

Revised Permit Information:

HOBBS OGD

Well Name: Hearn's 27 State Com No. 503H

MAR 10 2015

Location:

SL: 300' FSL & 2090' FWL, Section 27, T-24-S, R-33-E, Lea Co., N.M.

RECEIVED

BHL: 230' FSL & 1140' FWL, Section 34, T-24-S, R-33-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 - 1205'	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
12.25"	4000' - 5000'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.60
8.75"	0'-16,263'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
1205'	500	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	200	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
5,000'	800	12.7	2.22	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
16,263'	375	10.8	3.67	60:40:0 Class C + 15.0 pps BA-90 + 4% MPA-5 + 3.0% SMS + 5.0% A-10 + 1.0% BA-10A + 0.80% ASA-301 + 2.55% R-21 + 8.0 pps LCM-1 (TOC @ 4500')
	400	11.8	2.38	50:50:10 Class H + 0.80% FL-52 + 0.30% ASA-301 + 0.40% SMS + 2.0% Salt + 0.30% R-21 + 3.0 pps LCM-1 + 0.25 pps Celloflake
	1300	14.2	1.28	50:50:2 Class H + 0.65% FL-52 + 0.45% CD-32 + 0.10% SMS + 2.0% Salt

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 1205'	Fresh - Gel	8.6-8.8	28-34	N/c
1205' - 5,000'	Brine	10.0-10.2	28-34	N/c
5,000' - 10,554'	Cut Brine	8.4-9.0	28-34	N/c
10,554' - 16,263' Lateral	Cut Brine	9.0-9.5	40-42	8-10

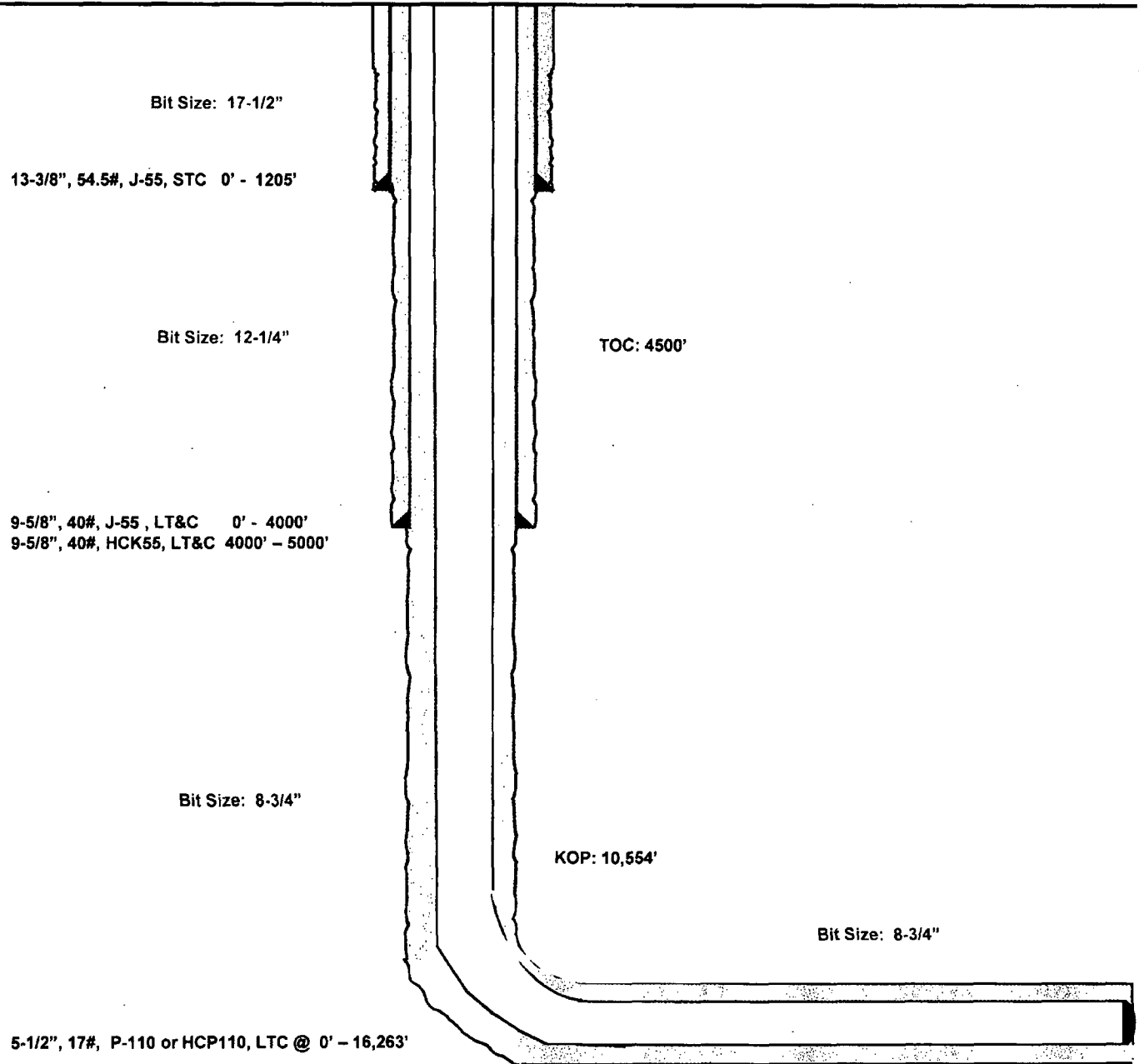
MAR 10 2015

Hearns 27 State Com #503H
Lea County, New Mexico

300' FSL
2090' FWL
Section 27
T-24-S, R-33-E

Proposed Wellbore
Revised 3/6/15
API: 30-025-42120

KB: 3,518'
GL: 3,488'



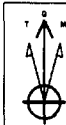
Lateral: 16,263' MD, 11,145' TVD

BH Location: 230' FSL & 1140' FWL
Section 34
T-24-S, R-33-E



Lea County, NM (NAD 27 NME)
 Hearn's 27 State Com #503H
 Catus 123
 Plan #6

PROJECT DETAILS: Lea County, NM (NAD 27 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



Azimuths to Grid North
 True North: 4.41°
 Magnetic North: 4.79°
 Magnetic Field
 Strength: 48147.5nT
 Dip Angle: 60.06°
 Date: 3/10/2016
 Model: IGRF-2016

To convert a Magnetic Direction to a Grid Direction, Add 6.78°
 To convert a Magnetic Direction to a True Direction, Add 7.19° East
 To convert a True Direction to a Grid Direction, Subtract 6.61°

WELL DETAILS: #503H

Ground Level: 3488.0
 KB = 30 @ 3518.0usft (Catus 123)
 Easting Latitude Longitude Slot

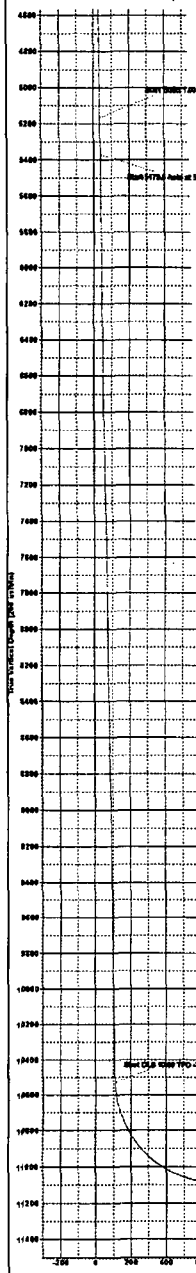
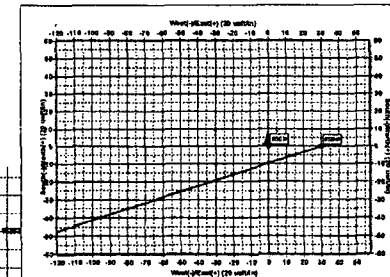
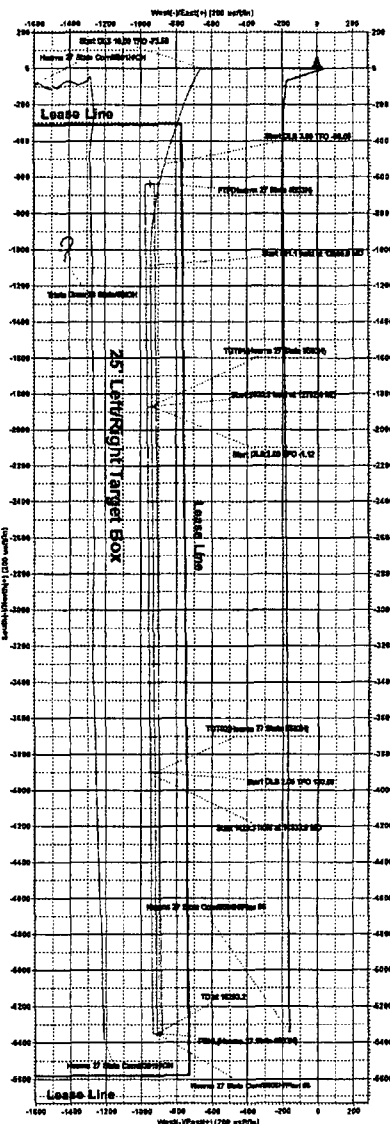
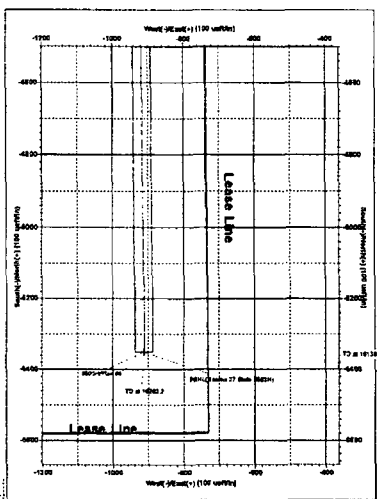
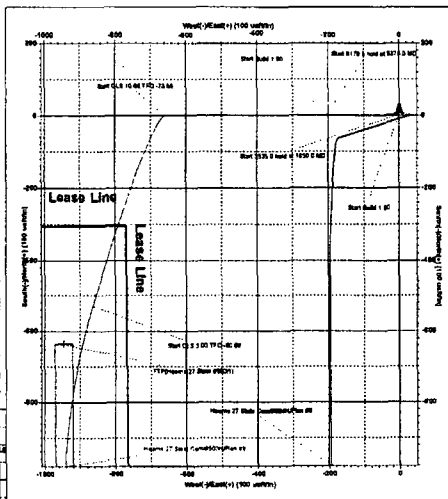
+N/-S +E/-W Northing
 0.0 0.0 430806.00
 738800.0032° 10' 55.371 N 103° 33' 41.324 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1350.0	0.00	0.00	1350.0	0.0	0.0	0.00	0.00	0.0	
3	1650.0	3.00	270.00	1649.9	0.0	-7.9	1.00	270.00	1.3	
4	5175.0	3.00	270.00	5170.0	0.0	-192.3	0.00	0.00	32.3	
5	5375.0	5.00	270.00	5369.5	0.0	-206.3	1.00	0.00	34.6	
6	10554.5	5.00	270.00	10529.3	0.0	-557.7	0.00	0.00	110.4	
7	11434.4	89.41	186.55	11086.1	-530.3	-883.5	10.00	-73.56	867.7	
8	12000.0	89.41	179.58	11092.0	-1088.2	-942.5	3.00	-90.09	1231.0	
9	12781.1	89.41	179.58	11100.0	-1869.3	-936.7	0.00	0.00	2000.0	TGT#1(Hearn's 27 State #503H)
10	12782.4	89.44	179.58	11100.0	-1870.6	-936.7	2.00	-1.12	2001.3	
11	14812.6	89.44	179.58	11120.0	-3900.6	-921.7	0.00	0.00	4000.0	TGT#2(Hearn's 27 State #503H)
12	14833.9	89.01	179.58	11120.3	-3921.9	-921.6	2.00	180.00	4021.0	
13	16263.2	88.01	179.58	11145.0	-5351.0	-911.0	0.00	0.00	5428.0	PBHL(Hearn's 27 State #503H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
FTP(Hearn's 27 State #503H)	11086.0	-518.0	-844.0	430170.00	737854.00	Point
TGT#1(Hearn's 27 State #503H)	11100.0	-1869.3	-936.7	430806.00	737853.27	Point
TGT#2(Hearn's 27 State #503H)	11120.0	-3900.6	-921.7	430806.00	737853.28	Point
PBHL(Hearn's 27 State #503H)	11145.0	-5351.0	-911.0	430806.00	737853.00	Rectangle (Sides: L2.0 W80.0)





EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Hearns 27 State Com

#503H

OH

Plan: Plan #6

Standard Planning Report

06 March, 2015



EOG Resources, Inc.

Planning Report

Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Hearn 27 State Com
Well: #503H
Wellbore: OH
Design: Plan #6

Local Co-ordinate Reference: Well #503H
TVD Reference: KB = 30 @ 3518.0usft (Catus 123)
MD Reference: KB = 30 @ 3518.0usft (Catus 123)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Lea County, NM (NAD 27 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	Hearn 27 State Com			
Site Position:		Northing:	430,710.00 usft	Latitude: 32° 10' 54.484 N
From:	Map	Easting:	737,910.00 usft	Longitude: 103° 33' 51.687 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.41 °

Well	#503H			
Well Position	+N/-S	96.0 usft	Northing:	430,806.00 usft
	+E/-W	890.0 usft	Easting:	738,800.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level: 3,488.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2015	3/10/2015	7.19	60.08	48,147

Design	Plan #6			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	189.66

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,350.0	0.00	0.00	1,350.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,650.0	3.00	270.00	1,649.9	0.0	-7.9	1.00	1.00	0.00	270.00	
5,175.0	3.00	270.00	5,170.0	0.0	-192.3	0.00	0.00	0.00	0.00	
5,375.0	5.00	270.00	5,369.5	0.0	-206.3	1.00	1.00	0.00	0.00	
10,554.5	5.00	270.00	10,529.3	0.0	-657.7	0.00	0.00	0.00	0.00	
11,434.4	89.41	186.55	11,086.1	-530.3	-863.5	10.00	9.59	-8.35	-73.56	
12,000.0	89.41	179.58	11,092.0	-1,088.2	-942.5	3.00	0.00	-3.00	-90.09	
12,781.1	89.41	179.58	11,100.0	-1,869.3	-936.7	0.00	0.00	0.00	0.00	TGT#1(Hearn 27 St
12,782.4	89.44	179.58	11,100.0	-1,870.6	-936.7	2.00	2.00	-0.04	-1.12	
14,812.6	89.44	179.58	11,120.0	-3,900.6	-921.7	0.00	0.00	0.00	0.00	TGT#2(Hearn 27 St
14,833.9	89.01	179.58	11,120.3	-3,921.9	-921.6	2.00	-2.00	0.00	180.00	
16,263.2	89.01	179.58	11,145.0	-5,351.0	-911.0	0.00	0.00	0.00	0.00	PBHL(Hearn 27 Stat