412-02141 FORM APPROVED Form 3160-3 OMB No 1004-0137 ...:(Tebruary:2005)[ RESUBMITTAL OCD-ARTES Expires March 31, 2007 UNITED STA Lease Serial No. DEPARTMENT OF THE INTERIOR SECRETARY'S POTAS PR 3621A BUREAU OF LAND MANAGEMENT 6. If Indian, Allotee or Tribe Name APPLICATION FOR PERMIT TO DRILL OR REENTER OCD-ARTESIAV DRILL 7. If Unit or CA Agreement, Name and No. REENTER 8. Lease Name and Well No. 35329 Other ✓ Oil Well Gas Well lb. Type of Well: Single Zone Multiple Zone Oatmeal 8 Fed 3H Name of Operator 9. API Well No. EOG Resources, Inc. 30-015-36028 3a. Address P.O. Box 2267 Midland, TX 79702 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 432-686-3642 Sand Tank, Bone Spring 4. Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area 480' FNL & 660' FEL (U/L A) Capitan Controlled Water Basin Section 8, T18S-R30E, N.M.P.M. 330' FSL & 660' FEL (U/L P) At proposed prod. zone 12. County or Parish 13. State 14. Distance in miles and direction from nearest town or post office\* Approx 4 miles south from Loco Hills, NM Eddy NM 15. Distance from proposed\* 16. No. of acres in lease 17 Spacing Unit dedicated to this well location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 960 E/2 E/2 of Sec 8, T18S-R30E, N.M.P.M. 20. BLM/BIA Bond No. on file 19. Proposed Depth 18. Distance from proposed location\* to nearest well, drilling, completed, 8125' TVD; 11046' TMD NM2308 applied for, on this lease, ft Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* Estimated duration GL 3526' 01/04/2008 30 days 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form: 1. Well plat certified by a registered surveyor. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the Operator certification SUPO must be filed with the appropriate Forest Service Office). Such other site specific information and/or plans as may be required by the Name (Printed/Typed) Date

25. Signature Title

Donny G. Glanton

10/31/2007

Sr. Lease Operations ROW Representative

Approved by (Signature)

/s/ Linda S.C. Rundell

Name (Printed/190/4Linda S.C. Rundell

 $\overline{\mathsf{Date}}\mathsf{JAN}$ 2008

Title

STATE DIRECTOR

NM STATE OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS **ATTACHED** 

#### **State of New Mexico**

Form C-102

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

## **Energy, Minerals, and Natural Resources Department**

Revised August 15, 2000 Submit to Appropriate District Office

## OIL CONSERVATION DIVISION

State Lease - 4 copies

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410 1220 South St. Francis Dr.

Fee Lease - 3 copies

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, New Mexico 87505

AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT Pool Code API Number 96832 Bone Springs Well Number **Property Code** Property Name OATMEAL "8" FED 3H OGRID No. Operator Name Elevation フ3フフ 3526 EOG RESOURCES. INC.

**Surface Location** UL or lot no. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County A 8 18 SOUTH 30 EAST, N.M.P.M. 480' NORTH 660 **EAST EDDY** 

## <sup>11</sup> Bottom Hole Location If Different From Surface

				-					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	8	18 SOUTH	30 EAST, N.M.P.M.		330'	SOUTH	660'	EAST	EDDY
12 Dedicated Acre	s 13 Jo	int or Infill	14 Consolidation Code	<sup>15</sup> Order N	io.				
160									

# NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	NAD 27 NME ZONE  X = 606400  Y = 643210  LAT.: N 32.7677975  LONG.: W 103.9871872  17 OPERATOR CERTIFICATION  I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature
 	Donny G. Glanton  Printed Name  Sr. Loase Rip  Title  10/29/2007  Date
     	I hereby certify that the well location about on this plat was plotted from field motes of schild harming state by nic or under my supervision, and that the same is true and correct to the best of my beflef.
	best of my belief.  MAY 18, 2005  Date of Survey  Signature and Seal of Professional Surveyor
	BOTTOM HOLE LOC.
     	X = 606415 Y = 638741 LAT.: N 32.7555156 LONG.: W 103.9871844  330'  JOB # 103605 / 98SW / J.C.P

## DRILLING PROGRAM

#### 1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

### 2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	500'
San Andres	3,400'
1 <sup>st</sup> Bone Spring	7,600'
2 <sup>nd</sup> Bone Spring	7,900'

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

Upper Permian Sands	0- 250'	Fresh Water
Grayburg/ San Andres	3,000'	Oil
1 <sup>st</sup> Bone Spring	7,600'	Oil
2 <sup>nd</sup> Bone Spring	7,900'	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 11.75" casing at 350' and circulating cement back to surface.

### 4. CASING PROGRAM-NEW

						<u>Collapse</u>	<u>Burst</u>	<u>Tension</u>
						Design	<u>Design</u>	<u>Design</u>
<u>Hole</u>	<u>Interval</u>	OD Csg	Weight	<u>Grade</u>	Conn.	<b>Factor</b>	<b>Factor</b>	<b>Factor</b>
14.750"	0-350'	11.75"	42#	H-40	ST&C	6.36	1.96	6.32
11.00"	0-3,300'	8.625"	32#	J-55	LT&C	1.72	1.70	4.30
7.875"	0-12,185	5.5"	17#	N-80	LT&C	1.56	1.12	2.24

## Cementing Program:

11.75" Surface Casing: Cement to surface, 200 sx Premium Plus C + 0.005 pps

Static Free + 2% CaCl2 + 0.25 pps CelloFlake + 0.005

gps FP-6L, 14.8 ppg, 1.35 yield

8.625" Intermediate Casing: Cement to surface, Lead: 500 sx 50:50 Poz C + 0.005

pps Static Free + 5% NaCl + 0.25 pps CelloFlake + 5 pps LCM-1 + 0.005 gps FP-6L + 10% Bentonite, 11.8

ppg, 2.45 yield

Tail: 200 sx Prem Plus C + 0.25 pps CelloFlake + 0.005 FP-6L + 1% CaCl<sub>2</sub>, 14.8 ppg, 1.34 yield

5.50" Production Casing: Cement to 2,600', Lead: 600 sx 50:50 Poz C + 0.005

pps Static Free + 5% NaCl + 0.25 pps CelloFlake + 5 pps LCM-1 + 0.005 gps FP-6L + 10% Bentonite, 11.8

ppg, 2.29 yield

Tail: 600 sx 50:50 Poz H + 2% Bentonite + 0.005 gps FP-6L + 0.005 pps Static Free + 5% NaCl + 0.1% R-3 + 0.2% CD-32 + 0.3% FL-52A, 14.2 ppg, 1.30 yield

### 5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

(SEE EXHIBIT #1)

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000-psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All BOP's and accessory equipment will be tested in accordance with Onshore Oil & Gas order No. 2. for a 2M system prior to drilling out of the surface casing shoe and while drilling the intermediate section. Before drilling out of the intermediate casing, the ram- type BOP and accessory equipment will be tested to 5000/ 250 psig and the annulur preventer to 3500/ 250 psig.

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.

Hydraulically operated choke will not be installed prior to the setting and cementing of the intermediate casing string, but will be installed prior to drilling out of the intermediate casing shoe.

### 6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

The well will be drilled to TD with a combination of brine, cut brine, and polymer mud system. The applicable depths and properties of this system are as follows:

		Wt	Viscosity	Waterloss
<u>Depth</u>	Type	(PPG)	(sec)	<u>(cc)</u>
0-350'	Fresh – Gel	8.6-8.8	28-34	N/c
350'-3,300'	Brine	10.0-10.2	28-34	N/c
3,300'-7,000'	Fresh water	8.4-8.6	28-34	N/c
7,000'-7,438'	Cut Brine	8.8-9.6	28-34	N/c
7.438'-12.185'	Polymer (Lateral)	8.8-9.6	40-45	10-25

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

## 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.

## 8. LOGGING, TESTING AND CORING PROGRAM:

Electric logging will consist of GR-Dual Laterlog and GR-Compensated Density-Neutron from TD to intermediate casing with a GR- Compensated Neutron run from intermediate casing to surface and optional Sonic from TD to intermediate casing.

Possible sidewall cores based on shows.

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

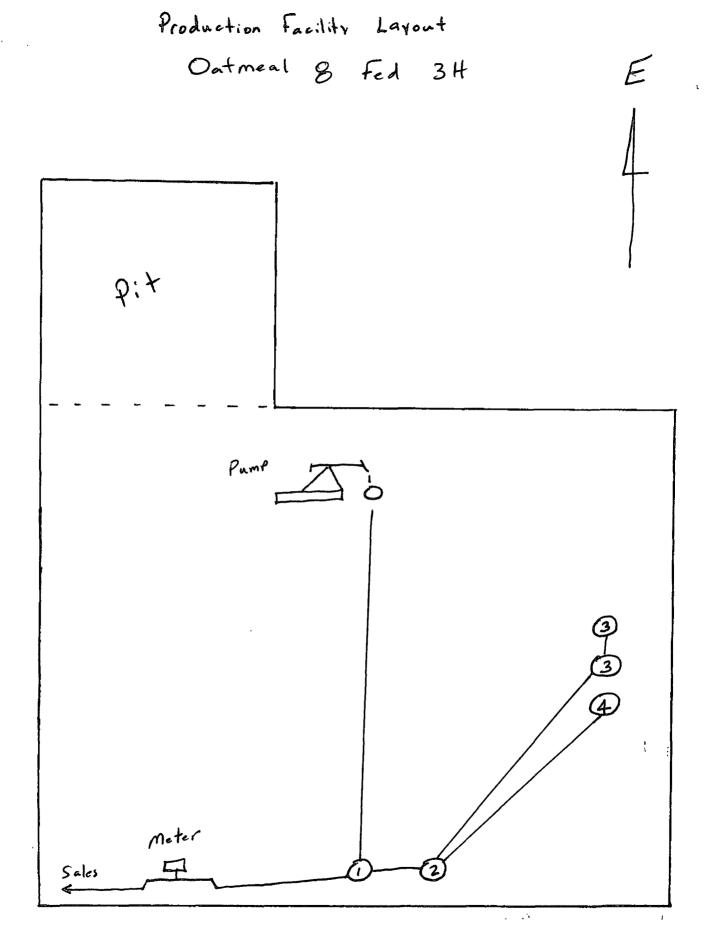
The estimated bottom hole temperature (BHT) at TD is 165 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 3500 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation 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 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.

WELL NAME: Oatmeal 8 Fed 3H Reserve P.t Location

Items 1-4: Drilling Trailers



- 1. Separator
- 3. Oil Tank
- 2. Heater
- 4. Water Tank

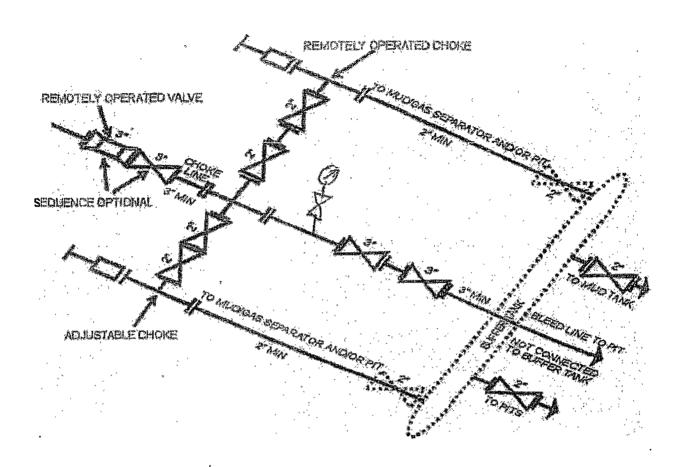
"Not To Scale"

### **ATTACHMENT TO EXHIBIT #1**

- 1. Wear ring to be properly installed in head.
- 2. Blow out preventer and all fittings must be in good condition, 3000 psi W.P. minimum. Exhibit #1.
- 3. All fittings to be flanged

× ,

- 4. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 3000 psi W.P. minimum.
- 5. All choke and fill lines to be securely anchored especially ends of choke lines.
- 6. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
- 7. Kelly cock on kelly.
- 8. Extension wrenches and hand wheels to be properly installed.
- 9. Blow out preventer control to be located as close to driller's position as feasible.
- 10. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.



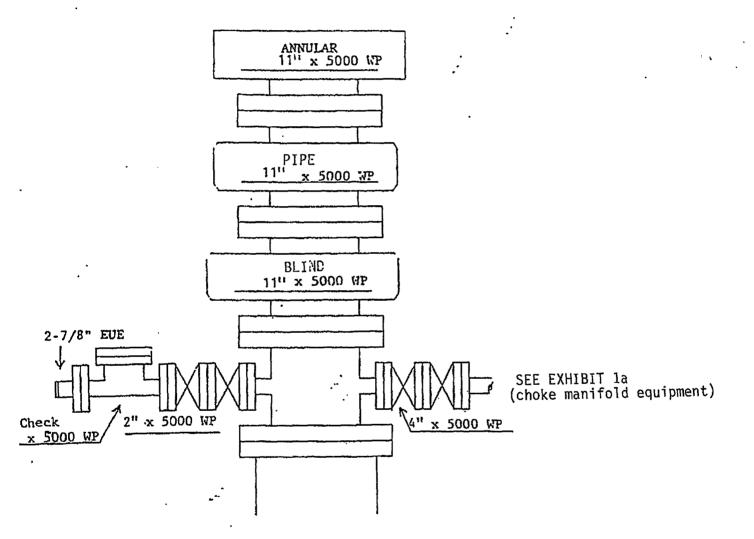
## 5M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

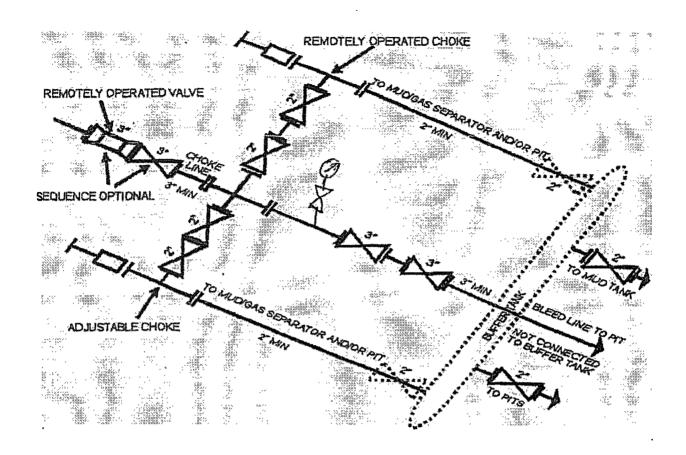
Although not required for any of the choke manifold systems, buffer tanks are sometimes installed downstream of the choke assemblies for the purpose of manifolding the bleed lines together. When buffer tanks are employed, valves shall be installed upstream to isolate a failure or malfunction without interrupting flow control. Though not shown on 2M, 3M, 10M, OR 15M drawings, it would also be applicable to those situations.

[54 FR 39528, Sept. 27, 1989]

EOG Resources, Inc.

## Oatmen 8 Fed 3H





## 5M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

Although not required for any of the choke manifold systems, buffer tanks are sometimes installed downstream of the choke assemblies for the purpose of manifolding the bleed lines together. When buffer tanks are employed, valves shall be installed upstream to isolate a failure or malfunction without interrupting flow control. Though not shown on 2M, 3M, 10M, OR 15M drawings, it would also be applicable to those situations.

[54 FR 39528, Sept. 27, 1989]

## Permit Information:

Well Name: Oatmeal 8 Fed #3H

Location:

SL

480' FNL & 660' FEL, Section 8, T-18-S, R-30-E, Eddy Co., N.M.

BHL 330' FSL & 660' FEL, Section 8, T-18-S, R-30-E, Eddy Co., N.M.

## **Casing Program:**

Casing	Setting Depth	Hole Size	Casing Size	Casing Weight	Casing Grade	Desired TOC
Surface	350'	14-3/4"	11-3/4"	42#	H-40	Surface
Intermediate	3,300'	11"	8-5/8"	32#	J-55	Surface
Production	12,185	7-7/8"	5 1/2"	17#	N-80	2,600'

## **Cement Program:**

Depth	No.	Slurries:
	Sacks	
350'	200	Premium Plus C + 0.005 pps Static Free + 2% CaCl2 + 0.25 pps CelloFlake + 0.005 gps FP-6L
3,300'	500	Lead: 50:50 Poz C + 0.005 pps Static Free + 5% NaCl + 0.25 pps CelloFlake + 5 pps LCM-1 + 0.005 gps FP-6L + 10% Bentonite
	200	Tail: Premium Plus C + 0.005 pps Static Free + 1% CaCl2 + 0.25 pps CelloFlake + 0.005 gps FP-6L
12,185'	600	Lead: 50:50 Poz C + 0.005 pps Static Free + 5% NaCl + 0.25 pps CelloFlake + 5 pps LCM-1 + 0.005 gps FP-6L + 10% Bentonite
	600	Tail: 50:50 Poz H + 2% Bentonite + 0.005 gps FP-6L + 0.005 pps Static Free + 5% NaCl + 0.1% R-3 + 0.2% CD-32 + 0.3% FL-52A

## **Mud Program**:

Depth	Туре	Weight (ppg)	Viscosity	Water Loss
0 – 350'	Fresh - Gel	8.6-8.8	28-34	N/c
350' – 3,300'	Brine	10.0-10.2	28-34	N/c
3,300' - 7,000'	Fresh Water	8.4 - 8.6	28-34	N/c
7,000' - 7,438'	Cut Brine	8.8-9.6	28-34	N/c
7,438' – 12,185'	Cut Brine/	8.8-9.6	40-45	10-25
	Polymer (Lateral)			

Planning Report

MD Reference:

Database: EDM

Company: Project: Site:

EOG - Midland (3) Sand Tank (Bone Spring)

Well:

Oatmeal 8 Fed #3H

Wellbore: Désign:

Oatmeal 8 Fed #3H Oatmeal 8 Fed #3H Original Plan

North Reference: Survey Calculation Method:

Local Co-ordinate Reference

TVD Reference:

Well Oatmeal 8 Fed #3H

WELL @ 3545 00ft (Original Well Elev) WELL @ 3545 00ft (Original Well Elev)

Minimum Curvature

Project Sand Tank (Bone Spring), Eddy County, NM

Map System:

US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS)

0.00 ft

System Datum:

Mean Sea Level

Geo Datum: Map Zone:

New Mexico East 3001

Oatmeal 8 Fed #3H

Site Position:

From:

Northing:

643,210 00ft

Latitude: Longitude:

32° 46' 4.075 N 103° 59' 13.874 W

Position Uncertainty:

Easting: Slot Radius:

Northing:

606,400.00ft

**Grid Convergence:** 

0.19°

Well

Well Position

Oatmeal 8 Fed #3H

+N/-S

+E/-W

643,210.00 ft 606,400 00 ft

Latitude:

32° 46' 4.075 N 103° 59' 13 874 W

**Position Uncertainty** 

0.00 ft 0.00 ft 0 00 ft

Easting: Wellhead Elevation:

Longitude: **Ground Level:** 

3.526.00ft

Oatmeal 8 Fed #3H Wellbore Magnetics Sample Date Declination Field Strength **IGRF2000** 12/31/2004 8.80 60.86 49,701

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## Planning Report

∃ EDM

EOG - Midland (3)

Sand Tank (Bone Spring) Oatmeal 8 Fed #3H

Database Company, Project: Site: Well: Wellbore: Oatmeal 8 Fed #3H Oatmeal 8 Fed #3H Design: Original Plan

Local Co-ordinate Reference:

TVD Reference:

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Survey Calculation Method:

Well Oatmeal 8 Fed #3H

WELL @ 3545 00ft (Original Well Elev) WELL @ 3545 00ft (Original Well Elev)

Grid

Minimum Curvature

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2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0 00	0 00
2,300.00	0 00	0.00	2,300.00	0.00	0.00	0.00 0 00	0.00 0.00	0.00 0.00	0.00 0.00
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2,600 00	0.00	0 00	2,600.00	0.00	0.00	0.00	0.00	0 00	0.00
2,700.00	0 00	0.00	2,700.00	0.00	0 00	0.00	0.00	0.00	0.00
2,800.00	0 00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0 00	0.00	0 00	0.00	0.00
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3,400.00	0.00	0.00	3,400.00	0 00	0 00	0.00	0.00	0.00	0 00
3,500.00	0.00	0 00	3,500 00	0.00	0.00	0.00	0 00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0 00	0.00	3,800.00	0.00	0 00	0.00	0 00	0.00	0.00
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4,000 00	0.00	0 00	4,000.00	0 00	0.00	0 00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200 00	0.00	0.00	0.00	0.00	0.00	0.00
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4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800 00	0 00	0.00	4,800.00	0.00	0 00	0 00	0.00	0.00	0 00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0 00	0.00	0.00	0.00
5,000.00	0 00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0 00	0 00	5,100.00	0 00	0.00	0.00	0 00	0.00	0.00
5,200.00	0 00	0.00	5,200 00	0.00	0 00	0.00	0.00	0.00	0 00
5,300.00	0.00	0 00	5,300.00	0.00	0.00	0 00	0.00	0.00	0.00

Planning Report

Database: EDM

Design:

Company:
Project:
Site:
Well: EOG - Midland (3) Sand Tank (Bone Spring) Oatmeal 8 Fed #3H Oatmeal 8 Fed #3H Wellbore:

Oatmeal 8 Fed #3H Original Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Oatmeal 8 Fed #3H

WELL @ 3545.00ff (Original Well Elev) WELL @ 3545.00ft (Original Well Elév)

Grid

Minimum Curvature

Planned Survey	Air	A TAMPOS DE LA CONTRACTOR DE LA CONTRACT		en jaran ka	THE SECTION OF SECTIONS			and the second of the	
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Measured			Vertical		The state of the s	Vertical	Dogleg	Build	Turn
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5,400.00	0.00	0 00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
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5,500 00 5,600 00	0.00	0.00	5,600.00	0.00	0.00	0.00	0 00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0 00	0.00	0 00	0.00	0 00
5,800.00 5,900.00	0.00 0.00	0 00 0 00	5,800 00 5,900.00	0.00 0.00	0.00 0.00	0.00 0.00	0 00 0.00	0 00 0.00	0 00 0.00
6.000 00	0.00	0.00	6,000.00	0.00	0.00	0.00	0 00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0 00	0.00	0.00	0 00	0.00
6,200.00	0 00 0.00	0.00	6,200.00	0.00 0.00	0 00	0 00	0.00 0.00	0.00 0.00	0.00 0.00
6,300.00 6,400.00	0.00	0.00 0.00	6,300.00 6,400.00	0.00	0.00 0 00	0.00 0 00	0.00	0.00	0.00
6,500 00	0.00	0.00	6,500.00	0 00	0.00	0.00	0 00	0.00	0.00
6,600.00	0.00	0 00	6,600.00	0.00	0.00	0.00	0 00	0.00	0 00
6,700.00 6,800.00	0.00 0.00	0.00 0.00	6,700 00 6,800.00	0.00 0.00	0 00 0.00	0 00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
6,900 00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0 00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00 7,200.00	0.00 0.00	0.00 0.00	7,100.00 7,200.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0 00	0.00	0.00
7,400.00	0 00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,438.00	0 00 7.37	0.00	7,438.00	0.00	0.00	0.00 3.98	0.00 11.88	0.00 11.88	0.00 0.00
7,500.00 7,600.00	7.37 19.25	179.80 179.80	7,499.83 7,596.97	-3.98 -26 95	0.01 0.09	26.95	11.88	11.88	0.00
7,700.00	31 13	179.80	7,687 30	-69.43	0.24	69.43	11.88	11.88	0.00
7,800.00	43.01	179.80	7,766.95	-129 59	0.45	129.60	11.88	11.88	0 00
7,900.00 8,000.00	54.88 66 76	179 80 179 80	7,832.52 7,881.18	-204.87 -292.02	0 72 1 02	204 87 292 03	11.88 11.88	11.88 11.88	0.00 0.00
8,100.00	78.6 <b>4</b>	179.80	7,910 85	-387.33	1 35	387.33	11.88	11.88	0.00
8,178.75	88.00	179.80	7,920 00	-465.46	1.62	465.46	11.88	11.88	0.00
8,179.23	88.01	179.81	7,920.02	-465 94	1.63	465 94	3.00	2.41	1.79
8,200.00 8,300.00	88.01 88.01	179 81 179.81	7,920.74 7,924 21	-486 70 -586.64	1.70 2 03	486 70 586.64	0.00 0.00	0.00 0.00	0.00 0.00
8,400.00	88.01	179.81	7,927.68	-686.57	2 36	686.58	0.00	0.00	0 00
8,500 00 8,600 00	88.01 88.01	179 81 179 81	7,931.15 7,934.62	-786 51 -886 45	2.70 3.03	786.52 886 46	0 00 0 00	0.00 0.00	0.00 0.00
8,700.00	88.01	179.81	7,938.09	-986.39	3.37	986.40	0.00	0.00	0 00
8,800.00	88 01	179.81	7,941.56	-1,086.33	3.70	1,086.34	0.00	0 00	0.00
8,900.00 9,000.00	88 01 88.01	179.81 179.81	7,945.03 7,948.50	-1,186 27 -1,286.21	4.03 4.37	1,186.28 1,286.22	0 00 0.00	0 00 0.00	0.00 0.00
9,100.00	88.01	179.81	7,951.97	-1,386.15	4.70	1,386 16	0.00	0.00	0.00
9,200.00	88.01	179 81	7,955.44	-1,486.09	5 03	1,486.10	0.00	0.00	0.00
9,300.00 9,400.00	88.01 88.01	179.81 179.81	7,958.91 7.962.38	-1,586.03 -1,685.97	5.37 5.70	1,586.04 1,685 98	0 00 0.00	0 00 0 00	0.00 0 00
9,500.00	88.01	179.81	7,965.84	-1,785.91	6.04	1,785.92	0.00	0 00	0.00
9,600.00	88.01	179.81	7,969.31	-1,885.85	6.37	1,885.86	0.00	0.00	0.00
9,700 00	· 88.01	179.81	7,972.78	-1,985 78	6 70 7 04	1,985.80	0 00	0 00	0 00
9,800 00 9,900.00	88.01 88.01	179.81 179.81	7,976 25 7,979.72	-2,085.72 -2,185.66	7.04 7.37	2,085.74 2,185.68	0.00 0.00	0 00 0 00	0.00 0.00
10,000.00	88 01	179.81	7,983.19	-2,285.60	7.71	2,285.62	0.00	0.00	0.00
10,100.00	88.01	179.81	7,986.66	-2,385.54	8.04	2,385 55	0 00	0 00	0 00
10,200.00 10,300.00	88.01 88.01	179.81 179.81	7,990.13 7,993 60	-2,485.48 -2,585.42	8 37 8.71	2,485.49 2,585.43	0 00 0 00	0.00 0.00	0.00 0.00
10,300.00	00.01	178.01	00 066,1	-2,000.42	0./1	2,303.43	0 00	0.00	0.00

Planning Report

Database:

EDM

Company:
Project:
Site:
Well:
Wellbore:
Design: EOG - Midland (3) Sand Tank (Bone Spring) Oatmeal 8 Fed #3H

Oatmeal 8 Fed #3H Oatmeal 8 Fed #3H Óriginal Plan Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well Oatmeal 8 Fed #3H

WELL @ 3545.00ft (Original Well Elev) WELL @ 3545.00ft (Original Well Elev)

Grid

Minimum Curvature

Planned Survey		in war and and	PROCESSES SON TO PROCESS	DESCRIPTION OF A		The state is a supplementally of		TANGET CHI MICHELIANI	
Measured			Vertical			Vertical	Dogleg	Build	Turn
un de la companya de	clination 🦼	Azimuth:	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(9)	(°)	(ft)	(ft)	(ft)	= (ft)	(°/100ft)	(°/100ft)	(°/100ft)
10,400 00	88.01	179.81	7,997 07	-2,685.36	9 04	2,685.37	0.00	0.00	0 00
10,500.00	88 01	179 81	8,000.54	-2,785 30	9 38	2,785 31	0.00	0 00	0 00
10,600.00	88 01	179.81	8,004 01	-2,885 24	9.71	2,885.25	0 00	0 00	0.00
10,700.00	88.01	179.81	8,007.48	-2,985.18	10.04	2,985 19	0.00	0.00	0.00
10,800 00	88.01	179 81	8,010 95	-3,085.12	10.38	3,085.13	0.00	0.00	0.00
10,900 00	88.01	179.81	8,014.42	-3,185.06	10.71	3,185.07	0.00	0.00	0 00
11,000.00	88.01	179.81	8,017.89	-3,284.99	11.04	3,285.01	0 00	0 00	0.00
11,100.00	88.01	179.81	8,021.36	-3,384.93	11.38	3,384.95	0.00	0.00	0.00
11,200.00	88.01	179 81	8,024.83	-3,484.87	11.71	3,484.89	0 00	0 00	0.00
11,300 00	88.01	179.81	8,028.30	-3,584.81	12.05	3,584 83	0.00	0 00	0.00
11,400.00	88.01	179.81	8,031.77	-3,684.75	12.38	3,684.77	0.00	0.00	0.00
11,500 00	88.01	179.81	8,035.24	-3,784.69	12 71	3,784 71	0.00	0.00	0 00
11,600.00	88.01	179.81	8,038.71	-3,884.63	13.05	3,884.65	0 00	0.00	0 00
11,700 00	88.01	179.81	8,042.18	-3,984.57	13.38	3,984.59	0.00	0.00	0.00
11,800.00	88.01	179.81	8,045.65	-4,084.51	13.72	4,084.53	0.00	0 00	0.00
11,900 00	88.01	179.81	8,049 12	-4,184.45	14.05	4,184.47	0.00	0.00	0.00
12,000.00	88.01	179.81	8,052.59	-4,284.39	14.38	4,284.41	0.00	0.00	0.00
12,100 00	88.01	179.81	8,056.06	-4,384.33	14 72	4,384 35	0.00	0 00	0.00
12,184 34	88.01	179.81	8,058.99	-4,468.61	15.00	4,468.64	0.00	0.00	0.00
12,184.73	88.00	179.81	8,059.00	-4,469.00	15.00	4,469.03	3.00	-2 98	0.37
BHL (Oatmeal	#3H)	, • }-	* *	* * ;		ř	, .		· · · · · · · · · · · · · · · · · · ·

Targets Target Name - hit/miss target Dip - Shape	Angle D	piDir: (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	<u> L'atitude</u>	<b>L'ongitude</b>
BHL (Oatmeal #3H) - plan hits target - Point	0.00	0.00	8,059.00	-4,469 00	15.00	638,741 00	606,415.00	32° 45′ 19 852 <b>N</b>	103° 59' 13 869 W

• • •	3			WELL	DETAILS: C	atmeal 8 I	ed #3H						
	+N/-S 0.00	+E/-W 0.00	Nor 64321	thing	Ground Level: Easting 606400.00		atittude	Lo 103° 59' 13	ngitude 3.874 W		Slot		
					SECTION	DETAILS							
	Sec 1 (2 7436 3 8176 4 8179 512184 612184	0.00 0.0 3.00 0.0 3.75 88.0 9.23 88.0 4.34 88.0	0.00 00 179.80 01 179.81 01 179.81	TVD 0.00 7438.00 7920.00 7920.02 8058.99 8059.00	+N/-S 0.00 0.00 -465.46 -465.94 -4468.61 -4469.00	+E/-W 0.00 0.00 1.62 1.63 15.00 15.00	DLeg 0.00 0.00 11.88 3.00 0.00 BH00(0	179.80 36.62	0.00 0.00 465.46 465.94 4468.64				
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750						-325	1						
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3000	-			-	- 1	-1300 <del></del> -1300 <del></del> - -	,		•				
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## SURFACE USE PLAN OF OPERATION

SHL: 480' FNL & 660' FEL, Unit A, Section 8, T18S-R30E, N.M.P.M., Eddy, NM BHL: 330' FSL & 660' FEL, Unit P, Section 8, T18S-R30E, N.M.P.M., Eddy, 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 Lynn Bezner, RPL 7920.
- b. All roads into the location are depicted on Exhibit 2 & 2a.
- c. <u>Directions to Locations:</u> Beginning in Loco Hills, NM, From Jct. Of Hwy 82 & Co. Road 216, Go South 4.3 miles on CR 216; thence east 2.0 miles on existing lease road; thence north 1.1 miles; thence west 0.3 miles; thence south 0.1 miles to a point +/-700' west of the location.

### 2. NEW OR RECONSTRUCTED ACCESS ROAD:

- a. The well site layout, Exhibit 2a shows the layout. The proposed access road, begins on existing lease road and trends ESE to the SE corner of the well pad for a distance of 694 feet. (See 1c above for driving directions).
- b. The maximum width of the road will be 15'. It will be crowned and made of 6" of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent soil erosion.
- c. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
- d. No cattleguards, gates or fence cuts will be required. No turnouts are planned.

### 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 Oatmeal 8 Fed No. 3H tank battery would be utilized and the necessary production equipment will be installed at the well site. See Production Facilities Layout diagram.
- b. As a proposed oil well, we will contact Central Valley Electric Coop to provide electrical service to the well.
- c. All flow lines will adhere to API standards.
- d. Refer to b above.
- e. If the well is productive, rehabilitation plans are as follows:
  - i. The reserve pit will be back filled after the contents of the pit are dry (within 120 days after completion, weather permitting).

ii. The original topsoil from the well site will be returned to the location. The drill site will be contoured as close as possible to the original state.

## 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 transport truck using existing and proposed roads shown in Exhibit 2 & 2a. On occasion, water will be obtained from existing water wells. 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

All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM approved pit or from prevailing deposits found under the location. All roads will be constructed of rolled and compacted caliche. Will use BLM recommended use of extra caliche from other locations close by roads, if available.

## 7. METHODS OF HANDLING WASTE MATERIALS

- a. Drill cuttings will be disposed of in the reserve pit.
- b. All trash, junk, and other waste material will be contained in trash cages or trash bins to prevent scattering. When a job is completed, all contents will be removed and disposed of in an approved landfill.
- c. The supplier, including broken sacks, will pick up salts remaining after completion of well.
- d. If necessary, a porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- e. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approved disposal site. Later pits will be broken out to speed dry. Water produced during completion will be put in reserve pits. Oil and condensate produced will 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

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## 8. ANCILLARY FACILITIES:

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

#### 9. WELL SITE LAYOUT:

- a. Exhibit 4 shows the proposed well site layout with dimensions of the pad layout.
- b. Exhibit 5 shows proposed location of reserve and sump pits and living facilities.
- c. Mud pits in the active circulating system will be steel pits and the reserve pits will be lined.
- d. If needed, the reserve pit is to be line with polyethylene. The pit liner will be 12 mils thick. Pit liner will extend a minimum of two feet (2') over the reserve pit's dykes where the liner will be anchored down.
- e. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down after the pit contents have dried. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

#### 10. PLANS FOR SURFACE RECLAMATION:

- a. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The reserve pit area will be broken out and leveled after drying to a condition where these are feasible. The original top soil will again be returned to the pad and contoured, as close as possible, to the original topography. The pit will be closed per OCD compliance regulations.
- b. The pit lining will be buried or hauled away in order to return the location and road to their pristine nature. All pits will be filled and the location leveled, weather permitting, within 120 days after abandonment.
- c. The location and road will be rehabilitated as recommended by the BLM.
- d. The reserve pit will be fenced on three side throughout drilling operations. After the rotary rig is removed, the reserve pit will be fenced on the fourth side to preclude endangering wildlife. The fencing will be in place until the pit is reclaimed.
- e. If the well is deemed commercially productive, the reserve pit will be restored as described in 10(A) within 120 days subsequent to the completion date. Caliche from areas of the pad site not required for operations will be reclaimed. The

original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

#### 11. SURFACE OWNERSHIP

The surface is owned by the Bureau of Land Management (BLM). The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas. The proposed road routes and surface location will be restored as directed by the BLM.

### 12. OTHER INFORMATION:

- a. The area surrounding the well is grassland. The topsoil is sandy in nature. The vegetation is moderately sparse with native prairie grass, some mesquite bushes, cactus and shinnery oak. No wildlife was observed but it is likely that deer, rabbits coyotes, and rodents transverse the area.
- b. There are not dwellings within 2 miles of location.
- c. There is no permanent or live water within 1 miles of the location.
- d. A Cultural Resources Examination was completed on 9/08/2005 by Boone Archaeological Services and submitted to the BLM office in Carlsbad, New Mexico.

#### 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:

## Permitting & Land

Mr. Donny G. Glanton
Senior Lease Operations ROW Representative
EOG Resources, Inc.
P.O. Box 2267
Midland, TX 79702
(432) 686-3642 Office
(432) 770-0602 Cell

## **Drilling**

## **Operations**

Mr. Jason LaGrega	Mr. Howard Kemp
Division Drilling Engineer	Production Manager
EOG Resources, Inc.	EOG Resources, Inc
P.O. Box 2267	P.O. Box 2267
Midland, TX 79702	Midland, TX 79702
(432) 686-3633 Office	(432) 686-3704 Office
(432) 894-1217 Cell	(432) 634-1001 Cell

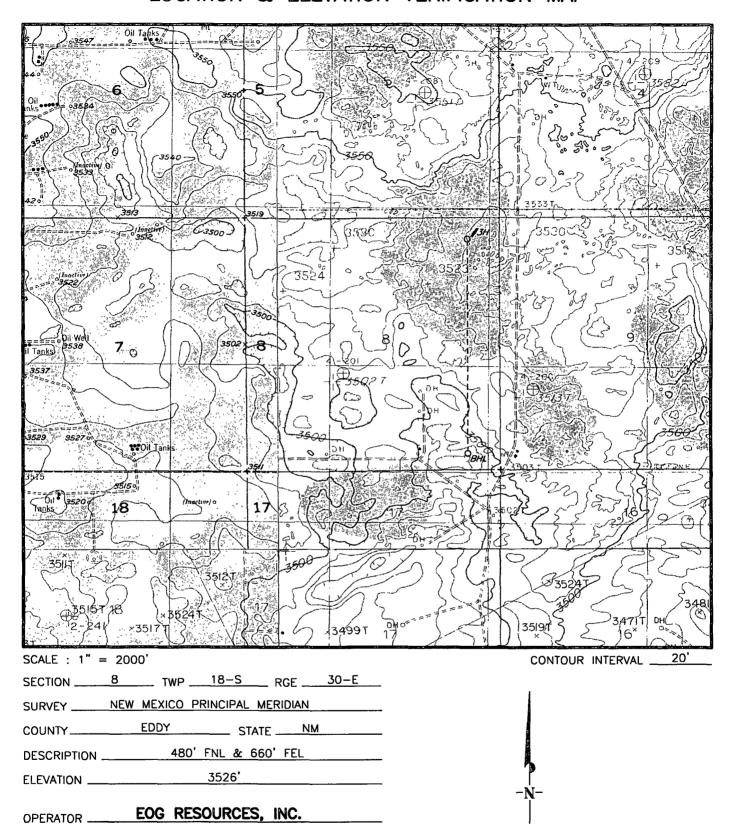
## **OPERATOR CERTIFICATION**

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 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 29 day of October , 2007.

Name:	Donny G. Glanton	
Position:	Sr. Lease Operations ROW Representative	
Address:	P.O. BOX 2267 Midland, TX 79705	
Telephone	e: 432-686-3642	
Field Repr	resentative (if not above signatory):	
Address (i	if different from above):	
Telephone	e (if different from above):	
E-mail (op	otional): donny_glanton@eogresources.com	
	Dm S. Mest	

## Exhibit Z

## LOCATION & ELEVATION VERIFICATION MAP



OATMEAL "8" FED #3H

RED LAKE SE, NEW MEXICO

LONG. LONG.: W 103.9871872

SCALED LAT. LAT.: N 32.7677975

LEASE \_\_\_\_\_

U.S.G.S. TOPOGRAPHIC MAP

## Topographic Land Surveyors

Surveying & Mapping for the Oil & Gas Industry

2903 N. BIG SPRING MIDLAND, TX. 79705 (800) 767-1653

## VII. DRILLING

## A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 2 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

## **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

- 1. Although Hydrogen Sulfide has not been reported in this section, it is always a possible hazard. It has been reported in the Township to the east. If Hydrogen Sulfide is encountered, please report measured amounts to the BLM.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

#### B. CASING

- 1. The 11-3/4 inch surface casing shall be set a minimum of 25 feet into the Rustler Anhydrite and above the Salt at approximately 350 feet and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement). Please provide WOC times to inspector for cement slurries.

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial action will be done prior to drilling out that string.

Possible water flows in the Salado Group and the Premier member of the Grayburg formation.

- 2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:

  Cement to surface. If cement does not circulate see B.1.a-d above.
- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

Please provide WOC times to inspector for cement slurries.

- Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification. Please provide WOC times to inspector for cement slurries.
- 4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

### C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.
  - a. The tests shall be done by an independent service company.
  - b. The results of the test shall be reported to the appropriate BLM office.
  - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

Engineer on call phone (after hours): Carlsbad: (575) 706-2779

WWI 121907