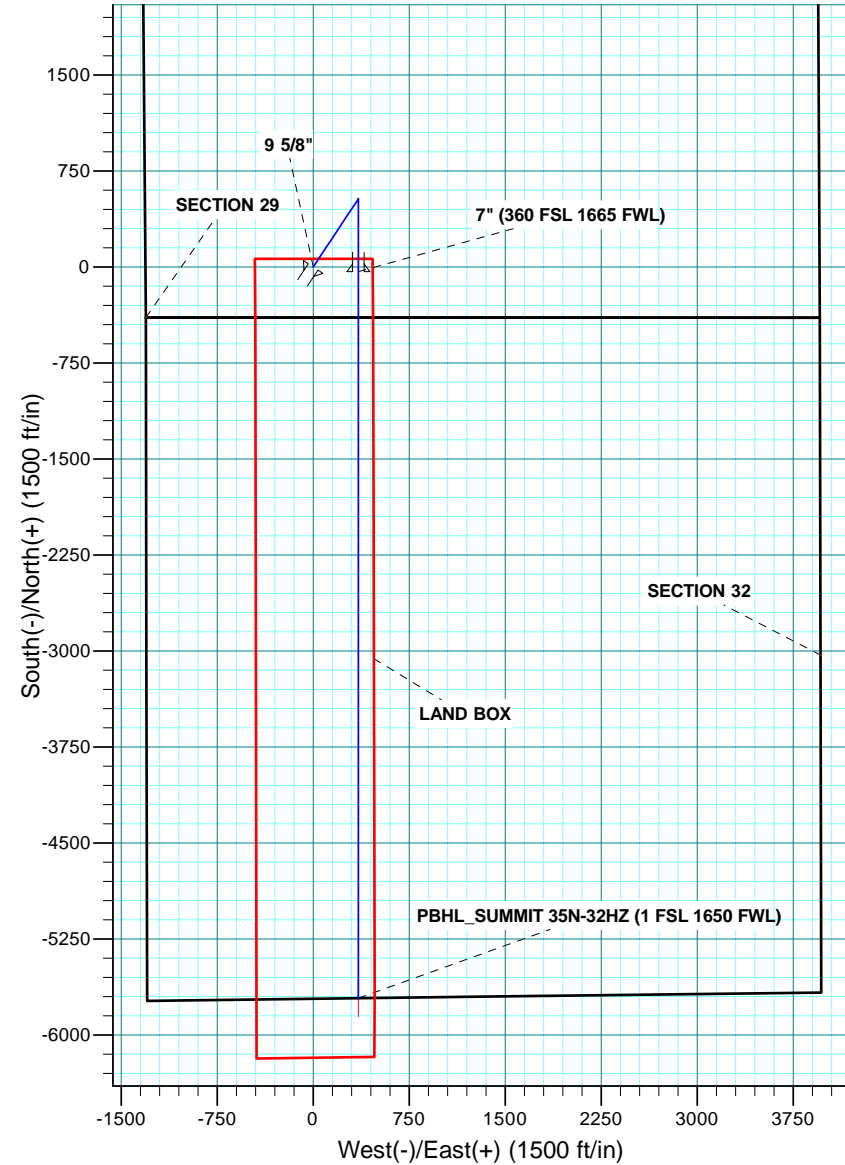
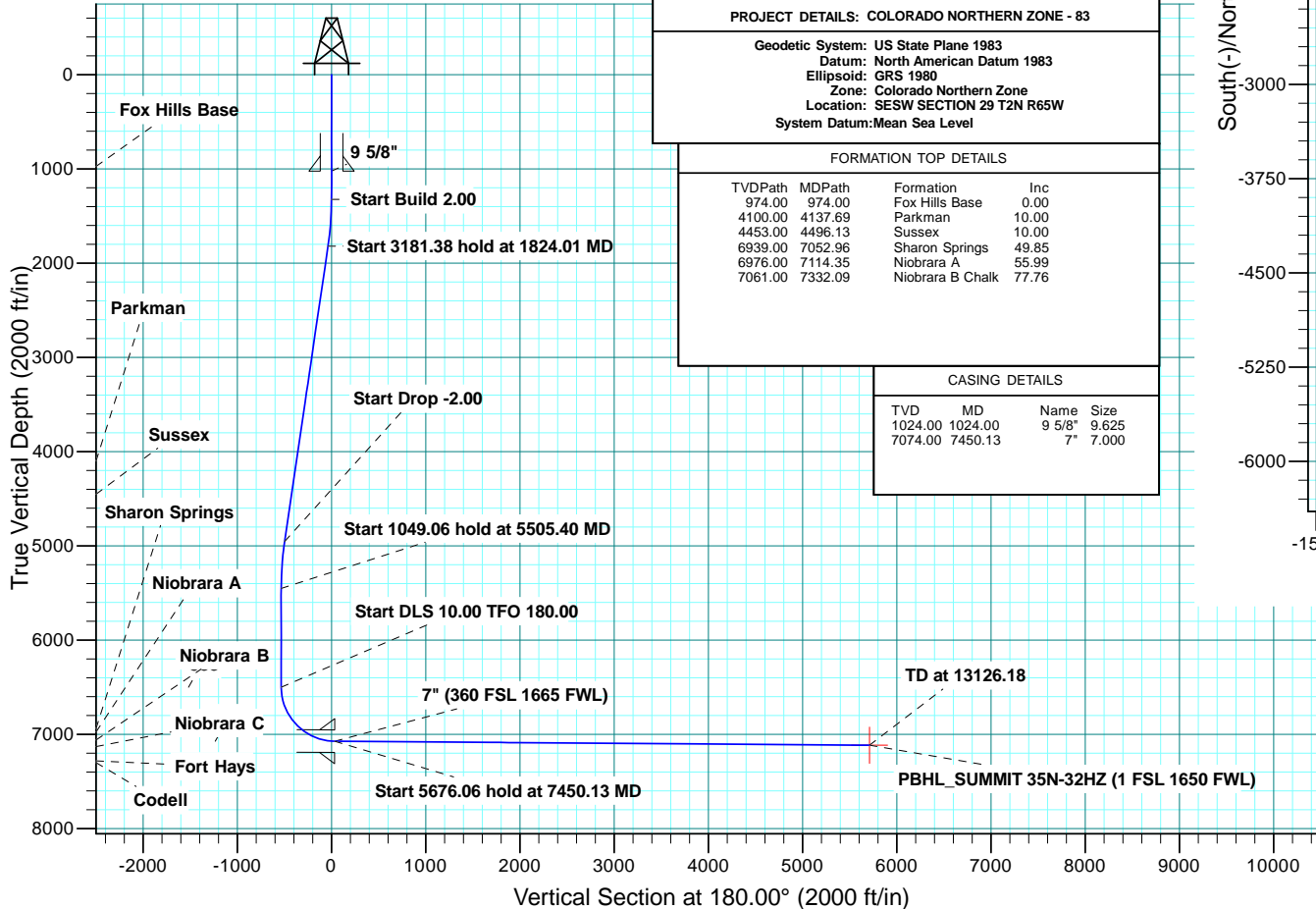


WELL DETAILS: SUMMIT 35N-32HZ										
GL 4939 & KB 17 @ 4956.00ft (ASSUMED)										
		+N/-S	+E/-W	Northing	Easting	Latitude	Longitude			
		0.00	0.00	1281512.36	3225888.24	40.1033200	-104.6924640			
SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1324.00	0.00	0.00	1324.00	0.00	0.00	0.00	0.00	0.00		Start Build 2.00
1824.01	10.00	33.54	1821.48	36.28	24.05	2.00	33.54	-36.28		Start 3181.38 hold at 1824.01 MD
5005.39	10.00	33.54	4954.52	496.72	329.33	0.00	0.00	-496.72		Start Drop -2.00
5505.40	0.00	0.00	5452.00	533.00	353.38	2.00	180.00	-533.00		Start 1049.06 hold at 5505.40 MD
6554.46	0.00	0.00	6501.06	533.00	353.38	0.00	0.00	-533.00		Start DLS 10.00 TFO 180.00
7450.13	89.57	180.00	7074.00	-35.62	353.38	10.00	180.00	35.62		Start 5676.06 hold at 7450.13 MD
13126.18	89.57	180.00	7117.00	-5711.51	353.38	0.00	0.00	5711.51	PBHL_SUMMIT 35N-32HZ	TD at 13126.18
DESIGN TARGET DETAILS										
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape Point		
PBHL	7117.00	-5711.51	353.38	1275804.32	3226293.62	40.0876410	-104.6912010			

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
974.00	974.00	Fox Hills Base	0.00
4100.00	4137.69	Parkman	10.00
4453.00	4496.13	Sussex	10.00
6939.00	7052.96	Sharon Springs	49.85
6976.00	7114.35	Niobrara A	55.99
7061.00	7332.09	Niobrara B Chalk	77.76

CASING DETAILS			
TVD	MD	NAME	SIZE
1024.00	1024.00	9 5/8"	9.625
7074.00	7450.13	7"	7.000





**Scientific Drilling**

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**SUMMIT 35-29HZ PAD**

**SUMMIT 35N-32HZ**

**OH**

**Plan: PLAN #1 PRELIMINARY**

## **Standard Planning Report**

**04 December, 2013**

<b>Database:</b>	Denver Sales Office	<b>Local Co-ordinate Reference:</b>	Well SUMMIT 35N-32HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4939 & KB 17 @ 4956.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4939 & KB 17 @ 4956.00ft (ASSUMED)
<b>Site:</b>	SUMMIT 35-29HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SUMMIT 35N-32HZ	<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>	SUMMIT 35-29HZ PAD, SESW SECTION 29 T2N R65W				
<b>Site Position:</b>	<b>Northing:</b>	1,281,512.92 usft	<b>Latitude:</b>	40.1033200	
<b>From:</b> Lat/Long	<b>Easting:</b>	3,225,948.10 usft	<b>Longitude:</b>	-104.6922500	
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.52 °

<b>Well</b>	SUMMIT 35N-32HZ, 395 FSL 1311 FWL					
<b>Well Position</b>	<b>+N/-S</b>	-0.01 ft	<b>Northing:</b>	1,281,512.36 usft	<b>Latitude:</b>	40.1033200
	<b>+E/-W</b>	-59.86 ft	<b>Easting:</b>	3,225,888.24 usft	<b>Longitude:</b>	-104.6924640
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	0.00 ft	<b>Ground Level:</b>	4,939.00 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	12/3/2013	8.51	66.73	52,645

<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 (°/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	
1,324.00	0.00	0.00	1,324.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,824.01	10.00	33.54	1,821.48	36.28	24.05	2.00	2.00	0.00	33.54	
5,005.39	10.00	33.54	4,954.52	496.72	329.33	0.00	0.00	0.00	0.00	
5,505.40	0.00	0.00	5,452.00	533.00	353.38	2.00	-2.00	0.00	180.00	
6,554.46	0.00	0.00	6,501.06	533.00	353.38	0.00	0.00	0.00	0.00	
7,450.13	89.57	180.00	7,074.00	-35.62	353.38	10.00	10.00	20.10	180.00	
13,126.18	89.57	180.00	7,117.00	-5,711.51	353.38	0.00	0.00	0.00	0.00	PBHL_SUMMIT 35N-

<b>Database:</b>	Denver Sales Office	<b>Local Co-ordinate Reference:</b>	Well SUMMIT 35N-32HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4939 & KB 17 @ 4956.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4939 & KB 17 @ 4956.00ft (ASSUMED)
<b>Site:</b>	SUMMIT 35-29HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SUMMIT 35N-32HZ	<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 (°/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	0.00
100.00	0.00	0.00	100.00	0.00	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	0.00
300.00	0.00	0.00	300.00	0.00	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	0.00
500.00	0.00	0.00	500.00	0.00	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	0.00
700.00	0.00	0.00	700.00	0.00	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	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
974.00	0.00	0.00	974.00	0.00	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	0.00
1,024.00	0.00	0.00	1,024.00	0.00	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	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,324.00	0.00	0.00	1,324.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>										
1,400.00	1.52	33.54	1,399.99	0.84	0.56	-0.84	2.00	2.00	0.00	0.00
1,500.00	3.52	33.54	1,499.89	4.50	2.99	-4.50	2.00	2.00	0.00	0.00
1,600.00	5.52	33.54	1,599.57	11.07	7.34	-11.07	2.00	2.00	0.00	0.00
1,700.00	7.52	33.54	1,698.92	20.54	13.62	-20.54	2.00	2.00	0.00	0.00
1,800.00	9.52	33.54	1,797.81	32.88	21.80	-32.88	2.00	2.00	0.00	0.00
1,824.01	10.00	33.54	1,821.48	36.28	24.05	-36.28	2.00	2.00	0.00	0.00
<b>Start 3181.38 hold at 1824.01 MD</b>										
1,900.00	10.00	33.54	1,896.31	47.27	31.34	-47.27	0.00	0.00	0.00	0.00
2,000.00	10.00	33.54	1,994.79	61.75	40.94	-61.75	0.00	0.00	0.00	0.00
2,100.00	10.00	33.54	2,093.27	76.22	50.53	-76.22	0.00	0.00	0.00	0.00
2,200.00	10.00	33.54	2,191.75	90.69	60.13	-90.69	0.00	0.00	0.00	0.00
2,300.00	10.00	33.54	2,290.23	105.17	69.73	-105.17	0.00	0.00	0.00	0.00
2,400.00	10.00	33.54	2,388.71	119.64	79.32	-119.64	0.00	0.00	0.00	0.00
2,500.00	10.00	33.54	2,487.19	134.11	88.92	-134.11	0.00	0.00	0.00	0.00
2,600.00	10.00	33.54	2,585.68	148.59	98.51	-148.59	0.00	0.00	0.00	0.00
2,700.00	10.00	33.54	2,684.16	163.06	108.11	-163.06	0.00	0.00	0.00	0.00
2,800.00	10.00	33.54	2,782.64	177.53	117.70	-177.53	0.00	0.00	0.00	0.00
2,900.00	10.00	33.54	2,881.12	192.01	127.30	-192.01	0.00	0.00	0.00	0.00
3,000.00	10.00	33.54	2,979.60	206.48	136.90	-206.48	0.00	0.00	0.00	0.00
3,100.00	10.00	33.54	3,078.08	220.95	146.49	-220.95	0.00	0.00	0.00	0.00
3,200.00	10.00	33.54	3,176.56	235.43	156.09	-235.43	0.00	0.00	0.00	0.00
3,300.00	10.00	33.54	3,275.04	249.90	165.68	-249.90	0.00	0.00	0.00	0.00
3,400.00	10.00	33.54	3,373.52	264.37	175.28	-264.37	0.00	0.00	0.00	0.00
3,500.00	10.00	33.54	3,472.00	278.85	184.87	-278.85	0.00	0.00	0.00	0.00
3,600.00	10.00	33.54	3,570.48	293.32	194.47	-293.32	0.00	0.00	0.00	0.00
3,700.00	10.00	33.54	3,668.96	307.79	204.07	-307.79	0.00	0.00	0.00	0.00
3,800.00	10.00	33.54	3,767.44	322.27	213.66	-322.27	0.00	0.00	0.00	0.00
3,900.00	10.00	33.54	3,865.92	336.74	223.26	-336.74	0.00	0.00	0.00	0.00
4,000.00	10.00	33.54	3,964.41	351.21	232.85	-351.21	0.00	0.00	0.00	0.00
4,100.00	10.00	33.54	4,062.89	365.68	242.45	-365.68	0.00	0.00	0.00	0.00
4,137.69	10.00	33.54	4,100.00	371.14	246.07	-371.14	0.00	0.00	0.00	0.00
<b>Parkman</b>										
4,200.00	10.00	33.54	4,161.37	380.16	252.05	-380.16	0.00	0.00	0.00	0.00
4,300.00	10.00	33.54	4,259.85	394.63	261.64	-394.63	0.00	0.00	0.00	0.00

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<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4939 & KB 17 @ 4956.00ft (ASSUMED)
<b>Site:</b>	SUMMIT 35-29HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SUMMIT 35N-32HZ	<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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,400.00	10.00	33.54	4,358.33	409.10	271.24	-409.10	0.00	0.00	0.00	
4,496.13	10.00	33.54	4,453.00	423.02	280.46	-423.02	0.00	0.00	0.00	
<b>Sussex</b>										
4,500.00	10.00	33.54	4,456.81	423.58	280.83	-423.58	0.00	0.00	0.00	
4,600.00	10.00	33.54	4,555.29	438.05	290.43	-438.05	0.00	0.00	0.00	
4,700.00	10.00	33.54	4,653.77	452.52	300.02	-452.52	0.00	0.00	0.00	
4,800.00	10.00	33.54	4,752.25	467.00	309.62	-467.00	0.00	0.00	0.00	
4,900.00	10.00	33.54	4,850.73	481.47	319.22	-481.47	0.00	0.00	0.00	
5,000.00	10.00	33.54	4,949.21	495.94	328.81	-495.94	0.00	0.00	0.00	
5,005.39	10.00	33.54	4,954.52	496.72	329.33	-496.72	0.00	0.00	0.00	
<b>Start Drop -2.00</b>										
5,100.00	8.11	33.54	5,047.95	509.13	337.56	-509.13	2.00	-2.00	0.00	
5,200.00	6.11	33.54	5,147.17	519.45	344.39	-519.45	2.00	-2.00	0.00	
5,300.00	4.11	33.54	5,246.77	526.87	349.31	-526.87	2.00	-2.00	0.00	
5,400.00	2.11	33.54	5,346.62	531.38	352.31	-531.38	2.00	-2.00	0.00	
5,500.00	0.11	33.54	5,446.60	533.00	353.38	-533.00	2.00	-2.00	0.00	
5,505.40	0.00	0.00	5,452.00	533.00	353.38	-533.00	2.00	-2.00	-620.67	
<b>Start 1049.06 hold at 5505.40 MD</b>										
5,600.00	0.00	0.00	5,546.60	533.00	353.38	-533.00	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,646.60	533.00	353.38	-533.00	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,746.60	533.00	353.38	-533.00	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,846.60	533.00	353.38	-533.00	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,946.60	533.00	353.38	-533.00	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,046.60	533.00	353.38	-533.00	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,146.60	533.00	353.38	-533.00	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,246.60	533.00	353.38	-533.00	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,346.60	533.00	353.38	-533.00	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,446.60	533.00	353.38	-533.00	0.00	0.00	0.00	
6,554.46	0.00	0.00	6,501.06	533.00	353.38	-533.00	0.00	0.00	0.00	
<b>Start DLS 10.00 TFO 180.00</b>										
6,600.00	4.55	180.00	6,546.55	531.19	353.38	-531.19	10.00	10.00	0.00	
6,700.00	14.55	180.00	6,645.04	514.62	353.38	-514.62	10.00	10.00	0.00	
6,800.00	24.55	180.00	6,739.15	481.19	353.38	-481.19	10.00	10.00	0.00	
6,900.00	34.55	180.00	6,826.03	431.93	353.38	-431.93	10.00	10.00	0.00	
7,000.00	44.55	180.00	6,903.03	368.33	353.38	-368.33	10.00	10.00	0.00	
7,052.96	49.85	180.00	6,939.00	329.49	353.38	-329.49	10.00	10.00	0.00	
<b>Sharon Springs</b>										
7,100.00	54.55	180.00	6,967.83	292.32	353.38	-292.32	10.00	10.00	0.00	
7,114.35	55.99	180.00	6,976.00	280.53	353.38	-280.53	10.00	10.00	0.00	
<b>Niobrara A</b>										
7,200.00	64.55	180.00	7,018.43	206.22	353.38	-206.22	10.00	10.00	0.00	
7,300.00	74.55	180.00	7,053.32	112.64	353.38	-112.64	10.00	10.00	0.00	
7,332.09	77.76	180.00	7,061.00	81.49	353.38	-81.49	10.00	10.00	0.00	
<b>Niobrara B Chalk</b>										
7,400.00	84.55	180.00	7,071.43	14.43	353.38	-14.43	10.00	10.00	0.00	
7,450.13	89.57	180.00	7,074.00	-35.62	353.38	35.62	10.00	10.00	0.00	
<b>Start 5676.06 hold at 7450.13 MD - 7" (360 FSL 1665 FWL)</b>										
7,500.00	89.57	180.00	7,074.38	-85.49	353.38	85.49	0.00	0.00	0.00	
7,600.00	89.57	180.00	7,075.14	-185.49	353.38	185.49	0.00	0.00	0.00	
7,700.00	89.57	180.00	7,075.90	-285.49	353.38	285.49	0.00	0.00	0.00	
7,800.00	89.57	180.00	7,076.65	-385.48	353.38	385.48	0.00	0.00	0.00	
7,900.00	89.57	180.00	7,077.41	-485.48	353.38	485.48	0.00	0.00	0.00	
8,000.00	89.57	180.00	7,078.17	-585.48	353.38	585.48	0.00	0.00	0.00	

<b>Database:</b>	Denver Sales Office	<b>Local Co-ordinate Reference:</b>	Well SUMMIT 35N-32HZ
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<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4939 & KB 17 @ 4956.00ft (ASSUMED)
<b>Site:</b>	SUMMIT 35-29HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SUMMIT 35N-32HZ	<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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,100.00	89.57	180.00	7,078.93	-685.47	353.38	685.47	0.00	0.00	0.00
8,200.00	89.57	180.00	7,079.68	-785.47	353.38	785.47	0.00	0.00	0.00
8,300.00	89.57	180.00	7,080.44	-885.47	353.38	885.47	0.00	0.00	0.00
8,400.00	89.57	180.00	7,081.20	-985.47	353.38	985.47	0.00	0.00	0.00
8,500.00	89.57	180.00	7,081.96	-1,085.46	353.38	1,085.46	0.00	0.00	0.00
8,600.00	89.57	180.00	7,082.71	-1,185.46	353.38	1,185.46	0.00	0.00	0.00
8,700.00	89.57	180.00	7,083.47	-1,285.46	353.38	1,285.46	0.00	0.00	0.00
8,800.00	89.57	180.00	7,084.23	-1,385.45	353.38	1,385.45	0.00	0.00	0.00
8,900.00	89.57	180.00	7,084.99	-1,485.45	353.38	1,485.45	0.00	0.00	0.00
9,000.00	89.57	180.00	7,085.74	-1,585.45	353.38	1,585.45	0.00	0.00	0.00
9,100.00	89.57	180.00	7,086.50	-1,685.45	353.38	1,685.45	0.00	0.00	0.00
9,200.00	89.57	180.00	7,087.26	-1,785.44	353.38	1,785.44	0.00	0.00	0.00
9,300.00	89.57	180.00	7,088.02	-1,885.44	353.38	1,885.44	0.00	0.00	0.00
9,400.00	89.57	180.00	7,088.77	-1,985.44	353.38	1,985.44	0.00	0.00	0.00
9,500.00	89.57	180.00	7,089.53	-2,085.43	353.38	2,085.43	0.00	0.00	0.00
9,600.00	89.57	180.00	7,090.29	-2,185.43	353.38	2,185.43	0.00	0.00	0.00
9,700.00	89.57	180.00	7,091.05	-2,285.43	353.38	2,285.43	0.00	0.00	0.00
9,800.00	89.57	180.00	7,091.80	-2,385.43	353.38	2,385.43	0.00	0.00	0.00
9,900.00	89.57	180.00	7,092.56	-2,485.42	353.38	2,485.42	0.00	0.00	0.00
10,000.00	89.57	180.00	7,093.32	-2,585.42	353.38	2,585.42	0.00	0.00	0.00
10,100.00	89.57	180.00	7,094.08	-2,685.42	353.38	2,685.42	0.00	0.00	0.00
10,200.00	89.57	180.00	7,094.83	-2,785.41	353.38	2,785.41	0.00	0.00	0.00
10,300.00	89.57	180.00	7,095.59	-2,885.41	353.38	2,885.41	0.00	0.00	0.00
10,400.00	89.57	180.00	7,096.35	-2,985.41	353.38	2,985.41	0.00	0.00	0.00
10,500.00	89.57	180.00	7,097.11	-3,085.41	353.38	3,085.41	0.00	0.00	0.00
10,600.00	89.57	180.00	7,097.86	-3,185.40	353.38	3,185.40	0.00	0.00	0.00
10,700.00	89.57	180.00	7,098.62	-3,285.40	353.38	3,285.40	0.00	0.00	0.00
10,800.00	89.57	180.00	7,099.38	-3,385.40	353.38	3,385.40	0.00	0.00	0.00
10,900.00	89.57	180.00	7,100.14	-3,485.39	353.38	3,485.39	0.00	0.00	0.00
11,000.00	89.57	180.00	7,100.89	-3,585.39	353.38	3,585.39	0.00	0.00	0.00
11,100.00	89.57	180.00	7,101.65	-3,685.39	353.38	3,685.39	0.00	0.00	0.00
11,200.00	89.57	180.00	7,102.41	-3,785.39	353.38	3,785.39	0.00	0.00	0.00
11,300.00	89.57	180.00	7,103.17	-3,885.38	353.38	3,885.38	0.00	0.00	0.00
11,400.00	89.57	180.00	7,103.92	-3,985.38	353.38	3,985.38	0.00	0.00	0.00
11,500.00	89.57	180.00	7,104.68	-4,085.38	353.38	4,085.38	0.00	0.00	0.00
11,600.00	89.57	180.00	7,105.44	-4,185.37	353.38	4,185.37	0.00	0.00	0.00
11,700.00	89.57	180.00	7,106.20	-4,285.37	353.38	4,285.37	0.00	0.00	0.00
11,800.00	89.57	180.00	7,106.95	-4,385.37	353.38	4,385.37	0.00	0.00	0.00
11,900.00	89.57	180.00	7,107.71	-4,485.37	353.38	4,485.37	0.00	0.00	0.00
12,000.00	89.57	180.00	7,108.47	-4,585.36	353.38	4,585.36	0.00	0.00	0.00
12,100.00	89.57	180.00	7,109.23	-4,685.36	353.38	4,685.36	0.00	0.00	0.00
12,200.00	89.57	180.00	7,109.98	-4,785.36	353.38	4,785.36	0.00	0.00	0.00
12,300.00	89.57	180.00	7,110.74	-4,885.35	353.38	4,885.35	0.00	0.00	0.00
12,400.00	89.57	180.00	7,111.50	-4,985.35	353.38	4,985.35	0.00	0.00	0.00
12,500.00	89.57	180.00	7,112.26	-5,085.35	353.38	5,085.35	0.00	0.00	0.00
12,600.00	89.57	180.00	7,113.01	-5,185.35	353.38	5,185.35	0.00	0.00	0.00
12,700.00	89.57	180.00	7,113.77	-5,285.34	353.38	5,285.34	0.00	0.00	0.00
12,800.00	89.57	180.00	7,114.53	-5,385.34	353.38	5,385.34	0.00	0.00	0.00
12,900.00	89.57	180.00	7,115.29	-5,485.34	353.38	5,485.34	0.00	0.00	0.00
13,000.00	89.57	180.00	7,116.04	-5,585.33	353.38	5,585.33	0.00	0.00	0.00
13,100.00	89.57	180.00	7,116.80	-5,685.33	353.38	5,685.33	0.00	0.00	0.00
13,126.18	89.57	180.00	7,117.00	-5,711.51	353.38	5,711.51	0.00	0.00	0.00
TD at 13126.18 - PBHL_SUMMIT 35N-32HZ (1 FSL 1650 FWL)									

<b>Database:</b>	Denver Sales Office	<b>Local Co-ordinate Reference:</b>	Well SUMMIT 35N-32HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4939 & KB 17 @ 4956.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4939 & KB 17 @ 4956.00ft (ASSUMED)
<b>Site:</b>	SUMMIT 35-29HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SUMMIT 35N-32HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
PBHL_SUMMIT 35N-32	0.00	0.00	7,117.00	-5,711.51	353.38	1,275,804.32	3,226,293.62	40.0876410	-104.6912010
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter	
(ft)	(ft)		(in)	(in)	
1,024.00	1,024.00	9 5/8"	9.625	12.250	
7,450.13	7,074.00	7" (360 FSL 1665 FWL)	7.000	7.500	

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
974.00	973.00	Fox Hills Base			
4,137.69	4,099.00	Parkman			
4,496.13	4,452.00	Sussex			
7,052.96	6,938.00	Sharon Springs			
7,114.35	6,975.00	Niobrara A			
7,332.09	7,060.00	Niobrara B Chalk			

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
		(ft)	(ft)		
1,324.00	1,324.00	0.00	0.00	Start Build 2.00	
1,824.01	1,821.48	36.28	24.05	Start 3181.38 hold at 1824.01 MD	
5,005.39	4,954.52	496.72	329.33	Start Drop -2.00	
5,505.40	5,452.00	533.00	353.38	Start 1049.06 hold at 5505.40 MD	
6,554.46	6,501.06	533.00	353.38	Start DLS 10.00 TFO 180.00	
7,450.13	7,074.00	-35.62	353.38	Start 5676.06 hold at 7450.13 MD	
13,126.18	7,117.00	-5,711.51	353.38	TD at 13126.18	