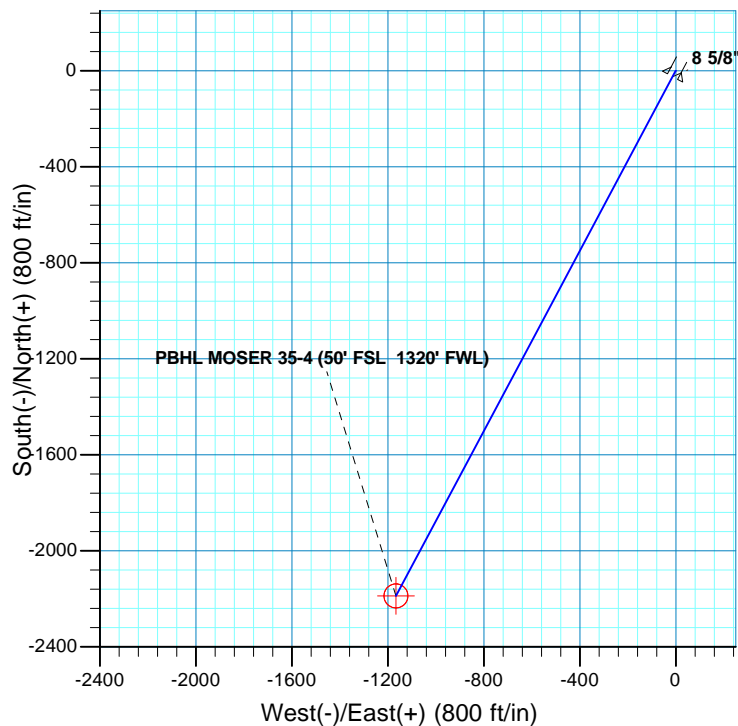
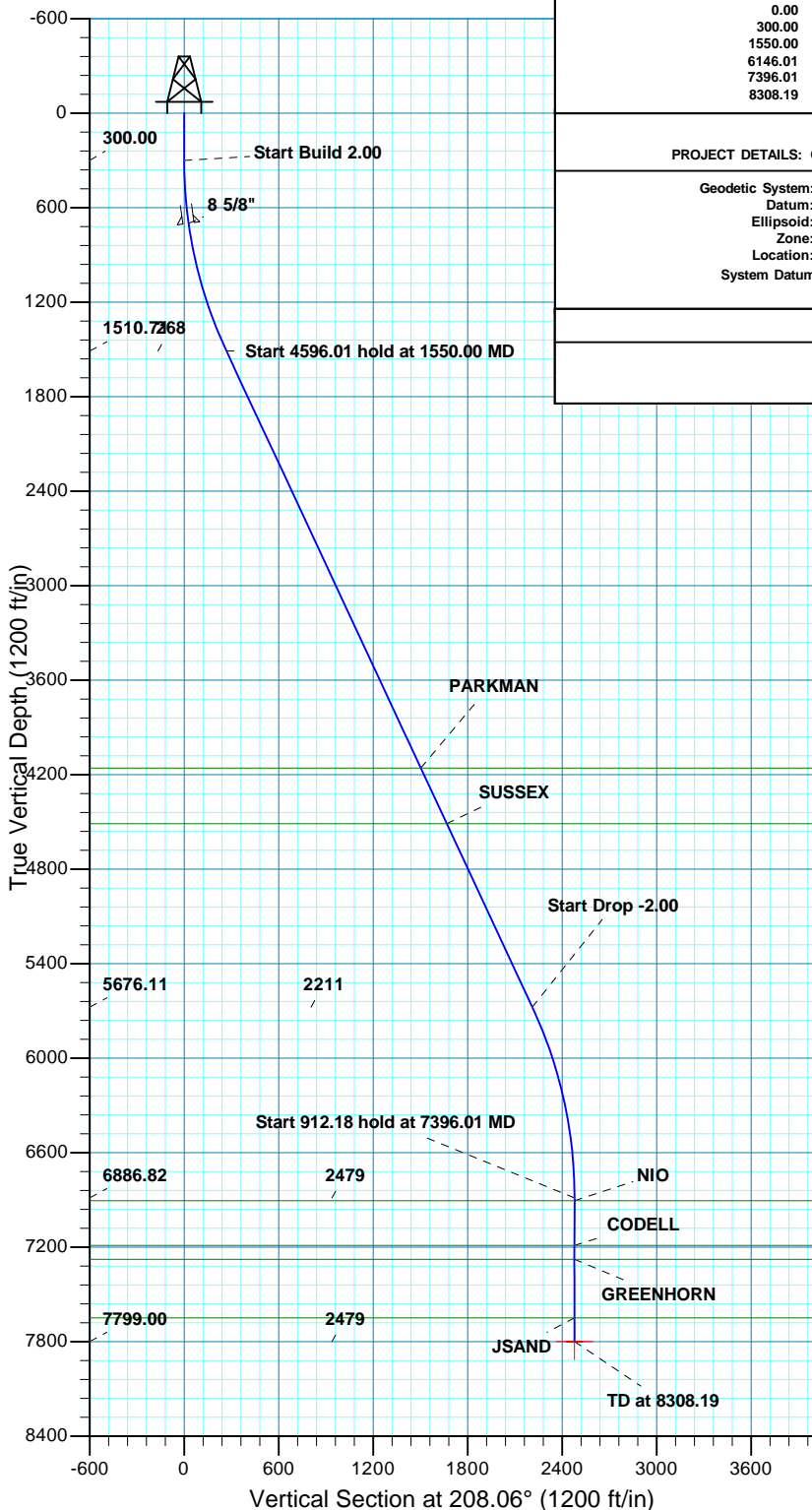


WELL DETAILS: P_MOSER 35-4					
GL 4859' & RKB 15' @ 4874.00ft (ASSUMED)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1304647.44	3232135.23	40° 10' 0.005 N	104° 40' 9.689 W

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL	7799.00	-2187.84	-1166.05	1302448.78	3230989.72	40° 9' 38.383 N	104° 40' 24.708 W
- plan hits target center							
Shape							
Circle (Radius: 50.00)							

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		
	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00		
	1550.00	25.00	208.06	1510.71	-236.87	-126.24	2.00	208.06	268.41		
	6146.01	25.00	208.06	5676.11	-1950.97	-1039.81	0.00	0.00	2210.77		
	7396.01	0.00	0.00	6886.82	-2187.84	-1166.05	2.00	180.00	2479.17		
	8308.19	0.00	0.00	7799.00	-2187.84	-1166.05	0.00	0.00	2479.17	PBHL MOSER 35-4 (50' FSL 1320' 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 4 T3N R65W System Datum: Mean Sea Level							4159.00	4472.06	PARKMAN		
							4511.00	4860.45	SUSSEX		
							6905.00	7414.19	NIO		
							7190.00	7699.19	CODELL		
							7277.00	7786.19	GREENHORN		
							7649.00	8158.19	JSAND		
							CASING DETAILS				
				TVD	MD	Name	Size				
				700.00	701.31	8 5/8"	8.625				



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_MOSER 11-4 PAD

P_MOSER 35-4

P_MOSER 35-4

Plan: PLAN #1 9-1-10 RHS

Standard Planning Report

01 September, 2010

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_MOSER 35-4
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4859' & RKB 15' GL 4859' & RKB 15' @ 4874.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4859' & RKB 15' GL 4859' & RKB 15' @ 4874.00ft (ASSUMED)
Site:	WELD_MOSER 11-4 PAD	North Reference:	True
Well:	P_MOSER 35-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_MOSER 35-4		
Design:	PLAN #1 9-1-10 RHS		

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	WELD_MOSER 11-4 PAD, SEC 4 T3N R65W			
Site Position:		Northing:	1,304,665.78 usft	Latitude: 40° 10' 0.188 N
From:	Lat/Long	Easting:	3,232,109.06 usft	Longitude: 104° 40' 10.024 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence: 0.54 °

Well	P_MOSER 35-4, 2241' FSL 2463' FWL			
Well Position	+N/-S	-18.59 ft	Northing:	1,304,647.44 usft
	+E/-W	25.99 ft	Easting:	3,232,135.23 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:		Ground Level: 4,859.00 ft

Wellbore	P_MOSER 35-4				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	09/01/2010	8.90	66.90	53,102

Design	PLAN #1 9-1-10 RHS			
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	208.06

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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,550.00	25.00	208.06	1,510.71	-236.87	-126.24	2.00	2.00	0.00	208.06	
6,146.01	25.00	208.06	5,676.11	-1,950.97	-1,039.81	0.00	0.00	0.00	0.00	
7,396.01	0.00	0.00	6,886.82	-2,187.84	-1,166.05	2.00	-2.00	0.00	180.00	
8,308.19	0.00	0.00	7,799.00	-2,187.84	-1,166.05	0.00	0.00	0.00	0.00	PBHL MOSER 35-4 (I

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_MOSER 35-4
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4859' & RKB 15' GL 4859' & RKB 15' @ 4874.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4859' & RKB 15' GL 4859' & RKB 15' @ 4874.00ft (ASSUMED)
Site:	WELD_MOSER 11-4 PAD	North Reference:	True
Well:	P_MOSER 35-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_MOSER 35-4		
Design:	PLAN #1 9-1-10 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
Start Build 2.00									
400.00	2.00	208.06	399.98	-1.54	-0.82	1.75	2.00	2.00	0.00
500.00	4.00	208.06	499.84	-6.16	-3.28	6.98	2.00	2.00	0.00
600.00	6.00	208.06	599.45	-13.85	-7.38	15.69	2.00	2.00	0.00
700.00	8.00	208.06	698.70	-24.60	-13.11	27.88	2.00	2.00	0.00
701.31	8.03	208.06	700.00	-24.76	-13.20	28.06	2.00	2.00	0.00
8 5/8"									
800.00	10.00	208.06	797.47	-38.41	-20.47	43.52	2.00	2.00	0.00
900.00	12.00	208.06	895.62	-55.25	-29.44	62.60	2.00	2.00	0.00
1,000.00	14.00	208.06	993.06	-75.10	-40.02	85.10	2.00	2.00	0.00
1,100.00	16.00	208.06	1,089.64	-97.94	-52.20	110.98	2.00	2.00	0.00
1,200.00	18.00	208.06	1,185.27	-123.74	-65.95	140.21	2.00	2.00	0.00
1,300.00	20.00	208.06	1,279.82	-152.47	-81.26	172.77	2.00	2.00	0.00
1,400.00	22.00	208.06	1,373.17	-184.09	-98.11	208.60	2.00	2.00	0.00
1,500.00	24.00	208.06	1,465.21	-218.57	-116.49	247.67	2.00	2.00	0.00
1,550.00	25.00	208.06	1,510.71	-236.87	-126.24	268.41	2.00	2.00	0.00
Start 4596.01 hold at 1550.00 MD									
1,600.00	25.00	208.06	1,556.03	-255.51	-136.18	289.54	0.00	0.00	0.00
1,700.00	25.00	208.06	1,646.66	-292.81	-156.06	331.80	0.00	0.00	0.00
1,800.00	25.00	208.06	1,737.29	-330.11	-175.94	374.06	0.00	0.00	0.00
1,900.00	25.00	208.06	1,827.92	-367.40	-195.81	416.32	0.00	0.00	0.00
2,000.00	25.00	208.06	1,918.55	-404.70	-215.69	458.59	0.00	0.00	0.00
2,100.00	25.00	208.06	2,009.18	-441.99	-235.57	500.85	0.00	0.00	0.00
2,200.00	25.00	208.06	2,099.81	-479.29	-255.45	543.11	0.00	0.00	0.00
2,300.00	25.00	208.06	2,190.44	-516.58	-275.32	585.37	0.00	0.00	0.00
2,400.00	25.00	208.06	2,281.07	-553.88	-295.20	627.63	0.00	0.00	0.00
2,500.00	25.00	208.06	2,371.70	-591.17	-315.08	669.90	0.00	0.00	0.00
2,600.00	25.00	208.06	2,462.34	-628.47	-334.95	712.16	0.00	0.00	0.00
2,700.00	25.00	208.06	2,552.97	-665.76	-354.83	754.42	0.00	0.00	0.00
2,800.00	25.00	208.06	2,643.60	-703.06	-374.71	796.68	0.00	0.00	0.00
2,900.00	25.00	208.06	2,734.23	-740.36	-394.59	838.94	0.00	0.00	0.00
3,000.00	25.00	208.06	2,824.86	-777.65	-414.46	881.20	0.00	0.00	0.00
3,100.00	25.00	208.06	2,915.49	-814.95	-434.34	923.47	0.00	0.00	0.00
3,200.00	25.00	208.06	3,006.12	-852.24	-454.22	965.73	0.00	0.00	0.00
3,300.00	25.00	208.06	3,096.75	-889.54	-474.10	1,007.99	0.00	0.00	0.00
3,400.00	25.00	208.06	3,187.38	-926.83	-493.97	1,050.25	0.00	0.00	0.00
3,500.00	25.00	208.06	3,278.01	-964.13	-513.85	1,092.51	0.00	0.00	0.00
3,600.00	25.00	208.06	3,368.64	-1,001.42	-533.73	1,134.78	0.00	0.00	0.00
3,700.00	25.00	208.06	3,459.27	-1,038.72	-553.61	1,177.04	0.00	0.00	0.00
3,800.00	25.00	208.06	3,549.90	-1,076.02	-573.48	1,219.30	0.00	0.00	0.00
3,900.00	25.00	208.06	3,640.54	-1,113.31	-593.36	1,261.56	0.00	0.00	0.00
4,000.00	25.00	208.06	3,731.17	-1,150.61	-613.24	1,303.82	0.00	0.00	0.00
4,100.00	25.00	208.06	3,821.80	-1,187.90	-633.11	1,346.09	0.00	0.00	0.00
4,200.00	25.00	208.06	3,912.43	-1,225.20	-652.99	1,388.35	0.00	0.00	0.00
4,300.00	25.00	208.06	4,003.06	-1,262.49	-672.87	1,430.61	0.00	0.00	0.00
4,400.00	25.00	208.06	4,093.69	-1,299.79	-692.75	1,472.87	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_MOSER 35-4
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4859' & RKB 15' GL 4859' & RKB 15' @ 4874.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4859' & RKB 15' GL 4859' & RKB 15' @ 4874.00ft (ASSUMED)
Site:	WELD_MOSER 11-4 PAD	North Reference:	True
Well:	P_MOSER 35-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_MOSER 35-4		
Design:	PLAN #1 9-1-10 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)
4,472.06	25.00	208.06	4,159.00	-1,326.66	-707.07	1,503.33	0.00	0.00	0.00
PARKMAN									
4,500.00	25.00	208.06	4,184.32	-1,337.08	-712.62	1,515.13	0.00	0.00	0.00
4,600.00	25.00	208.06	4,274.95	-1,374.38	-732.50	1,557.39	0.00	0.00	0.00
4,700.00	25.00	208.06	4,365.58	-1,411.67	-752.38	1,599.66	0.00	0.00	0.00
4,800.00	25.00	208.06	4,456.21	-1,448.97	-772.26	1,641.92	0.00	0.00	0.00
4,860.45	25.00	208.06	4,511.00	-1,471.52	-784.27	1,667.47	0.00	0.00	0.00
SUSSEX									
4,900.00	25.00	208.06	4,546.84	-1,486.27	-792.13	1,684.18	0.00	0.00	0.00
5,000.00	25.00	208.06	4,637.47	-1,523.56	-812.01	1,726.44	0.00	0.00	0.00
5,100.00	25.00	208.06	4,728.10	-1,560.86	-831.89	1,768.70	0.00	0.00	0.00
5,200.00	25.00	208.06	4,818.74	-1,598.15	-851.77	1,810.97	0.00	0.00	0.00
5,300.00	25.00	208.06	4,909.37	-1,635.45	-871.64	1,853.23	0.00	0.00	0.00
5,400.00	25.00	208.06	5,000.00	-1,672.74	-891.52	1,895.49	0.00	0.00	0.00
5,500.00	25.00	208.06	5,090.63	-1,710.04	-911.40	1,937.75	0.00	0.00	0.00
5,600.00	25.00	208.06	5,181.26	-1,747.33	-931.28	1,980.01	0.00	0.00	0.00
5,700.00	25.00	208.06	5,271.89	-1,784.63	-951.15	2,022.27	0.00	0.00	0.00
5,800.00	25.00	208.06	5,362.52	-1,821.92	-971.03	2,064.54	0.00	0.00	0.00
5,900.00	25.00	208.06	5,453.15	-1,859.22	-990.91	2,106.80	0.00	0.00	0.00
6,000.00	25.00	208.06	5,543.78	-1,896.52	-1,010.78	2,149.06	0.00	0.00	0.00
6,100.00	25.00	208.06	5,634.41	-1,933.81	-1,030.66	2,191.32	0.00	0.00	0.00
6,146.01	25.00	208.06	5,676.11	-1,950.97	-1,039.81	2,210.77	0.00	0.00	0.00
Start Drop -2.00									
6,200.00	23.92	208.06	5,725.26	-1,970.70	-1,050.32	2,233.12	2.00	-2.00	0.00
6,300.00	21.92	208.06	5,817.36	-2,005.07	-1,068.64	2,272.06	2.00	-2.00	0.00
6,400.00	19.92	208.06	5,910.76	-2,036.57	-1,085.43	2,307.77	2.00	-2.00	0.00
6,500.00	17.92	208.06	6,005.35	-2,065.19	-1,100.68	2,340.19	2.00	-2.00	0.00
6,600.00	15.92	208.06	6,101.02	-2,090.87	-1,114.37	2,369.29	2.00	-2.00	0.00
6,700.00	13.92	208.06	6,197.64	-2,113.59	-1,126.48	2,395.04	2.00	-2.00	0.00
6,800.00	11.92	208.06	6,295.10	-2,133.32	-1,136.99	2,417.40	2.00	-2.00	0.00
6,900.00	9.92	208.06	6,393.29	-2,150.04	-1,145.90	2,436.34	2.00	-2.00	0.00
7,000.00	7.92	208.06	6,492.07	-2,163.72	-1,153.20	2,451.85	2.00	-2.00	0.00
7,100.00	5.92	208.06	6,591.34	-2,174.35	-1,158.86	2,463.89	2.00	-2.00	0.00
7,200.00	3.92	208.06	6,690.97	-2,181.92	-1,162.90	2,472.47	2.00	-2.00	0.00
7,300.00	1.92	208.06	6,790.83	-2,186.42	-1,165.29	2,477.57	2.00	-2.00	0.00
7,396.01	0.00	0.00	6,886.82	-2,187.84	-1,166.05	2,479.17	2.00	-2.00	0.00
Start 912.18 hold at 7396.01 MD									
7,400.00	0.00	0.00	6,890.81	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00
7,414.19	0.00	0.00	6,905.00	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00
NIO									
7,500.00	0.00	0.00	6,990.81	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00
7,600.00	0.00	0.00	7,090.81	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00
7,699.19	0.00	0.00	7,190.00	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00
CODELL									
7,700.00	0.00	0.00	7,190.81	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00
7,786.19	0.00	0.00	7,277.00	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00
GREENHORN									
7,800.00	0.00	0.00	7,290.81	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00
7,900.00	0.00	0.00	7,390.81	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_MOSER 35-4
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4859' & RKB 15' GL 4859' & RKB 15' @ 4874.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4859' & RKB 15' GL 4859' & RKB 15' @ 4874.00ft (ASSUMED)
Site:	WELD_MOSER 11-4 PAD	North Reference:	True
Well:	P_MOSER 35-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_MOSER 35-4		
Design:	PLAN #1 9-1-10 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)	
8,000.00	0.00	0.00	7,490.81	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00	
8,100.00	0.00	0.00	7,590.81	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00	
8,158.19	0.00	0.00	7,649.00	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00	
JSAND										
8,200.00	0.00	0.00	7,690.81	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00	
8,300.00	0.00	0.00	7,790.81	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00	
8,308.19	0.00	0.00	7,799.00	-2,187.84	-1,166.05	2,479.17	0.00	0.00	0.00	
TD at 8308.19 - PBHL MOSER 35-4 (50' FSL 1320' FWL)										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PBHL MOSER 35-4 (50' - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,799.00	-2,187.84	-1,166.05	1,302,448.78	3,230,989.73	40° 9' 38.383 N	104° 40' 24.708 W	

Casing Points										
Measured Depth (ft)	Vertical Depth (ft)	Name				Casing Diameter (in)	Hole Diameter (in)			
701.31	700.00	8 5/8"				8.625	11.000			

Formations										
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)					
4,472.06	4,159.00	PARKMAN								
4,860.45	4,511.00	SUSSEX								
7,414.19	6,905.00	NIO								
7,699.19	7,190.00	CODELL								
7,786.19	7,277.00	GREENHORN								
8,158.19	7,649.00	JSAND								

Plan Annotations										
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates				Comment				
300.00	300.00	+N/-S (ft)	+E/-W (ft)			Start Build 2.00				
1,550.00	1,510.71	-236.87	-126.24			Start 4596.01 hold at 1550.00 MD				
6,146.01	5,676.11	-1,950.97	-1,039.81			Start Drop -2.00				
7,396.01	6,886.82	-2,187.84	-1,166.05			Start 912.18 hold at 7396.01 MD				
8,308.19	7,799.00	-2,187.84	-1,166.05			TD at 8308.19				