NM OIL CONSERVATION ARTESIA DISTRICT FEB 06 2015 RECEIVED

HOBBSOCD FEB 25 2015 RECEIVED

15-70

Form 3160-3
(March 2012)

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☑ DRILL ☐ REENTER	5. Lease Serial No. NMNM0438001
	6. If Indian, Allotee or Tribe Name
	7. If Unit or CA Agreement, Name and No.
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	8. Lease Name and Well No. Ross Draw 8 Fed 4H
2. Name of Operator EOG Resources, Inc	9. API Well No. ~~30-025-40565~~ 015-40565
3a. Address P.O. Box 2267 Midland, TX 79702 / 3b. Phone No. (include area code) 432-686-3689	10. Field and Pool, or Exploratory Jennings; Bone Spring, West
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface 333' FNL & 613' FWL, NWNW (D), Sec 8, 26S, 31E At proposed prod. zone 230' FSL & 1100' FWL, SWSW (M), Sec 8	11. Sec., T. R. M. or Blk. and Survey or Area Section 8, T26S, R31E
14. Distance in miles and direction from nearest town or post office* Approximately +/- 49 miles Northwest from Jal, NM	12. County or Parish Eddy / 13. State NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'	16. No. of acres in lease 2201.36	17. Spacing Unit dedicated to this well 160 ac.
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 770' to RG 8 FC 2H	19. Proposed Depth 13298' MD, 8430' TVD	20. BLM/BIA Bond No. on file NM 2308
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3278' GL	22. Approximate date work will start* 01/01/2015	23. Estimated duration 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.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature Stan Wagner	Name (Printed/Typed) Stan Wagner	Date 9/10/2014
Title Regulatory Specialist		
Approved by (Signature) /s/ Chris Walls	Name (Printed/Typed)	Date FEB 2 2015
Title for FIELD MANAGER	Office CARLSBAD FIELD 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.
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.

(Continued on page 2)

*(Instructions on page 2)

NM OIL CONSERVATION
ARTESIA DISTRICT
FEB 26 2015
RECEIVED

Carlsbad Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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 5th day of April, 2012.

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 Roger Motley

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 10th day of September, 2014.

Name: Stan Wagner
Position: Regulatory Specialist
Address: P.O. Box 2267, Midland, TX 79702
Telephone: (432) 686-3689
Email: stan_wagner@eogresources.com
Field Representative (if not above signatory): Jason Galloway
Address: P.O. Box 2267, Midland, TX 79702
Telephone: (432) 686-3673

Signed _____

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division

March 11, 2014

EOG Resources Inc
Attn: Mr. Michael Feldewert

ADMINISTRATIVE NON-STANDARD LOCATION ORDER

Administrative Order NSL-7040
Administrative Application Reference No. pMAM1404337272

EOG Resources INC
OGRID 7377
Ross Draw 8 Federal Well No. 4H
API No. 30-015-40565

Proposed Location:

	Footages	Unit	Sec.	Twsp	Range	County
Surface	333 FNL & 613 FWL	D	8	26S	31E	Eddy
Penetration Point	330 FNL & 1100 FWL	D	8	26S	31E	Eddy
Terminus	230 FSL & 1100 FWL	M	8	26S	31E	Eddy

Proposed Project Area:

Description	Acres	Pool	Pool Code
W/2 W/2 of Section 8	160	Jennings; Bone Spring, West	97860

Reference is made to your application received on February 11, 2014.

You have requested to drill this horizontal well at an unorthodox oil well location described above in the referenced pool or formation. This location is governed by statewide Rule 19.15.15.9.A NMAC, which provides for 40-acre units, with wells located at least 330 feet from a unit outer boundary, and Rule 19.15.16.14.B (2) NMAC concerning directional wells in designated project areas. This location is unorthodox because portions of the proposed completed interval are closer to outside boundaries of the proposed project area than any location that would be a standard location under the applicable pool rules.

Your application has been duly filed under the provisions of Division Rules 19.15.15.13 NMAC and 19.15.4.12.A (2) NMAC.

It is our understanding that you are seeking this location for engineering reasons, in order to maximize production of hydrocarbons underlying this project area and prevent waste.

It is also understood that you have given due notice of this application to all operators or owners who are "affected persons," as defined in Rule 19.15.4.12.A (2) NMAC, in all adjoining units towards which the proposed location encroaches.

Pursuant to the authority conferred by Division Rule 19.15.15.13 (B) NMAC, the above-described unorthodox location is hereby approved.

This approval is subject to your being in compliance with all other applicable Division rules, including, but not limited to Division Rule 19.15.5.9 NMAC.

Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

Sincerely,

Jami Bailey
Director

JB/mam

cc: New Mexico Oil Conservation Division – Artesia
Bureau of Land Management – Carlsbad

NM OIL CONSERVATION
ARTESIA DISTRICT
FEB 26 2015
RECEIVED

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 Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Sante Fe, NM 87505

FORM C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-015- 40565	97860	Jennings; Bone Spring, West

4 Property Code	5 Property Name	6 Well Number
38727	ROSS DRAW 8 FED	#4H

7 OGRID No.	8 Operator Name	9 Elevation
7377	EOG RESOURCES, INC.	3278'

10 Surface Location

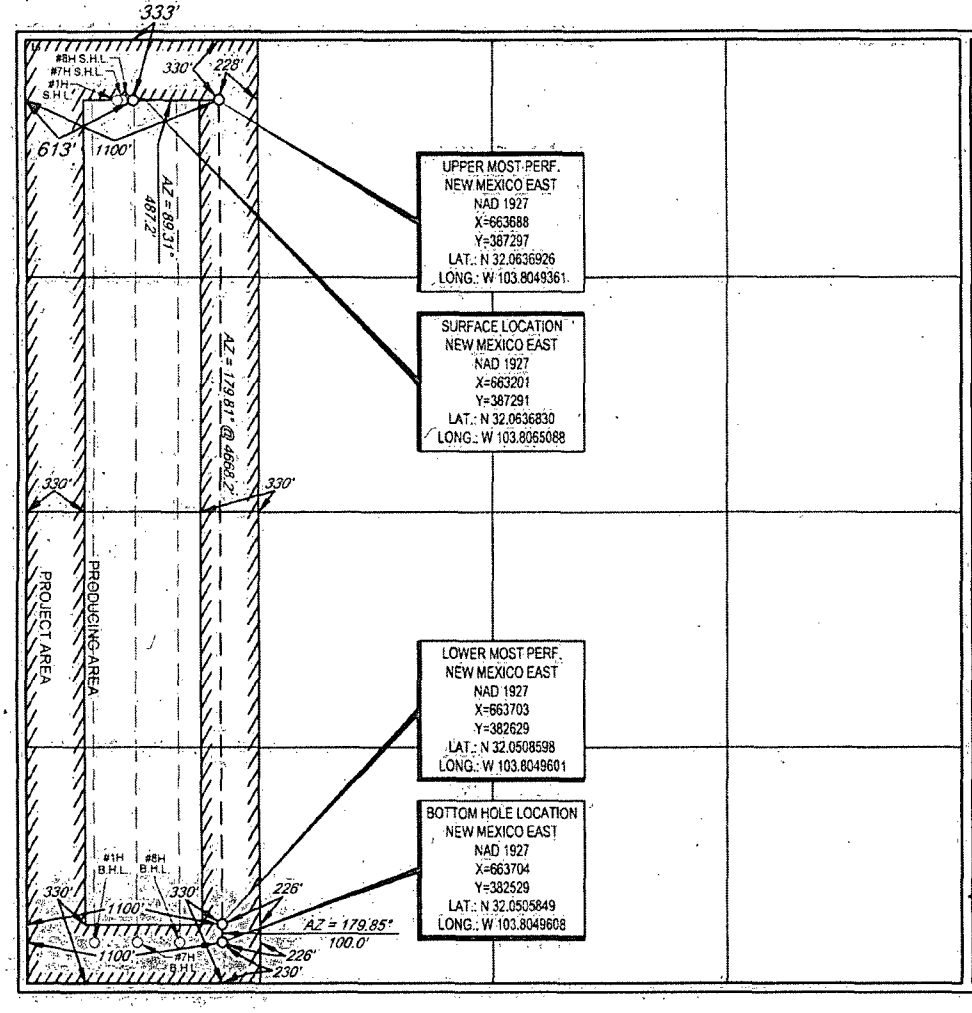
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	8	26-S	31-E	-	333'	NORTH	613'	WEST	EDDY

11 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
M	8	26-S	31-E	-	230'	SOUTH	1100'	WEST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
160			

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.



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Stan Wagner 3/14/14
Signature Date

Stan Wagner
Printed Name

E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

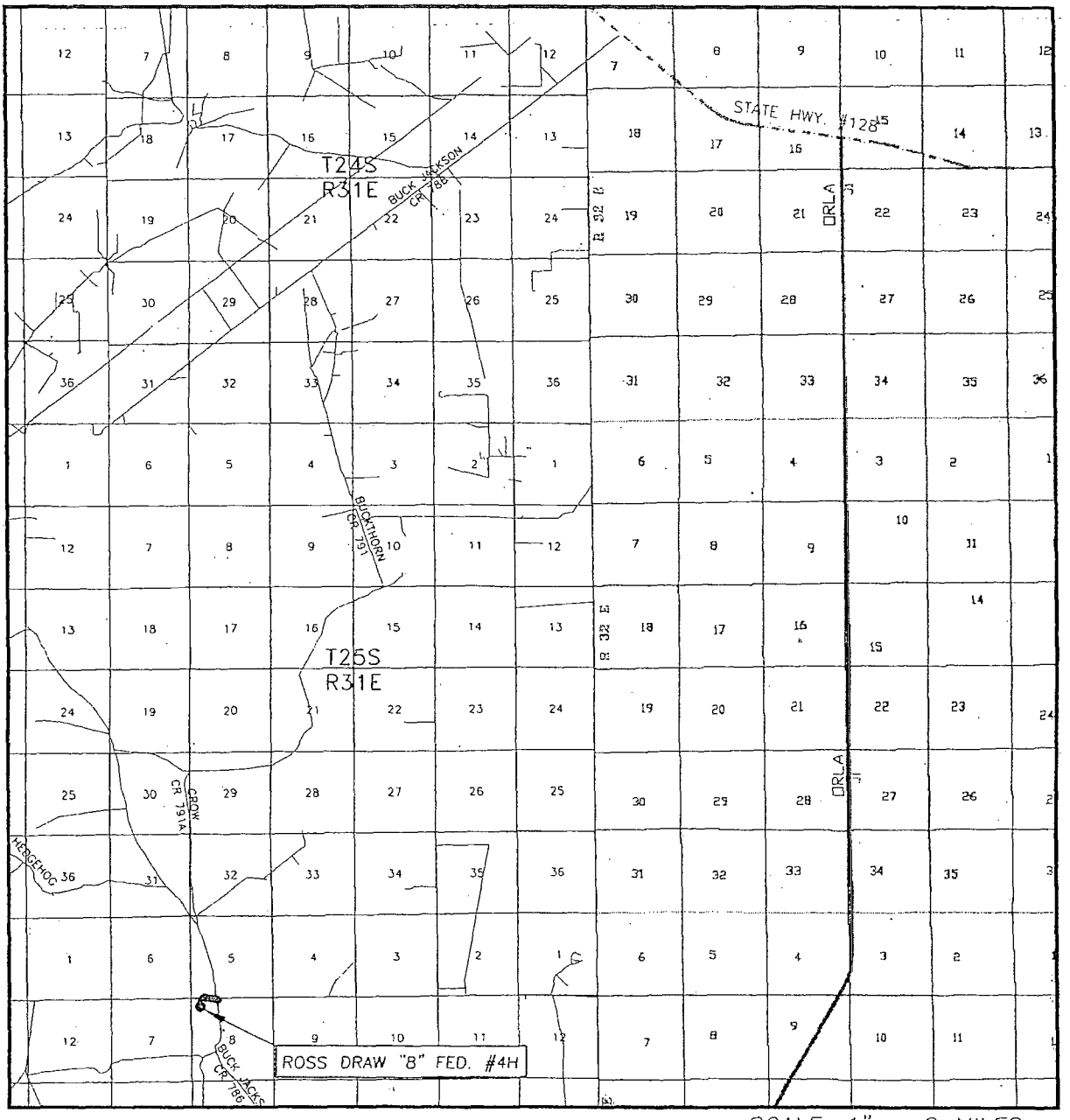
9/5/2013
Date of Survey
Signature and Seal of Professional Surveyor

MICHAEL B. BROWN
NEW MEXICO
18329
PROFESSIONAL SURVEYOR

Certificate Number

EXHIBIT 2

VICINITY MAP



SCALE: 1" = 2 MILES

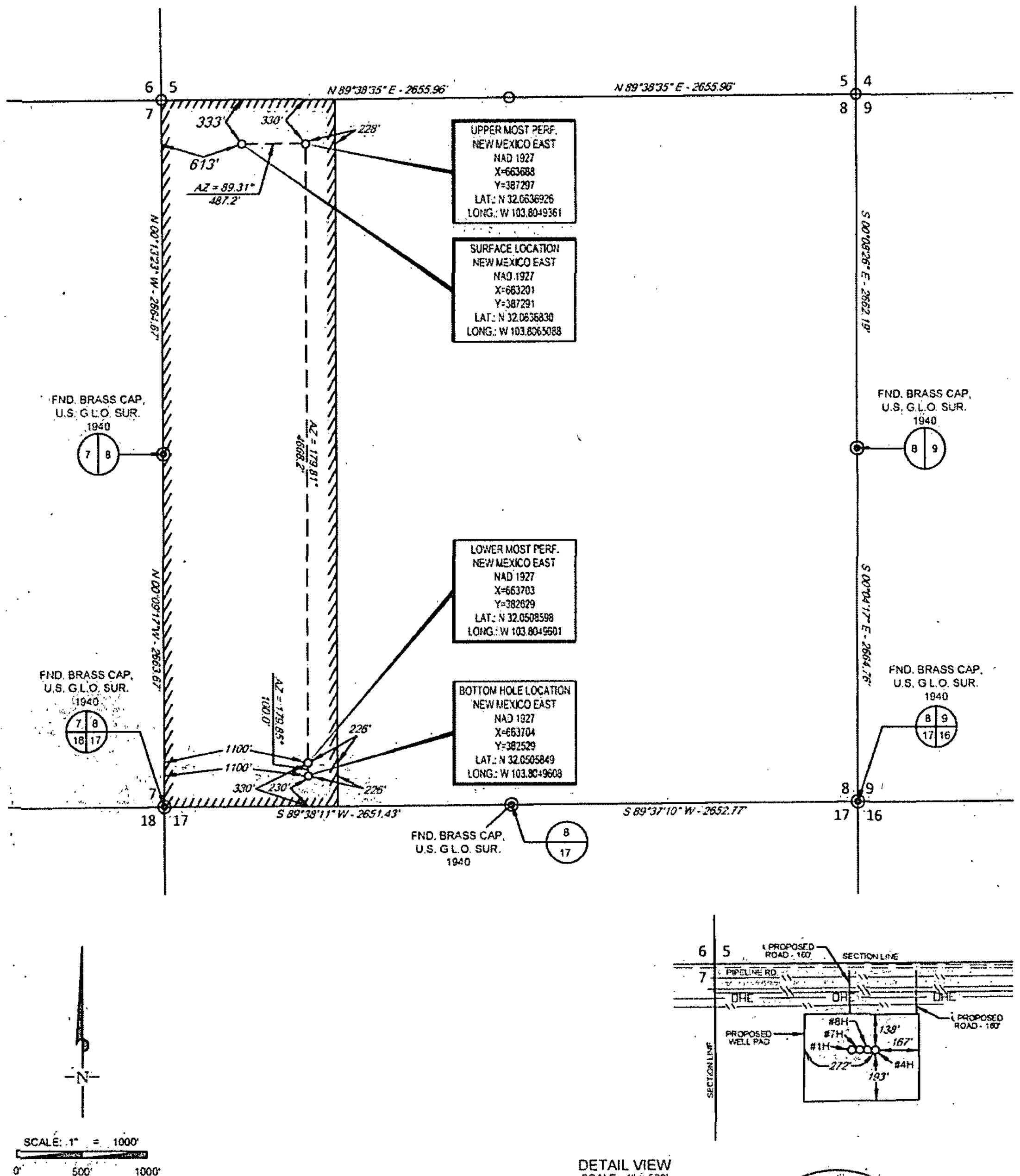
SEC. 8 TWP. 26-S RGE. 31-E
SURVEY N.M.P.M.
COUNTY EDDY
DESCRIPTION 330' FNL & 610' FWL
ELEVATION 3278.4'
OPERATOR EOG RESOURCES, INC.
LEASE ROSS DRAW "8" FED. #4H

Asel Surveying
P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 575-393-9146

DIRECTIONS BEGINNING IN JAL AT THE INTERSECTION OF STATE HWY. #18 AND STATE HWY. #128, GO NORTHWEST/WEST ON STATE HWY. #128 FOR 33.1 MILES, TURN LEFT ON COUNTY ROAD #786 (BUCK JACKSON ROAD) AND GO SOUTHWEST FOR 8.0 MILES, GO WEST FOR 0.1 MILES, GO NORTH FOR 0.1 MILES, GO WEST FOR 0.8 MILES, GO SOUTH FOR 2.5 MILES, GO SOUTHEAST FOR 5.3 MILES, GO WEST FOR 0.2 MILES, TURN LEFT ON PROPOSED ROAD AND GO SOUTH FOR 0.1 MILES TO LOCATION.

eog resources, inc.

SECTION 8, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: ROSS DRAW 8 FED #4H

SECTION 8 TWP 26-S RGE 31-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 333' FNL & 613' FWL

DISTANCE & DIRECTION FROM INT. OF US-285 & CR. 720, GO SOUTH ON US-285 ±12.6 MILES, THENCE NORTHEAST (LEFT) ON WHITEHORN RD. ±4.1 MILES; THENCE EAST (LEFT) ON PIPELINE RD. ±11.3 MILES TO A POINT ±160 FEET NORTH OF THE LOCATION.

MICHAEL B. BROWN
NEW MEXICO
18329
PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
SEPTEMBER 18, 2012

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

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.

ORIGINAL DOCUMENT SIZE: 8.5" X 14"

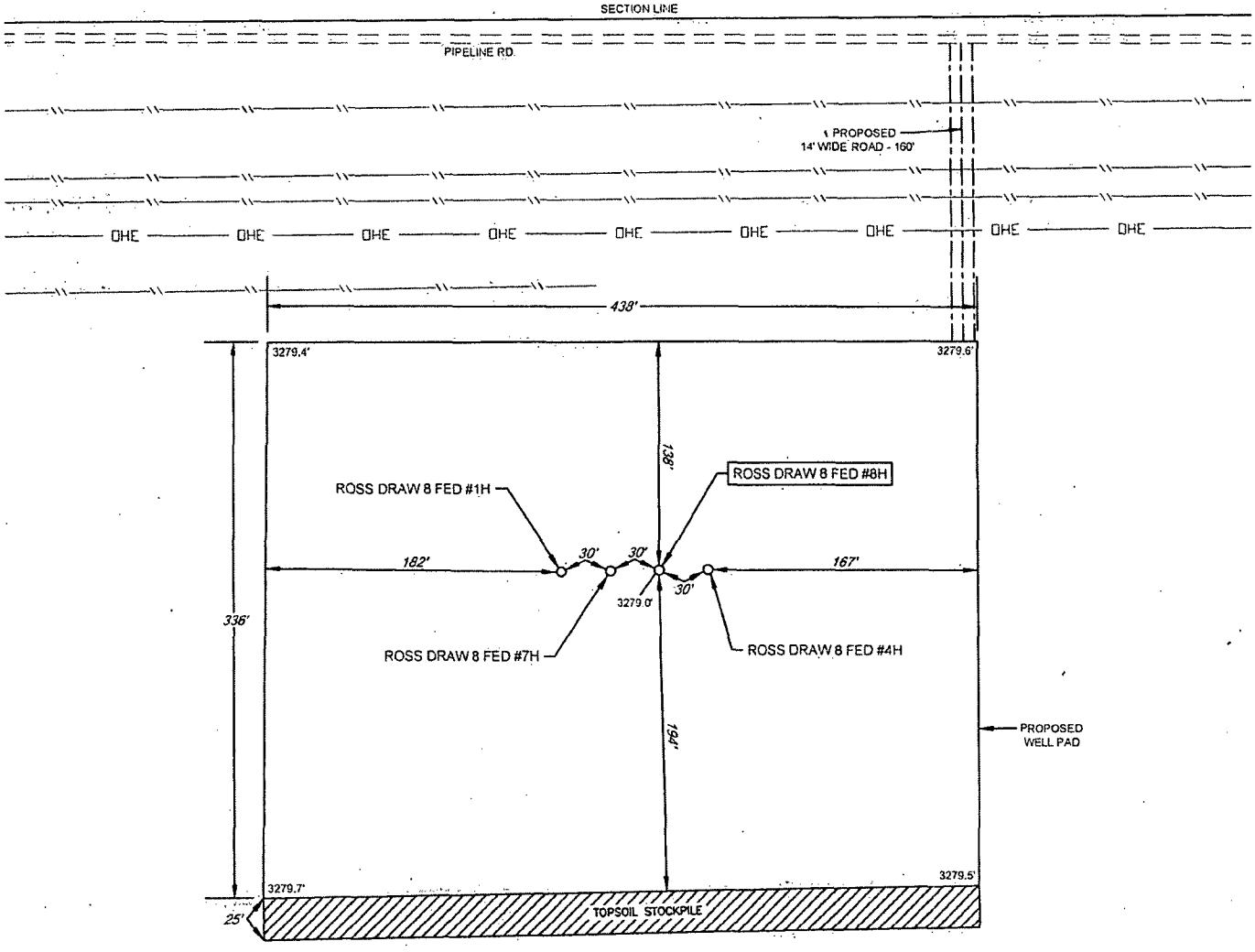
TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 197 · FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 · FAX (817) 744-7548
TEXAS FIRM REGISTRATION NO. 10042504
2903 NORTH BIG SPRING · MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 · FAX (432) 682-1743
TEXAS FIRM REGISTRATION NO. 10042500
WWW.TOPOGRAPHIC.COM

EXHIBIT 2B

eog resources, inc.

SECTION 8, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



LEGEND

- ROAD WAY
- SECTION LINE
- EXISTING PIPELINE
- FENCE LINE

LEASE NAME & WELL NO.: ROSS DRAW 8 FED #8H

#8H LATITUDE N 32.0636824 #8H LONGITUDE W 103.8066064

-N-

SCALE: NTS

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

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ORIGINAL DOCUMENT SIZE: 8.5" X 11"

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7543
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

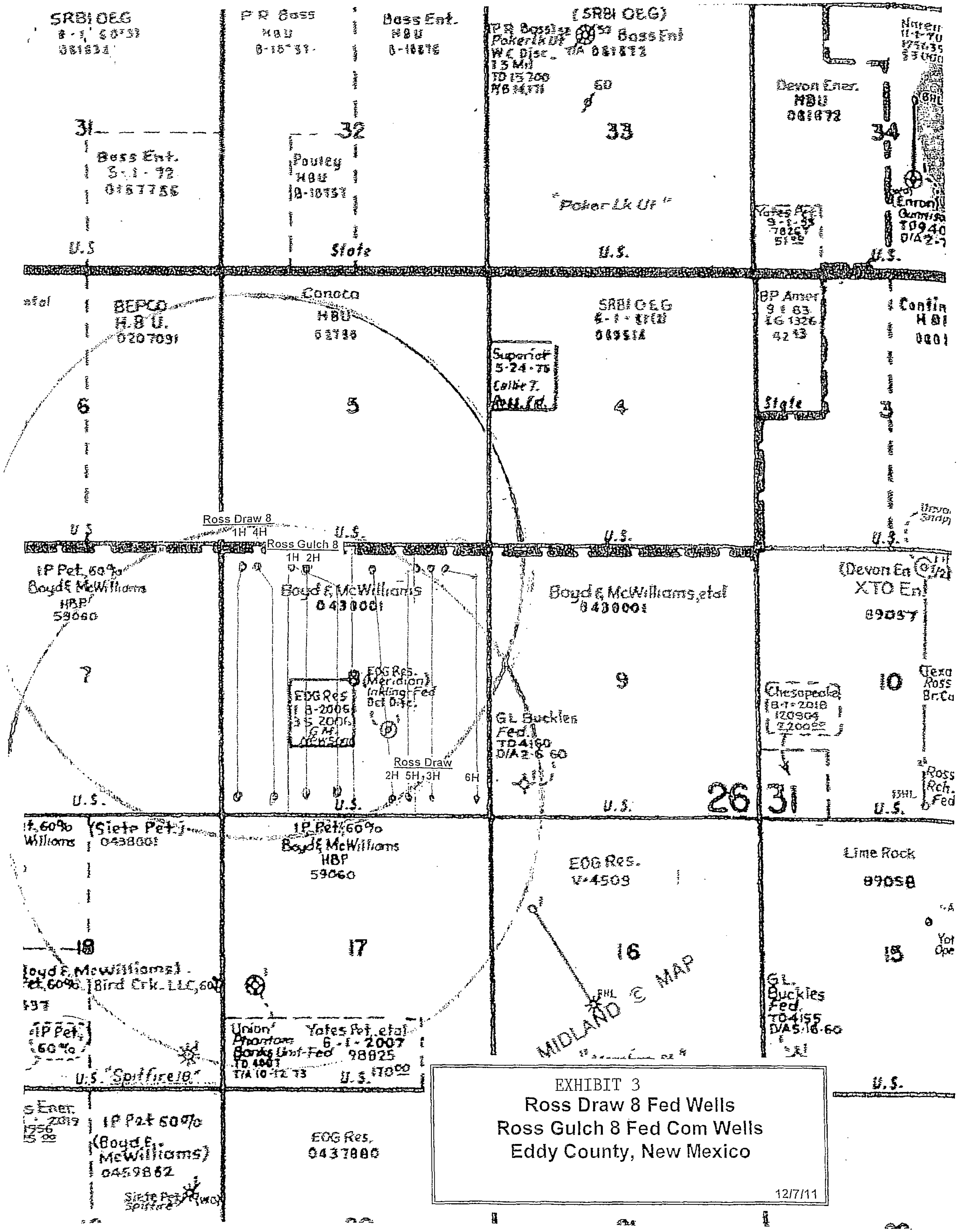
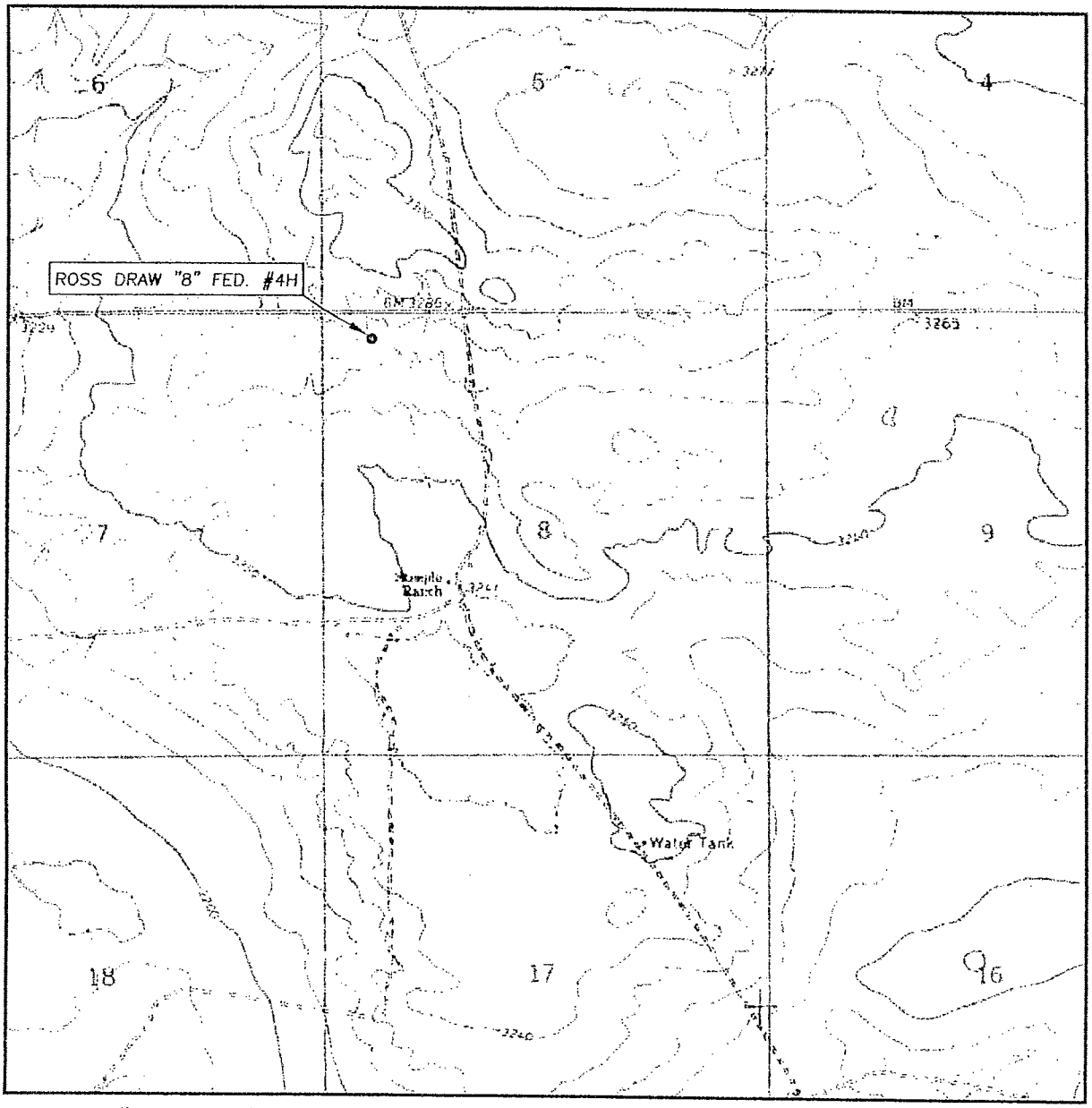


EXHIBIT 3
Ross Draw 8 Fed Wells
Ross Gulch 8 Fed Com Wells
Eddy County, New Mexico
12/7/11

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

SEC. 8 TWP. 26-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 330' FNL & 610' FWL

ELEVATION 3278.4'

OPERATOR ECG RESOURCES, INC.

LEASE ROSS DRAW "8" FED. #4H

U.S.G.S. TOPOGRAPHIC MAP

Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 575-393-9146

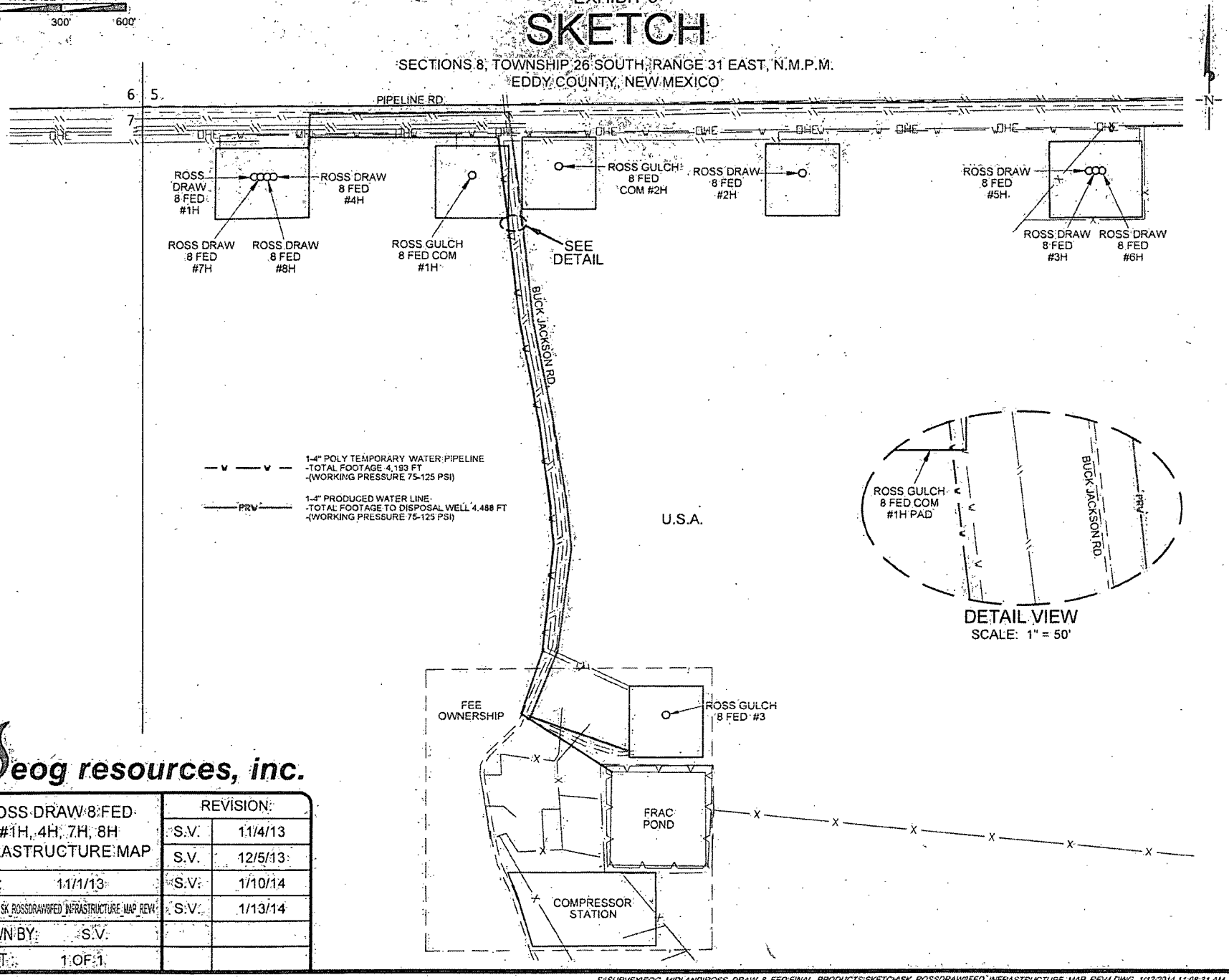
SCALE 1" = 600'

0' 300' 600'

EXHIBIT 5

SKETCH

SECTIONS 8, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO



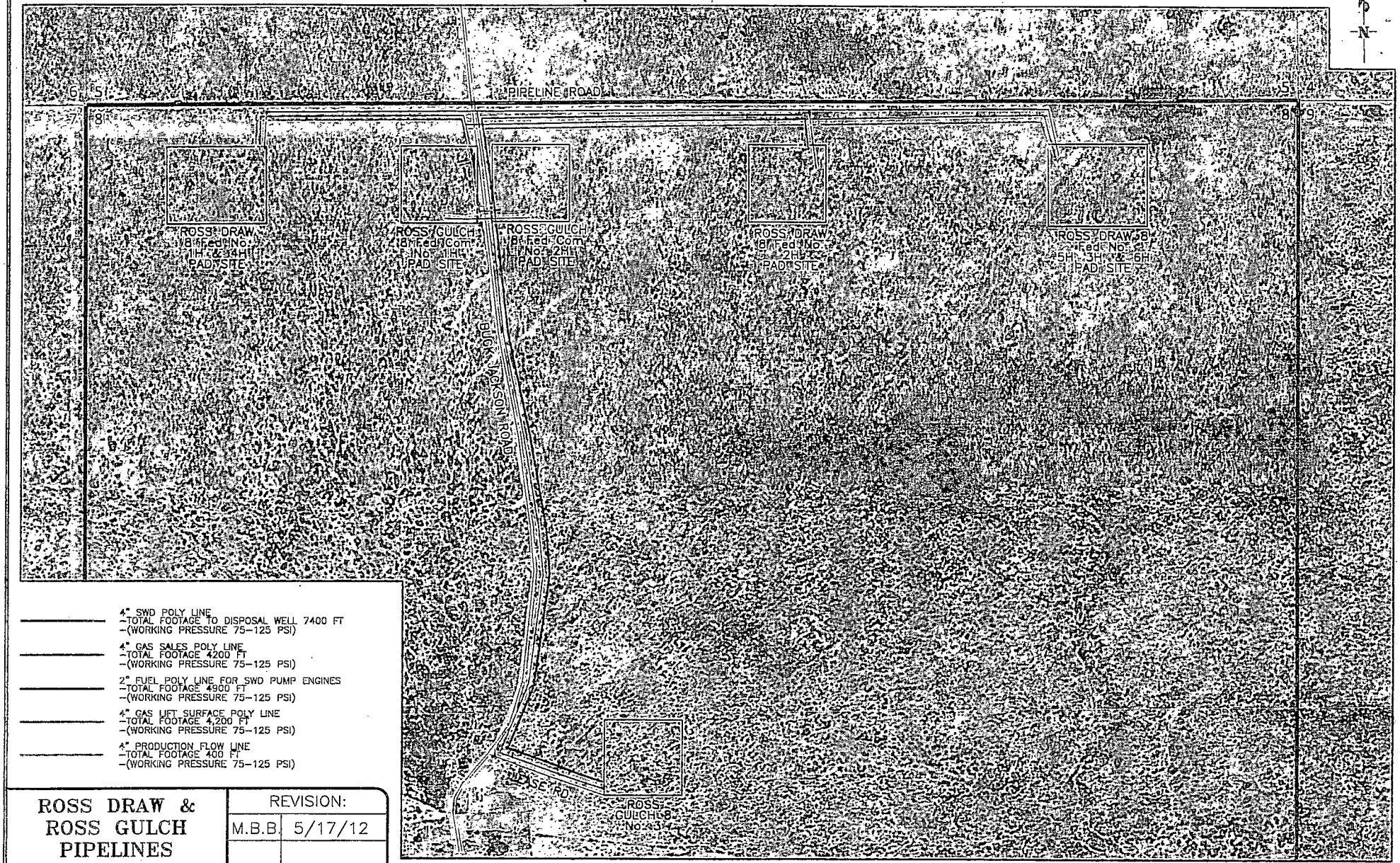
eog resources, inc.

ROSS DRAW 8 FED #1H, 4H, 7H, 8H INFRASTRUCTURE MAP	REVISION:	
	S.V.	11/4/13
	S.V.	12/5/13
DATE: 11/1/13	S.V.	1/10/14
FILE: SK_ROSSDRAW8FED_INFRASTRUCTURE_MAP_REV4	S.V.	1/13/14
DRAWN BY: S.V.		
SHEET: 1 OF 1		

S:\SURVEY\EOG_MIDLAND\ROSS_DRAW_8_FED\FINAL_PRODUCTS\SKETCH\SK_ROSSDRAW8FED_INFRASTRUCTURE_MAP_REV4.DWG 1/13/2014 11:08:31 AM svillagrana

SECTION 8, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SCALE: 1" = 600'
0' 300' 600'



4" SWD POLY LINE
-TOTAL FOOTAGE TO DISPOSAL WELL 7400 FT
-(WORKING PRESSURE 75-125 PSI)

4" GAS SALES POLY LINE
-TOTAL FOOTAGE 4200 FT
-(WORKING PRESSURE 75-125 PSI)

2" FUEL POLY LINE FOR SWD PUMP ENGINES
-TOTAL FOOTAGE 4900 FT
-(WORKING PRESSURE 75-125 PSI)

4" GAS LIFT SURFACE POLY LINE
-TOTAL FOOTAGE 4,200 FT
-(WORKING PRESSURE 75-125 PSI)

4" PRODUCTION FLOW LINE
-TOTAL FOOTAGE 400 FT
-(WORKING PRESSURE 75-125 PSI)

ROSS DRAW & ROSS GULCH PIPELINES	REVISION:	
	M.B.B.	5/17/12
DATE: MAY 16, 2012		
FILE: EP_ROSSDRAW_LINES LANDSCAPE_REV1		
DRAWN BY: A.C.C.		
SHEET : 1 OF 1		

Exhibit 5

eog resources, inc.

SCALE 1" = 300'

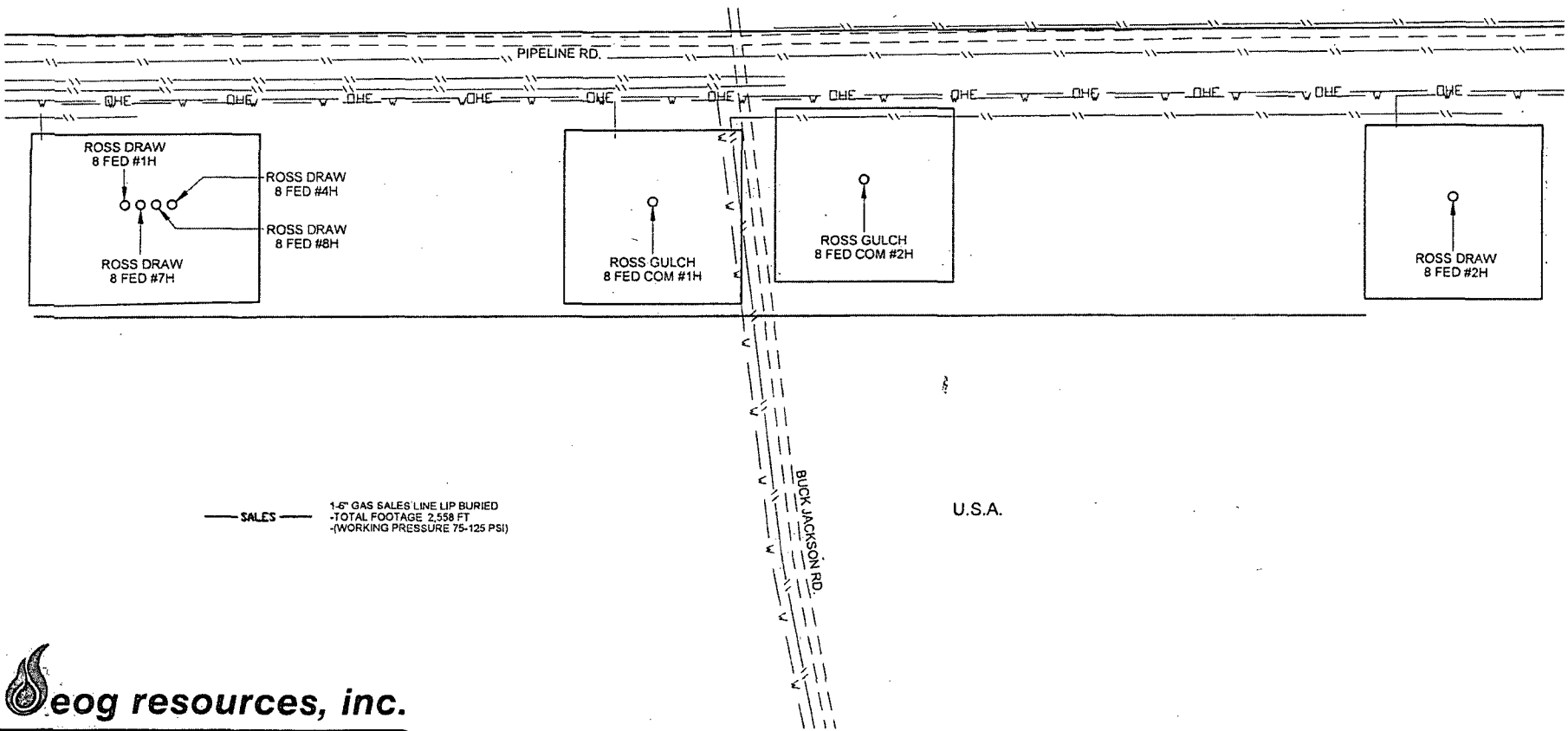
0' 150' 300'

EXHIBIT 5A

SKETCH

SECTIONS 8, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

-N-



—— SALES ——

1-6" GAS SALES LINE UP BURIED
-TOTAL FOOTAGE 2,558 FT
-(WORKING PRESSURE 75-125 PSI)

eog resources, inc.

ROSS DRAW 8 FED #1H, 4H, 7H, 8H GAS SALES	REVISION:	
	INT	DATE
DATE: 01/13/14		
FILE: SK_ROSSDRAW8FED_GAS_SALES		
DRAWN BY: S.V.		
SHEET: 1 OF 1		

S:\SURVEY\EOG_MIDLAND\ROSS_DRAW_8_FED\FINAL_PRODUCTS\SKETCH\SK_ROSSDRAW8FED_GAS_SALES.DWG 1/13/2014 11:09:04 AM svillagrana

EOG RESOURCES, INC.
ROSS DRAW 8 FED NO. 4H
REVISED 10/15/13

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,160'
Top of Salt	1,520'
Base of Salt	3,797'
Lamar	4,008'
Bell Canyon	4,032'
Cherry Canyon	4,952'
Brushy Canyon	6,197'
Bone Spring Lime	7,990'
TD	8,430'

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

Upper Permian Sands	0- 400'	Fresh Water
Brushy Canyon	6,197'	Oil
Bone Spring Lime	7,990'	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 1185' 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 – 1185'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
8.75"	0'-13,298'	5.500"	17#	P110 or HCP110	LTC	1.125	1.25	1.60

Cementing Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft^3/ft	Slurry Description
1185'	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)
	300	14.8	1.34	Tail: Class C + 0.005 pps Static Free + 2% $CaCl_2$ + 0.25 pps CelloFlake + 0.005 gps FP-6L
4,000'	600	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
13,298'	300	10.8	3.67	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 @ 3500')
	225	11.8	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
	1300	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.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1185'	Fresh Water Gel	8.6-8.8	28-34	N/c
1185' – 4,000'	Saturated Brine	10.0-10.2	28-34	N/c
4,000' – 7,981'	Fresh Water	8.4-8.6	28-34	N/c
7,981'– 13,298' Lateral	Cut Brine Water	9.0-9.5	28-34	N/c

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) H_2S monitoring and detection equipment will be utilized from surface casing point to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

See COA

Open-hole logs are not planned for this well.

GR–CCL Will be run in cased hole during completions phase of operations.

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

The estimated bottom-hole temperature (BHT) at TD is 145 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 3650 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:

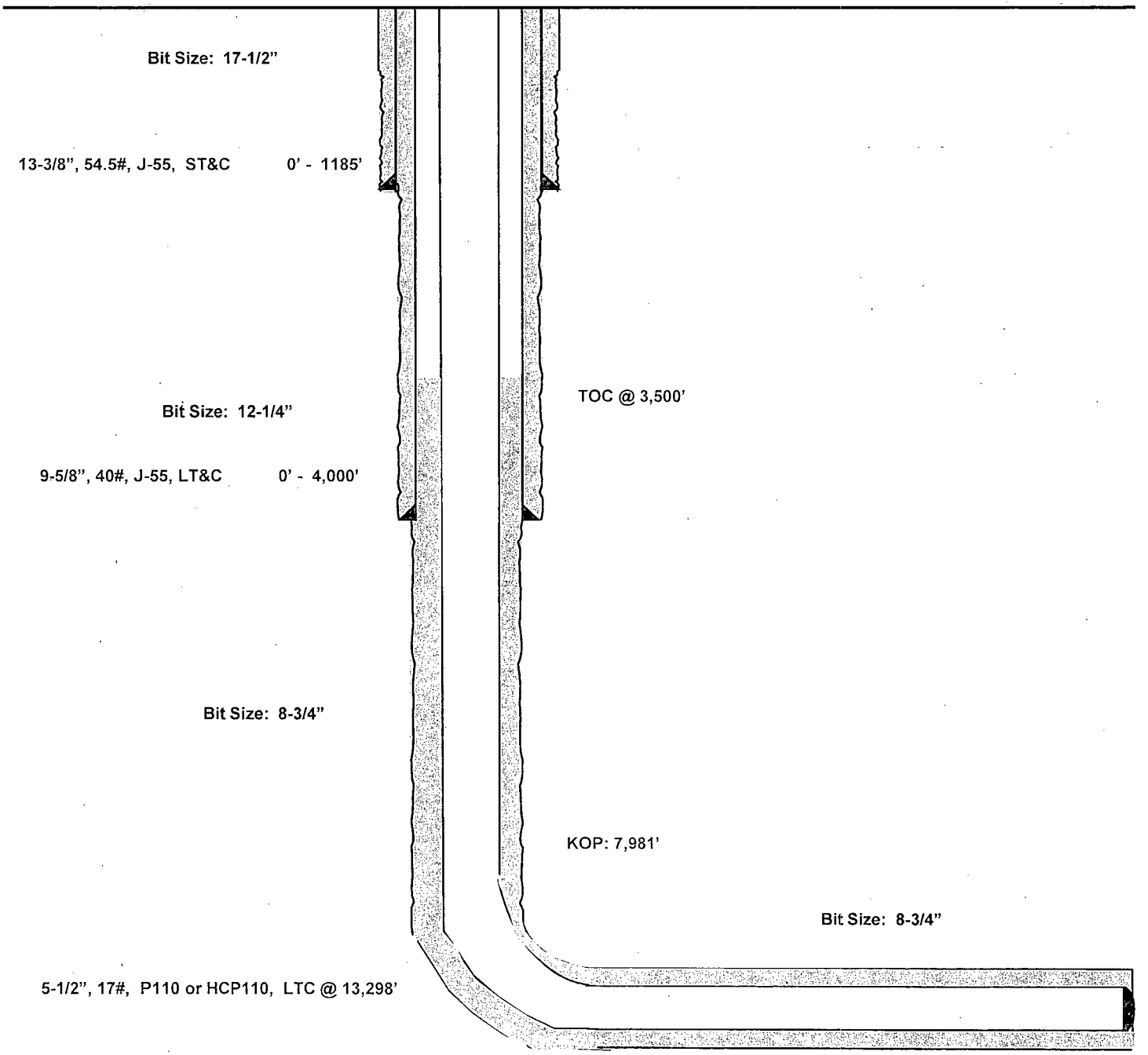
The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

Ross Draw 8 Fed #4H
Eddy County, New Mexico
Proposed Wellbore
Revised 10/15/13

333' FNL
613' FWL
Section 8
T-26-S, R-31-E

API: 30-015-40565

KB: 3,308'
GL: 3,278'



Lateral:
13,298' MD, 8,430' TVD

BH Location: 230' FSL & 100' FWL
Section 8
T-26-S, R-31-E

EOG Resources

Project: Eddy County, NM (NAD27 NME)
Site: Ross Draw 8 Fed
Well: Ross Draw 8 Fed 4H
Wellbore: Wellbore #1
Plan: Plan#2 101613
Rig: Cactus Rig No. 123

PROJECT DETAILS: Eddy County, NM (NAD27 NME)	
Geodetic System:	US State Plane 1927 (Exact solution)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	New Mexico East 3001
System Datum:	Mean Sea Level
Location North:	Grid

Azimuths to Grid North
True North: -0.28°
Magnetic North: 7.12°

Magnetic Field
Strength: 48261.4snT
Dip Angle: 59.94°
Date: 10/16/2013
Model: IGRF2010_14

PHOENIX TECHNOLOGY SERVICES

WELL DETAILS: Ross Draw 8 Fed 4H

Ground Level: 3278.40

Northing	Easting	Latitude	Longitude
387291.00	663201.00	32° 3' 49.25986 N	103° 48' 23.42982 W

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
KOP Ross Draw 8 Fed 4H	7952.54	282.30	486.00	387573.30	663687.00	Point
BHL Ross Draw 8 Fed 4H	8430.00	-4762.00	503.00	382529.00	663704.00	Point
Low Per Point Ross Draw 8 Fed 4H	8430.00	-4662.00	502.00	382629.00	663703.00	Point
Up. Per Point Ross Draw 8 Fed 4H	8430.00	6.00	487.00	387297.00	663688.00	Point

ANNOTATIONS

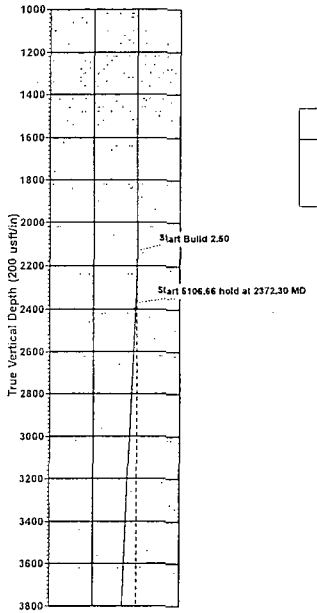
TVD	MD	Annotation
2132.30	2132.30	Start Build 2.50
2371.86	2372.30	Start 5106.66 hold at 2372.30 MD
7450.55	7478.96	Start Drop -2.00
7750.00	7778.96	Start 202.54 hold at 7778.96 MD
7952.54	7981.50	Start Build 12.00
8430.00	8731.50	Start 4566.86 hold at 8731.50 MD
8430.00	13298.36	TD at 13298.36

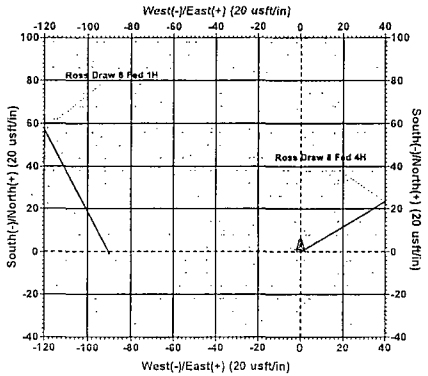
SECTION DETAILS

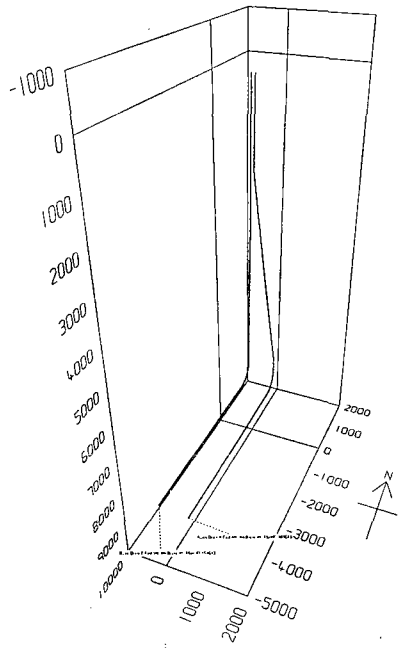
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2132.30	0.00	0.00	2132.30	0.00	0.00	0.00	0.00	0.00	
2372.30	6.00	59.85	2371.86	6.31	10.86	2.50	59.85	-5.13	
7478.96	6.00	59.85	7450.55	274.42	472.43	0.00	0.00	-223.27	
7778.96	0.00	0.00	7750.00	282.30	486.00	2.00	180.00	-229.69	
7981.50	0.00	0.00	7952.54	282.30	486.00	0.00	0.00	-229.69	
8731.50	90.00	179.81	8430.00	-195.16	487.61	12.00	179.81	245.30	
13298.36	90.00	179.81	8430.00	-4762.00	503.00	0.00	0.00	4788.49	BHL Ross Draw 8 Fed 4H

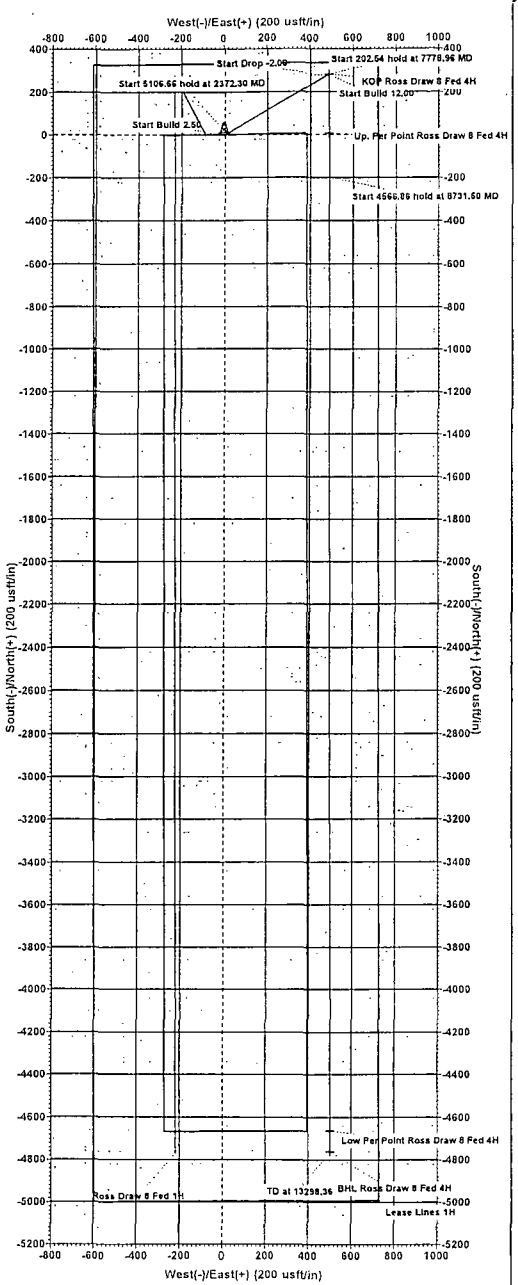
FORMATION TOP DETAILS

No formation data is available









eog resources

EOG Resources

Eddy County, NM (NAD27 NME)
Ross Draw 8 Fed
Ross Draw 8 Fed 4H

Wellbore #1

Plan: Plan#2 101613

Standard Survey Report

16 October, 2013

eog resources

Survey Report

Company:	EOG Resources	**Local Co-ordinate Reference:**	Well Ross Draw 8 Fed 4H
Project:	Eddy County, NM (NAD27 NME)	**TVD Reference:**	WELL @ 3308.40usft (Original Well Elev)
Site:	Ross Draw 8 Fed	**MD Reference:**	WELL @ 3308.40usft (Original Well Elev)
Well:	Ross Draw 8 Fed 4H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan#2 101613	**Database:**	Compass 5000 GCR DB

Project Eddy County, NM (NAD27 NME)

Map System:	*US State Plane 1927 (Exact solution)*	**System Datum:**	*Mean Sea Level*
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Ross Draw, 8 Fed

Site Position:		**Northing:**	387,290.50 usft	**Latitude:**	32° 3' 49.25933 N
From:	Map	**Easting:**	663,109.60 usft	**Longitude:**	103° 48' 24.49197 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.28 °

Well Ross Draw 8 Fed 4H

Well Position	**+N/-S**	0.00 usft	**Northing:**	387,291.00 usft	**Latitude:**	32° 3' 49.25986 N
	+E/-W	0.00 usft	**Easting:**	663,201.00 usft	**Longitude:**	103° 48' 23.42982 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,278.40 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	10/16/13	7.40	59.94	48,261

Design Plan#2 101613

Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	173.97

Survey Tool Program **Date** 10/16/13

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	13,298.32	Plan#2 101613 (Wellbore #1)	MWD	MWD - Standard

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00

Company:	EOG Resources	Local Co-ordinate Reference:	Well Ross Draw 8 Fed 4H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	WELL @ 3308.40usft (Original Well Elev)
Site:	Ross Draw 8 Fed	MD Reference:	WELL @ 3308.40usft (Original Well Elev)
Well:	Ross Draw 8 Fed 4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan#2 101613	Database:	Compass 5000 GCR DB

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,132.30	0.00	0.00	2,132.30	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.50									
2,200.00	1.69	59.85	2,199.99	0.50	0.86	-0.41	2.50	2.50	0.00
2,300.00	4.19	59.85	2,299.85	3.08	5.30	-2.51	2.50	2.50	0.00
2,372.30	6.00	59.85	2,371.86	6.31	10.86	-5.13	2.50	2.50	0.00
Start 5106.66 hold at 2372.30 MD									
2,400.00	6.00	59.85	2,399.41	7.76	13.36	-6.31	0.00	0.00	0.00
2,500.00	6.00	59.85	2,498.86	13.01	22.40	-10.59	0.00	0.00	0.00
2,600.00	6.00	59.85	2,598.31	18.26	31.44	-14.86	0.00	0.00	0.00
2,700.00	6.00	59.85	2,697.77	23.51	40.48	-19.13	0.00	0.00	0.00
2,800.00	6.00	59.85	2,797.22	28.76	49.51	-23.40	0.00	0.00	0.00
2,900.00	6.00	59.85	2,896.67	34.01	58.55	-27.67	0.00	0.00	0.00
3,000.00	6.00	59.85	2,996.12	39.26	67.59	-31.94	0.00	0.00	0.00
3,100.00	6.00	59.85	3,095.58	44.51	76.63	-36.22	0.00	0.00	0.00
3,200.00	6.00	59.85	3,195.03	49.76	85.67	-40.49	0.00	0.00	0.00
3,300.00	6.00	59.85	3,294.48	55.01	94.71	-44.76	0.00	0.00	0.00
3,400.00	6.00	59.85	3,393.93	60.26	103.75	-49.03	0.00	0.00	0.00
3,500.00	6.00	59.85	3,493.38	65.51	112.79	-53.30	0.00	0.00	0.00
3,600.00	6.00	59.85	3,592.84	70.76	121.82	-57.57	0.00	0.00	0.00
3,700.00	6.00	59.85	3,692.29	76.01	130.86	-61.85	0.00	0.00	0.00
3,800.00	6.00	59.85	3,791.74	81.26	139.90	-66.12	0.00	0.00	0.00
3,900.00	6.00	59.85	3,891.19	86.51	148.94	-70.39	0.00	0.00	0.00
4,000.00	6.00	59.85	3,990.64	91.76	157.98	-74.66	0.00	0.00	0.00
4,100.00	6.00	59.85	4,090.10	97.01	167.02	-78.93	0.00	0.00	0.00
4,200.00	6.00	59.85	4,189.55	102.26	176.06	-83.21	0.00	0.00	0.00
4,300.00	6.00	59.85	4,289.00	107.51	185.09	-87.48	0.00	0.00	0.00
4,400.00	6.00	59.85	4,388.45	112.77	194.13	-91.75	0.00	0.00	0.00
4,500.00	6.00	59.85	4,487.91	118.02	203.17	-96.02	0.00	0.00	0.00
4,600.00	6.00	59.85	4,587.36	123.27	212.21	-100.29	0.00	0.00	0.00
4,700.00	6.00	59.85	4,686.81	128.52	221.25	-104.56	0.00	0.00	0.00
4,800.00	6.00	59.85	4,786.26	133.77	230.29	-108.84	0.00	0.00	0.00
4,900.00	6.00	59.85	4,885.71	139.02	239.33	-113.11	0.00	0.00	0.00

Company:	EOG Resources	Local Co-ordinate Reference:	Well Ross Draw 8 Fed 4H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	WELL @ 3308.40usft (Original Well Elev)
Site:	Ross Draw 8 Fed	MD Reference:	WELL @ 3308.40usft (Original Well Elev)
Well:	Ross Draw 8 Fed 4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan#2 101613	Database:	Compass 5000 GCR DB

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.00	6.00	59.85	4,985.17	144.27	248.37	-117.38	0.00	0.00	0.00
5,100.00	6.00	59.85	5,084.62	149.52	257.40	-121.65	0.00	0.00	0.00
5,200.00	6.00	59.85	5,184.07	154.77	266.44	-125.92	0.00	0.00	0.00
5,300.00	6.00	59.85	5,283.52	160.02	275.48	-130.19	0.00	0.00	0.00
5,400.00	6.00	59.85	5,382.98	165.27	284.52	-134.47	0.00	0.00	0.00
5,500.00	6.00	59.85	5,482.43	170.52	293.56	-138.74	0.00	0.00	0.00
5,600.00	6.00	59.85	5,581.88	175.77	302.60	-143.01	0.00	0.00	0.00
5,700.00	6.00	59.85	5,681.33	181.02	311.64	-147.28	0.00	0.00	0.00
5,800.00	6.00	59.85	5,780.78	186.27	320.67	-151.55	0.00	0.00	0.00
5,900.00	6.00	59.85	5,880.24	191.52	329.71	-155.82	0.00	0.00	0.00
6,000.00	6.00	59.85	5,979.69	196.77	338.75	-160.10	0.00	0.00	0.00
6,100.00	6.00	59.85	6,079.14	202.02	347.79	-164.37	0.00	0.00	0.00
6,200.00	6.00	59.85	6,178.59	207.27	356.83	-168.64	0.00	0.00	0.00
6,300.00	6.00	59.85	6,278.05	212.52	365.87	-172.91	0.00	0.00	0.00
6,400.00	6.00	59.85	6,377.50	217.77	374.91	-177.18	0.00	0.00	0.00
6,500.00	6.00	59.85	6,476.95	223.02	383.94	-181.46	0.00	0.00	0.00
6,600.00	6.00	59.85	6,576.40	228.27	392.98	-185.73	0.00	0.00	0.00
6,700.00	6.00	59.85	6,675.85	233.52	402.02	-190.00	0.00	0.00	0.00
6,800.00	6.00	59.85	6,775.31	238.77	411.06	-194.27	0.00	0.00	0.00
6,900.00	6.00	59.85	6,874.76	244.02	420.10	-198.54	0.00	0.00	0.00
7,000.00	6.00	59.85	6,974.21	249.27	429.14	-202.81	0.00	0.00	0.00
7,100.00	6.00	59.85	7,073.66	254.52	438.18	-207.09	0.00	0.00	0.00
7,200.00	6.00	59.85	7,173.12	259.77	447.22	-211.36	0.00	0.00	0.00
7,300.00	6.00	59.85	7,272.57	265.02	456.25	-215.63	0.00	0.00	0.00
7,400.00	6.00	59.85	7,372.02	270.27	465.29	-219.90	0.00	0.00	0.00
7,478.96	6.00	59.85	7,450.55	274.42	472.43	-223.27	0.00	0.00	0.00
Start Drop -2.00									
7,500.00	5.58	59.85	7,471.48	275.48	474.26	-224.14	2.00	-2.00	0.00
7,600.00	3.58	59.85	7,571.16	279.49	481.17	-227.40	2.00	-2.00	0.00
7,700.00	1.58	59.85	7,671.05	281.75	485.06	-229.24	2.00	-2.00	0.00
7,778.96	0.00	0.00	7,750.00	282.30	486.00	-229.69	2.00	-2.00	0.00
Start 202.54 hold at 7778.96 MD									
7,800.00	0.00	0.00	7,771.04	282.30	486.00	-229.69	0.00	0.00	0.00
7,900.00	0.00	0.00	7,871.04	282.30	486.00	-229.69	0.00	0.00	0.00
7,981.50	0.00	0.00	7,952.54	282.30	486.00	-229.69	0.00	0.00	0.00
Start Build 12.00									
8,000.00	2.22	179.81	7,971.03	281.94	486.00	-229.33	12.00	12.00	0.00
8,100.00	14.22	179.81	8,069.83	267.67	486.05	-215.13	12.00	12.00	0.00
8,200.00	26.22	179.81	8,163.49	233.17	486.17	-180.81	12.00	12.00	0.00
8,300.00	38.22	179.81	8,247.94	179.95	486.34	-127.87	12.00	12.00	0.00
8,400.00	50.22	179.81	8,319.47	110.34	486.58	-58.61	12.00	12.00	0.00
8,500.00	62.22	179.81	8,374.97	27.37	486.86	23.92	12.00	12.00	0.00
8,600.00	74.22	179.81	8,412.01	-65.32	487.17	116.14	12.00	12.00	0.00
8,700.00	86.22	179.81	8,428.96	-163.69	487.50	213.99	12.00	12.00	0.00

Company:	EOG Resources	**Local Co-ordinate Reference:**	Well Ross Draw 8 Fed 4H
Project:	Eddy County, NM (NAD27 NME)	**TVD Reference:**	WELL @ 3308.40usft (Original Well Elev)
Site:	Ross Draw 8 Fed	**MD Reference:**	WELL @ 3308.40usft (Original Well Elev)
Well:	Ross Draw 8 Fed 4H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan#2 101613	**Database:**	Compass 5000 GCR DB

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,731.50	90.00	179.81	8,430.00	-195.16	487.61	245.30	12.00	12.00	0.00
Start 4566.86 hold at 8731.50 MD									
8,800.00	90.00	179.81	8,430.00	-263.67	487.84	313.45	0.00	0.00	0.00
8,900.00	90.00	179.81	8,430.00	-363.66	488.18	412.93	0.00	0.00	0.00
9,000.00	90.00	179.81	8,430.00	-463.66	488.51	512.41	0.00	0.00	0.00
9,100.00	90.00	179.81	8,430.00	-563.66	488.85	611.90	0.00	0.00	0.00
9,200.00	90.00	179.81	8,430.00	-663.66	489.19	711.38	0.00	0.00	0.00
9,300.00	90.00	179.81	8,430.00	-763.66	489.53	810.86	0.00	0.00	0.00
9,400.00	90.00	179.81	8,430.00	-863.66	489.86	910.34	0.00	0.00	0.00
9,500.00	90.00	179.81	8,430.00	-963.66	490.20	1,009.82	0.00	0.00	0.00
9,600.00	90.00	179.81	8,430.00	-1,063.66	490.54	1,109.30	0.00	0.00	0.00
9,700.00	90.00	179.81	8,430.00	-1,163.66	490.87	1,208.79	0.00	0.00	0.00
9,800.00	90.00	179.81	8,430.00	-1,263.66	491.21	1,308.27	0.00	0.00	0.00
9,900.00	90.00	179.81	8,430.00	-1,363.66	491.55	1,407.75	0.00	0.00	0.00
10,000.00	90.00	179.81	8,430.00	-1,463.66	491.88	1,507.23	0.00	0.00	0.00
10,100.00	90.00	179.81	8,430.00	-1,563.66	492.22	1,606.71	0.00	0.00	0.00
10,200.00	90.00	179.81	8,430.00	-1,663.66	492.56	1,706.19	0.00	0.00	0.00
10,300.00	90.00	179.81	8,430.00	-1,763.66	492.90	1,805.68	0.00	0.00	0.00
10,400.00	90.00	179.81	8,430.00	-1,863.66	493.23	1,905.16	0.00	0.00	0.00
10,500.00	90.00	179.81	8,430.00	-1,963.66	493.57	2,004.64	0.00	0.00	0.00
10,600.00	90.00	179.81	8,430.00	-2,063.66	493.91	2,104.12	0.00	0.00	0.00
10,700.00	90.00	179.81	8,430.00	-2,163.65	494.24	2,203.60	0.00	0.00	0.00
10,800.00	90.00	179.81	8,430.00	-2,263.65	494.58	2,303.08	0.00	0.00	0.00
10,900.00	90.00	179.81	8,430.00	-2,363.65	494.92	2,402.56	0.00	0.00	0.00
11,000.00	90.00	179.81	8,430.00	-2,463.65	495.25	2,502.05	0.00	0.00	0.00
11,100.00	90.00	179.81	8,430.00	-2,563.65	495.59	2,601.53	0.00	0.00	0.00
11,200.00	90.00	179.81	8,430.00	-2,663.65	495.93	2,701.01	0.00	0.00	0.00
11,300.00	90.00	179.81	8,430.00	-2,763.65	496.27	2,800.49	0.00	0.00	0.00
11,400.00	90.00	179.81	8,430.00	-2,863.65	496.60	2,899.97	0.00	0.00	0.00
11,500.00	90.00	179.81	8,430.00	-2,963.65	496.94	2,999.45	0.00	0.00	0.00
11,600.00	90.00	179.81	8,430.00	-3,063.65	497.28	3,098.94	0.00	0.00	0.00
11,700.00	90.00	179.81	8,430.00	-3,163.65	497.61	3,198.42	0.00	0.00	0.00
11,800.00	90.00	179.81	8,430.00	-3,263.65	497.95	3,297.90	0.00	0.00	0.00
11,900.00	90.00	179.81	8,430.00	-3,363.65	498.29	3,397.38	0.00	0.00	0.00
12,000.00	90.00	179.81	8,430.00	-3,463.65	498.62	3,496.86	0.00	0.00	0.00
12,100.00	90.00	179.81	8,430.00	-3,563.65	498.96	3,596.34	0.00	0.00	0.00
12,200.00	90.00	179.81	8,430.00	-3,663.65	499.30	3,695.83	0.00	0.00	0.00
12,300.00	90.00	179.81	8,430.00	-3,763.65	499.64	3,795.31	0.00	0.00	0.00
12,400.00	90.00	179.81	8,430.00	-3,863.64	499.97	3,894.79	0.00	0.00	0.00
12,500.00	90.00	179.81	8,430.00	-3,963.64	500.31	3,994.27	0.00	0.00	0.00
12,600.00	90.00	179.81	8,430.00	-4,063.64	500.65	4,093.75	0.00	0.00	0.00
12,700.00	90.00	179.81	8,430.00	-4,163.64	500.98	4,193.23	0.00	0.00	0.00
12,800.00	90.00	179.81	8,430.00	-4,263.64	501.32	4,292.72	0.00	0.00	0.00

eog resources

Survey Report

Company:	EOG Resources	Local Co-ordinate Reference:	Well Ross Draw 8 Fed 4H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	WELL @ 3308.40usft (Original Well Elev)
Site:	Ross Draw 8 Fed	MD Reference:	WELL @ 3308.40usft (Original Well Elev)
Well:	Ross Draw 8 Fed 4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan#2 101613	Database:	Compass 5000 GCR DB

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,900.00	90.00	179.81	8,430.00	-4,363.64	501.66	4,392.20	0.00	0.00	0.00
13,000.00	90.00	179.81	8,430.00	-4,463.64	501.99	4,491.68	0.00	0.00	0.00
13,100.00	90.00	179.81	8,430.00	-4,563.64	502.33	4,591.16	0.00	0.00	0.00
13,200.00	90.00	179.81	8,430.00	-4,663.64	502.67	4,690.64	0.00	0.00	0.00
13,298.36	90.00	179.81	8,430.00	-4,762.00	503.00	4,788.49	0.00	0.00	0.00
TD at 13298.36									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP Ross Draw 8 Fed 4	0.00	0.01	7,952.54	282.30	486.00	387,573.30	663,687.00	32° 3' 52.03005 N	103° 48' 17.76612 W
- plan hits target center - Point									
Up. Per Point Ross Drav	0.00	0.00	8,430.00	6.00	487.00	387,297.00	663,688.00	32° 3' 49.29568 N	103° 48' 17.77022 W
- plan misses target center by 40.65usft at 8540.34usft MD (8392.24 TVD, -9.07 N, 486.98 E) - Point									
Low Per Point Ross Dra	0.00	0.00	8,430.00	-4,662.00	502.00	382,629.00	663,703.00	32° 3' 3.09937 N	103° 48' 17.86143 W
- plan misses target center by 0.66usft at 13198.36usft MD (8430.00 TVD, -4662.00 N, 502.66 E) - Point									
BHL Ross Draw 8 Fed 4	0.00	0.01	8,430.00	-4,762.00	503.00	382,529.00	663,704.00	32° 3' 2.10970 N	103° 48' 17.85550 W
- plan hits target center - Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
2132	2132	0	0	Start Build 2.50
2372	2372	6	11	Start 5106.66 hold at 2372.30 MD
7479	7451	274	472	Start Drop -2.00
7779	7750	282	486	Start 202.54 hold at 7778.96 MD
7981	7953	282	486	Start Build 12.00
8731	8430	-195	488	Start 4566.86 hold at 8731.50 MD
13,298	8430	-4762	503	TD at 13298.36

Checked By: _____ Approved By: _____ Date: _____

EOG RESOURCES, INC.
ROSS DRAW 8 FED 4H

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, 5000 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 5000 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.

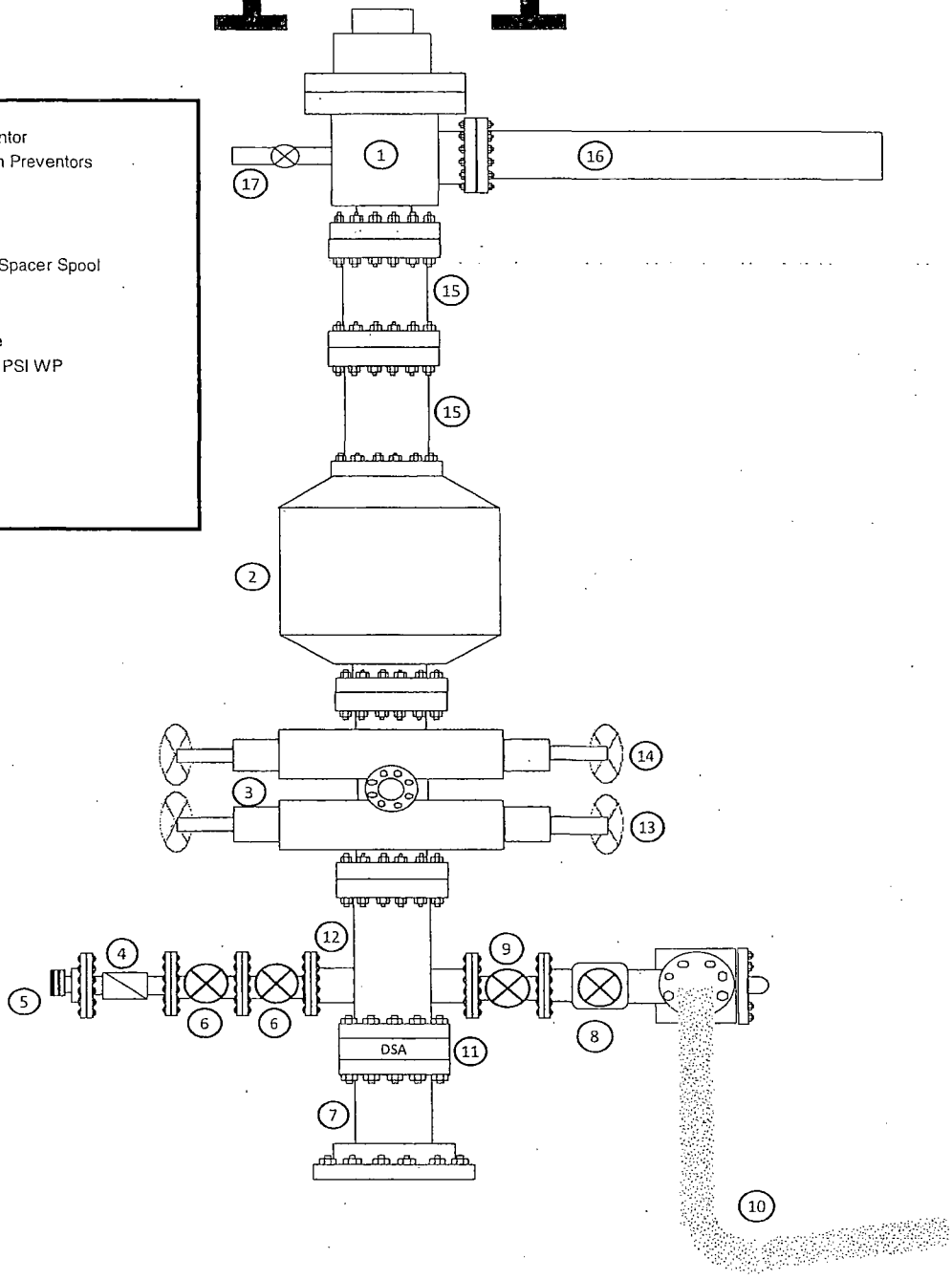
9. Blow out preventer control to be located as close to driller's position as feasible.

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.

EOG Resources
10M BOPE
Exhibit #1

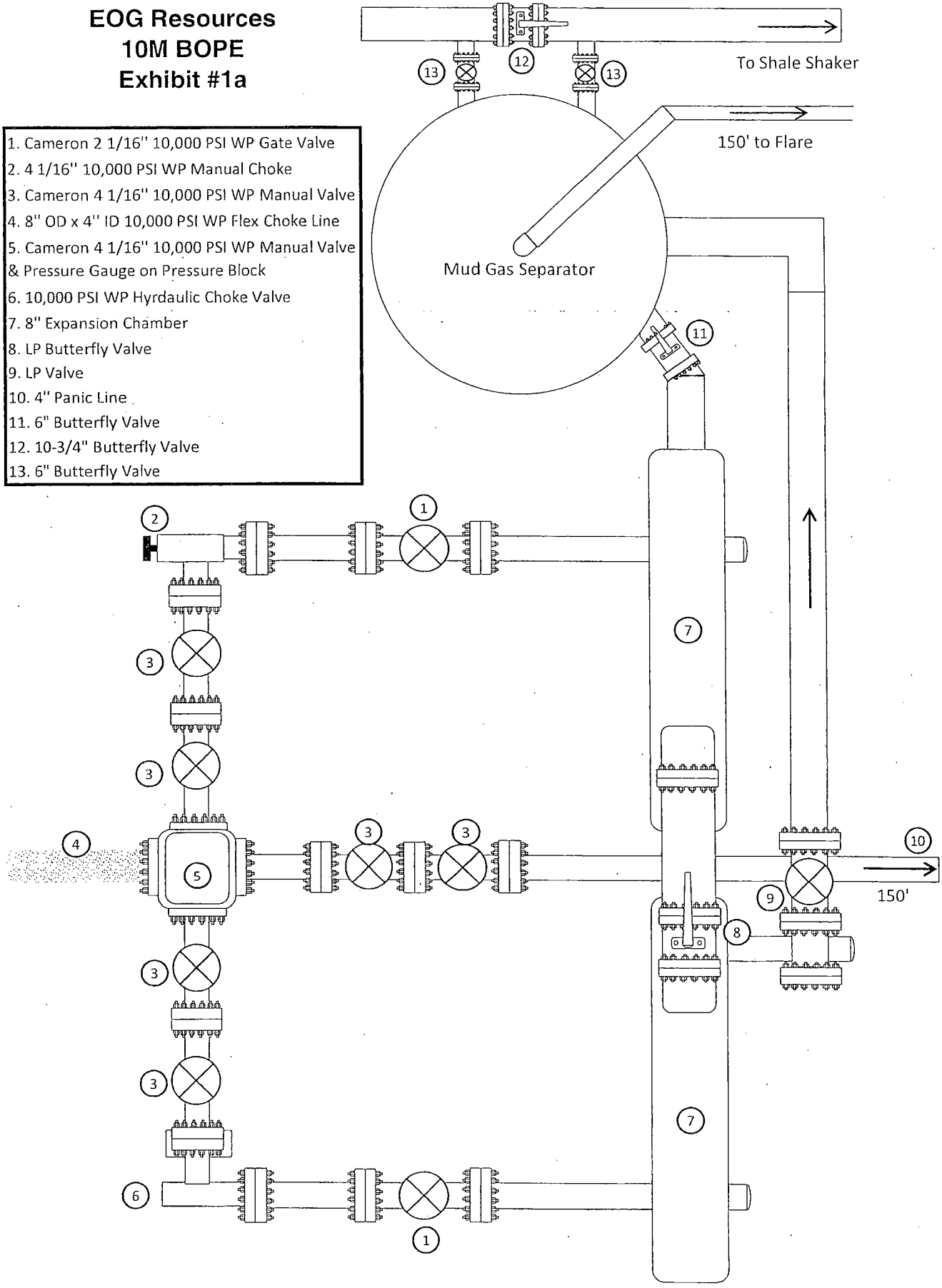
Rig Floor

1. 13 5/8" Rotating Head
2. Hydril 13 5/8" 5,000 PSI WP GK Annular Preventor
3. 13 5/8" Cameron Type "U" 10,000 PSI WP Ram Preventors
4. 2 1/16" - 10,000 PSI WP Check Valve
5. 10,000 PSI WP - 1502 Union to kill line
6. 2 1/16" - 10,000 PSI WP Manual Valves
7. 13 5/8" 3,000 PSI WP x 13 5/8" 5,000 PSI WP Spacer Spool
8. 4 1/16" 10,000 PSI WP HCR Valve
9. 4 1/16" 10,000 PSI WP Manual Valve
10. 8" OD x 4" ID 10,000 PSI WP Flex Choke Line
11. DSA - 13 5/8" 10,000 PSI WP x 13 5/8" 5,000 PSI WP
12. Mud Cross - 13 5/8" 10,000 PSI WP
13. Blind Rams
14. Pipe Rams
15. 13 5/8" 5,000 PSI WP Spacer Spools
16. Flow Line
17. 2" Fill Line



EOG Resources
10M BOPE
Exhibit #1a

1. Cameron 2 1/16" 10,000 PSI WP Gate Valve
2. 4 1/16" 10,000 PSI WP Manual Choke
3. Cameron 4 1/16" 10,000 PSI WP Manual Valve
4. 8" OD x 4" ID 10,000 PSI WP Flex Choke Line
5. Cameron 4 1/16" 10,000 PSI WP Manual Valve & Pressure Gauge on Pressure Block
6. 10,000 PSI WP Hyrdaulic Choke Valve
7. 8" Expansion Chamber
8. LP Butterfly Valve
9. LP Valve
10. 4" Panic Line
11. 6" Butterfly Valve
12. 10-3/4" Butterfly Valve
13. 6" Butterfly Valve



EOG 10M Choke Manifold Diagram (rev. 5/1/12)

Manufacturer: Midwest Hose & Specialty

Serial Number: SN#90067

Length: 35'

Size: OD = 8" ID = 4"

Ends: Flanges Size: 4-1/16"

WP Rating: 10,000 psi Anchors required by manfacturer: No

MIDWEST

HOSE AND SPECIALTY INC.

INTERNAL HYDROSTATIC TEST REPORT

Customer:	P.O. Number:
CACTUS	RIG #123
	Asset # M10761

HOSE SPECIFICATIONS

Type: CHOKE LINE	Length: 35'
I.D. 4" *INCHES*	O.D. 8" *INCHES*

WORKING PRESSURE	TEST PRESSURE	BURST PRESSURE
10,000 *PSI*	15,000 *PSI*	*PSI*

COUPLINGS

Type of End Fitting
4 1/16 10K FLANGE

Type of Coupling:	MANUFACTURED BY
SWEDGED	MIDWEST HOSE & SPECIALTY

PROCEDURE

Hose assembly pressure tested with water at ambient temperature.

TIME HELD AT TEST PRESSURE	ACTUAL BURST PRESSURE:
1 *MIN.*	0 *PSI*

COMMENTS:
SN#90067 M10761
Hose is covered with stainless steel armour cover and wraped with fire resistant vermiculite coated fiberglass insulation rated for 1500 degrees complete with lifting eyes

Date:	Tested By:	Approved:
6/6/2011	BOBBY FINK	MENDI JACKSON

7.
OCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: _____ **Approval Date:** _____

Title: _____ **OCD Permit Number:** _____

8.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC
Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:** _____

9.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:
Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?
☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:
☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

10.
Operator Closure Certification:
I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

Closure Plan for Closed Loop Drilling System

1. METHODS OF HANDLING WASTE MATERIALS

a. Drill cuttings shall be disposed of in steel cuttings bins (catch tanks) on the drilling pad (behind the steel mud tanks). The bin and cuttings shall be hauled to a division approved facility by an approved transporter. At the facility, the cuttings shall be removed from the bin and the bin shall be returned to the drilling site for reuse, moved to the next drilling site or returned to the provider.

b. Remaining drilling fluids shall be hauled off by approved transports to a division approved disposal facility. Water produced during completion shall be put in storage tanks and disposed of at a division approved facility. Oil and condensate produced shall be put in a storage tank and sold or put in a sales pipeline.

2. RECLAMATION

a. Within 120 days after the drilling and completion of the well, the location area shall be reduced as determined by operator to the minimum area necessary to safely and effectively operate the well. The reclaimed location area shall be restored to the condition that existed prior to oil and gas operations.

OPERATING AND MAINTENANCE PLAN – CLOSED LOOP SYSTEM

19.15.17.12 OPERATIONAL REQUIREMENTS:

A. General specifications. An operator shall maintain and operate a pit, closed-loop system, below-grade tank or sump in accordance with the following requirements.

(1) The operator shall operate and maintain a pit, closed-loop system, below-grade tank or sump to contain liquids and solids and maintain the integrity of the liner, liner system or secondary containment system, prevent contamination of fresh water and protect public health and the environment.

Operator shall operate and maintain a closed loop system.

(2) The operator shall recycle, reuse or reclaim all drilling fluids in a manner that prevents the contamination of fresh water and protects public health and the environment.

Operator shall recycle, reuse or reclaim all drilling fluids used. Excess or unused fluid shall be disposed of at division approved facilities.

(3) The operator shall not discharge into or store any hazardous waste in a pit, closed-loop system, below-grade tank or sump.

Operator shall not knowingly discharge hazardous waste into the closed loop system.

(4) If the integrity of the pit liner is compromised, or if any penetration of the liner occurs above the liquid's surface, then the operator shall notify the appropriate division district office within 48 hours of the discovery and repair the damage or replace the liner.

No Pit liner. Closed loop system.

(5) If a lined pit develops a leak, or if any penetration of the liner occurs below the liquid's surface, then the operator shall remove all liquid above the damage or leak line from the pit within 48 hours and repair the damage or replace the liner.

No Pit liner. Closed loop system. If a leak develops in any of the closed loop tanks, all liquid shall be removed from the effected tank within 48 hours and any damage shall be repaired prior to putting the tank back in service.

(6) The operator shall install a level measuring device in a lined pit containing fluids to monitor the level of the fluid surface, so that the operator may recognize unanticipated change in volume of fluids.

No pit. Closed loop system. Excess fluid shall be removed appropriately from the catch tanks.

(7) The injection or withdrawal of liquids from a lined pit shall be accomplished through a header, diverter or other hardware that prevents damage to the liner by erosion, fluid jets or impact from installation and removal of hoses or pipes.

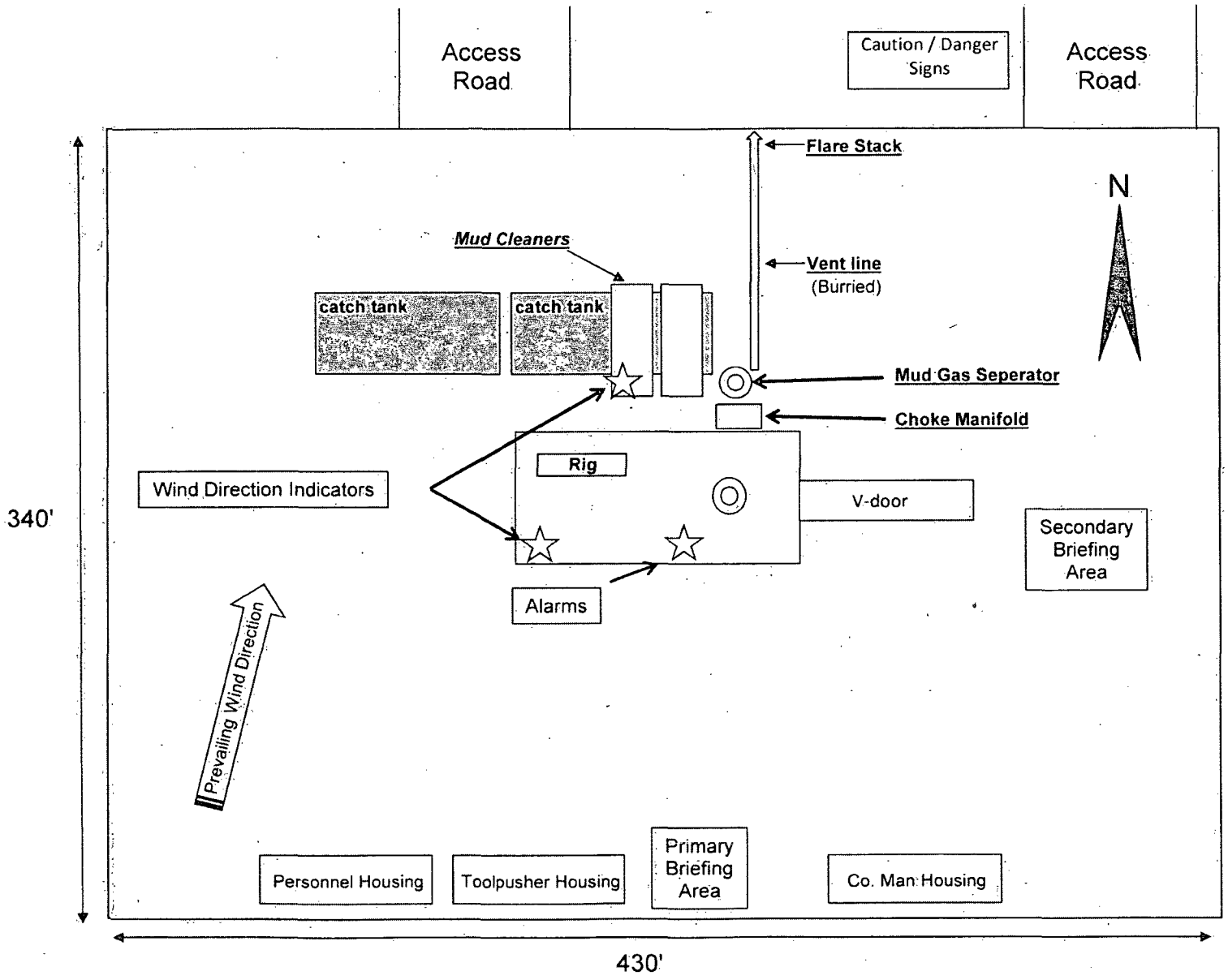
No pit. Closed loop system. Excess fluid shall be removed appropriately from the catch tanks using a re-circulating pump or vacuum trucks.

(8) The operator shall operate and install a pit, below-grade tank or sump to prevent the collection of surface water run-on.

Operator shall berm or collect surface water run- on and dispose of at a division approved facility.

(9) The operator shall install, or maintain on site, an oil absorbent boom or other device to contain and remove oil from a pit's surface.

Operator shall install a skimmer system on catch tanks, circulating tanks and over-flow tanks as needed to collect oil.



EOG Resources
Ross Draw 8 Fed #4H
EXHIBIT 4

Well Site Diagram

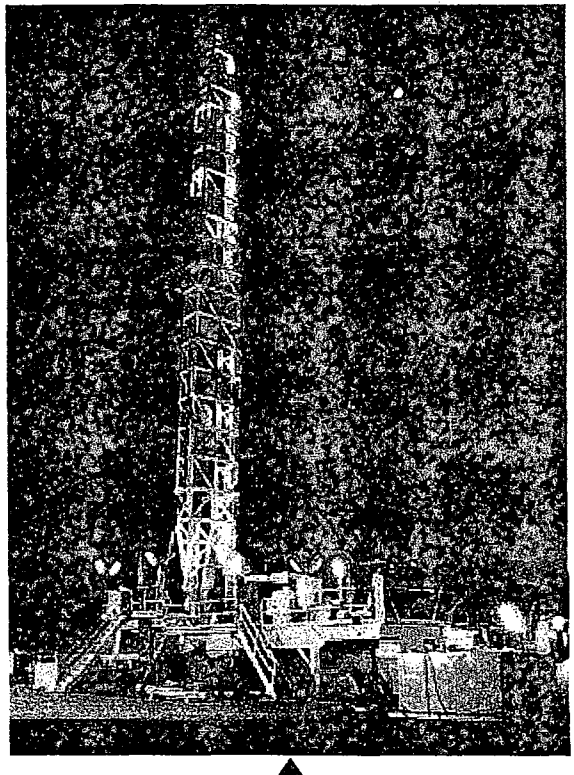
EOG Resources, Inc.

Legal's:
Ross Draw 8 Fed No. 4H
Eddy Co. New Mexico

330' FNL & 610' FWL Surface Location
Section 8
T-26-S, R-31-E
Lat: N 32.0636831
Long: W 103.8065139

330' FSL & 940' FWL Bottom Hole Location
Section 8
T-26-S, R-31-E
Lat: N 32.0508555
Long: W 103.8054773

H_2S
"Contingency Plan"



SAFETY
SOLUTIONS, LLC.

Safety Solutions, LLC
3222 Commercial Dr.
(432) 686-8555
Midland, TX 79701

Table of Contents

H_2S CONTINGENCY PLAN SECTION

Scope:

This contingency plan provides an organized plan of action for alerting and protecting the public within an area of exposure prior to an intentional release, or following the accidental release of a potentially hazardous volume of hydrogen sulfide. The plan establishes guidelines for all personnel whose work activity may involve exposure to Hydrogen Sulfide Gas (H_2S).

Objective:

Prevent any and all accidents, and prevent the uncontrolled release of H_2S into the atmosphere.

Provide proper evacuation procedures to cope with emergencies.

Provide immediate and adequate medical attention should an injury occur.

Discussion of Plan:

Suspected Problem Zones:

Implementation: This plan, with all details, is to be fully implemented 1000' before drilling into the first sour zone.

Emergency Response Procedure: This section outlines the conditions and denotes steps to be taken in the event of an emergency.

Emergency Equipment and Procedure: This section outlines the safety and emergency equipment that will be required for the drilling of this well.

Training Provisions: This section outlines the training provisions that must be adhered to 1000' before drilling into the first sour zone.

Emergency call list: Included are the telephone numbers of all persons that would need to be contacted, should an H_2S emergency occur.

Briefing: This section deals with the briefing of all persons involved with the drilling of this well.

Public Safety: Public Safety Personnel will be made aware of the drilling of this well.

Check Lists: Status check lists and procedural check lists have been included to ensure adherence to the plan.

General Information: A general information section has been included to supply support information.

EMERGENCY PROCEDURES SECTION

I. In the event of any evidence of H_2S level above 10ppm, take the following steps immediately:

   a. Secure breathing apparatus.

   b. Order non-essential personnel out of the danger zone.

   c. Take steps to determine if the H_2S level can be corrected or suppressed, and if so, proceed with normal operations.

II. If uncontrollable conditions occur, proceed with the following:

   a. Take steps to protect and/or remove any public downwind of the rig, including partial evacuation or isolation. Notify necessary public safety personnel and the New Mexico Oil Conservation Division of the situation.

   b. Remove all personnel to the Safe Briefing Area.

   c. Notify public safety personnel for help with maintaining roadblocks and implementing evacuation.

   d. Determine and proceed with the best possible plan to regain control of the well. Maintain tight security and safety measures.

III. Responsibility:

   a. The Company Approved Supervisor shall be responsible for the total implementation of the plan.

   b. The Company Approved Supervisor shall be in complete command during any emergency.

   c. The Company Approved Supervisor shall designate a back up Supervisor in the event that he/she is not available.

EMERGENCY PROCEDURE IMPLEMENTATION

I. Drilling or Tripping

a. *All Personnel*

i. When alarm sounds, don escape unit and report to upwind Safe Briefing Area.

ii. Check status of other personnel (buddy system).

iii. Secure breathing apparatus.

iv. Wait for orders from supervisor.

b. *Drilling Foreman*

i. Report to the upwind Safe Briefing Area.

ii. Don Breathing Apparatus and return to the point of release with the Tool Pusher or Driller (buddy system).

iii. Determine the concentration of H_2S.

iv. Assess the situation and take appropriate control measures.

c. *Tool Pusher*

i. Report to the upwind Safe Briefing Area.

ii. Don Breathing Apparatus and return to the point of release with the Drilling Foreman or the Driller (buddy system).

iii. Determine the concentration of H_2S.

iv. Assess the situation and take appropriate control measures.

d. *Driller*

i. Check the status of other personnel (in a rescue attempt, always use the buddy system).

ii. Assign the least essential person to notify the Drilling Foreman and Tool Pusher, in the event of their absence.

iii. Assume the responsiblility of the Drilling Foreman and the Tool Pusher until they arrive, in the event of their absence.

e. *Derrick Man and Floor Hands*

i. Remain in the upwind Safe Briefing Area until otherwise instructed by a supervisor.

f. *Mud Engineer*

i. Report to the upwind Safe Briefing Area.

ii. When instructed, begin check of mud for pH level and H_2S level.

g. *Safety Personnel*

i. Don Breathing Apparatus.

ii. Check status of personnel.

iii. Wait for instructions from Drilling Foreman or Tool Pusher.

II. Taking a Kick

a. All Personnel report to the upwind Safe Briefing Area.

b. Follow standard BOP procedures.

III. Open Hole Logging

a. All unnecessary personnel should leave the rig floor.

b. Drilling Foreman and Safety Personnel should monitor the conditions and make necessary safety equipment recommendations.

IV. Running Casing or Plugging

a. Follow "Drilling or Tripping" procedures.

b. Assure that all personnel have access to protective equipment.

SIMULATED BLOWOUT CONTROL DRILLS

All drills will be initiated by activating alarm devices (air horn). One long blast, on the air horn, for ACTUAL and SIMULATED Blowout Control Drills. This operation will be performed by the Drilling Foreman or Tool Pusher at least one time per week for each of the following conditions, with each crew:

Drill #1 Bottom Drilling

Drill #2 Tripping Drill Pipe

In each of these drills, the initial reaction time to shutting in the well shall be timed as well as the total time for the crew to complete its entire pit drill assignment. The times must be recorded on the IADC Driller's Log as "Blowout Control Drill".

Drill No.:
Reaction Time to Shut-In: minutes, seconds.
Total Time to Complete Assignment: minutes, seconds.

I. Drill Overviews

a. Drill No. 1 – Bottom Drilling

i. Sound the alarm immediately.

ii. Stop the rotary and hoist Kelly joint above the rotary table.

iii. Stop the circulatory pump.

iv. Close the drill pipe rams.

v. Record casing and drill pipe shut-in pressures and pit volume increases.

b. Drill No. 2 – Tripping Drill Pipe

i. Sound the alarm immediately.

ii. Position the upper tool joint just above the rotary table and set the slips.

iii. Install a full opening valve or inside blowout preventer tool in order to close the drill pipe.

iv. Close the drill pipe rams.

v. Record the shut-in annular pressure.

II. Crew Assignments

a. Drill No. 1 – Bottom Drilling

i. Driller

1. Stop the rotary and hoist Kelly joint above the rotary table.
2. Stop the circulatory pump.
3. Check Flow.
4. If flowing, sound the alarm immediately
5. Record the shit-in drill pipe pressure
6. Determine the mud weight increase needed or other courses of action.

ii. Derrickman

1. Open choke line valve at BOP.
2. Signal Floor Man #1 at accumulator that choke line is open.
3. Close choke and upstream valve after pipe tam have been closed.
4. Read the shut-in annular pressure and report readings to Driller.

iii. Floor Man #1

1. Close the pipe rams after receiving the signal from the Derrickman.
2. Report to Driller for further instructions.

iv. Floor Man #2

1. Notify the Tool Pusher and Operator representative of the H_2S alarms.
2. Check for open fires and, if safe to do so, extinguish them.
3. Stop all welding operations.
4. Turn-off all non-explosions proof lights and instruments.
5. Report to Driller for further instructions.

v. Tool Pusher

1. Report to the rig floor.
2. Have a meeting with all crews.

3. Compile and summarize all information.

4. Calculate the proper kill weight.

5. Ensure that proper well procedures are put into action.

vi. Operator Representative

1. Notify the Drilling Superintendent.

2. Determine if an emergency exists and if so, activate the contingency plan.

b. Drill No. 2 – Tripping Pipe

i. Driller

1. Sound the alarm immediately when mud volume increase has been detected.

2. Position the upper tool joint just above the rotary table and set slips.

3. Install a full opening valve or inside blowout preventer tool to close the drill pipe.

4. Check flow.

5. Record all data reported by the crew.

6. Determine the course of action.

ii. Derrickman

1. Come down out of derrick.

2. Notify Tool Pusher and Operator Representative.

3. Check for open fires and, if safe to do so , extinguish them.

4. Stop all welding operations.

5. Report to Driller for further instructions.

iii. Floor Man #1

1. Pick up full opening valve or inside blowout preventer tool and stab into tool joint above rotary table (with Floor Man #2).

2. Tighten valve with back-up tongs.

3. Close pipe rams after signal from Floor Man #2.

4. Read accumulator pressure and check for possible high pressure fluid leaks in valves or piping.

5. Report to Driller for further instructions.

iv. Floor Man #2

1. Pick-up full opening valve or inside blowout preventer tool and stab into tool joint above rotary table (with Floor Man #1).

2. Position back-up tongs on drill pipe.

3. Open choke line valve at BOP.

4. Signal Floor Man #1 at accumulator that choke line is open.

5. Close choke and upstream valve after pipe rams have been closed.

6. Check for leaks on BOP stack and choke manifold.

7. Read annular pressure.

8. Report readings to the Driller.

v. Tool Pusher

1. Report to the rig floor.

2. Have a meeting with all of the crews.

3. Compile and summarize all information.

4. See that proper well kill procedures are put into action.

vi. Operator Representative

1. Notify Drilling Superintendent

2. Determine if an emergency exists, and if so, activate the contingency plan.

IGNITION PROCEDURES

Responsibility:

The decision to ignite the well is the responsibility of the DRILLING FOREMAN in concurrence with the STATE POLICE. In the event the Drilling Foreman is incapacitated, it becomes the responsibility of the RIG TOOL PUSHER. This decision should be made only as a last resort and in a situation where it is clear that:

1. Human life and property are endangered.

2. There is no hope of controlling the blowout under the prevailing conditions.

If time permits, notify the main office, but do not delay if human life is in danger. Initiate the first phase of the evacuation plan.

Instructions for Igniting the Well:

1. Two people are required for the actual igniting operation. Both men must wear self-contained breathing apparatus and must use a full body harness and attach a retrievable safety line to the D-Ring in the back. One man must monitor the atmosphere for explosive gases with the LEL monitor, while the Drilling Foreman is responsible for igniting the well.

2. The primary method to ignite is a 25mm flare gun with a range of approximately 500 feet.

3. Ignite from upwind and do not approach any closer than is warranted.

4. Select the ignition site best suited for protection and which offers an easy escape route.

5. Before igniting, check for the presence of combustible gases.

6. After igniting, continue emergency actions and procedures as before.

7. All unassigned personnel will limit their actions to those directed by the Drilling Foreman.

Note: After the well is ignited, burning Hydrogen Sulfide will convert to Sulfur Dioxide, which is also highly toxic. Do not assume the area is safe after the well is ignited.

TRAINING PROGRAM

When working in an area where Hydrogen Sulfide (H_2S) might be encountered, definite training requirements must be carried out. The Company Supervisor will ensure that all personnel, at the well site, have had adequate training in the following:

1. Hazards and characteristics of Hydrogen Sulfide.
2. Physicals effects of Hydrogen Sulfide on the human body.
3. Toxicity of Hydrogen Sulfide and Sulfur Dioxide.
4. H_2S detection, Emergency alarm and sensor location.
5. Emergency rescue.
6. Resuscitators.
7. First aid and artificial resuscitation.
8. The effects of Hydrogen Sulfide on metals.
9. Location safety.

Service company personnel and visiting personnel must be notified if the zone contains H_2S, and each service company must provide adequate training and equipment for their employees before they arrive at the well site.

EMERGENCY EQUIPMENT REQUIREMENTS

Lease Entrance Sign:

Should be located at the lease entrance with the following information:

CAUTION – POTENTIAL POISON GAS
HYDROGEN SULFIDE
NO ADMITTANCE WITHOUT AUTHORIZATION

Respiratory Equipment:

- Fresh air breathing equipment should be placed at the safe briefing areas and should include the following:
- Two SCBA's at each briefing area.
- Enough air line units to operate safely, anytime the H_2S concentration reaches the IDLH level (100 ppm).
- Cascade system with enough breathing air hose and manifolds to reach the rig floor, the derrickman and the other operation areas.

Windsocks or Wind Streamers:

- A minimum of two 10" windsocks located at strategic locations so that they may be seen from any point on location.
- Wind streamers (if preferred) should be placed at various locations on the well site to ensure wind consciousness at all times. (Corners of location).

Hydrogen Sulfide Detector and Alarms:

- 1 - Four channel H_2S monitor with alarms.
- Four (4) sensors located as follows: #1 – Rig Floor, #2 – Bell Nipple, #3 – Shale Shaker, #4 – Mud Pits.
- Gastec or Draeger pump with tubes.
- Sensor test gas.

Well Condition Sign and Flags:

The Well Condition Sign w/flags should be placed a minimum of 150' before you enter the location. It should have three (3) color coded flags (green, yellow and red) that will be used to denote the following location conditions:

GREEN – Normal Operating Conditions
YELLOW – Potential Danger
RED – Danger, H_2S Gas Present

Auxiliary Rescue Equipment:

- Stretcher
- 2 – 100' Rescue lines.
- First Aid Kit properly stocked.

Mud Inspection Equipment:

Garret Gas Train or Hach Tester for inspection of Hydrogen Sulfide in the drilling mud system.

Fire Extinguishers:

Adequate fire extinguishers shall be located at strategic locations.

Blowout Preventer:

- The well shall have hydraulic BOP equipment for the anticipated BHP.
- The BOP should be tested upon installation.
- BOP, Choke Line and Kill Line will be tested as specified by Operator.

Confined Space Monitor:

There should be a portable multi-gas monitor with at least 3 sensors (O_2, LEL H_2S). This instrument should be used to test the atmosphere of any confined space before entering. It should also be used for atmospheric testing for LEL gas before beginning any type of Hot Work. Proper calibration documentation will need to be provided.

Communication Equipment:

- Proper communication equipment such as cell phones or 2-way radios should be available at the rig.
- Radio communication shall be available for communication between the company man's trailer, rig floor and the tool pusher's trailer.

- Communication equipment shall be available on the vehicles.

Special Control Equipment:

- Hydraulic BOP equipment with remote control on the ground.
- Rotating head at the surface casing point.

Evacuation Plan:

- Evacuation routes should be established prior to spudding the well.
- Should be discussed with all rig personnel.

Designated Areas:

Parking and Visitor area:

- All vehicles are to be parked at a pre-determined safe distance from the wellhead.
- Designated smoking area.

Safe Briefing Areas:

- Two Safe Briefing Areas shall be designated on either side of the location at the maximum allowable distance from the well bore so they offset prevailing winds or they are at a 180 degree angle if wind directions tend to shift in the area.
- Personal protective equipment should be stored at both briefing areas or if a moveable cascade trailer is used, it should be kept upwind of existing winds. When wind is from the prevailing direction, both briefing areas should be accessible.

Note:

- Additional equipment will be available at the Safety Solutions, LLC office.
- Additional personal H_2S monitors are available for all employees on location.
- Automatic Flare Igniters are recommended for installation on the rig.

CHECK LISTS

Status Check List

Note: Date each item as they are implemented.

1. Sign at location entrance. _____
2. Two (2) wind socks (in required locations). _____
3. Wind Streamers (if required). _____
4. SCBA's on location for all rig personnel and mud loggers. _____
5. Air packs, inspected and ready for use. _____
6. Spare bottles for each air pack (if required). _____
7. Cascade system for refilling air bottles. _____
8. Cascade system and hose line hook up. _____
9. Choke manifold hooked-up and tested. (before drilling out surface casing.) _____
10. Remote Hydraulic BOP control (hooked-up and tested before drilling out surface casing). _____
11. BOP tested (before drilling out surface casing). _____
12. Mud engineer on location with equipment to test mud for H_2S. _____
13. Safe Briefing Areas set-up _____
14. Well Condition sign and flags on location and ready. _____
15. Hydrogen Sulfide detection system hooked -up & tested. _____
16. Hydrogen Sulfide alarm system hooked-up & tested. _____
17. Stretcher on location at Safe Briefing Area. _____
18. 2 – 100' Life Lines on location. _____
19. 1 – 20# Fire Extinguisher in safety trailer. _____
20. Confined Space Monitor on location and tested. _____
21. All rig crews and supervisor trained (as required). _____

22. Access restricted for unauthorized personnel. _____

23. Drills on H_2S and well control procedures. _____

24. All outside service contractors advised of potential H_2S on the well. _____

25. NO SMOKNG sign posted. _____

26. H_2S Detector Pump w/tubes on location. _____

27. 25mm Flare Gun on location w/flares. _____

28. Automatic Flare Igniter installed on rig. _____

Procedural Check List

Perform the following on each tour:

1. Check fire extinguishers to see that they have the proper charge.
2. Check breathing equipment to insure that they have not been tampered with.
3. Check pressure on the supply air bottles to make sure they are capable of recharging.
4. Make sure all of the Hydrogen Sulfide detection systems are operative.

Perform the following each week:

1. Check each piece of breathing equipment to make sure that they are fully charged and operational. This requires that the air cylinder be opened and the mask assembly be put on and tested to make sure that the regulators and masks are properly working. Negative and Positive pressure should be conducted on all masks.
2. BOP skills.
3. Check supply pressure on BOP accumulator stand-by source.
4. Check all breathing air mask assemblies to see that straps are loosened and turned back, ready for use.
5. Check pressure on cascade air cylinders to make sure they are fully charged and ready to use for refill purposes if necessary.
6. Check all cascade system regulators to make sure they work properly.
7. Perform breathing drills with on-site personnel.
8. Check the following supplies for availability:
    - Stretcher
    - Safety Belts and Ropes
    - Spare air Bottles
    - Spare Oxygen Bottles (if resuscitator required)
    - Gas Detector Pump and Tubes
    - Emergency telephone lists
9. Test the Confined Space Monitor to verify the batteries are good

BRIEFING PROCEDURES

The following scheduled briefings will be held to ensure the effective drilling and operation of this project:

Pre-Spud Meeting

Date: Prior to spudding the well.
Attendance: Drilling Supervisor
Drilling Engineer
Drilling Foreman
Rig Tool Pushers
Rig Drillers
Mud Engineer
All Safety Personnel
Key Service Company Personnel

Purpose: Review and discuss the well program, step-by-step, to insure complete understanding of assignments and responsibilities.

EVACUATION PLAN

General Plan

The direct lines of action prepared by SAFETY SOLUTIONS, LLC to protect the public from hazardous gas situations are as follows:

1. When the company approved supervisor (Drilling Foreman, Tool Pusher or Driller) determine that Hydrogen Sulfide gas cannot be limited to the well location, and the public will be involved, he will activate the evacuation plan. Escape routes are noted on the area map.

2. Company safety personnel or designee will notify the appropriate local government agency that a hazardous condition exists and evacuation needs to be implemented.

3. Company approved safety personnel that have been trained in the use of the proper emergency equipment will be utilized.

4. Law enforcement personnel (State Police, Local Police Department, Fire Department, and the Sheriff's Department) will be called to aid in setting up and maintaining road blocks. Also, they will aid in evacuation of the public if necessary.

NOTE: Law enforcement personnel will not be asked to come into a contaminated area. Their assistance will be limited to uncontaminated areas. Constant radio contact will be maintained with them.

5. After the discharge of gas has been controlled, "Company" safety personnel will determine when the area is safe for re-entry.

See Emergency Action Plan

Emergency Assistance Telephone List

PUBLIC SAFETY:		**911 or**
Eddy County Sheriff's Department		(575) 887-7551
Kent Waller		
Fire Department:		
Carlsbad		(575) 885-3125
Artesia		(575) 746-5050
Hospitals:		
Carlsbad		(575) 887-4121
Artesia		(575) 748-3333
Hobbs		(575) 392-1979
Dept. of Public Safety/Carlsbad		(575) 748-9718
Highway Department		(575) 885-3281
New Mexico Oil Conservation		(575) 476-3440
U.S. Dept. of Labor		(575) 887-1174

EOG Resources, Inc.

EOG / Midland	Office	(432) 686-3600
Company Drilling Consultants:		
Pearl Turner Tommy Turner	Cell	(432) 894-3416
Drilling Engineer		
Steve Munsell	Office	(432) 686-3609
	Cell	(432) 894-1256
Operations Manager		
Travis Lain	Office	(432) 686-3740
	Cell	(432) 254-3521
Drilling Superintendent		
Barney Thompson	Office	(432) 686-3678
	Cell	(432) 254-9056
Field Drilling Superintendent		
Ron Welch	Cell	(432) 386-0592
McVay Drilling		
Cactus Drilling	Office	(580) 799-2752
Cactus Drilling Rig #123	Rig	(432) 894-3417
Tool Pusher:		
Jackie Herndon	Cell	(580) 799-2752
Safety Consultants		
Safety Solutions, LLC	Office	(432) 686-8555
Cliff Strasner	Cell	(432) 894-9789
Craig Strasner	Cell	(432) 894-0341

MAPS AND PLATS
(Maps & Plats Attached)

Affected Notification List

(within a 65' radius of exposure @100ppm)

The geologic zones that will be encountered during drilling are known to contain hazardous quantities of H_2S. The accompanying map illustrates the affected areas of the community. The residents within this radius will be notified via a hand delivered written notice describing the activities, potential hazards, conditions of evacuation, evacuation drill siren alarms and other precautionary measures.

Evacuee Description:
Residents: **THERE ARE NO RESIDENTS WITHIN 3000' ROE.**

Notification Process:

A continuous siren audible to all residence will be activated, signaling evacuation of previously notified and informed residents.

Evacuation Plan:
All evacuees will migrate lateral to the wind direction.

The Oil Company will identify all home bound or highly susceptible individuals and make special evacuation preparations, interfacing with the local and emergency medical service as necessary.

GENERAL INFORMATION

Toxic Effects of H_2S Poisoning

Hydrogen Sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure is 10 PPM, which is .001% by volume. Hydrogen Sulfide is heavier than air (specific gravity – 1.192) and is colorless and transparent. Hydrogen Sulfide is almost as toxic as Hydrogen Cyanide and is 5-6 times more toxic than Carbon Monoxide. Occupational exposure limits for Hydrogen Sulfide and other gases are compared below in Table 1. Toxicity table for H_2S and physical effects are shown in Table 2.

Table 1
Permissible Exposure Limits of Various Gases

Common Name	Symbol	Sp. Gravity	TLV	STEL	IDLH
Hydrogen Cyanide	HCN	.94	4.7 ppm	C	
Hydrogen Sulfide	H_2S	1.192	10 ppm	15 ppm	100 ppm
Sulfide Dioxide	SO_2	2.21	2 ppm	5 ppm	
Chlorine	CL	2.45	.5 ppm	1 ppm	
Carbon Monoxide	CO	.97	25 ppm	200 ppm	
Carbon Dioxide	CO_2	1.52	5000 ppm	30,000 ppm	
Methane	CH_4	.55	4.7% LEL	14% UEL	

Definitions

A. TLV – Threshold Limit Value is the concentration employees may be exposed based on a TWA (time weighted average) for eight (8) hours in one day for 40 hours in one (1) week. This is set by ACGIH (American Conference of Governmental Hygienists) and regulated by OSHA.

B. STEL – Short Term Exposure Limit is the 15 minute average concentration an employee may be exposed to providing that the highest exposure never exceeds the OEL (Occupational Exposure Limit). The OEL for H_2S is 19 PPM.

C. IDLH – Immediately Dangerous to Life and Health is the concentration that has been determined by the ACGIH to cause serious health problems or death if exposed to this level. The IDLH for H_2S is 100 PPM.

D. TWA – Time Weighted Average is the average concentration of any chemical or gas for an eight (8) hour period. This is the concentration that any employee may be exposed based on an TWA.

TABLE 2

Toxicity Table of H_2S

Percent %	PPM	Physical Effects
.0001	1	Can smell less than 1 ppm.
.001	10	TLV for 8 hours of exposure.
.0015	15	STEL for 15 minutes of exposure.
.01	100	Immediately Dangerous to Life & Health. Kills sense of smell in 3 to 5 minutes.
.02	200	Kills sense of smell quickly, may burn eyes and throat.
.05	500	Dizziness, cessation of breathing begins **in a few minutes.**
.07	700	Unconscious quickly, death will result if not rescued promptly.
.10	1000	Death will result unless rescued promptly. Artificial resuscitation may be necessary.

PHYSICAL PROPERTIES OF H_2S

The properties of all gases are usually described in the context of seven major categories:

COLOR
ODOR
VAPOR DENSITY
EXPLOSIVE LIMITS
FLAMMABILITY
SOLUBILITY (IN WATER)
BOILING POINT

Hydrogen Sulfide is no exception. Information from these categories should be considered in order to provide a fairly complete picture of the properties of the gas.

COLOR – TRANSPARENT

Hydrogen Sulfide is colorless so it is invisible. This fact simply means that you can't rely on your eyes to detect its presence. In fact that makes this gas extremely dangerous to be around.

ODOR – ROTTEN EGGS

Hydrogen Sulfide has a distinctive offensive smell, similar to "rotten eggs". For this reason it earned its common name "sour gas". However, H_2S, even in low concentrations, is so toxic that it attacks and quickly impairs a victim's sense of smell, so it could be fatal to rely on your nose as a detection device.

VAPOR DENSITY – SPECIFIC GRAVITY OF 1.192

Hydrogen Sulfide is heavier than air so it tends to settle in low-lying areas like pits, cellars or tanks. If you find yourself in a location where H_2S is known to exist, protect yourself. Whenever possible, work in an area upwind and keep to higher ground.

EXPLOSIVE LIMITS – 4.3% TO 46%

Mixed with the right proportion of air or oxygen, H_2S will ignite and burn or explode, producing another alarming element of danger besides poisoning.

FLAMMABILITY

Hydrogen Sulfide will burn readily with a distinctive clear blue flame, producing Sulfur Dioxide (SO_2), another hazardous gas that irritates the eyes and lungs.

SOLUBILITY – 4 TO 1 RATIO WITH WATER

Hydrogen Sulfide can be dissolved in liquids, which means that it can be present in any container or vessel used to carry or hold well fluids including oil, water, emulsion and sludge. The solubility of H_2S is dependent on temperature and pressure, but if conditions are right, simply agitating a fluid containing H_2S may release the gas into the air.

BOILING POINT – (-76 degrees Fahrenheit)

Liquefied Hydrogen Sulfide boils at a very low temperature, so it is usually found as a gas.

RESPIRATOR USE

The Occupational Safety and Health Administration (OSHA) regulate the use of respiratory protection to protect the health of employees. OSHA's requirements are written in the Code of Federal Regulations, Title 29, Part 1910, Section 134, Respiratory Protection. This regulation requires that all employees who might be required to wear respirators, shall complete a OSHA mandated medical evaluation questionnaire. The employee then should be fit tested prior to wearing any respirator while being exposed to hazardous gases.

Written procedures shall be prepared covering safe use of respirators in dangerous atmospheric situations, which might be encountered in normal operations or in emergencies. Personnel shall be familiar with these procedures and the available respirators.

Respirators shall be inspected prior to and after each use to make sure that the respirator has been properly cleaned, disinfected and that the respirator works properly. The unit should be fully charged prior to being used.

Anyone who may use respirators shall be properly trained in how to properly seal the face piece. They shall wear respirators in normal air and then in a test atmosphere. (Note: Such items as facial hair (beard or sideburns) and eyeglass temple pieces will not allow a proper seal.) Anyone that may be expected to wear respirators should have these items removed before entering a toxic atmosphere. A special mask must be obtained for anyone who must wear eyeglasses. Contact lenses should not be allowed.

Respirators shall be worn during the following conditions:

A. Any employee who works near the top or on the top of any tank unless tests reveal less than 20 ppm of H_2S.

B. When breaking out any line where H_2S can reasonably be expected.

C. When sampling air in areas where H_2S may be present.

D. When working in areas where the concentration of H_2S exceeds the Threshold Limit Value for H_2S (10 ppm).

E. At any time where there is a doubt as to the H_2S level in the area to be entered.

EMERGENCY RESCUE PROCEDURES

DO NOT PANIC!!!

Remain Calm – Think

1. Before attempting any rescue you must first get out of the hazardous area yourself. Go to a safe briefing area.

2. Sound alarm and activate the 911 system.

3. Put on breathing apparatus. At least two persons should do this, when available use the buddy system.

4. Rescue the victim and return them to a safe briefing area.

5. Perform an initial assessment and begin proper First Aid/CPR procedures.

6. Keep victim lying down with a blanket or coat, etc.., under the shoulders to keep airway open. Conserve body heat and do not leave unattended.

7. If the eyes are affected by H_2S, wash them thoroughly with potable water. For slight irritation, cold compresses are helpful.

8. In case a person has only minor exposure and does not lose consciousness totally, it's best if he doesn't return to work until the following day.

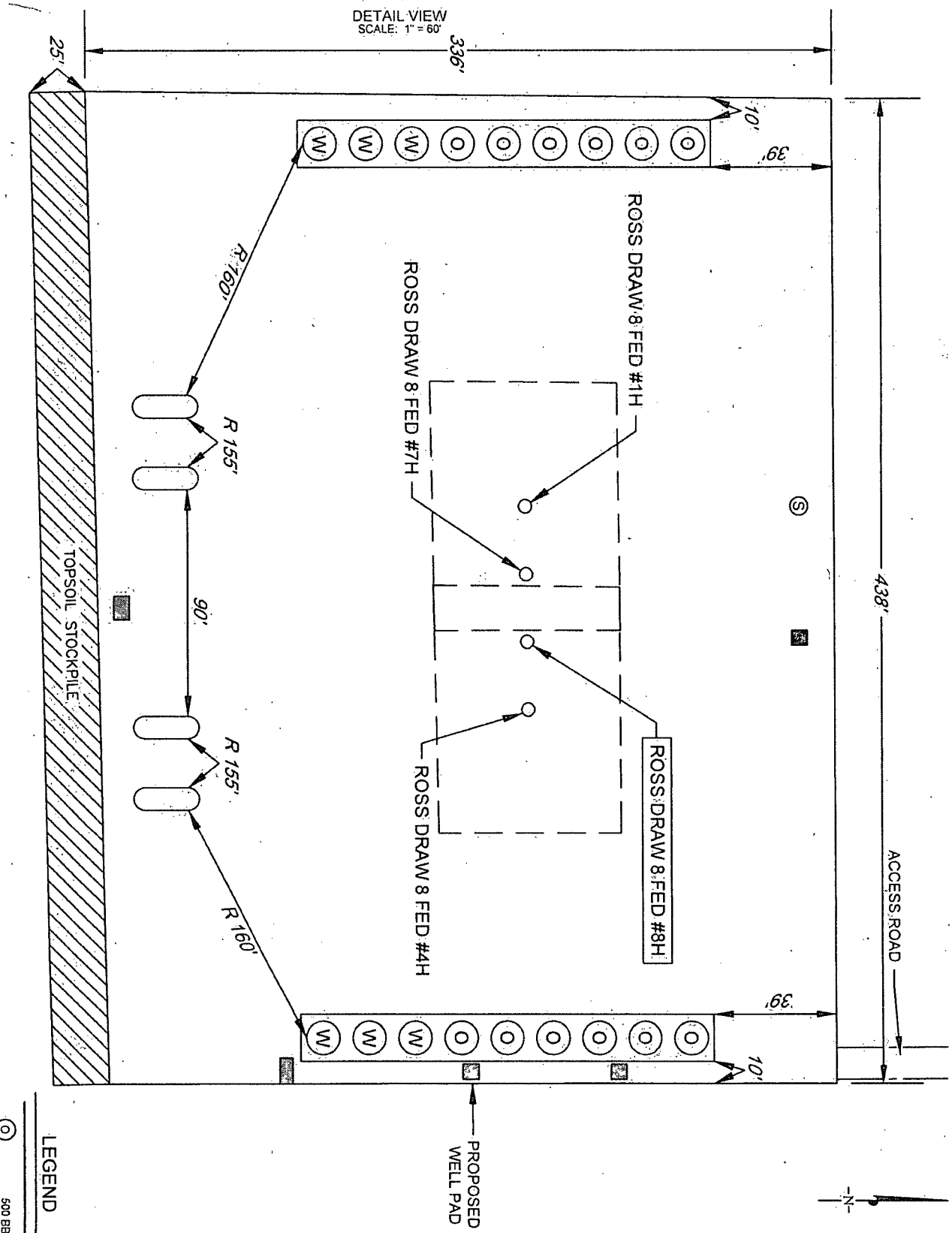
9. Any personnel overcome by H_2S should always be examined by medical personnel. They should always be transported to a hospital or doctor.

EXHIBIT 2B

RECLAMATION AND FACILITY DIAGRAM - PRODUCTION FACILITIES DIAGRAM

eog resources, inc.

SECTION 8, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO



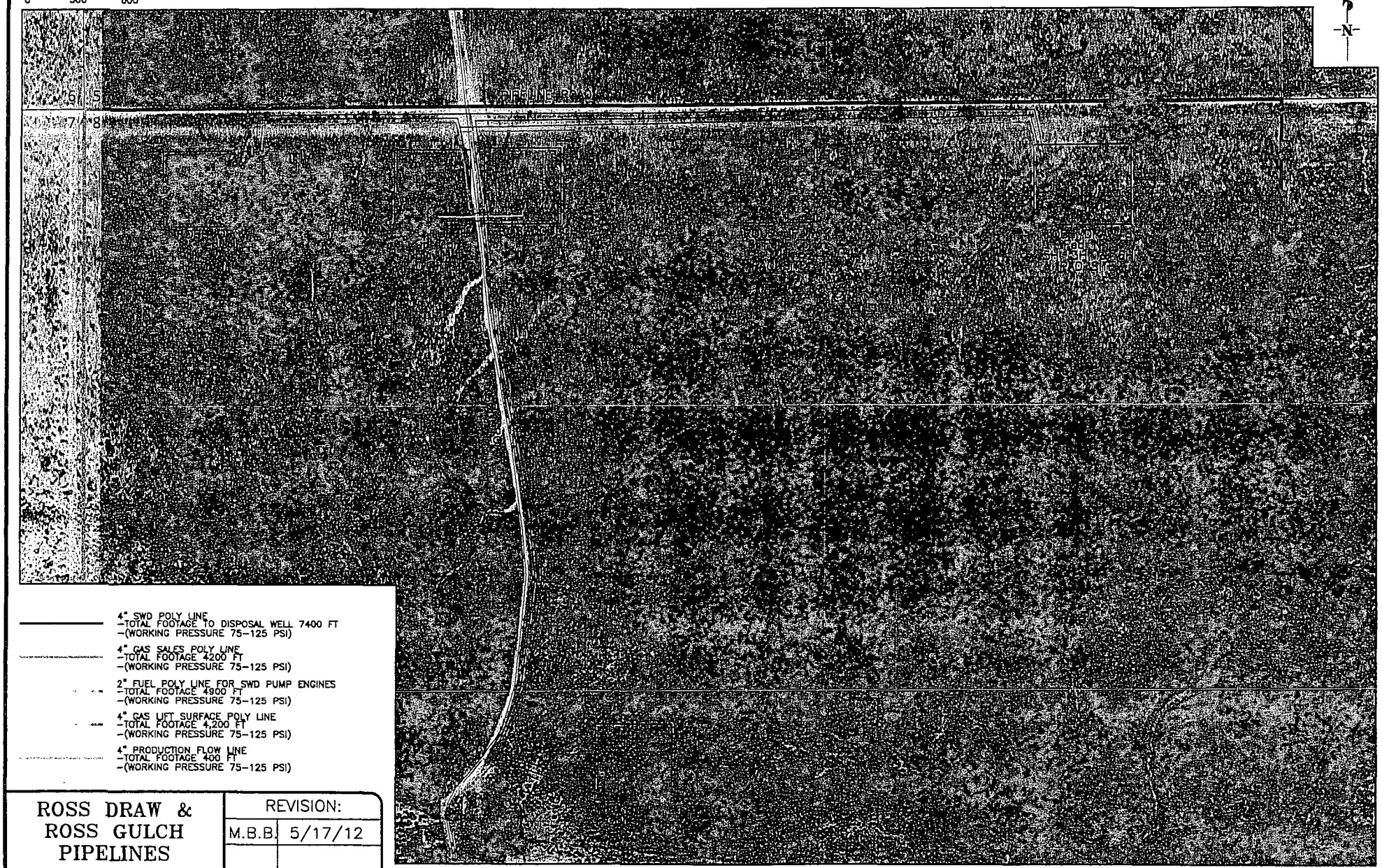
LEASE NAME & WELL NO.: ROSS DRAW 8 FED #8H

#8H LATITUDE N 32.0636824 #8H LONGITUDE W 103.8066064

S:\SURVEY\EOG_MIDLAND\ROSS_DRAW_8_FED\FINAL_PRODUCTS\LO_ROSSDRAW8FED_8H_REV3.DWG 1/7/2014 9:29:44 AM ocaston

SECTION 8, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SCALE: 1" = 600'
0' 300' 600'



4" SWD POLY LINE
-TOTAL FOOTAGE TO DISPOSAL WELL 7400 FT
-(WORKING PRESSURE 75-125 PSI)

4" GAS SALES POLY LINE
-TOTAL FOOTAGE 4200 FT
-(WORKING PRESSURE 75-125 PSI)

2" FUEL POLY LINE FOR SWD PUMP ENGINES
-TOTAL FOOTAGE 4900 FT
-(WORKING PRESSURE 75-125 PSI)

4" GAS LIFT SURFACE POLY LINE
-TOTAL FOOTAGE 4,200 FT
-(WORKING PRESSURE 75-125 PSI)

4" PRODUCTION FLOW LINE
-TOTAL FOOTAGE 400 FT
-(WORKING PRESSURE 75-125 PSI)

ROSS DRAW & ROSS GULCH PIPELINES	REVISION:	
	M.B.B.	5/17/12
DATE: MAY 16, 2012		
FILE: EP_ROSSDRAW_LINES LANDSCAPE_REV1		
DRAWN BY: A.C.C.		
SHEET : 1 OF 1		

eog resources, inc.

EOG RESOURCES, INC.
ROSS DRAW 8 FED 4H

SURFACE USE PLAN OF OPERATION

SHL: 330' FNL & 610' FWL, Unit D, Section 8, T26S-R31E, N.M.P.M., Eddy, NM
BHL: 330' FSL & 940' FWL, Unit M, Section 8, T26S-R31E, 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 Terry Asel, RPL 15079.
   b. All roads into the location are depicted on Exhibits 2 & 2a. Directions to Location: Beginning in Jal at the intersection of State Hwy 18 and State Hwy 128, go West Northwest on State Hwy 128 for 33 miles, turn left on County Road #786 (Buck Jackson) and go southwest for 8.0 miles, go west for 0.1 miles, go north for 0.1 miles, go west for 0.8 miles, go south for 2.5 miles, go southeast for 5.3 miles, go west for 0.2 miles, turn left on proposed road and go south for 0.1 miles to location.

2. NEW OR RECONSTRUCTED ACCESS ROAD:

   a. The well site layout, Exhibit 2a shows the layout. Two new access roads will be constructed of compact caliche, both a distance of (166'), one to the NE corner of the well pad and the other due north of the surface hole location for the Ross Draw 8 Fed 1H.
   b. The maximum width of the roads will be 14'. They will be crowned and consist 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 necessary production equipment will be installed on location, please refer to the attached production facility diagram. The production of this well will be measured for sales on lease.
   b. Applicant shall construct a 4" poly surface pipeline to transport gas to a sales point located north of the Ross Draw 8 Fed 2H tank battery. Applicant shall

construct a 4" poly surface pipeline to the Ross Gulch 8 #3 SWD well for disposal of produced water. A 4" poly surface pipeline that will be used as a gas lift line will originate from the gas sales point north of the Ross Draw 8 Fed 2H tank battery. At this time applicant will truck out its oil from the Ross Draw 8 Fed 4H tank battery. All pipelines are depicted on Exhibit 5.

c. If electricity is required, applicant shall use portable generators until such time as Xcel Energy constructs the Red Bluff Substation. Then applicant shall construct an over-head power line to the location after securing authorization from the BLM Realty Group for off lease right of way, and by securing a sundry for construction on lease.
d. Refer to b above.
e. If the well is productive, rehabilitation plans are as follows:
   i. The location shall be reduced on the east and south 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 from the well site 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 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

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:

1. 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.
2. An area will be used within the proposed well site to excavate caliche.

3. The subsoil will then be removed and stockpiled within the footages of the well location.
4. Once caliche/mineral material is found, the material will be excavated and stockpiled within the footages of the well location.
5. The subsoil will then be placed back in the excavated hole.
6. 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:

10. Plans for Surface Reclamation

Reclamation Objectives

There will be no interim reclamation performed on the location of the Ross Draw 8 Fed No 4H Should production or activities in the future reach a state in which reclamation is an option_ EOG will contact the BLM and set up plans for reclamation at that time

iii. The BLM will be notified at least 3 days prior to commencement of any reclamation procedures.

iv. If circumstances allow, interim reclamation and/or final reclamation actions will be completed no later than 6 months from when the final well on the location has been completed or plugged. We will gain written permission from the BLM if more time is needed.

v. Interim reclamation will not be performed on the well site because the site will hold the production facilities for the Ross Draw 8 Fed wells 1H, 4H, 7H and 8H in addition to the well heads. This will not leave room for reclamation..

Interim Reclamation Procedures (If performed)

1. Within 30 days of well completion, the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production.

2. In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.

3. The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

4. Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

5. Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.

6. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Final Reclamation (well pad, buried pipelines, etc.)

1. Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.

2. All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.

3. All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

4. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BLM seed mixture, free of noxious weeds. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

5. Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.

6. All unused equipment and structures including pipelines, electric line poles, tanks, etc. that serviced the well will be removed.

7. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

11. Surface Ownership

a. The surface ownership of the proposed project is Federal.

12. Other Information

a. Our Exhibit 4, which is referred to as the Rig Layout Diagram, is also included in this SUPO.

13. Maps and Diagrams

Exhibit 2A - Existing Road
Exhibit 3 - Wells Within One Mile
Exhibit 2B - Production Facilities Diagram
Exhibit 5 - produced water Pipeline
Exhibit 5A - Natural gas Pipeline
Exhibit 5A - Drilling Water Pipeline

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
P.O. Box 2267
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

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EOG Resources Inc
LEASE NO.:	NM0438001
WELL NAME & NO.:	4H-Ross Draw 8 Fed
SURFACE HOLE FOOTAGE:	330'/N & 610'/W
BOTTOM HOLE FOOTAGE	230'/S & 1100'/W
LOCATION:	Section 8, T. 26 S., R. 31 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Phantom Banks Heronry Requirements

- Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

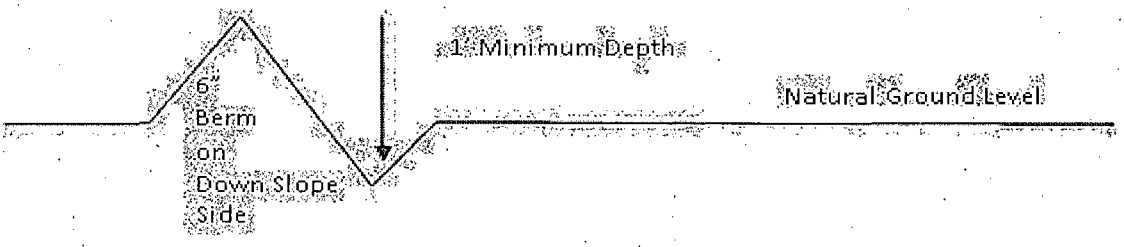
Ditching
Ditching shall be required on both sides of the road.

Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattleguards
An appropriately sized cattleguard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattleguards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguards that are in place and are utilized during lease operations.

Fence Requirement
Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

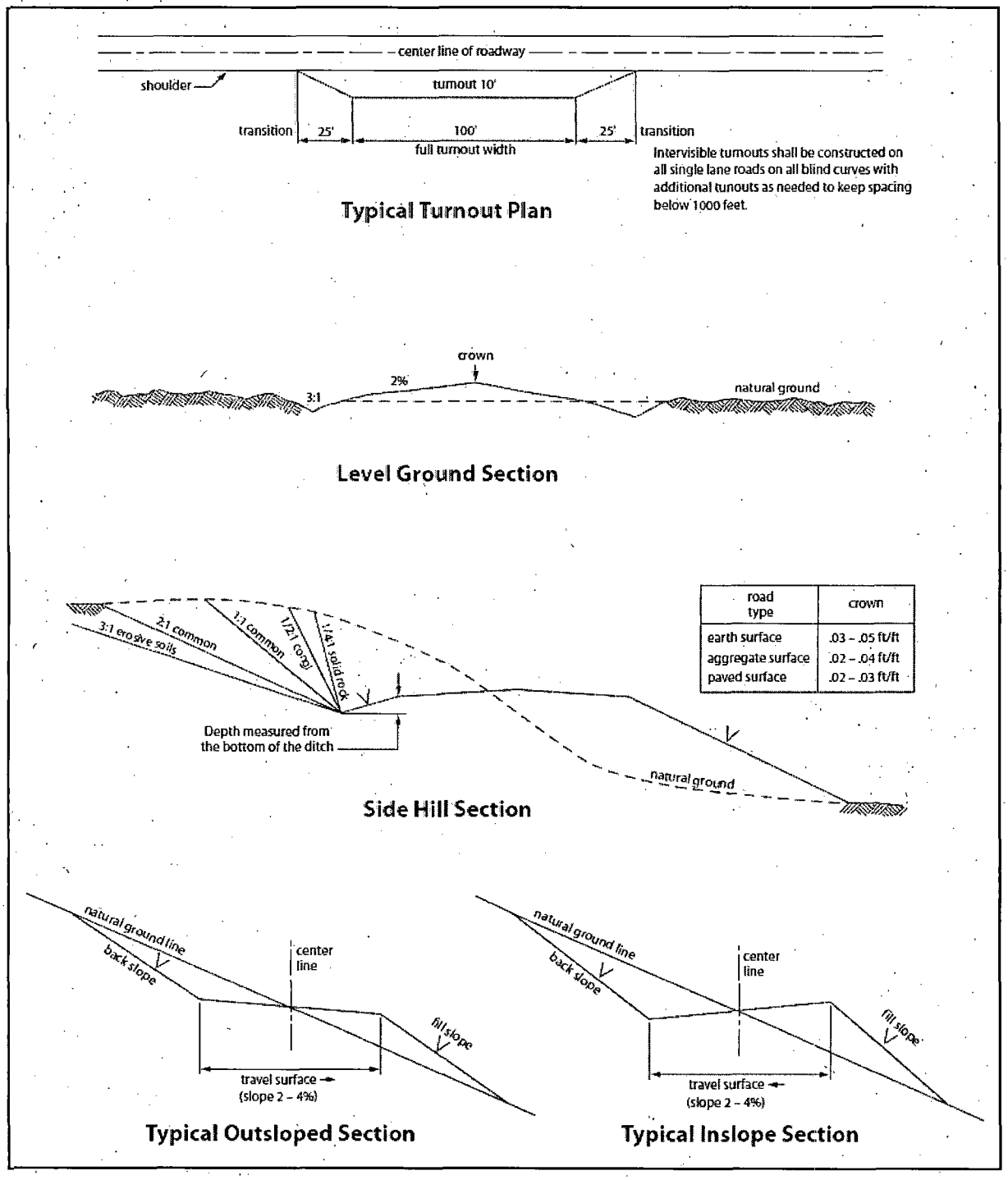


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 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 the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

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.

4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less

volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Potash Areas:
After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.

Wait on cement (WOC) for Water basin:
After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible lost circulation in the Redbeds, evaporates, Delaware and Bone Spring.

1. The **13-3/8** inch surface casing shall be set at **approximately 1185 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** 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 surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    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 cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

   ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Additional cement may be required – excess calculates to 20%.**

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   ☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

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. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi. **Operator installing a 5M system and testing as a 3M.**

   a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

   a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

   b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

   c. The results of the test shall be reported to the appropriate BLM office.

   d. 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.**

   e. 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.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

EGF 020215

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the application (Grant, Sundry Notice, APD) and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third

parties.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
b. Activities of other parties including, but not limited to:
    (1) Land clearing.
    (2) Earth-disturbing and earth-moving work.
    (3) Blasting.
    (4) Vandalism and sabotage.
c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of **20** feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline must be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline must be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity will be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.

9. The pipeline shall be buried with a minimum of **24** inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell-Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed

is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

16. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

17. Surface pipelines must be less than or equal to 4 inches and a working pressure below 125 psi.

IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed