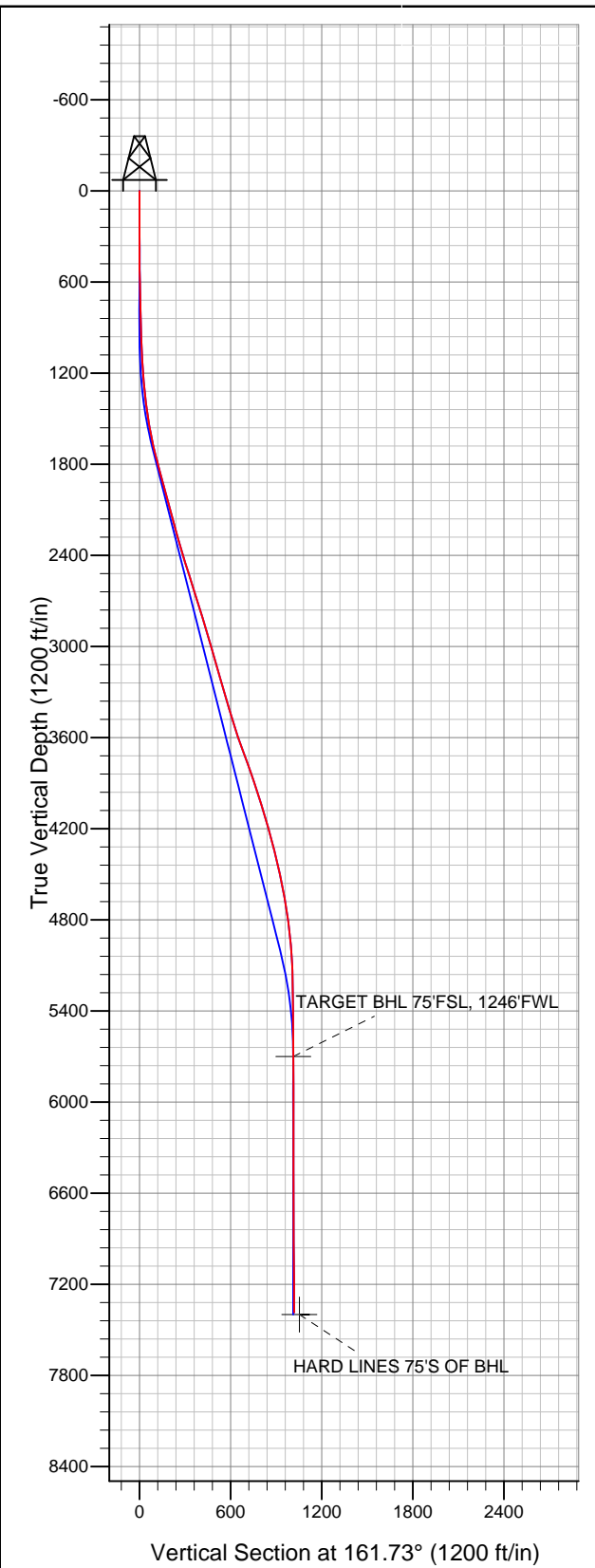


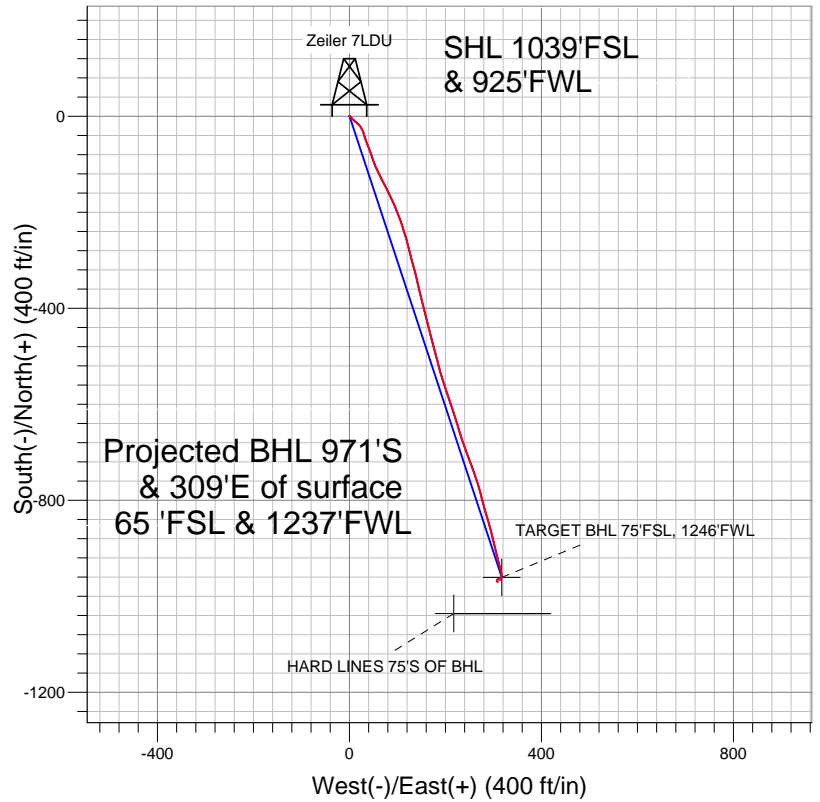


Well Name: Zeiler 7LDU

Surface Location: Zeiler 23-7DU Pad Sec.7-T5N-R67W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 4960.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1392624.43 3155608.04 40.409810 -104.941200
Original Well Elev WELL @ 4973.0ft (Original Well Elev)



PETROLEUM DEVELOPMENT CORP Weld County CO



LEGEND

- Zeiler 7LDU, Wellbore #1, Plan #1 (2-08-11) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
7520'MD & 7385'TVD @ 1019'VS
0.3 deg Inc 141.5 deg AZ

Project: SEC.7-T5N-R67W
Site: Zeiler 23-7DU Pad Sec.7-T5N-R67W
Well: Zeiler 7LDU
Plan: Wellbore #1



PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.7-T5N-R67W

Zeiler 23-7DU Pad Sec.7-T5N-R67W

Zeiler 7LDU

Wellbore #1

Survey: Survey #1

Standard Survey Report

16 November, 2011

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Zeiler 7LDU
Project:	SEC.7-T5N-R67W	TVD Reference:	WELL @ 4973.0ft (Original Well Elev)
Site:	Zeiler 23-7DU Pad Sec.7-T5N-R67W	MD Reference:	WELL @ 4973.0ft (Original Well Elev)
Well:	Zeiler 7LDU	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.7-T5N-R67W, Weld County, Colorado		
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		Zeiler 23-7DU Pad Sec.7-T5N-R67W			
Site Position:		Northing:	1,392,755.59ft	Latitude:	40.410170
From:	Lat/Long	Easting:	3,155,607.21ft	Longitude:	-104.941200
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.36 °

Well	Zeiler 7LDU					
Well Position	+N-S	0.0 ft	Northing:	1,392,624.43 ft	Latitude:	40.409810
	+E-W	0.0 ft	Easting:	3,155,608.04 ft	Longitude:	-104.941200
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,960.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2/14/2011	8.96	67.05	53,173

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 (°)	
	5,700.0	0.0	0.0	161.73	

Survey Program	Date	11/16/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
424.0	7,520.0	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	
424.0	0.20	64.50	424.0	0.3	0.7	-0.1	0.05	0.05	0.00	
517.0	0.60	136.60	517.0	0.0	1.1	0.3	0.61	0.43	77.53	
609.0	1.20	145.50	609.0	-1.1	2.0	1.7	0.67	0.65	9.67	
702.0	1.00	141.90	702.0	-2.6	3.1	3.4	0.23	-0.22	-3.87	
795.0	1.90	138.90	794.9	-4.4	4.6	5.6	0.97	0.97	-3.23	
888.0	2.40	137.10	887.9	-6.9	6.9	8.8	0.54	0.54	-1.94	
981.0	2.80	132.20	980.8	-9.9	9.9	12.5	0.49	0.43	-5.27	
1,074.0	3.40	119.90	1,073.6	-12.8	14.0	16.5	0.96	0.65	-13.23	
1,167.0	3.00	139.50	1,166.5	-16.0	18.0	20.8	1.25	-0.43	21.08	
1,261.0	4.70	142.20	1,260.3	-20.9	21.9	26.8	1.82	1.81	2.87	
1,355.0	7.00	154.00	1,353.8	-29.1	26.8	36.1	2.75	2.45	12.55	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Zeiler 7LDU
Project:	SEC.7-T5N-R67W	TVD Reference:	WELL @ 4973.0ft (Original Well Elev)
Site:	Zeiler 23-7DU Pad Sec.7-T5N-R67W	MD Reference:	WELL @ 4973.0ft (Original Well Elev)
Well:	Zeiler 7LDU	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)
1,448.0	8.40	166.40	1,446.0	-40.8	30.9	48.4	2.33	1.51	13.33
1,542.0	9.60	156.50	1,538.8	-54.7	35.6	63.1	2.08	1.28	-10.53
1,635.0	12.10	161.50	1,630.1	-71.0	41.8	80.6	2.87	2.69	5.38
1,728.0	13.20	160.30	1,720.9	-90.3	48.5	100.9	1.22	1.18	-1.29
1,822.0	14.70	154.50	1,812.1	-111.2	57.2	123.5	2.18	1.60	-6.17
1,915.0	15.90	154.60	1,901.8	-133.3	67.8	147.8	1.29	1.29	0.11
2,009.0	15.00	151.50	1,992.4	-155.6	79.1	172.6	1.30	-0.96	-3.30
2,102.0	15.20	154.60	2,082.2	-177.2	90.1	196.5	0.89	0.22	3.33
2,195.0	15.40	159.90	2,171.9	-199.8	99.6	221.0	1.52	0.22	5.70
2,288.0	15.40	160.30	2,261.6	-223.1	108.0	245.7	0.11	0.00	0.43
2,381.0	16.80	164.30	2,350.9	-247.6	115.8	271.4	1.92	1.51	4.30
2,474.0	17.40	165.20	2,439.8	-274.0	123.0	298.7	0.71	0.65	0.97
2,567.0	17.20	164.80	2,528.6	-300.7	130.1	326.4	0.25	-0.22	-0.43
2,660.0	17.40	166.20	2,617.4	-327.5	137.0	353.9	0.50	0.22	1.51
2,753.0	17.40	165.20	2,706.1	-354.4	143.9	381.7	0.32	0.00	-1.08
2,846.0	17.60	168.40	2,794.8	-381.7	150.3	409.5	1.06	0.22	3.44
2,939.0	16.90	167.00	2,883.7	-408.6	156.2	437.0	0.88	-0.75	-1.51
3,033.0	16.10	164.20	2,973.8	-434.5	162.8	463.6	1.20	-0.85	-2.98
3,126.0	16.50	164.10	3,063.0	-459.6	169.9	489.7	0.43	0.43	-0.11
3,220.0	15.50	166.20	3,153.4	-484.6	176.6	515.5	1.23	-1.06	2.23
3,313.0	15.60	165.40	3,243.0	-508.8	182.7	540.4	0.25	0.11	-0.86
3,406.0	16.40	164.70	3,332.4	-533.5	189.3	566.0	0.88	0.86	-0.75
3,499.0	16.70	161.00	3,421.5	-558.8	197.1	592.5	1.18	0.32	-3.98
3,592.0	17.50	161.80	3,510.4	-584.8	205.8	619.8	0.90	0.86	0.86
3,685.0	19.20	161.70	3,598.7	-612.6	215.0	649.1	1.83	1.83	-0.11
3,779.0	19.80	162.70	3,687.3	-642.4	224.6	680.5	0.73	0.64	1.06
3,872.0	20.40	161.30	3,774.6	-672.8	234.5	712.4	0.83	0.65	-1.51
3,965.0	19.30	160.90	3,862.1	-702.7	244.7	744.0	1.19	-1.18	-0.43
4,056.0	17.40	158.90	3,948.5	-729.6	254.5	772.6	2.20	-2.09	-2.20
4,150.0	17.50	160.70	4,038.2	-756.1	264.2	800.8	0.58	0.11	1.91
4,243.0	16.70	166.50	4,127.1	-782.3	272.0	828.1	2.02	-0.86	6.24
4,337.0	15.20	164.80	4,217.4	-807.3	278.4	853.9	1.67	-1.60	-1.81
4,430.0	14.60	163.40	4,307.3	-830.3	284.9	877.7	0.75	-0.65	-1.51
4,524.0	13.30	164.60	4,398.5	-852.1	291.2	900.4	1.42	-1.38	1.28
4,617.0	12.20	165.40	4,489.2	-871.9	296.5	920.9	1.20	-1.18	0.86
4,710.0	11.30	166.80	4,580.3	-890.3	301.0	939.8	1.02	-0.97	1.51
4,804.0	10.50	166.50	4,672.6	-907.6	305.1	957.5	0.85	-0.85	-0.32
4,897.0	8.80	167.10	4,764.3	-922.7	308.7	973.0	1.83	-1.83	0.65
4,990.0	6.40	161.30	4,856.5	-934.6	312.0	985.3	2.71	-2.58	-6.24
5,084.0	4.80	167.20	4,950.0	-943.4	314.5	994.4	1.81	-1.70	6.28
5,177.0	3.90	171.70	5,042.7	-950.3	315.8	1,001.4	1.03	-0.97	4.84
5,270.0	2.20	170.90	5,135.6	-955.2	316.6	1,006.3	1.83	-1.83	-0.86
5,363.0	0.70	171.20	5,228.6	-957.5	316.9	1,008.6	1.61	-1.61	0.32
5,456.0	0.60	180.30	5,321.6	-958.6	317.0	1,009.6	0.15	-0.11	9.78
5,549.0	0.30	198.70	5,414.6	-959.3	316.9	1,010.3	0.35	-0.32	19.78
5,643.0	0.20	340.00	5,508.6	-959.4	316.8	1,010.3	0.50	-0.11	150.32
5,735.0	0.50	189.60	5,600.6	-959.6	316.7	1,010.5	0.74	0.33	-163.48
5,829.0	1.00	190.90	5,694.6	-960.8	316.5	1,011.6	0.53	0.53	1.38
5,834.4	0.98	191.11	5,700.0	-960.9	316.5	1,011.7	0.33	-0.33	3.90
TARGET BHL 75'FSL, 1246'FWL									
5,922.0	0.70	196.00	5,787.5	-962.2	316.2	1,012.8	0.33	-0.32	5.58
6,015.0	0.70	206.40	5,880.5	-963.2	315.7	1,013.6	0.14	0.00	11.18
6,108.0	0.70	190.70	5,973.5	-964.3	315.4	1,014.5	0.21	0.00	-16.88

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Zeiler 7LDU
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Site:	Zeiler 23-7DU Pad Sec.7-T5N-R67W	MD Reference:	WELL @ 4973.0ft (Original Well Elev)
Well:	Zeiler 7LDU	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)
6,202.0	0.40	242.70	6,067.5	-965.0	315.0	1,015.1	0.59	-0.32	55.32
6,294.0	0.20	236.30	6,159.5	-965.2	314.6	1,015.2	0.22	-0.22	-6.96
6,387.0	0.50	250.80	6,252.5	-965.5	314.1	1,015.2	0.33	0.32	15.59
6,481.0	0.70	277.00	6,346.5	-965.5	313.1	1,015.0	0.36	0.21	27.87
6,574.0	0.90	279.20	6,439.5	-965.3	311.8	1,014.4	0.22	0.22	2.37
6,667.0	1.00	283.80	6,532.5	-965.0	310.3	1,013.7	0.14	0.11	4.95
6,760.0	0.60	251.40	6,625.5	-965.0	309.1	1,013.2	0.63	-0.43	-34.84
6,853.0	0.50	277.80	6,718.5	-965.1	308.2	1,013.1	0.29	-0.11	28.39
6,946.0	0.60	184.00	6,811.5	-965.5	307.8	1,013.3	0.87	0.11	-100.86
7,039.0	0.80	191.10	6,904.5	-966.6	307.6	1,014.3	0.23	0.22	7.63
7,132.0	0.70	194.90	6,997.5	-967.8	307.3	1,015.4	0.12	-0.11	4.09
7,225.0	0.60	168.30	7,090.5	-968.9	307.3	1,016.3	0.34	-0.11	-28.60
7,317.0	0.30	131.30	7,182.5	-969.5	307.6	1,017.0	0.44	-0.33	-40.22
7,411.0	0.40	128.00	7,276.5	-969.8	308.0	1,017.5	0.11	0.11	-3.51
7,473.0	0.30	141.50	7,338.5	-970.1	308.3	1,017.8	0.21	-0.16	21.77
7,520.0	0.30	141.50	7,385.4	-970.3	308.4	1,018.1	0.00	0.00	0.00
HARD LINES 75'S OF BHL									

Checked By: _____	Approved By: _____	Date: _____
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