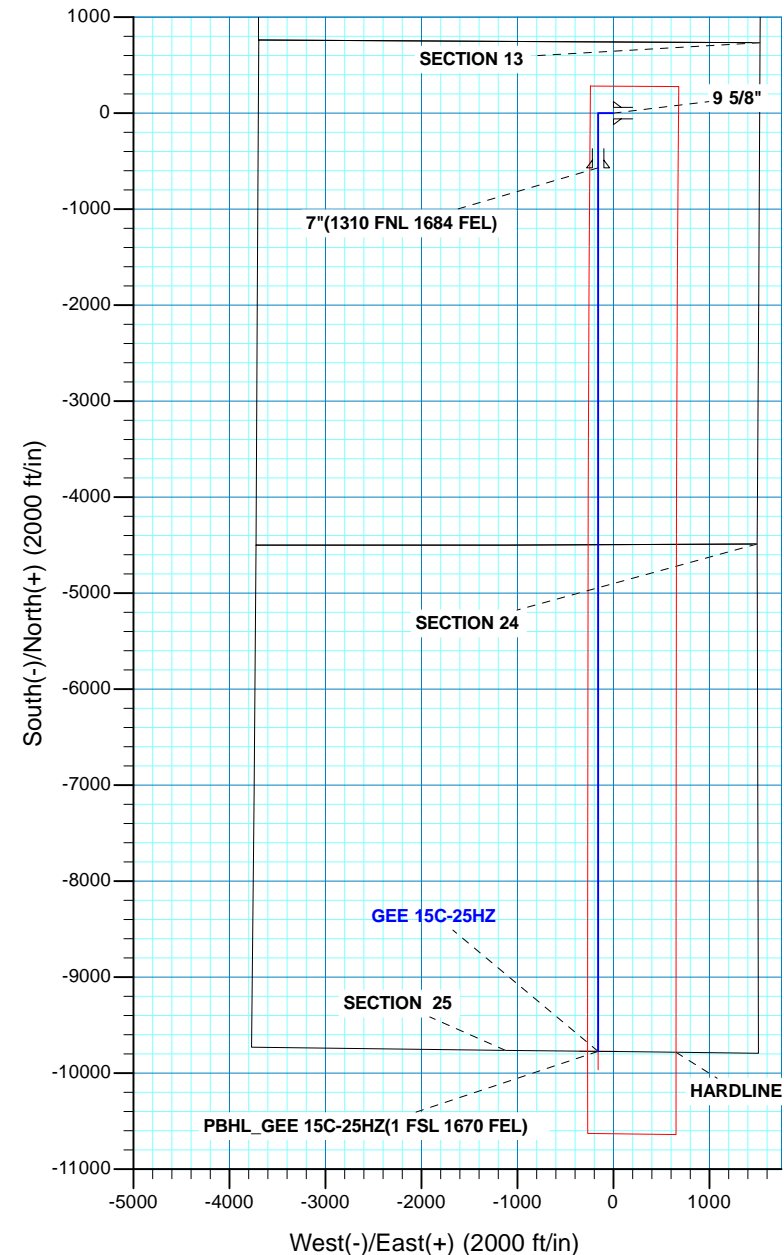
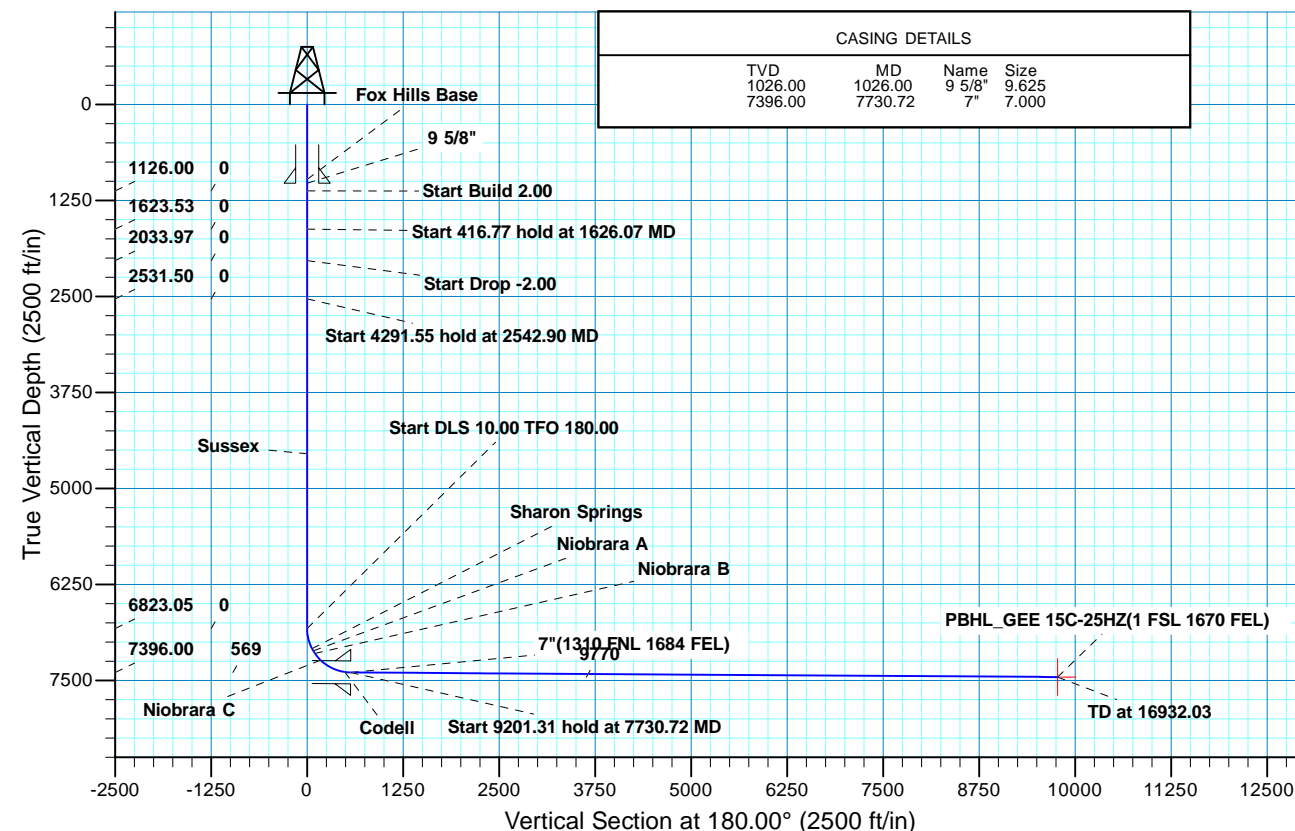




Project: COLORADO NORTHERN ZONE - 83  
Site: GEE 17-24HZ PAD  
Well: GEE 15C-25HZ  
Wellbore: OH  
Design: PLAN #1 PRELIMINARY



WELL DETAILS: GEE 15C-25HZ																			
GL 4859 & KB 17 @ 4876.00ft (ASSUMED)																			
+N/-S 0.00		+E/-W 0.00		Northing 1290419.46		Easting 3185841.48		Latitude 40.1286830		Longitude -104.8353840									
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			
1626.07		10.00		270.00		1623.53		0.00		-43.53		2.00		270.00		0.00			
2042.84		10.00		270.00		2033.97		0.00		-115.92		0.00		0.00		0.00			
2542.90		0.00		0.00		2531.50		0.00		-159.45		2.00		180.00		0.00			
6834.45		0.00		0.00		6823.05		0.00		-159.45		0.00		0.00		0.00			
7730.72		89.63		180.00		7396.00		-569.22		-159.45		10.00		180.00		569.22			
16932.03		89.63		180.00		7456.00		-9770.33		-159.45		0.00		0.00		9770.33		PBHL_GEE 15C-25HZ(1 FSL 1670 FEL)	
DESIGN TARGET DETAILS																			
Name		TVD		+N/-S		+E/-W		Northing		Easting		Latitude		Longitude		Shape			
PBHL		7456.00		-9770.33		-159.45		1280648.22		3185755.27		40.1018620		-104.8359540		Point			
- plan hits target center																			
FORMATION TOP DETAILS																			
		TVDPATH		MDPATH		FORMATION		DIPANGLE		DIPDIRINC									
		976.00		976.00		Fox Hills Base				0.00									
		4548.00		4559.40		Sussex				0.00									
		7087.00		7108.76		Sharon Springs				27.43									
		7116.00		7141.96		Niobrara A				30.75									
		7149.00		7181.18		Niobrara B				34.67									
		7237.00		7297.05		Niobrara C				46.26									
		7371.00		7564.55		Fort Hays				73.01									
		7390.00		7651.41		Codell				81.70									





**Scientific Drilling**

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**GEE 17-24HZ PAD**

**GEE 15C-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 15C-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 15C-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 15C-25HZ, 742 FNL 1525 FEL			
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	1,290,419.45 usft
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	3,185,841.48 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	
1,626.07	10.00	270.00	1,623.53	0.00	-43.53	2.00	2.00	0.00	270.00	
2,042.84	10.00	270.00	2,033.97	0.00	-115.92	0.00	0.00	0.00	0.00	
2,542.90	0.00	0.00	2,531.50	0.00	-159.45	2.00	-2.00	0.00	180.00	
6,834.45	0.00	0.00	6,823.05	0.00	-159.45	0.00	0.00	0.00	0.00	
7,730.72	89.63	180.00	7,396.00	-569.22	-159.45	10.00	10.00	20.08	180.00	
16,932.03	89.63	180.00	7,456.00	-9,770.33	-159.45	0.00	0.00	0.00	0.00	PBHL_GEE 15C-25H

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GEE 15C-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 15C-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	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
1,626.07	10.00	270.00	1,623.53	0.00	-43.53	0.00	2.00	2.00	0.00
<b>Start 416.77 hold at 1626.07 MD</b>									
1,700.00	10.00	270.00	1,696.34	0.00	-56.37	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
2,042.84	10.00	270.00	2,033.97	0.00	-115.92	0.00	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
2,100.00	8.86	270.00	2,090.36	0.00	-125.28	0.00	2.00	-2.00	0.00
2,200.00	6.86	270.00	2,189.41	0.00	-138.95	0.00	2.00	-2.00	0.00
2,300.00	4.86	270.00	2,288.89	0.00	-149.16	0.00	2.00	-2.00	0.00
2,400.00	2.86	270.00	2,388.65	0.00	-155.89	0.00	2.00	-2.00	0.00
2,500.00	0.86	270.00	2,488.60	0.00	-159.13	0.00	2.00	-2.00	0.00
2,542.90	0.00	0.00	2,531.50	0.00	-159.45	0.00	2.00	-2.00	0.00
<b>Start 4291.55 hold at 2542.90 MD</b>									
2,600.00	0.00	0.00	2,588.60	0.00	-159.45	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,688.60	0.00	-159.45	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,788.60	0.00	-159.45	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,888.60	0.00	-159.45	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	2,988.60	0.00	-159.45	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,088.60	0.00	-159.45	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,188.60	0.00	-159.45	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,288.60	0.00	-159.45	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,388.60	0.00	-159.45	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,488.60	0.00	-159.45	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,588.60	0.00	-159.45	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,688.60	0.00	-159.45	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,788.60	0.00	-159.45	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,888.60	0.00	-159.45	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	3,988.60	0.00	-159.45	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 15C-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 15C-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	4,088.60	0.00	-159.45	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,188.60	0.00	-159.45	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,288.60	0.00	-159.45	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,388.60	0.00	-159.45	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,488.60	0.00	-159.45	0.00	0.00	0.00	0.00
4,559.40	0.00	0.00	4,548.00	0.00	-159.45	0.00	0.00	0.00	0.00
<b>Sussex</b>									
4,600.00	0.00	0.00	4,588.60	0.00	-159.45	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,688.60	0.00	-159.45	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,788.60	0.00	-159.45	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,888.60	0.00	-159.45	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	4,988.60	0.00	-159.45	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,088.60	0.00	-159.45	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,188.60	0.00	-159.45	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,288.60	0.00	-159.45	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,388.60	0.00	-159.45	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,488.60	0.00	-159.45	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,588.60	0.00	-159.45	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,688.60	0.00	-159.45	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,788.60	0.00	-159.45	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,888.60	0.00	-159.45	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,988.60	0.00	-159.45	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,088.60	0.00	-159.45	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,188.60	0.00	-159.45	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,288.60	0.00	-159.45	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,388.60	0.00	-159.45	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,488.60	0.00	-159.45	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,588.60	0.00	-159.45	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,688.60	0.00	-159.45	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,788.60	0.00	-159.45	0.00	0.00	0.00	0.00
6,834.45	0.00	0.00	6,823.05	0.00	-159.45	0.00	0.00	0.00	0.00
<b>Start DLS 10.00 TFO 180.00</b>									
6,900.00	6.55	180.00	6,888.45	-3.75	-159.45	3.75	10.00	10.00	0.00
7,000.00	16.55	180.00	6,986.30	-23.75	-159.45	23.75	10.00	10.00	0.00
7,100.00	26.55	180.00	7,079.19	-60.44	-159.45	60.44	10.00	10.00	0.00
7,108.76	27.43	180.00	7,087.00	-64.42	-159.45	64.42	10.00	10.00	0.00
<b>Sharon Springs</b>									
7,141.96	30.75	180.00	7,116.00	-80.55	-159.45	80.55	10.00	10.00	0.00
<b>Niobrara A</b>									
7,181.18	34.67	180.00	7,149.00	-101.75	-159.45	101.75	10.00	10.00	0.00
<b>Niobrara B</b>									
7,200.00	36.55	180.00	7,164.30	-112.71	-159.45	112.71	10.00	10.00	0.00
7,297.05	46.26	180.00	7,237.00	-176.82	-159.45	176.82	10.00	10.00	0.00
<b>Niobrara C</b>									
7,300.00	46.55	180.00	7,239.03	-178.96	-159.45	178.96	10.00	10.00	0.00
7,400.00	56.55	180.00	7,301.13	-257.18	-159.45	257.18	10.00	10.00	0.00
7,500.00	66.55	180.00	7,348.70	-344.99	-159.45	344.99	10.00	10.00	0.00
7,564.55	73.01	180.00	7,371.00	-405.53	-159.45	405.53	10.00	10.00	0.00
<b>Fort Hays</b>									
7,600.00	76.55	180.00	7,380.30	-439.73	-159.45	439.73	10.00	10.00	0.00
7,651.41	81.70	180.00	7,390.00	-490.20	-159.45	490.20	10.00	10.00	0.00
<b>Codell</b>									
7,700.00	86.55	180.00	7,394.97	-538.52	-159.45	538.52	10.00	10.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GEE 15C-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 15C-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)
7,730.72	89.63	180.00	7,396.00	-569.22	-159.45	569.22	10.00	10.00	0.00
<b>Start 9201.31 hold at 7730.72 MD - 7"(1310 FNL 1684 FEL)</b>									
7,800.00	89.63	180.00	7,396.45	-638.50	-159.45	638.50	0.00	0.00	0.00
7,900.00	89.63	180.00	7,397.10	-738.50	-159.45	738.50	0.00	0.00	0.00
8,000.00	89.63	180.00	7,397.75	-838.50	-159.45	838.50	0.00	0.00	0.00
8,100.00	89.63	180.00	7,398.40	-938.50	-159.45	938.50	0.00	0.00	0.00
8,200.00	89.63	180.00	7,399.06	-1,038.49	-159.45	1,038.49	0.00	0.00	0.00
8,300.00	89.63	180.00	7,399.71	-1,138.49	-159.45	1,138.49	0.00	0.00	0.00
8,400.00	89.63	180.00	7,400.36	-1,238.49	-159.45	1,238.49	0.00	0.00	0.00
8,500.00	89.63	180.00	7,401.01	-1,338.49	-159.45	1,338.49	0.00	0.00	0.00
8,600.00	89.63	180.00	7,401.66	-1,438.48	-159.45	1,438.48	0.00	0.00	0.00
8,700.00	89.63	180.00	7,402.32	-1,538.48	-159.45	1,538.48	0.00	0.00	0.00
8,800.00	89.63	180.00	7,402.97	-1,638.48	-159.45	1,638.48	0.00	0.00	0.00
8,900.00	89.63	180.00	7,403.62	-1,738.48	-159.45	1,738.48	0.00	0.00	0.00
9,000.00	89.63	180.00	7,404.27	-1,838.48	-159.45	1,838.48	0.00	0.00	0.00
9,100.00	89.63	180.00	7,404.93	-1,938.47	-159.45	1,938.47	0.00	0.00	0.00
9,200.00	89.63	180.00	7,405.58	-2,038.47	-159.45	2,038.47	0.00	0.00	0.00
9,300.00	89.63	180.00	7,406.23	-2,138.47	-159.45	2,138.47	0.00	0.00	0.00
9,400.00	89.63	180.00	7,406.88	-2,238.47	-159.45	2,238.47	0.00	0.00	0.00
9,500.00	89.63	180.00	7,407.53	-2,338.47	-159.45	2,338.47	0.00	0.00	0.00
9,600.00	89.63	180.00	7,408.19	-2,438.46	-159.45	2,438.46	0.00	0.00	0.00
9,700.00	89.63	180.00	7,408.84	-2,538.46	-159.45	2,538.46	0.00	0.00	0.00
9,800.00	89.63	180.00	7,409.49	-2,638.46	-159.45	2,638.46	0.00	0.00	0.00
9,900.00	89.63	180.00	7,410.14	-2,738.46	-159.45	2,738.46	0.00	0.00	0.00
10,000.00	89.63	180.00	7,410.79	-2,838.45	-159.45	2,838.45	0.00	0.00	0.00
10,100.00	89.63	180.00	7,411.45	-2,938.45	-159.45	2,938.45	0.00	0.00	0.00
10,200.00	89.63	180.00	7,412.10	-3,038.45	-159.45	3,038.45	0.00	0.00	0.00
10,300.00	89.63	180.00	7,412.75	-3,138.45	-159.45	3,138.45	0.00	0.00	0.00
10,400.00	89.63	180.00	7,413.40	-3,238.45	-159.45	3,238.45	0.00	0.00	0.00
10,500.00	89.63	180.00	7,414.06	-3,338.44	-159.45	3,338.44	0.00	0.00	0.00
10,600.00	89.63	180.00	7,414.71	-3,438.44	-159.45	3,438.44	0.00	0.00	0.00
10,700.00	89.63	180.00	7,415.36	-3,538.44	-159.45	3,538.44	0.00	0.00	0.00
10,800.00	89.63	180.00	7,416.01	-3,638.44	-159.45	3,638.44	0.00	0.00	0.00
10,900.00	89.63	180.00	7,416.66	-3,738.44	-159.45	3,738.44	0.00	0.00	0.00
11,000.00	89.63	180.00	7,417.32	-3,838.43	-159.45	3,838.43	0.00	0.00	0.00
11,100.00	89.63	180.00	7,417.97	-3,938.43	-159.45	3,938.43	0.00	0.00	0.00
11,200.00	89.63	180.00	7,418.62	-4,038.43	-159.45	4,038.43	0.00	0.00	0.00
11,300.00	89.63	180.00	7,419.27	-4,138.43	-159.45	4,138.43	0.00	0.00	0.00
11,400.00	89.63	180.00	7,419.92	-4,238.43	-159.45	4,238.43	0.00	0.00	0.00
11,500.00	89.63	180.00	7,420.58	-4,338.42	-159.45	4,338.42	0.00	0.00	0.00
11,600.00	89.63	180.00	7,421.23	-4,438.42	-159.45	4,438.42	0.00	0.00	0.00
11,700.00	89.63	180.00	7,421.88	-4,538.42	-159.45	4,538.42	0.00	0.00	0.00
11,800.00	89.63	180.00	7,422.53	-4,638.42	-159.45	4,638.42	0.00	0.00	0.00
11,900.00	89.63	180.00	7,423.18	-4,738.41	-159.45	4,738.41	0.00	0.00	0.00
12,000.00	89.63	180.00	7,423.84	-4,838.41	-159.45	4,838.41	0.00	0.00	0.00
12,100.00	89.63	180.00	7,424.49	-4,938.41	-159.45	4,938.41	0.00	0.00	0.00
12,200.00	89.63	180.00	7,425.14	-5,038.41	-159.45	5,038.41	0.00	0.00	0.00
12,300.00	89.63	180.00	7,425.79	-5,138.41	-159.45	5,138.41	0.00	0.00	0.00
12,400.00	89.63	180.00	7,426.45	-5,238.40	-159.45	5,238.40	0.00	0.00	0.00
12,500.00	89.63	180.00	7,427.10	-5,338.40	-159.45	5,338.40	0.00	0.00	0.00
12,600.00	89.63	180.00	7,427.75	-5,438.40	-159.45	5,438.40	0.00	0.00	0.00
12,700.00	89.63	180.00	7,428.40	-5,538.40	-159.45	5,538.40	0.00	0.00	0.00
12,800.00	89.63	180.00	7,429.05	-5,638.40	-159.45	5,638.40	0.00	0.00	0.00
12,900.00	89.63	180.00	7,429.71	-5,738.39	-159.45	5,738.39	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GEE 15C-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 15C-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)
13,000.00	89.63	180.00	7,430.36	-5,838.39	-159.45	5,838.39	0.00	0.00	0.00
13,100.00	89.63	180.00	7,431.01	-5,938.39	-159.45	5,938.39	0.00	0.00	0.00
13,200.00	89.63	180.00	7,431.66	-6,038.39	-159.45	6,038.39	0.00	0.00	0.00
13,300.00	89.63	180.00	7,432.31	-6,138.38	-159.45	6,138.38	0.00	0.00	0.00
13,400.00	89.63	180.00	7,432.97	-6,238.38	-159.45	6,238.38	0.00	0.00	0.00
13,500.00	89.63	180.00	7,433.62	-6,338.38	-159.45	6,338.38	0.00	0.00	0.00
13,600.00	89.63	180.00	7,434.27	-6,438.38	-159.45	6,438.38	0.00	0.00	0.00
13,700.00	89.63	180.00	7,434.92	-6,538.38	-159.45	6,538.38	0.00	0.00	0.00
13,800.00	89.63	180.00	7,435.58	-6,638.37	-159.45	6,638.37	0.00	0.00	0.00
13,900.00	89.63	180.00	7,436.23	-6,738.37	-159.45	6,738.37	0.00	0.00	0.00
14,000.00	89.63	180.00	7,436.88	-6,838.37	-159.45	6,838.37	0.00	0.00	0.00
14,100.00	89.63	180.00	7,437.53	-6,938.37	-159.45	6,938.37	0.00	0.00	0.00
14,200.00	89.63	180.00	7,438.18	-7,038.37	-159.45	7,038.37	0.00	0.00	0.00
14,300.00	89.63	180.00	7,438.84	-7,138.36	-159.45	7,138.36	0.00	0.00	0.00
14,400.00	89.63	180.00	7,439.49	-7,238.36	-159.45	7,238.36	0.00	0.00	0.00
14,500.00	89.63	180.00	7,440.14	-7,338.36	-159.45	7,338.36	0.00	0.00	0.00
14,600.00	89.63	180.00	7,440.79	-7,438.36	-159.45	7,438.36	0.00	0.00	0.00
14,700.00	89.63	180.00	7,441.44	-7,538.36	-159.45	7,538.36	0.00	0.00	0.00
14,800.00	89.63	180.00	7,442.10	-7,638.35	-159.45	7,638.35	0.00	0.00	0.00
14,900.00	89.63	180.00	7,442.75	-7,738.35	-159.45	7,738.35	0.00	0.00	0.00
15,000.00	89.63	180.00	7,443.40	-7,838.35	-159.45	7,838.35	0.00	0.00	0.00
15,100.00	89.63	180.00	7,444.05	-7,938.35	-159.45	7,938.35	0.00	0.00	0.00
15,200.00	89.63	180.00	7,444.71	-8,038.34	-159.45	8,038.34	0.00	0.00	0.00
15,300.00	89.63	180.00	7,445.36	-8,138.34	-159.45	8,138.34	0.00	0.00	0.00
15,400.00	89.63	180.00	7,446.01	-8,238.34	-159.45	8,238.34	0.00	0.00	0.00
15,500.00	89.63	180.00	7,446.66	-8,338.34	-159.45	8,338.34	0.00	0.00	0.00
15,600.00	89.63	180.00	7,447.31	-8,438.34	-159.45	8,438.34	0.00	0.00	0.00
15,700.00	89.63	180.00	7,447.97	-8,538.33	-159.45	8,538.33	0.00	0.00	0.00
15,800.00	89.63	180.00	7,448.62	-8,638.33	-159.45	8,638.33	0.00	0.00	0.00
15,900.00	89.63	180.00	7,449.27	-8,738.33	-159.45	8,738.33	0.00	0.00	0.00
16,000.00	89.63	180.00	7,449.92	-8,838.33	-159.45	8,838.33	0.00	0.00	0.00
16,100.00	89.63	180.00	7,450.57	-8,938.33	-159.45	8,938.33	0.00	0.00	0.00
16,200.00	89.63	180.00	7,451.23	-9,038.32	-159.45	9,038.32	0.00	0.00	0.00
16,300.00	89.63	180.00	7,451.88	-9,138.32	-159.45	9,138.32	0.00	0.00	0.00
16,400.00	89.63	180.00	7,452.53	-9,238.32	-159.45	9,238.32	0.00	0.00	0.00
16,500.00	89.63	180.00	7,453.18	-9,338.32	-159.45	9,338.32	0.00	0.00	0.00
16,600.00	89.63	180.00	7,453.83	-9,438.31	-159.45	9,438.31	0.00	0.00	0.00
16,700.00	89.63	180.00	7,454.49	-9,538.31	-159.45	9,538.31	0.00	0.00	0.00
16,800.00	89.63	180.00	7,455.14	-9,638.31	-159.45	9,638.31	0.00	0.00	0.00
16,900.00	89.63	180.00	7,455.79	-9,738.31	-159.45	9,738.31	0.00	0.00	0.00
16,932.03	89.63	180.00	7,456.00	-9,770.33	-159.45	9,770.33	0.00	0.00	0.00
TD at 16932.03 - PBHL_GEE 15C-25HZ(1 FSL 1670 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 15C-25HZ('	0.00	0.00	7,456.00	-9,770.33	-159.45	1,280,648.22	3,185,755.27	40.1018620	-104.8359540
- plan hits target center									
- Point									

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GEE 15C-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 15C-25HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

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	
7,730.72	7,396.00	7"(1310 FNL 1684 FEL)	7.000	8.750	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
976.00	976.00	Fox Hills Base				
4,559.40	4,548.00	Sussex				
7,108.76	7,087.00	Sharon Springs				
7,141.96	7,116.00	Niobrara A				
7,181.18	7,149.00	Niobrara B				
7,297.05	7,237.00	Niobrara C				
7,564.55	7,371.00	Fort Hays				
7,651.41	7,390.00	Codell				

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	
1,626.07	1,623.53	0.00	-43.53	Start 416.77 hold at 1626.07 MD	
2,042.84	2,033.97	0.00	-115.92	Start Drop -2.00	
2,542.90	2,531.50	0.00	-159.45	Start 4291.55 hold at 2542.90 MD	
6,834.45	6,823.05	0.00	-159.45	Start DLS 10.00 TFO 180.00	
7,730.72	7,396.00	-569.22	-159.45	Start 9201.31 hold at 7730.72 MD	
16,932.03	7,456.00	-9,770.33	-159.45	TD at 16932.03	