

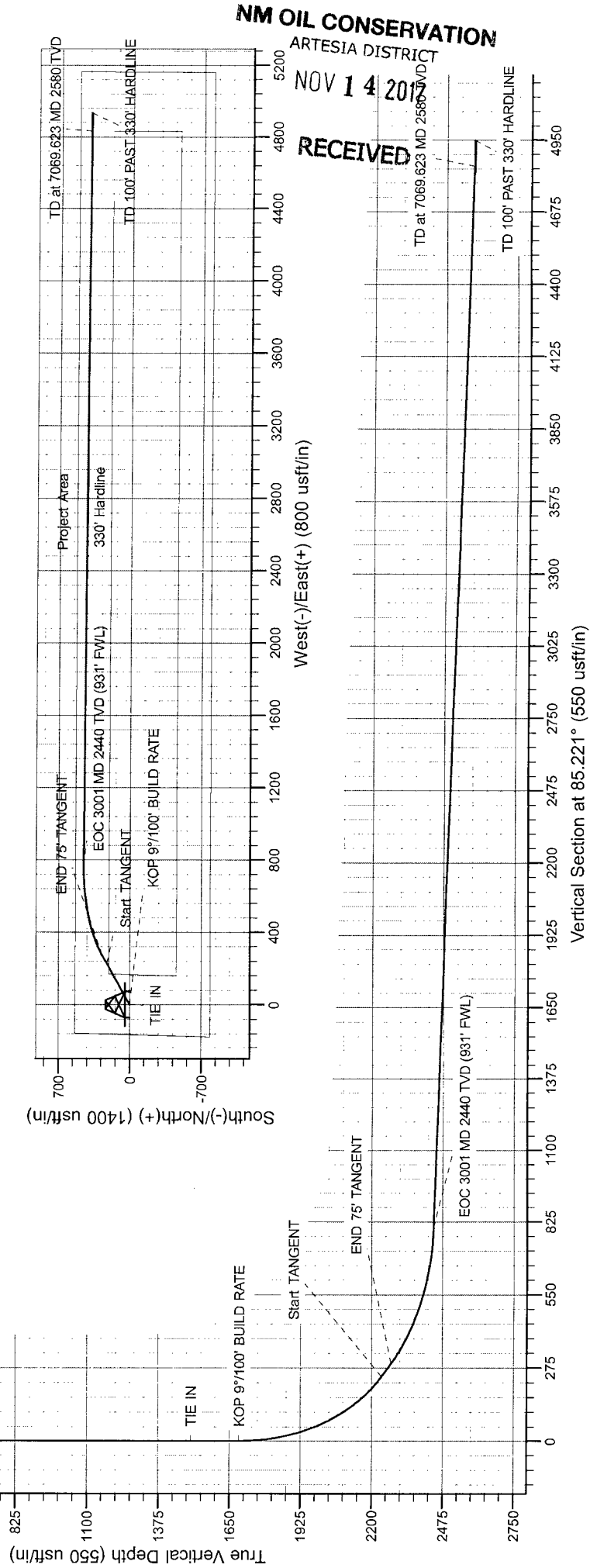
Project: Eddy County (NAD83)
Site: Dee
Well: Dee State Com #2H
Wellbore: Lateral
Design: Plan #3
Ground Elevation 3630.000
Northing 586588.20
Easting 474721.40

Azimuths to Grid North
 True North: 0.12°
 Magnetic North: 7.52°
 Magnetic Field
 Strength: 48029.4 nT
 Dip Angle: 60.26°
 Date: 10/5/2017
 Model: IGRF2015

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
1	0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.00	0.000
2	1687.113	0.00	0.000	1687.113	0.000	0.000	0.00	0.00	0.000
3	2353.780	60.00	45.000	2238.442	225.079	225.079	9.00	45.00	243.048
4	2428.780	60.00	45.000	2275.942	271.007	271.007	0.00	0.00	292.642
5	3000.874	88.03	90.609	2440.000	455.737	765.790	9.00	65.88	801.095
6	7069.623	88.03	90.609	2580.000	412.5004831	900	0.00	0.00	4849.468
7	7095.583	90.29	90.041	2580.380	412.3534857	855	9.00	-14.08	4875.321
8	7169.529	90.29	90.041	2580.000	412.3004931	800	0.00	0.00	4949.004

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
[DSC#2]IBHL - plan hits target center	2580.000	412.300	4931.800	587000.50	479653.20
[DSC#2]ILMP - plan hits target center	2580.000	412.500	4831.900	587000.70	479553.30





NM OIL CONSERVATION

ARTESIA DISTRICT

NOV 14 2017

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EOG Resources - Artesia

Eddy County (NAD83)

Dee

Dee State Com #2H

Lateral

Plan: Plan #3

Standard Planning Report

14 November, 2017



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Artesia
Project: Eddy County (NAD83)
Site: Dee
Well: Dee State Com #2H
Wellbore: Lateral
Design: Plan #3

Local Co-ordinate Reference: Well Dee State Com #2H
TVD Reference: KB @ 3648.000usft (Training Rig)
MD Reference: KB @ 3648.000usft (Training Rig)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Dee			
Site Position:		Northing:	586,558.10 usft	Latitude: 32.612
From:	Map	Easting:	474,720.90 usft	Longitude: -104.550
Position Uncertainty:	0.000 usft	Slot Radius:	13-3/16 "	Grid Convergence: -0.12 °

Well	Dee State Com #2H			
Well Position	+N/-S	30.100 usft	Northing:	586,588.20 usft
	+E/-W	0.500 usft	Easting:	474,721.40 usft
Position Uncertainty	0.000 usft	Wellhead Elevation:	3,648.000 usft	Ground Level: 3,630.000 usft

Wellbore	Lateral				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/5/2017	7.40	60.26	48,029.42953594

Design	Plan #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.000
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.000	0.000	0.000	85.221

Plan Survey Tool Program	Date	11/14/2017		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.000	7,169.529 Plan #3 (Lateral)	MWD	
			OWSG MWD - Standard	

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
0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00	
1,687.113	0.00	0.000	1,687.113	0.000	0.000	0.00	0.00	0.00	0.00	
2,353.780	60.00	45.000	2,238.442	225.079	225.079	9.00	9.00	0.00	45.00	
2,428.780	60.00	45.000	2,275.942	271.007	271.007	0.00	0.00	0.00	0.00	
3,000.874	88.03	90.609	2,440.000	455.737	765.790	9.00	4.90	7.97	65.88	
7,069.623	88.03	90.609	2,580.000	412.500	4,831.900	0.00	0.00	0.00	0.00	[DSC#2H]LMP
7,095.583	90.29	90.041	2,580.380	412.353	4,857.855	9.00	8.73	-2.19	-14.08	
7,169.529	90.29	90.041	2,580.000	412.300	4,931.800	0.00	0.00	0.00	0.00	[DSC#2H]BHL



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Local Co-ordinate Reference: Well Dee State Com #2H
 TVD Reference: KB @ 3648.000usft (Training Rig)
 MD Reference: KB @ 3648.000usft (Training Rig)
 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)
0.000	0.00	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00
100.000	0.00	0.000	100.000	0.000	0.000	0.000	0.00	0.00	0.00
200.000	0.00	0.000	200.000	0.000	0.000	0.000	0.00	0.00	0.00
300.000	0.00	0.000	300.000	0.000	0.000	0.000	0.00	0.00	0.00
400.000	0.00	0.000	400.000	0.000	0.000	0.000	0.00	0.00	0.00
500.000	0.00	0.000	500.000	0.000	0.000	0.000	0.00	0.00	0.00
600.000	0.00	0.000	600.000	0.000	0.000	0.000	0.00	0.00	0.00
700.000	0.00	0.000	700.000	0.000	0.000	0.000	0.00	0.00	0.00
800.000	0.00	0.000	800.000	0.000	0.000	0.000	0.00	0.00	0.00
900.000	0.00	0.000	900.000	0.000	0.000	0.000	0.00	0.00	0.00
1,000.000	0.00	0.000	1,000.000	0.000	0.000	0.000	0.00	0.00	0.00
1,100.000	0.00	0.000	1,100.000	0.000	0.000	0.000	0.00	0.00	0.00
1,200.000	0.00	0.000	1,200.000	0.000	0.000	0.000	0.00	0.00	0.00
1,300.000	0.00	0.000	1,300.000	0.000	0.000	0.000	0.00	0.00	0.00
1,400.000	0.00	0.000	1,400.000	0.000	0.000	0.000	0.00	0.00	0.00
1,500.000	0.00	0.000	1,500.000	0.000	0.000	0.000	0.00	0.00	0.00
TIE IN									
1,600.000	0.00	0.000	1,600.000	0.000	0.000	0.000	0.00	0.00	0.00
1,687.113	0.00	0.000	1,687.113	0.000	0.000	0.000	0.00	0.00	0.00
KOP 9°/100' BUILD RATE									
1,700.000	1.16	45.000	1,699.999	0.092	0.092	0.100	9.00	9.00	0.00
1,750.000	5.66	45.000	1,749.898	2.195	2.195	2.370	9.00	9.00	0.00
1,800.000	10.16	45.000	1,799.409	7.059	7.059	7.622	9.00	9.00	0.00
1,850.000	14.66	45.000	1,848.228	14.655	14.655	15.825	9.00	9.00	0.00
1,900.000	19.16	45.000	1,896.054	24.936	24.936	26.926	9.00	9.00	0.00
1,950.000	23.66	45.000	1,942.592	37.838	37.838	40.859	9.00	9.00	0.00
2,000.000	28.16	45.000	1,987.555	53.283	53.283	57.537	9.00	9.00	0.00
2,050.000	32.66	45.000	2,030.665	71.175	71.175	76.857	9.00	9.00	0.00
2,100.000	37.16	45.000	2,071.657	91.403	91.403	98.700	9.00	9.00	0.00
2,150.000	41.66	45.000	2,110.278	113.843	113.843	122.931	9.00	9.00	0.00
2,200.000	46.16	45.000	2,146.291	138.357	138.357	149.402	9.00	9.00	0.00
2,250.000	50.66	45.000	2,179.472	164.792	164.792	177.948	9.00	9.00	0.00
2,300.000	55.16	45.000	2,209.618	192.988	192.988	208.395	9.00	9.00	0.00
2,353.780	60.00	45.000	2,238.442	225.079	225.079	243.048	9.00	9.00	0.00
Start TANGENT									
2,400.000	60.00	45.000	2,261.552	253.383	253.383	273.612	0.00	0.00	0.00
2,428.780	60.00	45.000	2,275.942	271.007	271.007	292.642	0.00	0.00	0.00
END 75' TANGENT									
2,450.000	60.80	46.997	2,286.425	283.822	284.279	306.936	9.00	3.75	9.41
2,464.377	61.35	48.332	2,293.379	292.296	293.580	316.911	9.00	3.86	9.29
[DSC #2H]PP									
2,500.000	62.78	51.579	2,310.069	312.536	317.673	342.606	9.00	4.02	9.12
2,550.000	64.91	55.995	2,332.114	339.028	353.879	380.893	9.00	4.26	8.83
2,600.000	67.17	60.256	2,352.424	363.135	392.675	421.563	9.00	4.51	8.52
2,643.142	69.21	63.817	2,368.457	381.903	428.047	458.376	9.00	4.72	8.26
[DSC #2H]FTP									
2,650.000	69.54	64.374	2,370.873	384.707	433.821	464.363	9.00	4.82	8.12
2,700.000	72.00	68.365	2,387.347	403.613	477.063	509.029	9.00	4.92	7.98
2,750.000	74.54	72.245	2,401.746	419.735	522.135	555.288	9.00	5.08	7.76
2,800.000	77.14	76.029	2,413.980	432.974	568.758	602.852	9.00	5.21	7.57
2,850.000	79.80	79.734	2,423.974	443.249	616.647	651.430	9.00	5.32	7.41
2,900.000	82.50	83.378	2,431.666	450.496	665.504	700.721	9.00	5.40	7.29
2,950.000	85.23	86.977	2,437.009	454.670	715.029	750.422	9.00	5.46	7.20



Planning Report

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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)
3,000.874	88.03	90.609	2,440.000	455.737	765.790	801.095	9.00	5.50	7.14
EOC 3001 MD 2440 TVD (931' FWL)									
3,100.000	88.03	90.609	2,443.411	454.684	864.852	899.725	0.00	0.00	0.00
3,200.000	88.03	90.609	2,446.852	453.621	964.787	999.224	0.00	0.00	0.00
3,300.000	88.03	90.609	2,450.292	452.558	1,064.722	1,098.723	0.00	0.00	0.00
3,400.000	88.03	90.609	2,453.733	451.496	1,164.657	1,198.223	0.00	0.00	0.00
3,500.000	88.03	90.609	2,457.174	450.433	1,264.592	1,297.722	0.00	0.00	0.00
3,600.000	88.03	90.609	2,460.615	449.370	1,364.528	1,397.221	0.00	0.00	0.00
3,700.000	88.03	90.609	2,464.056	448.308	1,464.463	1,496.720	0.00	0.00	0.00
3,800.000	88.03	90.609	2,467.497	447.245	1,564.398	1,596.219	0.00	0.00	0.00
3,900.000	88.03	90.609	2,470.938	446.182	1,664.333	1,695.719	0.00	0.00	0.00
4,000.000	88.03	90.609	2,474.378	445.120	1,764.268	1,795.218	0.00	0.00	0.00
4,100.000	88.03	90.609	2,477.819	444.057	1,864.203	1,894.717	0.00	0.00	0.00
4,200.000	88.03	90.609	2,481.260	442.994	1,964.138	1,994.216	0.00	0.00	0.00
4,300.000	88.03	90.609	2,484.701	441.932	2,064.073	2,093.715	0.00	0.00	0.00
4,400.000	88.03	90.609	2,488.142	440.869	2,164.009	2,193.215	0.00	0.00	0.00
4,500.000	88.03	90.609	2,491.583	439.806	2,263.944	2,292.714	0.00	0.00	0.00
4,600.000	88.03	90.609	2,495.024	438.744	2,363.879	2,392.213	0.00	0.00	0.00
4,700.000	88.03	90.609	2,498.464	437.681	2,463.814	2,491.712	0.00	0.00	0.00
4,800.000	88.03	90.609	2,501.905	436.618	2,563.749	2,591.211	0.00	0.00	0.00
4,900.000	88.03	90.609	2,505.346	435.556	2,663.684	2,690.711	0.00	0.00	0.00
5,000.000	88.03	90.609	2,508.787	434.493	2,763.619	2,790.210	0.00	0.00	0.00
5,100.000	88.03	90.609	2,512.228	433.430	2,863.555	2,889.709	0.00	0.00	0.00
5,200.000	88.03	90.609	2,515.669	432.368	2,963.490	2,989.208	0.00	0.00	0.00
5,300.000	88.03	90.609	2,519.110	431.305	3,063.425	3,088.707	0.00	0.00	0.00
5,400.000	88.03	90.609	2,522.550	430.242	3,163.360	3,188.207	0.00	0.00	0.00
5,500.000	88.03	90.609	2,525.991	429.180	3,263.295	3,287.706	0.00	0.00	0.00
5,600.000	88.03	90.609	2,529.432	428.117	3,363.230	3,387.205	0.00	0.00	0.00
5,700.000	88.03	90.609	2,532.873	427.054	3,463.165	3,486.704	0.00	0.00	0.00
5,800.000	88.03	90.609	2,536.314	425.992	3,563.100	3,586.203	0.00	0.00	0.00
5,900.000	88.03	90.609	2,539.755	424.929	3,663.036	3,685.703	0.00	0.00	0.00
6,000.000	88.03	90.609	2,543.196	423.866	3,762.971	3,785.202	0.00	0.00	0.00
6,100.000	88.03	90.609	2,546.636	422.804	3,862.906	3,884.701	0.00	0.00	0.00
6,200.000	88.03	90.609	2,550.077	421.741	3,962.841	3,984.200	0.00	0.00	0.00
6,300.000	88.03	90.609	2,553.518	420.678	4,062.776	4,083.699	0.00	0.00	0.00
6,400.000	88.03	90.609	2,556.959	419.616	4,162.711	4,183.198	0.00	0.00	0.00
6,500.000	88.03	90.609	2,560.400	418.553	4,262.646	4,282.698	0.00	0.00	0.00
6,600.000	88.03	90.609	2,563.841	417.490	4,362.581	4,382.197	0.00	0.00	0.00
6,700.000	88.03	90.609	2,567.282	416.428	4,462.517	4,481.696	0.00	0.00	0.00
6,800.000	88.03	90.609	2,570.723	415.365	4,562.452	4,581.195	0.00	0.00	0.00
6,900.000	88.03	90.609	2,574.163	414.302	4,662.387	4,680.694	0.00	0.00	0.00
7,000.000	88.03	90.609	2,577.604	413.240	4,762.322	4,780.194	0.00	0.00	0.00
7,069.623	88.03	90.609	2,580.000	412.500	4,831.900	4,849.468	0.00	0.00	0.00
TD at 7069.623 MD 2580 TVD - [DSC#2H]LMP									
7,071.233	88.17	90.574	2,580.053	412.483	4,833.509	4,851.070	9.00	8.73	-2.19
[DSC#@H]BHL									
7,095.583	90.29	90.041	2,580.380	412.353	4,857.855	4,875.321	9.00	8.73	-2.19
7,100.000	90.29	90.041	2,580.357	412.350	4,862.272	4,879.722	0.00	0.00	0.00
7,169.529	90.29	90.041	2,580.000	412.300	4,931.800	4,949.004	0.00	0.00	0.00
TD 100' PAST 330' HARDLINE - [DSC#2H]BHL									



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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
[DSC#2H]LMP - plan hits target center - Point	0.00	0.000	2,580.000	412.500	4,831.900	587,000.70	479,553.30	32.614	-104.534
[DSC#2H]BHL - plan hits target center - Point	0.00	0.000	2,580.000	412.300	4,931.800	587,000.50	479,653.20	32.614	-104.534

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,500.000	1,500.000	0.000	0.000	TIE IN
1,687.113	1,687.113	0.000	0.000	KOP 9°/100' BUILD RATE
2,353.780	2,238.442	225.079	225.079	Start TANGENT
2,428.780	2,275.942	271.007	271.007	END 75' TANGENT
3,000.874	2,440.000	455.737	765.790	EOC 3001 MD 2440 TVD (931' FWL)
7,069.623	2,580.000	412.500	4,831.900	TD at 7069.623 MD 2580 TVD
7,169.529	2,580.000	412.300	4,931.800	TD 100' PAST 330' HARDLINE