District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Sante Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico Energy, Minerals & Natural Resources HOBBS OCD

Department

OIL CONSERVATION DIVISION JUL 2 8 2014 1220 South St. Francis Dr.

Sante Fe, NM 87505

RECEIVED

FORM C-102

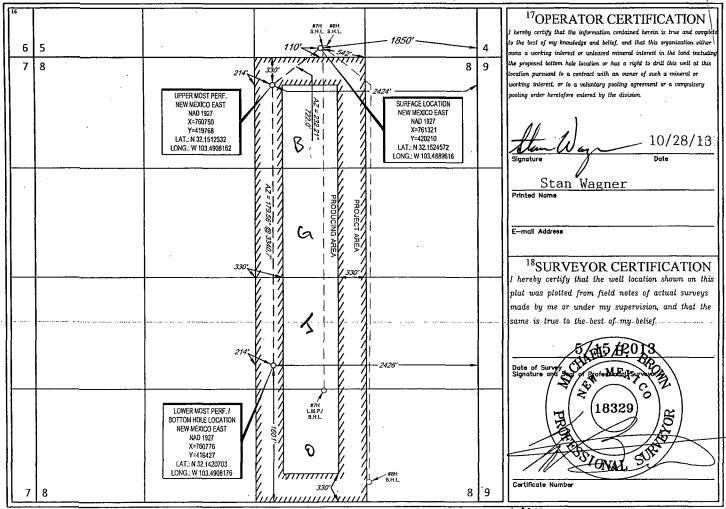
Revised August 1, 2011
Submit one copy to appropriate

District Office

AMENDED REPORT

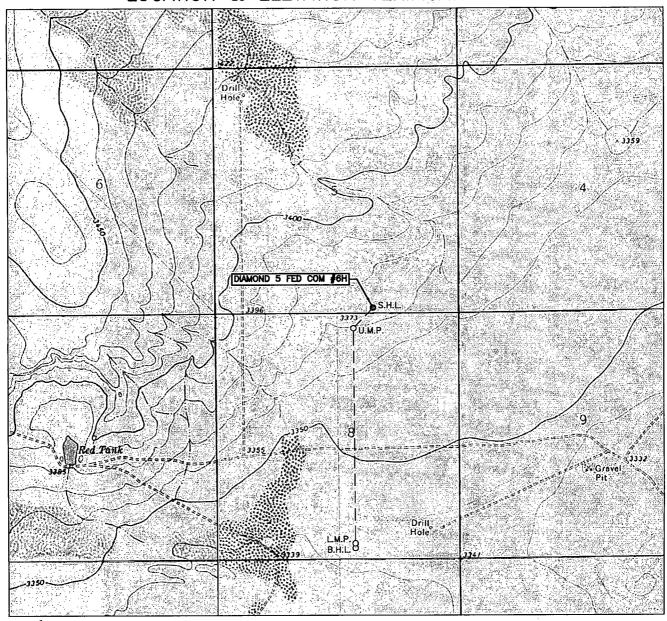
| API Number ² Pool Code | | | | | | ³ Pool Name | | | | | |
|-----------------------------------|------------------------|--------------------------------|-------------------|----------------------|---|------------------------------------|----------------|----------------|------------------------|--------------|--|
| 30-025- <i>4/990</i> 97900 | | | | | Re | Red Hills; Upper Bone Spring Shale | | | | | |
| ⁴ Property C | ode | · | | | ⁵ Property N | ame | | 6 V | Vell Number | | |
| 3/351 | 7 | | | DIAMOND 5 FED COM | | | | | | #6H | |
| OGRID 1 | v6, | - | | | ⁸ Operator N | lame | | 1 | ⁹ Elevation | | |
| 7377 | | | | EO | G RESOUR | CES, INC. | • | | 3377' | | |
| | | | | | ¹⁰ Surface Lo | ocation | | | | | |
| UL or lot no. | Section | Section Township Range Lot Idn | | Feet from the | from the North/South line Feet from the | | East/West line | | County | | |
| 0 | 5 | 25-S | 34-E | - | 110' | SOUTH | 1850' | EAST | LEA | i | |
| | <u></u> | <u> </u> | | | | | | | ~~~ | ; | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | | County | |
| J | 8 | 25-S | 34-E | - | 1601' | SOUTH | 2426' | EAST | LEA | | |
| 12Dedicated Acres | ¹³ Joint or | Infili 14Co | onsolidation Code | e ¹⁵ Orde | r No. | | | | | 1 | |
| 120 | | | | | | N5. | 4-686 | 66 | | | |

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



WUL 29 2014

LOCATION & ELEVATION VERIFICATION MAP



eog resources, inc.

LEASE NAME & WELL NO.: DIAMOND 5 FED COM #6H

 SECTION
 5
 TWP
 25-S
 RGE
 34-E
 SURVEY
 N.M.P.M.

 COUNTY
 LEA
 STATE
 NM
 ELEVATION
 3377'

 DESCRIPTION
 110' FSL & 1850' FEL

LATITUDE N 32.1524572 LONGITUDE W 103.4889616



SURVEYING • MAPPING • GIS • GPS

2903 NORTH BIG SPRING * MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 * FAX (432) 682-1743
1400 EVERMAN PARKWAY, Ste. 197 * FT. WORTH, TEXAS 76140
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

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.

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EXHIBIT 2 VICINITY MAP

| | | | | | - Shell K | וווווע | IAIVI | | | | | | |
|----------|--|--------|-----------|------------------|------------|---------|----------|----------|----------|----|----------|-------|-----|
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| 9, | 10 | 11 | 12 | 5 | В | 8-sates | 10 | 3 | 12 | 7 | 8 | 9 | 1 |
| 16 | 15 | 14 | . 13 | 18 | 17 | 16 | 15 | . 14 | 13 | 18 | 17 | 16 | . 1 |
| 4 S | Sa S | 23 | State | 128 19 | 20 | 4 5 | 34 | 23 | 24 | 19 | 20 | 4 S - | 2 |
| 28 | 27 27 | 26 | 25 | 30 | 29 | 28 | 27 | 26 | 25 | 30 | 29 | 28 | 2 |
| 30 | 34 | 35 | 36 | Resour 31 | <u> 32</u> | 33 | 34 | 35 | 36 ad | 31 | 35 | 33 | Æ |
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| 9 | 10 | 11 [DL | AMOND 5 F | ED COM #6 | | ~ | 10 8 01 | 11 . | 12 | 7 | 8 | 9 | |
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| 28 | 27 | 26 | . 25 | 30 | 29 | 28 | 27 | 26 | 25 | 30 | 29 | 28 | i |
| 33 | 34 | 35 | 36 | 31 2 | 32 | 33 | 34 | 35 | 36 | 31 | 32 | 33 | |
| | Щ | I T | | | <u> </u> | l | <u> </u> | <u> </u> | <u> </u> | 1 | <u> </u> | | |

eog resources, inc.

 LEASE NAME & WELL NO.:
 DIAMOND 5 FED COM #6H

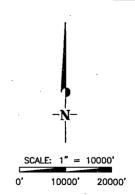
 SECTION 5 TWP 25-S RGE 34-E COUNTY LEA STATE NM
 NM

 DESCRIPTION 110' FSL & 1850' FEL

DISTANCE & DIRECTION FROM INT. OF NM-18 N & NM-128, GO WEST ON NM-128 W ±14.1 MILES, THENCE SOUTHWEST (LEFT) ON CR. 2/BATTLE AXE RD. ±5.7 MILES, THENCE NORTHWEST (RIGHT) ON LEASE RD. ±2.0 MILES, THENCE NORTH (RIGHT) ON LEASE RD. ±0.3 MILES TO A POINT ±969 FEET SOUTH OF THE LOCATION.

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Se

EXHIBIT 3

eog resources, inc.

SECTION 5, TOWNSHIP 25 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, NEW MEXICO

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LEASE NAME & WELL NO.: ___ #1 LATITUDE ___ N 32.1524572 DIAMOND 5 FED COM #6H

#1 LONGITUDE _ W 103.4889616

LEGEND

ROAD WAY SECTION LINE EXISTING PIPELINE

FENCE LINE

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

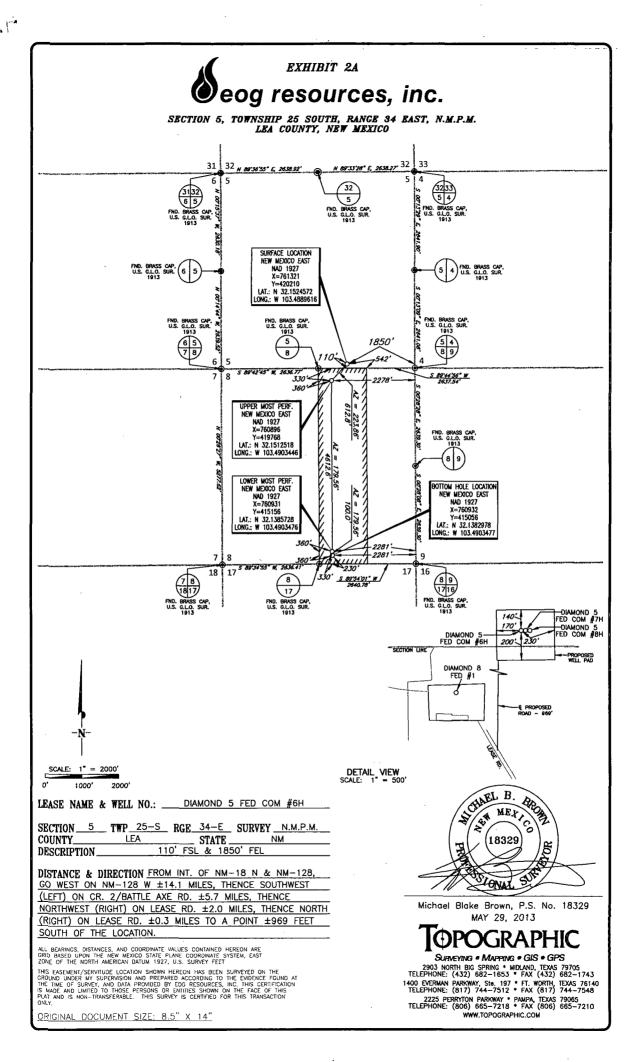
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ORIGINAL DOCUMENT SIZE: 8.5" X 14"

TOPOGRAPHIC

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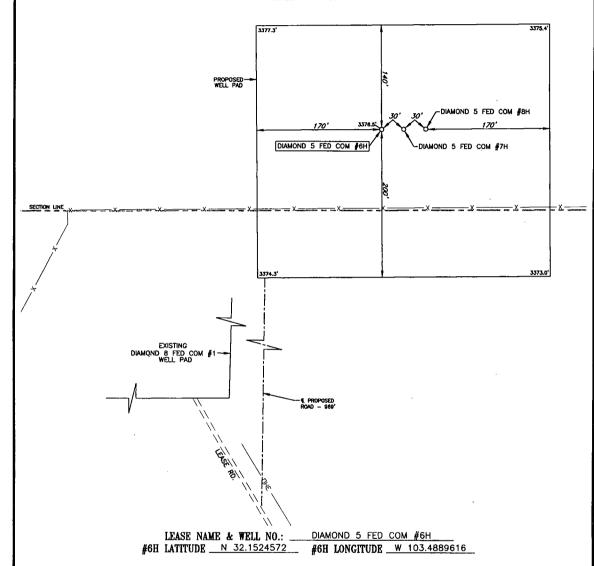
2903 NORTH BIG SPRING * MIDLAND, TEXAS 79705
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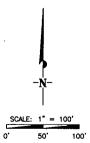
SECTION 5, TOWNSHIP 25 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, NEW MEXICO

DETAIL VIEW SCALE: 1" = 100"



LEGEND

ROAD WAY SECTION LINE ----- PROPOSED ROAD



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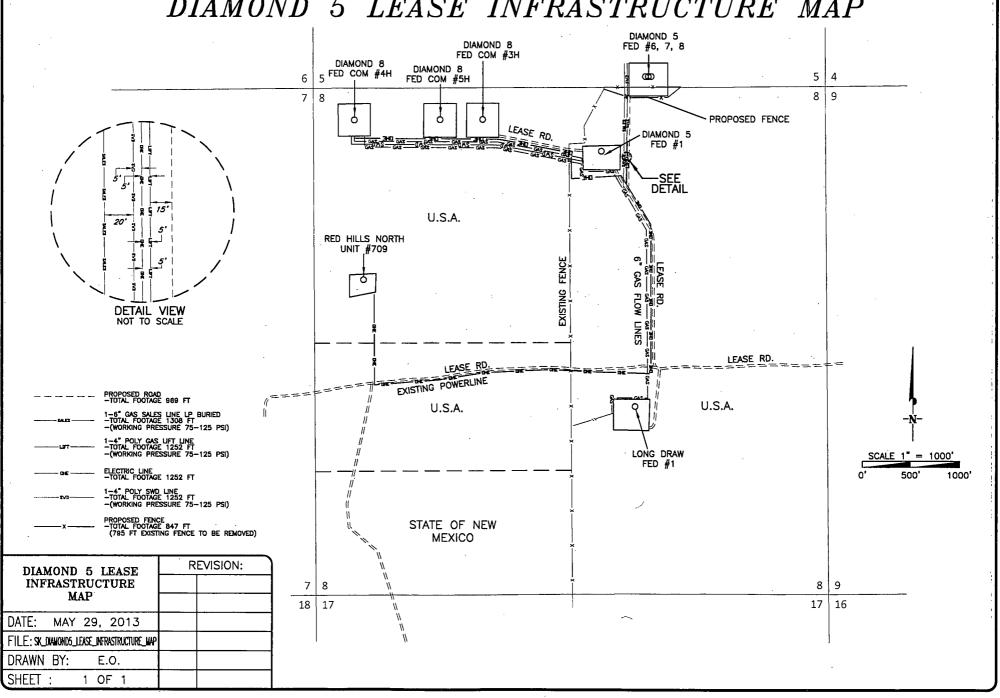
ORIGINAL DOCUMENT SIZE: 8.5" X 14"

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1400 EVERBAM PARKWAY, Ste. 197 * FT. WORTH, TEXAS 76140
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EXHIBIT 5 eog resources, inc.

DIAMOND 5 LEASE INFRASTRUCTURE MAP



1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

| Rustler | 1,090' |
|------------------|--------|
| Top of Salt | 1,490' |
| Base of Salt | 5,067' |
| Anhydrite | 5,067' |
| Lamar | 5,295' |
| Bell Canyon | 5,321' |
| Cherry Canyon | 6,270° |
| Brushy Canyon | 7,830' |
| Bone Spring Lime | 9,273 |
| TD | 9,533' |

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

| Upper Permian Sands | 0-400' | Fresh Water |
|---------------------|--------|-------------|
| Cherry Canyon | 6,270' | Oil |
| Brushy Canyon | 7,830' | Oil |
| Bone Spring Lime | 9,273' | 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 1,150° and circulating cement back to surface.

4. CASING PROGRAM - NEW

See COA

| Hole | | /Csg | | | | DF _{min} | DF _{min} | DF _{min} |
|--------|-------------------------|---------|--------|-------------------|------|-------------------|-------------------|-------------------|
| Size | Interval ₁ 2 | ∞'OD | Weight | Grade | Conn | Collapse | Burst | Tension |
| 17.5" | 0-1,150 | 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'-5,150' | 9.625" | 40# | HCK55 | LTC | 1.125 | 1.25 | 1.60 |
| 8.75" | 0'-13,164' | 5.500" | 17# | P110 or HCP110 | LTC | 1.125 | 1.25 | 1.60 |

Cementing Program:

| | No. | Wt. | Yld | | |
|---------|-------|--------|---------------------|---|--|
| Depth | Sacks | lb/gal | Ft ³ /ft | Slurry Description | |
| 1,150' | 500 | 13.5 | 1.73 | Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% | |
| | | | | CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ surface) | |
| | 250 | 14.8 | 1.34 | Tail: Class C + 0.005 pps Static Free + 1% CaCl ₂ + 0.25 | |
| | | | | pps CelloFlake + 0.005 gps FP-6L | |
| 5,150' | 850 | 12.7 | 2.22 | Lead: Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + | |
| | | | | 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static | |
| | | | | Free (TOC @ surface) | |
| | 200 | 14.8 | 1.32 | Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free | |
| 13,164' | 300 | 10.8 | 3.68 | Lead: 60:40:0 Class 'C' + 15.00 lb/sk BA-90 + 4.00% MPA- | |
| | | | | 5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% | |
| | | | | ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sk | |
| | | | | Static Free (TOC @ 4650') | |
| | 325 | 11.9 | 2.38 | Middle: 50:50:10 Class 'H' + 0.80% FL-52 + 0.45% ASA- | |
| | | | | 301 + 0.40% SMS + 2.00% Salt + 3.00 lb/sx LCM-1 + | |
| | | | | 0.20% R-21 + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static | |
| | | | | Free | |
| | 1350 | 14.2 | 1.28 | Tail: 50:50:2 Class 'H' + 0.65% FL-52 + 0.20% CD-32 + | |
| | | | | 0.15% SMS + 2.00% Salt + 0.10% R-3 + 0.005 lb/sk Static | |
| | | | | Free | |

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:



Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a double ram-type (10,000 psi WP) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

3000 psi BOPE is adequate for this application. Due to the 3000 psi BOPE requirement no FIT tests are planned.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 2000/250 psig and the annular preventer to 2000/250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000/250 psig and the annular preventer to 3000/250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

The applicable depths and properties of the drilling fluid systems are as follows. Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.



| Depth 1200 | Туре | Weight (ppg) | Viscosity | Water Loss |
|-----------------|-----------------|--------------|-----------|------------|
| 0 – 1,150 | Fresh Water Gel | 8.6-8.8 | 28-34 | N/c |
| 1,150' - 5,150' | Saturated Brine | 10.0-10.2 | 28-34 | N/c |
| 5,150' - 8,972' | Cut Brine Water | 8.5-9.3 | 28-34 | N/c |
| 8,972'-13,164' | Cut Brine Water | 9.0-9.5 | 28-34 | N/c |
| Lateral | | | | |

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.



(C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations, from kick off point to intermediate casing point.

See COA

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

See

The estimated bottom-hole temperature (BHT) at TD is 155 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 4127 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

Diamond 5 Fed Com #6H Red Hills Lea County, New Mexico

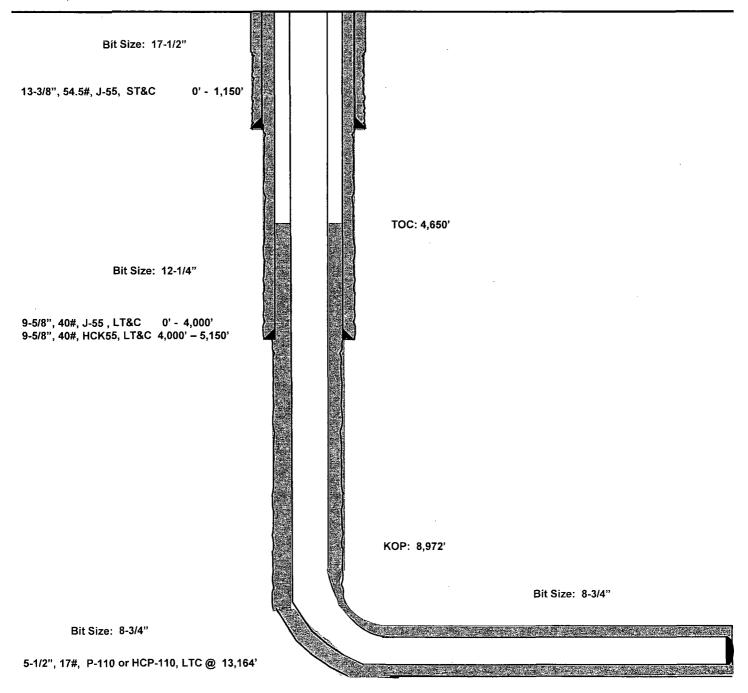
110' FSL 1850' FEL Section 5 T-25-S, R-34-E

Proposed Wellbore

KB: 3,407'

API: 30-025- *****

GL: 3,377'



Lateral: 13,164' MD, 9,533' TVD

BH Location: 1601' FSL & 2426' FEL

Section 8 T-25-S, R-34-E Seog resources

Project: Lea County, NM (NAD27 NME)

Site: Diamond 5 Fed Com

Well: #6H

Wellbore: WB1

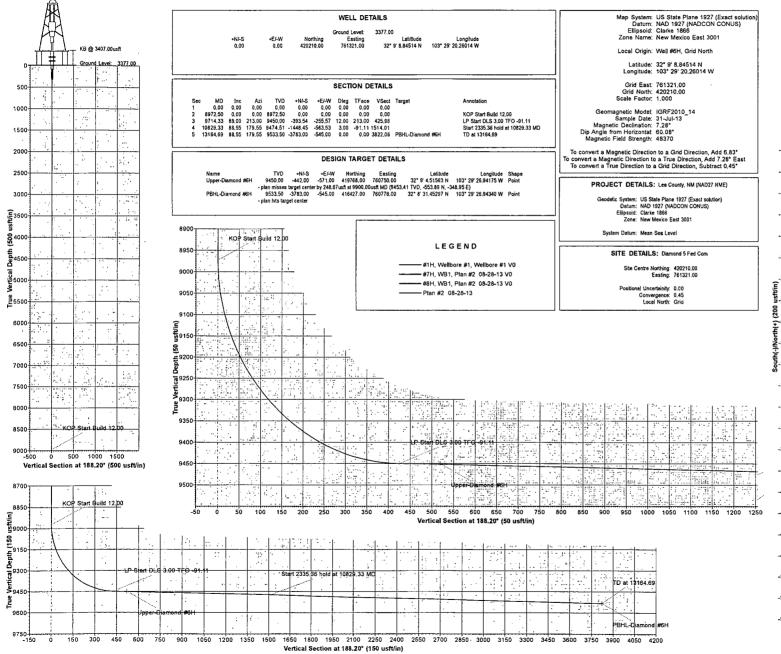
Design: Plan #2 08-28-13

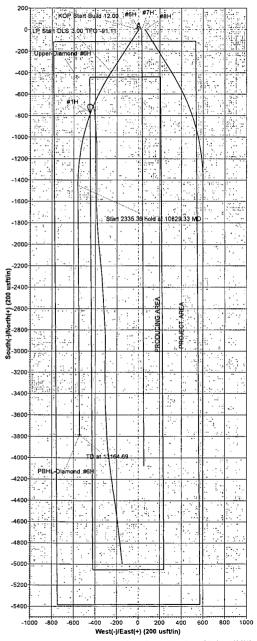




Azimuths to Grid North True North: -0.45° Magnetic North: 6.83°

Magnetic Field Strength: 48369.6snT Dip Angle: 60.08* Date: 07/31/2013 Model: IGRF2010_14





Created By: Julio Piña Date: 15:41, August 28 2013