HOBBS OCD

NOV 07 2013

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OCD Hobbs

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☑ DRILL ☐ REENTER	5. Lease Serial No. NMNM19858
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone	6. If Indian, Allotee or Tribe Name
2. Name of Operator EOG Resources, Inc. (7377)	7. If Unit or CA Agreement, Name and No.
3a. Address P.O. Box 2267 Midland, TX 79702	3b. Phone No. (include area code) 432-686-3689
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface 250' FSL & 990' FWL, U/L M (SWSW) At proposed prod. zone 230' FNL & 380' FWL, U/L D (NWNW)	8. Lease Name and Well No. Hawk 25 Fed 1H (40142)
	9. API Well No. 30-025- 41494
	10. Field and Pool, or Exploratory Red Hills ~~UPPER~~ NORTH BS (96434)
	11. Sec., T. R. M. or Blk. and Survey or Area Sec 25, T24S, R33E
14. Distance in miles and direction from nearest town or post office* Approximately +/- 24 miles Southwest from Jal, NM	12. County or Parish Lea / 13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 230'	16. No. of acres in lease 1440 / 17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 30'	19. Proposed Depth 14172' MD, 9385' TVD / 20. BLM/BIA Bond No. on file NM 2308
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3538' GL	22. Approximate date work will start* 08/01/2013 / 23. Estimated duration 25 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 03/11/2013
Title Regulatory Analyst		
Approved by (Signature) /S/ STEPHEN J. CAFFEY	Name (Printed/Typed)	Date NOV - 5 2013
Title 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)

Carlsbad Controlled Water Basin

KZ 11/08/13

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

NOV 14 2013

EOG RESOURCES, INC.
HAWK 25 FED NO. 1H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,200'
Top of Salt	1,347'
Base of Salt	5,044'
Lamar	5,300'
Bell Canyon	5,331'
Cherry Canyon	6,323'
Brushy Canyon	7,735'
Bone Spring Lime	9,217'
TD	9,385'

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

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	6,323'	Oil
Brushy Canyon	7,735'	Oil
Bone Spring Lime	9,217'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13.375" casing at 1,230' and circulating cement back to surface.

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
17.5"	0 –1,230'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4,000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4,000'-5,350'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0'-14,172'	5.500"	17#	P110 or HCP110	LTC	1.125	1.25	1.60

SM COA

Cementing Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft^3/ft	Slurry Description
1,230'	600	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 + 1% $CaCl_2$ + 0.25 pps CelloFlake + 0.005 gps FP-6L
5,150'	1100	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
14,172'	375	10.8	3.68	Lead: 60:40:0 Class 'C' + 15.00 lb/sk BA-90 + 4.00% MPA-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sk Static Free (TOC @ 4650')
	400	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

See COA 500 psi compressive strength 72 hours

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:

See COA

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

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

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

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

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

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

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

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

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

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,230' 1315	Fresh Water Gel	8.6-8.8	28-34	N/c
1230' – 5,150' 5200	Saturated Brine	10.0-10.2	28-34	N/c
5,150' – 8,650'	Cut Brine Water	8.5-9.3	28-34	N/c
8,650'– 14,172' Lateral	Cut Brine Water	9.0-9.5	28-34	N/c

SH COA

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:

Open-hole logs are not planned for this well. See COA

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

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

The estimated bottom-hole temperature (BHT) at TD is 154 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 4063 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.

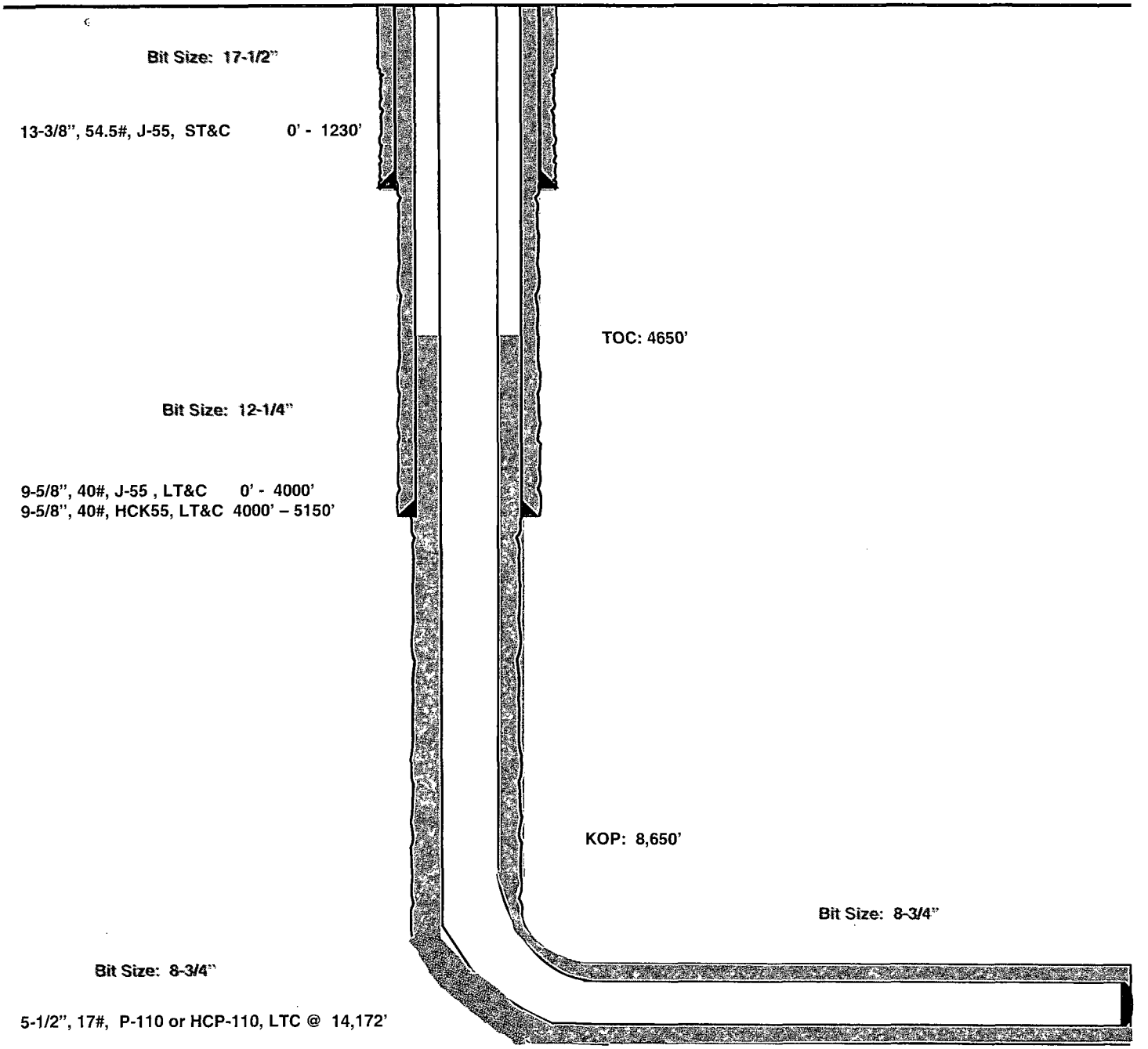
Hawk 25 Fed #1H
Red Hills
Lea County, New Mexico

250' FSL
990' FWL
Section 25
T-24-S, R-33-E

Proposed Wellbore

API: 30-025- *****

KB: 3,568'
GL: 3,538'



Lateral: 14,172' MD, 9,385' TVD

BH Location: 230' FNL & 380' FWL
Section 25
T-24-S, R-33-E

eog resources

Cactus 123

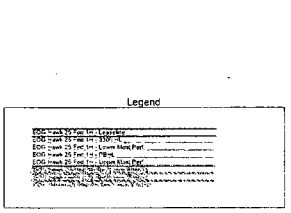
Eog Resources

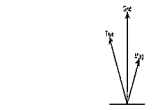
REV 1

PATHFINDER
A Schlumberger Company

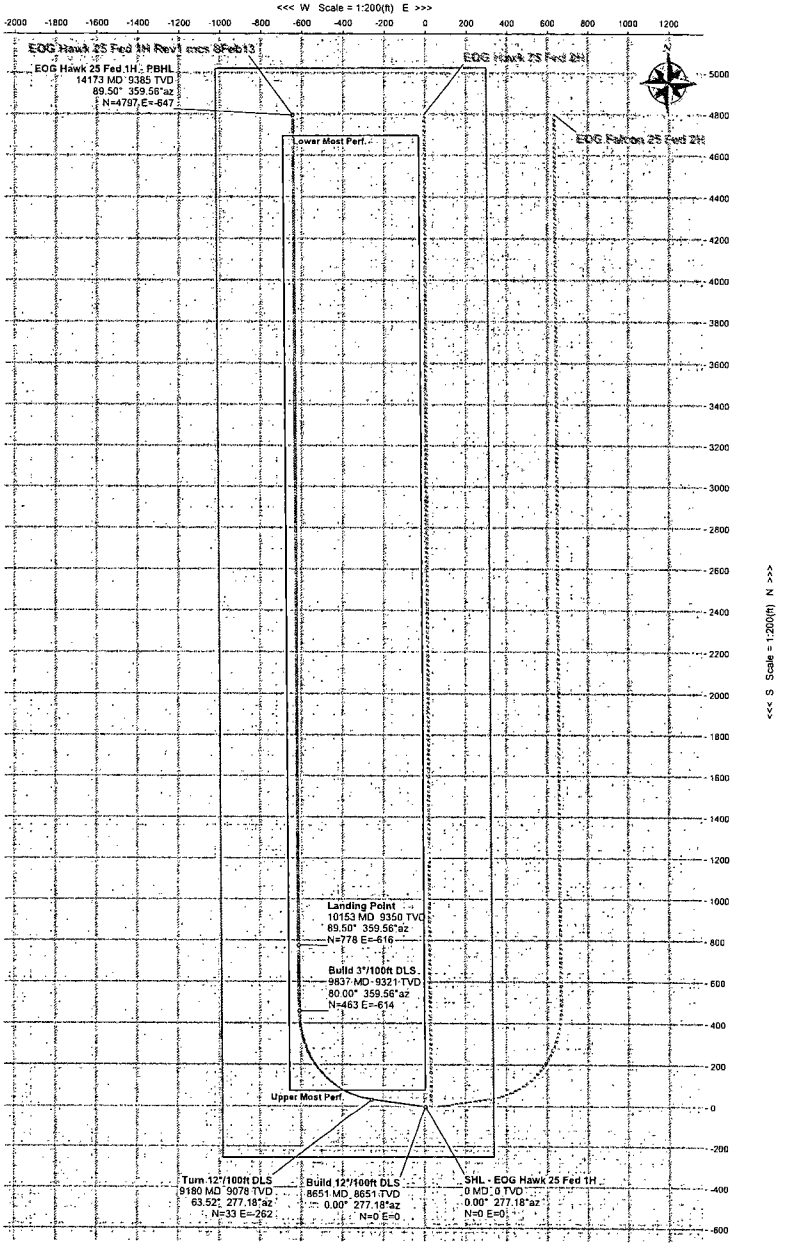
WELL	FIELD	STRUCTURE
Hawk 25 Fed 1H	Lea County, NM (NAD 27)	Cactus 123

Magnetic Parameters				Surface Location					Miscellaneous			
Model: BGGM 2012	Dip: 60.072°	Date: February 07, 2013		Lat: N 32 10 54.805	Northing: 430818.00 sUS	Grid Conv: 0.427°			Slot: Hawk 25 Fed 1H	TVD Ref: RKB(3568ft above)		
	Mag Dec: 7.464°	FS: 48418.6nT		Long: W 103 31 51.267	Easting: 748259.00 sUS	Scale Fact: 0.99997968			Plan: Rev1 mcs 8Feb13	Srvy Date: February 07, 2013		

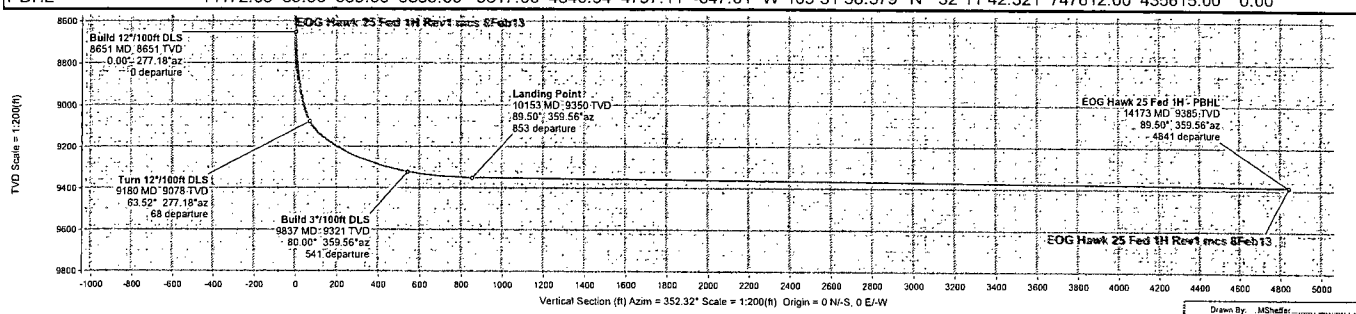




Grid North
Tot Corr (M->G 7.0368°)
Mag Dec (7.464°)
Grid Conv (0.427°)



Comments	Survey MD	Inc	Azim	TVD	SSTVD	VS	Critical Points NS	EW	Longitude	Latitude	Easting	Northing	DLS	Tool Face
SHL	0.00	0.00	277.18	0.00	-3568.00	0.00	0.00	0.00	W 103 31 51.267	N 32 10 54.805	748259.00	430818.00		277.18
Build 12°/100ft DLS	8650.73	0.00	277.18	8650.73	5082.73	0.00	0.00	0.00	W 103 31 51.267	N 32 10 54.805	748259.00	430818.00	0.00	277.18
Turn 12°/100ft DLS	9180.06	63.52	277.18	9078.10	5510.10	67.86	33.07	-262.50	W 103 31 54.318	N 32 10 55.152	747996.51	430851.07	12.00	95.69
Build 3°/100ft DLS	9836.69	80.00	359.56	9321.06	5753.06	541.01	463.13	-613.73	W 103 31 58.367	N 32 10 59.433	747645.29	431281.12	12.00	0.00
Landing Point	10153.36	89.50	359.56	9350.00	5782.00	853.48	778.10	-616.15	W 103 31 58.368	N 32 11 2.550	747642.87	431596.08	3.00	-2.14
PBHL	14172.63	89.50	359.56	9385.00	5817.00	4840.54	4797.11	-647.01	W 103 31 58.379	N 32 11 42.321	747612.00	435615.00	0.00	



Drawn By:	MShaffer
Date Created:	February 08, 2013 10:51:30 AM
Checked By:	
Checked Date:	
Approved By:	
Approved Date:	

EOG Hawk 25 Fed 1H Rev1 mcs 8Feb13 Proposal Geodetic Report

(Non-Def Plan)

Report Date:	February 08, 2013 - 10:50 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Eog Resources	**Vertical Section Azimuth:**	352.319 ° (Grid North)
Field:	NM Lea County (NAD 27)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	EOG Hawk 25 Fed 1H / EOG Hawk 25 Fed 1H	**TVD Reference Datum:**	RKB
Well:	EOG Hawk 25 Fed 1H	**TVD Reference Elevation:**	3568.000 ft above
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	3538.000 ft above
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.464 °
Survey Name:	EOG Hawk 25 Fed 1H Rev1 mcs 8Feb13	**Total Gravity Field Strength:**	998.4700mgn (9.80665 Based)
Survey Date:	February 07, 2013	**Total Magnetic Field Strength:**	48410.639 nT
Tort / AHD / DDI / ERD Ratio:	151.818 ° / 5205.754 ft / 6.077 / 0.555	**Magnetic Dip Angle:**	60.072 °
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Declination Date:**	February 07, 2013
Location Lat / Long:	N 32° 10' 54.80504", W 103° 31' 51.26688"	**Magnetic Declination Model:**	BGGM 2012
Location Grid N/E Y/X:	N 430818.000 ftUS, E 748259.000 ftUS	**North Reference:**	Grid North
CRS Grid Convergence Angle:	0.4274 °	**Grid Convergence Used:**	0.4274 °
Grid Scale Factor:	0.99997968	**Total Corr Mag North->Grid North:**	7.0368 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL - EOG Hawk 25 Fed 1H	0.00	0.00	277.18	0.00	0.00	0.00	0.00	N/A	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	100.00	0.00	277.18	100.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	200.00	0.00	277.18	200.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	300.00	0.00	277.18	300.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	400.00	0.00	277.18	400.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	500.00	0.00	277.18	500.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	600.00	0.00	277.18	600.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	700.00	0.00	277.18	700.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	800.00	0.00	277.18	800.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	900.00	0.00	277.18	900.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	1000.00	0.00	277.18	1000.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	1100.00	0.00	277.18	1100.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	1200.00	0.00	277.18	1200.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	1300.00	0.00	277.18	1300.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	1400.00	0.00	277.18	1400.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	1500.00	0.00	277.18	1500.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	1600.00	0.00	277.18	1600.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	1700.00	0.00	277.18	1700.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	1800.00	0.00	277.18	1800.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	1900.00	0.00	277.18	1900.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	2000.00	0.00	277.18	2000.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	2100.00	0.00	277.18	2100.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	2200.00	0.00	277.18	2200.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	2300.00	0.00	277.18	2300.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	2400.00	0.00	277.18	2400.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	2500.00	0.00	277.18	2500.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	2600.00	0.00	277.18	2600.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	2700.00	0.00	277.18	2700.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	2800.00	0.00	277.18	2800.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	2900.00	0.00	277.18	2900.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	3000.00	0.00	277.18	3000.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	3100.00	0.00	277.18	3100.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	3200.00	0.00	277.18	3200.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	3300.00	0.00	277.18	3300.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	3400.00	0.00	277.18	3400.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	3500.00	0.00	277.18	3500.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	3600.00	0.00	277.18	3600.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	3700.00	0.00	277.18	3700.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	3800.00	0.00	277.18	3800.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	3900.00	0.00	277.18	3900.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	4000.00	0.00	277.18	4000.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	4100.00	0.00	277.18	4100.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	4200.00	0.00	277.18	4200.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	4300.00	0.00	277.18	4300.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	4400.00	0.00	277.18	4400.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	4500.00	0.00	277.18	4500.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	4600.00	0.00	277.18	4600.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	4700.00	0.00	277.18	4700.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	4800.00	0.00	277.18	4800.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	4900.00	0.00	277.18	4900.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	5000.00	0.00	277.18	5000.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	5100.00	0.00	277.18	5100.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	5200.00	0.00	277.18	5200.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	5300.00	0.00	277.18	5300.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	5400.00	0.00	277.18	5400.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	5500.00	0.00	277.18	5500.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	5600.00	0.00	277.18	5600.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	5700.00	0.00	277.18	5700.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	5800.00	0.00	277.18	5800.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	5900.00	0.00	277.18	5900.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	6000.00	0.00	277.18	6000.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	6100.00	0.00	277.18	6100.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	6200.00	0.00	277.18	6200.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	6300.00	0.00	277.18	6300.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	6400.00	0.00	277.18	6400.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6500.00	0.00	277.18	6500.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	6600.00	0.00	277.18	6600.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	6700.00	0.00	277.18	6700.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	6800.00	0.00	277.18	6800.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	6900.00	0.00	277.18	6900.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	7000.00	0.00	277.18	7000.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	7100.00	0.00	277.18	7100.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	7200.00	0.00	277.18	7200.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	7300.00	0.00	277.18	7300.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	7400.00	0.00	277.18	7400.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	7500.00	0.00	277.18	7500.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	7600.00	0.00	277.18	7600.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	7700.00	0.00	277.18	7700.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	7800.00	0.00	277.18	7800.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	7900.00	0.00	277.18	7900.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	8000.00	0.00	277.18	8000.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	8100.00	0.00	277.18	8100.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	8200.00	0.00	277.18	8200.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	8300.00	0.00	277.18	8300.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	8400.00	0.00	277.18	8400.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	8500.00	0.00	277.18	8500.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	8600.00	0.00	277.18	8600.00	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
Build 12°/100ft DLS	8650.73	0.00	277.18	8650.73	0.00	0.00	0.00	0.00	430818.00	748259.00	N 32 10 54.81	W 103 31 51.27
	8700.00	5.91	277.18	8699.91	0.65	0.32	-2.52	12.00	430818.32	748256.48	N 32 10 54.81	W 103 31 51.30
	8800.00	17.91	277.18	8797.58	5.94	2.89	-22.96	12.00	430820.89	748236.04	N 32 10 54.84	W 103 31 51.53
	8900.00	29.91	277.18	8888.83	16.31	7.95	-63.10	12.00	430825.95	748195.90	N 32 10 54.89	W 103 31 52.00
	9000.00	41.91	277.18	8969.67	31.33	15.27	-121.19	12.00	430833.27	748137.81	N 32 10 54.97	W 103 31 52.68
	9100.00	53.91	277.18	9036.58	50.33	24.53	-194.69	12.00	430842.53	748064.32	N 32 10 55.06	W 103 31 53.53
Turn 12°/100ft DLS	9180.06	63.52	277.18	9078.10	67.86	33.07	-262.50	12.00	430851.07	747996.51	N 32 10 55.15	W 103 31 54.32
	9200.00	63.31	279.84	9087.03	72.83	35.71	-280.13	12.00	430853.71	747978.88	N 32 10 55.18	W 103 31 54.52
	9300.00	63.00	293.30	9132.35	109.35	61.06	-365.37	12.00	430879.05	747893.64	N 32 10 55.44	W 103 31 55.51
	9400.00	63.97	306.67	9177.15	163.88	105.67	-442.61	12.00	430923.67	747816.40	N 32 10 55.88	W 103 31 56.41
	9500.00	66.14	319.69	9219.48	234.06	167.60	-508.47	12.00	430985.59	747750.54	N 32 10 56.50	W 103 31 57.17
	9600.00	69.35	332.19	9257.47	316.80	244.13	-560.06	12.00	431062.13	747698.95	N 32 10 57.26	W 103 31 57.76
	9700.00	73.43	344.11	9289.48	408.50	331.93	-595.14	12.00	431149.92	747663.87	N 32 10 58.13	W 103 31 58.16
	9800.00	78.15	355.49	9314.10	505.14	427.15	-612.18	12.00	431245.14	747646.84	N 32 10 59.08	W 103 31 58.35
Build 3°/100ft DLS	9836.69	80.00	359.56	9321.06	541.01	463.13	-613.73	12.00	431281.12	747645.29	N 32 10 59.43	W 103 31 58.37
	9900.00	81.90	359.56	9331.02	603.03	525.65	-614.21	3.00	431343.64	747644.81	N 32 11 0.05	W 103 31 58.37
	10000.00	84.90	359.56	9342.51	701.56	624.97	-614.97	3.00	431442.96	747644.04	N 32 11 1.03	W 103 31 58.37
	10100.00	87.90	359.56	9348.79	800.56	724.76	-615.74	3.00	431542.74	747643.28	N 32 11 2.02	W 103 31 58.37
Landing Point	10153.36	89.50	359.56	9350.00	853.48	778.10	-616.15	3.00	431596.08	747642.87	N 32 11 2.55	W 103 31 58.37
	10200.00	89.50	359.56	9350.41	899.74	824.74	-616.51	0.00	431642.72	747642.51	N 32 11 3.01	W 103 31 58.37
	10300.00	89.50	359.56	9351.28	998.94	924.73	-617.27	0.00	431742.71	747641.74	N 32 11 4.00	W 103 31 58.37
	10400.00	89.50	359.56	9352.16	1098.14	1024.73	-618.04	0.00	431842.70	747640.97	N 32 11 4.99	W 103 31 58.37
	10500.00	89.50	359.56	9353.03	1197.34	1124.72	-618.81	0.00	431942.69	747640.20	N 32 11 5.98	W 103 31 58.37
	10600.00	89.50	359.56	9353.90	1296.54	1224.71	-619.58	0.00	432042.69	747639.44	N 32 11 6.97	W 103 31 58.37
	10700.00	89.50	359.56	9354.77	1395.74	1324.71	-620.34	0.00	432142.68	747638.67	N 32 11 7.96	W 103 31 58.37
	10800.00	89.50	359.56	9355.64	1494.94	1424.70	-621.11	0.00	432242.67	747637.90	N 32 11 8.95	W 103 31 58.37
	10900.00	89.50	359.56	9356.52	1594.13	1524.69	-621.88	0.00	432342.66	747637.13	N 32 11 9.94	W 103 31 58.37
	11000.00	89.50	359.56	9357.39	1693.33	1624.69	-622.65	0.00	432442.65	747636.37	N 32 11 10.93	W 103 31 58.37
	11100.00	89.50	359.56	9358.26	1792.53	1724.68	-623.42	0.00	432542.64	747635.60	N 32 11 11.92	W 103 31 58.37
	11200.00	89.50	359.56	9359.13	1891.73	1824.67	-624.18	0.00	432642.63	747634.83	N 32 11 12.91	W 103 31 58.37
	11300.00	89.50	359.56	9360.00	1990.93	1924.67	-624.95	0.00	432742.62	747634.06	N 32 11 13.90	W 103 31 58.37
	11400.00	89.50	359.56	9360.87	2090.13	2024.66	-625.72	0.00	432842.61	747633.29	N 32 11 14.89	W 103 31 58.37
	11500.00	89.50	359.56	9361.75	2189.33	2124.65	-626.49	0.00	432942.60	747632.53	N 32 11 15.88	W 103 31 58.37
	11600.00	89.50	359.56	9362.62	2288.53	2224.65	-627.26	0.00	433042.60	747631.76	N 32 11 16.86	W 103 31 58.37
	11700.00	89.50	359.56	9363.49	2387.72	2324.64	-628.02	0.00	433142.59	747630.99	N 32 11 17.85	W 103 31 58.37
	11800.00	89.50	359.56	9364.36	2486.92	2424.63	-628.79	0.00	433242.58	747630.22	N 32 11 18.84	W 103 31 58.37
	11900.00	89.50	359.56	9365.23	2586.12	2524.63	-629.56	0.00	433342.57	747629.45	N 32 11 19.83	W 103 31 58.37
	12000.00	89.50	359.56	9366.10	2685.32	2624.62	-630.33	0.00	433442.56	747628.69	N 32 11 20.82	W 103 31 58.37
	12100.00	89.50	359.56	9366.97	2784.52	2724.61	-631.10	0.00	433542.55	747627.92	N 32 11 21.81	W 103 31 58.37
	12200.00	89.50	359.56	9367.84	2883.72	2824.60	-631.86	0.00	433642.54	747627.15	N 32 11 22.80	W 103 31 58.37
	12300.00	89.50	359.56	9368.71	2982.92	2924.60	-632.63	0.00	433742.53	747626.38	N 32 11 23.79	W 103 31 58.37
	12400.00	89.50	359.56	9369.58	3082.11	3024.59	-633.40	0.00	433842.52	747625.61	N 32 11 24.78	W 103 31 58.37
	12500.00	89.50	359.56	9370.45	3181.31	3124.58	-634.17	0.00	433942.52	747624.85	N 32 11 25.77	W 103 31 58.37
	12600.00	89.50	359.56	9371.33	3280.51	3224.58	-634.94	0.00	434042.51	747624.08	N 32 11 26.76	W 103 31 58.37
	12700.00	89.50	359.56	9372.20	3379.71	3324.57	-635.70	0.00	434142.50	747623.31	N 32 11 27.75	W 103 31 58.38
	12800.00	89.50	359.56	9373.07	3478.91	3424.56	-636.47	0.00	434242.49	747622.54	N 32 11 28.74	W 103 31 58.38
	12900.00	89.50	359.56	9373.94	3578.11	3524.56	-637.24	0.00	434342.48	747621.77	N 32 11 29.73	W 103 31 58.38
	13000.00	89.50	359.56	9374.81	3677.31	3624.55	-638.01	0.00	434442.47	747621.01	N 32 11 30.72	W 103 31 58.38
	13100.00	89.50	359.56	9375.68	3776.50	3724.54	-638.78	0.00	434542.46	747620.24	N 32 11 31.71	W 103 31 58.38
	13200.00	89.50	359.56	9376.55	3875.70	3824.54	-639.54	0.00	434642.45	747619.47	N 32 11 32.70	W 103 31 58.38
	13300.00	89.50	359.56	9377.42	3974.90	3924.53	-640.31	0.00	434742.44	747618.70	N 32 11 33.69	W 103 31 58.38
	13400.00	89.50	359.56	9378.28	4074.10	4024.52	-641.08	0.00	434842.43	747617.93	N 32 11 34.68	W 103 31 58.38
	13500.00	89.50	359.56	9379.15	4173.30	4124.52	-641.85	0.00	434942.43	747617.17	N 32 11 35.67	W 103 31 58.38
	13600.00	89.50	359.56	9380.02	4272.50	4224.51	-642.62	0.00	435042.42	747616.40	N 32 11 36.66	W 103 31 58.38
	13700.00	89.50	359.56	9380.89	4371.70	4324.50	-643.38	0.00	435142.41	747615.63	N 32 11 37.64	W 103 31 58.38
	13800.00	89.50	359.56	9381.76	4470.89	4424.50	-644.15	0.00	435242.40	747614.86	N 32 11 38.63	W 103 31 58.38
	13900.00	89.50	359.56	9382.63	4570.09	4524.49	-644.92	0.00	435342.39	747614.09	N 32 11 39.62	W 103 31 58.38
	14000.00	89.50	359.56	9383.50	4669.29	4624.48	-645.69	0.00	435442.38	747613.33	N 32 11 40.61	W 103 31 58.38
	14100.00	89.50	359.56	9384.37	4768.49	4724.48	-646.46	0.00	435542.37	747612.56	N 32 11 41.60	W 103 31 58.38
EOG Hawk 25 Fed 1H - PBHL	14172.63	89.50	359.56	9385.00	4840.54	4797.11	-647.01	0.00	435615.00	747612.00	N 32 11 42.32	W 103 31 58.38

Survey Type: Non-Def Plan

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)		Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	30.000		1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Borehole / EOG Hawk 25 Fed 1H Rev1 mcs 8Feb13
	30.000	14172.635		1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / EOG Hawk 25 Fed 1H Rev1 mcs 8Feb13

EOG RESOURCES, INC.
HAWK 25 FED #1H

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.

Exhibit 1
EOG Resources
10M BOPE

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

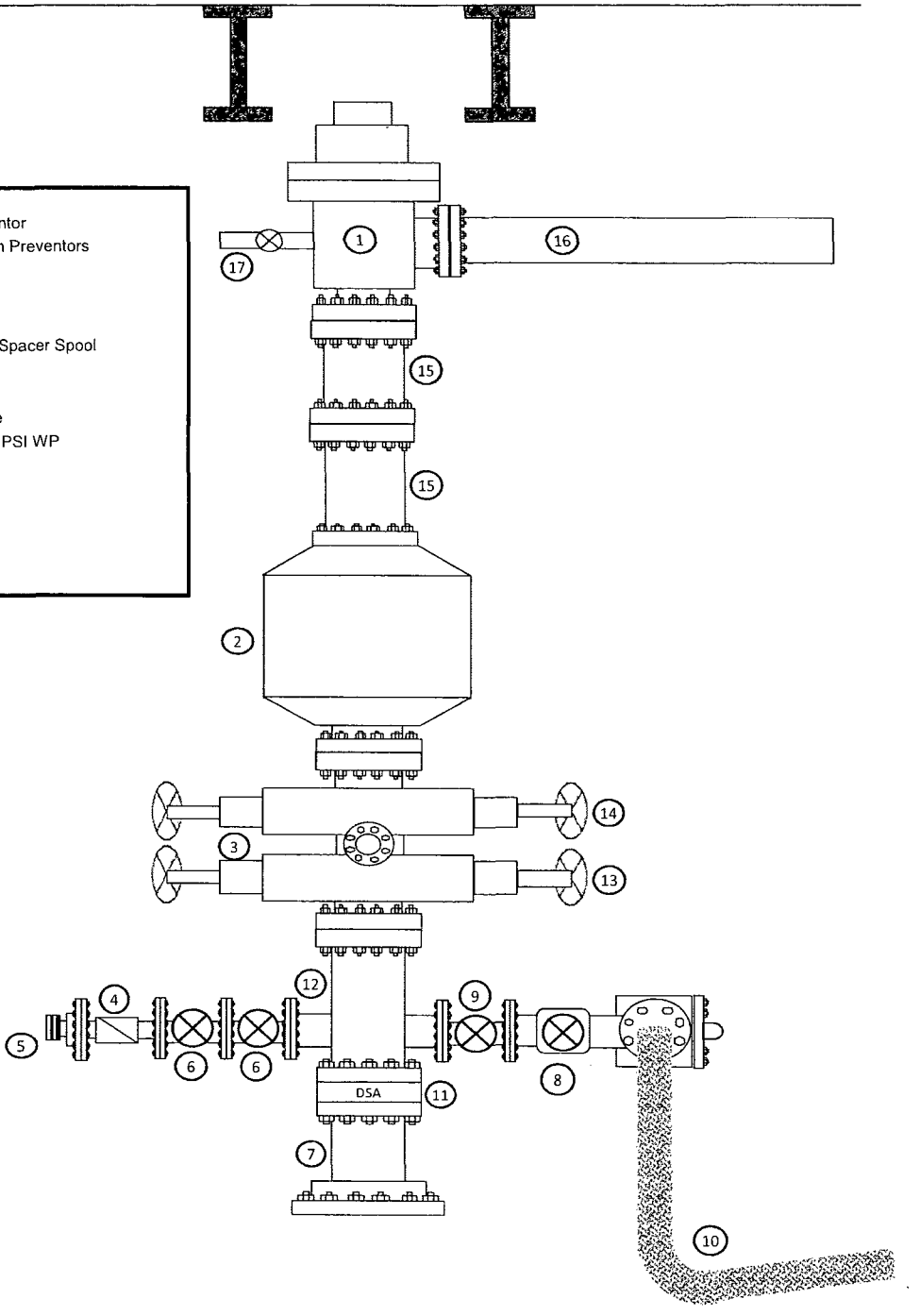
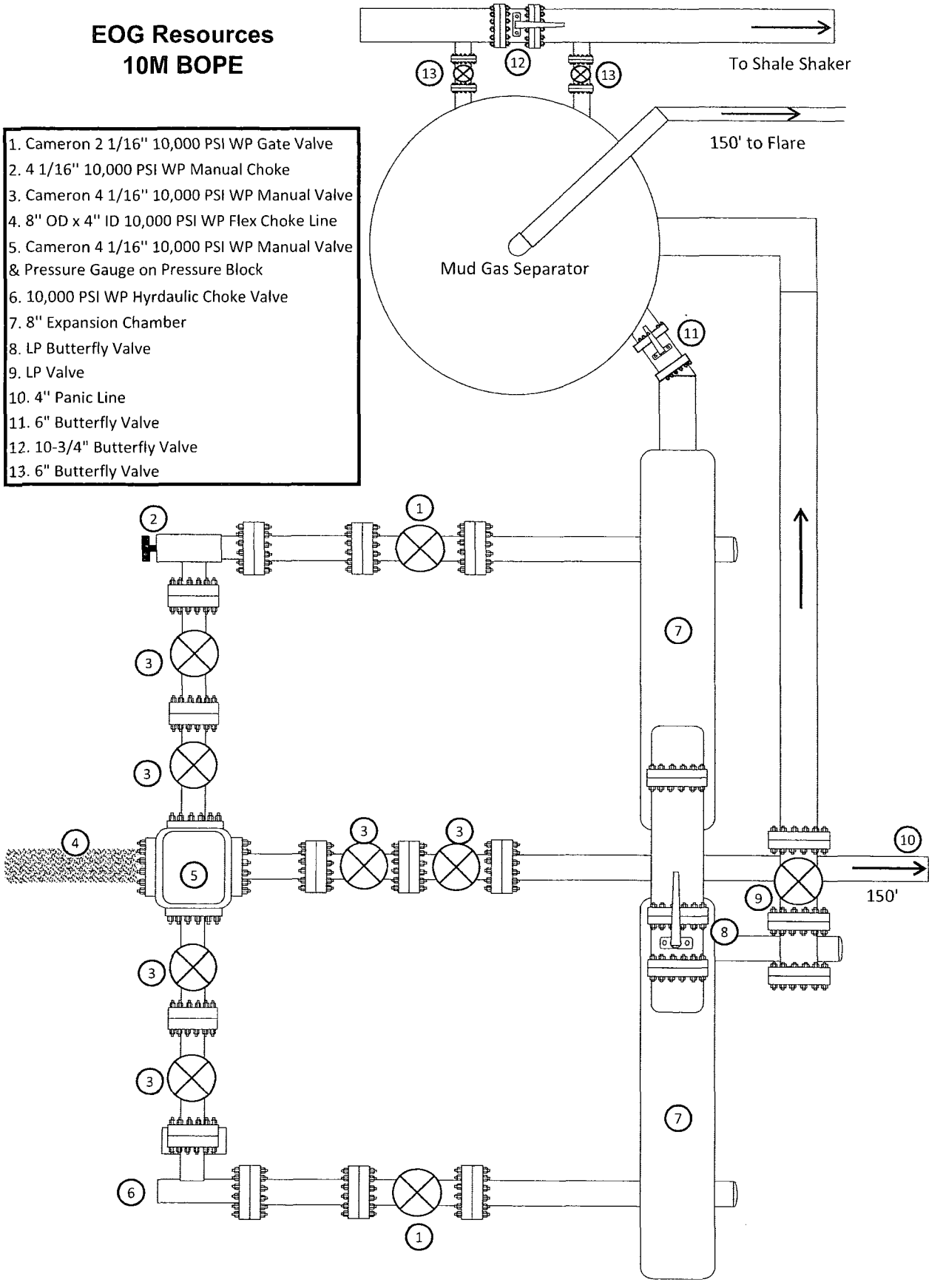


Exhibit 1a

EOG Resources
10M BOPE

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)

MIDWEST

HOSE AND SPECIALTY INC.

INTERNAL HYDROSTATIC TEST REPORT		
Customer: CACTUS		**P.O. Number:** RIG #123
		Asset # M10761
HOSE SPECIFICATIONS		
Type: CHOKE LINE		**Length:** 35'
I.D. 4" *INCHES*		**O.D.** 8" *INCHES*
WORKING PRESSURE 10,000 *PSI*	**TEST PRESSURE** 15,000 *PSI*	**BURST PRESSURE** *PSI*
COUPLINGS		
Type of End Fitting 4 1/16 10K FLANGE		
Type of Coupling: SWEDGED	**MANUFACTURED BY** MIDWEST HOSE & SPECIALTY	
PROCEDURE		
Hose assembly pressure tested with water at ambient temperature.		
TIME HELD AT TEST PRESSURE 1 *MIN.*	**ACTUAL BURST PRESSURE:** 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: 6/6/2011	**Tested By:** BOBBY FINK	**Approved:** MENDI JACKSON

Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: CACTUS

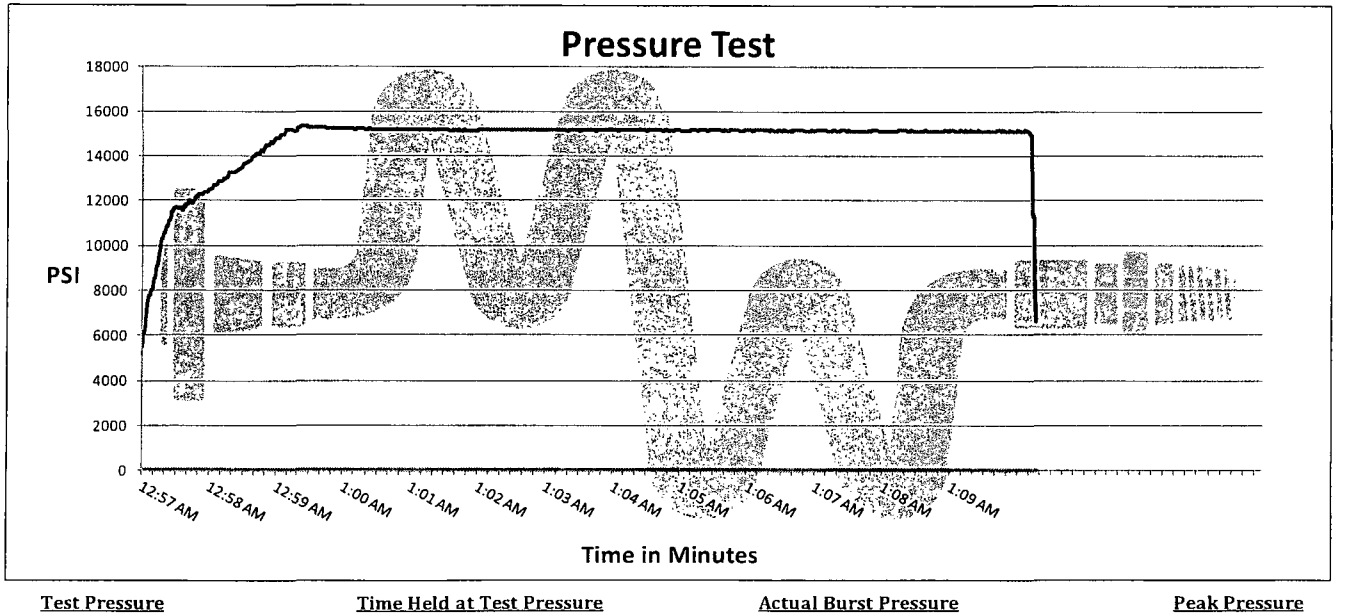
SALES ORDER# 90067

Hose Specifications

Hose Type	Length
C & K	35'
I.D.	**O.D.**
4"	8"
Working Pressure	**Burst Pressure**
10000 PSI	Standard Safety Multiplier Applies

Verification

Type of Fitting	Coupling Method
4 1/16 10K	Swage
Die Size	**Final O.D.**
6.62"	6.68"
Hose Serial #	**Hose Assembly Serial #**
	90067



Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
15000 PSI	11 1/4 Minutes		15439 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: *Bobby Fink*

Approved By: *Mendi Jackson*

Mendi Jackson

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