

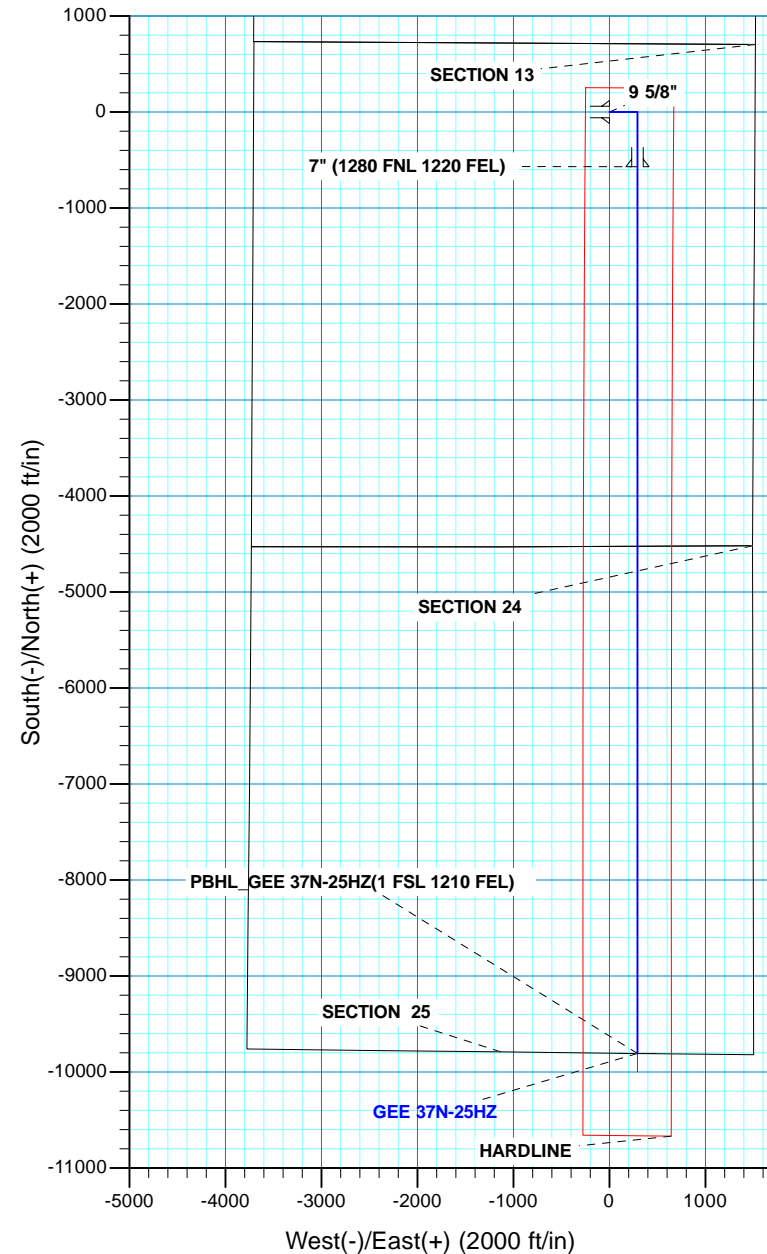
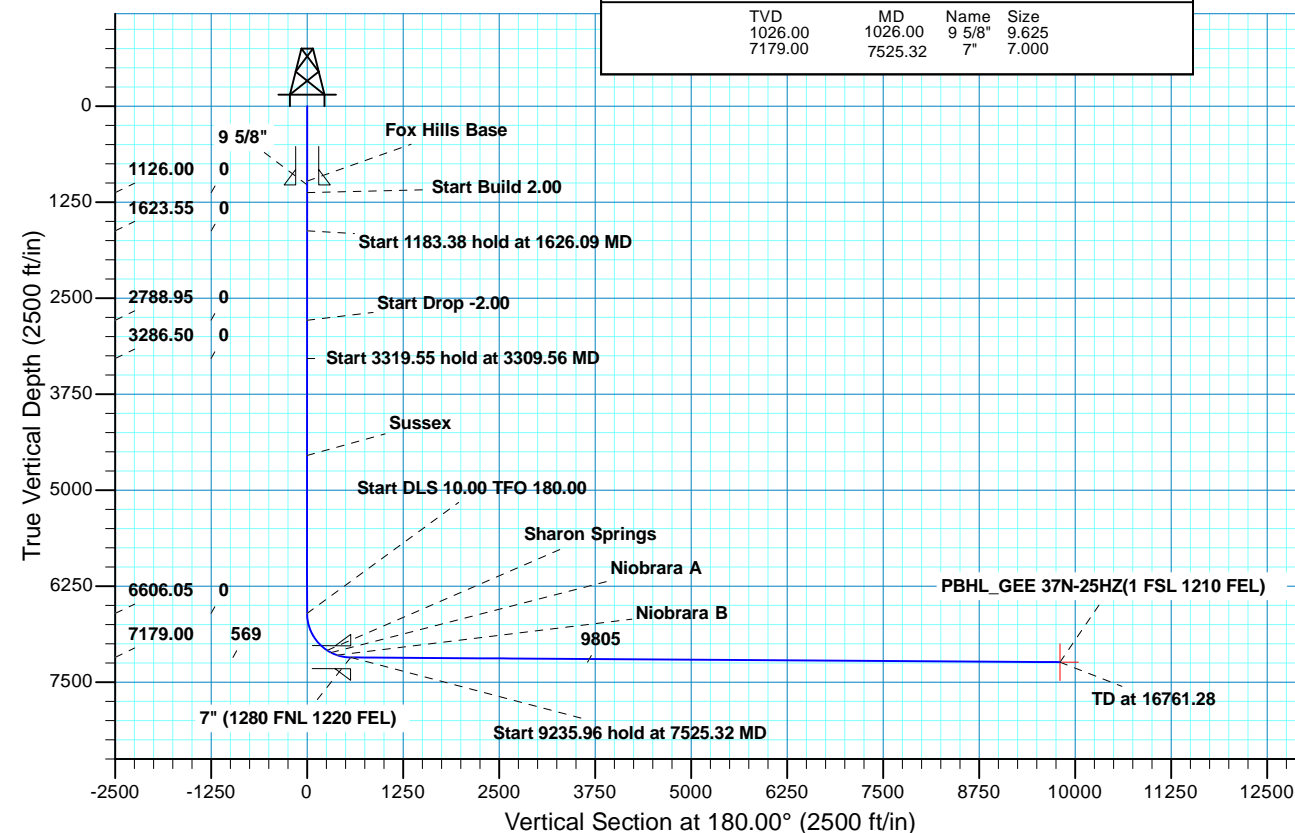


Project: COLORADO NORTHERN ZONE - 83  
 Site: GEE 17-24HZ PAD  
 Well: GEE 37N-25HZ  
 Wellbore: OH  
 Design: PLAN #1 PRELIMINARY



WELL DETAILS: GEE 37N-25HZ																	
GL 4859 & KB 17 @ 4876.00ft (ASSUMED)																	
+N/-S 0.00		+E/-W 0.00		Northing 1290448.65		Easting 3185849.09		Latitude 40.1287630		Longitude -104.8353560							
SECTION DETAILS																	
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target								
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00									
1126.00	0.00	0.00	1126.00	0.00	0.00	0.00	0.00	0.00									
1626.09	10.00	90.00	1623.55	0.00	43.54	2.00	90.00	0.00									
2809.47	10.00	90.00	2788.95	0.00	249.07	0.00	0.00	0.00									
3309.56	0.00	0.00	3286.50	0.00	292.60	2.00	180.00	0.00									
6629.11	0.00	0.00	6606.05	0.00	292.60	0.00	0.00	0.00									
7525.32	89.62	180.00	7179.00	-569.17	292.60	10.00	180.00	569.17									
16761.28	89.62	180.00	7240.00	-9804.93	292.60	0.00	0.00	9804.93	PBHL_GEE 37N-25HZ(1 FSL 1210 FEL)								
DESIGN TARGET DETAILS																	
Name		TVD		+N/-S		+E/-W		Northing		Easting		Latitude		Longitude		Shape	
PBHL		7240.00		-9804.93		292.60		1280646.21		3186215.18		40.1018470		-104.8343100		Point	
- plan hits target center																	
FORMATION TOP DETAILS																	
TVDPATH				MDPATH				FORMATION				DIPANGLE		DIPDIRINC			
976.00				976.00				Fox Hills Base						0.00			
4548.00				4571.06				Sussex						0.00			
7087.00				7199.89				Sharon Springs						57.08			
7116.00				7257.88				Niobrara A						62.88			
7149.00				7342.85				Niobrara B						71.37			

CASING DETAILS			
TVD	MD	Name	Size
1026.00	1026.00	9 5/8"	9.625
7179.00	7525.32	7"	7.000





**Scientific Drilling**

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**GEE 17-24HZ PAD**

**GEE 37N-25HZ**

**OH**

**Plan: PLAN #1 PRELIMINARY**

## **Standard Planning Report**

**12 June, 2014**

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GEE 37N-25HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
<b>Site:</b>	GEE 17-24HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	GEE 37N-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

<b>Project</b>	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Site</b>	GEE 17-24HZ PAD, SECTION 24 T2N R67W			
<b>Site Position:</b>		<b>Northing:</b>	1,290,419.46 usft	<b>Latitude:</b> 40.1286830
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,185,841.48 usft	<b>Longitude:</b> -104.8353840
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> 0.43 °

<b>Well</b>	GEE 37N-25HZ, 713 FNL 1518 FEL			
<b>Well Position</b>	<b>+N/-S</b>	29.13 ft	<b>Northing:</b>	1,290,448.65 usft
	<b>+E/-W</b>	7.83 ft	<b>Easting:</b>	3,185,849.10 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	0.00 ft
			<b>Ground Level:</b>	4,859.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2013	06/11/14	8.52	66.70	52,580

<b>Design</b>	PLAN #1 PRELIMINARY			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	180.00

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,126.00	0.00	0.00	1,126.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,626.09	10.00	90.00	1,623.55	0.00	43.54	2.00	2.00	0.00	90.00	
2,809.47	10.00	90.00	2,788.95	0.00	249.07	0.00	0.00	0.00	0.00	
3,309.56	0.00	0.00	3,286.50	0.00	292.60	2.00	-2.00	0.00	180.00	
6,629.11	0.00	0.00	6,606.05	0.00	292.60	0.00	0.00	0.00	0.00	
7,525.32	89.62	180.00	7,179.00	-569.17	292.60	10.00	10.00	20.08	180.00	
16,761.29	89.62	180.00	7,240.00	-9,804.94	292.60	0.00	0.00	0.00	0.00	PBHL_GEE 37N-25H

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GEE 37N-25HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
<b>Site:</b>	GEE 17-24HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	GEE 37N-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
976.00	0.00	0.00	976.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Fox Hills Base</b>									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,026.00	0.00	0.00	1,026.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>9 5/8"</b>									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,126.00	0.00	0.00	1,126.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
1,200.00	1.48	90.00	1,199.99	0.00	0.96	0.00	2.00	2.00	0.00
1,300.00	3.48	90.00	1,299.89	0.00	5.28	0.00	2.00	2.00	0.00
1,400.00	5.48	90.00	1,399.58	0.00	13.09	0.00	2.00	2.00	0.00
1,500.00	7.48	90.00	1,498.94	0.00	24.38	0.00	2.00	2.00	0.00
1,600.00	9.48	90.00	1,597.84	0.00	39.12	0.00	2.00	2.00	0.00
1,626.09	10.00	90.00	1,623.55	0.00	43.54	0.00	2.00	2.00	0.00
<b>Start 1183.38 hold at 1626.09 MD</b>									
1,700.00	10.00	90.00	1,696.34	0.00	56.37	0.00	0.00	0.00	0.00
1,800.00	10.00	90.00	1,794.82	0.00	73.74	0.00	0.00	0.00	0.00
1,900.00	10.00	90.00	1,893.30	0.00	91.11	0.00	0.00	0.00	0.00
2,000.00	10.00	90.00	1,991.78	0.00	108.48	0.00	0.00	0.00	0.00
2,100.00	10.00	90.00	2,090.26	0.00	125.85	0.00	0.00	0.00	0.00
2,200.00	10.00	90.00	2,188.74	0.00	143.21	0.00	0.00	0.00	0.00
2,300.00	10.00	90.00	2,287.22	0.00	160.58	0.00	0.00	0.00	0.00
2,400.00	10.00	90.00	2,385.70	0.00	177.95	0.00	0.00	0.00	0.00
2,500.00	10.00	90.00	2,484.18	0.00	195.32	0.00	0.00	0.00	0.00
2,600.00	10.00	90.00	2,582.66	0.00	212.69	0.00	0.00	0.00	0.00
2,700.00	10.00	90.00	2,681.14	0.00	230.05	0.00	0.00	0.00	0.00
2,800.00	10.00	90.00	2,779.62	0.00	247.42	0.00	0.00	0.00	0.00
2,809.47	10.00	90.00	2,788.95	0.00	249.07	0.00	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
2,900.00	8.19	90.00	2,878.34	0.00	263.38	0.00	2.00	-2.00	0.00
3,000.00	6.19	90.00	2,977.55	0.00	275.90	0.00	2.00	-2.00	0.00
3,100.00	4.19	90.00	3,077.13	0.00	284.94	0.00	2.00	-2.00	0.00
3,200.00	2.19	90.00	3,176.97	0.00	290.51	0.00	2.00	-2.00	0.00
3,300.00	0.19	90.00	3,276.94	0.00	292.59	0.00	2.00	-2.00	0.00
3,309.56	0.00	0.00	3,286.50	0.00	292.60	0.00	2.00	-2.00	0.00
<b>Start 3319.55 hold at 3309.56 MD</b>									
3,400.00	0.00	0.00	3,376.94	0.00	292.60	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,476.94	0.00	292.60	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,576.94	0.00	292.60	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,676.94	0.00	292.60	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,776.94	0.00	292.60	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,876.94	0.00	292.60	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	3,976.94	0.00	292.60	0.00	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GEE 37N-25HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
<b>Site:</b>	GEE 17-24HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	GEE 37N-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,100.00	0.00	0.00	4,076.94	0.00	292.60	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,176.94	0.00	292.60	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,276.94	0.00	292.60	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,376.94	0.00	292.60	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,476.94	0.00	292.60	0.00	0.00	0.00	0.00
4,571.06	0.00	0.00	4,548.00	0.00	292.60	0.00	0.00	0.00	0.00
<b>Sussex</b>									
4,600.00	0.00	0.00	4,576.94	0.00	292.60	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,676.94	0.00	292.60	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,776.94	0.00	292.60	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,876.94	0.00	292.60	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	4,976.94	0.00	292.60	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,076.94	0.00	292.60	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,176.94	0.00	292.60	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,276.94	0.00	292.60	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,376.94	0.00	292.60	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,476.94	0.00	292.60	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,576.94	0.00	292.60	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,676.94	0.00	292.60	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,776.94	0.00	292.60	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,876.94	0.00	292.60	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,976.94	0.00	292.60	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,076.94	0.00	292.60	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,176.94	0.00	292.60	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,276.94	0.00	292.60	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,376.94	0.00	292.60	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,476.94	0.00	292.60	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,576.94	0.00	292.60	0.00	0.00	0.00	0.00
6,629.11	0.00	0.00	6,606.05	0.00	292.60	0.00	0.00	0.00	0.00
<b>Start DLS 10.00 TFO 180.00</b>									
6,700.00	7.09	180.00	6,676.76	-4.38	292.60	4.38	10.00	10.00	0.00
6,800.00	17.09	180.00	6,774.42	-25.30	292.60	25.30	10.00	10.00	0.00
6,900.00	27.09	180.00	6,866.96	-62.85	292.60	62.85	10.00	10.00	0.00
7,000.00	37.09	180.00	6,951.58	-115.91	292.60	115.91	10.00	10.00	0.00
7,100.00	47.09	180.00	7,025.69	-182.86	292.60	182.86	10.00	10.00	0.00
7,199.89	57.08	180.00	7,087.00	-261.56	292.60	261.56	10.00	10.00	0.00
<b>Sharon Springs</b>									
7,200.00	57.09	180.00	7,087.06	-261.65	292.60	261.65	10.00	10.00	0.00
7,257.88	62.88	180.00	7,116.00	-311.75	292.60	311.75	10.00	10.00	0.00
<b>Niobrara A</b>									
7,300.00	67.09	180.00	7,133.81	-349.91	292.60	349.91	10.00	10.00	0.00
7,342.85	71.37	180.00	7,149.00	-389.97	292.60	389.97	10.00	10.00	0.00
<b>Niobrara B</b>									
7,400.00	77.09	180.00	7,164.52	-444.94	292.60	444.94	10.00	10.00	0.00
7,500.00	87.09	180.00	7,178.27	-543.86	292.60	543.86	10.00	10.00	0.00
7,525.32	89.62	180.00	7,179.00	-569.17	292.60	569.17	10.00	10.00	0.00
<b>Start 9235.96 hold at 7525.32 MD - 7" (1280 FNL 1220 FEL)</b>									
7,600.00	89.62	180.00	7,179.49	-643.85	292.60	643.85	0.00	0.00	0.00
7,700.00	89.62	180.00	7,180.15	-743.85	292.60	743.85	0.00	0.00	0.00
7,800.00	89.62	180.00	7,180.81	-843.85	292.60	843.85	0.00	0.00	0.00
7,900.00	89.62	180.00	7,181.47	-943.84	292.60	943.84	0.00	0.00	0.00
8,000.00	89.62	180.00	7,182.13	-1,043.84	292.60	1,043.84	0.00	0.00	0.00
8,100.00	89.62	180.00	7,182.79	-1,143.84	292.60	1,143.84	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GEE 37N-25HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
<b>Site:</b>	GEE 17-24HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	GEE 37N-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,200.00	89.62	180.00	7,183.45	-1,243.84	292.60	1,243.84	0.00	0.00	0.00
8,300.00	89.62	180.00	7,184.11	-1,343.83	292.60	1,343.83	0.00	0.00	0.00
8,400.00	89.62	180.00	7,184.77	-1,443.83	292.60	1,443.83	0.00	0.00	0.00
8,500.00	89.62	180.00	7,185.43	-1,543.83	292.60	1,543.83	0.00	0.00	0.00
8,600.00	89.62	180.00	7,186.09	-1,643.83	292.60	1,643.83	0.00	0.00	0.00
8,700.00	89.62	180.00	7,186.75	-1,743.83	292.60	1,743.83	0.00	0.00	0.00
8,800.00	89.62	180.00	7,187.41	-1,843.82	292.60	1,843.82	0.00	0.00	0.00
8,900.00	89.62	180.00	7,188.08	-1,943.82	292.60	1,943.82	0.00	0.00	0.00
9,000.00	89.62	180.00	7,188.74	-2,043.82	292.60	2,043.82	0.00	0.00	0.00
9,100.00	89.62	180.00	7,189.40	-2,143.82	292.60	2,143.82	0.00	0.00	0.00
9,200.00	89.62	180.00	7,190.06	-2,243.81	292.60	2,243.81	0.00	0.00	0.00
9,300.00	89.62	180.00	7,190.72	-2,343.81	292.60	2,343.81	0.00	0.00	0.00
9,400.00	89.62	180.00	7,191.38	-2,443.81	292.60	2,443.81	0.00	0.00	0.00
9,500.00	89.62	180.00	7,192.04	-2,543.81	292.60	2,543.81	0.00	0.00	0.00
9,600.00	89.62	180.00	7,192.70	-2,643.81	292.60	2,643.81	0.00	0.00	0.00
9,700.00	89.62	180.00	7,193.36	-2,743.80	292.60	2,743.80	0.00	0.00	0.00
9,800.00	89.62	180.00	7,194.02	-2,843.80	292.60	2,843.80	0.00	0.00	0.00
9,900.00	89.62	180.00	7,194.68	-2,943.80	292.60	2,943.80	0.00	0.00	0.00
10,000.00	89.62	180.00	7,195.34	-3,043.80	292.60	3,043.80	0.00	0.00	0.00
10,100.00	89.62	180.00	7,196.00	-3,143.80	292.60	3,143.80	0.00	0.00	0.00
10,200.00	89.62	180.00	7,196.66	-3,243.79	292.60	3,243.79	0.00	0.00	0.00
10,300.00	89.62	180.00	7,197.32	-3,343.79	292.60	3,343.79	0.00	0.00	0.00
10,400.00	89.62	180.00	7,197.98	-3,443.79	292.60	3,443.79	0.00	0.00	0.00
10,500.00	89.62	180.00	7,198.64	-3,543.79	292.60	3,543.79	0.00	0.00	0.00
10,600.00	89.62	180.00	7,199.30	-3,643.78	292.60	3,643.78	0.00	0.00	0.00
10,700.00	89.62	180.00	7,199.96	-3,743.78	292.60	3,743.78	0.00	0.00	0.00
10,800.00	89.62	180.00	7,200.63	-3,843.78	292.60	3,843.78	0.00	0.00	0.00
10,900.00	89.62	180.00	7,201.29	-3,943.78	292.60	3,943.78	0.00	0.00	0.00
11,000.00	89.62	180.00	7,201.95	-4,043.78	292.60	4,043.78	0.00	0.00	0.00
11,100.00	89.62	180.00	7,202.61	-4,143.77	292.60	4,143.77	0.00	0.00	0.00
11,200.00	89.62	180.00	7,203.27	-4,243.77	292.60	4,243.77	0.00	0.00	0.00
11,300.00	89.62	180.00	7,203.93	-4,343.77	292.60	4,343.77	0.00	0.00	0.00
11,400.00	89.62	180.00	7,204.59	-4,443.77	292.60	4,443.77	0.00	0.00	0.00
11,500.00	89.62	180.00	7,205.25	-4,543.76	292.60	4,543.76	0.00	0.00	0.00
11,600.00	89.62	180.00	7,205.91	-4,643.76	292.60	4,643.76	0.00	0.00	0.00
11,700.00	89.62	180.00	7,206.57	-4,743.76	292.60	4,743.76	0.00	0.00	0.00
11,800.00	89.62	180.00	7,207.23	-4,843.76	292.60	4,843.76	0.00	0.00	0.00
11,900.00	89.62	180.00	7,207.89	-4,943.76	292.60	4,943.76	0.00	0.00	0.00
12,000.00	89.62	180.00	7,208.55	-5,043.75	292.60	5,043.75	0.00	0.00	0.00
12,100.00	89.62	180.00	7,209.21	-5,143.75	292.60	5,143.75	0.00	0.00	0.00
12,200.00	89.62	180.00	7,209.87	-5,243.75	292.60	5,243.75	0.00	0.00	0.00
12,300.00	89.62	180.00	7,210.53	-5,343.75	292.60	5,343.75	0.00	0.00	0.00
12,400.00	89.62	180.00	7,211.19	-5,443.75	292.60	5,443.75	0.00	0.00	0.00
12,500.00	89.62	180.00	7,211.85	-5,543.74	292.60	5,543.74	0.00	0.00	0.00
12,600.00	89.62	180.00	7,212.51	-5,643.74	292.60	5,643.74	0.00	0.00	0.00
12,700.00	89.62	180.00	7,213.17	-5,743.74	292.60	5,743.74	0.00	0.00	0.00
12,800.00	89.62	180.00	7,213.84	-5,843.74	292.60	5,843.74	0.00	0.00	0.00
12,900.00	89.62	180.00	7,214.50	-5,943.73	292.60	5,943.73	0.00	0.00	0.00
13,000.00	89.62	180.00	7,215.16	-6,043.73	292.60	6,043.73	0.00	0.00	0.00
13,100.00	89.62	180.00	7,215.82	-6,143.73	292.60	6,143.73	0.00	0.00	0.00
13,200.00	89.62	180.00	7,216.48	-6,243.73	292.60	6,243.73	0.00	0.00	0.00
13,300.00	89.62	180.00	7,217.14	-6,343.73	292.60	6,343.73	0.00	0.00	0.00
13,400.00	89.62	180.00	7,217.80	-6,443.72	292.60	6,443.72	0.00	0.00	0.00
13,500.00	89.62	180.00	7,218.46	-6,543.72	292.60	6,543.72	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GEE 37N-25HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
<b>Site:</b>	GEE 17-24HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	GEE 37N-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,600.00	89.62	180.00	7,219.12	-6,643.72	292.60	6,643.72	0.00	0.00	0.00
13,700.00	89.62	180.00	7,219.78	-6,743.72	292.60	6,743.72	0.00	0.00	0.00
13,800.00	89.62	180.00	7,220.44	-6,843.71	292.60	6,843.71	0.00	0.00	0.00
13,900.00	89.62	180.00	7,221.10	-6,943.71	292.60	6,943.71	0.00	0.00	0.00
14,000.00	89.62	180.00	7,221.76	-7,043.71	292.60	7,043.71	0.00	0.00	0.00
14,100.00	89.62	180.00	7,222.42	-7,143.71	292.60	7,143.71	0.00	0.00	0.00
14,200.00	89.62	180.00	7,223.08	-7,243.71	292.60	7,243.71	0.00	0.00	0.00
14,300.00	89.62	180.00	7,223.74	-7,343.70	292.60	7,343.70	0.00	0.00	0.00
14,400.00	89.62	180.00	7,224.40	-7,443.70	292.60	7,443.70	0.00	0.00	0.00
14,500.00	89.62	180.00	7,225.06	-7,543.70	292.60	7,543.70	0.00	0.00	0.00
14,600.00	89.62	180.00	7,225.72	-7,643.70	292.60	7,643.70	0.00	0.00	0.00
14,700.00	89.62	180.00	7,226.39	-7,743.69	292.60	7,743.69	0.00	0.00	0.00
14,800.00	89.62	180.00	7,227.05	-7,843.69	292.60	7,843.69	0.00	0.00	0.00
14,900.00	89.62	180.00	7,227.71	-7,943.69	292.60	7,943.69	0.00	0.00	0.00
15,000.00	89.62	180.00	7,228.37	-8,043.69	292.60	8,043.69	0.00	0.00	0.00
15,100.00	89.62	180.00	7,229.03	-8,143.69	292.60	8,143.69	0.00	0.00	0.00
15,200.00	89.62	180.00	7,229.69	-8,243.68	292.60	8,243.68	0.00	0.00	0.00
15,300.00	89.62	180.00	7,230.35	-8,343.68	292.60	8,343.68	0.00	0.00	0.00
15,400.00	89.62	180.00	7,231.01	-8,443.68	292.60	8,443.68	0.00	0.00	0.00
15,500.00	89.62	180.00	7,231.67	-8,543.68	292.60	8,543.68	0.00	0.00	0.00
15,600.00	89.62	180.00	7,232.33	-8,643.68	292.60	8,643.68	0.00	0.00	0.00
15,700.00	89.62	180.00	7,232.99	-8,743.67	292.60	8,743.67	0.00	0.00	0.00
15,800.00	89.62	180.00	7,233.65	-8,843.67	292.60	8,843.67	0.00	0.00	0.00
15,900.00	89.62	180.00	7,234.31	-8,943.67	292.60	8,943.67	0.00	0.00	0.00
16,000.00	89.62	180.00	7,234.97	-9,043.67	292.60	9,043.67	0.00	0.00	0.00
16,100.00	89.62	180.00	7,235.63	-9,143.66	292.60	9,143.66	0.00	0.00	0.00
16,200.00	89.62	180.00	7,236.29	-9,243.66	292.60	9,243.66	0.00	0.00	0.00
16,300.00	89.62	180.00	7,236.95	-9,343.66	292.60	9,343.66	0.00	0.00	0.00
16,400.00	89.62	180.00	7,237.61	-9,443.66	292.60	9,443.66	0.00	0.00	0.00
16,500.00	89.62	180.00	7,238.27	-9,543.66	292.60	9,543.66	0.00	0.00	0.00
16,600.00	89.62	180.00	7,238.93	-9,643.65	292.60	9,643.65	0.00	0.00	0.00
16,700.00	89.62	180.00	7,239.60	-9,743.65	292.60	9,743.65	0.00	0.00	0.00
16,761.29	89.62	180.00	7,240.00	-9,804.94	292.60	9,804.94	0.00	0.00	0.00
TD at 16761.28 - PBHL_GEE 37N-25HZ(1 FSL 1210 FEL)									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_GEE 37N-25HZ('	0.00	0.00	7,240.00	-9,804.94	292.60	1,280,646.20	3,186,215.18	40.1018470	-104.8343100
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,026.00	1,026.00	9 5/8"	9.625	13.500	
7,525.32	7,179.00	7" (1280 FNL 1220 FEL)	7.000	8.750	

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GEE 37N-25HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
<b>Site:</b>	GEE 17-24HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	GEE 37N-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
976.00	976.00	Fox Hills Base			
4,571.06	4,548.00	Sussex			
7,199.89	7,087.00	Sharon Springs			
7,257.88	7,116.00	Niobrara A			
7,342.85	7,149.00	Niobrara B			

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,126.00	1,126.00	0.00	0.00	Start Build 2.00
1,626.09	1,623.55	0.00	43.54	Start 1183.38 hold at 1626.09 MD
2,809.47	2,788.95	0.00	249.07	Start Drop -2.00
3,309.56	3,286.50	0.00	292.60	Start 3319.55 hold at 3309.56 MD
6,629.11	6,606.05	0.00	292.60	Start DLS 10.00 TFO 180.00
7,525.32	7,179.00	-569.17	292.60	Start 9235.96 hold at 7525.32 MD
16,761.29	7,240.00	-9,804.94	292.60	TD at 16761.28