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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., Santa 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.
Santa Fe, NM 87505

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

RECEIVED

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-42501	² Pool Code 51020	³ Pool Name Red Hills; Lower Bone Spring
⁴ Property Code 39643	⁵ Property Name DRAGON 36 STATE	⁶ Well Number #502H
⁷ GRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.	⁹ Elevation 3500'

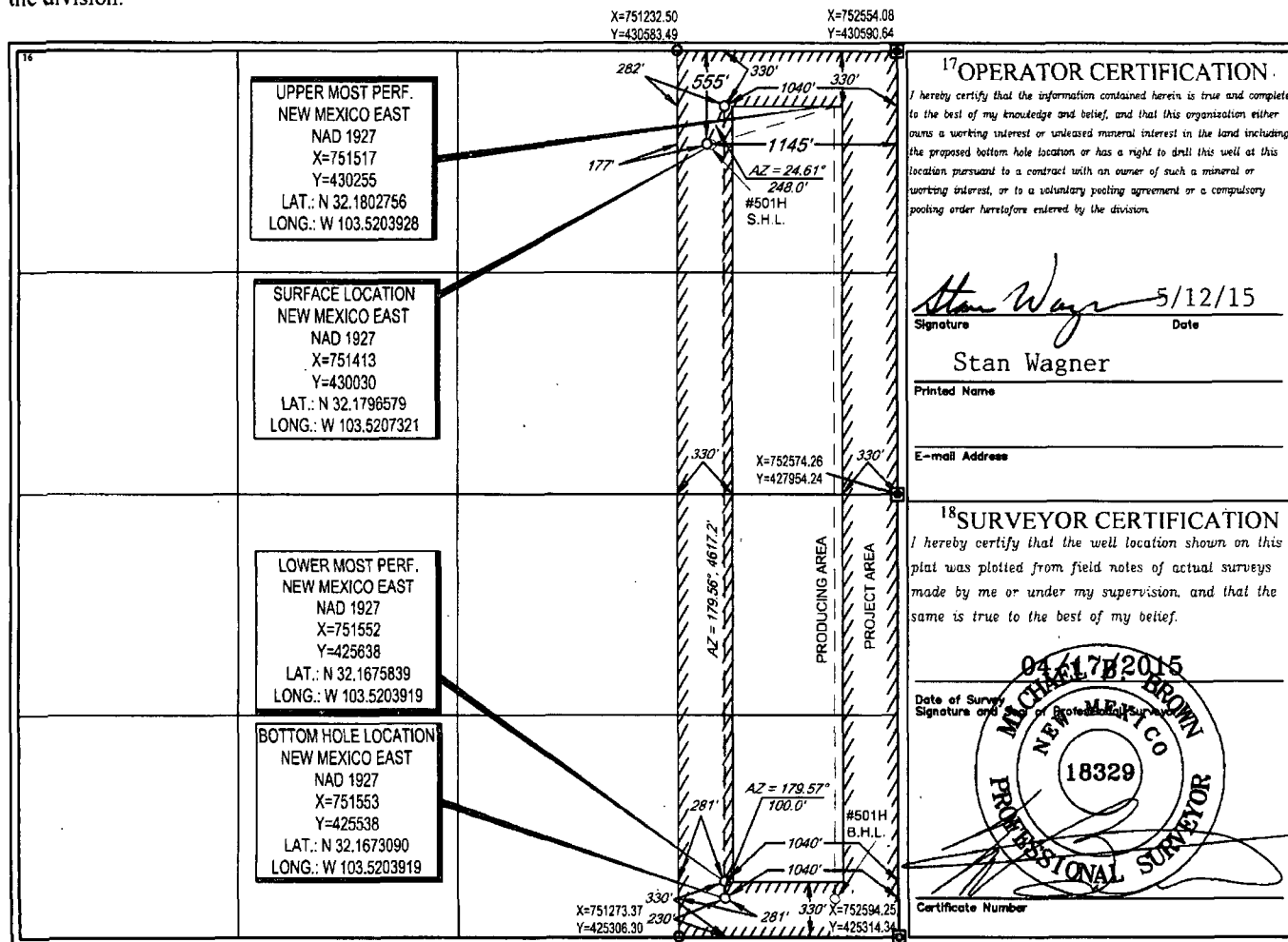
¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	36	24-S	33-E	-	555'	NORTH	1145'	EAST	LEA

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	36	24-S	33-E	-	230'	SOUTH	1040'	EAST	LEA

¹² Dedicated Acres 160.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.



S:\SURVEY\EOG_MIDLAND\DRAGON_36_STATE\FINAL_PRODUCTS\ILO_DRAGON36STATE_502H_REV2.DWG 5/11/2015 9:29:48 AM svillagran

MAY 13 2015

Revised Permit Information 5/11/15:

Well Name: Dragon 36 State No. 502H

Location:

SL: 555' FNL & 1145' FEL, Section 36, T-24-S, R-33-E, Lea Co., N.M.

BHL: 230' FSL & 1040' FEL, Section 36, 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 – 1220'	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' – 5100'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.60
8.75"	0'-15,913'	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
1220'	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
5,100'	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
15,913'	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:

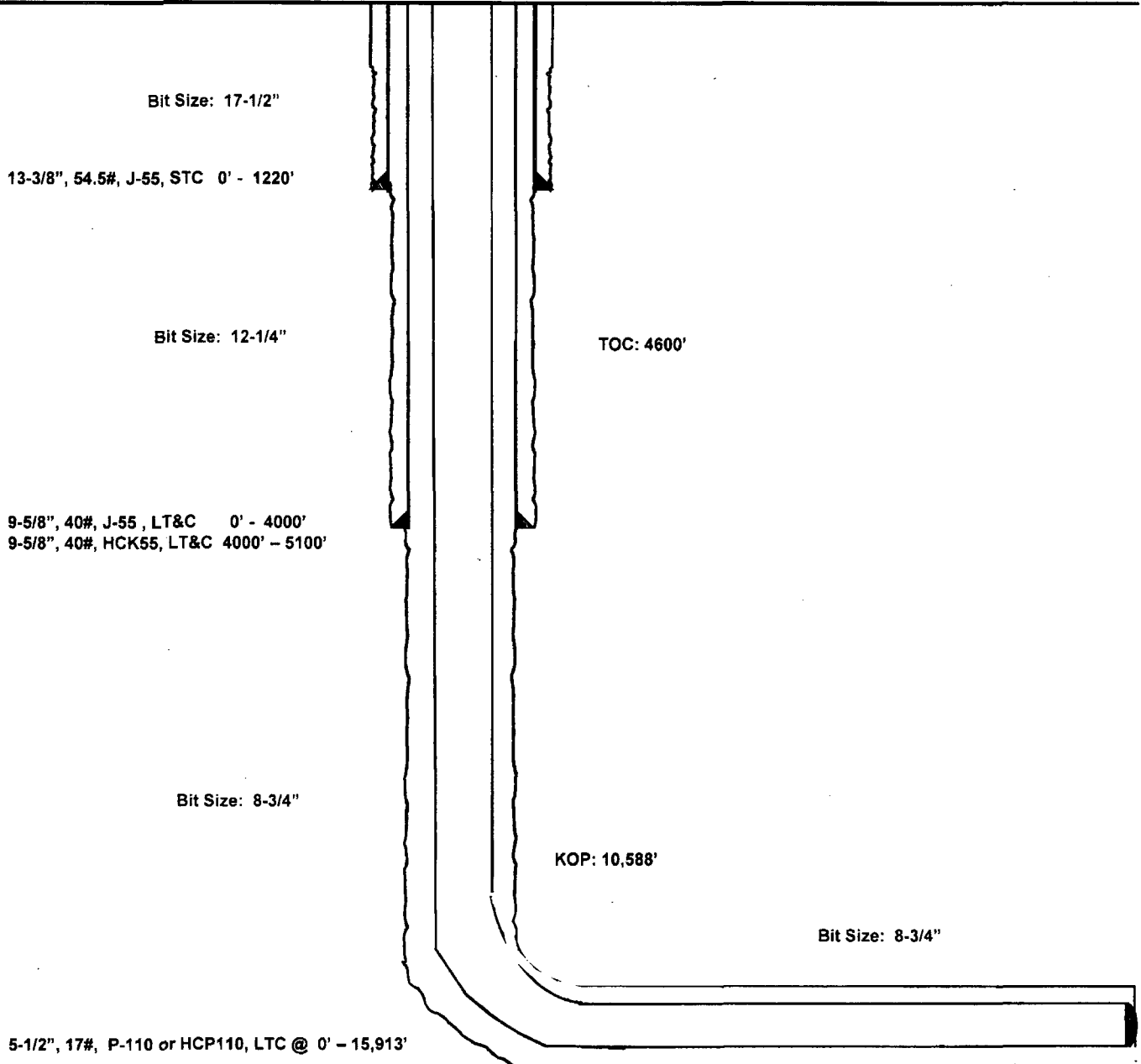
Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1220'	Fresh - Gel	8.6-8.8	28-34	N/c
1220' – 5,100'	Brine	10.0-10.2	28-34	N/c
5,100' – 10,588'	Cut Brine	8.4-9.0	28-34	N/c
10,588' – 15,913' Lateral	Cut Brine	9.0-9.5	40-42	8-10

Dragon 36 State #502H
Lea County, New Mexico

555' FNL
1145' FEL
Section 36
T-24-S, R-33-E

Proposed Wellbore
Revised 5/11/15
API: 30-025-42501

KB: 3,525'
GL: 3,500'



Lateral: 15,913' MD, 11,175' TVD

BH Location: 230' FSL & 1040' FEL
Section 36
T-24-S, R-33-E



Lea County, NM (NAD 27 NME)

Dragon 36 State

#502H

H&P 612

Plan #3

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: -0.43°
Magnetic North: 6.71°
Magnetic Field
Strength: 48124.7nT
Dip Angle: 60.06°
Date: 6/8/2015
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 0.71°
To convert a Magnetic Direction to a True Direction, Add 7.13° East
To convert a True Direction to a Grid Direction, Subtract 0.43°

WELL DETAILS #502H

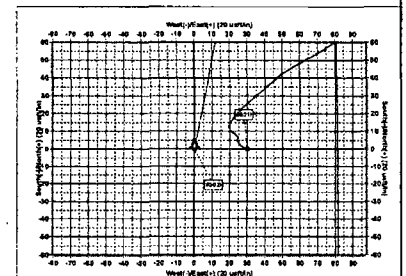
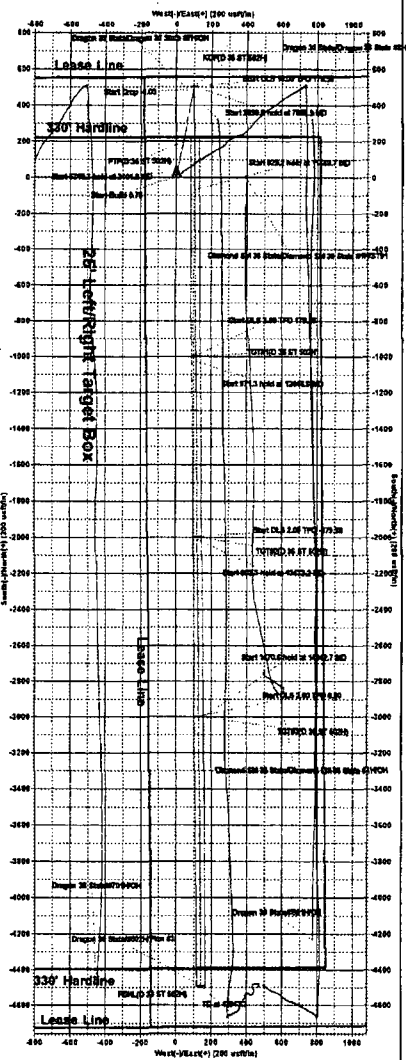
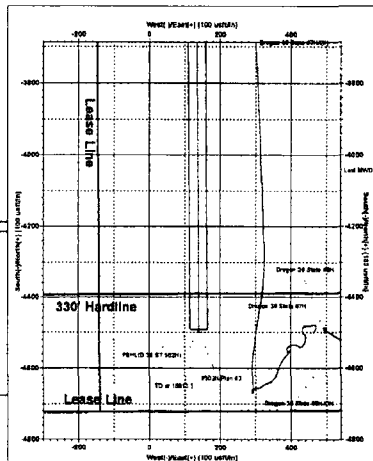
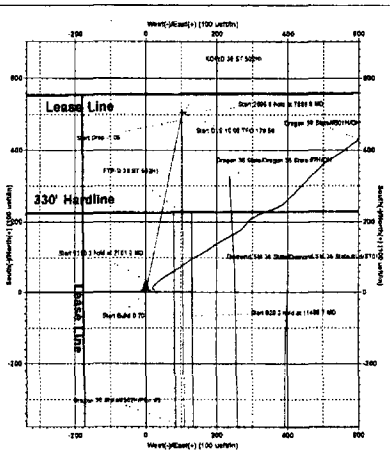
Ground Level: 3500.0
KB = 25 @ 3525' (H&P 612)
Northing: 751413.0037 10 48 17.2 N
Easting: 751413.0037 10 48 17.2 N
Longitude: 103° 31' 14.53 W
Spot

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+W/S	+E-W	Diag	TFace	Vsect	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	1387.0	0.00	0.00	1387.0	0.0	0.0	0.00	0.00	0.0		
3	2101.9	6.00	11.38	2101.0	30.8	8.2	0.70	11.38	-30.4		
4	7412.5	6.00	11.38	7391.1	484.7	87.6	0.00	0.00	-481.6		
5	7888.9	0.00	9.90	7867.2	605.1	101.7	1.05	180.00	-691.7		
6	10388.8	0.00	0.00	10367.8	505.1	101.7	0.00	0.00	-691.7		
7	11488.7	90.00	178.56	11140.0	-87.6	166.1	10.00	178.56	71.1		
8	12418.0	90.00	178.56	11140.0	-897.0	113.3	0.00	1090.0			
9	13444.8	89.42	178.56	11140.1	-1028.9	113.6	2.00	178.38	1038.0		
10	15419.2	89.42	178.56	11150.0	-1997.2	121.0	0.00	0.00	2000.0		
11	15432.2	89.14	178.56	11150.2	-2011.2	121.1	2.00	-178.38	2014.0		
12	16419.6	89.14	178.56	11158.0	-2397.4	128.6	0.00	0.00	3000.0		
13	16442.7	89.62	178.56	11158.3	-3201.8	128.6	2.00	0.00	3024.0		
14	18813.3	89.62	178.56	11178.0	-4482.0	140.0	0.00	0.00	4484.2		

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+W/S	+E-W	Northing	Easting	Shape
KOPID 36 ST 502H	10567.0	505.1	101.7	430835.32	751814.76	Point
FTHPD 36 ST 502H	11149.0	225.0	104.0	430265.00	751817.00	Point
TOTPD 36 ST 502H	11140.0	-967.9	113.3	428033.00	751826.33	Point
TOTPD 36 ST 502H	11160.0	-1997.2	121.0	428032.00	751833.96	Point
TOTPD 36 ST 502H	11180.0	-2397.4	128.6	427032.00	751841.59	Point
PSHLD 36 ST 502H	11178.0	-4482.0	140.0	428638.00	751863.00	Rectangle (SID: L0 0 W80 0)





EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Dragon 36 State

#502H

OH

Plan: Plan #3

Standard Planning Report

11 May, 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: Dragon 36 State
Well: #502H
Wellbore: OH
Design: Plan #3

Local Co-ordinate Reference: Well #502H
TVD Reference: KB = 25 @ 3525.0usft (H&P 612)
MD Reference: KB = 25 @ 3525.0usft (H&P 612)
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	Dragon 36 State			
Site Position:		Northing:	425,530.00 usft	Latitude: 32° 10' 2.209 N
From:	Map	Easting:	751,878.00 usft	Longitude: 103° 31' 9.625 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.43 "

Well	#502H			
Well Position	+N/-S	4,500.0 usft	Northing:	430,030.00 usft
	+E/-W	-465.0 usft	Easting:	751,413.00 usft
Position Uncertainty	0.0 usft		Wellhead Elevation:	0.0 usft
			Ground Level:	3,500.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2015	6/9/2015	(°)	(°)	(nT)
			7.15	60.06	48,125

Design	Plan #3			
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	178.21

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	
1,387.0	0.00	0.00	1,387.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,101.9	5.00	11.38	2,101.0	30.6	6.2	0.70	0.70	0.00	11.38	
7,412.3	5.00	11.38	7,391.1	484.7	97.6	0.00	0.00	0.00	0.00	
7,888.9	0.00	0.00	7,867.2	505.1	101.7	1.05	-1.05	0.00	180.00	
10,588.8	0.00	0.00	10,567.0	505.1	101.7	0.00	0.00	0.00	0.00	KOP(D 36 ST 502H)
11,488.7	90.00	179.56	11,140.0	-67.8	106.1	10.00	10.00	19.95	179.56	
12,418.0	90.00	179.56	11,140.0	-997.0	113.3	0.00	0.00	0.00	0.00	TGT#1(D 36 ST 502H)
12,446.9	89.42	179.56	11,140.1	-1,025.9	113.5	2.00	-2.00	0.02	179.38	
13,418.2	89.42	179.56	11,150.0	-1,997.2	121.0	0.00	0.00	0.00	0.00	TGT#2(D 36 ST 502H)
13,432.2	89.14	179.56	11,150.2	-2,011.2	121.1	2.00	-2.00	0.00	-179.98	
14,418.6	89.14	179.56	11,165.0	-2,997.4	128.6	0.00	0.00	0.00	0.00	TGT#3(D 36 ST 502H)
14,442.7	89.62	179.56	11,165.3	-3,021.5	128.8	2.00	2.00	0.00	0.00	
15,913.3	89.62	179.56	11,175.0	-4,492.0	140.0	0.00	0.00	0.00	0.00	PBHL(D 36 ST 502H)



EOG Resources, Inc.

Planning Report

Database: EDM 5000.1 Single User Db
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 27 NME)
 Site: Dragon 36 State
 Well: #502H
 Wellbore: OH
 Design: Plan #3

Local Co-ordinate Reference: Well #502H
 TVD Reference: KB = 25 @ 3525.0usft (H&P 612)
 MD Reference: KB = 25 @ 3525.0usft (H&P 612)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,165.0	0.00	0.00	1,165.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,287.0	0.00	0.00	1,287.0	0.0	0.0	0.0	0.00	0.00	0.00
13 3/8"									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,387.0	0.00	0.00	1,387.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.09	11.38	1,400.0	0.0	0.0	0.0	0.70	0.70	0.00
1,500.0	0.79	11.38	1,500.0	0.8	0.2	-0.8	0.70	0.70	0.00
1,600.0	1.49	11.38	1,600.0	2.7	0.5	-2.7	0.70	0.70	0.00
1,700.0	2.19	11.38	1,700.0	5.9	1.2	-5.8	0.70	0.70	0.00
Top of Salt									
1,800.0	2.89	11.38	1,799.8	10.2	2.1	-10.1	0.70	0.70	0.00
1,900.0	3.59	11.38	1,899.7	15.8	3.2	-15.6	0.70	0.70	0.00
2,000.0	4.29	11.38	1,999.4	22.5	4.5	-22.3	0.70	0.70	0.00
2,101.9	5.00	11.38	2,101.0	30.6	6.2	-30.4	0.70	0.70	0.00
2,200.0	5.00	11.38	2,198.7	39.0	7.8	-38.7	0.00	0.00	0.00
2,300.0	5.00	11.38	2,298.3	47.5	9.6	-47.2	0.00	0.00	0.00
2,400.0	5.00	11.38	2,398.0	56.1	11.3	-55.7	0.00	0.00	0.00
2,500.0	5.00	11.38	2,497.6	64.6	13.0	-64.2	0.00	0.00	0.00
2,600.0	5.00	11.38	2,597.2	73.2	14.7	-72.7	0.00	0.00	0.00
2,700.0	5.00	11.38	2,696.8	81.7	16.5	-81.2	0.00	0.00	0.00
2,800.0	5.00	11.38	2,796.4	90.3	18.2	-89.7	0.00	0.00	0.00
2,900.0	5.00	11.38	2,896.0	98.8	19.9	-98.2	0.00	0.00	0.00
3,000.0	5.00	11.38	2,995.7	107.4	21.6	-106.7	0.00	0.00	0.00
3,100.0	5.00	11.38	3,095.3	115.9	23.3	-115.2	0.00	0.00	0.00
3,200.0	5.00	11.38	3,194.9	124.5	25.1	-123.7	0.00	0.00	0.00
3,300.0	5.00	11.38	3,294.5	133.0	26.8	-132.1	0.00	0.00	0.00
3,400.0	5.00	11.38	3,394.1	141.6	28.5	-140.6	0.00	0.00	0.00
3,500.0	5.00	11.38	3,493.8	150.2	30.2	-149.1	0.00	0.00	0.00
3,600.0	5.00	11.38	3,593.4	158.7	32.0	-157.6	0.00	0.00	0.00
3,700.0	5.00	11.38	3,693.0	167.3	33.7	-166.1	0.00	0.00	0.00
3,800.0	5.00	11.38	3,792.6	175.8	35.4	-174.6	0.00	0.00	0.00
3,900.0	5.00	11.38	3,892.2	184.4	37.1	-183.1	0.00	0.00	0.00
4,000.0	5.00	11.38	3,991.9	192.9	38.8	-191.6	0.00	0.00	0.00
4,100.0	5.00	11.38	4,091.5	201.5	40.6	-200.1	0.00	0.00	0.00
4,200.0	5.00	11.38	4,191.1	210.0	42.3	-208.6	0.00	0.00	0.00
4,300.0	5.00	11.38	4,290.7	218.6	44.0	-217.1	0.00	0.00	0.00
4,400.0	5.00	11.38	4,390.3	227.1	45.7	-225.6	0.00	0.00	0.00
4,500.0	5.00	11.38	4,489.9	235.7	47.4	-234.1	0.00	0.00	0.00
4,600.0	5.00	11.38	4,589.6	244.2	49.2	-242.6	0.00	0.00	0.00



EOG Resources, Inc.

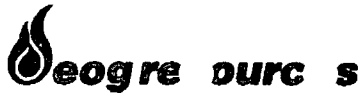
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North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
4,700.0	5.00	11.38	4,689.2	252.8	50.9	-251.1	0.00	0.00	0.00
4,800.0	5.00	11.38	4,788.8	261.3	52.6	-259.6	0.00	0.00	0.00
4,900.0	5.00	11.38	4,888.4	269.9	54.3	-268.1	0.00	0.00	0.00
4,979.7	5.00	11.38	4,967.8	276.7	55.7	-274.8	0.00	0.00	0.00
Base of Salt									
5,000.0	5.00	11.38	4,988.0	278.4	56.1	-276.5	0.00	0.00	0.00
5,100.0	5.00	11.38	5,087.7	287.0	57.8	-285.0	0.00	0.00	0.00
5,112.4	5.00	11.38	5,100.0	288.0	58.0	-286.1	0.00	0.00	0.00
9 5/8"									
5,122.3	5.00	11.38	5,109.8	288.9	58.2	-286.9	0.00	0.00	0.00
Interp @ 5100.0 (#502H OH test 2)									
5,200.0	5.00	11.38	5,187.3	295.5	59.5	-293.5	0.00	0.00	0.00
5,240.5	5.00	11.38	5,227.7	299.0	60.2	-297.0	0.00	0.00	0.00
Lamar									
5,270.6	5.00	11.38	5,257.6	301.6	60.7	-299.5	0.00	0.00	0.00
Bell Canyon									
5,300.0	5.00	11.38	5,286.9	304.1	61.2	-302.0	0.00	0.00	0.00
5,400.0	5.00	11.38	5,386.5	312.6	62.9	-310.5	0.00	0.00	0.00
5,500.0	5.00	11.38	5,486.1	321.2	64.7	-319.0	0.00	0.00	0.00
5,600.0	5.00	11.38	5,585.8	329.7	66.4	-327.5	0.00	0.00	0.00
5,700.0	5.00	11.38	5,685.4	338.3	68.1	-336.0	0.00	0.00	0.00
5,800.0	5.00	11.38	5,785.0	346.8	69.8	-344.5	0.00	0.00	0.00
5,900.0	5.00	11.38	5,884.6	355.4	71.6	-353.0	0.00	0.00	0.00
6,000.0	5.00	11.38	5,984.2	364.0	73.3	-361.5	0.00	0.00	0.00
6,100.0	5.00	11.38	6,083.8	372.5	75.0	-370.0	0.00	0.00	0.00
6,200.0	5.00	11.38	6,183.5	381.1	76.7	-378.5	0.00	0.00	0.00
6,253.7	5.00	11.38	6,237.0	385.6	77.6	-383.0	0.00	0.00	0.00
Cherry Canyon									
6,300.0	5.00	11.38	6,283.1	389.6	78.4	-387.0	0.00	0.00	0.00
6,400.0	5.00	11.38	6,382.7	398.2	80.2	-395.5	0.00	0.00	0.00
6,500.0	5.00	11.38	6,482.3	406.7	81.9	-404.0	0.00	0.00	0.00
6,600.0	5.00	11.38	6,581.9	415.3	83.6	-412.5	0.00	0.00	0.00
6,700.0	5.00	11.38	6,681.6	423.8	85.3	-421.0	0.00	0.00	0.00
6,800.0	5.00	11.38	6,781.2	432.4	87.1	-429.4	0.00	0.00	0.00
6,900.0	5.00	11.38	6,880.8	440.9	88.8	-437.9	0.00	0.00	0.00
7,000.0	5.00	11.38	6,980.4	449.5	90.5	-446.4	0.00	0.00	0.00
7,100.0	5.00	11.38	7,080.0	458.0	92.2	-454.9	0.00	0.00	0.00
7,200.0	5.00	11.38	7,179.7	466.6	93.9	-463.4	0.00	0.00	0.00
7,300.0	5.00	11.38	7,279.3	475.1	95.7	-471.9	0.00	0.00	0.00
7,400.0	5.00	11.38	7,378.9	483.7	97.4	-480.4	0.00	0.00	0.00
7,412.3	5.00	11.38	7,391.1	484.7	97.6	-481.5	0.00	0.00	0.00
7,500.0	4.08	11.38	7,478.6	491.5	99.0	-488.2	1.05	-1.05	0.00
7,600.0	3.03	11.38	7,578.4	497.6	100.2	-494.3	1.05	-1.05	0.00
7,700.0	1.98	11.38	7,678.3	501.9	101.1	-498.5	1.05	-1.05	0.00
7,800.0	0.93	11.38	7,778.2	504.4	101.6	-501.0	1.05	-1.05	0.00
7,832.8	0.59	11.38	7,811.0	504.8	101.6	-501.4	1.05	-1.05	0.00
Brushy Canyon									
7,888.9	0.00	0.00	7,867.2	505.1	101.7	-501.7	1.05	-1.05	0.00
7,900.0	0.00	0.00	7,878.2	505.1	101.7	-501.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,978.2	505.1	101.7	-501.7	0.00	0.00	0.00
8,100.0	0.00	0.00	8,078.2	505.1	101.7	-501.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,178.2	505.1	101.7	-501.7	0.00	0.00	0.00
8,300.0	0.00	0.00	8,278.2	505.1	101.7	-501.7	0.00	0.00	0.00



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North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
8,400.0	0.00	0.00	8,378.2	505.1	101.7	-501.7	0.00	0.00	0.00
8,500.0	0.00	0.00	8,478.2	505.1	101.7	-501.7	0.00	0.00	0.00
8,600.0	0.00	0.00	8,578.2	505.1	101.7	-501.7	0.00	0.00	0.00
8,700.0	0.00	0.00	8,678.2	505.1	101.7	-501.7	0.00	0.00	0.00
8,800.0	0.00	0.00	8,778.2	505.1	101.7	-501.7	0.00	0.00	0.00
8,900.0	0.00	0.00	8,878.2	505.1	101.7	-501.7	0.00	0.00	0.00
9,000.0	0.00	0.00	8,978.2	505.1	101.7	-501.7	0.00	0.00	0.00
9,100.0	0.00	0.00	9,078.2	505.1	101.7	-501.7	0.00	0.00	0.00
9,200.0	0.00	0.00	9,178.2	505.1	101.7	-501.7	0.00	0.00	0.00
9,282.8	0.00	0.00	9,241.0	505.1	101.7	-501.7	0.00	0.00	0.00
Bone Spring Lime									
9,300.0	0.00	0.00	9,278.2	505.1	101.7	-501.7	0.00	0.00	0.00
9,316.8	0.00	0.00	9,295.0	505.1	101.7	-501.7	0.00	0.00	0.00
Leonard									
9,400.0	0.00	0.00	9,378.2	505.1	101.7	-501.7	0.00	0.00	0.00
9,500.0	0.00	0.00	9,478.2	505.1	101.7	-501.7	0.00	0.00	0.00
9,600.0	0.00	0.00	9,578.2	505.1	101.7	-501.7	0.00	0.00	0.00
9,700.0	0.00	0.00	9,678.2	505.1	101.7	-501.7	0.00	0.00	0.00
9,800.0	0.00	0.00	9,778.2	505.1	101.7	-501.7	0.00	0.00	0.00
9,900.0	0.00	0.00	9,878.2	505.1	101.7	-501.7	0.00	0.00	0.00
10,000.0	0.00	0.00	9,978.2	505.1	101.7	-501.7	0.00	0.00	0.00
10,100.0	0.00	0.00	10,078.2	505.1	101.7	-501.7	0.00	0.00	0.00
10,200.0	0.00	0.00	10,178.2	505.1	101.7	-501.7	0.00	0.00	0.00
10,237.8	0.00	0.00	10,218.0	505.1	101.7	-501.7	0.00	0.00	0.00
FBSG									
10,300.0	0.00	0.00	10,278.2	505.1	101.7	-501.7	0.00	0.00	0.00
10,400.0	0.00	0.00	10,378.2	505.1	101.7	-501.7	0.00	0.00	0.00
10,500.0	0.00	0.00	10,478.2	505.1	101.7	-501.7	0.00	0.00	0.00
10,588.8	0.00	0.00	10,567.0	505.1	101.7	-501.7	0.00	0.00	0.00
KOP(D 36 ST 502H)									
10,600.0	1.12	179.56	10,578.2	505.0	101.7	-501.6	10.00	10.00	0.00
10,650.0	6.12	179.56	10,628.1	501.9	101.7	-498.4	10.00	10.00	0.00
10,700.0	11.12	179.56	10,677.5	494.4	101.8	-490.9	10.00	10.00	0.00
10,750.0	16.12	179.56	10,726.1	482.6	101.9	-479.2	10.00	10.00	0.00
10,800.0	21.12	179.56	10,773.5	466.6	102.0	-463.2	10.00	10.00	0.00
10,817.2	22.84	179.56	10,789.4	460.2	102.0	-456.8	10.00	10.00	0.00
SBSG									
10,850.0	26.12	179.56	10,819.3	446.6	102.2	-443.2	10.00	10.00	0.00
10,900.0	31.12	179.56	10,863.2	422.6	102.3	-419.3	10.00	10.00	0.00
10,950.0	36.12	179.56	10,904.8	395.0	102.6	-391.6	10.00	10.00	0.00
11,000.0	41.12	179.56	10,943.8	363.8	102.8	-360.4	10.00	10.00	0.00
11,050.0	46.12	179.56	10,980.0	329.3	103.1	-325.9	10.00	10.00	0.00
11,100.0	51.12	179.56	11,013.1	291.8	103.4	-288.4	10.00	10.00	0.00
11,150.0	56.12	179.56	11,042.7	251.5	103.7	-248.2	10.00	10.00	0.00
11,200.0	61.12	179.56	11,068.7	208.9	104.0	-205.5	10.00	10.00	0.00
11,217.2	62.85	179.56	11,076.8	193.7	104.1	-190.3	10.00	10.00	0.00
FTP(D 36 ST 502H)									
11,250.0	66.12	179.56	11,090.9	164.1	104.3	-160.8	10.00	10.00	0.00
11,300.0	71.12	179.56	11,109.1	117.5	104.7	-114.2	10.00	10.00	0.00
11,350.0	76.12	179.56	11,123.2	69.6	105.1	-66.3	10.00	10.00	0.00
11,351.0	76.22	179.56	11,123.5	68.7	105.1	-65.3	10.00	10.00	0.00
SBSG D Sand TOW									
11,400.0	81.12	179.56	11,133.1	20.6	105.5	-17.3	10.00	10.00	0.00



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11,450.0	86.12	179.56	11,138.6	-29.1	105.8	32.4	10.00	10.00	0.00
11,488.7	90.00	179.56	11,140.0	-67.8	106.1	71.1	10.00	10.00	0.00
11,500.0	90.00	179.56	11,140.0	-79.1	106.2	82.3	0.00	0.00	0.00
11,600.0	90.00	179.56	11,140.0	-179.1	107.0	182.3	0.00	0.00	0.00
11,700.0	90.00	179.56	11,140.0	-279.1	107.8	282.3	0.00	0.00	0.00
11,800.0	90.00	179.56	11,140.0	-379.0	108.5	382.2	0.00	0.00	0.00
11,900.0	90.00	179.56	11,140.0	-479.0	109.3	482.2	0.00	0.00	0.00
12,000.0	90.00	179.56	11,140.0	-579.0	110.1	582.2	0.00	0.00	0.00
12,100.0	90.00	179.56	11,140.0	-679.0	110.9	682.2	0.00	0.00	0.00
12,200.0	90.00	179.56	11,140.0	-779.0	111.6	782.1	0.00	0.00	0.00
12,300.0	90.00	179.56	11,140.0	-879.0	112.4	882.1	0.00	0.00	0.00
12,400.0	90.00	179.56	11,140.0	-979.0	113.2	982.1	0.00	0.00	0.00
12,418.0	90.00	179.56	11,140.0	-997.0	113.3	1,000.0	0.00	0.00	0.00
TGT#1(D 36 ST 502H)									
12,446.9	89.42	179.56	11,140.1	-1,025.9	113.5	1,029.0	2.00	-2.00	0.02
12,500.0	89.42	179.56	11,140.7	-1,079.0	114.0	1,082.1	0.00	0.00	0.00
12,600.0	89.42	179.56	11,141.7	-1,179.0	114.7	1,182.0	0.00	0.00	0.00
12,700.0	89.42	179.56	11,142.7	-1,279.0	115.5	1,282.0	0.00	0.00	0.00
12,800.0	89.42	179.56	11,143.7	-1,379.0	116.2	1,382.0	0.00	0.00	0.00
12,900.0	89.42	179.56	11,144.7	-1,479.0	117.0	1,481.9	0.00	0.00	0.00
13,000.0	89.42	179.56	11,145.8	-1,579.0	117.8	1,581.9	0.00	0.00	0.00
13,100.0	89.42	179.56	11,146.8	-1,679.0	118.5	1,681.9	0.00	0.00	0.00
13,200.0	89.42	179.56	11,147.8	-1,779.0	119.3	1,781.8	0.00	0.00	0.00
13,300.0	89.42	179.56	11,148.8	-1,879.0	120.1	1,881.8	0.00	0.00	0.00
13,400.0	89.42	179.56	11,149.8	-1,979.0	120.8	1,981.8	0.00	0.00	0.00
13,418.2	89.42	179.56	11,150.0	-1,997.2	121.0	2,000.0	0.00	0.00	0.00
TGT#2(D 36 ST 502H)									
13,432.2	89.14	179.56	11,150.2	-2,011.2	121.1	2,014.0	2.00	-2.00	0.00
13,500.0	89.14	179.56	11,151.2	-2,078.9	121.6	2,081.7	0.00	0.00	0.00
13,600.0	89.14	179.56	11,152.7	-2,178.9	122.3	2,181.7	0.00	0.00	0.00
13,700.0	89.14	179.56	11,154.2	-2,278.9	123.1	2,281.6	0.00	0.00	0.00
13,800.0	89.14	179.56	11,155.7	-2,378.9	123.9	2,381.6	0.00	0.00	0.00
13,900.0	89.14	179.56	11,157.2	-2,478.9	124.6	2,481.6	0.00	0.00	0.00
14,000.0	89.14	179.56	11,158.7	-2,578.9	125.4	2,581.5	0.00	0.00	0.00
14,100.0	89.14	179.56	11,160.2	-2,678.9	126.2	2,681.5	0.00	0.00	0.00
14,200.0	89.14	179.56	11,161.7	-2,778.8	126.9	2,781.4	0.00	0.00	0.00
14,300.0	89.14	179.56	11,163.2	-2,878.8	127.7	2,881.4	0.00	0.00	0.00
14,400.0	89.14	179.56	11,164.7	-2,978.8	128.5	2,981.4	0.00	0.00	0.00
14,418.6	89.14	179.56	11,165.0	-2,997.4	128.6	3,000.0	0.00	0.00	0.00
TGT#3(D 36 ST 502H)									
14,442.7	89.62	179.56	11,165.3	-3,021.5	128.8	3,024.0	2.00	2.00	0.00
14,500.0	89.62	179.56	11,165.6	-3,078.8	129.2	3,081.3	0.00	0.00	0.00
14,600.0	89.62	179.56	11,166.3	-3,178.8	130.0	3,181.3	0.00	0.00	0.00
14,700.0	89.62	179.56	11,167.0	-3,278.8	130.7	3,281.3	0.00	0.00	0.00
14,800.0	89.62	179.56	11,167.6	-3,378.8	131.5	3,381.2	0.00	0.00	0.00
14,900.0	89.62	179.56	11,168.3	-3,478.8	132.3	3,481.2	0.00	0.00	0.00
15,000.0	89.62	179.56	11,169.0	-3,578.8	133.0	3,581.2	0.00	0.00	0.00
15,100.0	89.62	179.56	11,169.6	-3,678.8	133.8	3,681.2	0.00	0.00	0.00
15,200.0	89.62	179.56	11,170.3	-3,778.8	134.6	3,781.1	0.00	0.00	0.00
15,300.0	89.62	179.56	11,170.9	-3,878.8	135.3	3,881.1	0.00	0.00	0.00
15,400.0	89.62	179.56	11,171.6	-3,978.8	136.1	3,981.1	0.00	0.00	0.00
15,500.0	89.62	179.56	11,172.3	-4,078.8	136.8	4,081.0	0.00	0.00	0.00
15,600.0	89.62	179.56	11,172.9	-4,178.7	137.6	4,181.0	0.00	0.00	0.00



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15,700.0	89.62	179.56	11,173.6	-4,278.7	138.4	4,281.0	0.00	0.00	0.00
15,800.0	89.62	179.56	11,174.2	-4,378.7	139.1	4,380.9	0.00	0.00	0.00
15,900.0	89.62	179.56	11,174.9	-4,478.7	139.9	4,480.9	0.00	0.00	0.00
15,913.3	89.62	179.56	11,175.0	-4,492.0	140.0	4,494.2	0.00	0.00	0.00

PBHL(D 36 ST 502H)

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(D 36 ST 502H) - plan hits target center - Point	0.00	0.00	10,567.0	505.1	101.7	430,535.12	751,514.70	32° 10' 51.764 N	103° 31' 13.412 W
TGT#1(D 36 ST 502H) - plan hits target center - Point	0.00	0.00	11,140.0	-997.0	113.3	429,033.00	751,526.32	32° 10' 36.899 N	103° 31' 13.409 W
FTP(D 36 ST 502H) - plan misses target center by 70.5usft at 11217.2usft MD (11076.8 TVD, 193.7 N, 104.1 E) - Point	0.00	0.01	11,140.0	225.0	104.0	430,255.00	751,517.00	32° 10' 48.992 N	103° 31' 13.410 W
TGT#2(D 36 ST 502H) - plan hits target center - Point	0.00	0.00	11,150.0	-1,997.2	121.0	428,032.80	751,533.96	32° 10' 27.001 N	103° 31' 13.408 W
TGT#3(D 36 ST 502H) - plan hits target center - Point	0.00	0.00	11,165.0	-2,997.4	128.6	427,032.60	751,541.59	32° 10' 17.103 N	103° 31' 13.407 W
PBHL(D 36 ST 502H) - plan hits target center - Rectangle (sides W50.0 H0.0 D4,717.4)	90.00	179.57	11,175.0	-4,492.0	140.0	425,538.00	751,553.00	32° 10' 2.312 N	103° 31' 13.405 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,287.0	1,287.0	13 3/8"	13-3/8	17-1/2
5,112.4	5,100.0	9 5/8"	9-5/8	12-1/4



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Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Dragon 36 State
Well: #502H
Wellbore: OH
Design: Plan #3

Local Co-ordinate Reference: Well #502H
TVD Reference: KB = 25 @ 3525.0usft (H&P 612)
MD Reference: KB = 25 @ 3525.0usft (H&P 612)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,165.0	1,165.0	Rustler		0.45	179.57
1,700.0	1,700.0	Top of Salt		0.45	179.57
4,979.7	4,967.8	Base of Salt		0.45	179.57
5,240.5	5,227.7	Lamar		0.45	179.57
5,270.6	5,257.6	Bell Canyon		0.45	179.57
6,253.7	6,237.0	Cherry Canyon		0.45	179.57
7,832.8	7,811.0	Brushy Canyon		0.45	179.57
9,262.8	9,241.0	Bone Spring Lime		0.45	179.57
9,316.8	9,295.0	Leonard		0.45	179.57
10,237.8	10,216.0	FBSG		0.45	179.57
10,817.2	10,789.4	SBSG		0.45	179.57
11,351.0	11,123.5	SBSG D Sand TOW		0.45	179.57