

Permit Information:

Well Name: Thor 21 No. 501H

Location:

SL: 230' FSL & 350' FEL, Section 21, T-26-S, R-33-E, Lea Co., N.M.

BHL: 230' FNL & 380' FEL, Section 21, T-26-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 - 860'	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'-15,763'	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
860'	300	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
15,763'	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 - 860'	Fresh - Gel	8.6-8.8	28-34	N/c
860' - 5,000'	Brine	10.0-10.2	28-34	N/c
5,000' - 10,411'	Cut Brine	8.4-9.0	28-34	N/c
10,411' - 15,763' Lateral	Cut Brine	9.0-9.5	40-42	8-10

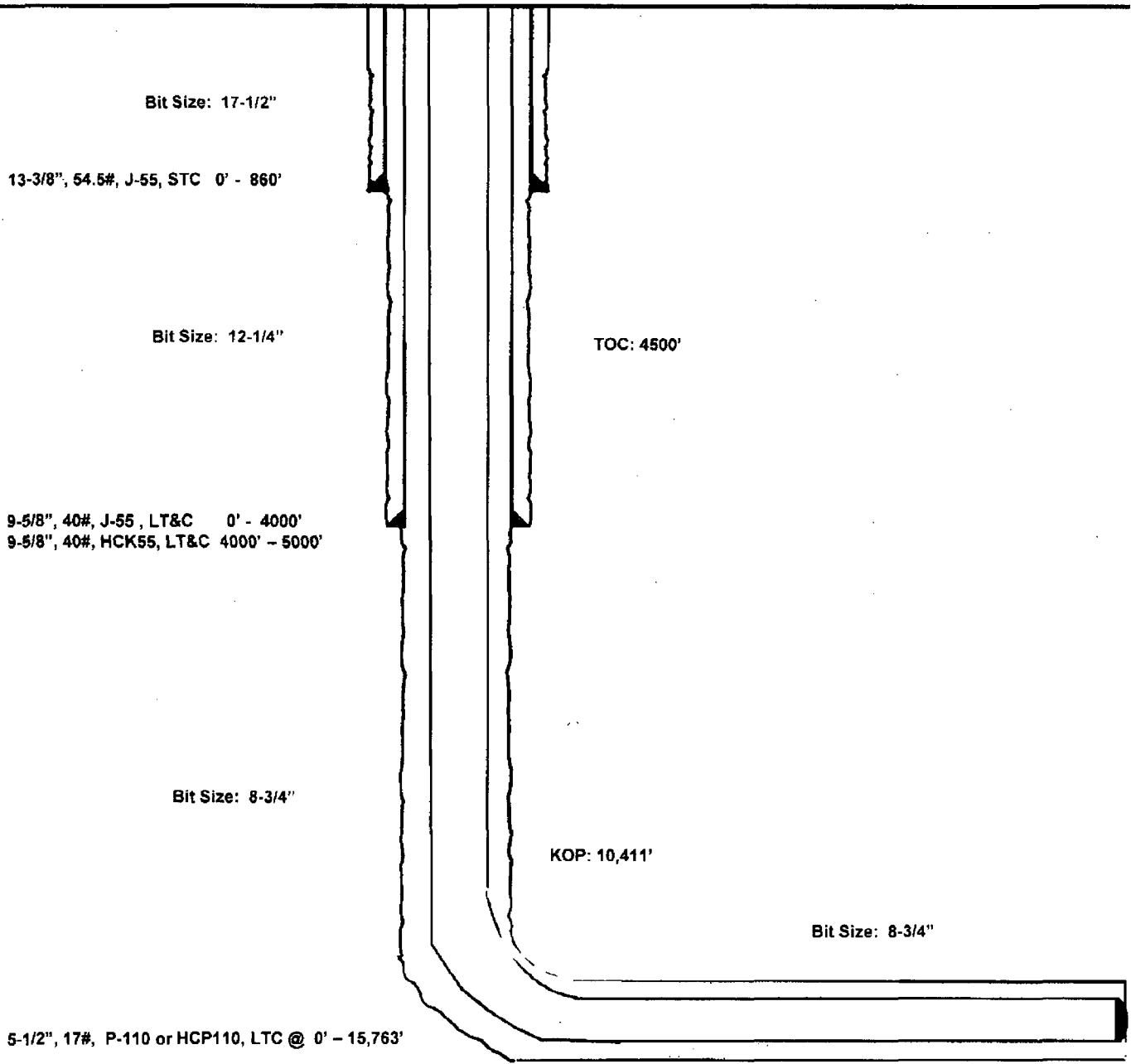
Thor 21 #501H
Lea County, New Mexico

230' FSL
350' FEL
Section 21
T-26-S, R-33-E

Proposed Wellbore

API: 30-025-

KB: 3,277'
GL: 3,252'



Lateral: 15,763' MD, 11,000' TVD
BH Location: 230' FNL & 380' FEL
Section 21
T-26-S, R-33-E



Lea County, NM (NAD 27 NME)

Thor 21 #501H

H&P 260

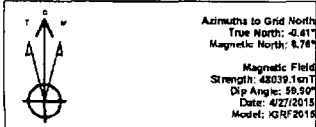
Plan #1

PROJECT DETAILS: Lea County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1858
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: #501H

Ground Level: 3259.0
KB = 25 @ 3177' Depth (H&P 260)
Northing: 372644.00 Easting: 726768.00 Latitude: 32° 1' 19.582" N Longitude: 102° 34' 9.762" W



To convert a Magnetic Direction to a Grid Direction, Add 0.61°
To convert a Magnetic Direction to a True Direction, Add 7.17° East
To convert a True Direction to a Grid Direction, Subtract 0.61°

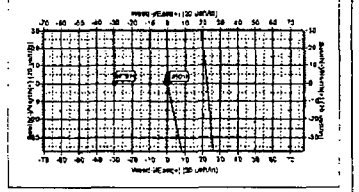
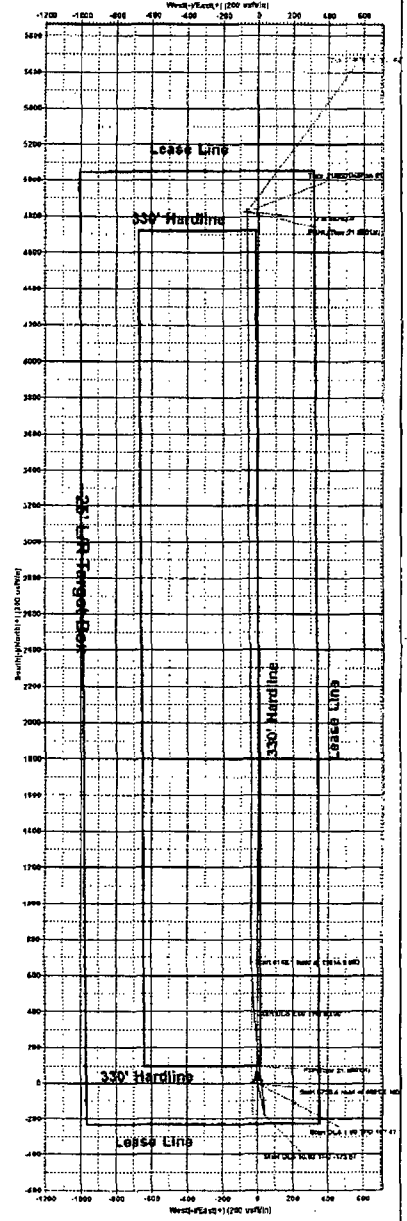
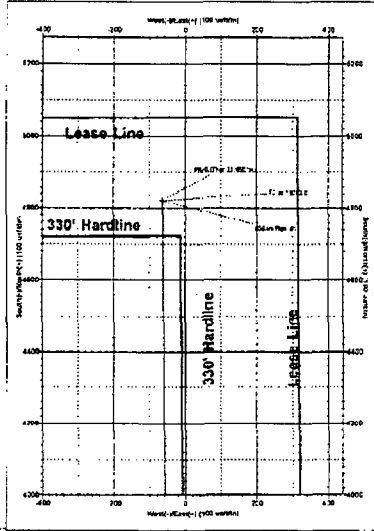
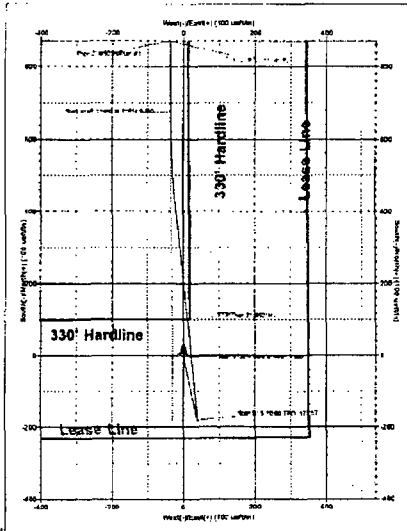
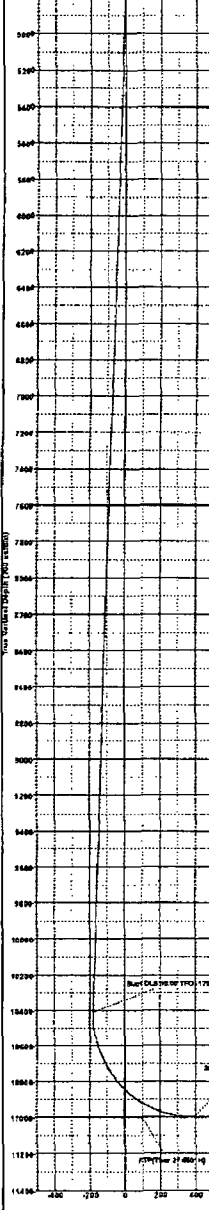
SECTION DETAILS

SEC	MD	INC	ASL	TVD	+W-S	+E-W	DEG	TFACE	VSECT	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00		
2	4500.0	0.00	0.00	4500.0	0.0	0.0	0.00	0.00	0.00		
3	4681.5	1.82	167.47	4681.5	-2.8	0.8	1.00	167.47	-2.8		
4	10411.9	1.82	167.47	10409.0	-180.6	40.0	0.00	-180.6			
6	11329.9	90.00	358.90	11000.0	389.7	-18.8	10.00	-173.87	389.9		
6	11614.9	90.00	359.50	11000.0	874.0	-34.9	2.00	89.90	874.4		
7	18745.0	90.00	359.50	11000.0	4922.0	44.0	0.00	0.00	4922.4	PDHL(Thor 21 #501H)	

CASING DETAILS
NO CASING DATA IS AVAILABLE

WELLBORE TARGET DETAILS (MAP COORDINATES)

Name	TVD	+W-S	+E-W	Northing	Eastng
PDHL(Thor 21 #501H)	11000.0	4922.0	44.0	377466.00	726768.00
FTW(Thor 21 #501H)	11000.0	100.0	-31.0	372744.00	726717.00





EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Thor 21

#501H

OH

Plan: Plan #1

Standard Planning Report

17 March, 2015