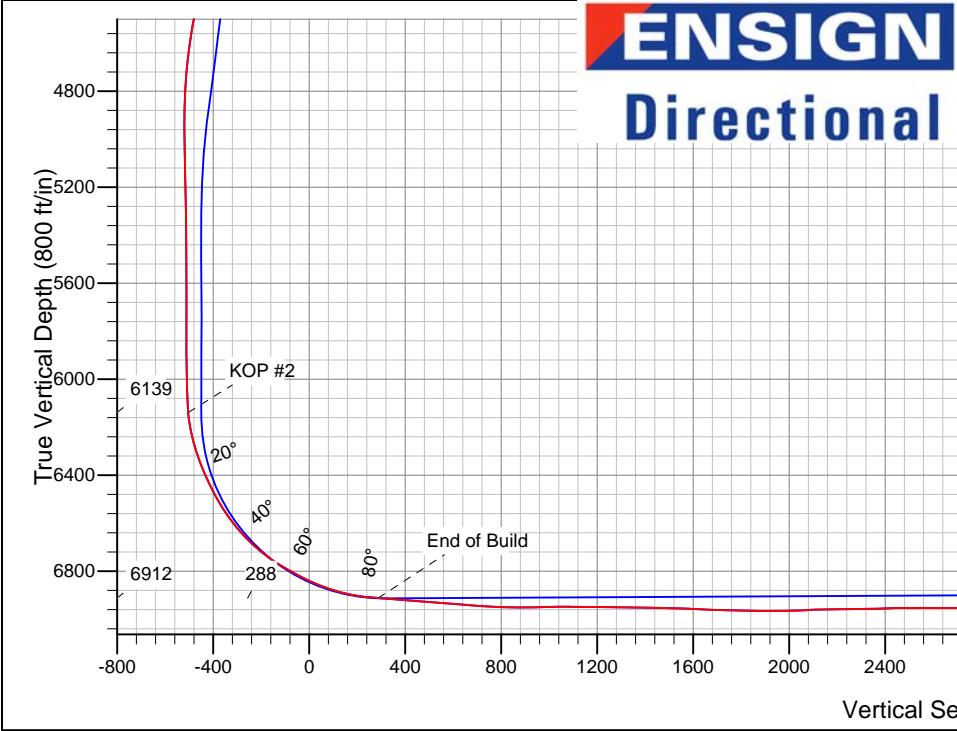
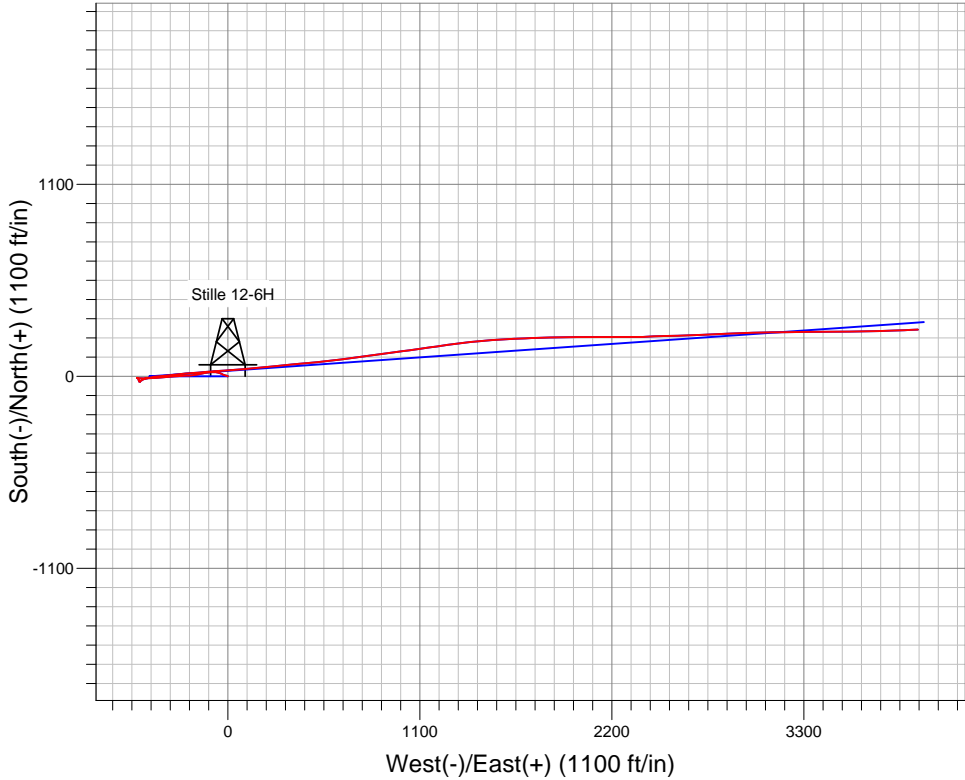


PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Stille 12-6H**
Surface Location: Stille NW-6 Pad Sec.6-T6N-R64W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 4780.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1432774.71 3250280.33 40.517880 -104.599780
RKB Ensign 32 - 15' WELL @ 4795.0ft (RKB Ensign 32 - 15')

FINAL SURVEY

Projected Bottom Hole Location
11063'MD 6957'TVD 268'N & 3953'E of SHL
89.2 degree Incl @ 87.5 degree AZM



Stille NW-6 Pad Sec.6-T6N-R64W Stille 12-6H Wellbore #1 14:19, November 14 2011	ANNOTATIONS		
	TVD	MD	Annotation
	1399.3	1400.0	KOP
	6139.2	6177.5	KOP #2
	6912.2	7381.7	End of Build

LEGEND

- Stille 12-6H, Wellbore #1, Plan #2 (9-27-11) V0
- Survey #1



PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.6-T6N-R64W

Stille NW-6 Pad Sec.6-T6N-R64W

Stille 12-6H

Wellbore #1

Survey: Survey #1

Standard Survey Report

14 November, 2011

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Stille 12-6H
Project:	SEC.6-T6N-R64W	TVD Reference:	WELL @ 4795.0ft (RKB Ensign 32 - 15')
Site:	Stille NW-6 Pad Sec.6-T6N-R64W	MD Reference:	WELL @ 4795.0ft (RKB Ensign 32 - 15')
Well:	Stille 12-6H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.6-T6N-R64W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		Stille NW-6 Pad Sec.6-T6N-R64W			
Site Position:		Northing:	1,432,825.72 ft	Latitude:	40.518020
From:	Lat/Long	Easting:	3,250,279.81 ft	Longitude:	-104.599780
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.58 °

Well	Stille 12-6H					
Well Position	+N-S	0.0 ft	Northing:	1,432,774.71 ft	Latitude:	40.517880
	+E-W	0.0 ft	Easting:	3,250,280.33 ft	Longitude:	-104.599780
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,780.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/28/2011	8.77	67.17	53,196

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	86.12	

Survey Program	Date	11/14/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
881.0	11,063.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
BHL HARDLINE 460'FEL									
2.9	0.01	292.20	2.9	0.0	0.0	0.0	0.18	0.18	0.00
138' Circle									
3.6	0.01	292.20	3.6	0.0	0.0	0.0	0.18	0.18	0.00
SHL HARDLINE 460'FWL									
881.0	1.60	292.20	880.9	4.6	-11.4	-11.0	0.18	0.18	0.00
973.0	1.90	280.60	972.8	5.4	-14.1	-13.7	0.50	0.33	-12.61
1,065.0	2.20	279.30	1,064.8	6.0	-17.3	-16.9	0.33	0.33	-1.41
1,158.0	2.70	282.70	1,157.7	6.7	-21.2	-20.7	0.56	0.54	3.66
1,250.0	2.60	294.20	1,249.6	8.1	-25.2	-24.6	0.59	-0.11	12.50
1,343.0	4.10	303.30	1,342.4	10.8	-29.9	-29.1	1.71	1.61	9.78

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Stille 12-6H
Project:	SEC.6-T6N-R64W	TVD Reference:	WELL @ 4795.0ft (RKB Ensign 32 - 15')
Site:	Stille NW-6 Pad Sec.6-T6N-R64W	MD Reference:	WELL @ 4795.0ft (RKB Ensign 32 - 15')
Well:	Stille 12-6H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
1,400.0	4.95	297.66	1,399.3	13.0	-33.8	-32.9	1.68	1.49	-9.90
KOP									
1,436.0	5.50	295.00	1,435.1	14.5	-36.8	-35.7	1.68	1.54	-7.38
1,528.0	6.40	288.60	1,526.6	18.0	-45.6	-44.3	1.21	0.98	-6.96
1,622.0	7.40	285.00	1,619.9	21.2	-56.4	-54.9	1.16	1.06	-3.83
1,715.0	7.30	276.00	1,712.2	23.4	-68.1	-66.3	1.24	-0.11	-9.68
1,808.0	7.10	269.30	1,804.4	23.9	-79.7	-77.9	0.93	-0.22	-7.20
1,902.0	6.50	271.50	1,897.8	24.0	-90.8	-89.0	0.70	-0.64	2.34
1,995.0	6.50	264.80	1,990.2	23.7	-101.3	-99.5	0.82	0.00	-7.20
2,088.0	7.10	264.10	2,082.5	22.6	-112.3	-110.5	0.65	0.65	-0.75
2,181.0	6.40	260.40	2,174.9	21.1	-123.1	-121.4	0.89	-0.75	-3.98
2,274.0	6.80	260.20	2,267.3	19.3	-133.7	-132.1	0.43	0.43	-0.22
2,367.0	6.30	256.60	2,359.7	17.2	-144.1	-142.6	0.70	-0.54	-3.87
2,460.0	6.40	256.20	2,452.1	14.8	-154.1	-152.7	0.12	0.11	-0.43
2,553.0	6.50	256.70	2,544.5	12.4	-164.2	-163.0	0.12	0.11	0.54
2,646.0	7.00	260.60	2,636.9	10.2	-174.9	-173.8	0.73	0.54	4.19
2,738.0	7.60	261.50	2,728.1	8.4	-186.5	-185.5	0.66	0.65	0.98
2,831.0	7.80	261.70	2,820.3	6.6	-198.8	-197.9	0.22	0.22	0.22
2,926.0	8.20	262.80	2,914.3	4.8	-211.9	-211.1	0.45	0.42	1.16
3,019.0	9.40	267.70	3,006.3	3.7	-226.1	-225.3	1.52	1.29	5.27
3,112.0	9.20	270.40	3,098.0	3.4	-241.1	-240.3	0.52	-0.22	2.90
3,205.0	8.90	267.90	3,189.9	3.2	-255.7	-254.9	0.53	-0.32	-2.69
3,298.0	10.10	267.70	3,281.6	2.6	-271.1	-270.3	1.29	1.29	-0.22
3,390.0	9.10	264.40	3,372.3	1.6	-286.4	-285.6	1.24	-1.09	-3.59
3,483.0	7.90	265.00	3,464.3	0.3	-300.0	-299.3	1.29	-1.29	0.65
3,576.0	7.30	265.30	3,556.5	-0.7	-312.3	-311.6	0.65	-0.65	0.32
3,670.0	6.80	265.70	3,649.8	-1.6	-323.8	-323.2	0.53	-0.53	0.43
3,763.0	6.80	263.80	3,742.1	-2.7	-334.8	-334.2	0.24	0.00	-2.04
3,855.0	8.20	263.90	3,833.3	-3.9	-346.7	-346.2	1.52	1.52	0.11
3,948.0	10.20	265.70	3,925.1	-5.3	-361.5	-361.0	2.17	2.15	1.94
4,042.0	12.00	266.10	4,017.4	-6.6	-379.6	-379.1	1.92	1.91	0.43
4,135.0	13.20	265.30	4,108.1	-8.1	-399.8	-399.4	1.30	1.29	-0.86
4,228.0	13.30	266.90	4,198.6	-9.5	-421.0	-420.7	0.41	0.11	1.72
4,321.0	11.90	267.70	4,289.4	-10.5	-441.3	-441.0	1.52	-1.51	0.86
4,414.0	10.90	268.40	4,380.6	-11.1	-459.7	-459.4	1.09	-1.08	0.75
4,508.0	10.00	273.20	4,473.0	-10.9	-476.7	-476.4	1.33	-0.96	5.11
4,601.0	8.70	269.70	4,564.8	-10.5	-491.8	-491.4	1.53	-1.40	-3.76
4,694.0	7.20	271.40	4,656.9	-10.4	-504.7	-504.2	1.63	-1.61	1.83
4,788.0	3.80	269.80	4,750.4	-10.3	-513.7	-513.2	3.62	-3.62	-1.70
4,881.0	2.50	286.30	4,843.3	-9.7	-518.7	-518.2	1.69	-1.40	17.74
4,974.0	0.30	99.30	4,936.3	-9.2	-520.4	-519.8	3.01	-2.37	186.02
5,068.0	0.80	100.10	5,030.2	-9.3	-519.5	-519.0	0.53	0.53	0.85
5,161.0	1.70	113.90	5,123.2	-10.0	-517.6	-517.1	1.01	0.97	14.84
5,255.0	1.60	118.40	5,217.2	-11.2	-515.2	-514.8	0.17	-0.11	4.79
5,348.0	1.40	140.40	5,310.2	-12.7	-513.3	-513.0	0.65	-0.22	23.66
5,442.0	1.20	158.30	5,404.1	-14.5	-512.2	-512.0	0.48	-0.21	19.04
5,535.0	1.10	162.70	5,497.1	-16.2	-511.6	-511.5	0.14	-0.11	4.73
5,628.0	0.90	180.90	5,590.1	-17.8	-511.4	-511.4	0.40	-0.22	19.57
5,722.0	1.40	174.50	5,684.1	-19.7	-511.3	-511.4	0.55	0.53	-6.81
5,815.0	1.50	166.40	5,777.0	-22.0	-510.9	-511.2	0.24	0.11	-8.71
5,909.0	2.00	167.20	5,871.0	-24.8	-510.2	-510.7	0.53	0.53	0.85
6,002.0	2.80	157.50	5,963.9	-28.5	-509.0	-509.7	0.96	0.86	-10.43
6,034.0	2.30	157.90	5,995.9	-29.8	-508.4	-509.3	1.56	-1.56	1.25

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Stille 12-6H
Project:	SEC.6-T6N-R64W	TVD Reference:	WELL @ 4795.0ft (RKB Ensign 32 - 15')
Site:	Stille NW-6 Pad Sec.6-T6N-R64W	MD Reference:	WELL @ 4795.0ft (RKB Ensign 32 - 15')
Well:	Stille 12-6H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
6,065.0	2.20	155.40	6,026.9	-30.9	-508.0	-508.9	0.45	-0.32	-8.06
6,096.0	1.50	109.30	6,057.9	-31.6	-507.3	-508.3	5.11	-2.26	-148.71
6,128.0	2.70	68.90	6,089.8	-31.5	-506.2	-507.2	5.74	3.75	-126.25
6,159.0	5.10	53.60	6,120.8	-30.4	-504.4	-505.3	8.37	7.74	-49.35
6,177.5	6.95	51.84	6,139.2	-29.2	-502.9	-503.7	10.04	9.99	-9.51
KOP #2									
6,190.0	8.20	51.10	6,151.5	-28.2	-501.6	-502.4	10.04	10.01	-5.93
6,221.0	10.70	52.70	6,182.1	-25.1	-497.6	-498.2	8.11	8.06	5.16
6,252.0	12.40	57.90	6,212.5	-21.5	-492.5	-492.8	6.43	5.48	16.77
6,283.0	13.90	65.40	6,242.7	-18.2	-486.3	-486.4	7.32	4.84	24.19
6,314.0	15.50	70.80	6,272.7	-15.3	-479.0	-478.9	6.79	5.16	17.42
6,345.0	17.70	74.50	6,302.4	-12.7	-470.5	-470.3	7.87	7.10	11.94
6,376.0	19.90	76.70	6,331.7	-10.2	-460.9	-460.5	7.46	7.10	7.10
6,407.0	22.20	78.10	6,360.6	-7.8	-450.0	-449.5	7.59	7.42	4.52
6,438.0	24.40	79.30	6,389.1	-5.4	-438.0	-437.3	7.26	7.10	3.87
6,469.0	26.20	80.00	6,417.1	-3.0	-424.9	-424.2	5.89	5.81	2.26
6,500.0	26.30	82.50	6,444.9	-0.9	-411.4	-410.5	3.58	0.32	8.06
6,531.0	26.60	86.60	6,472.7	0.4	-397.6	-396.7	5.97	0.97	13.23
6,562.0	28.70	86.20	6,500.2	1.3	-383.3	-382.3	6.80	6.77	-1.29
6,593.0	31.20	84.90	6,527.0	2.5	-367.9	-366.8	8.33	8.06	-4.19
6,624.0	33.80	83.40	6,553.2	4.2	-351.3	-350.2	8.78	8.39	-4.84
6,655.0	36.40	82.60	6,578.5	6.4	-333.6	-332.4	8.52	8.39	-2.58
6,687.0	38.70	83.30	6,603.9	8.8	-314.3	-312.9	7.31	7.19	2.19
6,718.0	40.30	84.00	6,627.8	10.9	-294.7	-293.2	5.36	5.16	2.26
6,749.0	42.80	83.90	6,651.0	13.1	-274.2	-272.7	8.07	8.06	-0.32
6,780.0	45.20	84.30	6,673.3	15.3	-252.8	-251.2	7.79	7.74	1.29
6,811.0	48.20	85.80	6,694.6	17.3	-230.3	-228.6	10.30	9.68	4.84
6,842.0	50.60	85.90	6,714.7	19.0	-206.8	-205.1	7.75	7.74	0.32
6,873.0	52.70	85.70	6,734.0	20.7	-182.6	-180.8	6.79	6.77	-0.65
6,904.0	54.90	85.70	6,752.3	22.6	-157.7	-155.8	7.10	7.10	0.00
6,935.0	57.80	85.50	6,769.5	24.6	-131.9	-130.0	9.37	9.35	-0.65
6,966.0	60.30	84.90	6,785.4	26.8	-105.4	-103.4	8.23	8.06	-1.94
6,997.0	61.10	85.70	6,800.6	29.0	-78.5	-76.4	3.42	2.58	2.58
7,028.0	62.00	85.70	6,815.3	31.1	-51.3	-49.1	2.90	2.90	0.00
7,059.0	63.20	86.10	6,829.6	33.1	-23.9	-21.6	4.04	3.87	1.29
7,090.0	65.10	86.80	6,843.1	34.8	4.0	6.3	6.46	6.13	2.26
7,122.0	67.40	86.10	6,856.0	36.6	33.2	35.6	7.46	7.19	-2.19
7,152.0	69.70	85.40	6,867.0	38.7	61.1	63.5	7.97	7.67	-2.33
7,184.0	72.50	85.00	6,877.3	41.2	91.2	93.8	8.83	8.75	-1.25
7,214.0	74.60	85.10	6,885.8	43.7	119.9	122.6	7.01	7.00	0.33
7,245.0	77.00	84.90	6,893.4	46.3	149.8	152.6	7.77	7.74	-0.65
7,277.0	79.40	85.00	6,900.0	49.1	181.0	183.9	7.51	7.50	0.31
7,307.0	82.00	85.10	6,904.8	51.6	210.5	213.5	8.67	8.67	0.33
7,323.0	83.20	84.60	6,906.9	53.0	226.3	229.4	8.12	7.50	-3.13
7,377.0	86.20	81.80	6,911.9	59.4	279.7	283.1	7.58	5.56	-5.19
7,381.7	86.13	82.20	6,912.2	60.1	284.3	287.7	8.60	-1.53	8.48
End of Build									
7,410.0	85.70	84.60	6,914.2	63.3	312.4	315.9	8.60	-1.51	8.49
7,441.0	85.30	84.80	6,916.6	66.2	343.1	346.8	1.44	-1.29	0.65
7,473.0	85.00	84.60	6,919.4	69.1	374.9	378.7	1.13	-0.94	-0.63
7,504.0	84.90	85.10	6,922.1	71.9	405.7	409.6	1.64	-0.32	1.61
7,536.0	85.70	85.20	6,924.7	74.6	437.4	441.5	2.52	2.50	0.31
7,567.0	86.20	84.10	6,926.9	77.5	468.2	472.4	3.89	1.61	-3.55

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Stille 12-6H
Project:	SEC.6-T6N-R64W	TVD Reference:	WELL @ 4795.0ft (RKB Ensign 32 - 15')
Site:	Stille NW-6 Pad Sec.6-T6N-R64W	MD Reference:	WELL @ 4795.0ft (RKB Ensign 32 - 15')
Well:	Stille 12-6H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
7,599.0	86.00	84.30	6,929.1	80.7	500.0	504.3	0.88	-0.63	0.63
7,631.0	85.70	84.20	6,931.4	83.9	531.7	536.2	0.99	-0.94	-0.31
7,663.0	85.50	84.20	6,933.8	87.1	563.5	568.1	0.63	-0.63	0.00
7,695.0	85.50	83.90	6,936.3	90.4	595.2	600.0	0.93	0.00	-0.94
7,728.0	85.40	83.10	6,939.0	94.1	627.9	632.8	2.44	-0.30	-2.42
7,760.0	84.80	83.50	6,941.7	97.8	659.6	664.7	2.25	-1.88	1.25
7,792.0	86.30	82.40	6,944.2	101.8	691.2	696.5	5.81	4.69	-3.44
7,823.0	86.30	82.10	6,946.2	105.9	721.9	727.4	0.97	0.00	-0.97
7,855.0	87.10	81.70	6,948.0	110.4	753.5	759.2	2.79	2.50	-1.25
7,887.0	87.10	81.70	6,949.6	115.1	785.1	791.1	0.00	0.00	0.00
7,919.0	88.10	82.30	6,951.0	119.5	816.8	823.0	3.64	3.13	1.88
7,950.0	89.90	82.20	6,951.5	123.7	847.5	853.9	5.82	5.81	-0.32
7,982.0	90.40	82.60	6,951.4	127.9	879.2	885.8	2.00	1.56	1.25
8,014.0	91.10	82.30	6,951.0	132.1	910.9	917.8	2.38	2.19	-0.94
8,046.0	91.50	81.90	6,950.3	136.5	942.6	949.7	1.77	1.25	-1.25
8,078.0	90.50	83.00	6,949.7	140.7	974.3	981.6	4.65	-3.13	3.44
8,110.0	91.30	82.60	6,949.2	144.7	1,006.1	1,013.6	2.80	2.50	-1.25
8,142.0	90.50	81.70	6,948.7	149.1	1,037.8	1,045.5	3.76	-2.50	-2.81
8,174.0	89.80	82.20	6,948.7	153.6	1,069.5	1,077.4	2.69	-2.19	1.56
8,206.0	89.50	82.30	6,948.8	157.9	1,101.2	1,109.3	0.99	-0.94	0.31
8,237.0	89.70	82.30	6,949.1	162.0	1,131.9	1,140.3	0.65	0.65	0.00
8,269.0	89.30	82.10	6,949.3	166.4	1,163.6	1,172.2	1.40	-1.25	-0.63
8,301.0	89.30	82.20	6,949.7	170.8	1,195.3	1,204.1	0.31	0.00	0.31
8,333.0	88.90	82.60	6,950.2	175.0	1,227.0	1,236.0	1.77	-1.25	1.25
8,365.0	89.30	82.30	6,950.7	179.2	1,258.7	1,268.0	1.56	1.25	-0.94
8,397.0	89.80	81.80	6,951.0	183.6	1,290.4	1,299.9	2.21	1.56	-1.56
8,429.0	89.80	81.70	6,951.1	188.2	1,322.1	1,331.8	0.31	0.00	-0.31
8,461.0	89.00	82.40	6,951.4	192.6	1,353.8	1,363.7	3.32	-2.50	2.19
8,492.0	88.60	84.50	6,952.1	196.2	1,384.6	1,394.7	6.89	-1.29	6.77
8,524.0	88.60	84.30	6,952.9	199.3	1,416.4	1,426.6	0.62	0.00	-0.63
8,556.0	89.10	85.50	6,953.5	202.1	1,448.3	1,458.6	4.06	1.56	3.75
8,588.0	88.50	84.90	6,954.2	204.8	1,480.1	1,490.6	2.65	-1.88	-1.88
8,620.0	88.40	86.10	6,955.0	207.3	1,512.0	1,522.6	3.76	-0.31	3.75
8,652.0	88.20	86.30	6,956.0	209.4	1,543.9	1,554.6	0.88	-0.63	0.63
8,684.0	88.10	86.20	6,957.0	211.5	1,575.9	1,586.6	0.44	-0.31	-0.31
8,716.0	87.70	87.50	6,958.2	213.3	1,607.8	1,618.5	4.25	-1.25	4.06
8,748.0	87.40	87.80	6,959.6	214.6	1,639.7	1,650.5	1.33	-0.94	0.94
8,780.0	87.30	86.90	6,961.0	216.1	1,671.7	1,682.5	2.83	-0.31	-2.81
8,812.0	87.60	87.50	6,962.5	217.6	1,703.6	1,714.4	2.09	0.94	1.88
8,844.0	87.90	87.60	6,963.7	219.0	1,735.5	1,746.4	0.99	0.94	0.31
8,876.0	88.90	88.30	6,964.6	220.2	1,767.5	1,778.4	3.81	3.13	2.19
8,908.0	89.50	87.90	6,965.1	221.2	1,799.5	1,810.3	2.25	1.88	-1.25
8,941.0	89.10	88.70	6,965.5	222.2	1,832.5	1,843.3	2.71	-1.21	2.42
8,972.0	89.20	87.90	6,965.9	223.1	1,863.5	1,874.3	2.60	0.32	-2.58
9,004.0	90.10	89.10	6,966.1	224.0	1,895.4	1,906.2	4.69	2.81	3.75
9,037.0	90.20	89.80	6,966.0	224.3	1,928.4	1,939.2	2.14	0.30	2.12
9,069.0	90.40	89.50	6,965.9	224.5	1,960.4	1,971.1	1.13	0.63	-0.94
9,101.0	91.80	89.30	6,965.3	224.8	1,992.4	2,003.1	4.42	4.38	-0.63
9,133.0	92.40	89.70	6,964.1	225.1	2,024.4	2,035.0	2.25	1.88	1.25
9,165.0	92.80	90.00	6,962.6	225.2	2,056.4	2,066.9	1.56	1.25	0.94
9,197.0	92.90	89.90	6,961.0	225.2	2,088.3	2,098.8	0.44	0.31	-0.31
9,229.0	91.90	90.00	6,959.7	225.2	2,120.3	2,130.7	3.14	-3.13	0.31
9,261.0	90.20	89.10	6,959.1	225.5	2,152.3	2,162.6	6.01	-5.31	-2.81

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Stille 12-6H
Project:	SEC.6-T6N-R64W	TVD Reference:	WELL @ 4795.0ft (RKB Ensign 32 - 15')
Site:	Stille NW-6 Pad Sec.6-T6N-R64W	MD Reference:	WELL @ 4795.0ft (RKB Ensign 32 - 15')
Well:	Stille 12-6H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
9,294.0	90.00	89.40	6,959.1	225.9	2,185.3	2,195.6	1.09	-0.61	0.91
9,326.0	90.00	90.30	6,959.1	226.0	2,217.3	2,227.5	2.81	0.00	2.81
9,358.0	90.70	90.50	6,958.9	225.8	2,249.3	2,259.4	2.28	2.19	0.63
9,390.0	91.20	89.70	6,958.3	225.7	2,281.3	2,291.3	2.95	1.56	-2.50
9,422.0	91.20	90.20	6,957.7	225.7	2,313.3	2,323.3	1.56	0.00	1.56
9,454.0	92.10	89.40	6,956.7	225.8	2,345.3	2,355.2	3.76	2.81	-2.50
9,486.0	91.50	88.30	6,955.7	226.5	2,377.2	2,387.1	3.91	-1.88	-3.44
9,518.0	91.50	88.00	6,954.9	227.5	2,409.2	2,419.1	0.94	0.00	-0.94
9,550.0	90.30	87.40	6,954.4	228.8	2,441.2	2,451.1	4.19	-3.75	-1.88
9,582.0	89.90	88.30	6,954.3	230.0	2,473.2	2,483.1	3.08	-1.25	2.81
9,615.0	90.00	88.30	6,954.4	231.0	2,506.2	2,516.0	0.30	0.30	0.00
9,647.0	90.40	88.20	6,954.3	232.0	2,538.1	2,548.0	1.29	1.25	-0.31
9,679.0	90.60	87.90	6,954.0	233.1	2,570.1	2,580.0	1.13	0.63	-0.94
9,711.0	90.30	88.30	6,953.7	234.1	2,602.1	2,612.0	1.56	-0.94	1.25
9,742.0	89.80	88.70	6,953.7	234.9	2,633.1	2,642.9	2.07	-1.61	1.29
9,774.0	89.10	88.50	6,954.0	235.7	2,665.1	2,674.9	2.28	-2.19	-0.63
9,805.0	89.80	87.30	6,954.3	236.8	2,696.1	2,705.9	4.48	2.26	-3.87
9,838.0	90.20	87.30	6,954.3	238.4	2,729.0	2,738.9	1.21	1.21	0.00
9,870.0	90.70	87.10	6,954.1	240.0	2,761.0	2,770.9	1.68	1.56	-0.63
9,901.0	90.00	88.20	6,953.9	241.2	2,791.9	2,801.9	4.21	-2.26	3.55
9,933.0	90.10	88.10	6,953.8	242.3	2,823.9	2,833.8	0.44	0.31	-0.31
9,965.0	90.30	87.70	6,953.7	243.4	2,855.9	2,865.8	1.40	0.63	-1.25
9,997.0	90.40	87.70	6,953.5	244.7	2,887.9	2,897.8	0.31	0.31	0.00
10,029.0	90.90	87.00	6,953.2	246.2	2,919.8	2,929.8	2.69	1.56	-2.19
10,061.0	91.40	86.90	6,952.5	247.9	2,951.8	2,961.8	1.59	1.56	-0.31
10,092.0	90.80	88.30	6,951.9	249.2	2,982.8	2,992.8	4.91	-1.94	4.52
10,125.0	90.00	88.80	6,951.7	250.0	3,015.7	3,025.8	2.86	-2.42	1.52
10,157.0	90.10	88.40	6,951.7	250.8	3,047.7	3,057.7	1.29	0.31	-1.25
10,189.0	89.60	88.60	6,951.8	251.7	3,079.7	3,089.7	1.68	-1.56	0.63
10,221.0	89.70	88.70	6,951.9	252.4	3,111.7	3,121.7	0.44	0.31	0.31
10,253.0	91.20	89.50	6,951.7	252.9	3,143.7	3,153.6	5.31	4.69	2.50
10,285.0	92.80	89.60	6,950.6	253.2	3,175.7	3,185.5	5.01	5.00	0.31
10,317.0	91.60	89.30	6,949.4	253.5	3,207.7	3,217.5	3.87	-3.75	-0.94
10,350.0	90.00	89.30	6,948.9	253.9	3,240.7	3,250.4	4.85	-4.85	0.00
10,382.0	89.00	90.00	6,949.2	254.1	3,272.7	3,282.3	3.81	-3.13	2.19
10,415.0	89.00	89.70	6,949.7	254.2	3,305.7	3,315.3	0.91	0.00	-0.91
10,446.0	88.80	90.10	6,950.3	254.2	3,336.6	3,346.2	1.44	-0.65	1.29
10,478.0	89.60	89.70	6,950.8	254.3	3,368.6	3,378.1	2.80	2.50	-1.25
10,509.0	89.60	90.00	6,951.0	254.3	3,399.6	3,409.1	0.97	0.00	0.97
10,541.0	89.50	90.00	6,951.3	254.3	3,431.6	3,441.0	0.31	-0.31	0.00
10,573.0	89.50	89.40	6,951.5	254.5	3,463.6	3,472.9	1.87	0.00	-1.88
10,605.0	89.80	89.10	6,951.7	254.9	3,495.6	3,504.9	1.33	0.94	-0.94
10,636.0	89.30	89.30	6,952.0	255.4	3,526.6	3,535.8	1.74	-1.61	0.65
10,668.0	89.60	88.70	6,952.3	255.9	3,558.6	3,567.8	2.10	0.94	-1.88
10,700.0	89.30	89.00	6,952.6	256.6	3,590.6	3,599.7	1.33	-0.94	0.94
10,731.0	89.10	88.80	6,953.0	257.2	3,621.6	3,630.7	0.91	-0.65	-0.65
10,763.0	89.00	88.50	6,953.6	257.9	3,653.6	3,662.7	0.99	-0.31	-0.94
10,795.0	89.60	88.00	6,953.9	258.9	3,685.6	3,694.6	2.44	1.88	-1.56
10,827.0	89.60	89.00	6,954.2	259.7	3,717.6	3,726.6	3.12	0.00	3.13
10,858.0	89.70	88.80	6,954.4	260.3	3,748.6	3,757.6	0.72	0.32	-0.65
10,890.0	89.50	88.10	6,954.6	261.2	3,780.5	3,789.6	2.27	-0.63	-2.19
10,922.0	89.50	88.00	6,954.9	262.3	3,812.5	3,821.5	0.31	0.00	-0.31
10,953.0	89.50	87.80	6,955.1	263.4	3,843.5	3,852.5	0.65	0.00	-0.65
10,984.0	89.10	87.90	6,955.5	264.6	3,874.5	3,883.5	1.33	-1.29	0.32

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Stille 12-6H
Project:	SEC.6-T6N-R64W	TVD Reference:	WELL @ 4795.0ft (RKB Ensign 32 - 15')
Site:	Stille NW-6 Pad Sec.6-T6N-R64W	MD Reference:	WELL @ 4795.0ft (RKB Ensign 32 - 15')
Well:	Stille 12-6H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
11,016.0	89.20	87.50	6,956.0	265.9	3,906.5	3,915.5	1.29	0.31	-1.25
11,063.0	89.20	87.50	6,956.6	267.9	3,953.4	3,962.5	0.00	0.00	0.00
BHL 1321'FNL 500'FEL									

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,400.0	1,399.3	13.0	-33.8	KOP
6,177.5	6,139.2	-29.2	-502.9	KOP #2
7,381.7	6,912.2	60.1	284.3	End of Build

Checked By: _____	Approved By: _____	Date: _____
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