

Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

HOBBSDCD NOV 21 2014 RECEIVED		WELL API NO. 30-025-41821	
NOV 21 2014 RECEIVED		5. Indicate Type of Lease STATE ☒ FEE ☐	
6. State Oil & Gas Lease No.		7. Lease Name or Unit Agreement Name Ruby 2 State Com	
8. Well Number 601H		9. OGRID Number 7377	
10. Pool name or Wildcat Hardin Tank; Wolfcamp			
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3311' GR			

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

EOG Resources requests a change to the APD for this well to reflect a change in TVD and Pool as attached.

New target is Wolfcamp, changing TVD from 12462', (17157' MD) TO: 12860' TVD; 17698' MD.

We also request that the well number be changed to 701H to reflect the wolfcamp pool.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE <u>Stan Wagner</u>	TITLE <u>Regulatory Analyst</u>	DATE <u>11/20/14</u>
Type or print name <u>Stan Wagner</u>	E-mail address: _____	PHONE: <u>432-686-3689</u>
For State Use Only		
APPROVED BY: <u>[Signature]</u>	TITLE <u>Petroleum Engineer</u>	DATE <u>11/21/14</u>
Conditions of Approval (if any): _____		

NOV 24 2014

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., 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.
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 30-025-41821	² Pool Code 96658	³ Pool Name Hardin Tank; Wolfcamp
⁴ Property Code 313190	⁵ Property Name RUBY 2 STATE COM	
⁶ Well Number #701H	⁷ Elevation 3311'	
⁸ OGRID No. 7377	⁹ Operator Name EOG RESOURCES, INC.	

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	26-S	34-E	-	220'	SOUTH	622'	WEST	LEA

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	2	26-S	34-E	-	230'	NORTH	380'	WEST	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.

		¹⁷OPERATOR 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 undivided 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. <i>Stan Wagner</i> 11/20/14 Signature Date Stan Wagner Printed Name E-mail Address	
¹⁸SURVEYOR 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. 04/08/14 MICHAEL BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR Date of Survey Signature of Professional Surveyor		Certificate Number	

Revised Permit Information 11/20/14:

Well Name: Ruby 2 State Com No. 701H

Location:

SL: 220' FSL & 622' FWL, Section 2, T-26-S, R-34-E, Lea Co., N.M.

BHL: 230' FNL & 380' FWL, Section 2, T-26-S, R-34-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
12.25"	0 – 1250'	9.625"	40#	J55	STC	1.125	1.25	1.60
8.75"	0-11,400'	7"	26#	HCP-110	LTC	1.125	1.25	1.60
6.125"	0'-17,698'	4.5"	13.5#	HCP-110	BTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
1250'	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
11,400' DV Tool w/ ECP @ 5,250'	250	10.8	3.68	Stage 1 Lead: Class C + 15.00 lbs/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/sx Static Free
	200	15.6	1.19	Stage 1 Tail: Class H + 1.0% FL-52 + 0.6% CD-32 + 0.5% SMS + 1.0% Salt + 0.3% R-3
	325	12.7	2.22	Stage 2 Lead: Class 'C' + 2.0% SMS + 10.0% Slat + 0.55% R-21 + 0.25 pps Celloflake + 0.005 pps Static Free (TOC @ Surface)
	150	14.8	1.35	Stage 2 Tail: Class 'C' + 0.60% FL-62 + 0.7% CD-32 + 0.3% SMS + 2.0% Salt + 0.10% R-3 + 0.005 pps Static Free + 0.005 gps FP-6L
17,698'	600	14.2	1.35	50:50:2 Class H + 0.65% FL-52 + 0.70% CD-32 + 1.0% EC-1 + 0.40% SMS + 2.0% Salt + 0.05% R-3 + 0.005 pps Static Free + 0.005 gps FP-6L (TOC @ 10,750')

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1250'	Fresh - Gel	8.6-8.8	28-34	N/c
1250' – 11,400'	Oil Base	8.7-9.4	58-68	N/c - 6
11,400' – 12,417'	Oil Base	8.7-9.4	58-68	N/c - 6
12,417' – 17,698' Lateral	Oil Base	9.0-9.5	58-68	N/c - 6

Ruby 2 State Com #701H

220' FSL
622' FWL
Section 2
T-26-S, R-34-E

Lea County, New Mexico
Proposed Wellbore
Revised 11/20/14
API: 30-025-41821

KB: 3,341'
GL: 3,311'

Bit Size: 12-1/4"
9-5/8", 40#, J-55, ST&C 0' - 1250'

Bit Size: 8-3/4"
DV Tool w/ ECP @ 5250'

7", 26#, HCP-110, LT&C 0' - 11,400'

Bit Size: 6-1/8"
4-1/2", 13.5#, HCP-110, BTC @ 0' - 17,698'

Rustler	940
Top of Salt	1360
Base Salt	5090
Lamar	5370
Bell Canyon	5400
Cherry Canyon	6400
Brushy Canyon	8100
Bone Spring Lime	9465
Leonard Shale	9485
First Bone Spring SS	10550
2 nd Bone Spring Carb	11030
2 nd Bone Spring SS	11215
3 rd Bone Spring Carb	11454
3 rd Bone Spring SS	12180
Wolfcamp	12626

TOC: 10,900'

KOP: 12,417'

Bit Size: 6-1/8"

Lateral: 17,698' MD, 12,860' TVD

BH Location: 230' FNL & 380' FWL
Section 2
T-26-S, R-34-E



Lea County, NM (NAD 27 NME)

#701H

Nomac 55

Plan #2

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: -4.67°
Magnetic North: 8.59°

Magnetic Field
Strength: 48247.4anT
Dip Angle: 59.98°
Date: 4/30/2014
Model: IGRF201014

To convert a Magnetic Direction to a Grid Direction, Add 8.59°
To convert a Magnetic Direction to a True Direction, Add 2.90° East
To convert a True Direction to a Grid Direction, Subtract 0.47°

WELL DETAILS: #701H

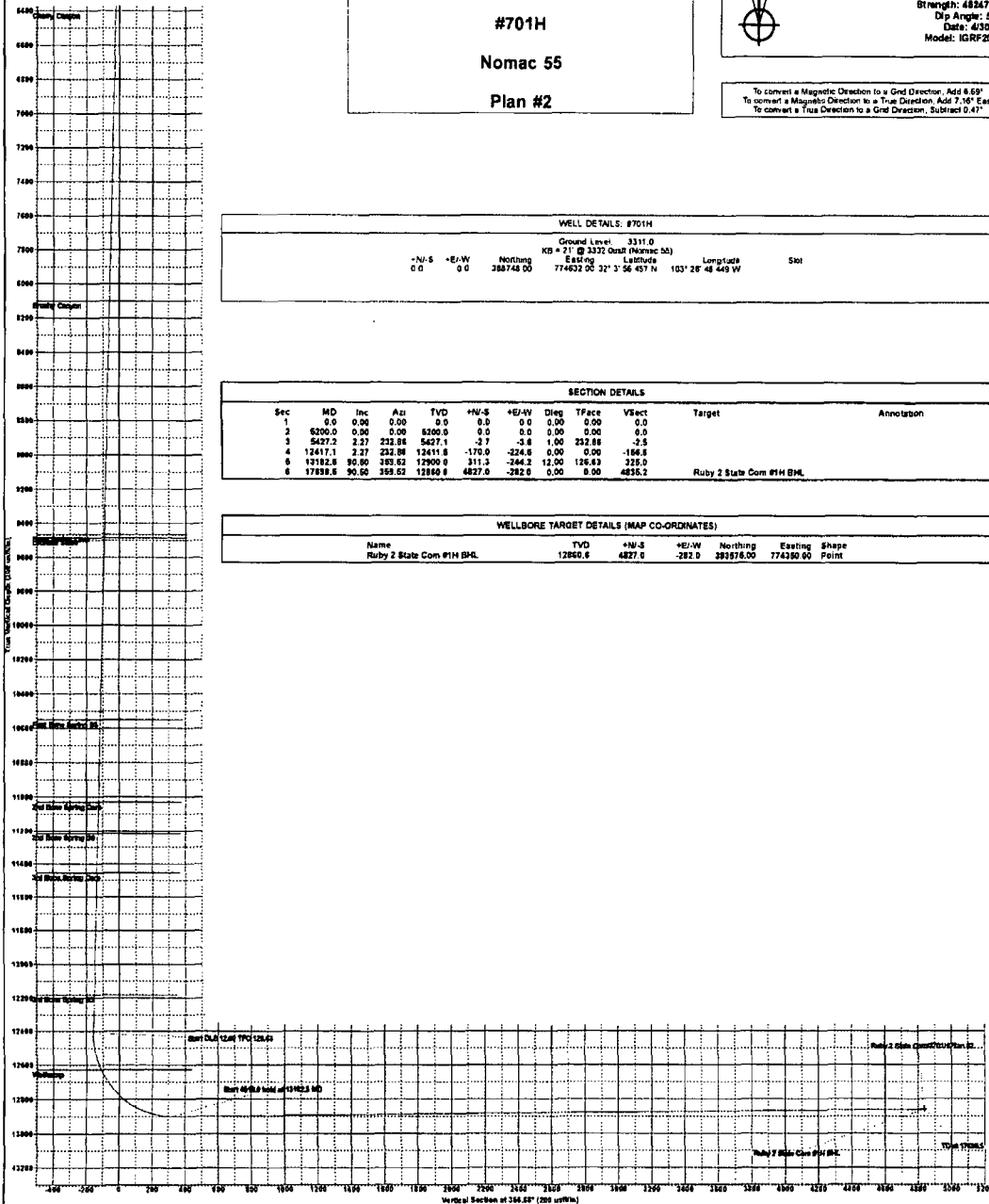
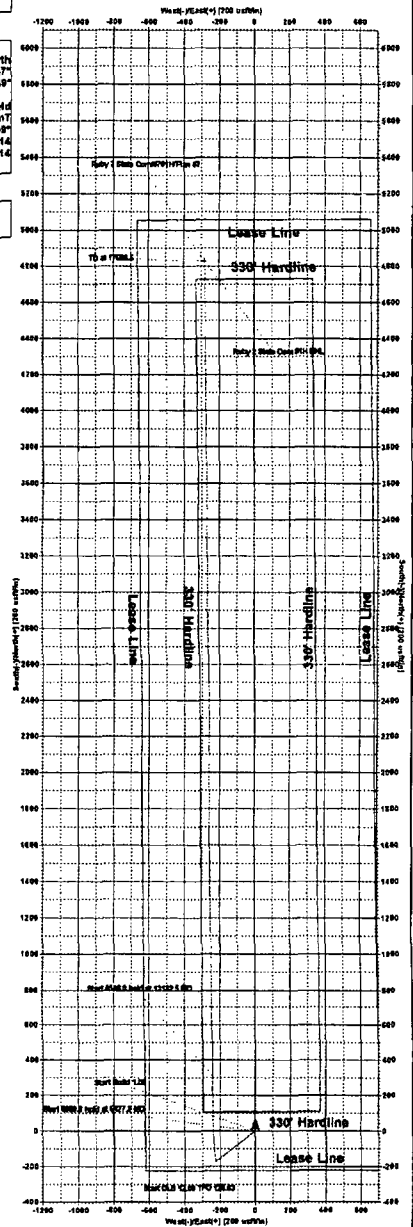
Ground Level: 3311.0
KB * 2" @ 3337' Oust (Nomac 55)
Northing: 385748.00
Easting: 774632.00
Latitude: 32° 3' 56.437 N
Longitude: 103° 28' 48.449 W
Spot

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	6200.0	0.00	0.00	6200.0	0.0	0.0	0.00	0.00	0.0		
3	5427.2	2.27	232.86	5427.1	-2.7	-3.8	1.00	232.86	-2.5		
4	12417.1	2.27	232.86	12411.8	-170.0	-224.8	0.00	0.00	-166.8		
6	10182.8	90.60	389.62	12900.0	311.3	-244.2	12.00	126.43	225.0		
6	17898.8	90.60	389.62	12880.8	4827.0	-282.0	0.00	8.00	4835.2	Ruby 2 State Com #1H BML	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting	Shape
Ruby 2 State Com #1H BML	12880.8	4827.0	-282.0	381878.00	774380.00	Point





EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Ruby 2 State Com

#701H

OH

Plan: Plan #2

Standard Planning Report

20 November, 2014



EOG Resources, Inc.
Planning Report

Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Ruby 2 State Com
Well: #701H
Wellbore: OH
Design: Plan #2

Local Co-ordinate Reference: Well #701H
TVD Reference: KB = 21' @ 3332.0usft (Nomac 55)
MD Reference: KB = 21' @ 3332.0usft (Nomac 55)
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		

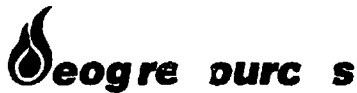
Site	Ruby 2 State Com			
Site Position:		Northing:	388,748.00 usft	Latitude: 32° 3' 58.457 N
From:	Map	Easting:	774,632.00 usft	Longitude: 103° 26' 48.449 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.47 °

Well	#701H			
Well Position	+N/-S	0.0 usft	Northing:	388,748.00 usft
	+E/-W	0.0 usft	Easting:	774,632.00 usft
Position Uncertainty	0.0 usft		Wellhead Elevation:	Ground Level: 3,311.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF201014	4/30/2014	7.16	59.99	48,247

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	356.66

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	
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,427.2	2.27	232.86	5,427.1	-2.7	-3.6	1.00	1.00	0.00	232.86	
12,417.1	2.27	232.86	12,411.5	-170.0	-224.5	0.00	0.00	0.00	0.00	
13,182.5	90.50	359.52	12,900.0	311.3	-244.2	12.00	11.53	16.55	126.63	
17,698.5	90.50	359.52	12,860.6	4,827.0	-282.0	0.00	0.00	0.00	0.00	Ruby 2 State Com #1



EOG Resources, Inc.
Planning Report

Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Ruby 2 State Com
Well: #701H
Wellbore: OH
Design: Plan #2

Local Co-ordinate Reference: Well #701H
TVD Reference: KB = 21' @ 3332.0usft (Nomac 55)
MD Reference: KB = 21' @ 3332.0usft (Nomac 55)
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
940.0	0.00	0.00	940.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
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
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,360.0	0.00	0.00	1,360.0	0.0	0.0	0.0	0.00	0.00	0.00
Top of Salt									
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00



EOG Resources, Inc.

Planning Report

Database: EDM 5000.1 Single User Db
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 27 NME)
 Site: Ruby 2 State Com
 Well: #701H
 Wellbore: OH
 Design: Plan #2

Local Co-ordinate Reference: Well #701H
 TVD Reference: KB = 21' @ 3332.0usft (Nomac 55)
 MD Reference: KB = 21' @ 3332.0usft (Nomac 55)
 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)
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,090.0	0.00	0.00	5,090.0	0.0	0.0	0.0	0.00	0.00	0.00
Base Salt									
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	1.00	232.86	5,300.0	-0.5	-0.7	-0.5	1.00	1.00	0.00
5,370.0	1.70	232.86	5,370.0	-1.5	-2.0	-1.4	1.00	1.00	0.00
Lamar									
5,400.0	2.00	232.86	5,400.0	-2.1	-2.8	-1.9	1.00	1.00	0.00
Bell Canyon									
5,427.2	2.27	232.86	5,427.1	-2.7	-3.6	-2.5	1.00	1.00	0.00
5,500.0	2.27	232.86	5,499.9	-4.5	-5.9	-4.1	0.00	0.00	0.00
5,600.0	2.27	232.86	5,599.8	-6.9	-9.1	-6.3	0.00	0.00	0.00
5,700.0	2.27	232.86	5,699.7	-9.2	-12.2	-8.5	0.00	0.00	0.00
5,800.0	2.27	232.86	5,799.6	-11.6	-15.4	-10.7	0.00	0.00	0.00
5,900.0	2.27	232.86	5,899.6	-14.0	-18.5	-12.9	0.00	0.00	0.00
6,000.0	2.27	232.86	5,999.5	-16.4	-21.7	-15.1	0.00	0.00	0.00
6,100.0	2.27	232.86	6,099.4	-18.8	-24.8	-17.3	0.00	0.00	0.00
6,200.0	2.27	232.86	6,199.3	-21.2	-28.0	-19.5	0.00	0.00	0.00
6,300.0	2.27	232.86	6,299.3	-23.6	-31.2	-21.8	0.00	0.00	0.00
6,400.0	2.27	232.86	6,399.2	-26.0	-34.3	-24.0	0.00	0.00	0.00
6,400.8	2.27	232.86	6,400.0	-26.0	-34.4	-24.0	0.00	0.00	0.00
Cherry Canyon									
6,500.0	2.27	232.86	6,499.1	-28.4	-37.5	-26.2	0.00	0.00	0.00
6,600.0	2.27	232.86	6,599.0	-30.8	-40.6	-28.4	0.00	0.00	0.00
6,700.0	2.27	232.86	6,698.9	-33.2	-43.8	-30.6	0.00	0.00	0.00
6,800.0	2.27	232.86	6,798.9	-35.6	-47.0	-32.8	0.00	0.00	0.00
6,900.0	2.27	232.86	6,898.8	-38.0	-50.1	-35.0	0.00	0.00	0.00
7,000.0	2.27	232.86	6,998.7	-40.4	-53.3	-37.2	0.00	0.00	0.00
7,100.0	2.27	232.86	7,098.6	-42.8	-56.4	-39.4	0.00	0.00	0.00
7,200.0	2.27	232.86	7,198.5	-45.2	-59.6	-41.6	0.00	0.00	0.00
7,300.0	2.27	232.86	7,298.5	-47.5	-62.8	-43.8	0.00	0.00	0.00
7,400.0	2.27	232.86	7,398.4	-49.9	-65.9	-46.0	0.00	0.00	0.00
7,500.0	2.27	232.86	7,498.3	-52.3	-69.1	-48.2	0.00	0.00	0.00
7,600.0	2.27	232.86	7,598.2	-54.7	-72.2	-50.4	0.00	0.00	0.00
7,700.0	2.27	232.86	7,698.2	-57.1	-75.4	-52.6	0.00	0.00	0.00
7,800.0	2.27	232.86	7,798.1	-59.5	-78.6	-54.8	0.00	0.00	0.00
7,900.0	2.27	232.86	7,898.0	-61.9	-81.7	-57.0	0.00	0.00	0.00
8,000.0	2.27	232.86	7,997.9	-64.3	-84.9	-59.2	0.00	0.00	0.00
8,100.0	2.27	232.86	8,097.8	-66.7	-88.0	-61.4	0.00	0.00	0.00
8,102.2	2.27	232.86	8,100.0	-66.7	-88.1	-61.5	0.00	0.00	0.00
Brushy Canyon									
8,200.0	2.27	232.86	8,197.8	-69.1	-91.2	-63.6	0.00	0.00	0.00
8,300.0	2.27	232.86	8,297.7	-71.5	-94.4	-65.9	0.00	0.00	0.00
8,400.0	2.27	232.86	8,397.6	-73.9	-97.5	-68.1	0.00	0.00	0.00
8,500.0	2.27	232.86	8,497.5	-76.3	-100.7	-70.3	0.00	0.00	0.00
8,600.0	2.27	232.86	8,597.4	-78.7	-103.8	-72.5	0.00	0.00	0.00
8,700.0	2.27	232.86	8,697.4	-81.1	-107.0	-74.7	0.00	0.00	0.00
8,800.0	2.27	232.86	8,797.3	-83.4	-110.2	-76.9	0.00	0.00	0.00
8,900.0	2.27	232.86	8,897.2	-85.8	-113.3	-79.1	0.00	0.00	0.00
9,000.0	2.27	232.86	8,997.1	-88.2	-116.5	-81.3	0.00	0.00	0.00
9,100.0	2.27	232.86	9,097.1	-90.6	-119.6	-83.5	0.00	0.00	0.00
9,200.0	2.27	232.86	9,197.0	-93.0	-122.8	-85.7	0.00	0.00	0.00



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Site: Ruby 2 State Com
Well: #701H
Wellbore: OH
Design: Plan #2

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MD Reference: KB = 21' @ 3332.0usft (Nomac 55)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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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)
9,300.0	2.27	232.86	9,296.9	-95.4	-126.0	-87.9	0.00	0.00	0.00
9,400.0	2.27	232.86	9,396.8	-97.8	-129.1	-90.1	0.00	0.00	0.00
9,468.2	2.27	232.86	9,465.0	-99.4	-131.3	-91.6	0.00	0.00	0.00
Bone Spring Lime									
9,488.3	2.27	232.86	9,485.0	-99.9	-131.9	-92.1	0.00	0.00	0.00
Leonard Shale									
9,500.0	2.27	232.86	9,496.7	-100.2	-132.3	-92.3	0.00	0.00	0.00
9,600.0	2.27	232.86	9,596.7	-102.6	-135.4	-94.5	0.00	0.00	0.00
9,700.0	2.27	232.86	9,696.6	-105.0	-138.6	-96.7	0.00	0.00	0.00
9,800.0	2.27	232.86	9,796.5	-107.4	-141.8	-98.9	0.00	0.00	0.00
9,900.0	2.27	232.86	9,896.4	-109.8	-144.9	-101.1	0.00	0.00	0.00
10,000.0	2.27	232.86	9,996.3	-112.2	-148.1	-103.3	0.00	0.00	0.00
10,100.0	2.27	232.86	10,096.3	-114.6	-151.2	-105.5	0.00	0.00	0.00
10,200.0	2.27	232.86	10,196.2	-117.0	-154.4	-107.7	0.00	0.00	0.00
10,300.0	2.27	232.86	10,296.1	-119.3	-157.6	-110.0	0.00	0.00	0.00
10,400.0	2.27	232.86	10,396.0	-121.7	-160.7	-112.2	0.00	0.00	0.00
10,500.0	2.27	232.86	10,496.0	-124.1	-163.9	-114.4	0.00	0.00	0.00
10,554.1	2.27	232.86	10,550.0	-125.4	-165.6	-115.6	0.00	0.00	0.00
First Bone Spring SS									
10,600.0	2.27	232.86	10,595.9	-126.5	-167.0	-116.6	0.00	0.00	0.00
10,700.0	2.27	232.86	10,695.8	-128.9	-170.2	-118.8	0.00	0.00	0.00
10,800.0	2.27	232.86	10,795.7	-131.3	-173.4	-121.0	0.00	0.00	0.00
10,900.0	2.27	232.86	10,895.6	-133.7	-176.5	-123.2	0.00	0.00	0.00
11,000.0	2.27	232.86	10,995.6	-136.1	-179.7	-125.4	0.00	0.00	0.00
11,034.5	2.27	232.86	11,030.0	-136.9	-180.8	-126.1	0.00	0.00	0.00
2nd Bone Spring Carb									
11,100.0	2.27	232.86	11,095.5	-138.5	-182.8	-127.6	0.00	0.00	0.00
11,200.0	2.27	232.86	11,195.4	-140.9	-186.0	-129.8	0.00	0.00	0.00
11,219.6	2.27	232.86	11,215.0	-141.4	-186.6	-130.2	0.00	0.00	0.00
2nd Bone Spring SS									
11,300.0	2.27	232.86	11,295.3	-143.3	-189.2	-132.0	0.00	0.00	0.00
11,400.0	2.27	232.86	11,395.2	-145.7	-192.3	-134.2	0.00	0.00	0.00
11,458.8	2.27	232.86	11,454.0	-147.1	-194.2	-135.5	0.00	0.00	0.00
3rd Bone Spring Carb									
11,500.0	2.27	232.86	11,495.2	-148.1	-195.5	-136.4	0.00	0.00	0.00
11,600.0	2.27	232.86	11,595.1	-150.5	-198.6	-138.6	0.00	0.00	0.00
11,700.0	2.27	232.86	11,695.0	-152.9	-201.8	-140.8	0.00	0.00	0.00
11,800.0	2.27	232.86	11,794.9	-155.2	-205.0	-143.0	0.00	0.00	0.00
11,900.0	2.27	232.86	11,894.9	-157.6	-208.1	-145.2	0.00	0.00	0.00
12,000.0	2.27	232.86	11,994.8	-160.0	-211.3	-147.4	0.00	0.00	0.00
12,100.0	2.27	232.86	12,094.7	-162.4	-214.4	-149.6	0.00	0.00	0.00
12,185.4	2.27	232.86	12,180.0	-164.5	-217.1	-151.5	0.00	0.00	0.00
3rd Bone Spring SS									
12,200.0	2.27	232.86	12,194.6	-164.8	-217.6	-151.9	0.00	0.00	0.00
12,300.0	2.27	232.86	12,294.5	-167.2	-220.8	-154.1	0.00	0.00	0.00
12,400.0	2.27	232.86	12,394.5	-169.6	-223.9	-156.3	0.00	0.00	0.00
12,417.1	2.27	232.86	12,411.5	-170.0	-224.5	-156.6	0.00	0.00	0.00
12,425.0	1.87	257.02	12,418.4	-170.1	-224.7	-156.7	12.00	-5.10	304.51
12,450.0	3.17	324.45	12,444.4	-169.7	-225.5	-156.2	12.00	5.22	269.74
12,475.0	5.88	341.52	12,469.3	-167.9	-226.3	-154.4	12.00	10.85	68.26
12,500.0	8.79	347.62	12,494.1	-164.8	-227.1	-151.3	12.00	11.60	24.41
12,525.0	11.74	350.69	12,518.7	-160.4	-227.9	-146.9	12.00	11.80	12.29
12,550.0	14.71	352.54	12,543.1	-154.8	-228.8	-141.2	12.00	11.88	7.39



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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)
12,575.0	17.69	353.78	12,567.1	-147.9	-229.6	-134.2	12.00	11.92	4.95
12,600.0	20.67	354.67	12,590.7	-139.7	-230.4	-126.0	12.00	11.94	3.56
12,625.0	23.66	355.34	12,613.8	-130.3	-231.2	-116.6	12.00	11.96	2.69
12,638.4	25.26	355.64	12,628.0	-124.8	-231.7	-111.0	12.00	11.96	2.23
Wolfcamp									
12,650.0	26.65	355.87	12,636.5	-119.7	-232.0	-106.0	12.00	11.97	1.99
12,675.0	29.65	356.30	12,658.5	-107.9	-232.9	-94.2	12.00	11.97	1.72
12,700.0	32.64	356.66	12,679.9	-95.0	-233.6	-81.2	12.00	11.98	1.43
12,725.0	35.64	356.96	12,700.6	-81.0	-234.4	-67.2	12.00	11.98	1.21
12,750.0	38.63	357.22	12,720.5	-65.9	-235.2	-52.1	12.00	11.98	1.05
12,775.0	41.63	357.45	12,739.6	-49.8	-235.9	-36.0	12.00	11.99	0.92
12,800.0	44.63	357.66	12,757.9	-32.8	-236.7	-18.9	12.00	11.99	0.82
12,825.0	47.62	357.84	12,775.2	-14.8	-237.4	-0.9	12.00	11.99	0.74
12,850.0	50.62	358.01	12,791.6	4.1	-238.1	18.0	12.00	11.99	0.67
12,875.0	53.62	358.16	12,806.9	23.8	-238.7	37.7	12.00	11.99	0.61
12,900.0	56.62	358.30	12,821.2	44.3	-239.3	58.2	12.00	11.99	0.57
12,925.0	59.61	358.43	12,834.4	65.5	-240.0	79.4	12.00	11.99	0.53
12,950.0	62.61	358.56	12,846.5	87.4	-240.5	101.3	12.00	11.99	0.50
12,975.0	65.61	358.68	12,857.4	109.9	-241.1	123.8	12.00	11.99	0.47
13,000.0	68.61	358.79	12,867.1	132.9	-241.6	146.8	12.00	11.99	0.45
13,025.0	71.61	358.90	12,875.6	156.4	-242.1	170.3	12.00	11.99	0.43
13,050.0	74.60	359.00	12,882.9	180.3	-242.5	194.2	12.00	11.99	0.42
13,075.0	77.60	359.10	12,888.9	204.6	-242.9	218.4	12.00	11.99	0.41
13,100.0	80.60	359.20	12,893.6	229.2	-243.3	243.0	12.00	11.99	0.40
13,125.0	83.60	359.30	12,897.0	253.9	-243.6	267.7	12.00	11.99	0.39
13,150.0	86.60	359.40	12,899.2	278.8	-243.9	292.6	12.00	11.99	0.38
13,175.0	89.60	359.49	12,900.0	303.8	-244.1	317.5	12.00	11.99	0.38
13,182.5	90.50	359.52	12,900.0	311.3	-244.2	325.0	12.00	11.99	0.38
13,200.0	90.50	359.52	12,899.9	328.8	-244.3	342.5	0.00	0.00	0.00
13,300.0	90.50	359.52	12,899.0	428.8	-245.2	442.4	0.00	0.00	0.00
13,400.0	90.50	359.52	12,898.1	528.8	-246.0	542.2	0.00	0.00	0.00
13,500.0	90.50	359.52	12,897.2	628.8	-246.8	642.1	0.00	0.00	0.00
13,600.0	90.50	359.52	12,896.4	728.8	-247.7	742.0	0.00	0.00	0.00
13,700.0	90.50	359.52	12,895.5	828.8	-248.5	841.8	0.00	0.00	0.00
13,800.0	90.50	359.52	12,894.6	928.8	-249.3	941.7	0.00	0.00	0.00
13,900.0	90.50	359.52	12,893.7	1,028.7	-250.2	1,041.6	0.00	0.00	0.00
14,000.0	90.50	359.52	12,892.9	1,128.7	-251.0	1,141.5	0.00	0.00	0.00
14,100.0	90.50	359.52	12,892.0	1,228.7	-251.9	1,241.3	0.00	0.00	0.00
14,200.0	90.50	359.52	12,891.1	1,328.7	-252.7	1,341.2	0.00	0.00	0.00
14,300.0	90.50	359.52	12,890.3	1,428.7	-253.5	1,441.1	0.00	0.00	0.00
14,400.0	90.50	359.52	12,889.4	1,528.7	-254.4	1,540.9	0.00	0.00	0.00
14,500.0	90.50	359.52	12,888.5	1,628.7	-255.2	1,640.8	0.00	0.00	0.00
14,600.0	90.50	359.52	12,887.6	1,728.7	-256.0	1,740.7	0.00	0.00	0.00
14,700.0	90.50	359.52	12,886.8	1,828.7	-256.9	1,840.6	0.00	0.00	0.00
14,800.0	90.50	359.52	12,885.9	1,928.7	-257.7	1,940.4	0.00	0.00	0.00
14,900.0	90.50	359.52	12,885.0	2,028.7	-258.6	2,040.3	0.00	0.00	0.00
15,000.0	90.50	359.52	12,884.1	2,128.7	-259.4	2,140.2	0.00	0.00	0.00
15,100.0	90.50	359.52	12,883.3	2,228.7	-260.2	2,240.0	0.00	0.00	0.00
15,200.0	90.50	359.52	12,882.4	2,328.7	-261.1	2,339.9	0.00	0.00	0.00
15,300.0	90.50	359.52	12,881.5	2,428.6	-261.9	2,439.8	0.00	0.00	0.00
15,400.0	90.50	359.52	12,880.7	2,528.6	-262.7	2,539.7	0.00	0.00	0.00
15,500.0	90.50	359.52	12,879.8	2,628.6	-263.6	2,639.5	0.00	0.00	0.00
15,600.0	90.50	359.52	12,878.9	2,728.6	-264.4	2,739.4	0.00	0.00	0.00
15,700.0	90.50	359.52	12,878.0	2,828.6	-265.3	2,839.3	0.00	0.00	0.00



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15,800.0	90.50	359.52	12,877.2	2,928.6	-266.1	2,939.1	0.00	0.00	0.00
15,900.0	90.50	359.52	12,876.3	3,028.6	-266.9	3,039.0	0.00	0.00	0.00
16,000.0	90.50	359.52	12,875.4	3,128.6	-267.8	3,138.9	0.00	0.00	0.00
16,100.0	90.50	359.52	12,874.5	3,228.6	-268.6	3,238.8	0.00	0.00	0.00
16,200.0	90.50	359.52	12,873.7	3,328.6	-269.4	3,338.6	0.00	0.00	0.00
16,300.0	90.50	359.52	12,872.8	3,428.6	-270.3	3,438.5	0.00	0.00	0.00
16,400.0	90.50	359.52	12,871.9	3,528.6	-271.1	3,538.4	0.00	0.00	0.00
16,500.0	90.50	359.52	12,871.1	3,628.6	-272.0	3,638.2	0.00	0.00	0.00
16,600.0	90.50	359.52	12,870.2	3,728.5	-272.8	3,738.1	0.00	0.00	0.00
16,700.0	90.50	359.52	12,869.3	3,828.5	-273.6	3,838.0	0.00	0.00	0.00
16,800.0	90.50	359.52	12,868.4	3,928.5	-274.5	3,937.9	0.00	0.00	0.00
16,900.0	90.50	359.52	12,867.6	4,028.5	-275.3	4,037.7	0.00	0.00	0.00
17,000.0	90.50	359.52	12,866.7	4,128.5	-276.1	4,137.6	0.00	0.00	0.00
17,100.0	90.50	359.52	12,865.8	4,228.5	-277.0	4,237.5	0.00	0.00	0.00
17,200.0	90.50	359.52	12,865.0	4,328.5	-277.8	4,337.3	0.00	0.00	0.00
17,300.0	90.50	359.52	12,864.1	4,428.5	-278.7	4,437.2	0.00	0.00	0.00
17,400.0	90.50	359.52	12,863.2	4,528.5	-279.5	4,537.1	0.00	0.00	0.00
17,500.0	90.50	359.52	12,862.3	4,628.5	-280.3	4,637.0	0.00	0.00	0.00
17,600.0	90.50	359.52	12,861.5	4,728.5	-281.2	4,736.8	0.00	0.00	0.00
17,698.5	90.50	359.52	12,860.6	4,827.0	-282.0	4,835.2	0.00	0.00	0.00

Ruby 2 State Com #1H BHL

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Ruby 2 State Com #1H I	0.00	0.01	12,860.6	4,827.0	-282.0	393,575.00	774,350.00	32° 4' 44.246 N	103° 26' 51.266 W
- plan hits target center									
- Point									



EOG Resources, Inc.
Planning Report

Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Ruby 2 State Com
Well: #701H
Wellbore: OH
Design: Plan #2

Local Co-ordinate Reference: Well #701H
TVD Reference: KB = 21' @ 3332.0usft (Nomac 55)
MD Reference: KB = 21' @ 3332.0usft (Nomac 55)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
940.0	940.0	Rustler			
1,360.0	1,360.0	Top of Salt			
5,090.0	5,090.0	Base Salt			
5,370.0	5,370.0	Lamar			
5,400.0	5,400.0	Bell Canyon			
6,400.8	6,400.0	Cherry Canyon			
8,102.2	8,100.0	Brushy Canyon			
9,468.2	9,465.0	Bone Spring Lime			
9,488.3	9,485.0	Leonard Shale			
10,554.1	10,550.0	First Bone Spring SS			
11,034.5	11,030.0	2nd Bone Spring Carb			
11,219.6	11,215.0	2nd Bone Spring SS			
11,458.8	11,454.0	3rd Bone Spring Carb			
12,185.4	12,180.0	3rd Bone Spring SS			
12,638.4	12,626.0	Wolfcamp			