

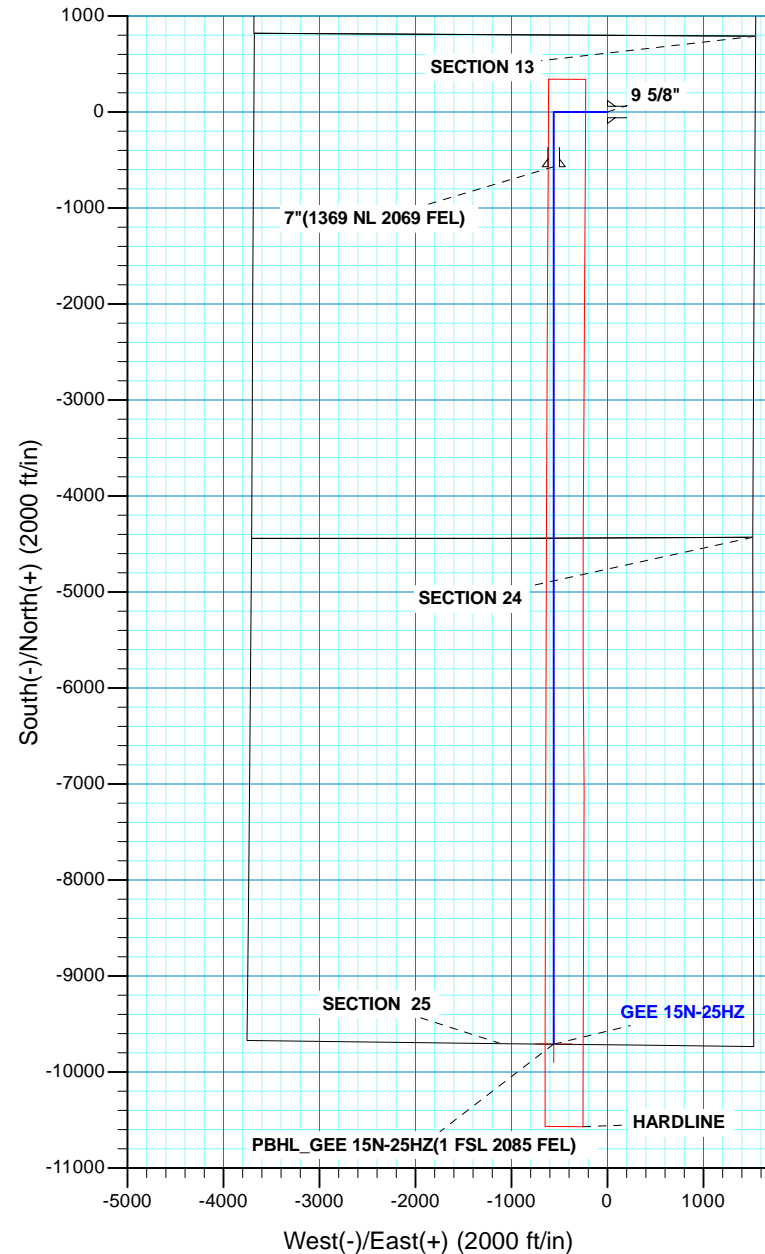
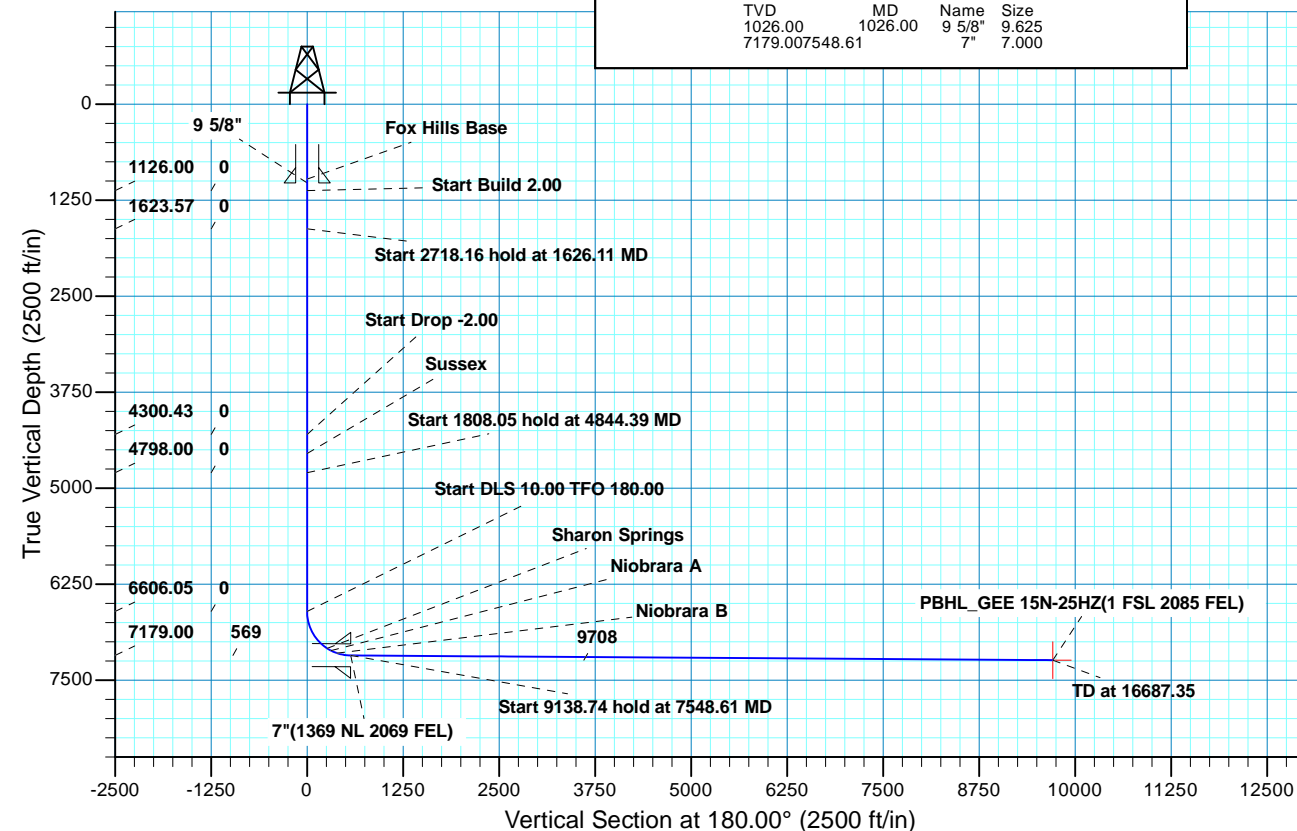


Project: COLORADO NORTHERN ZONE - 83
Site: GEE 17-24HZ PAD
Well: GEE 15N-25HZ
Wellbore: OH
Design: PLAN #1 PRELIMINARY



WELL DETAILS: GEE 15N-25HZ											
GL 4859 & KB 17 @ 4876.00ft (ASSUMED)											
+N/-S 0.00		+E/-W 0.00		Northing 1290361.42		Easting 3185826.54		Latitude 40.1285240		Longitude -104.8354390	
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			
1626.11	10.00	270.00	1623.57	0.00	-43.54	2.00	270.00	0.00			
4344.28	10.00	270.00	4300.43	0.00	-515.65	0.00	0.00	0.00			
4844.39	0.00	0.00	4798.00	0.00	-559.19	2.00	180.00	0.00			
6652.44	0.00	0.00	6606.05	0.00	-559.19	0.00	0.00	0.00			
7548.61	89.62	180.00	7179.00	-569.13	-559.19	10.00	180.00	569.13			
16687.35	89.62	180.00	7240.00	-9707.67	-559.19	0.00	0.00	9707.67	PBHL_GEE 15N-25HZ(1 FSL 2085 FEL)		
DESIGN TARGET DETAILS											
Name		TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape		
PBHL		7240.00	-9707.67	-559.19	1280649.85	3185340.12	40.1018750	-104.8374380	Point		
- plan hits target center											
FORMATION TOP DETAILS											
		TVDPath	MDPath	Formation		DipAngle	DipDirInc				
		976.00	976.00	Fox Hills Base			0.00				
		4548.00	4594.07	Sussex			5.01				
		7087.00	7223.22	Sharon Springs			57.08				
		7116.00	7281.21	Niobrara A			62.88				
		7149.00	7366.18	Niobrara B			71.37				

CASING DETAILS				
TVD	MD	Name	Size	
1026.00	1026.00	9 5/8"	9.625	
7179.007548.61		7"	7.000	





Scientific Drilling

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

GEE 17-24HZ PAD

GEE 15N-25HZ

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

12 June, 2014

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GEE 15N-25HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
Site:	GEE 17-24HZ PAD	North Reference:	True
Well:	GEE 15N-25HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

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

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

Well	GEE 15N-25HZ, 800 FNL 1540 FEL			
Well Position	+N/-S	-57.93 ft	Northing:	1,290,361.42 usft
	+E/-W	-15.38 ft	Easting:	3,185,826.54 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level: 4,859.00 ft

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

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

Plan Sections										
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	
1,626.11	10.00	270.00	1,623.57	0.00	-43.54	2.00	2.00	0.00	270.00	
4,344.28	10.00	270.00	4,300.43	0.00	-515.65	0.00	0.00	0.00	0.00	
4,844.39	0.00	0.00	4,798.00	0.00	-559.19	2.00	-2.00	0.00	180.00	
6,652.44	0.00	0.00	6,606.05	0.00	-559.19	0.00	0.00	0.00	0.00	
7,548.61	89.62	180.00	7,179.00	-569.13	-559.19	10.00	10.00	20.09	180.00	
16,687.35	89.62	180.00	7,240.00	-9,707.67	-559.19	0.00	0.00	0.00	0.00	PBHL_GEE 15N-25H

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GEE 15N-25HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
Site:	GEE 17-24HZ PAD	North Reference:	True
Well:	GEE 15N-25HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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
Fox Hills Base									
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
9 5/8"									
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
Start Build 2.00									
1,200.00	1.48	270.00	1,199.99	0.00	-0.96	0.00	2.00	2.00	0.00
1,300.00	3.48	270.00	1,299.89	0.00	-5.28	0.00	2.00	2.00	0.00
1,400.00	5.48	270.00	1,399.58	0.00	-13.09	0.00	2.00	2.00	0.00
1,500.00	7.48	270.00	1,498.94	0.00	-24.38	0.00	2.00	2.00	0.00
1,600.00	9.48	270.00	1,597.84	0.00	-39.12	0.00	2.00	2.00	0.00
1,626.11	10.00	270.00	1,623.57	0.00	-43.54	0.00	2.00	2.00	0.00
Start 2718.16 hold at 1626.11 MD									
1,700.00	10.00	270.00	1,696.34	0.00	-56.38	0.00	0.00	0.00	0.00
1,800.00	10.00	270.00	1,794.82	0.00	-73.74	0.00	0.00	0.00	0.00
1,900.00	10.00	270.00	1,893.30	0.00	-91.11	0.00	0.00	0.00	0.00
2,000.00	10.00	270.00	1,991.78	0.00	-108.48	0.00	0.00	0.00	0.00
2,100.00	10.00	270.00	2,090.26	0.00	-125.85	0.00	0.00	0.00	0.00
2,200.00	10.00	270.00	2,188.74	0.00	-143.22	0.00	0.00	0.00	0.00
2,300.00	10.00	270.00	2,287.22	0.00	-160.59	0.00	0.00	0.00	0.00
2,400.00	10.00	270.00	2,385.70	0.00	-177.96	0.00	0.00	0.00	0.00
2,500.00	10.00	270.00	2,484.18	0.00	-195.32	0.00	0.00	0.00	0.00
2,600.00	10.00	270.00	2,582.66	0.00	-212.69	0.00	0.00	0.00	0.00
2,700.00	10.00	270.00	2,681.14	0.00	-230.06	0.00	0.00	0.00	0.00
2,800.00	10.00	270.00	2,779.62	0.00	-247.43	0.00	0.00	0.00	0.00
2,900.00	10.00	270.00	2,878.10	0.00	-264.80	0.00	0.00	0.00	0.00
3,000.00	10.00	270.00	2,976.58	0.00	-282.17	0.00	0.00	0.00	0.00
3,100.00	10.00	270.00	3,075.06	0.00	-299.54	0.00	0.00	0.00	0.00
3,200.00	10.00	270.00	3,173.54	0.00	-316.90	0.00	0.00	0.00	0.00
3,300.00	10.00	270.00	3,272.02	0.00	-334.27	0.00	0.00	0.00	0.00
3,400.00	10.00	270.00	3,370.50	0.00	-351.64	0.00	0.00	0.00	0.00
3,500.00	10.00	270.00	3,468.98	0.00	-369.01	0.00	0.00	0.00	0.00
3,600.00	10.00	270.00	3,567.46	0.00	-386.38	0.00	0.00	0.00	0.00
3,700.00	10.00	270.00	3,665.94	0.00	-403.75	0.00	0.00	0.00	0.00
3,800.00	10.00	270.00	3,764.42	0.00	-421.12	0.00	0.00	0.00	0.00
3,900.00	10.00	270.00	3,862.90	0.00	-438.49	0.00	0.00	0.00	0.00
4,000.00	10.00	270.00	3,961.38	0.00	-455.85	0.00	0.00	0.00	0.00
4,100.00	10.00	270.00	4,059.86	0.00	-473.22	0.00	0.00	0.00	0.00
4,200.00	10.00	270.00	4,158.34	0.00	-490.59	0.00	0.00	0.00	0.00
4,300.00	10.00	270.00	4,256.82	0.00	-507.96	0.00	0.00	0.00	0.00
4,344.28	10.00	270.00	4,300.43	0.00	-515.65	0.00	0.00	0.00	0.00
Start Drop -2.00									

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GEE 15N-25HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
Site:	GEE 17-24HZ PAD	North Reference:	True
Well:	GEE 15N-25HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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)
4,400.00	8.89	270.00	4,355.39	0.00	-524.79	0.00	2.00	-2.00	0.00
4,500.00	6.89	270.00	4,454.44	0.00	-538.52	0.00	2.00	-2.00	0.00
4,594.07	5.01	270.00	4,548.00	0.00	-548.26	0.00	2.00	-2.00	0.00
Sussex									
4,600.00	4.89	270.00	4,553.91	0.00	-548.77	0.00	2.00	-2.00	0.00
4,700.00	2.89	270.00	4,653.68	0.00	-555.55	0.00	2.00	-2.00	0.00
4,800.00	0.89	270.00	4,753.62	0.00	-558.85	0.00	2.00	-2.00	0.00
4,844.39	0.00	0.00	4,798.00	0.00	-559.19	0.00	2.00	-2.00	0.00
Start 1808.05 hold at 4844.39 MD									
4,900.00	0.00	0.00	4,853.61	0.00	-559.19	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	4,953.61	0.00	-559.19	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,053.61	0.00	-559.19	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,153.61	0.00	-559.19	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,253.61	0.00	-559.19	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,353.61	0.00	-559.19	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,453.61	0.00	-559.19	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,553.61	0.00	-559.19	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,653.61	0.00	-559.19	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,753.61	0.00	-559.19	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,853.61	0.00	-559.19	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,953.61	0.00	-559.19	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,053.61	0.00	-559.19	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,153.61	0.00	-559.19	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,253.61	0.00	-559.19	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,353.61	0.00	-559.19	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,453.61	0.00	-559.19	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,553.61	0.00	-559.19	0.00	0.00	0.00	0.00
6,652.44	0.00	0.00	6,606.05	0.00	-559.19	0.00	0.00	0.00	0.00
Start DLS 10.00 TFO 180.00									
6,700.00	4.76	180.00	6,653.56	-1.97	-559.19	1.97	10.00	10.00	0.00
6,800.00	14.76	180.00	6,751.99	-18.90	-559.19	18.90	10.00	10.00	0.00
6,900.00	24.76	180.00	6,845.98	-52.66	-559.19	52.66	10.00	10.00	0.00
7,000.00	34.76	180.00	6,932.69	-102.23	-559.19	102.23	10.00	10.00	0.00
7,100.00	44.76	180.00	7,009.47	-166.10	-559.19	166.10	10.00	10.00	0.00
7,200.00	54.76	180.00	7,073.99	-242.33	-559.19	242.33	10.00	10.00	0.00
7,223.22	57.08	180.00	7,087.00	-261.56	-559.19	261.56	10.00	10.00	0.00
Sharon Springs									
7,281.21	62.88	180.00	7,116.00	-311.75	-559.19	311.75	10.00	10.00	0.00
Niobrara A									
7,300.00	64.76	180.00	7,124.29	-328.61	-559.19	328.61	10.00	10.00	0.00
7,366.18	71.37	180.00	7,149.00	-389.97	-559.19	389.97	10.00	10.00	0.00
Niobrara B									
7,400.00	74.76	180.00	7,158.85	-422.31	-559.19	422.31	10.00	10.00	0.00
7,500.00	84.76	180.00	7,176.61	-520.60	-559.19	520.60	10.00	10.00	0.00
7,548.61	89.62	180.00	7,179.00	-569.13	-559.19	569.13	10.00	10.00	0.00
Start 9138.74 hold at 7548.61 MD - 7"(1369 NL 2069 FEL)									
7,600.00	89.62	180.00	7,179.34	-620.52	-559.19	620.52	0.00	0.00	0.00
7,700.00	89.62	180.00	7,180.01	-720.52	-559.19	720.52	0.00	0.00	0.00
7,800.00	89.62	180.00	7,180.67	-820.52	-559.19	820.52	0.00	0.00	0.00
7,900.00	89.62	180.00	7,181.34	-920.51	-559.19	920.51	0.00	0.00	0.00
8,000.00	89.62	180.00	7,182.01	-1,020.51	-559.19	1,020.51	0.00	0.00	0.00
8,100.00	89.62	180.00	7,182.68	-1,120.51	-559.19	1,120.51	0.00	0.00	0.00
8,200.00	89.62	180.00	7,183.34	-1,220.51	-559.19	1,220.51	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GEE 15N-25HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
Site:	GEE 17-24HZ PAD	North Reference:	True
Well:	GEE 15N-25HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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)	
8,300.00	89.62	180.00	7,184.01	-1,320.51	-559.19	1,320.51	0.00	0.00	0.00	
8,400.00	89.62	180.00	7,184.68	-1,420.50	-559.19	1,420.50	0.00	0.00	0.00	
8,500.00	89.62	180.00	7,185.35	-1,520.50	-559.19	1,520.50	0.00	0.00	0.00	
8,600.00	89.62	180.00	7,186.01	-1,620.50	-559.19	1,620.50	0.00	0.00	0.00	
8,700.00	89.62	180.00	7,186.68	-1,720.50	-559.19	1,720.50	0.00	0.00	0.00	
8,800.00	89.62	180.00	7,187.35	-1,820.49	-559.19	1,820.49	0.00	0.00	0.00	
8,900.00	89.62	180.00	7,188.02	-1,920.49	-559.19	1,920.49	0.00	0.00	0.00	
9,000.00	89.62	180.00	7,188.68	-2,020.49	-559.19	2,020.49	0.00	0.00	0.00	
9,100.00	89.62	180.00	7,189.35	-2,120.49	-559.19	2,120.49	0.00	0.00	0.00	
9,200.00	89.62	180.00	7,190.02	-2,220.49	-559.19	2,220.49	0.00	0.00	0.00	
9,300.00	89.62	180.00	7,190.69	-2,320.48	-559.19	2,320.48	0.00	0.00	0.00	
9,400.00	89.62	180.00	7,191.35	-2,420.48	-559.19	2,420.48	0.00	0.00	0.00	
9,500.00	89.62	180.00	7,192.02	-2,520.48	-559.19	2,520.48	0.00	0.00	0.00	
9,600.00	89.62	180.00	7,192.69	-2,620.48	-559.19	2,620.48	0.00	0.00	0.00	
9,700.00	89.62	180.00	7,193.36	-2,720.47	-559.19	2,720.47	0.00	0.00	0.00	
9,800.00	89.62	180.00	7,194.02	-2,820.47	-559.19	2,820.47	0.00	0.00	0.00	
9,900.00	89.62	180.00	7,194.69	-2,920.47	-559.19	2,920.47	0.00	0.00	0.00	
10,000.00	89.62	180.00	7,195.36	-3,020.47	-559.19	3,020.47	0.00	0.00	0.00	
10,100.00	89.62	180.00	7,196.03	-3,120.47	-559.19	3,120.47	0.00	0.00	0.00	
10,200.00	89.62	180.00	7,196.69	-3,220.46	-559.19	3,220.46	0.00	0.00	0.00	
10,300.00	89.62	180.00	7,197.36	-3,320.46	-559.19	3,320.46	0.00	0.00	0.00	
10,400.00	89.62	180.00	7,198.03	-3,420.46	-559.19	3,420.46	0.00	0.00	0.00	
10,500.00	89.62	180.00	7,198.70	-3,520.46	-559.19	3,520.46	0.00	0.00	0.00	
10,600.00	89.62	180.00	7,199.36	-3,620.45	-559.19	3,620.45	0.00	0.00	0.00	
10,700.00	89.62	180.00	7,200.03	-3,720.45	-559.19	3,720.45	0.00	0.00	0.00	
10,800.00	89.62	180.00	7,200.70	-3,820.45	-559.19	3,820.45	0.00	0.00	0.00	
10,900.00	89.62	180.00	7,201.37	-3,920.45	-559.19	3,920.45	0.00	0.00	0.00	
11,000.00	89.62	180.00	7,202.03	-4,020.45	-559.19	4,020.45	0.00	0.00	0.00	
11,100.00	89.62	180.00	7,202.70	-4,120.44	-559.19	4,120.44	0.00	0.00	0.00	
11,200.00	89.62	180.00	7,203.37	-4,220.44	-559.19	4,220.44	0.00	0.00	0.00	
11,300.00	89.62	180.00	7,204.04	-4,320.44	-559.19	4,320.44	0.00	0.00	0.00	
11,400.00	89.62	180.00	7,204.70	-4,420.44	-559.19	4,420.44	0.00	0.00	0.00	
11,500.00	89.62	180.00	7,205.37	-4,520.43	-559.19	4,520.43	0.00	0.00	0.00	
11,600.00	89.62	180.00	7,206.04	-4,620.43	-559.19	4,620.43	0.00	0.00	0.00	
11,700.00	89.62	180.00	7,206.71	-4,720.43	-559.19	4,720.43	0.00	0.00	0.00	
11,800.00	89.62	180.00	7,207.38	-4,820.43	-559.19	4,820.43	0.00	0.00	0.00	
11,900.00	89.62	180.00	7,208.04	-4,920.43	-559.19	4,920.43	0.00	0.00	0.00	
12,000.00	89.62	180.00	7,208.71	-5,020.42	-559.19	5,020.42	0.00	0.00	0.00	
12,100.00	89.62	180.00	7,209.38	-5,120.42	-559.19	5,120.42	0.00	0.00	0.00	
12,200.00	89.62	180.00	7,210.05	-5,220.42	-559.19	5,220.42	0.00	0.00	0.00	
12,300.00	89.62	180.00	7,210.71	-5,320.42	-559.19	5,320.42	0.00	0.00	0.00	
12,400.00	89.62	180.00	7,211.38	-5,420.41	-559.19	5,420.41	0.00	0.00	0.00	
12,500.00	89.62	180.00	7,212.05	-5,520.41	-559.19	5,520.41	0.00	0.00	0.00	
12,600.00	89.62	180.00	7,212.72	-5,620.41	-559.19	5,620.41	0.00	0.00	0.00	
12,700.00	89.62	180.00	7,213.38	-5,720.41	-559.19	5,720.41	0.00	0.00	0.00	
12,800.00	89.62	180.00	7,214.05	-5,820.41	-559.19	5,820.41	0.00	0.00	0.00	
12,900.00	89.62	180.00	7,214.72	-5,920.40	-559.19	5,920.40	0.00	0.00	0.00	
13,000.00	89.62	180.00	7,215.39	-6,020.40	-559.19	6,020.40	0.00	0.00	0.00	
13,100.00	89.62	180.00	7,216.05	-6,120.40	-559.19	6,120.40	0.00	0.00	0.00	
13,200.00	89.62	180.00	7,216.72	-6,220.40	-559.19	6,220.40	0.00	0.00	0.00	
13,300.00	89.62	180.00	7,217.39	-6,320.39	-559.19	6,320.39	0.00	0.00	0.00	
13,400.00	89.62	180.00	7,218.06	-6,420.39	-559.19	6,420.39	0.00	0.00	0.00	
13,500.00	89.62	180.00	7,218.72	-6,520.39	-559.19	6,520.39	0.00	0.00	0.00	
13,600.00	89.62	180.00	7,219.39	-6,620.39	-559.19	6,620.39	0.00	0.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GEE 15N-25HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
Site:	GEE 17-24HZ PAD	North Reference:	True
Well:	GEE 15N-25HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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)
13,700.00	89.62	180.00	7,220.06	-6,720.38	-559.19	6,720.38	0.00	0.00	0.00
13,800.00	89.62	180.00	7,220.73	-6,820.38	-559.19	6,820.38	0.00	0.00	0.00
13,900.00	89.62	180.00	7,221.39	-6,920.38	-559.19	6,920.38	0.00	0.00	0.00
14,000.00	89.62	180.00	7,222.06	-7,020.38	-559.19	7,020.38	0.00	0.00	0.00
14,100.00	89.62	180.00	7,222.73	-7,120.38	-559.19	7,120.38	0.00	0.00	0.00
14,200.00	89.62	180.00	7,223.40	-7,220.37	-559.19	7,220.37	0.00	0.00	0.00
14,300.00	89.62	180.00	7,224.06	-7,320.37	-559.19	7,320.37	0.00	0.00	0.00
14,400.00	89.62	180.00	7,224.73	-7,420.37	-559.19	7,420.37	0.00	0.00	0.00
14,500.00	89.62	180.00	7,225.40	-7,520.37	-559.19	7,520.37	0.00	0.00	0.00
14,600.00	89.62	180.00	7,226.07	-7,620.36	-559.19	7,620.36	0.00	0.00	0.00
14,700.00	89.62	180.00	7,226.73	-7,720.36	-559.19	7,720.36	0.00	0.00	0.00
14,800.00	89.62	180.00	7,227.40	-7,820.36	-559.19	7,820.36	0.00	0.00	0.00
14,900.00	89.62	180.00	7,228.07	-7,920.36	-559.19	7,920.36	0.00	0.00	0.00
15,000.00	89.62	180.00	7,228.74	-8,020.36	-559.19	8,020.36	0.00	0.00	0.00
15,100.00	89.62	180.00	7,229.40	-8,120.35	-559.19	8,120.35	0.00	0.00	0.00
15,200.00	89.62	180.00	7,230.07	-8,220.35	-559.19	8,220.35	0.00	0.00	0.00
15,300.00	89.62	180.00	7,230.74	-8,320.35	-559.19	8,320.35	0.00	0.00	0.00
15,400.00	89.62	180.00	7,231.41	-8,420.35	-559.19	8,420.35	0.00	0.00	0.00
15,500.00	89.62	180.00	7,232.07	-8,520.34	-559.19	8,520.34	0.00	0.00	0.00
15,600.00	89.62	180.00	7,232.74	-8,620.34	-559.19	8,620.34	0.00	0.00	0.00
15,700.00	89.62	180.00	7,233.41	-8,720.34	-559.19	8,720.34	0.00	0.00	0.00
15,800.00	89.62	180.00	7,234.08	-8,820.34	-559.19	8,820.34	0.00	0.00	0.00
15,900.00	89.62	180.00	7,234.74	-8,920.34	-559.19	8,920.34	0.00	0.00	0.00
16,000.00	89.62	180.00	7,235.41	-9,020.33	-559.19	9,020.33	0.00	0.00	0.00
16,100.00	89.62	180.00	7,236.08	-9,120.33	-559.19	9,120.33	0.00	0.00	0.00
16,200.00	89.62	180.00	7,236.75	-9,220.33	-559.19	9,220.33	0.00	0.00	0.00
16,300.00	89.62	180.00	7,237.41	-9,320.33	-559.19	9,320.33	0.00	0.00	0.00
16,400.00	89.62	180.00	7,238.08	-9,420.32	-559.19	9,420.32	0.00	0.00	0.00
16,500.00	89.62	180.00	7,238.75	-9,520.32	-559.19	9,520.32	0.00	0.00	0.00
16,600.00	89.62	180.00	7,239.42	-9,620.32	-559.19	9,620.32	0.00	0.00	0.00
16,687.35	89.62	180.00	7,240.00	-9,707.67	-559.19	9,707.67	0.00	0.00	0.00
TD at 16687.35 - PBHL_GEE 15N-25HZ(1 FSL 2085 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 15N-25HZ('	0.00	0.00	7,240.00	-9,707.67	-559.19	1,280,649.85	3,185,340.12	40.1018750	-104.8374380
- 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	
7,548.61	7,179.00	7"(1369 NL 2069 FEL)	7.000	8.750	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well GEE 15N-25HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4859 & KB 17 @ 4876.00ft (ASSUMED)
Site:	GEE 17-24HZ PAD	North Reference:	True
Well:	GEE 15N-25HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
976.00	976.00	Fox Hills Base			
4,594.07	4,548.00	Sussex			
7,223.22	7,087.00	Sharon Springs			
7,281.21	7,116.00	Niobrara A			
7,366.18	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
1,626.11	1,623.57	0.00	-43.54	Start 2718.16 hold at 1626.11 MD
4,344.28	4,300.43	0.00	-515.65	Start Drop -2.00
4,844.39	4,798.00	0.00	-559.19	Start 1808.05 hold at 4844.39 MD
6,652.44	6,606.05	0.00	-559.19	Start DLS 10.00 TFO 180.00
7,548.61	7,179.00	-569.13	-559.19	Start 9138.74 hold at 7548.61 MD
16,687.35	7,240.00	-9,707.67	-559.19	TD at 16687.35