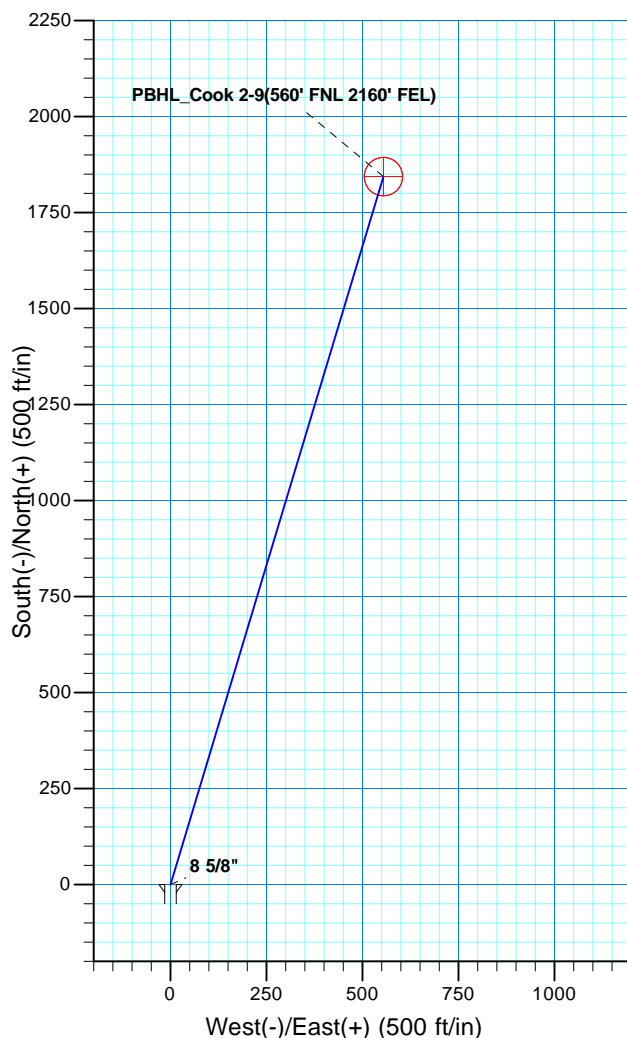
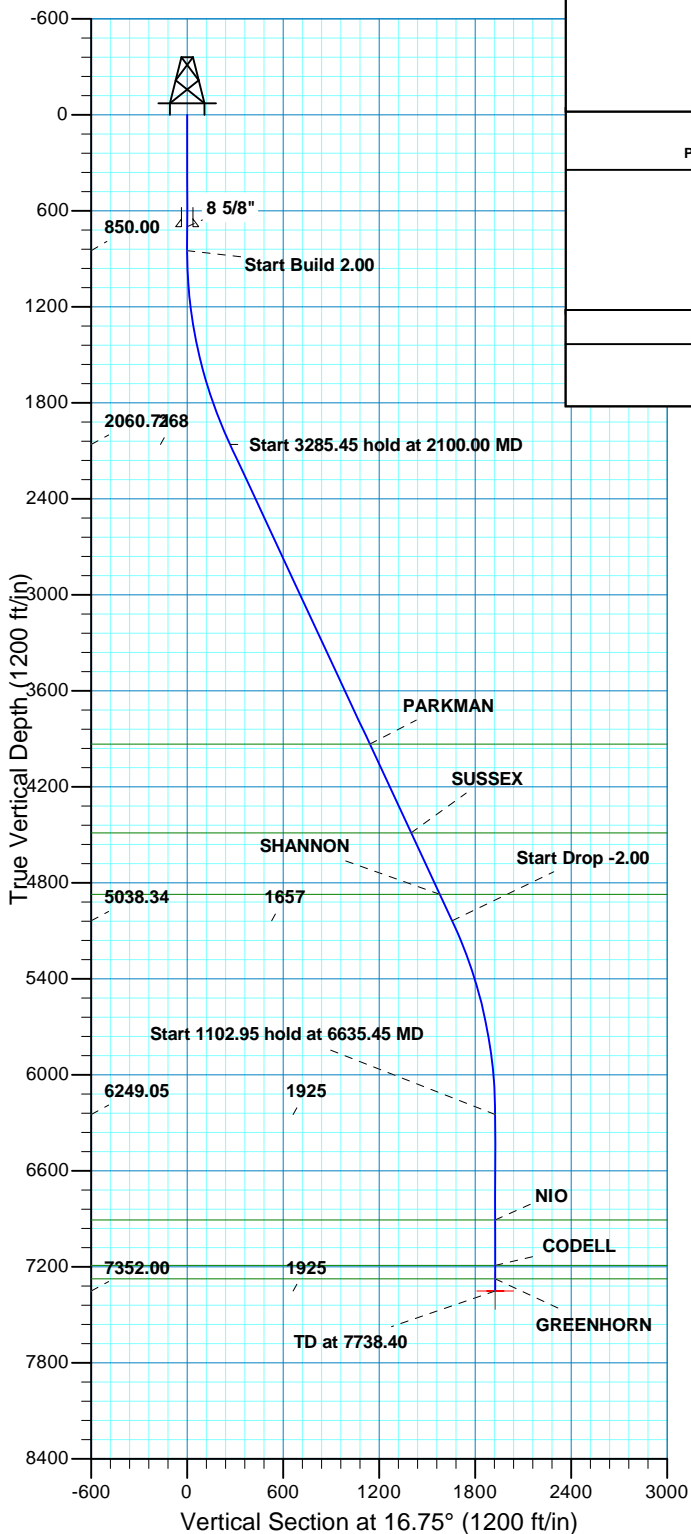


WELL DETAILS: P_Cook 2-9					
GL 4873' & RKB 15' @ 4888.00ft (ASSUMED)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1300001.30	3232300.07	40° 9' 14.076 N	104° 40' 8.126 W

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL	7352.00	1843.63	554.81	1301850.05	3232837.57	40° 9' 32.296 N	104° 40' 0.980 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		
	850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00		
	2100.00	25.00	16.75	2060.71	257.02	77.35	2.00	16.75	268.41		
	5385.45	25.00	16.75	5038.34	1586.61	477.46	0.00	0.00	1656.90		
	6635.45	0.00	0.00	6249.05	1843.63	554.81	2.00	180.00	1925.31		
	7738.40	0.00	0.00	7352.00	1843.63	554.81	0.00	0.00	1925.31	PBHL_Cook 2-9(560' FNL 2160' FEL)	
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: SECTION 9 T2N R65W System Datum: Mean Sea Level							3934.00	4166.94	PARKMAN		
							4488.00	4778.22	SUSSEX		
							4872.00	5201.91	SHANNON		
							6908.00	7294.40	NIO		
							7192.00	7578.40	CODELL		
							7276.00	7662.40	GREENHORN		
CASING DETAILS											
	TVD			MD		Name		Size			
	700.00			700.00		8 5/8"		8.625			



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_COOK 25-9 PAD

P_Cook 2-9

P_Cook 2-9

Plan: PLAN #1 8-16-10 RHS

Standard Planning Report

16 August, 2010

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Cook 2-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4873' & RKB 15' @ 4888.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4873' & RKB 15' @ 4888.00ft (ASSUMED)
Site:	WELD_COOK 25-9 PAD	North Reference:	True
Well:	P_Cook 2-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Cook 2-9		
Design:	PLAN #1 8-16-10 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_COOK 25-9 PAD, SECTION 9 T2N R65W			
Site Position:		Northing:	1,300,001.29 usft	Latitude:	40° 9' 14.076 N
From:	Lat/Long	Easting:	3,232,300.07 usft	Longitude:	104° 40' 8.126 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.54 °

Well	P_Cook 2-9, 2406' FNL 2623' FWL					
Well Position	+N/-S	0.00 ft	Northing:	1,300,001.29 usft	Latitude:	40° 9' 14.076 N
	+E/-W	0.00 ft	Easting:	3,232,300.07 usft	Longitude:	104° 40' 8.126 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,873.00 ft

Wellbore	P_Cook 2-9				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/16/2010	8.90	66.90	53,100

Design	PLAN #1 8-16-10 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	16.75

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	
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,100.00	25.00	16.75	2,060.71	257.02	77.35	2.00	2.00	0.00	16.75	
5,385.45	25.00	16.75	5,038.34	1,586.61	477.46	0.00	0.00	0.00	0.00	
6,635.45	0.00	0.00	6,249.05	1,843.63	554.81	2.00	-2.00	0.00	180.00	
7,738.40	0.00	0.00	7,352.00	1,843.63	554.81	0.00	0.00	0.00	0.00	PBHL_Cook 2-9(560')

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Cook 2-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4873' & RKB 15' @ 4888.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4873' & RKB 15' @ 4888.00ft (ASSUMED)
Site:	WELD_COOK 25-9 PAD	North Reference:	True
Well:	P_Cook 2-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Cook 2-9		
Design:	PLAN #1 8-16-10 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	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
8 5/8"										
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 2.00										
900.00	1.00	16.75	900.00	0.42	0.13	0.44	2.00	2.00	0.00	
1,000.00	3.00	16.75	999.93	3.76	1.13	3.93	2.00	2.00	0.00	
1,100.00	5.00	16.75	1,099.68	10.44	3.14	10.90	2.00	2.00	0.00	
1,200.00	7.00	16.75	1,199.13	20.45	6.15	21.35	2.00	2.00	0.00	
1,300.00	9.00	16.75	1,298.15	33.77	10.16	35.27	2.00	2.00	0.00	
1,400.00	11.00	16.75	1,396.63	50.40	15.17	52.63	2.00	2.00	0.00	
1,500.00	13.00	16.75	1,494.44	70.31	21.16	73.42	2.00	2.00	0.00	
1,600.00	15.00	16.75	1,591.46	93.47	28.13	97.62	2.00	2.00	0.00	
1,700.00	17.00	16.75	1,687.58	119.87	36.07	125.18	2.00	2.00	0.00	
1,800.00	19.00	16.75	1,782.68	149.46	44.98	156.08	2.00	2.00	0.00	
1,900.00	21.00	16.75	1,876.65	182.21	54.83	190.28	2.00	2.00	0.00	
2,000.00	23.00	16.75	1,969.36	218.08	65.63	227.74	2.00	2.00	0.00	
2,100.00	25.00	16.75	2,060.71	257.02	77.35	268.41	2.00	2.00	0.00	
Start 3285.45 hold at 2100.00 MD										
2,200.00	25.00	16.75	2,151.34	297.49	89.52	310.67	0.00	0.00	0.00	
2,300.00	25.00	16.75	2,241.97	337.96	101.70	352.93	0.00	0.00	0.00	
2,400.00	25.00	16.75	2,332.60	378.43	113.88	395.19	0.00	0.00	0.00	
2,500.00	25.00	16.75	2,423.24	418.90	126.06	437.46	0.00	0.00	0.00	
2,600.00	25.00	16.75	2,513.87	459.37	138.24	479.72	0.00	0.00	0.00	
2,700.00	25.00	16.75	2,604.50	499.84	150.42	521.98	0.00	0.00	0.00	
2,800.00	25.00	16.75	2,695.13	540.31	162.60	564.24	0.00	0.00	0.00	
2,900.00	25.00	16.75	2,785.76	580.78	174.77	606.50	0.00	0.00	0.00	
3,000.00	25.00	16.75	2,876.39	621.24	186.95	648.76	0.00	0.00	0.00	
3,100.00	25.00	16.75	2,967.02	661.71	199.13	691.03	0.00	0.00	0.00	
3,200.00	25.00	16.75	3,057.65	702.18	211.31	733.29	0.00	0.00	0.00	
3,300.00	25.00	16.75	3,148.28	742.65	223.49	775.55	0.00	0.00	0.00	
3,400.00	25.00	16.75	3,238.91	783.12	235.67	817.81	0.00	0.00	0.00	
3,500.00	25.00	16.75	3,329.54	823.59	247.84	860.07	0.00	0.00	0.00	
3,600.00	25.00	16.75	3,420.17	864.06	260.02	902.34	0.00	0.00	0.00	
3,700.00	25.00	16.75	3,510.80	904.53	272.20	944.60	0.00	0.00	0.00	
3,800.00	25.00	16.75	3,601.44	945.00	284.38	986.86	0.00	0.00	0.00	
3,900.00	25.00	16.75	3,692.07	985.47	296.56	1,029.12	0.00	0.00	0.00	
4,000.00	25.00	16.75	3,782.70	1,025.94	308.74	1,071.38	0.00	0.00	0.00	
4,100.00	25.00	16.75	3,873.33	1,066.40	320.92	1,113.64	0.00	0.00	0.00	
4,166.94	25.00	16.75	3,934.00	1,093.50	329.07	1,141.94	0.00	0.00	0.00	
PARKMAN										
4,200.00	25.00	16.75	3,963.96	1,106.87	333.09	1,155.91	0.00	0.00	0.00	
4,300.00	25.00	16.75	4,054.59	1,147.34	345.27	1,198.17	0.00	0.00	0.00	
4,400.00	25.00	16.75	4,145.22	1,187.81	357.45	1,240.43	0.00	0.00	0.00	
4,500.00	25.00	16.75	4,235.85	1,228.28	369.63	1,282.69	0.00	0.00	0.00	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Cook 2-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4873' & RKB 15' @ 4888.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4873' & RKB 15' @ 4888.00ft (ASSUMED)
Site:	WELD_COOK 25-9 PAD	North Reference:	True
Well:	P_Cook 2-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Cook 2-9		
Design:	PLAN #1 8-16-10 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)	
4,600.00	25.00	16.75	4,326.48	1,268.75	381.81	1,324.95	0.00	0.00	0.00	
4,700.00	25.00	16.75	4,417.11	1,309.22	393.99	1,367.22	0.00	0.00	0.00	
4,778.22	25.00	16.75	4,488.00	1,340.87	403.51	1,400.27	0.00	0.00	0.00	
SUSSEX										
4,800.00	25.00	16.75	4,507.74	1,349.69	406.16	1,409.48	0.00	0.00	0.00	
4,900.00	25.00	16.75	4,598.37	1,390.16	418.34	1,451.74	0.00	0.00	0.00	
5,000.00	25.00	16.75	4,689.00	1,430.63	430.52	1,494.00	0.00	0.00	0.00	
5,100.00	25.00	16.75	4,779.64	1,471.10	442.70	1,536.26	0.00	0.00	0.00	
5,200.00	25.00	16.75	4,870.27	1,511.56	454.88	1,578.53	0.00	0.00	0.00	
5,201.91	25.00	16.75	4,872.00	1,512.34	455.11	1,579.33	0.00	0.00	0.00	
SHANNON										
5,300.00	25.00	16.75	4,960.90	1,552.03	467.06	1,620.79	0.00	0.00	0.00	
5,385.45	25.00	16.75	5,038.34	1,586.61	477.46	1,656.90	0.00	0.00	0.00	
Start Drop -2.00										
5,400.00	24.71	16.75	5,051.54	1,592.47	479.23	1,663.02	2.00	-2.00	0.00	
5,500.00	22.71	16.75	5,143.10	1,630.97	490.81	1,703.22	2.00	-2.00	0.00	
5,600.00	20.71	16.75	5,236.00	1,666.39	501.47	1,740.21	2.00	-2.00	0.00	
5,700.00	18.71	16.75	5,330.14	1,698.68	511.19	1,773.93	2.00	-2.00	0.00	
5,800.00	16.71	16.75	5,425.40	1,727.81	519.95	1,804.35	2.00	-2.00	0.00	
5,900.00	14.71	16.75	5,521.66	1,753.73	527.76	1,831.42	2.00	-2.00	0.00	
6,000.00	12.71	16.75	5,618.80	1,776.43	534.58	1,855.12	2.00	-2.00	0.00	
6,100.00	10.71	16.75	5,716.72	1,795.86	540.43	1,875.41	2.00	-2.00	0.00	
6,200.00	8.71	16.75	5,815.28	1,812.01	545.29	1,892.28	2.00	-2.00	0.00	
6,300.00	6.71	16.75	5,914.37	1,824.85	549.16	1,905.69	2.00	-2.00	0.00	
6,400.00	4.71	16.75	6,013.87	1,834.38	552.02	1,915.64	2.00	-2.00	0.00	
6,500.00	2.71	16.75	6,113.65	1,840.57	553.89	1,922.10	2.00	-2.00	0.00	
6,600.00	0.71	16.75	6,213.60	1,843.42	554.75	1,925.09	2.00	-2.00	0.00	
6,635.45	0.00	0.00	6,249.05	1,843.63	554.81	1,925.31	2.00	-2.00	0.00	
Start 1102.95 hold at 6635.45 MD										
6,700.00	0.00	0.00	6,313.60	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,413.60	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,513.60	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,613.60	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
7,100.00	0.00	0.00	6,713.60	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
7,200.00	0.00	0.00	6,813.60	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
7,294.40	0.00	0.00	6,908.00	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
NIO										
7,300.00	0.00	0.00	6,913.60	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,013.60	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,113.60	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
7,578.40	0.00	0.00	7,192.00	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
CODELL										
7,600.00	0.00	0.00	7,213.60	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
7,662.40	0.00	0.00	7,276.00	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
GREENHORN										
7,700.00	0.00	0.00	7,313.60	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
7,738.40	0.00	0.00	7,352.00	1,843.63	554.81	1,925.31	0.00	0.00	0.00	
PBHL_Cook 2-9(560' FNL 2160' FEL)										

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Cook 2-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4873' & RKB 15' @ 4888.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4873' & RKB 15' @ 4888.00ft (ASSUMED)
Site:	WELD_COOK 25-9 PAD	North Reference:	True
Well:	P_Cook 2-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Cook 2-9		
Design:	PLAN #1 8-16-10 RHS		

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_Cook 2-9(560' FN - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,352.00	1,843.63	554.81	1,301,850.04	3,232,837.57	40° 9' 32.296 N	104° 40' 0.980 W

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

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,166.94	3,934.00	PARKMAN				
4,778.22	4,488.00	SUSSEX				
5,201.91	4,872.00	SHANNON				
7,294.40	6,908.00	NIO				
7,578.40	7,192.00	CODELL				
7,662.40	7,276.00	GREENHORN				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
850.00	850.00	0.00	0.00	Start Build 2.00	
2,100.00	2,060.71	257.02	77.35	Start 3285.45 hold at 2100.00 MD	
5,385.45	5,038.34	1,586.61	477.46	Start Drop -2.00	
6,635.45	6,249.05	1,843.63	554.81	Start 1102.95 hold at 6635.45 MD	
7,738.40	7,352.00	1,843.63	554.81	TD at 7738.40	