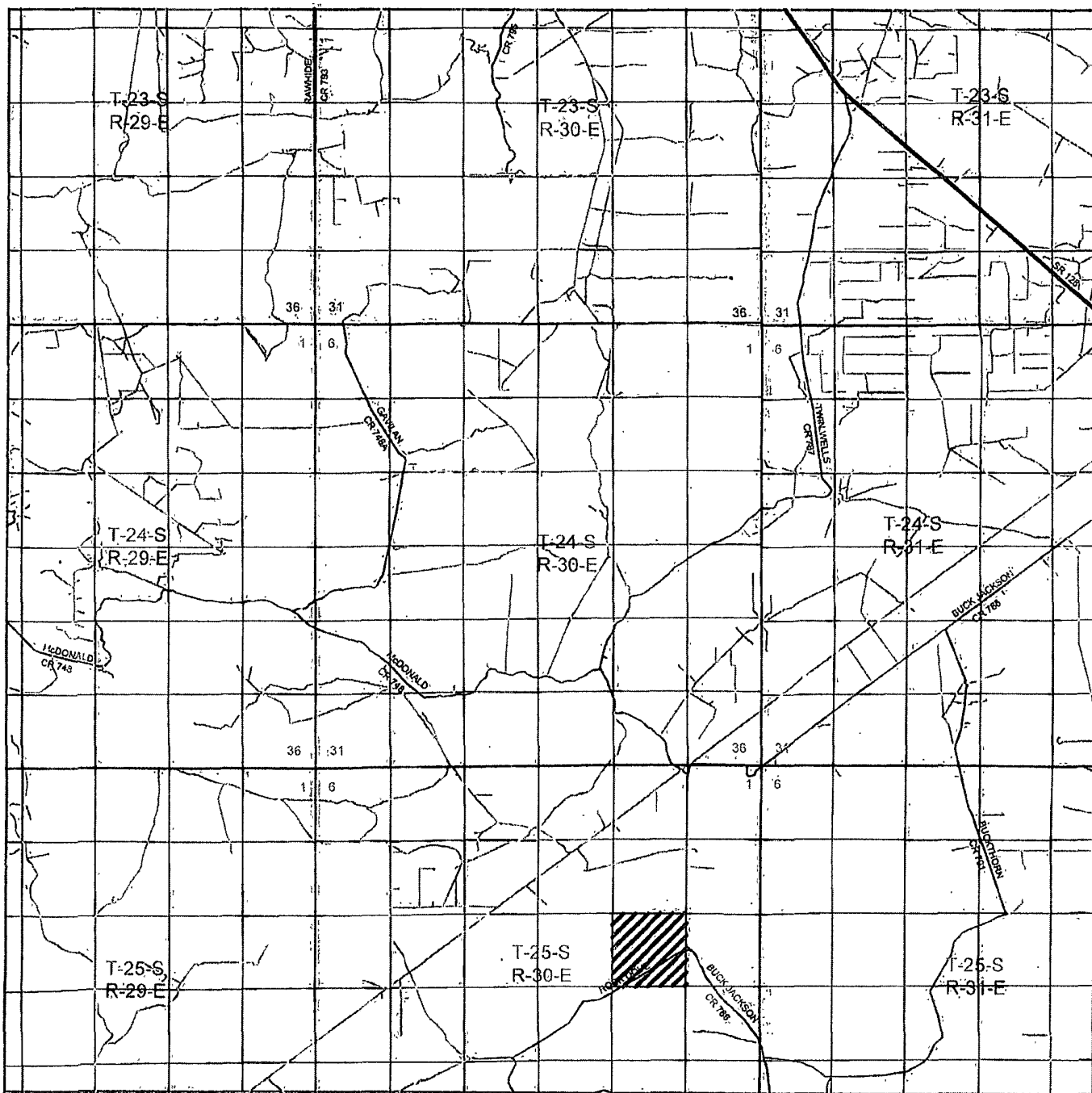
Survey Date: 07-11-2011

Scale: 1" = 2000'

Date: 07-15-2011

**CHESAPEAKE**  
**OPERATING CO.**

EXHIBIT A-3



PLU BIG SINKS 14 25 30 USA #1H

Located 300' FSL and 1980' FWL

Section 14, Township 25 South, Range 30 East,  
N.M.P.M., Eddy County, New Mexico.

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basinsurveys.com

W.O. Number: JMS 24811

Survey Date: 07-11-2011

Scale: 1" = 2 Miles

Date: 07-15-2011

**CHESAPEAKE**  
**OPERATING CO.**

EXHIBIT A-4

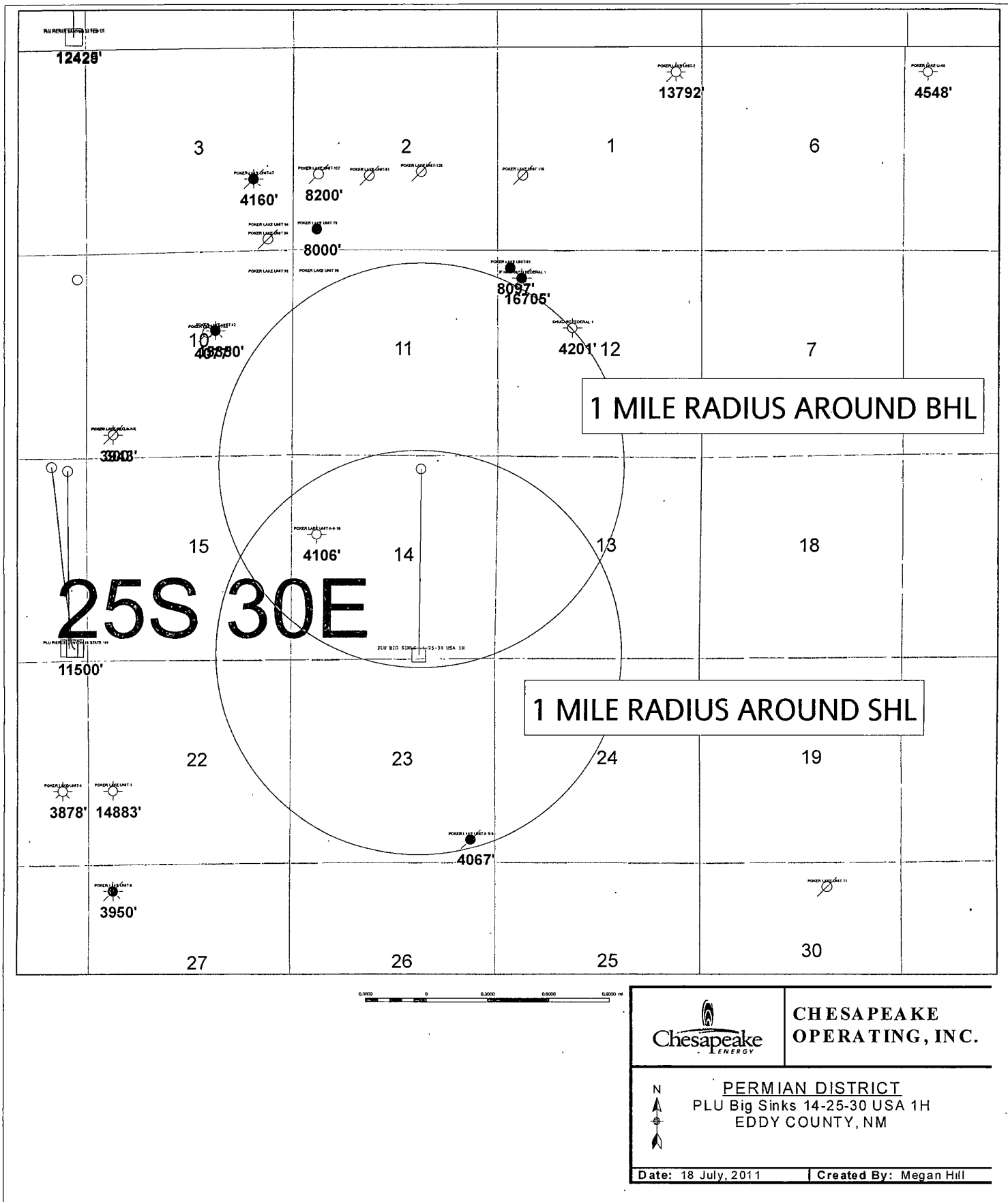


EXHIBIT B





PLU BIG SINKS 14 25 30 USA #1H

Located 300' FSL and 1980' FWL

Section 14, Township 25 South, Range 30 East,  
N.M.P.M., Eddy County, New Mexico.

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in the oilfield

P.O. Box 1786  
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Hobbs, New Mexico 88241  
(575) 393-7316 - Office  
(575) 392-2208 - Fax  
basinsurveys.com

W.O. Number: JMS 24811

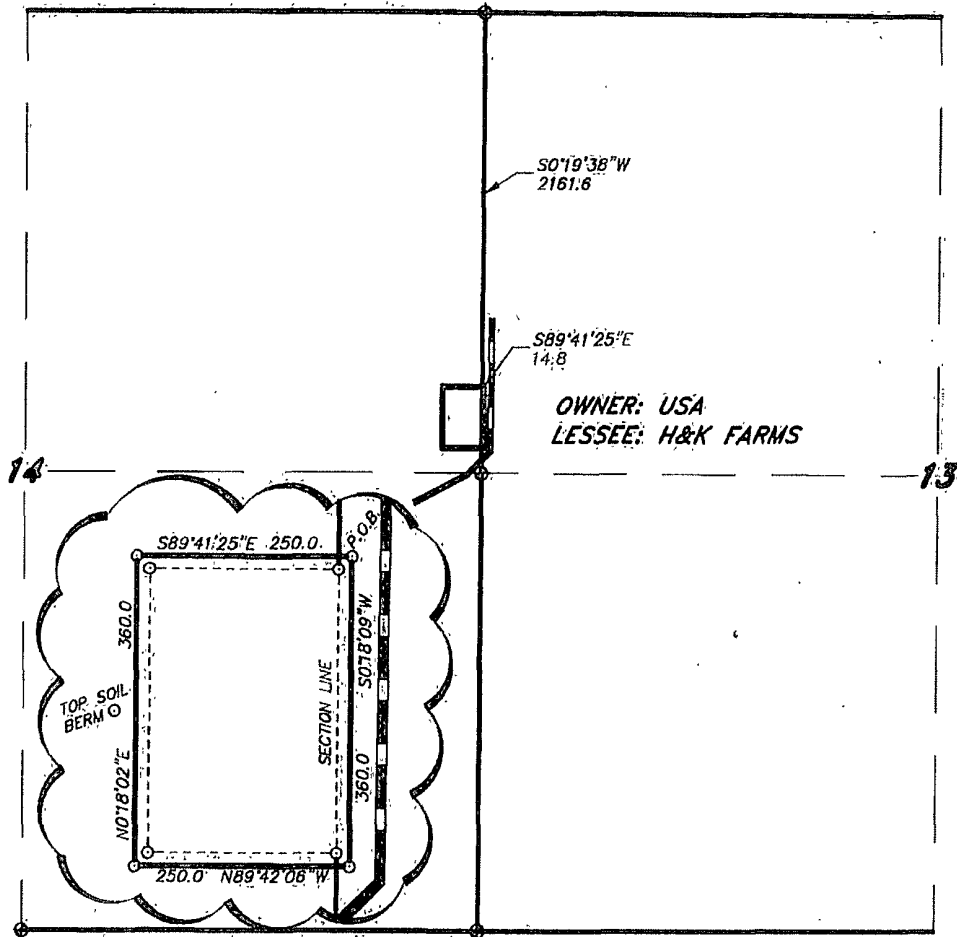
Scale: 1" = 2000'

YELLOW TINT - USA LAND  
BLUE TINT - STATE LAND  
NATURAL COLOR - FEE LAND

**CHESAPEAKE**  
**OPERATING CO.**

EXHIBIT A-5

SECTIONS 13&14, TOWNSHIP 25 SOUTH, RANGE 30 EAST, N.M.P.M.  
EDDY COUNTY, NEW MEXICO.

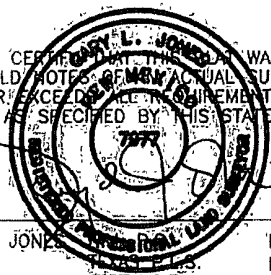


LEGAL DESCRIPTION

A TRACT OF LAND, LOCATED, IN SECTIONS 13&14, TOWNSHIP 25 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, WHICH LIES S:00°19'38\"W, 2161.6 FEET AND S:89°41'25\"E, 14.8 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 13; THENCE S:00°18'09\"W, 360.0 FEET; THENCE N:89°42'06\"W, 250.0 FEET; THENCE N:00°18'02\"E, 360.0 FEET; THENCE S:89°41'25\"E, 250.0 FEET TO THE POINT OF BEGINNING. SAID TRACT OF LAND CONTAINING 2.07 ACRES, MORE OR, LESS.

I HEREBY CERTIFY THAT THIS MAP WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.



GARY L. JONES

No. 7977  
No. 5074

**BASIN SURVEYS** P.O. BOX 1786—HOBBS, NEW MEXICO

W.D. Number: 24957

Drawn By: J. M. SMALL

Date: 07-18-2011

Disk: JMS. 24957

1000 0 1000 2000 FEET

**CHESAPEAKE OPERATING CO.**

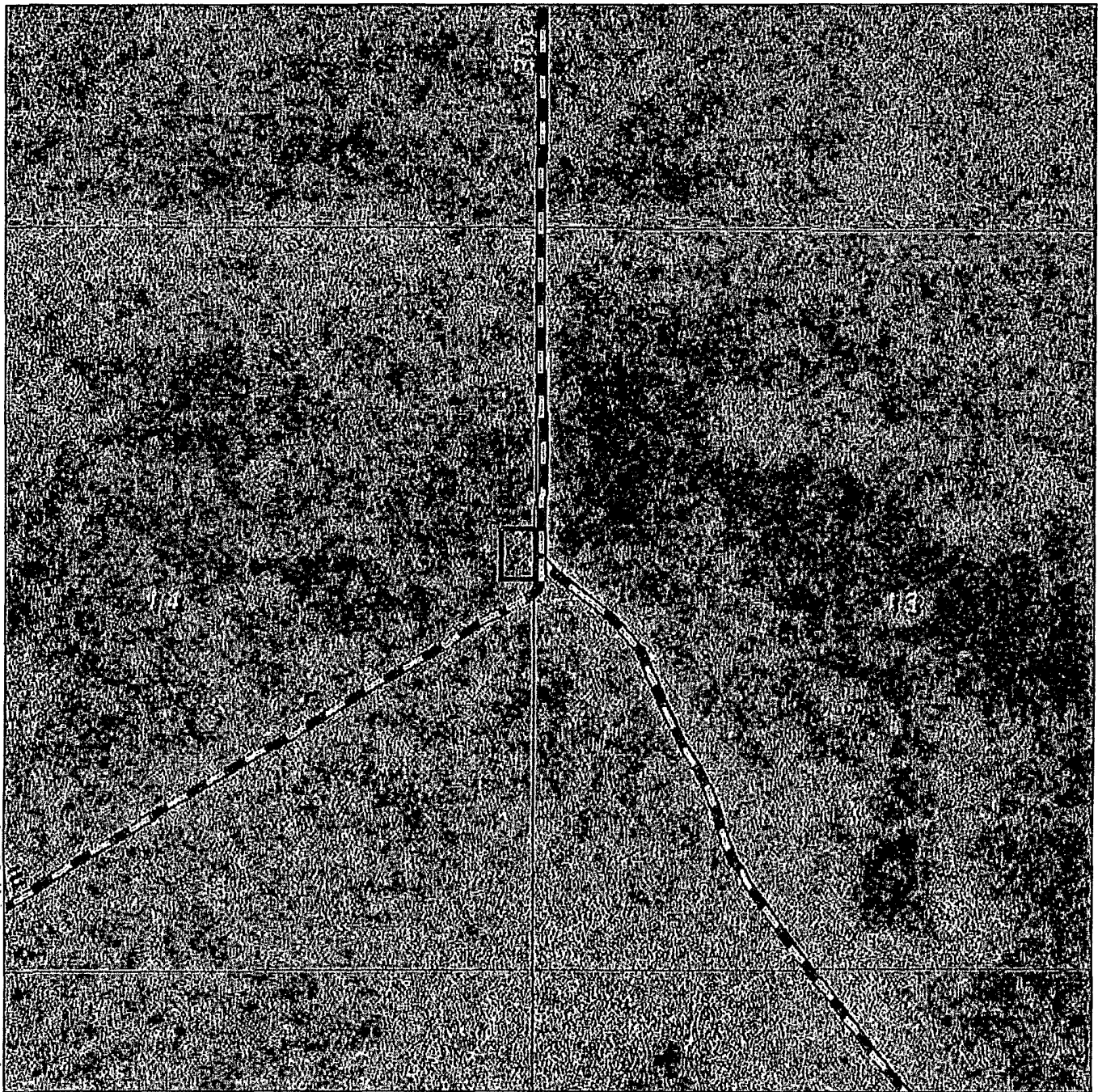
REF: FRAC TRACT, FOR PLU BIG SINKS 14 25 30 USA 1H

A TRACT OF LAND LOCATED ON USA LAND IN  
SECTIONS 13&14, TOWNSHIP 25 SOUTH, RANGE 30 EAST,  
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 07-11-2011

Sheet 1 of 1 Sheets

EXHIBIT E-1



FRAC TRACT FOR THE PLU BIG SINKS 14 25 30 USA #1  
 Section 13&14, Township 25 South, Range 30 East,  
 N.M.P.M., Eddy County, New Mexico.



focused on excellence  
 in the oilfield

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (575) 393-7316 - Office  
 (575) 392-2206 - Fax  
 basin-surveys.com

W.O. Number: 24957

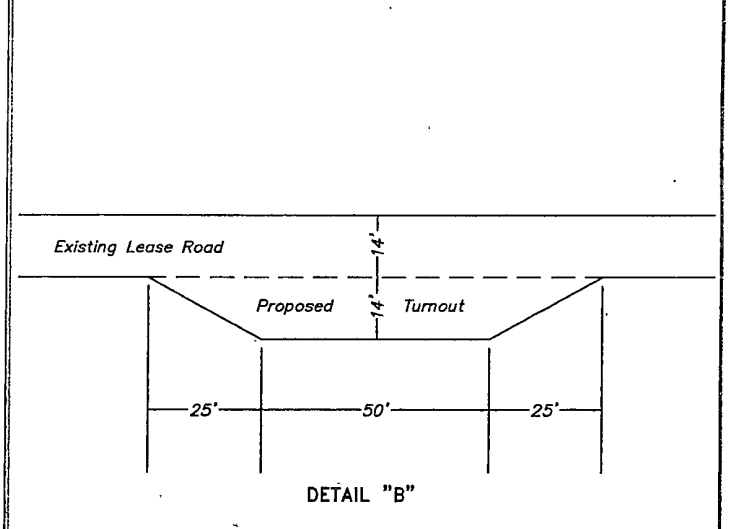
Survey Date: 07-11-2011

Scale: 1" = 2000'

Date: 07-18-2011

CHESAPEAKE  
 OPERATING CO.

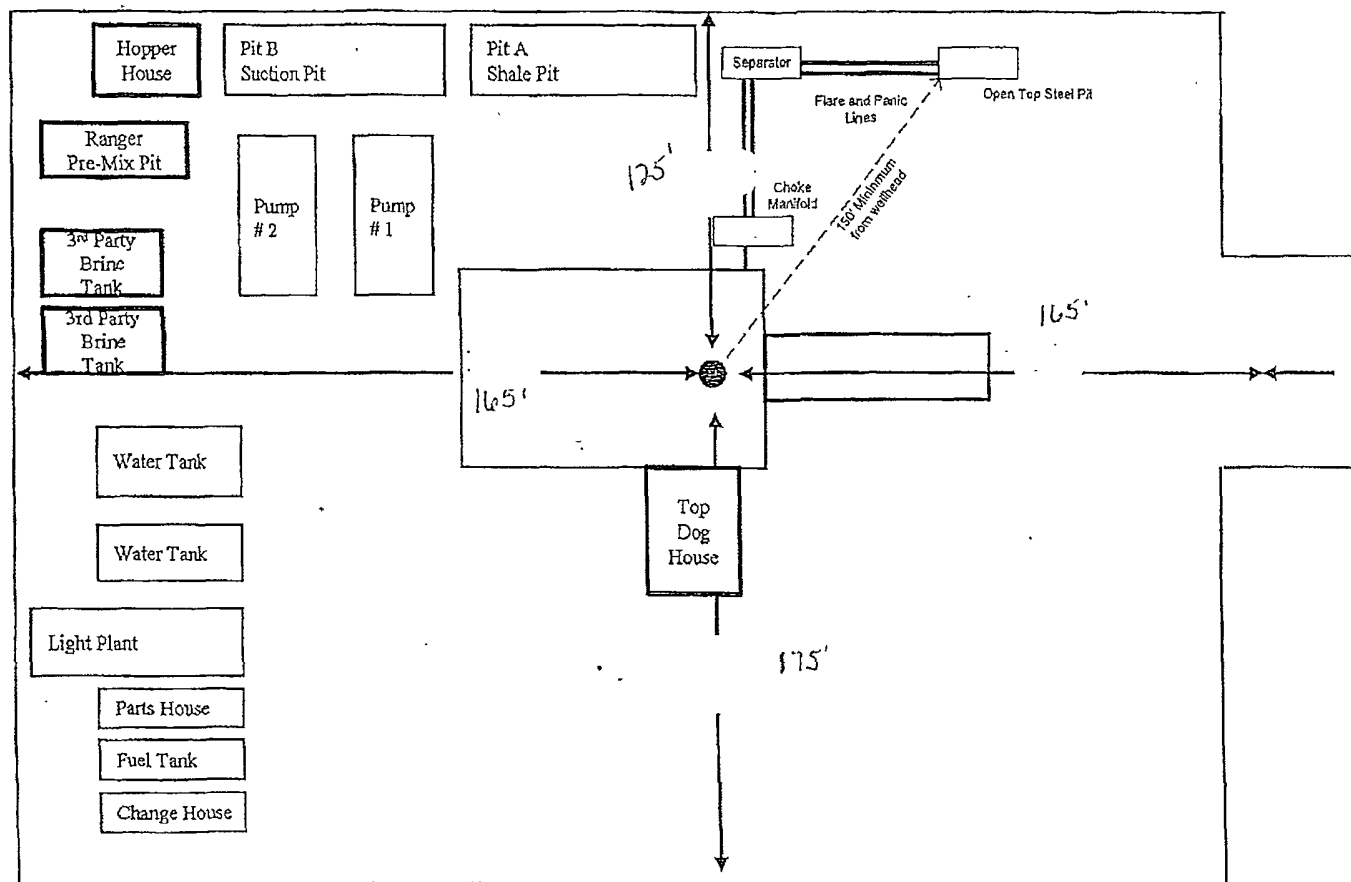
EXHIBIT E-2



CHESAPEAKE  
OPERATING CO.

EXHIBIT H-1

# RIG



Revised EXHIBIT D



# CHESAPEAKE OPERATING, INC.

PLU Big Sinks 14-25-30 USA 1H

Property # 639973

NE NW Section 14 - T25S - R30E

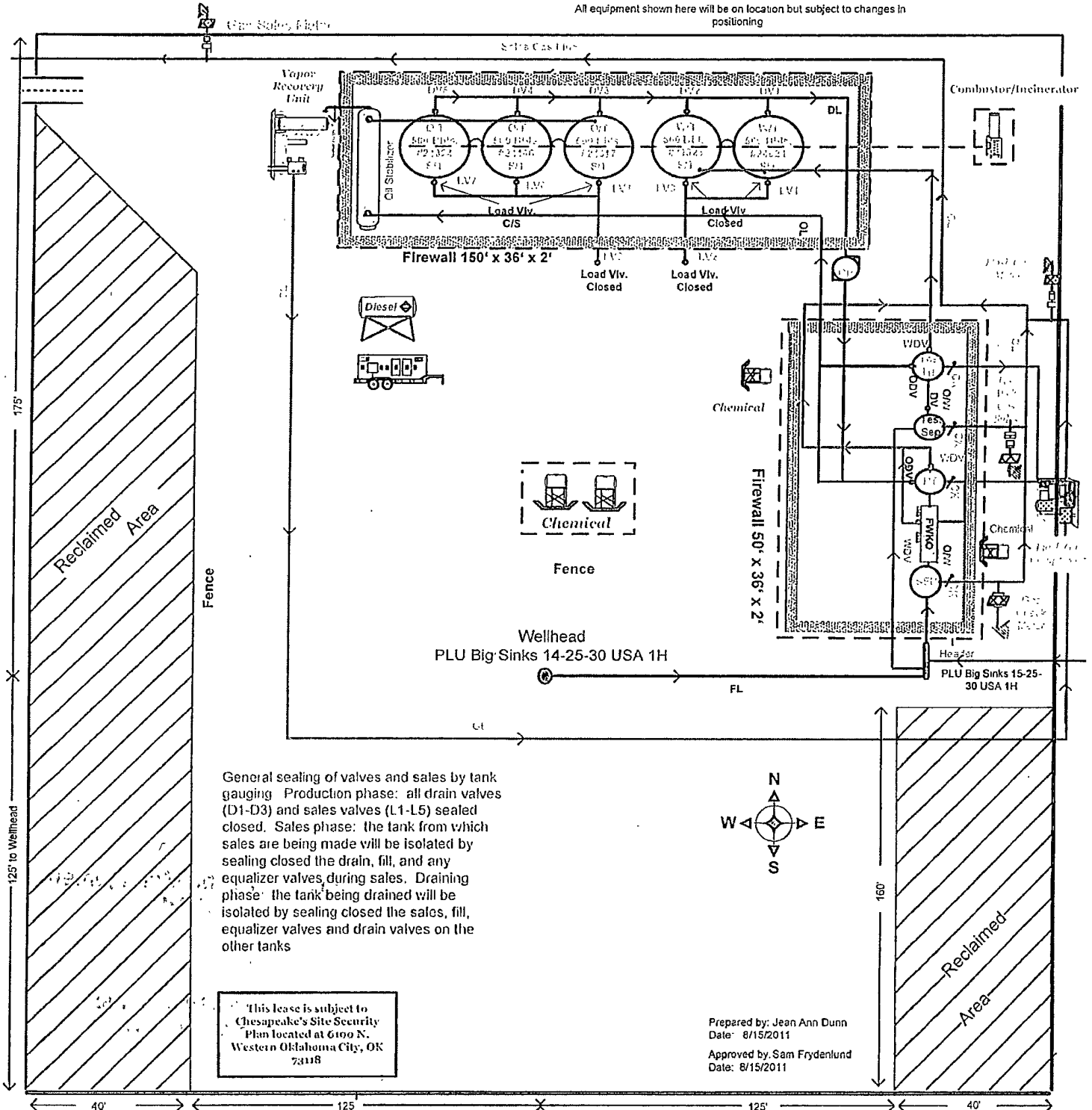
100 FSL & 1980 FWL

Lat.: 32.136756- Long.: -103.853394

Eddy County, New Mexico

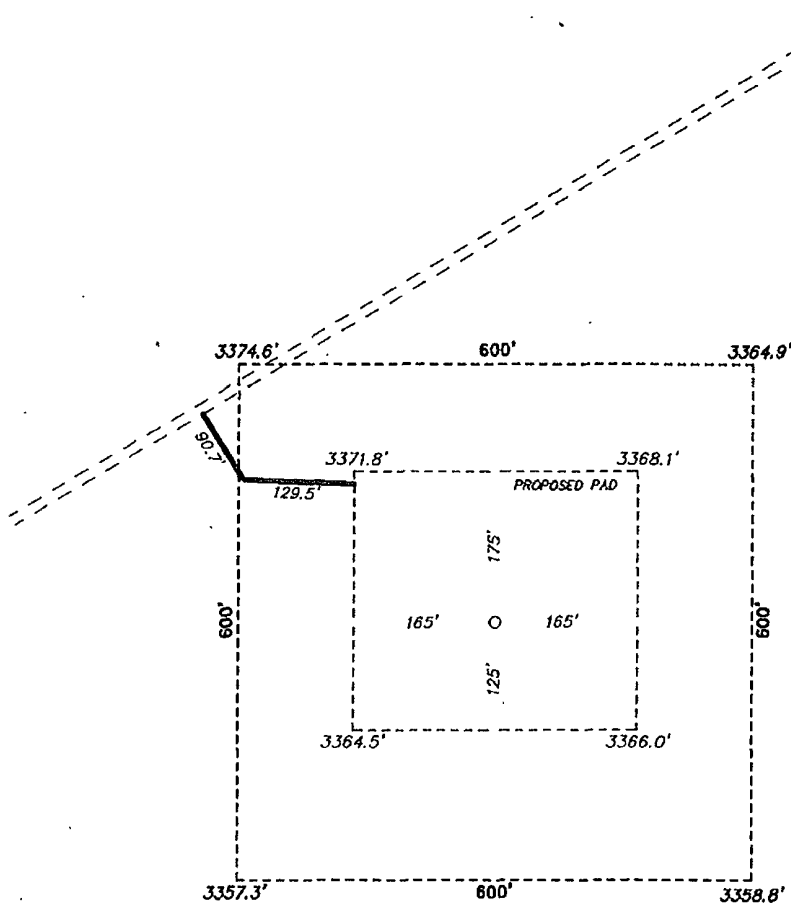
Drawing Not to Scale

All equipment shown here will be on location but subject to changes in positioning



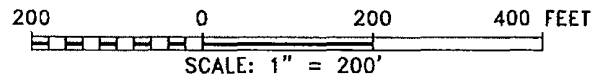
Revised EXHIBIT C.

SECTION 14, TOWNSHIP 25 SOUTH, RANGE 30 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



CHESAPEAKE OPERATING CO.  
BIG SINKS 14 25 30 USA #1H  
ELEV. - 3369'

Lat - N 32.12399766°  
Long - W 103.8539986°  
NMSPCE- N 409176.431  
E 689726.004  
(NAD-83)



Directions to Location:

FROM THE JUNCTION OF BUCK THORN AND BUCK JACKSON, GO WESTERLY TURNING NORTHERLY FOR 3.1 MILES TO LEASE ROAD (OLD ROCK DAISY), GO SOUTHWEST ON LEASE ROAD FOR 0.8 MILES TO PROPOSED LEASE ROAD.

**CHESAPEAKE OPERATING CO.**

REF. BIG SINKS 14 25 30 USA #1H / WELL PAD TOPO

THE BIG SINKS 14 25 30 USA #1H LOCATED 300'  
FROM THE SOUTH LINE AND 1980' FROM THE WEST LINE OF  
SECTION 14, TOWNSHIP 25 SOUTH, RANGE 30 EAST,  
N.M.P.M., EDDY COUNTY, NEW MEXICO.

**BASIN SURVEYS** P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 24811 Drawn By: J. SMALL

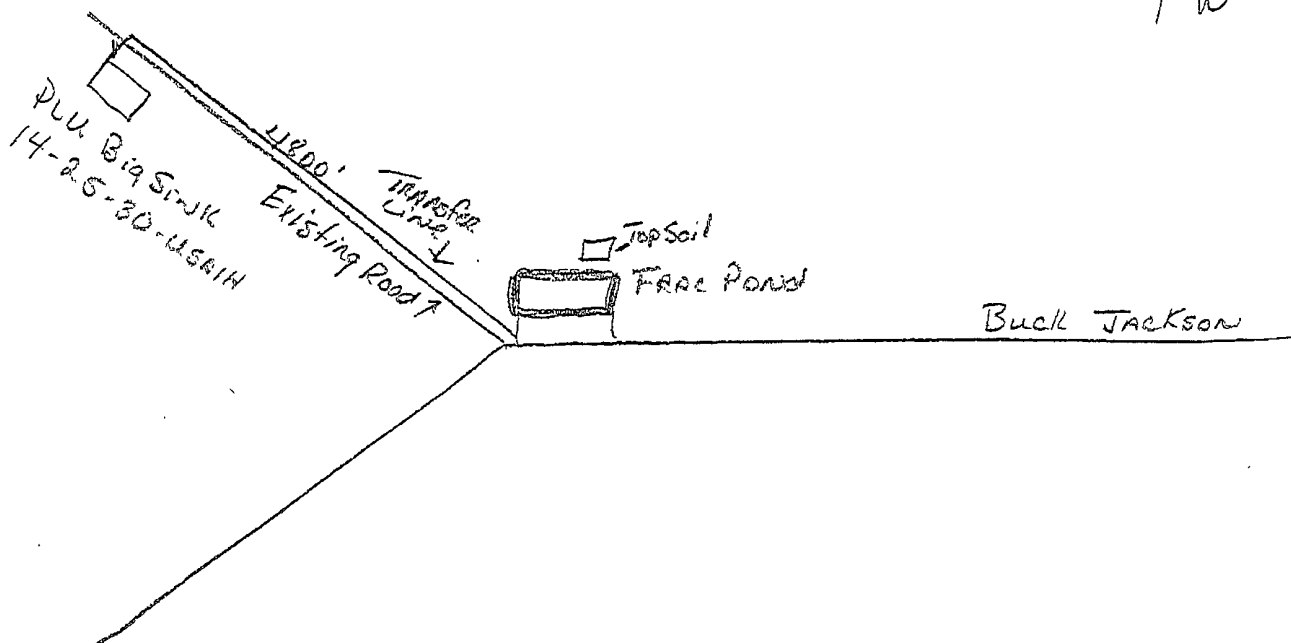
Date: 07-15-2011 Disk: JMS 24811

Survey Date: 07-11-2011

Sheet 1 of 1 Sheets

EXHIBIT A-2

PLU Big Sinks 14-25-30 USA 1H. FRAC Pond



Section: 5

D. FRAC Pond - 250' x 360'

Area - Trucks - 60' x 360'

E. Transfer Line - 8" x 4800' Aluminum pipe.

APPROVED FOR CONSTRUCTION