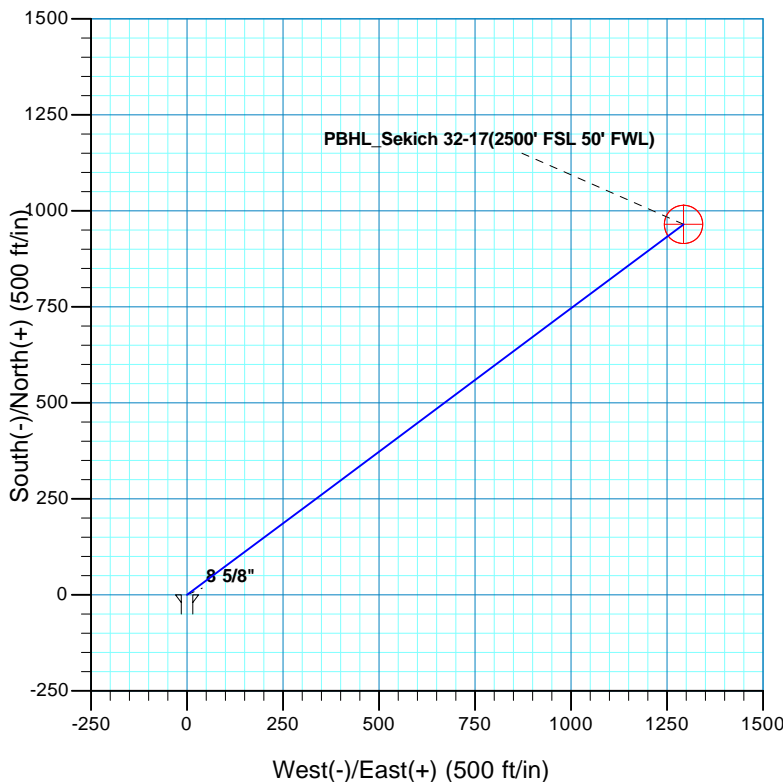
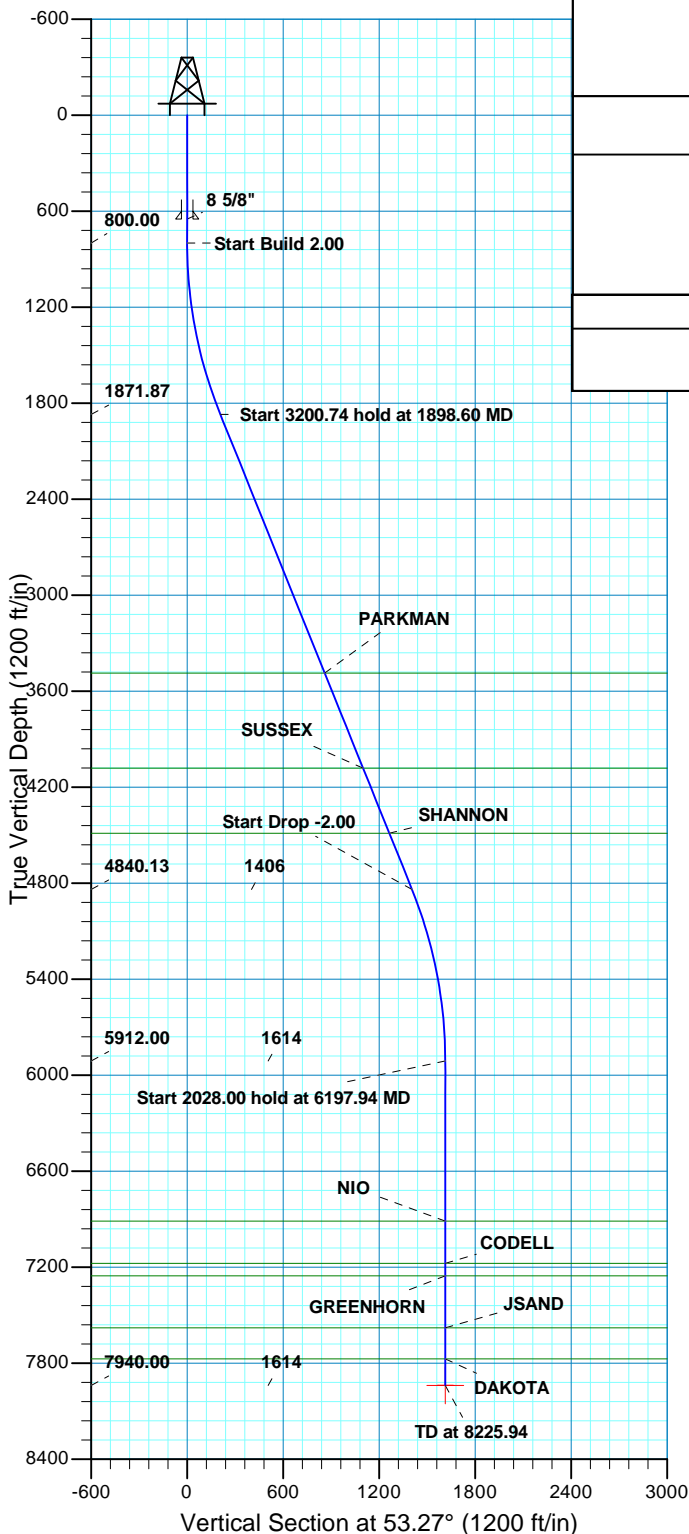


WELL DETAILS: P_Sekich 32-17					
GL 4880 @ 4880.00ft (Original Well Elev)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1324637.81	3159801.22	40° 13' 23.207 N	104° 55' 39.785 W

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7940.00	965.03	1293.38	1325611.16	3161088.34	40° 13' 32.743 N	104° 55' 23.110 W	Circle (Radius: 50.00)
- plan hits target center								

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			
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00			
1898.60	21.97	53.27	1871.87	124.43	166.77	2.00	53.27	208.08			
5099.34	21.97	53.27	4840.13	840.59	1126.61	0.00	0.00	1405.64			
6197.94	0.00	0.00	5912.00	965.03	1293.38	2.00	180.00	1613.72			
8225.94	0.00	0.00	7940.00	965.03	1293.38	0.00	0.00	1613.72	PBHL_Sekich 32-17(2500' FSL 50' FWL)		
PROJECT DETAILS: COLORADO NORTHERN ZONE - 83						FORMATION TOP DETAILS					
						TVDPath	MDPath	Formation			
Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: Colorado Northern Zone Location: SEC 18 T3N R67W System Datum:Mean Sea Level						3488.00	3641.31	PARKMAN			
						4082.00	4281.83	SUSSEX			
						4488.00	4719.63	SHANNON			
						6912.00	7197.94	NIO			
						7176.00	7461.94	CODELL			
						7254.00	7539.94	GREENHORN			
						7580.00	7865.94	JSAND			
						7774.00	8059.94	DAKOTA			
CASING DETAILS											
TVD			MD		Name		Size				
650.00			650.00		8 5/8"		8.625				



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_SEKICH 20-18 PAD**

**P\_Sekich 32-17**

**P\_Sekich 32-17**

**Plan: PLAN #1 9-14-10 RHS**

## **Standard Planning Report**

**15 September, 2010**

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well P_Sekich 32-17
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4880 @ 4880.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4880 @ 4880.00ft (Original Well Elev)
<b>Site:</b>	WELD_SEKICH 20-18 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_Sekich 32-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Sekich 32-17		
<b>Design:</b>	PLAN #1 9-14-10 RHS		

<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>	WELD_SEKICH 20-18 PAD, SEC 18 T3N R67W			
<b>Site Position:</b>		<b>Northing:</b>	1,324,637.81 usft	<b>Latitude:</b> 40° 13' 23.207 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,159,801.22 usft	<b>Longitude:</b> 104° 55' 39.785 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> 0.37 °

<b>Well</b>	P_Sekich 32-17, 1592' FSL 1242' FEL			
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	1,324,637.81 usft
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	3,159,801.22 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 4,865.00 ft

<b>Wellbore</b>	P_Sekich 32-17				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	09/14/2010	9.04	66.91	53,099

<b>Design</b>	PLAN #1 9-14-10 RHS			
<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	53.27

<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	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,898.60	21.97	53.27	1,871.87	124.43	166.77	2.00	2.00	0.00	53.27	
5,099.34	21.97	53.27	4,840.13	840.59	1,126.61	0.00	0.00	0.00	0.00	
6,197.94	0.00	0.00	5,912.00	965.03	1,293.38	2.00	-2.00	0.00	180.00	
8,225.94	0.00	0.00	7,940.00	965.03	1,293.38	0.00	0.00	0.00	0.00	PBHL_Sekich 32-17(2

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well P_Sekich 32-17
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4880 @ 4880.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4880 @ 4880.00ft (Original Well Elev)
<b>Site:</b>	WELD_SEKICH 20-18 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_Sekich 32-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Sekich 32-17		
<b>Design:</b>	PLAN #1 9-14-10 RHS		

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
650.00	0.00	0.00	650.00	0.00	0.00	0.00	0.00	0.00	0.00
8 5/8"									
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
Start Build 2.00									
900.00	2.00	53.27	899.98	1.04	1.40	1.75	2.00	2.00	0.00
1,000.00	4.00	53.27	999.84	4.17	5.59	6.98	2.00	2.00	0.00
1,100.00	6.00	53.27	1,099.45	9.38	12.58	15.69	2.00	2.00	0.00
1,200.00	8.00	53.27	1,198.70	16.67	22.35	27.88	2.00	2.00	0.00
1,300.00	10.00	53.27	1,297.47	26.03	34.88	43.52	2.00	2.00	0.00
1,400.00	12.00	53.27	1,395.62	37.44	50.18	62.60	2.00	2.00	0.00
1,500.00	14.00	53.27	1,493.06	50.89	68.20	85.10	2.00	2.00	0.00
1,600.00	16.00	53.27	1,589.64	66.37	88.95	110.98	2.00	2.00	0.00
1,700.00	18.00	53.27	1,685.27	83.85	112.38	140.21	2.00	2.00	0.00
1,800.00	20.00	53.27	1,779.82	103.32	138.47	172.77	2.00	2.00	0.00
1,898.60	21.97	53.27	1,871.87	124.43	166.77	208.08	2.00	2.00	0.00
Start 3200.74 hold at 1898.60 MD									
1,900.00	21.97	53.27	1,873.17	124.75	167.19	208.60	0.00	0.00	0.00
2,000.00	21.97	53.27	1,965.91	147.12	197.18	246.02	0.00	0.00	0.00
2,100.00	21.97	53.27	2,058.64	169.50	227.17	283.43	0.00	0.00	0.00
2,200.00	21.97	53.27	2,151.38	191.87	257.16	320.85	0.00	0.00	0.00
2,300.00	21.97	53.27	2,244.12	214.25	287.14	358.26	0.00	0.00	0.00
2,400.00	21.97	53.27	2,336.85	236.62	317.13	395.68	0.00	0.00	0.00
2,500.00	21.97	53.27	2,429.59	259.00	347.12	433.09	0.00	0.00	0.00
2,600.00	21.97	53.27	2,522.33	281.37	377.11	470.51	0.00	0.00	0.00
2,700.00	21.97	53.27	2,615.06	303.75	407.10	507.92	0.00	0.00	0.00
2,800.00	21.97	53.27	2,707.80	326.12	437.08	545.34	0.00	0.00	0.00
2,900.00	21.97	53.27	2,800.54	348.49	467.07	582.76	0.00	0.00	0.00
3,000.00	21.97	53.27	2,893.27	370.87	497.06	620.17	0.00	0.00	0.00
3,100.00	21.97	53.27	2,986.01	393.24	527.05	657.59	0.00	0.00	0.00
3,200.00	21.97	53.27	3,078.75	415.62	557.03	695.00	0.00	0.00	0.00
3,300.00	21.97	53.27	3,171.48	437.99	587.02	732.42	0.00	0.00	0.00
3,400.00	21.97	53.27	3,264.22	460.37	617.01	769.83	0.00	0.00	0.00
3,500.00	21.97	53.27	3,356.96	482.74	647.00	807.25	0.00	0.00	0.00
3,600.00	21.97	53.27	3,449.69	505.12	676.99	844.66	0.00	0.00	0.00
3,641.31	21.97	53.27	3,488.00	514.36	689.37	860.12	0.00	0.00	0.00
PARKMAN									
3,700.00	21.97	53.27	3,542.43	527.49	706.97	882.08	0.00	0.00	0.00
3,800.00	21.97	53.27	3,635.17	549.87	736.96	919.49	0.00	0.00	0.00
3,900.00	21.97	53.27	3,727.90	572.24	766.95	956.91	0.00	0.00	0.00
4,000.00	21.97	53.27	3,820.64	594.62	796.94	994.32	0.00	0.00	0.00
4,100.00	21.97	53.27	3,913.38	616.99	826.93	1,031.74	0.00	0.00	0.00
4,200.00	21.97	53.27	4,006.11	639.37	856.91	1,069.15	0.00	0.00	0.00
4,281.83	21.97	53.27	4,082.00	657.68	881.45	1,099.77	0.00	0.00	0.00
SUSSEX									
4,300.00	21.97	53.27	4,098.85	661.74	886.90	1,106.57	0.00	0.00	0.00
4,400.00	21.97	53.27	4,191.59	684.12	916.89	1,143.98	0.00	0.00	0.00

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well P_Sekich 32-17
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4880 @ 4880.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4880 @ 4880.00ft (Original Well Elev)
<b>Site:</b>	WELD_SEKICH 20-18 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_Sekich 32-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Sekich 32-17		
<b>Design:</b>	PLAN #1 9-14-10 RHS		

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)
4,500.00	21.97	53.27	4,284.32	706.49	946.88	1,181.40	0.00	0.00	0.00
4,600.00	21.97	53.27	4,377.06	728.87	976.86	1,218.82	0.00	0.00	0.00
4,700.00	21.97	53.27	4,469.80	751.24	1,006.85	1,256.23	0.00	0.00	0.00
4,719.63	21.97	53.27	4,488.00	755.63	1,012.74	1,263.57	0.00	0.00	0.00
<b>SHANNON</b>									
4,800.00	21.97	53.27	4,562.53	773.62	1,036.84	1,293.65	0.00	0.00	0.00
4,900.00	21.97	53.27	4,655.27	795.99	1,066.83	1,331.06	0.00	0.00	0.00
5,000.00	21.97	53.27	4,748.01	818.37	1,096.82	1,368.48	0.00	0.00	0.00
5,099.34	21.97	53.27	4,840.13	840.59	1,126.61	1,405.64	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,100.00	21.96	53.27	4,840.74	840.74	1,126.80	1,405.89	2.00	-2.00	0.00
5,200.00	19.96	53.27	4,934.12	862.13	1,155.47	1,441.66	2.00	-2.00	0.00
5,300.00	17.96	53.27	5,028.69	881.56	1,181.51	1,474.15	2.00	-2.00	0.00
5,400.00	15.96	53.27	5,124.34	899.00	1,204.89	1,503.31	2.00	-2.00	0.00
5,500.00	13.96	53.27	5,220.95	914.43	1,225.57	1,529.12	2.00	-2.00	0.00
5,600.00	11.96	53.27	5,318.39	927.84	1,243.55	1,551.55	2.00	-2.00	0.00
5,700.00	9.96	53.27	5,416.57	939.21	1,258.78	1,570.56	2.00	-2.00	0.00
5,800.00	7.96	53.27	5,515.34	948.52	1,271.26	1,586.13	2.00	-2.00	0.00
5,900.00	5.96	53.27	5,614.60	955.77	1,280.97	1,598.24	2.00	-2.00	0.00
6,000.00	3.96	53.27	5,714.22	960.94	1,287.90	1,606.89	2.00	-2.00	0.00
6,100.00	1.96	53.27	5,814.08	964.02	1,292.04	1,612.05	2.00	-2.00	0.00
6,197.94	0.00	0.00	5,912.00	965.03	1,293.38	1,613.72	2.00	-2.00	0.00
<b>Start 2028.00 hold at 6197.94 MD</b>									
6,200.00	0.00	0.00	5,914.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
6,300.00	0.00	0.00	6,014.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
6,400.00	0.00	0.00	6,114.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
6,500.00	0.00	0.00	6,214.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
6,600.00	0.00	0.00	6,314.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
6,700.00	0.00	0.00	6,414.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
6,800.00	0.00	0.00	6,514.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
6,900.00	0.00	0.00	6,614.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
7,000.00	0.00	0.00	6,714.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
7,100.00	0.00	0.00	6,814.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
7,197.94	0.00	0.00	6,912.00	965.03	1,293.38	1,613.72	0.00	0.00	0.00
<b>NIO</b>									
7,200.00	0.00	0.00	6,914.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
7,300.00	0.00	0.00	7,014.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
7,400.00	0.00	0.00	7,114.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
7,461.94	0.00	0.00	7,176.00	965.03	1,293.38	1,613.72	0.00	0.00	0.00
<b>CODELL</b>									
7,500.00	0.00	0.00	7,214.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
7,539.94	0.00	0.00	7,254.00	965.03	1,293.38	1,613.72	0.00	0.00	0.00
<b>GREENHORN</b>									
7,600.00	0.00	0.00	7,314.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
7,700.00	0.00	0.00	7,414.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
7,800.00	0.00	0.00	7,514.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
7,865.94	0.00	0.00	7,580.00	965.03	1,293.38	1,613.72	0.00	0.00	0.00
<b>JSAND</b>									
7,900.00	0.00	0.00	7,614.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
8,000.00	0.00	0.00	7,714.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
8,059.94	0.00	0.00	7,774.00	965.03	1,293.38	1,613.72	0.00	0.00	0.00
<b>DAKOTA</b>									
8,100.00	0.00	0.00	7,814.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well P_Sekich 32-17
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4880 @ 4880.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 4880 @ 4880.00ft (Original Well Elev)
<b>Site:</b>	WELD_SEKICH 20-18 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_Sekich 32-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Sekich 32-17		
<b>Design:</b>	PLAN #1 9-14-10 RHS		

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	0.00	0.00	7,914.06	965.03	1,293.38	1,613.72	0.00	0.00	0.00
8,225.94	0.00	0.00	7,940.00	965.03	1,293.38	1,613.72	0.00	0.00	0.00
PBHL_Sekich 32-17(2500' FSL 50' FWL)									

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_Sekich 32-17(2500' FSL 50' FWL)	0.00	0.00	7,940.00	965.03	1,293.38	1,325,611.16	3,161,088.34	40° 13' 32.743 N	104° 55' 23.110 W
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
650.00	650.00	8 5/8"	8.625	11.000	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,641.31	3,488.00	PARKMAN			
4,281.83	4,082.00	SUSSEX			
4,719.63	4,488.00	SHANNON			
7,197.94	6,912.00	NIO			
7,461.94	7,176.00	CODELL			
7,539.94	7,254.00	GREENHORN			
7,865.94	7,580.00	JSAND			
8,059.94	7,774.00	DAKOTA			

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
800.00	800.00	0.00	0.00	Start Build 2.00
1,898.60	1,871.87	124.43	166.77	Start 3200.74 hold at 1898.60 MD
5,099.34	4,840.13	840.59	1,126.61	Start Drop -2.00
6,197.94	5,912.00	965.03	1,293.38	Start 2028.00 hold at 6197.94 MD
8,225.94	7,940.00	965.03	1,293.38	TD at 8225.94