30-025-41098

**EOG RESOURCES, INC.**
**VACA 11 FED COM #1H**

HOBBS OCD
APR 11 2013
RECEIVED

# SURFACE USE PLAN OF OPERATION

**SHL: 170' FSL & 1200' FWL, Unit M, Section 11, T25S-R33E, N.M.P.M., Lea Co, NM**
**BHL: 230' FSL & 1200' FWL, Unit M, Section 14, T25S-R33E, N.M.P.M., Lea Co, NM**

1. EXISTING ROADS:

   a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. The well was staked by Michael B. Brown of Topographic Land Surveyors, N.M.P.S. No. 18329.
   b. All roads into the location are depicted on Exhibits 2 & 2a.
   c. Directions to Location: Beginning in Jal at the intersection of State Hwy 18 and State Hwy 128, go west on State Hwy 128 for 22.0 miles, turn left on Vaca Lane and head south for 4.4 miles, then turn left on EOG Lease Road and head southeast for 1.8 miles, then turn right on lease road and head west for 0.5 miles, then right on lease road for 0.7 miles to northwest, the right onto the new lease road for 241 feet to the southwest corner of the location.

2. NEW OR RECONSTRUCTED ACCESS ROAD:

   a. The well site layout, Exhibit 2a shows the layout. The location will be accessed using a new lease road heading north off of the existing lease road for the Vaca 14 wells and will enter the ~~SW~~ SE corner of the well pad. This new lease road will travel a distance of 228 feet.
   b. The maximum width of the lease road is ~~20~~ 14'. It is crowned and consists of 6" of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent soil erosion.
   c. Surface material is native caliche. This material will be obtained, as needed for maintenance, from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
   d. No cattleguards or gates will be required.

3. LOCATION OF EXISTING WELLS:

   Exhibit 3 shows all existing wells within a one-mile radius of this well.

4. LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES:

   a. In the event the well is found to be productive, the production equipment will be located on site. Please refer to the attached production facility diagram. The production of this well will be measured for sales on lease.



APR 15 2013

b. Applicant will lay a 4" poly surface low pressure gas sales pipeline, a distance of 228 feet south, that shall tie into an existing 4" poly surface low pressure gas sales pipeline located on the Vaca 14 lease road to transport gas to a SUG sales point located east of the Vaca 14 Federal Lease. Applicant shall lay two surface 4" poly low pressure SWD pipelines, also a distance of 228 feet south, that will be utilized to handle produced water. These SWD lines will tie into two existing SWD lines that are located along the Vaca 14 lease road. A 4" poly surface pipeline will be laid a distance of 228 feet north, and will be used as a gas lift line which will originate from the Vaca 14 Fed #6H. At this time applicant shall have its oil trucked from the Vaca 11 Fed Com #1H location. Shell will be the oil purchaser and Flint will be the oil transport company. All pipelines described above are depicted on Exhibit 5.
c. Electricity is available on the Vaca 14 Fed #5H location. A pole will be installed from the existing line and will travel 263 feet north to service the electricity needs on the Vaca 11 Fed Com #1H location.
d. Refer to b above.
e. If the well is productive, rehabilitation plans are as follows:
   i. The location shall be reduced on the west, south and north sides of the location as depicted by the Location Layout. The interim reclamation will be performed when optimal conditions exist during the growing season as per the interim reclamation guidelines of the BLM.
   ii. The original topsoil, which will be stored to the north of the well pad, will be returned to the location. The location will be contoured as close as possible to match the original topography.

5. LOCATION AND TYPE OF WATER SUPPLY:

This location will be drilled using a combination of water mud systems (outlined in the drilling program). The water will be obtained from commercial water stations in the area and hauled to location by poly pipelines using existing and proposed roads shown in Exhibit 2 & 2a. In these cases where a poly pipeline is used to transport water for drilling purposes, proper authorizations will be secured. If poly pipeline is used to transport fresh water to the location, proper authorization will be secured by the contractor.

6. CONSTRUCTION MATERIALS

Obtaining Mineral Material – Caliche utilized for the drilling pad and proposed access road will be obtained either from an existing approved pit, or by benching into a hill which will allow the pad to level with existing caliche from cut, or extracted by "flipping" the location. A caliche permit shall be obtained from the BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "flipping" the location is as follows:

a. An adequate amount of topsoil for final reclamation will be stripped from the well location surface and stockpiled along the edge of the location as shown in the well site layout.
b. An area will be used within the proposed well site to excavate caliche.
c. The subsoil will then be removed and stockpiled within the footages of the well location.
d. Once caliche/mineral material is found, the material will be excavated and stockpiled within the footages of the well location.
e. The subsoil will then be placed back in the excavated hole.
f. Caliche/mineral material will then be placed over the entire pad and/or road to be compacted.

In the event that caliche is not found on site, a permit will be acquired if caliche is obtained from a BLM approved caliche pit

7. METHODS OF HANDLING WASTE MATERIALS

a. Drill cuttings shall be disposed of in a steel cuttings bin (catch tanks) on the drilling pad (behind the steel mud tanks). The bin and cuttings shall be hauled to an approved cuttings dumpsite.
   At the site, the cuttings shall be removed from the bin & the bin shall be returned to the drilling site for reuse.
b. All trash, junk, and other waste material shall be contained in trash cages or trash bins to prevent scattering. When a job is completed, all contents shall be removed and disposed of in an approved landfill.
c. The supplier, including broken sacks, shall pick up salts remaining after completion of well.
d. If necessary, a porto-john shall be provided for the rig crews. This equipment shall be properly maintained during the drilling and completion operations and shall be removed when all operations are complete.
e. Remaining drilling fluids shall be hauled off by transports to a state approved disposal site. Water produced during completion shall be put in storage tanks and disposed of in a state approved disposal. Oil and condensate produced shall be put in a storage tank and sold.
f. Disposal of fluids to be transported by the following companies:
   i. RGB TRUCKING
   ii. LOBO TRUCKING
   iii. I & W TRUCKING
   iv. CRANE HOT OIL & TRANSPORT
   v. JWS
   vi. QUALITY TRUCKING

8. ANCILLARY FACILITIES:

a. No airstrip, campsite, or other facilities will be built.

9. WELL SITE LAYOUT:

a. Exhibit 4 shows the proposed location of sump pits, living facilities and well site layout with dimensions of the pad layout.
b. Mud pits in the active circulating system shall be steel pits and the catch tanks shall be steel tanks set in shallow sumps behind the steel circulating tanks and sumps.
c. The area where the catch tanks are placed shall be reclaimed and the surface vegetation restored to as or near the same condition that existed prior to operations.

10. PLANS FOR SURFACE RECLAMATION:

a. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche shall be removed from the pad and transported to the original caliche pit or used for other drilling locations and roads. The road shall be reclaimed and the surface vegetation restored to as or near the same condition that existed prior to operations. The original topsoil shall again be returned to the pad and contoured, as close as possible, to the original topography.
b. After the well is plugged and abandoned, the location and road shall be reclaimed and the surface vegetation restored to as or near the same condition that existed prior to operations.
c. Caliche from areas of the pad site not required for operations shall be reclaimed. The original topsoil shall be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad shall be contoured, as close as possible, to match the original topography.

11. SURFACE OWNERSHIP

The surface is owned by the United States of America. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas.

12. OTHER INFORMATION:

a. The area surrounding the well is mesquite and tar brush. The topsoil is sandy in nature. The vegetation is moderately sparse with native prairie grass, cactus and shinnery oak. No wildlife was observed but it is likely that deer, rabbits, coyotes, birds and rodents transverse the area.
b. There are not dwellings within 0.75 miles of location.
c. Applicant will participate in the MOA.

13. BOND COVERAGE:

a. Bond Coverage is Nationwide; Bond No. NM 2308

COMPANY REPRESENTATIVES:

Representatives responsible for ensuring compliance of the surface use plan are listed below:

Land and Right of Way

Mr. Roger Motley
Senior Lease Operations ROW Representative
EOG Resources, Inc.
P.O. Box 2267
Midland, TX 79702
(432) 686-3642 Office
(361) 537-8281 Cell

Drilling

Mr. Steve Munsell
Drilling Engineer
EOG Resources, Inc.
P.O. Box 2267
Midland, TX 79702
(432) 686-3609 Office
(432) 894-1256 Cell

Operations

Mr. Howard Kemp
Production Manager
EOG Resources, Inc
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Midland, TX 79702
(432) 686-3704 Office
(432) 634-1001 Cell

Regulatory

Mr. Stan Wagner
Regulatory Analyst
EOG Resources, Inc.
P.O. Box 2267
Midland, TX 79702
(432) 686-3689 Office

# OPERATOR CERTIFICATION

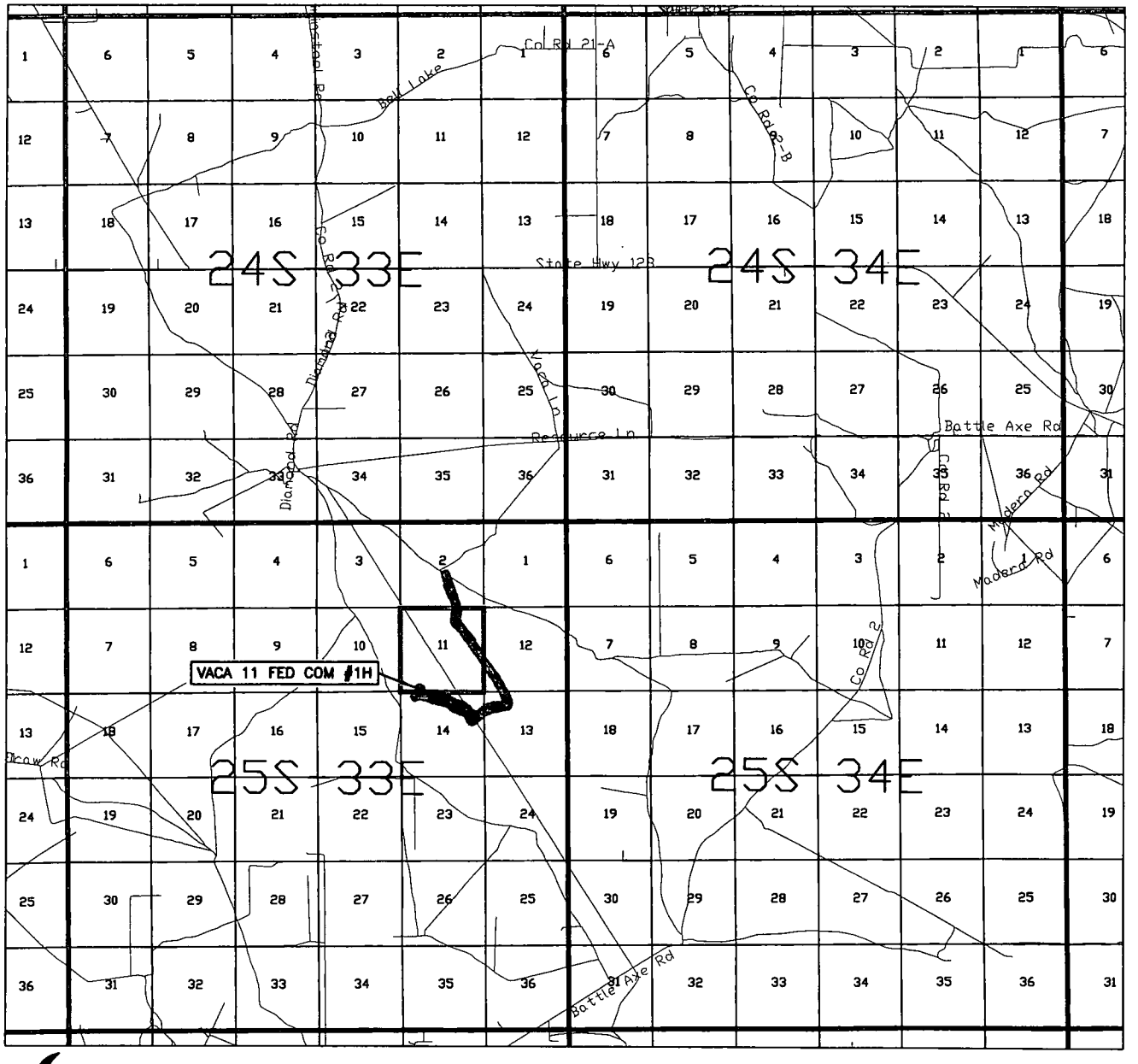
I certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal Laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true, and correct; and that the work associated with the operations proposed herein 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 false statements. Executed this 8th day of February, 2013.

Name: Roger Motley
Position: Sr. Lease Operations ROW Representative
Address: P.O. Box 2267, Midland, TX 79705
Telephone: (432) 686-3642
Email: roger_motley@eogresources.com

Signed _____

EXHIBIT 2

# VICINITY MAP




**eog resources, inc.**

**LEASE NAME & WELL NO.:** VACA 11 FED COM #1H

**SECTION** 11 **TWP** 25-S **RGE** 33-E **SURVEY** N.M.P.M.
**COUNTY** LEA **STATE** NM
**DESCRIPTION** 170' FSL & 1200' FWL

**DISTANCE & DIRECTION** FROM INT. OF NM-18 N & NM-128, GO WEST ON NM-128 W ±22.0 MILES, THENCE SOUTH (LEFT) ON VACA LN. ±4.4 MILES, THENCE SOUTHEAST (LEFT) ON LEASE RD. ±1.8 MILES, THENCE WEST (RIGHT) ON LEASE RD. ±0.5 MILES, THENCE NORTHWEST (RIGHT) ±0.7 MILES, TO A POINT ±241 FEET SOUTH OF THE LOCATION.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET.

-N-

SCALE: 1" = 10000'

0' 5000' 10000'


**TOPOGRAPHIC**

*SURVEYING • MAPPING • GIS • GPS*

2903 NORTH BIG SPRING * MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 * FAX (432) 682-1743
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TELEPHONE: (817) 744-7512 * FAX (817) 744-7548
2225 PERRYTON PARKWAY * PAMPA, TEXAS 79065
TELEPHONE: (806) 665-7218 * FAX (806) 665-7210
WWW.TOPOGRAPHIC.COM

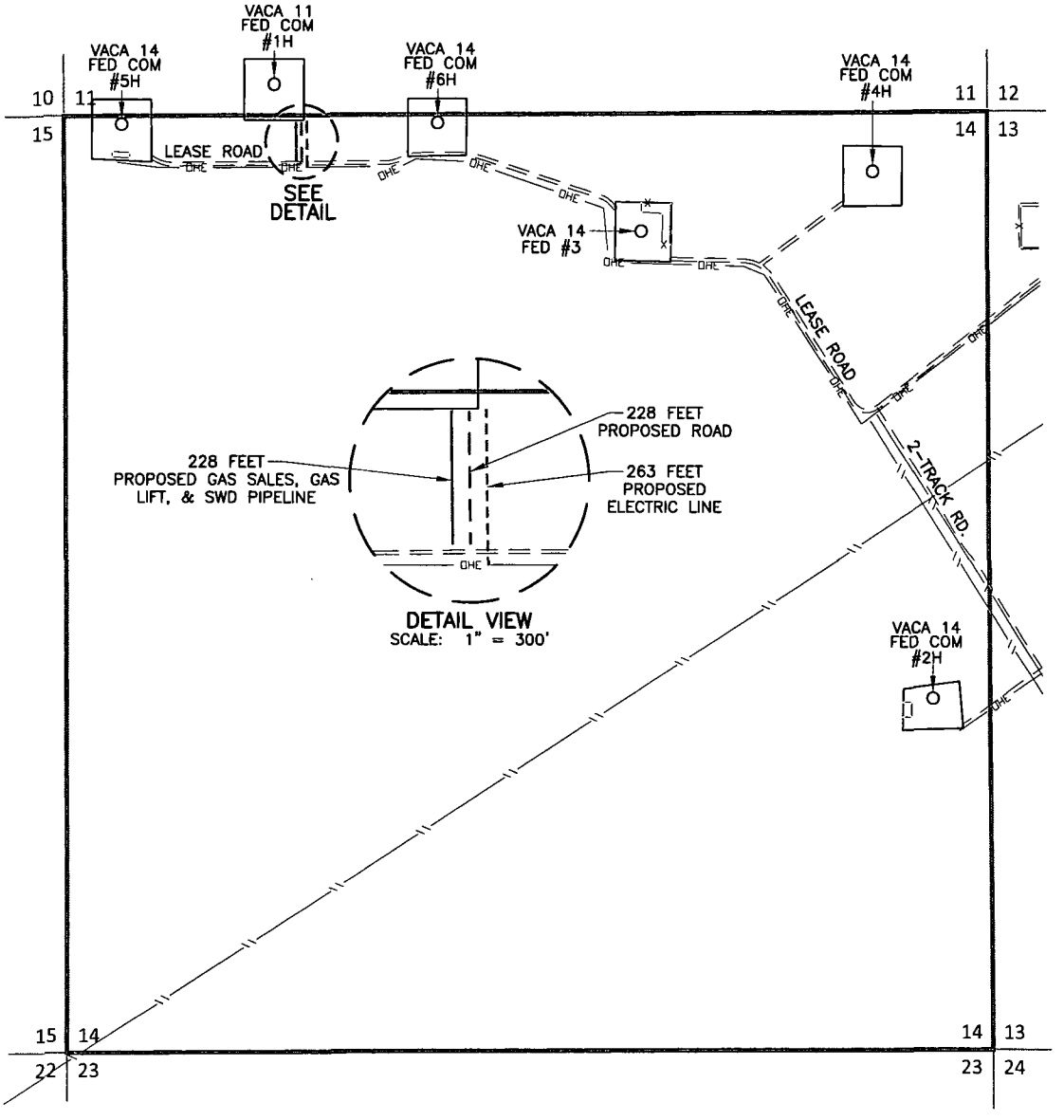
EXHIBIT 2a

SCALE 1" = 1000'
0' 500' 1000'

# SKETCH

***SECTION 14, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.***
***LEA COUNTY, NEW MEXICO***

N



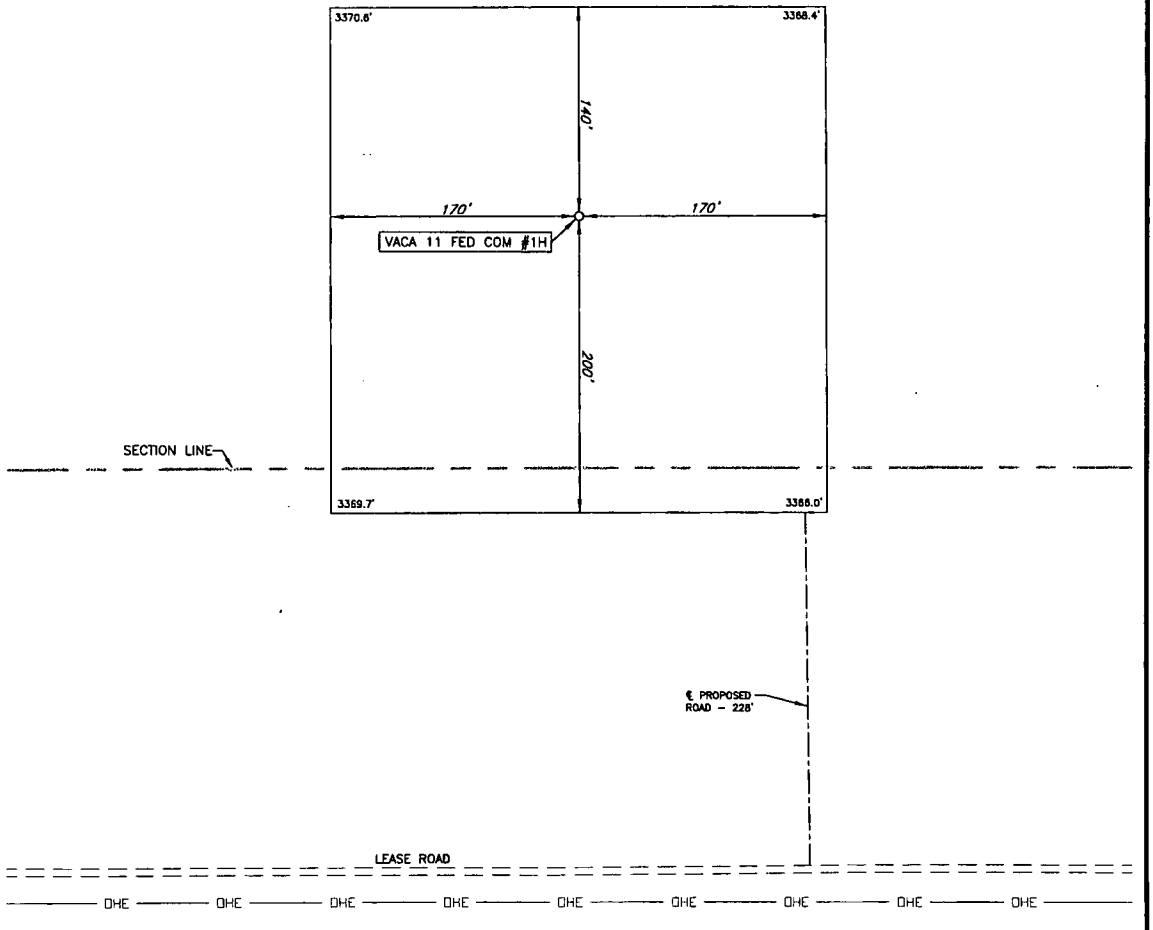

**eog resources, inc.**

| VACA 14 FED COM UTILITIES SKETCH | REVISION: | |
|---|---|---|
| | | |
| DATE: FEBRUARY 7, 2013 | | |
| FILE: SK_VACA14FED_UTILITIES | | |
| DRAWN BY: S.V. | | |
| SHEET : 1 OF 1 | | |

# eog resources, inc.

***SECTION 11, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.***
***LEA COUNTY, NEW MEXICO***

DETAIL VIEW
SCALE: 1" = 100'




**LEASE NAME & WELL NO.:** VACA 11 FED COM #1H
**#1H LATITUDE** N 32.1381465 **#1H LONGITUDE** W 103.5473055

LEGEND

- ROAD WAY
- SECTION LINE
- OHE — EXISTING ELECTRIC LINE

N

SCALE: 1" = 100'
0' 50' 100'

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ORIGINAL DOCUMENT SIZE: 8.5" X 14"


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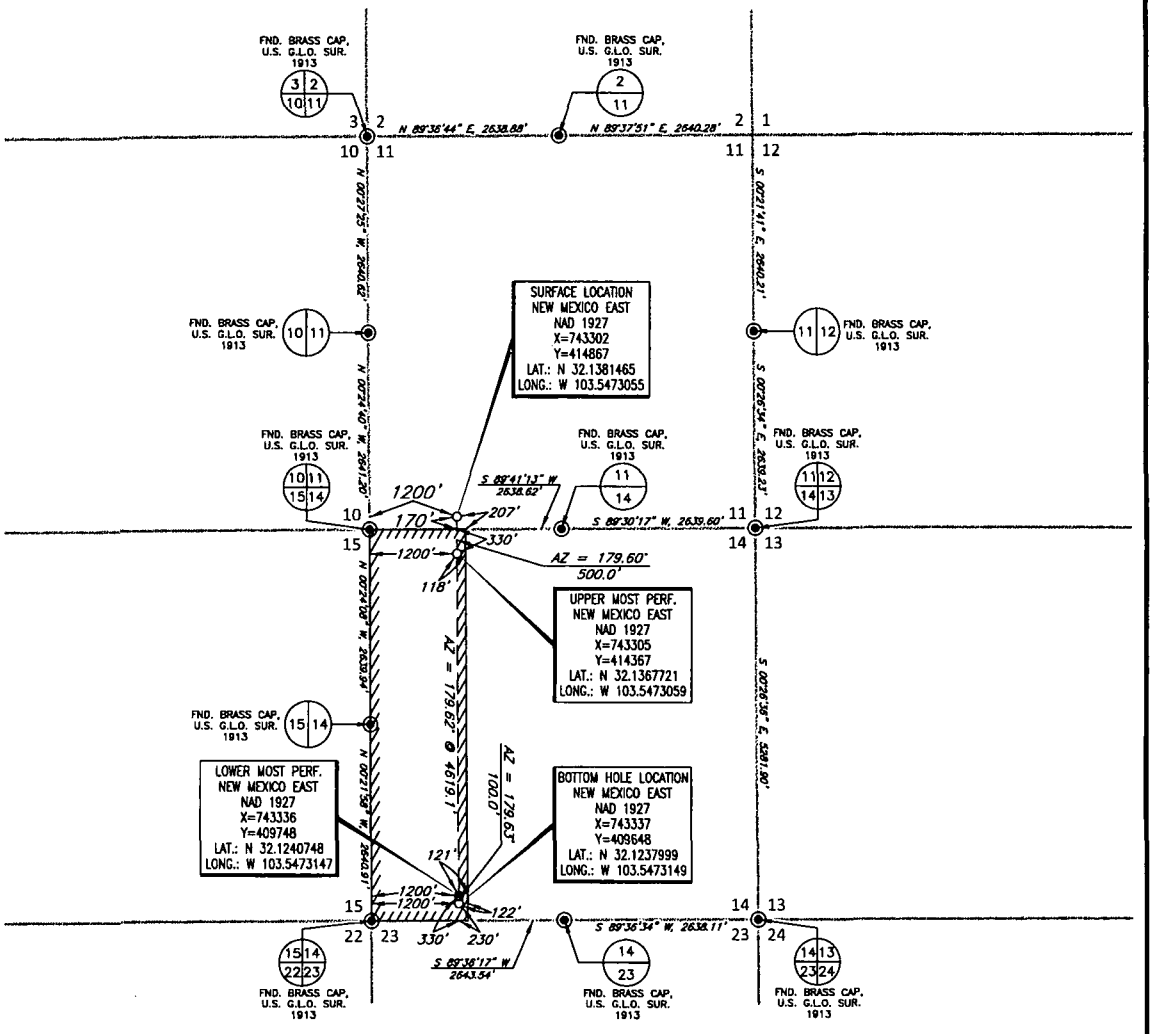
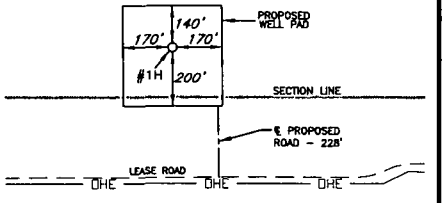
***LEA COUNTY, NEW MEXICO***




SCALE: 1" = 2000'
0' 1000' 2000'

DETAIL VIEW
SCALE: 1" = 500'

**LEASE NAME & WELL NO.:** VACA 11 FED COM #1H

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**COUNTY** LEA **STATE** NM
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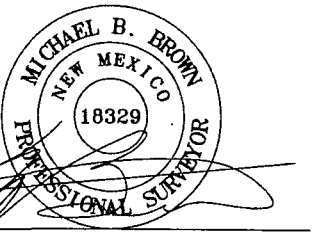


Michael Blake Brown, P.S. No. 18329
FEBRUARY 7, 2013


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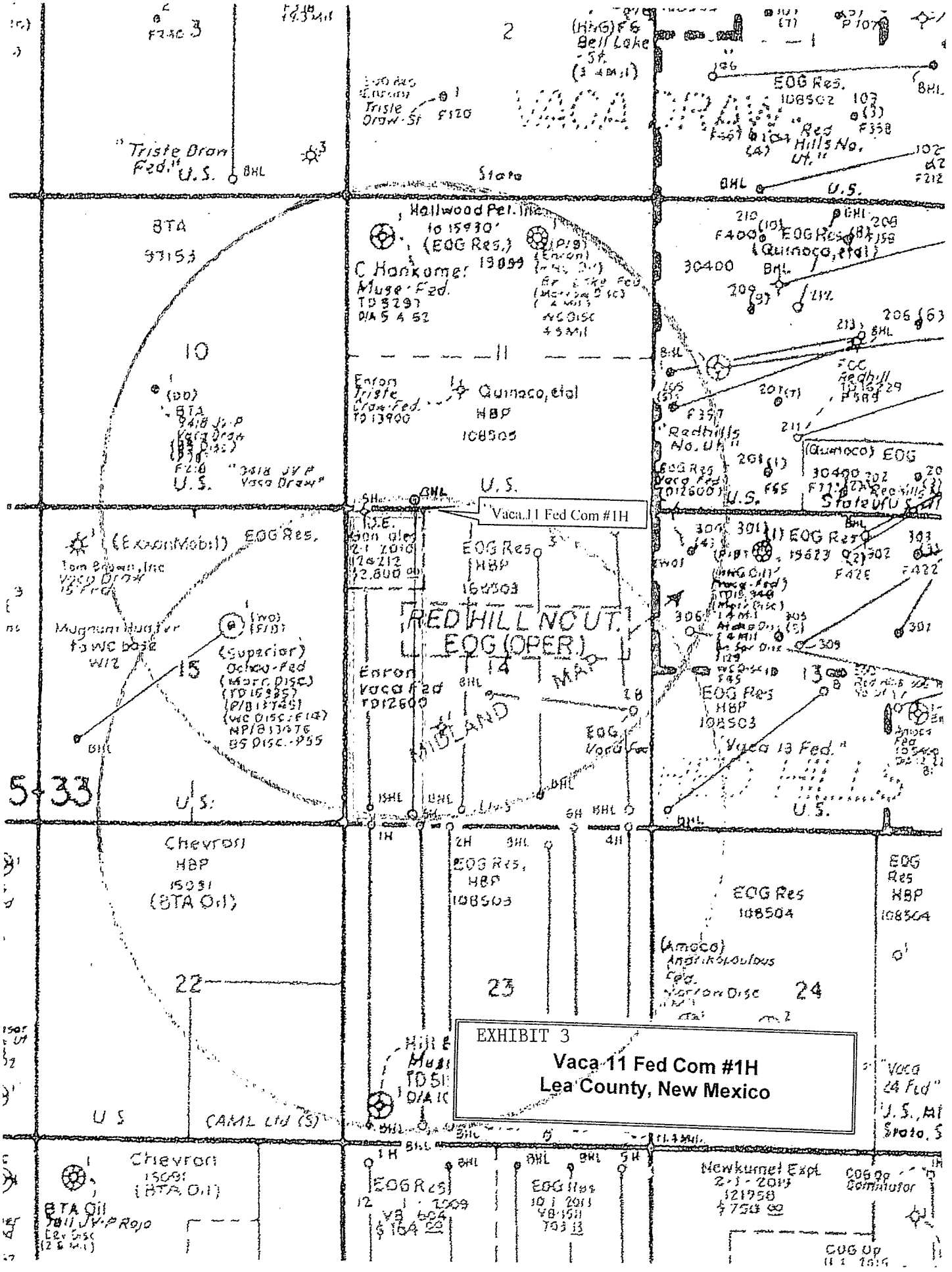
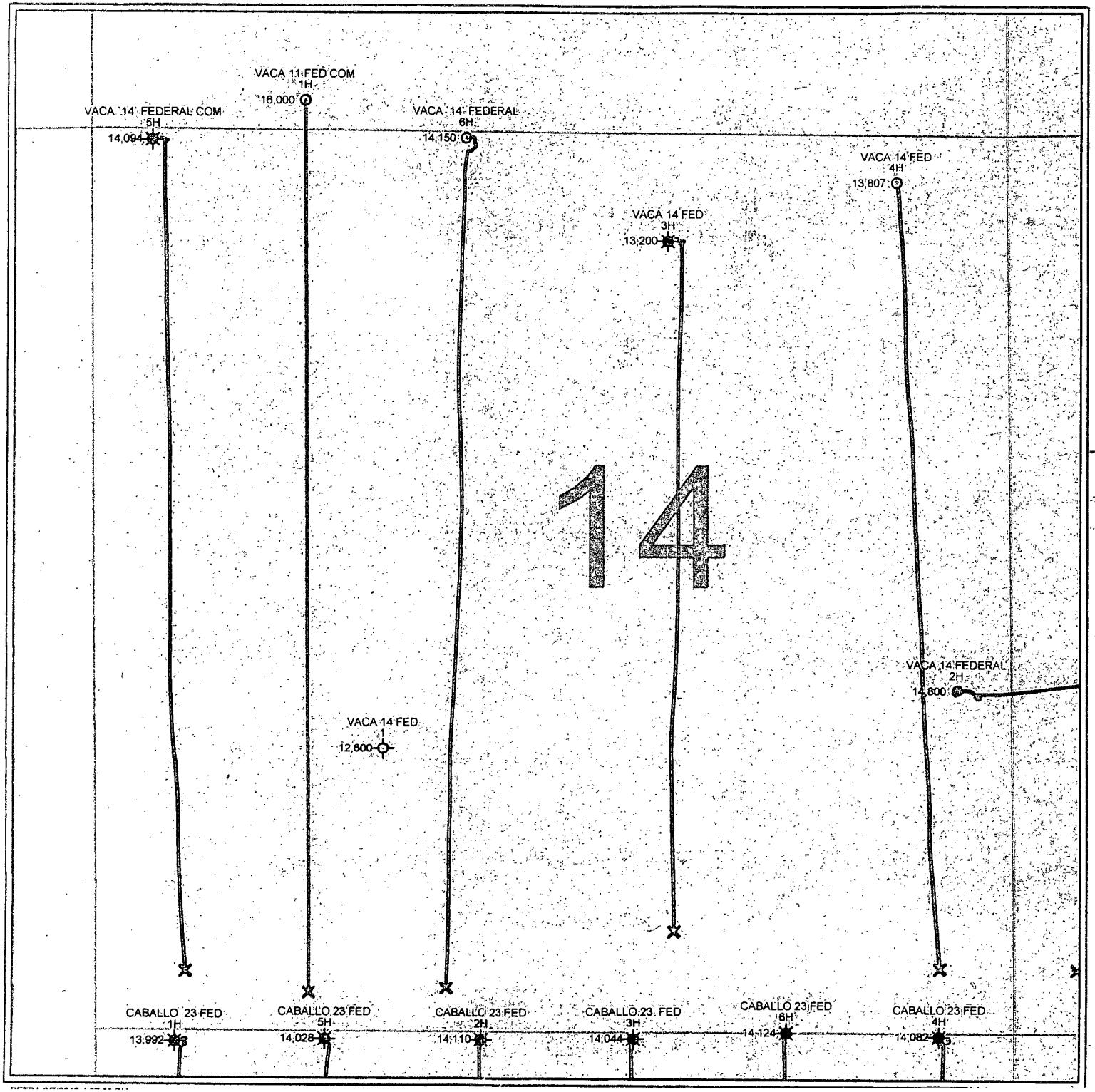

Vaca 11 Fed Com #1H
RED HILL NOUT
EOG (OPER.)
MAP
MIDLAND
EXHIBIT 3
Vaca 11 Fed Com #1H
Lea County, New Mexico




eog resources

New Mexico and Partial Texas

# VACA 11 AREA

## SECTION 11

## ALL WELLS

0 800

FEET

POSTED WELL DATA

Well Name
Well Number

WELL - TD

OVERLAY
File: DRILLING ACTIVITY_TCJ.OVL

ACRG-EOG LSE-SEPT 2012
SECTION LINE GRAY
COUNTY BOUNDARY
STATE BOUNDARY

REMARKS

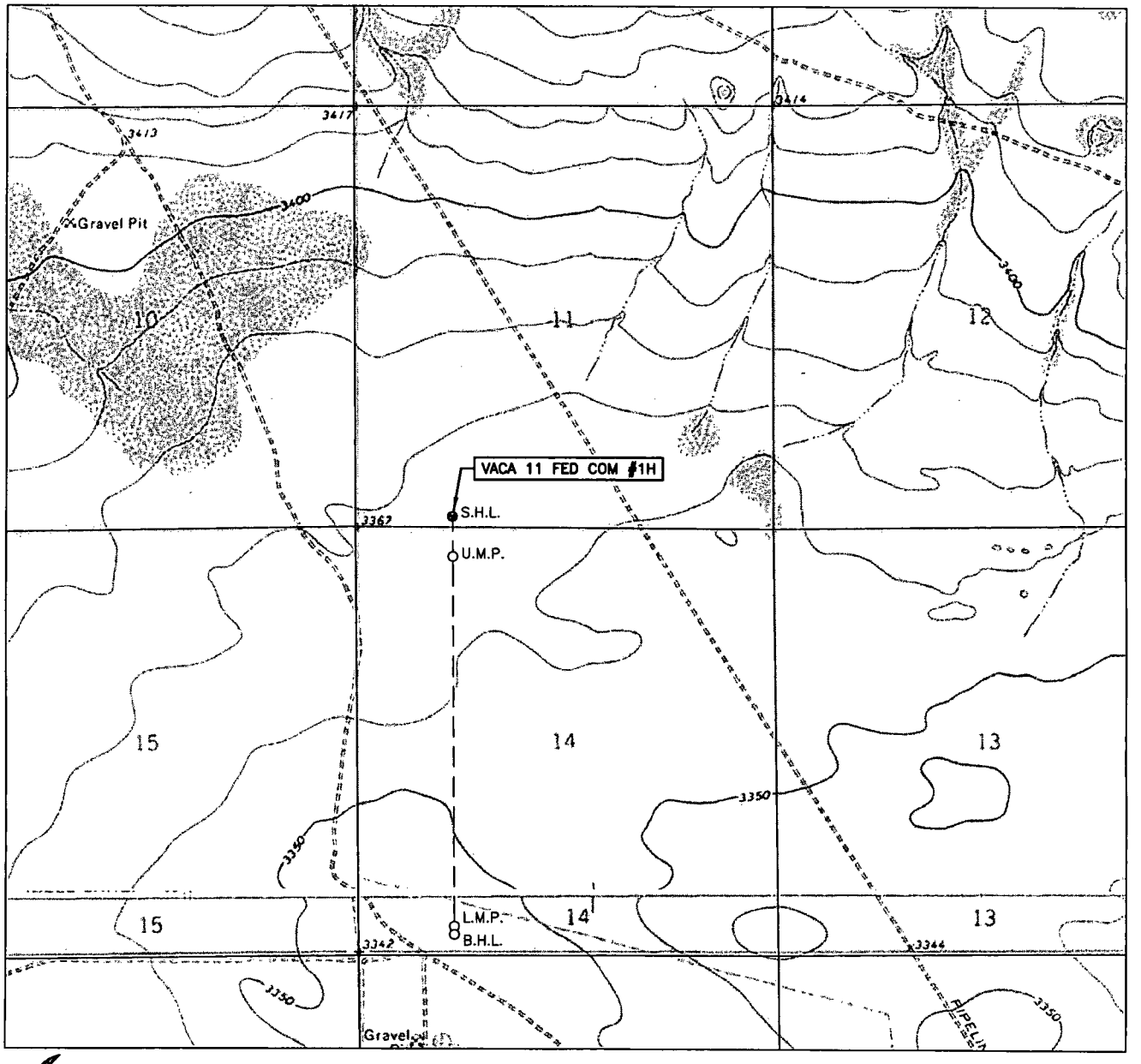
OVERLAY:
T:\PetraProjects\EDDYLEA\OVERLAY\DRILLING ACTIVITY_TCJ.OVL

MAP SETTINGS:
T:\PP\EDDYLEA\MAP_SETTINGS\TJCOUNTY MAPS\LEA COVRED HILLS AREA\LEONARD SHALE PLAY\MUNSELL MAPS\VACA 11 AREA - ALL WELLS (SECTION 11).MAP

By: T.Jimenez

February 7, 2013

# LOCATION & ELEVATION VERIFICATION MAP




**eog resources, inc.**

**LEASE NAME & WELL NO.:** VACA 11 FED COM #1H

**SECTION** 11 **TWP** 25-S **RGE** 33-E **SURVEY** N.M.P.M.
**COUNTY** LEA **STATE** NM **ELEVATION** 3369'
**DESCRIPTION** 170' FSL & 1200' FWL

**LATITUDE** N 32.1381465 **LONGITUDE** W 103.5473055

-N-

SCALE: 1" = 2000'
0' 1000' 2000'

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**EOG RESOURCES, INC.**
**VACA 11 FED COM NO. 1H**

## 1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

## 2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

| | |
|---|---|
| Rustler | 1,120' |
| Top of Salt | 1,470' |
| Base of Salt | 4,800' |
| Lamar | 5,040' |
| Bell Canyon | 5,070' |
| Cherry Canyon | 6,155' |
| Brushy Canyon | 7,715' |
| Bone Spring Lime | 9,220' |
| TD | 9,460' |

## 3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

| | | |
|---|---|---|
| Upper Permian Sands | 0- 400' | Fresh Water |
| Cherry Canyon | 6,155' | Oil |
| Brushy Canyon | 7,715' | Oil |
| Bone Spring Lime | 9,220' | Oil |

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13.375" casing at 1,225' and circulating cement back to surface.

## 4. CASING PROGRAM - NEW

| Hole Size | Interval | Csg OD | Weight | Grade | Conn | $DF_{min}$ Collapse | $DF_{min}$ Burst | $DF_{min}$ Tension |
|---|---|---|---|---|---|---|---|---|
| 17.5" | 0 –1,225' | 13.375" | 54.5# | J55 | STC | 1.125 | 1.25 | 1.60 |
| 12.25" | 0-4,000' | 9.625" | 40# | J55 | LTC | 1.125 | 1.25 | 1.60 |
| 12.25" | 4,000'-4,950' | 9.625" | 40# | HCK55 | LTC | 1.125 | 1.25 | 1.60 |
| 8.75" | 0'-14,474' | 5.500" | 17# | P110 or HCP110 | LTC | 1.125 | 1.25 | 1.60 |