

Well Name: **Purvis 10DD**

Surface Location: Purvis 10TD Pad Sec. 10-T4N-R67W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone

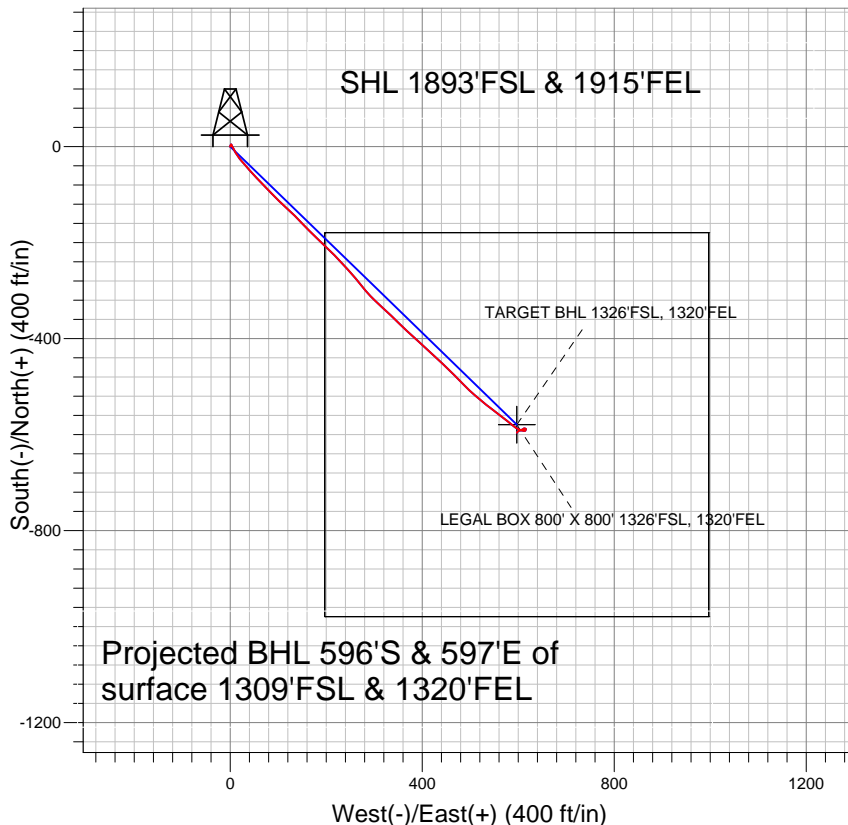
Ground Elevation: 4794.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1361755.00	3174389.05	40° 19' 29.028 N	104° 52' 28.344 W

Original Well Elev WELL @ 4807.0ft (Original Well Elev)

Slot

PETROLEUM DEVELOPMENT CORP Weld County CO



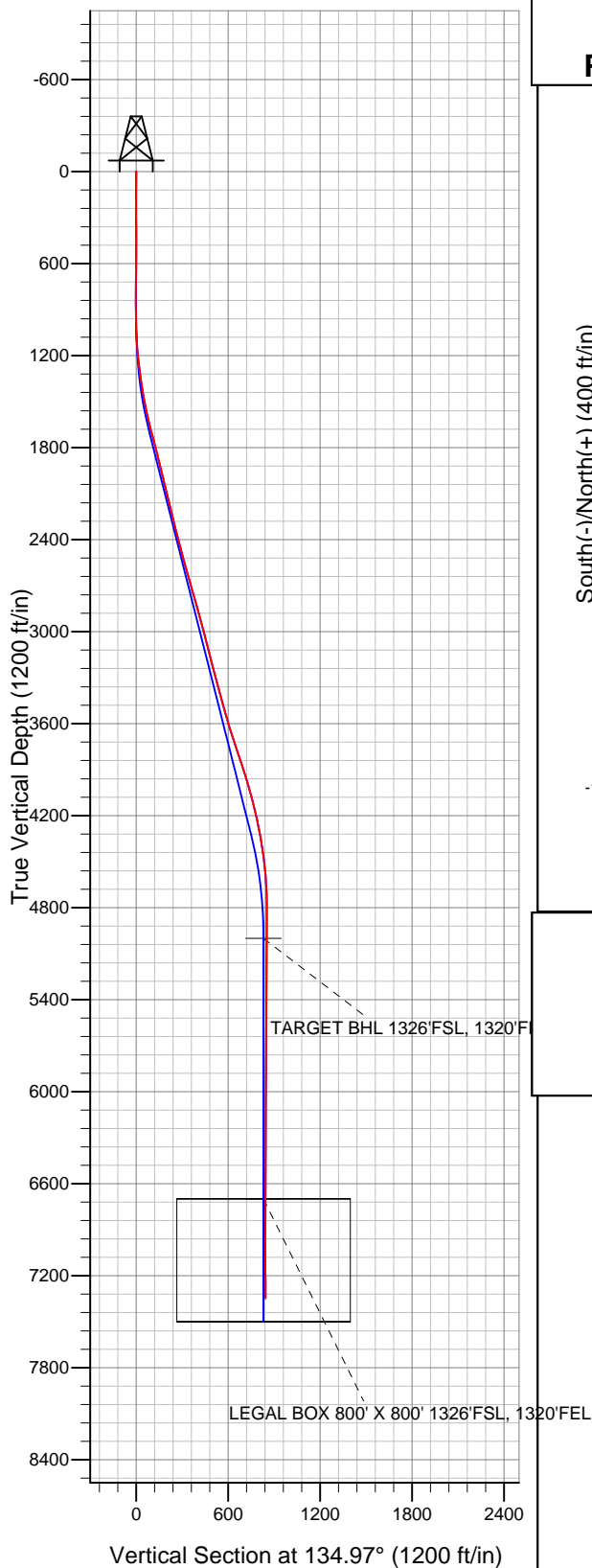
LEGEND

- + Purvis 10DD, Wellbore #1, Plan #1 (7-16-10) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 7455'MD & 7348'TVD @ 844' VS
 0.5 deg Inc 215.9 deg AZ

Project: SEC.10-T4N-R67W
 Site: Purvis 10TD Pad Sec. 10-T4N-R67W
 Well: Purvis 10DD
 Plan: Wellbore #1





Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.10-T4N-R67W

Purvis 10TD Pad Sec. 10-T4N-R67W

Purvis 10DD

Wellbore #1

Survey: Survey #1

Standard Survey Report

03 February, 2011

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Purvis 10DD
Project:	SEC.10-T4N-R67W	TVD Reference:	WELL @ 4807.0ft (Original Well Elev)
Site:	Purvis 10TD Pad Sec. 10-T4N-R67W	MD Reference:	WELL @ 4807.0ft (Original Well Elev)
Well:	Purvis 10DD	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.10-T4N-R67W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Purvis 10TD Pad Sec. 10-T4N-R67W		
Site Position:		Northing:	1,361,747.58 ft
From:	Lat/Long	Easting:	3,174,369.58 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40° 19' 28.956 N
		Longitude:	104° 52' 28.596 W
		Grid Convergence:	0.40 °

Well	Purvis 10DD		
Well Position	+N/-S	0.0 ft	Northing: 1,361,755.00 ft
	+E/-W	0.0 ft	Easting: 3,174,389.05 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40° 19' 29.028 N
		Longitude:	104° 52' 28.344 W
		Ground Level:	4,794.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	9.08	67.03	53,253

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	134.97

Survey Program	Date 2/1/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
156.0	7,455.0	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
156.0	0.20	318.90	156.0	0.2	-0.2	-0.3	0.13	0.13	0.00
248.0	0.00	318.90	248.0	0.3	-0.3	-0.4	0.22	-0.22	0.00
340.0	0.40	46.40	340.0	0.5	-0.1	-0.4	0.43	0.43	0.00
431.0	0.60	16.40	431.0	1.2	0.3	-0.6	0.35	0.22	-32.97
522.0	0.70	12.60	522.0	2.2	0.6	-1.2	0.12	0.11	-4.18
616.0	0.60	13.20	616.0	3.3	0.8	-1.7	0.11	-0.11	0.64
704.0	0.30	63.90	704.0	3.8	1.1	-1.9	0.54	-0.34	57.61
798.0	0.30	50.70	798.0	4.1	1.5	-1.8	0.07	0.00	-14.04
892.0	0.30	23.50	892.0	4.5	1.8	-1.9	0.15	0.00	-28.94
985.0	1.20	158.40	985.0	3.8	2.3	-1.1	1.54	0.97	145.05
1,079.0	3.10	151.30	1,078.9	0.6	3.9	2.3	2.04	2.02	-7.55

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Purvis 10DD
Project:	SEC.10-T4N-R67W	TVD Reference:	WELL @ 4807.0ft (Original Well Elev)
Site:	Purvis 10TD Pad Sec. 10-T4N-R67W	MD Reference:	WELL @ 4807.0ft (Original Well Elev)
Well:	Purvis 10DD	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)
1,172.0	5.30	150.90	1,171.6	-5.3	7.2	8.8	2.37	2.37	-0.43
1,266.0	7.10	151.10	1,265.1	-14.2	12.1	18.6	1.92	1.91	0.21
1,359.0	8.10	141.60	1,357.3	-24.4	18.9	30.6	1.72	1.08	-10.22
1,452.0	10.20	138.50	1,449.1	-35.7	28.4	45.3	2.32	2.26	-3.33
1,546.0	11.60	139.30	1,541.4	-49.1	40.1	63.1	1.50	1.49	0.85
1,640.0	13.20	136.30	1,633.2	-64.0	53.7	83.2	1.83	1.70	-3.19
1,733.0	15.20	136.60	1,723.4	-80.5	69.4	106.0	2.15	2.15	0.32
1,827.0	14.30	136.20	1,814.3	-97.9	85.9	130.0	0.96	-0.96	-0.43
1,920.0	14.00	132.90	1,904.4	-113.8	102.1	152.7	0.93	-0.32	-3.55
2,014.0	13.90	133.70	1,995.7	-129.4	118.6	175.3	0.23	-0.11	0.85
2,107.0	13.40	135.20	2,086.0	-144.7	134.3	197.3	0.66	-0.54	1.61
2,201.0	13.50	135.80	2,177.5	-160.3	149.6	219.1	0.18	0.11	0.64
2,295.0	14.50	135.20	2,268.7	-176.5	165.5	241.9	1.07	1.06	-0.64
2,388.0	14.10	132.70	2,358.8	-192.5	182.1	264.8	0.79	-0.43	-2.69
2,482.0	14.50	134.30	2,449.9	-208.5	198.9	288.0	0.60	0.43	1.70
2,575.0	15.50	136.20	2,539.7	-225.6	215.8	312.1	1.20	1.08	2.04
2,669.0	16.30	136.70	2,630.1	-244.2	233.6	337.9	0.86	0.85	0.53
2,763.0	15.00	138.00	2,720.6	-262.9	250.8	363.2	1.43	-1.38	1.38
2,856.0	16.30	141.80	2,810.2	-282.1	266.9	388.2	1.78	1.40	4.09
2,950.0	15.80	138.50	2,900.5	-302.0	283.5	414.0	1.11	-0.53	-3.51
3,043.0	15.20	134.60	2,990.1	-320.1	300.6	438.9	1.29	-0.65	-4.19
3,137.0	14.40	132.40	3,081.0	-336.6	318.0	462.9	1.04	-0.85	-2.34
3,230.0	14.10	133.60	3,171.1	-352.2	334.8	485.7	0.45	-0.32	1.29
3,324.0	13.80	134.70	3,262.4	-368.0	351.0	508.4	0.43	-0.32	1.17
3,417.0	15.30	132.40	3,352.4	-384.1	368.0	531.8	1.73	1.61	-2.47
3,511.0	15.70	132.00	3,443.0	-400.9	386.6	556.8	0.44	0.43	-0.43
3,604.0	16.00	133.20	3,532.4	-418.1	405.3	582.2	0.48	0.32	1.29
3,698.0	17.40	132.30	3,622.5	-436.5	425.1	609.2	1.51	1.49	-0.96
3,791.0	17.90	134.00	3,711.1	-455.8	445.7	637.4	0.77	0.54	1.83
3,885.0	18.40	134.70	3,800.4	-476.2	466.6	666.7	0.58	0.53	0.74
3,979.0	18.20	135.70	3,889.7	-497.2	487.4	696.2	0.40	-0.21	1.06
4,072.0	17.10	132.20	3,978.3	-516.7	507.7	724.4	1.64	-1.18	-3.76
4,166.0	14.90	127.40	4,068.6	-533.4	527.5	750.2	2.73	-2.34	-5.11
4,259.0	13.70	127.70	4,158.8	-547.4	545.7	772.9	1.29	-1.29	0.32
4,352.0	11.90	128.00	4,249.4	-560.0	562.0	793.4	1.94	-1.94	0.32
4,446.0	10.50	128.50	4,341.6	-571.3	576.3	811.5	1.49	-1.49	0.53
4,540.0	8.20	128.60	4,434.4	-580.8	588.3	826.7	2.45	-2.45	0.11
4,633.0	6.30	120.90	4,526.6	-587.6	597.8	838.2	2.29	-2.04	-8.28
4,727.0	4.00	105.80	4,620.3	-591.1	605.4	846.1	2.82	-2.45	-16.06
4,820.0	3.30	99.80	4,713.1	-592.5	611.2	851.1	0.86	-0.75	-6.45
4,914.0	1.10	35.40	4,807.0	-592.2	614.4	853.2	3.18	-2.34	-68.51
5,007.0	1.00	27.40	4,900.0	-590.7	615.3	852.8	0.19	-0.11	-8.60
5,101.0	0.50	27.20	4,994.0	-589.6	615.8	852.4	0.53	-0.53	-0.21
5,107.0	0.49	27.20	5,000.0	-589.6	615.9	852.4	0.11	-0.11	0.00
TARGET BHL 1326'FSL, 1320'FEL									
5,194.0	0.40	27.20	5,087.0	-589.0	616.2	852.2	0.11	-0.11	0.00
5,288.0	0.30	299.00	5,181.0	-588.6	616.1	851.9	0.52	-0.11	-93.83
5,381.0	0.50	303.10	5,274.0	-588.2	615.6	851.2	0.22	0.22	4.41
5,474.0	0.70	295.10	5,367.0	-587.8	614.7	850.3	0.23	0.22	-8.60
5,568.0	0.90	295.10	5,461.0	-587.2	613.5	849.1	0.21	0.21	0.00
5,662.0	0.80	256.90	5,555.0	-587.1	612.2	848.0	0.60	-0.11	-40.64
5,755.0	0.70	228.60	5,648.0	-587.6	611.1	847.6	0.41	-0.11	-30.43
5,849.0	0.50	211.30	5,741.9	-588.3	610.5	847.7	0.28	-0.21	-18.40

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Survey									
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5,942.0	0.60	233.80	5,834.9	-588.9	609.9	847.7	0.25	0.11	24.19
6,036.0	0.40	250.00	5,928.9	-589.4	609.2	847.5	0.26	-0.21	17.23
6,130.0	0.40	261.70	6,022.9	-589.5	608.6	847.2	0.09	0.00	12.45
6,223.0	0.40	230.00	6,115.9	-589.8	608.0	846.9	0.23	0.00	-34.09
6,317.0	0.50	241.60	6,209.9	-590.2	607.4	846.8	0.14	0.11	12.34
6,411.0	0.70	269.60	6,303.9	-590.4	606.4	846.3	0.37	0.21	29.79
6,504.0	0.60	249.60	6,396.9	-590.5	605.4	845.7	0.26	-0.11	-21.51
6,598.0	0.70	257.80	6,490.9	-590.8	604.4	845.2	0.15	0.11	8.72
6,691.0	0.90	239.70	6,583.9	-591.3	603.2	844.7	0.34	0.22	-19.46
6,785.0	0.70	248.80	6,677.9	-591.9	602.0	844.2	0.25	-0.21	9.68
6,807.1	0.70	245.73	6,700.0	-592.0	601.8	844.1	0.17	-0.01	-13.89
LEGAL BOX 800' X 800' 1326'FSL, 1320'FEL									
6,879.0	0.70	235.70	6,771.9	-592.4	601.0	843.9	0.17	0.00	-13.95
6,972.0	1.10	238.90	6,864.9	-593.2	599.8	843.6	0.43	0.43	3.44
7,066.0	0.70	238.00	6,958.9	-594.0	598.5	843.2	0.43	-0.43	-0.96
7,159.0	0.30	213.70	7,051.9	-594.5	597.9	843.2	0.48	-0.43	-26.13
7,253.0	0.40	188.60	7,145.9	-595.0	597.7	843.4	0.19	0.11	-26.70
7,346.0	0.40	205.80	7,238.9	-595.6	597.5	843.7	0.13	0.00	18.49
7,409.0	0.50	215.90	7,301.9	-596.1	597.3	843.8	0.20	0.16	16.03
7,455.0	0.50	215.90	7,347.9	-596.4	597.0	843.9	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____