

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: Wiedeman 28E-234

Surface Location: Wiedeman 4N66W28F - West Pad Sec.28-T4N-R66W
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone

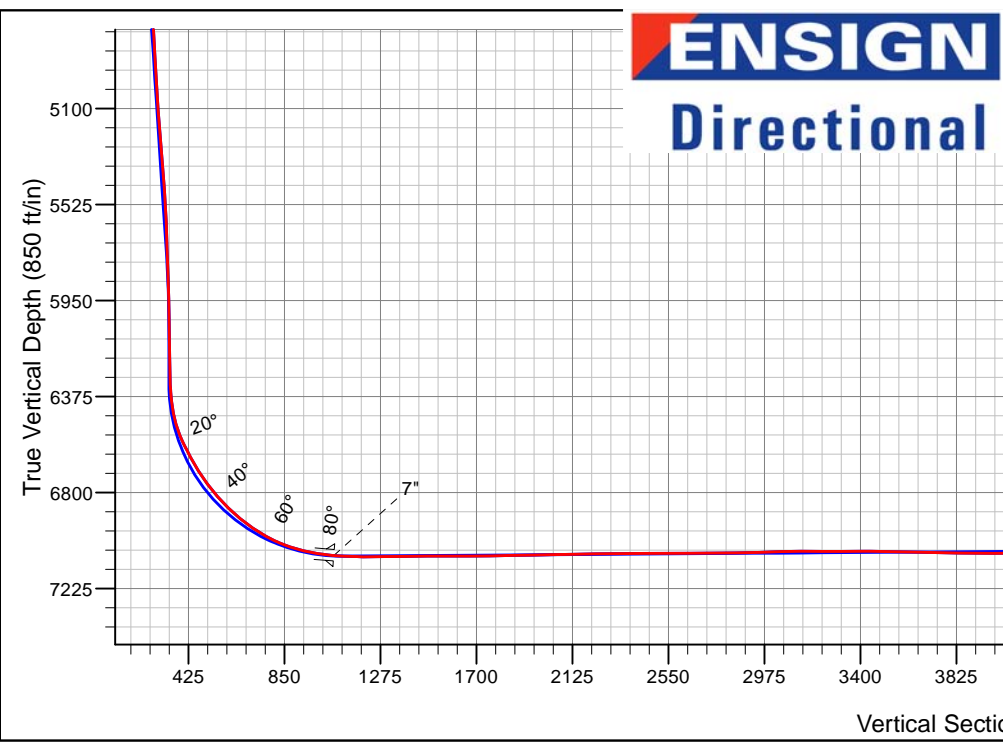
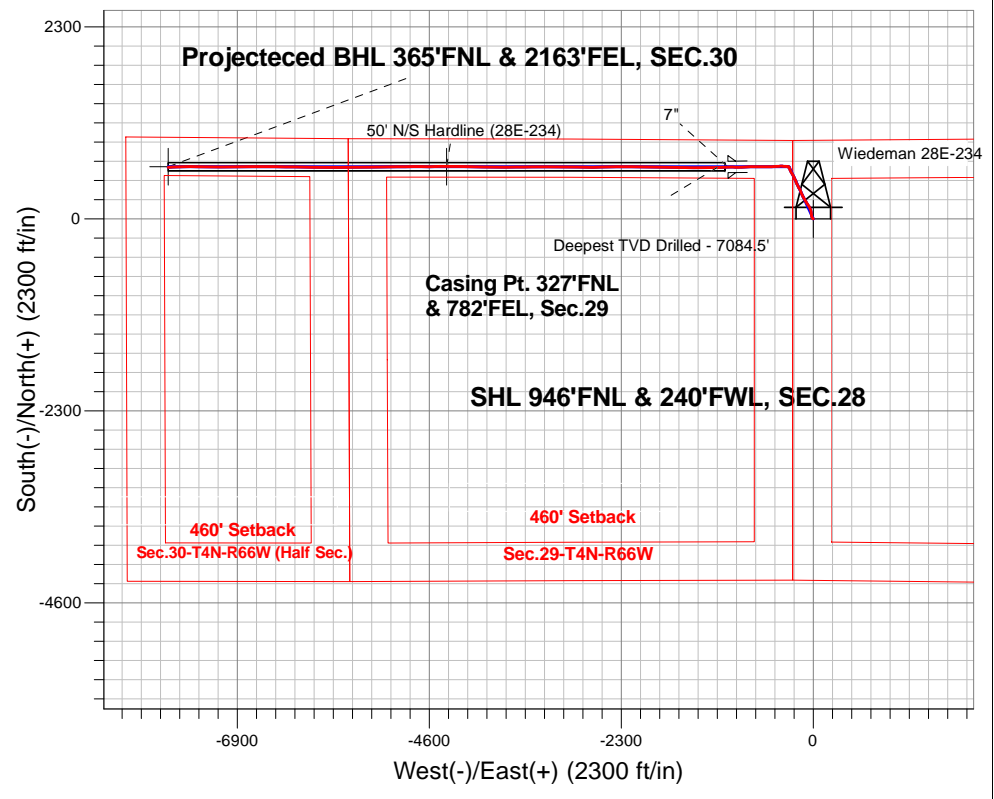
Ground Elevation: 4763.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.01348276	953197776.20	40.287250	-104.791050		

Ensign 121 - 13.5' WELL @ 4776.5ft (Ensign 121 - 13.5')

FINAL SURVEY

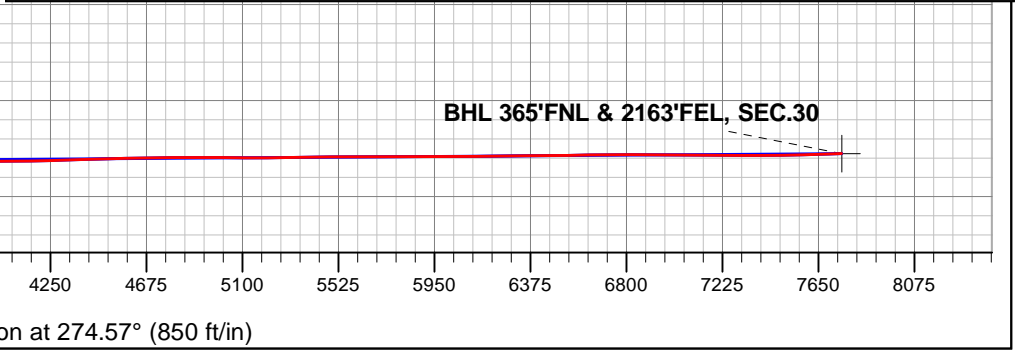
Projected Bottom Hole Location
 14219'MD 7034'TVD 617'N & 7727'W of SHL
 92.2 degree Incl @ 267.1 degree AZM



Wiedeman 4N66W28F - West Pad Sec.28-T4N-R66W
 Wiedeman 28E-234
 Wellbore #1
 9:18, September 08 2015

ANNOTATIONS		
TVD	MD	Annotation
7084.5	7642.0	Deepest TVD Drilled - 7084.5'

LEGEND	
	Wiedeman 28E-234, Wellbore #1, Plan #2 (8-18-15) V0
	Wellbore #1
	Survey #1



PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.28-T4N-R66W

Wiedeman 4N66W28F - West Pad Sec.28-T4N-R66W

Wiedeman 28E-234

Wellbore #1

Survey: Survey #1

Standard Survey Report

08 September, 2015

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Wiedeman 28E-234
Project:	SEC.28-T4N-R66W	TVD Reference:	WELL @ 4776.5ft (Ensign 121 - 13.5')
Site:	Wiedeman 4N66W28F - West Pad Sec.28-T4N-R66W	MD Reference:	WELL @ 4776.5ft (Ensign 121 - 13.5')
Well:	Wiedeman 28E-234	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Project	SEC.28-T4N-R66W, 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	Wiedeman 4N66W28F - West Pad Sec.28-T4N-R66W				
Site Position:		Northing:	1,348,277.01 usft	Latitude:	40.287250
From:	Lat/Long	Easting:	3,197,776.20 usft	Longitude:	-104.791050
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.46 °

Well	Wiedeman 28E-234					
Well Position	+N/-S	0.0 ft	Northing:	1,348,276.95 usft	Latitude:	40.287250
	+E/-W	0.0 ft	Easting:	3,197,776.20 usft	Longitude:	-104.791050
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,763.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/17/2015	8.31	66.81	52.631

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	274.57	

Survey Program	Date	9/8/2015			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
166.0	14,219.0	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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
1.0	0.01	283.60	1.0	0.0	0.0	0.0	0.54	0.54	0.00	
SHL 946'FNL & 240'FWL, SEC.28										
35.9	0.19	283.60	35.9	0.0	-0.1	0.1	0.54	0.54	0.00	
50' N/S Hardline (28E-234)										
166.0	0.90	283.60	166.0	0.3	-1.3	1.3	0.54	0.54	0.00	
228.0	1.10	281.80	228.0	0.5	-2.3	2.4	0.33	0.32	-2.90	
323.0	1.10	283.80	323.0	0.9	-4.1	4.2	0.04	0.00	2.11	
416.0	1.30	300.50	415.9	1.7	-5.9	6.0	0.43	0.22	17.96	

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Site:	Wiedeman 4N66W28F - West Pad Sec.28-T4N-R66W	MD Reference:	WELL @ 4776.5ft (Ensign 121 - 13.5')
Well:	Wiedeman 28E-234	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
510.0	1.90	311.50	509.9	3.3	-8.0	8.2	0.71	0.64	11.70	
603.0	3.00	335.10	602.8	6.5	-10.1	10.6	1.58	1.18	25.38	
697.0	3.90	334.40	696.7	11.6	-12.6	13.4	0.96	0.96	-0.74	
790.0	5.00	341.10	789.4	18.3	-15.2	16.6	1.31	1.18	7.20	
883.0	4.90	341.10	882.0	25.9	-17.8	19.8	0.11	-0.11	0.00	
1,007.0	5.20	345.60	1,005.5	36.3	-21.0	23.8	0.40	0.24	3.63	
1,101.0	7.90	357.80	1,098.9	46.9	-22.3	25.9	3.22	2.87	12.98	
1,194.0	9.10	351.60	1,190.9	60.6	-23.6	28.3	1.62	1.29	-6.67	
1,287.0	8.70	352.00	1,282.8	74.8	-25.6	31.5	0.44	-0.43	0.43	
1,386.0	10.30	351.10	1,380.4	91.0	-28.0	35.2	1.62	1.62	-0.91	
1,476.0	10.30	339.10	1,469.0	106.5	-32.2	40.5	2.38	0.00	-13.33	
1,569.0	11.10	334.40	1,560.4	122.3	-39.0	48.6	1.27	0.86	-5.05	
1,662.0	10.00	336.30	1,651.8	137.8	-46.1	56.9	1.24	-1.18	2.04	
1,756.0	9.40	325.20	1,744.5	151.5	-53.8	65.7	2.09	-0.64	-11.81	
1,849.0	8.90	325.80	1,836.3	163.7	-62.1	75.0	0.55	-0.54	0.65	
1,946.0	8.00	323.50	1,932.2	175.4	-70.4	84.1	0.99	-0.93	-2.37	
2,041.0	7.70	329.80	2,026.3	186.2	-77.5	92.1	0.96	-0.32	6.63	
2,137.0	7.50	326.10	2,121.5	196.9	-84.2	99.7	0.55	-0.21	-3.85	
2,232.0	7.60	333.30	2,215.7	207.7	-90.5	106.8	1.00	0.11	7.58	
2,328.0	7.30	331.20	2,310.9	218.7	-96.3	113.4	0.42	-0.31	-2.19	
2,424.0	7.40	327.40	2,406.1	229.3	-102.6	120.5	0.52	0.10	-3.96	
2,519.0	7.80	327.40	2,500.2	239.8	-109.4	128.1	0.42	0.42	0.00	
2,615.0	8.40	335.40	2,595.3	251.7	-115.8	135.5	1.33	0.63	8.33	
2,710.0	8.40	332.10	2,689.3	264.2	-121.9	142.6	0.51	0.00	-3.47	
2,806.0	8.40	329.50	2,784.2	276.4	-128.8	150.4	0.40	0.00	-2.71	
2,902.0	8.00	338.10	2,879.3	288.6	-134.8	157.4	1.34	-0.42	8.96	
2,997.0	7.90	334.90	2,973.3	300.7	-140.0	163.5	0.48	-0.11	-3.37	
3,092.0	8.10	337.40	3,067.4	312.8	-145.4	169.8	0.42	0.21	2.63	
3,188.0	7.80	336.50	3,162.5	325.0	-150.6	176.0	0.34	-0.31	-0.94	
3,283.0	6.60	339.00	3,256.7	336.0	-155.1	181.4	1.31	-1.26	2.63	
3,379.0	6.50	335.30	3,352.1	346.1	-159.4	186.4	0.45	-0.10	-3.85	
3,474.0	6.20	332.30	3,446.5	355.5	-164.0	191.8	0.47	-0.32	-3.16	
3,569.0	6.20	330.30	3,541.0	364.5	-168.9	197.4	0.23	0.00	-2.11	
3,665.0	6.60	326.60	3,636.4	373.6	-174.5	203.7	0.60	0.42	-3.85	
3,760.0	6.80	335.30	3,730.7	383.3	-179.9	209.8	1.09	0.21	9.16	
3,856.0	7.00	335.30	3,826.0	393.8	-184.7	215.5	0.21	0.21	0.00	
3,951.0	7.10	334.00	3,920.3	404.3	-189.7	221.3	0.20	0.11	-1.37	
4,047.0	6.70	331.40	4,015.6	414.6	-195.0	227.4	0.53	-0.42	-2.71	
4,142.0	7.00	333.90	4,109.9	424.6	-200.2	233.4	0.45	0.32	2.63	
4,237.0	7.50	342.60	4,204.2	435.7	-204.6	238.6	1.27	0.53	9.16	
4,333.0	7.00	341.60	4,299.4	447.3	-208.3	243.3	0.54	-0.52	-1.04	
4,428.0	7.20	337.40	4,393.7	458.2	-212.4	248.2	0.59	0.21	-4.42	

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Survey										
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4,524.0	7.00	334.20	4,489.0	469.1	-217.3	253.9	0.46	-0.21	-3.33	
4,619.0	6.90	332.30	4,583.3	479.3	-222.4	259.9	0.26	-0.11	-2.00	
4,715.0	7.40	337.70	4,678.5	490.2	-227.5	265.8	0.87	0.52	5.63	
4,810.0	6.70	337.40	4,772.8	500.9	-231.9	271.1	0.74	-0.74	-0.32	
4,905.0	6.50	334.00	4,867.2	510.9	-236.4	276.3	0.46	-0.21	-3.58	
5,001.0	6.40	334.20	4,962.6	520.6	-241.1	281.8	0.11	-0.10	0.21	
5,096.0	5.60	328.60	5,057.0	529.3	-245.8	287.2	1.04	-0.84	-5.89	
5,191.0	7.00	323.70	5,151.5	537.9	-251.7	293.7	1.58	1.47	-5.16	
5,287.0	7.60	326.50	5,246.7	547.9	-258.6	301.5	0.73	0.63	2.92	
5,382.0	8.10	326.60	5,340.8	558.8	-265.8	309.5	0.53	0.53	0.11	
5,478.0	8.10	336.70	5,435.8	570.6	-272.2	316.8	1.48	0.00	10.52	
5,573.0	6.90	338.40	5,530.0	582.1	-276.9	322.4	1.28	-1.26	1.79	
5,669.0	6.20	343.30	5,625.4	592.4	-280.6	326.8	0.93	-0.73	5.10	
5,764.0	4.90	342.60	5,720.0	601.2	-283.2	330.2	1.37	-1.37	-0.74	
5,860.0	4.50	334.90	5,815.6	608.5	-286.1	333.6	0.78	-0.42	-8.02	
5,955.0	3.10	334.00	5,910.4	614.2	-288.8	336.8	1.47	-1.47	-0.95	
6,050.0	1.50	354.10	6,005.3	617.7	-290.0	338.3	1.86	-1.68	21.16	
6,146.0	1.80	272.00	6,101.3	619.0	-291.7	340.0	2.27	0.31	-85.52	
6,241.0	1.20	323.70	6,196.3	619.9	-293.7	342.2	1.49	-0.63	54.42	
6,337.0	1.00	301.20	6,292.3	621.1	-295.1	343.6	0.49	-0.21	-23.44	
6,432.0	6.20	291.00	6,387.0	623.4	-300.6	349.3	5.49	5.47	-10.74	
6,479.0	9.30	283.80	6,433.6	625.2	-306.6	355.4	6.90	6.60	-15.32	
6,528.0	14.20	279.70	6,481.6	627.2	-316.4	365.3	10.14	10.00	-8.37	
6,575.0	20.00	276.00	6,526.5	629.0	-330.1	379.1	12.55	12.34	-7.87	
6,623.0	24.80	272.00	6,570.8	630.2	-348.3	397.4	10.49	10.00	-8.33	
6,670.0	27.30	270.40	6,613.1	630.6	-368.9	418.0	5.52	5.32	-3.40	
6,718.0	29.50	269.90	6,655.3	630.7	-391.8	440.8	4.61	4.58	-1.04	
6,765.0	31.00	266.90	6,695.9	630.0	-415.4	464.3	4.53	3.19	-6.38	
6,814.0	34.20	265.80	6,737.2	628.3	-441.8	490.4	6.64	6.53	-2.24	
6,861.0	38.30	266.00	6,775.1	626.3	-469.5	517.9	8.73	8.72	0.43	
6,909.0	41.20	268.50	6,812.0	624.9	-500.1	548.3	6.90	6.04	5.21	
6,956.0	44.50	268.80	6,846.4	624.1	-532.1	580.1	7.03	7.02	0.64	
7,005.0	47.10	271.10	6,880.6	624.1	-567.2	615.1	6.28	5.31	4.69	
7,052.0	49.90	270.90	6,911.7	624.7	-602.4	650.2	5.97	5.96	-0.43	
7,100.0	53.50	271.10	6,941.5	625.4	-640.1	687.8	7.51	7.50	0.42	
7,147.0	56.60	270.00	6,968.4	625.8	-678.6	726.3	6.87	6.60	-2.34	
7,195.0	60.80	268.30	6,993.3	625.1	-719.6	767.1	9.26	8.75	-3.54	
7,242.0	65.50	267.40	7,014.5	623.6	-761.5	808.7	10.14	10.00	-1.91	
7,291.0	69.90	267.40	7,033.1	621.5	-806.7	853.7	8.98	8.98	0.00	
7,338.0	73.70	267.80	7,047.8	619.6	-851.3	898.0	8.13	8.09	0.85	
7,386.0	76.70	269.70	7,060.1	618.6	-897.7	944.2	7.33	6.25	3.96	
7,433.0	80.40	271.50	7,069.4	619.1	-943.8	990.1	8.72	7.87	3.83	

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Design:	Wellbore #1	Database:	US_EDM

Survey										
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7,478.0	84.10	269.70	7,075.5	619.6	-988.4	1,034.6	9.13	8.22	-4.00	
7,512.0	85.24	269.30	7,078.6	619.3	-1,022.2	1,068.3	3.55	3.35	-1.16	
7"										
7,642.0	89.60	267.80	7,084.5	616.0	-1,152.0	1,197.4	3.55	3.35	-1.16	
Deepest TVD Drilled - 7084.5'										
7,737.0	91.00	269.30	7,084.0	613.6	-1,247.0	1,291.9	2.16	1.47	1.58	
7,833.0	90.70	269.90	7,082.6	612.9	-1,343.0	1,387.5	0.70	-0.31	0.63	
7,928.0	90.70	270.90	7,081.4	613.6	-1,437.9	1,482.2	1.05	0.00	1.05	
8,020.0	90.00	270.80	7,080.8	614.9	-1,529.9	1,574.0	0.77	-0.76	-0.11	
8,113.0	89.80	270.80	7,081.0	616.2	-1,622.9	1,666.8	0.22	-0.22	0.00	
8,205.0	91.30	270.90	7,080.1	617.6	-1,714.9	1,758.6	1.63	1.63	0.11	
8,297.0	90.80	270.80	7,078.4	619.0	-1,806.9	1,850.4	0.55	-0.54	-0.11	
8,389.0	90.80	270.90	7,077.1	620.3	-1,898.9	1,942.2	0.11	0.00	0.11	
8,482.0	91.50	270.80	7,075.3	621.7	-1,991.8	2,035.0	0.76	0.75	-0.11	
8,574.0	90.60	270.40	7,073.6	622.7	-2,083.8	2,126.8	1.07	-0.98	-0.43	
8,666.0	90.80	270.90	7,072.5	623.7	-2,175.8	2,218.6	0.59	0.22	0.54	
8,759.0	90.70	269.90	7,071.2	624.4	-2,268.8	2,311.3	1.08	-0.11	-1.08	
8,851.0	91.10	269.30	7,069.8	623.7	-2,360.8	2,402.9	0.78	0.43	-0.65	
8,943.0	90.70	268.80	7,068.4	622.2	-2,452.7	2,494.5	0.70	-0.43	-0.54	
9,035.0	89.40	268.50	7,068.3	620.0	-2,544.7	2,586.0	1.45	-1.41	-0.33	
9,128.0	90.20	270.00	7,068.6	618.8	-2,637.7	2,678.6	1.83	0.86	1.61	
9,220.0	90.50	269.90	7,068.0	618.7	-2,729.7	2,770.3	0.34	0.33	-0.11	
9,312.0	90.60	270.80	7,067.2	619.3	-2,821.7	2,862.1	0.98	0.11	0.98	
9,404.0	92.60	272.00	7,064.6	621.6	-2,913.6	2,953.9	2.53	2.17	1.30	
9,497.0	91.60	270.20	7,061.2	623.3	-3,006.5	3,046.6	2.21	-1.08	-1.94	
9,589.0	89.60	269.50	7,060.2	623.1	-3,098.5	3,138.3	2.30	-2.17	-0.76	
9,681.0	89.90	269.20	7,060.6	622.1	-3,190.5	3,229.9	0.46	0.33	-0.33	
9,773.0	90.00	270.90	7,060.7	622.1	-3,282.5	3,321.6	1.85	0.11	1.85	
9,866.0	90.60	269.20	7,060.2	622.2	-3,375.5	3,414.3	1.94	0.65	-1.83	
9,958.0	88.60	268.80	7,060.8	620.6	-3,467.5	3,505.9	2.22	-2.17	-0.43	
10,050.0	88.60	269.70	7,063.1	619.4	-3,559.5	3,597.5	0.98	0.00	0.98	
10,142.0	89.10	269.30	7,064.9	618.6	-3,651.4	3,689.1	0.70	0.54	-0.43	
10,234.0	88.70	270.40	7,066.7	618.4	-3,743.4	3,780.8	1.27	-0.43	1.20	
10,330.0	89.20	270.60	7,068.5	619.2	-3,839.4	3,876.5	0.56	0.52	0.21	
10,425.0	90.30	272.00	7,068.9	621.4	-3,934.4	3,971.4	1.87	1.16	1.47	
10,521.0	90.50	271.60	7,068.2	624.4	-4,030.3	4,067.2	0.47	0.21	-0.42	
10,616.0	90.70	270.80	7,067.2	626.4	-4,125.3	4,162.1	0.87	0.21	-0.84	
10,711.0	91.40	270.90	7,065.5	627.8	-4,220.3	4,256.9	0.74	0.74	0.11	
10,807.0	91.40	269.90	7,063.1	628.4	-4,316.2	4,352.6	1.04	0.00	-1.04	
10,902.0	92.10	269.30	7,060.2	627.8	-4,411.2	4,447.2	0.97	0.74	-0.63	
10,998.0	92.10	268.80	7,056.7	626.2	-4,507.1	4,542.7	0.52	0.00	-0.52	
11,093.0	91.20	270.80	7,054.0	625.9	-4,602.1	4,637.3	2.31	-0.95	2.11	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Wiedeman 28E-234
Project:	SEC.28-T4N-R66W	TVD Reference:	WELL @ 4776.5ft (Ensign 121 - 13.5')
Site:	Wiedeman 4N66W28F - West Pad Sec.28-T4N-R66W	MD Reference:	WELL @ 4776.5ft (Ensign 121 - 13.5')
Well:	Wiedeman 28E-234	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,189.0	90.30	269.90	7,052.7	626.4	-4,698.0	4,733.0	1.33	-0.94	-0.94	
11,284.0	89.80	269.70	7,052.6	626.1	-4,793.0	4,827.7	0.57	-0.53	-0.21	
11,379.0	90.00	269.70	7,052.8	625.6	-4,888.0	4,922.3	0.21	0.21	0.00	
11,475.0	89.70	268.80	7,053.1	624.4	-4,984.0	5,017.9	0.99	-0.31	-0.94	
11,570.0	89.40	268.10	7,053.8	621.8	-5,079.0	5,112.4	0.80	-0.32	-0.74	
11,666.0	90.70	269.70	7,053.7	619.9	-5,175.0	5,207.9	2.15	1.35	1.67	
11,761.0	91.60	269.70	7,051.8	619.4	-5,270.0	5,302.5	0.95	0.95	0.00	
11,856.0	90.20	270.00	7,050.3	619.2	-5,364.9	5,397.2	1.51	-1.47	0.32	
11,952.0	90.70	269.30	7,049.6	618.6	-5,460.9	5,492.9	0.90	0.52	-0.73	
12,047.0	89.80	270.00	7,049.1	618.0	-5,555.9	5,587.5	1.20	-0.95	0.74	
12,143.0	90.00	269.00	7,049.3	617.2	-5,651.9	5,683.1	1.06	0.21	-1.04	
12,238.0	90.20	270.40	7,049.2	616.7	-5,746.9	5,777.8	1.49	0.21	1.47	
12,334.0	90.80	269.90	7,048.3	616.9	-5,842.9	5,873.5	0.81	0.63	-0.52	
12,429.0	89.40	270.60	7,048.1	617.4	-5,937.9	5,968.2	1.65	-1.47	0.74	
12,524.0	90.60	271.50	7,048.1	619.1	-6,032.9	6,063.0	1.58	1.26	0.95	
12,620.0	91.00	270.90	7,046.8	621.1	-6,128.9	6,158.9	0.75	0.42	-0.63	
12,715.0	90.70	270.40	7,045.4	622.2	-6,223.8	6,253.6	0.61	-0.32	-0.53	
12,811.0	90.60	269.70	7,044.3	622.3	-6,319.8	6,349.3	0.74	-0.10	-0.73	
12,906.0	90.30	271.30	7,043.6	623.1	-6,414.8	6,444.1	1.71	-0.32	1.68	
13,001.0	90.70	270.90	7,042.7	624.9	-6,509.8	6,538.9	0.60	0.42	-0.42	
13,097.0	91.20	270.80	7,041.1	626.3	-6,605.8	6,634.7	0.53	0.52	-0.10	
13,192.0	91.30	269.70	7,039.1	626.8	-6,700.8	6,729.4	1.16	0.11	-1.16	
13,287.0	88.60	269.50	7,039.2	626.1	-6,795.7	6,824.0	2.85	-2.84	-0.21	
13,382.0	89.30	269.00	7,040.9	624.9	-6,890.7	6,918.6	0.91	0.74	-0.53	
13,477.0	90.30	269.00	7,041.2	623.2	-6,985.7	7,013.1	1.05	1.05	0.00	
13,573.0	89.30	268.80	7,041.6	621.4	-7,081.7	7,108.7	1.06	-1.04	-0.21	
13,668.0	89.40	271.60	7,042.6	621.7	-7,176.7	7,203.4	2.95	0.11	2.95	
13,763.0	90.10	271.30	7,043.1	624.1	-7,271.6	7,298.2	0.80	0.74	-0.32	
13,858.0	90.30	270.80	7,042.7	625.8	-7,366.6	7,393.1	0.57	0.21	-0.53	
13,954.0	90.90	269.50	7,041.7	626.1	-7,462.6	7,488.8	1.49	0.63	-1.35	
14,049.0	91.20	268.60	7,040.0	624.5	-7,557.6	7,583.3	1.00	0.32	-0.95	
14,164.0	92.20	267.10	7,036.6	620.2	-7,672.4	7,697.5	1.57	0.87	-1.30	
14,219.0	92.20	267.10	7,034.5	617.4	-7,727.3	7,752.0	0.00	0.00	0.00	
BHL 358'FNL & 2163'FEL, SEC.30										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,512.0	7,078.6	7"	7	7-1/2	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Wiedeman 28E-234
Project:	SEC.28-T4N-R66W	TVD Reference:	WELL @ 4776.5ft (Ensign 121 - 13.5')
Site:	Wiedeman 4N66W28F - West Pad Sec.28-T4N-R66W	MD Reference:	WELL @ 4776.5ft (Ensign 121 - 13.5')
Well:	Wiedeman 28E-234	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,642.0	7,084.5	616.0	-1,152.0	Deepest TVD Drilled - 7084.5'

Checked By: _____ Approved By: _____ Date: _____