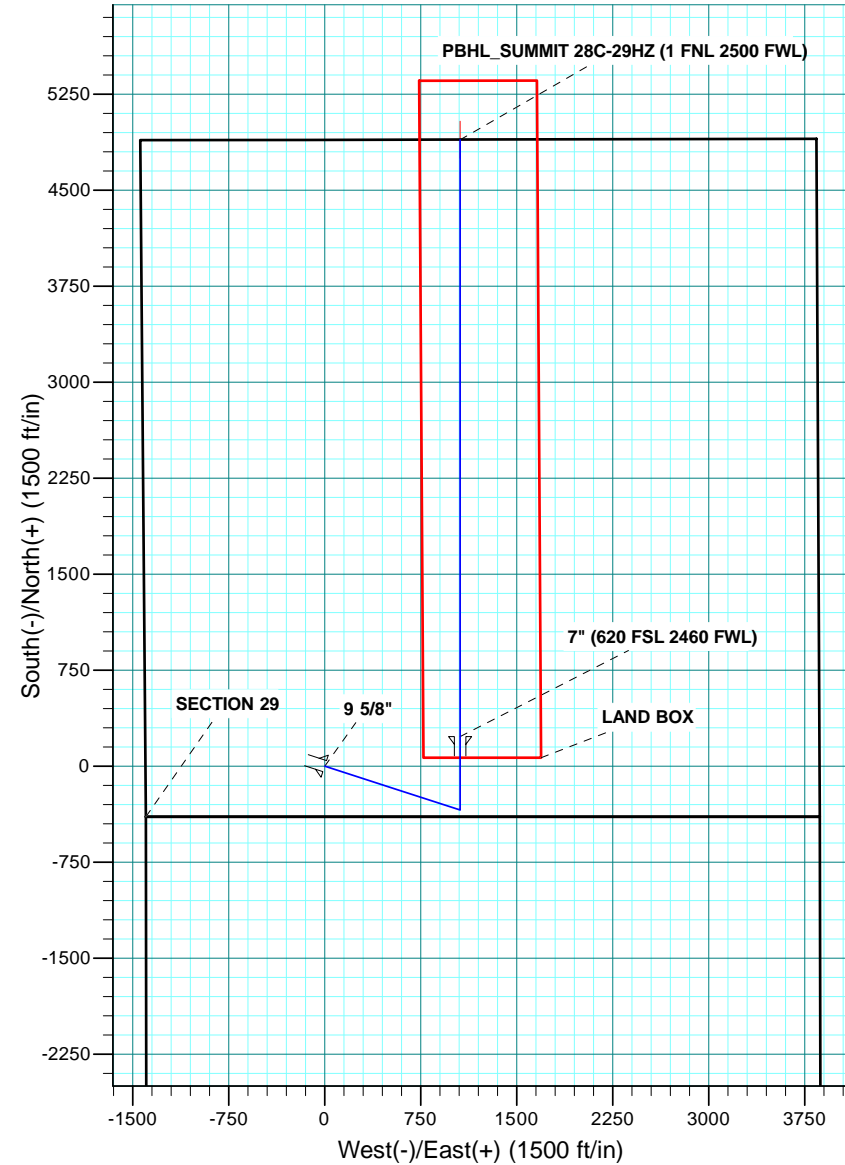
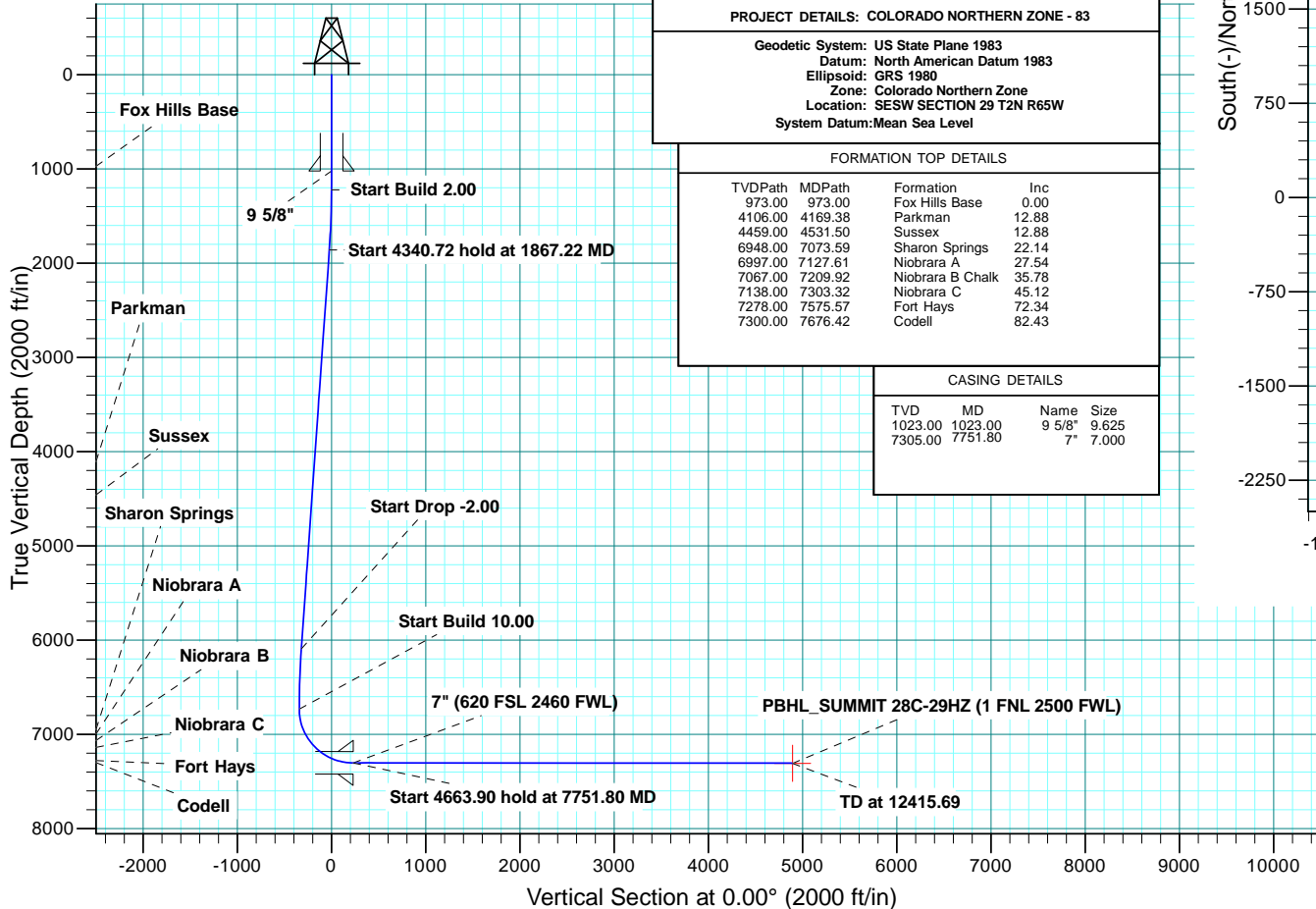


WELL DETAILS: SUMMIT 28C-29HZ										
GL 4938 & KB 17 @ 4955.00ft (ASSUMED)										
	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
	0.00	0.00	1281512.82	3225978.31	40.1033190	-104.6921420				
SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1223.00	0.00	0.00	1223.00	0.00	0.00	0.00	0.00	0.00		Start Build 2.00
1867.22	12.88	107.91	1861.81	-22.18	68.64	2.00	107.91	-22.18		Start 4340.72 hold at 1867.22 MD
6207.94	12.88	107.91	6093.23	-319.82	989.65	0.00	0.00	-319.82		Start Drop -2.00
6852.16	0.00	0.00	6732.04	-342.00	1058.29	2.00	180.00	-342.00		Start Build 10.00
7751.80	89.96	0.00	7305.00	230.59	1058.29	10.00	0.00	230.59		Start 4663.90 hold at 7751.80 MD
12415.69	89.96	0.00	7308.00	4894.49	1058.29	0.00	0.00	4894.49	PBHL_SUMMIT 28C-29HZ	TD at 12415.69
DESIGN TARGET DETAILS										
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape		
PBHL	7308.00	4894.49	1058.29	1286416.73	3226991.96	40.1167550	-104.6883580	Point		

PROJECT DETAILS: COLORADO NORTHERN ZONE - 83
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
Location: SESW SECTION 29 T2N R65W
System Datum: Mean Sea Level

FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	Inc
973.00	973.00	Fox Hills Base	0.00
4106.00	4169.38	Parkman	12.88
4459.00	4531.50	Sussex	12.88
6948.00	7073.59	Sharon Springs	22.14
6997.00	7127.61	Niobrara A	27.54
7067.00	7209.92	Niobrara B Chalk	35.78
7138.00	7303.32	Niobrara C	45.12
7278.00	7575.57	Fort Hays	72.34
7300.00	7676.42	Codell	82.43

CASING DETAILS			
TVD	MD	Name	Size
1023.00	1023.00	9 5/8"	9.625
7305.00	7751.80	7"	7.000





Scientific Drilling

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

SUMMIT 35-29HZ PAD

SUMMIT 28C-29HZ

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

03 December, 2013

Database:	Denver Sales Office	Local Co-ordinate Reference:	Well SUMMIT 28C-29HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4938 & KB 17 @ 4955.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4938 & KB 17 @ 4955.00ft (ASSUMED)
Site:	SUMMIT 35-29HZ PAD	North Reference:	True
Well:	SUMMIT 28C-29HZ	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	SUMMIT 35-29HZ PAD, SESW SECTION 29 T2N R65W				
Site Position:	Northing:	1,281,512.92 usft	Latitude:	40.1033200	
From:	Lat/Long	Easting:	3,225,948.10 usft	Longitude:	-104.6922500
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.52 °

Well	SUMMIT 28C-29HZ, 395 FSL 1401 FWL					
Well Position	+N/-S	-0.37 ft	Northing:	1,281,512.82 usft	Latitude:	40.1033190
	+E/-W	30.21 ft	Easting:	3,225,978.31 usft	Longitude:	-104.6921420
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,938.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	12/3/2013	8.51	66.73	52,645

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	0.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,223.00	0.00	0.00	1,223.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,867.22	12.88	107.91	1,861.81	-22.18	68.64	2.00	2.00	0.00	107.91	
6,207.94	12.88	107.91	6,093.23	-319.82	989.65	0.00	0.00	0.00	0.00	
6,852.16	0.00	0.00	6,732.04	-342.00	1,058.29	2.00	-2.00	0.00	180.00	
7,751.80	89.96	0.00	7,305.00	230.59	1,058.29	10.00	10.00	0.00	0.00	
12,415.69	89.96	0.00	7,308.00	4,894.49	1,058.29	0.00	0.00	0.00	0.00	PBHL_SUMMIT 28C-

Database:	Denver Sales Office	Local Co-ordinate Reference:	Well SUMMIT 28C-29HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4938 & KB 17 @ 4955.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4938 & KB 17 @ 4955.00ft (ASSUMED)
Site:	SUMMIT 35-29HZ PAD	North Reference:	True
Well:	SUMMIT 28C-29HZ	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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
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	
973.00	0.00	0.00	973.00	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	
1,023.00	0.00	0.00	1,023.00	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	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,223.00	0.00	0.00	1,223.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 2.00										
1,300.00	1.54	107.91	1,299.99	-0.32	0.98	-0.32	2.00	2.00	0.00	
1,400.00	3.54	107.91	1,399.89	-1.68	5.20	-1.68	2.00	2.00	0.00	
1,500.00	5.54	107.91	1,499.57	-4.11	12.73	-4.11	2.00	2.00	0.00	
1,600.00	7.54	107.91	1,598.91	-7.62	23.57	-7.62	2.00	2.00	0.00	
1,700.00	9.54	107.91	1,697.80	-12.18	37.70	-12.18	2.00	2.00	0.00	
1,800.00	11.54	107.91	1,796.11	-17.81	55.10	-17.81	2.00	2.00	0.00	
1,867.22	12.88	107.91	1,861.81	-22.18	68.64	-22.18	2.00	2.00	0.00	
Start 4340.72 hold at 1867.22 MD										
1,900.00	12.88	107.91	1,893.76	-24.43	75.59	-24.43	0.00	0.00	0.00	
2,000.00	12.88	107.91	1,991.24	-31.28	96.81	-31.28	0.00	0.00	0.00	
2,100.00	12.88	107.91	2,088.72	-38.14	118.03	-38.14	0.00	0.00	0.00	
2,200.00	12.88	107.91	2,186.21	-45.00	139.24	-45.00	0.00	0.00	0.00	
2,300.00	12.88	107.91	2,283.69	-51.86	160.46	-51.86	0.00	0.00	0.00	
2,400.00	12.88	107.91	2,381.17	-58.71	181.68	-58.71	0.00	0.00	0.00	
2,500.00	12.88	107.91	2,478.65	-65.57	202.90	-65.57	0.00	0.00	0.00	
2,600.00	12.88	107.91	2,576.13	-72.43	224.12	-72.43	0.00	0.00	0.00	
2,700.00	12.88	107.91	2,673.62	-79.28	245.33	-79.28	0.00	0.00	0.00	
2,800.00	12.88	107.91	2,771.10	-86.14	266.55	-86.14	0.00	0.00	0.00	
2,900.00	12.88	107.91	2,868.58	-93.00	287.77	-93.00	0.00	0.00	0.00	
3,000.00	12.88	107.91	2,966.06	-99.85	308.99	-99.85	0.00	0.00	0.00	
3,100.00	12.88	107.91	3,063.55	-106.71	330.21	-106.71	0.00	0.00	0.00	
3,200.00	12.88	107.91	3,161.03	-113.57	351.43	-113.57	0.00	0.00	0.00	
3,300.00	12.88	107.91	3,258.51	-120.42	372.64	-120.42	0.00	0.00	0.00	
3,400.00	12.88	107.91	3,355.99	-127.28	393.86	-127.28	0.00	0.00	0.00	
3,500.00	12.88	107.91	3,453.47	-134.14	415.08	-134.14	0.00	0.00	0.00	
3,600.00	12.88	107.91	3,550.96	-141.00	436.30	-141.00	0.00	0.00	0.00	
3,700.00	12.88	107.91	3,648.44	-147.85	457.52	-147.85	0.00	0.00	0.00	
3,800.00	12.88	107.91	3,745.92	-154.71	478.73	-154.71	0.00	0.00	0.00	
3,900.00	12.88	107.91	3,843.40	-161.57	499.95	-161.57	0.00	0.00	0.00	
4,000.00	12.88	107.91	3,940.88	-168.42	521.17	-168.42	0.00	0.00	0.00	
4,100.00	12.88	107.91	4,038.37	-175.28	542.39	-175.28	0.00	0.00	0.00	
4,169.38	12.88	107.91	4,106.00	-180.04	557.11	-180.04	0.00	0.00	0.00	
Parkman										
4,200.00	12.88	107.91	4,135.85	-182.14	563.61	-182.14	0.00	0.00	0.00	
4,300.00	12.88	107.91	4,233.33	-188.99	584.82	-188.99	0.00	0.00	0.00	

Database:	Denver Sales Office	Local Co-ordinate Reference:	Well SUMMIT 28C-29HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4938 & KB 17 @ 4955.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4938 & KB 17 @ 4955.00ft (ASSUMED)
Site:	SUMMIT 35-29HZ PAD	North Reference:	True
Well:	SUMMIT 28C-29HZ	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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.00	12.88	107.91	4,330.81	-195.85	606.04	-195.85	0.00	0.00	0.00
4,500.00	12.88	107.91	4,428.30	-202.71	627.26	-202.71	0.00	0.00	0.00
4,531.50	12.88	107.91	4,459.00	-204.87	633.94	-204.87	0.00	0.00	0.00
Sussex									
4,600.00	12.88	107.91	4,525.78	-209.56	648.48	-209.56	0.00	0.00	0.00
4,700.00	12.88	107.91	4,623.26	-216.42	669.70	-216.42	0.00	0.00	0.00
4,800.00	12.88	107.91	4,720.74	-223.28	690.91	-223.28	0.00	0.00	0.00
4,900.00	12.88	107.91	4,818.22	-230.14	712.13	-230.14	0.00	0.00	0.00
5,000.00	12.88	107.91	4,915.71	-236.99	733.35	-236.99	0.00	0.00	0.00
5,100.00	12.88	107.91	5,013.19	-243.85	754.57	-243.85	0.00	0.00	0.00
5,200.00	12.88	107.91	5,110.67	-250.71	775.79	-250.71	0.00	0.00	0.00
5,300.00	12.88	107.91	5,208.15	-257.56	797.01	-257.56	0.00	0.00	0.00
5,400.00	12.88	107.91	5,305.64	-264.42	818.22	-264.42	0.00	0.00	0.00
5,500.00	12.88	107.91	5,403.12	-271.28	839.44	-271.28	0.00	0.00	0.00
5,600.00	12.88	107.91	5,500.60	-278.13	860.66	-278.13	0.00	0.00	0.00
5,700.00	12.88	107.91	5,598.08	-284.99	881.88	-284.99	0.00	0.00	0.00
5,800.00	12.88	107.91	5,695.56	-291.85	903.10	-291.85	0.00	0.00	0.00
5,900.00	12.88	107.91	5,793.05	-298.70	924.31	-298.70	0.00	0.00	0.00
6,000.00	12.88	107.91	5,890.53	-305.56	945.53	-305.56	0.00	0.00	0.00
6,100.00	12.88	107.91	5,988.01	-312.42	966.75	-312.42	0.00	0.00	0.00
6,200.00	12.88	107.91	6,085.49	-319.28	987.97	-319.28	0.00	0.00	0.00
6,207.94	12.88	107.91	6,093.23	-319.82	989.65	-319.82	0.00	0.00	0.00
Start Drop -2.00									
6,300.00	11.04	107.91	6,183.29	-325.69	1,007.81	-325.69	2.00	-2.00	0.00
6,400.00	9.04	107.91	6,281.75	-331.05	1,024.40	-331.05	2.00	-2.00	0.00
6,500.00	7.04	107.91	6,380.76	-335.35	1,037.72	-335.35	2.00	-2.00	0.00
6,600.00	5.04	107.91	6,480.20	-338.59	1,047.74	-338.59	2.00	-2.00	0.00
6,700.00	3.04	107.91	6,579.95	-340.76	1,054.44	-340.76	2.00	-2.00	0.00
6,800.00	1.04	107.91	6,679.88	-341.85	1,057.84	-341.85	2.00	-2.00	0.00
6,852.16	0.00	0.00	6,732.04	-342.00	1,058.29	-342.00	2.00	-2.00	0.00
Start Build 10.00									
6,900.00	4.78	0.00	6,779.82	-340.00	1,058.29	-340.00	10.00	10.00	0.00
7,000.00	14.78	0.00	6,878.24	-323.03	1,058.29	-323.03	10.00	10.00	0.00
7,073.59	22.14	0.00	6,948.00	-299.74	1,058.29	-299.74	10.00	10.00	0.00
Sharon Springs									
7,100.00	24.78	0.00	6,972.22	-289.23	1,058.29	-289.23	10.00	10.00	0.00
7,127.61	27.54	0.00	6,997.00	-277.05	1,058.29	-277.05	10.00	10.00	0.00
Niobrara A									
7,200.00	34.78	0.00	7,058.90	-239.62	1,058.29	-239.62	10.00	10.00	0.00
7,209.92	35.78	0.00	7,067.00	-233.89	1,058.29	-233.89	10.00	10.00	0.00
Niobrara B Chalk									
7,300.00	44.78	0.00	7,135.65	-175.71	1,058.29	-175.71	10.00	10.00	0.00
7,303.32	45.12	0.00	7,138.00	-173.37	1,058.29	-173.37	10.00	10.00	0.00
Niobrara C									
7,400.00	54.78	0.00	7,200.14	-99.45	1,058.29	-99.45	10.00	10.00	0.00
7,500.00	64.78	0.00	7,250.40	-13.14	1,058.29	-13.14	10.00	10.00	0.00
7,575.57	72.34	0.00	7,278.00	57.15	1,058.29	57.15	10.00	10.00	0.00
Fort Hays									
7,600.00	74.78	0.00	7,284.91	80.58	1,058.29	80.58	10.00	10.00	0.00
7,676.42	82.43	0.00	7,300.00	155.44	1,058.29	155.44	10.00	10.00	0.00
Codell									
7,700.00	84.78	0.00	7,302.63	178.87	1,058.29	178.87	10.00	10.00	0.00
7,751.80	89.96	0.00	7,305.00	230.59	1,058.29	230.59	10.00	10.00	0.00

Database:	Denver Sales Office	Local Co-ordinate Reference:	Well SUMMIT 28C-29HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4938 & KB 17 @ 4955.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4938 & KB 17 @ 4955.00ft (ASSUMED)
Site:	SUMMIT 35-29HZ PAD	North Reference:	True
Well:	SUMMIT 28C-29HZ	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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Start 4663.90 hold at 7751.80 MD - 7" (620 FSL 2460 FWL)									
7,800.00	89.96	0.00	7,305.03	278.79	1,058.29	278.79	0.00	0.00	0.00
7,900.00	89.96	0.00	7,305.09	378.79	1,058.29	378.79	0.00	0.00	0.00
8,000.00	89.96	0.00	7,305.16	478.79	1,058.29	478.79	0.00	0.00	0.00
8,100.00	89.96	0.00	7,305.22	578.79	1,058.29	578.79	0.00	0.00	0.00
8,200.00	89.96	0.00	7,305.29	678.79	1,058.29	678.79	0.00	0.00	0.00
8,300.00	89.96	0.00	7,305.35	778.79	1,058.29	778.79	0.00	0.00	0.00
8,400.00	89.96	0.00	7,305.42	878.79	1,058.29	878.79	0.00	0.00	0.00
8,500.00	89.96	0.00	7,305.48	978.79	1,058.29	978.79	0.00	0.00	0.00
8,600.00	89.96	0.00	7,305.54	1,078.79	1,058.29	1,078.79	0.00	0.00	0.00
8,700.00	89.96	0.00	7,305.61	1,178.79	1,058.29	1,178.79	0.00	0.00	0.00
8,800.00	89.96	0.00	7,305.67	1,278.79	1,058.29	1,278.79	0.00	0.00	0.00
8,900.00	89.96	0.00	7,305.74	1,378.79	1,058.29	1,378.79	0.00	0.00	0.00
9,000.00	89.96	0.00	7,305.80	1,478.79	1,058.29	1,478.79	0.00	0.00	0.00
9,100.00	89.96	0.00	7,305.87	1,578.79	1,058.29	1,578.79	0.00	0.00	0.00
9,200.00	89.96	0.00	7,305.93	1,678.79	1,058.29	1,678.79	0.00	0.00	0.00
9,300.00	89.96	0.00	7,306.00	1,778.79	1,058.29	1,778.79	0.00	0.00	0.00
9,400.00	89.96	0.00	7,306.06	1,878.79	1,058.29	1,878.79	0.00	0.00	0.00
9,500.00	89.96	0.00	7,306.12	1,978.79	1,058.29	1,978.79	0.00	0.00	0.00
9,600.00	89.96	0.00	7,306.19	2,078.79	1,058.29	2,078.79	0.00	0.00	0.00
9,700.00	89.96	0.00	7,306.25	2,178.79	1,058.29	2,178.79	0.00	0.00	0.00
9,800.00	89.96	0.00	7,306.32	2,278.79	1,058.29	2,278.79	0.00	0.00	0.00
9,900.00	89.96	0.00	7,306.38	2,378.79	1,058.29	2,378.79	0.00	0.00	0.00
10,000.00	89.96	0.00	7,306.45	2,478.79	1,058.29	2,478.79	0.00	0.00	0.00
10,100.00	89.96	0.00	7,306.51	2,578.79	1,058.29	2,578.79	0.00	0.00	0.00
10,200.00	89.96	0.00	7,306.57	2,678.79	1,058.29	2,678.79	0.00	0.00	0.00
10,300.00	89.96	0.00	7,306.64	2,778.79	1,058.29	2,778.79	0.00	0.00	0.00
10,400.00	89.96	0.00	7,306.70	2,878.79	1,058.29	2,878.79	0.00	0.00	0.00
10,500.00	89.96	0.00	7,306.77	2,978.79	1,058.29	2,978.79	0.00	0.00	0.00
10,600.00	89.96	0.00	7,306.83	3,078.79	1,058.29	3,078.79	0.00	0.00	0.00
10,700.00	89.96	0.00	7,306.90	3,178.79	1,058.29	3,178.79	0.00	0.00	0.00
10,800.00	89.96	0.00	7,306.96	3,278.79	1,058.29	3,278.79	0.00	0.00	0.00
10,900.00	89.96	0.00	7,307.02	3,378.79	1,058.29	3,378.79	0.00	0.00	0.00
11,000.00	89.96	0.00	7,307.09	3,478.79	1,058.29	3,478.79	0.00	0.00	0.00
11,100.00	89.96	0.00	7,307.15	3,578.79	1,058.29	3,578.79	0.00	0.00	0.00
11,200.00	89.96	0.00	7,307.22	3,678.79	1,058.29	3,678.79	0.00	0.00	0.00
11,300.00	89.96	0.00	7,307.28	3,778.79	1,058.29	3,778.79	0.00	0.00	0.00
11,400.00	89.96	0.00	7,307.35	3,878.79	1,058.29	3,878.79	0.00	0.00	0.00
11,500.00	89.96	0.00	7,307.41	3,978.79	1,058.29	3,978.79	0.00	0.00	0.00
11,600.00	89.96	0.00	7,307.48	4,078.79	1,058.29	4,078.79	0.00	0.00	0.00
11,700.00	89.96	0.00	7,307.54	4,178.79	1,058.29	4,178.79	0.00	0.00	0.00
11,800.00	89.96	0.00	7,307.60	4,278.79	1,058.29	4,278.79	0.00	0.00	0.00
11,900.00	89.96	0.00	7,307.67	4,378.79	1,058.29	4,378.79	0.00	0.00	0.00
12,000.00	89.96	0.00	7,307.73	4,478.79	1,058.29	4,478.79	0.00	0.00	0.00
12,100.00	89.96	0.00	7,307.80	4,578.79	1,058.29	4,578.79	0.00	0.00	0.00
12,200.00	89.96	0.00	7,307.86	4,678.79	1,058.29	4,678.79	0.00	0.00	0.00
12,300.00	89.96	0.00	7,307.93	4,778.79	1,058.29	4,778.79	0.00	0.00	0.00
12,400.00	89.96	0.00	7,307.99	4,878.79	1,058.29	4,878.79	0.00	0.00	0.00
12,415.69	89.96	0.00	7,308.00	4,894.49	1,058.29	4,894.49	0.00	0.00	0.00
TD at 12415.69 - PBHL_SUMMIT 28C-29HZ (1 FNL 2500 FWL)									

Database:	Denver Sales Office	Local Co-ordinate Reference:	Well SUMMIT 28C-29HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4938 & KB 17 @ 4955.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4938 & KB 17 @ 4955.00ft (ASSUMED)
Site:	SUMMIT 35-29HZ PAD	North Reference:	True
Well:	SUMMIT 28C-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_SUMMIT 28C-29 - hit/miss target - Shape - Point	0.00	0.00	7,308.00	4,894.49	1,058.29	1,286,416.73	3,226,991.97	40.1167550	-104.6883580

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,023.00	1,023.00	9 5/8"	9.625	12.250	
7,751.80	7,305.00	7" (620 FSL 2460 FWL)	7.000	7.500	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
973.00	973.00	Fox Hills Base				
4,169.38	4,106.00	Parkman				
4,531.50	4,459.00	Sussex				
7,073.59	6,948.00	Sharon Springs				
7,127.61	6,997.00	Niobrara A				
7,209.92	7,067.00	Niobrara B Chalk				
7,303.32	7,138.00	Niobrara C				
7,575.57	7,278.00	Fort Hays				
7,676.42	7,300.00	Codell				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,223.00	1,223.00	0.00	0.00	Start Build 2.00	
1,867.22	1,861.81	-22.18	68.64	Start 4340.72 hold at 1867.22 MD	
6,207.94	6,093.23	-319.82	989.65	Start Drop -2.00	
6,852.16	6,732.04	-342.00	1,058.29	Start Build 10.00	
7,751.80	7,305.00	230.59	1,058.29	Start 4663.90 hold at 7751.80 MD	
12,415.69	7,308.00	4,894.49	1,058.29	TD at 12415.69	