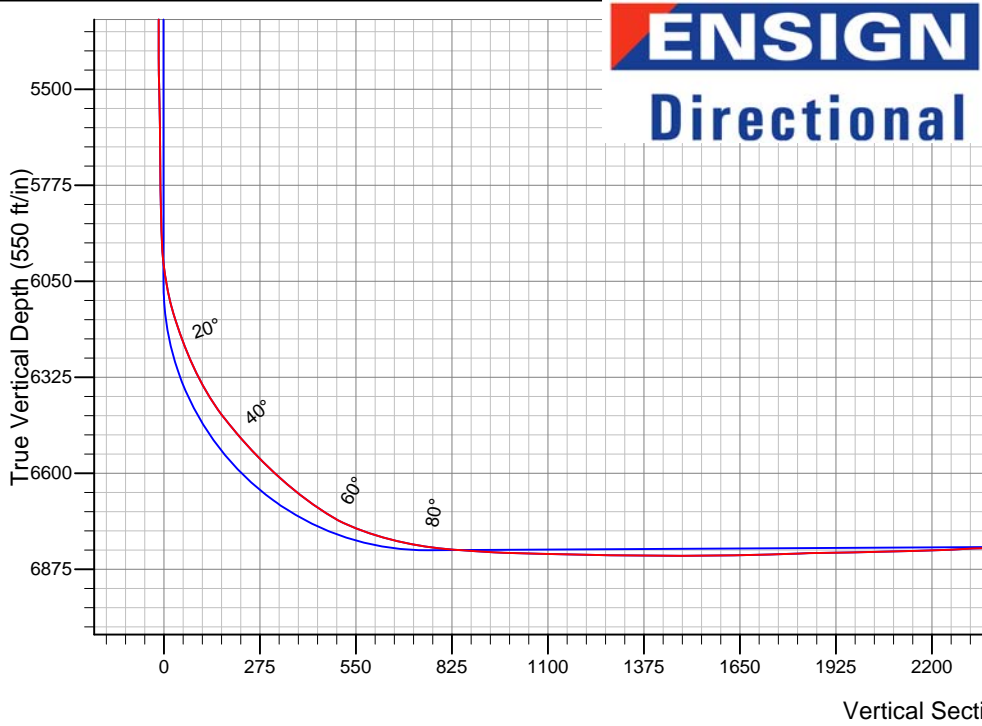
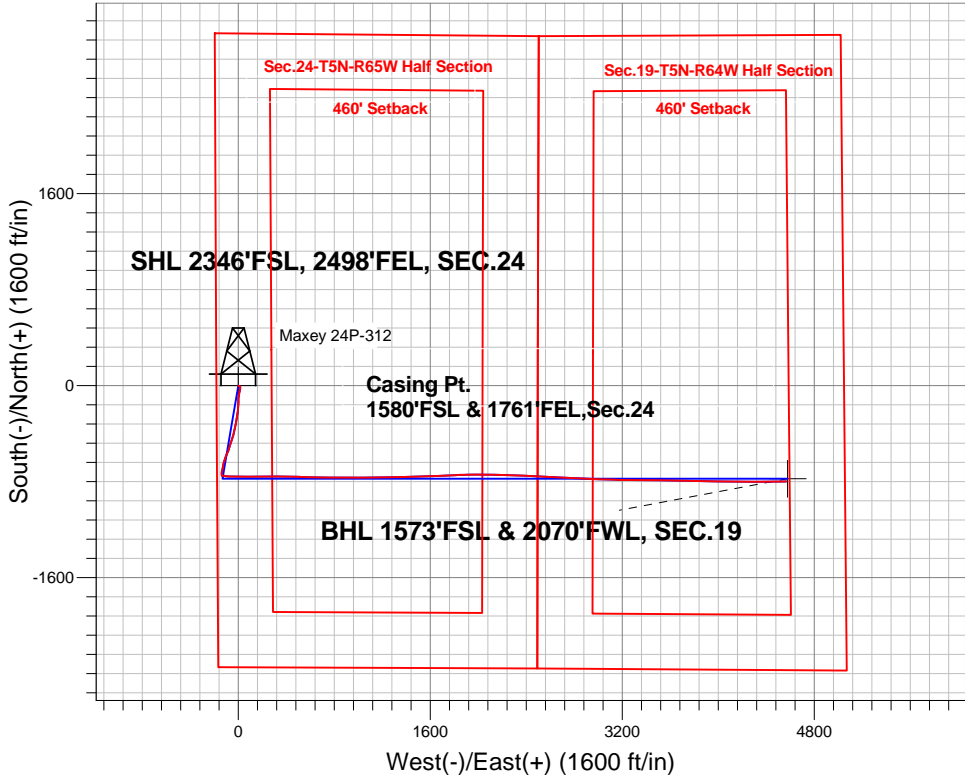


PETROLEUM DEVELOPMENT CORP Weld County CO

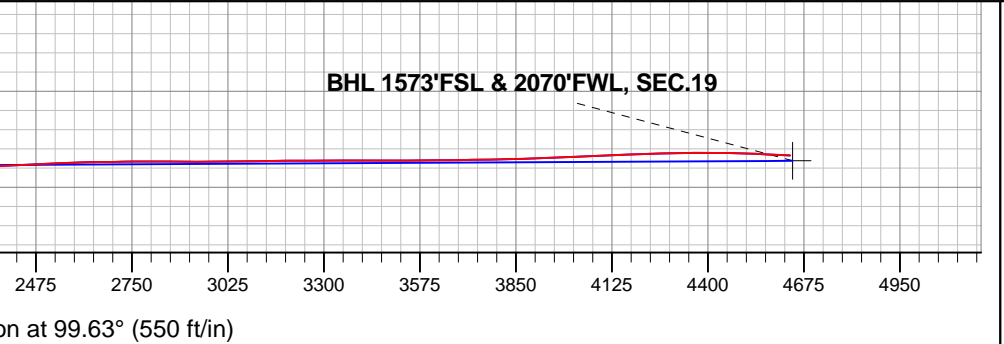
Well Name: **Maxey 24P-312**  
Surface Location: Maxey 24O-HZ Pad Sec.24-T5N-R65W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
Ground Elevation: 4637.0  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.0 0.0 1383922.41 3247686.72 40.383860 -104.610870  
RKB - 15' WELL @ 4652.0ft (RKB - 15')

FINAL SURVEY

Projected Bottom Hole Location  
11196'MD 6784'TVD 799'S & 4566'E of SHL  
87.5 degree Incl @ 89.6 degree AZM



Maxey 24O-HZ Pad Sec.24-T5N-R65W Maxey 24P-312 Wellbore #1 13:02, May 27 2014	ANNOTATIONS
	No annotation data is available.
LEGEND	
○ Maxey 24P-312, Wellbore #1, Plan #3 (5-16-14)R V0	
□ Wellbore #1	
○ Survey #1	





# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.24-T5N-R65W**

**Maxey 24O-HZ Pad Sec.24-T5N-R65W**

**Maxey 24P-312**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**27 May, 2014**

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Maxey 24P-312
<b>Project:</b>	SEC.24-T5N-R65W	<b>TVD Reference:</b>	WELL @ 4652.0ft (RKB - 15')
<b>Site:</b>	Maxey 24O-HZ Pad Sec.24-T5N-R65W	<b>MD Reference:</b>	WELL @ 4652.0ft (RKB - 15')
<b>Well:</b>	Maxey 24P-312	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.24-T5N-R65W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site	Maxey 24O-HZ Pad Sec.24-T5N-R65W				
Site Position:		Northing:	1,383,922.11 ft	Latitude:	40.383860
From:	Lat/Long	Easting:	3,247,656.08 ft	Longitude:	-104.610980
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.57 °

Well	Maxey 24P-312					
Well Position	+N-S	0.0 ft	Northing:	1,383,922.41 ft	Latitude:	40.383860
	+E-W	0.0 ft	Easting:	3,247,686.72 ft	Longitude:	-104.610870
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,637.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	5/9/2014	8.39	66.96	52,835

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	99.63	

<b>Survey Program</b>	<b>Date</b> 5/27/2014				
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
146.0	11,196.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>									
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	116.50	1.0	0.0	0.0	0.0	0.34	0.34	0.00
<b>SHL 2346'FSL, 2498'FEL, SEC.24</b>									
146.0	0.50	116.50	146.0	-0.3	0.6	0.6	0.34	0.34	0.00
238.0	1.00	112.80	238.0	-0.8	1.7	1.8	0.55	0.54	-4.02
330.0	1.00	121.80	330.0	-1.5	3.1	3.3	0.17	0.00	9.78
421.0	1.00	104.20	421.0	-2.1	4.5	4.8	0.34	0.00	-19.34
512.0	1.10	130.30	511.9	-2.9	6.0	6.4	0.53	0.11	28.68
603.0	1.10	101.30	602.9	-3.6	7.5	8.0	0.61	0.00	-31.87
695.0	1.20	129.00	694.9	-4.4	9.1	9.7	0.61	0.11	30.11
786.0	1.10	115.40	785.9	-5.4	10.6	11.4	0.32	-0.11	-14.95
877.0	1.40	137.70	876.9	-6.6	12.2	13.1	0.62	0.33	24.51

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Maxey 24P-312
<b>Project:</b>	SEC.24-T5N-R65W	<b>TVD Reference:</b>	WELL @ 4652.0ft (RKB - 15')
<b>Site:</b>	Maxey 24O-HZ Pad Sec.24-T5N-R65W	<b>MD Reference:</b>	WELL @ 4652.0ft (RKB - 15')
<b>Well:</b>	Maxey 24P-312	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
968.0	1.80	129.90	967.8	-8.3	14.0	15.2	0.50	0.44	-8.57
1,059.0	2.20	169.20	1,058.8	-10.9	15.4	17.1	1.53	0.44	43.19
1,151.0	3.70	184.30	1,150.7	-15.6	15.6	17.9	1.82	1.63	16.41
1,249.0	5.60	181.90	1,248.3	-23.6	15.2	18.9	1.95	1.94	-2.45
1,344.0	7.30	189.40	1,342.7	-34.2	14.0	19.5	1.99	1.79	7.89
1,440.0	8.10	194.00	1,437.9	-46.7	11.4	19.0	1.05	0.83	4.79
1,534.0	8.30	192.50	1,530.9	-59.8	8.3	18.2	0.31	0.21	-1.60
1,628.0	9.30	191.70	1,623.8	-73.8	5.3	17.6	1.07	1.06	-0.85
1,723.0	9.80	187.10	1,717.5	-89.4	2.8	17.7	0.96	0.53	-4.84
1,818.0	10.50	186.30	1,811.0	-106.0	0.8	18.5	0.75	0.74	-0.84
1,913.0	10.40	182.30	1,904.4	-123.2	-0.5	20.1	0.77	-0.11	-4.21
2,008.0	10.70	177.90	1,997.8	-140.6	-0.5	23.0	0.90	0.32	-4.63
2,103.0	11.10	179.50	2,091.1	-158.5	-0.1	26.4	0.53	0.42	1.68
2,198.0	9.80	183.70	2,184.5	-175.7	-0.6	28.8	1.59	-1.37	4.42
2,293.0	9.80	182.90	2,278.1	-191.9	-1.5	30.6	0.14	0.00	-0.84
2,389.0	10.10	187.60	2,372.7	-208.4	-3.0	31.9	0.90	0.31	4.90
2,483.0	10.60	188.30	2,465.2	-225.1	-5.3	32.4	0.55	0.53	0.74
2,578.0	11.40	188.60	2,558.4	-243.0	-8.0	32.7	0.84	0.84	0.32
2,674.0	13.00	190.20	2,652.3	-263.0	-11.3	32.8	1.70	1.67	1.67
2,769.0	14.00	190.10	2,744.6	-284.9	-15.3	32.6	1.05	1.05	-0.11
2,864.0	12.30	191.00	2,837.1	-306.1	-19.2	32.3	1.80	-1.79	0.95
2,959.0	12.30	191.70	2,930.0	-326.0	-23.2	31.7	0.16	0.00	0.74
3,053.0	11.30	192.30	3,022.0	-344.8	-27.2	30.9	1.07	-1.06	0.64
3,148.0	9.50	193.10	3,115.4	-361.5	-30.9	30.0	1.90	-1.89	0.84
3,244.0	8.60	193.00	3,210.2	-376.2	-34.3	29.1	0.94	-0.94	-0.10
3,339.0	7.20	190.10	3,304.3	-389.0	-37.0	28.6	1.53	-1.47	-3.05
3,434.0	7.50	187.50	3,398.5	-401.0	-38.8	28.8	0.47	0.32	-2.74
3,529.0	8.10	197.70	3,492.6	-413.5	-41.7	28.1	1.59	0.63	10.74
3,624.0	8.90	198.00	3,586.6	-426.9	-46.0	26.1	0.84	0.84	0.32
3,719.0	10.60	197.80	3,680.2	-442.2	-50.9	23.7	1.79	1.79	-0.21
3,814.0	11.70	198.40	3,773.4	-459.7	-56.6	21.0	1.16	1.16	0.63
3,909.0	12.40	199.20	3,866.3	-478.4	-63.0	17.9	0.76	0.74	0.84
4,004.0	10.90	197.40	3,959.4	-496.6	-69.1	15.0	1.62	-1.58	-1.89
4,099.0	10.50	201.00	4,052.7	-513.3	-74.9	12.0	0.82	-0.42	3.79
4,194.0	10.20	198.60	4,146.2	-529.3	-80.7	9.0	0.55	-0.32	-2.53
4,289.0	10.00	197.40	4,239.7	-545.2	-85.8	6.6	0.31	-0.21	-1.26
4,384.0	10.00	200.40	4,333.3	-560.8	-91.1	3.9	0.55	0.00	3.16
4,480.0	10.80	203.80	4,427.7	-576.8	-97.7	0.2	1.05	0.83	3.54
4,574.0	10.20	202.70	4,520.1	-592.6	-104.4	-3.9	0.67	-0.64	-1.17
4,669.0	9.50	200.30	4,613.7	-607.7	-110.4	-7.2	0.85	-0.74	-2.53
4,764.0	9.60	197.40	4,707.4	-622.6	-115.5	-9.7	0.52	0.11	-3.05
4,859.0	9.20	193.20	4,801.1	-637.5	-119.6	-11.3	0.84	-0.42	-4.42
4,954.0	10.00	191.50	4,894.8	-653.0	-123.0	-12.0	0.89	0.84	-1.79
5,049.0	10.00	192.00	4,988.3	-669.2	-126.3	-12.6	0.09	0.00	0.53
5,144.0	8.70	192.80	5,082.1	-684.2	-129.6	-13.4	1.38	-1.37	0.84
5,238.0	8.60	194.10	5,175.0	-698.0	-132.9	-14.3	0.23	-0.11	1.38
5,334.0	8.40	191.10	5,270.0	-711.8	-136.0	-15.1	0.51	-0.21	-3.13
5,428.0	6.80	187.20	5,363.1	-724.1	-138.1	-15.0	1.79	-1.70	-4.15
5,523.0	5.50	182.10	5,457.6	-734.2	-138.9	-14.2	1.48	-1.37	-5.37
5,618.0	3.70	170.30	5,552.3	-741.8	-138.6	-12.6	2.13	-1.89	-12.42
5,713.0	2.20	171.00	5,647.1	-746.6	-137.8	-11.0	1.58	-1.58	0.74
5,808.0	1.50	174.00	5,742.1	-749.7	-137.4	-10.0	0.74	-0.74	3.16
5,903.0	1.00	118.00	5,837.1	-751.3	-136.5	-8.9	1.32	-0.53	-58.95
5,967.0	2.00	109.30	5,901.1	-751.9	-134.9	-7.3	1.60	1.56	-13.59

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Maxey 24P-312
<b>Project:</b>	SEC.24-T5N-R65W	<b>TVD Reference:</b>	WELL @ 4652.0ft (RKB - 15')
<b>Site:</b>	Maxey 24O-HZ Pad Sec.24-T5N-R65W	<b>MD Reference:</b>	WELL @ 4652.0ft (RKB - 15')
<b>Well:</b>	Maxey 24P-312	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
5,998.0	2.40	104.60	5,932.0	-752.3	-133.8	-6.1	1.41	1.29	-15.16
6,030.0	4.00	93.60	5,964.0	-752.5	-132.0	-4.3	5.33	5.00	-34.38
6,062.0	6.20	89.20	5,995.9	-752.5	-129.2	-1.5	6.98	6.88	-13.75
6,094.0	8.40	90.70	6,027.6	-752.6	-125.1	2.5	6.90	6.88	4.69
6,125.0	10.40	94.60	6,058.2	-752.8	-120.1	7.5	6.77	6.45	12.58
6,157.0	12.50	96.10	6,089.5	-753.4	-113.8	13.8	6.63	6.56	4.69
6,189.0	14.60	96.70	6,120.6	-754.2	-106.3	21.3	6.58	6.56	1.88
6,220.0	16.80	96.90	6,150.5	-755.2	-98.0	29.7	7.10	7.10	0.65
6,253.0	18.80	96.50	6,181.9	-756.4	-88.0	39.8	6.07	6.06	-1.21
6,284.0	20.40	95.30	6,211.1	-757.5	-77.6	50.2	5.32	5.16	-3.87
6,316.0	21.90	93.50	6,241.0	-758.4	-66.1	61.7	5.11	4.69	-5.63
6,348.0	23.40	92.50	6,270.5	-759.0	-53.8	73.9	4.84	4.69	-3.13
6,379.0	25.20	90.40	6,298.7	-759.3	-41.1	86.5	6.44	5.81	-6.77
6,411.0	27.40	88.90	6,327.4	-759.2	-26.9	100.5	7.18	6.88	-4.69
6,443.0	29.80	87.90	6,355.5	-758.8	-11.6	115.5	7.65	7.50	-3.13
6,474.0	32.40	88.50	6,382.1	-758.3	4.4	131.2	8.45	8.39	1.94
6,506.0	35.00	89.70	6,408.7	-758.0	22.2	148.6	8.39	8.13	3.75
6,538.0	37.50	90.50	6,434.5	-758.0	41.1	167.3	7.95	7.81	2.50
6,570.0	39.30	90.30	6,459.6	-758.2	61.0	186.9	5.64	5.63	-0.63
6,601.0	40.70	90.00	6,483.3	-758.2	80.9	206.6	4.56	4.52	-0.97
6,633.0	41.90	89.70	6,507.3	-758.2	102.0	227.4	3.80	3.75	-0.94
6,665.0	43.10	89.70	6,530.9	-758.1	123.6	248.7	3.75	3.75	0.00
6,696.0	44.70	89.60	6,553.3	-757.9	145.1	269.9	5.17	5.16	-0.32
6,728.0	46.10	89.50	6,575.7	-757.8	167.9	292.3	4.38	4.38	-0.31
6,760.0	47.70	90.00	6,597.6	-757.7	191.3	315.3	5.13	5.00	1.56
6,791.0	49.10	90.30	6,618.2	-757.7	214.5	338.2	4.57	4.52	0.97
6,823.0	50.50	90.60	6,638.8	-757.9	238.9	362.3	4.43	4.38	0.94
6,855.0	52.00	90.60	6,658.9	-758.2	263.9	386.9	4.69	4.69	0.00
6,887.0	53.50	90.50	6,678.2	-758.4	289.3	412.1	4.69	4.69	-0.31
6,918.0	55.60	90.00	6,696.2	-758.5	314.6	437.0	6.90	6.77	-1.61
6,950.0	58.20	89.60	6,713.7	-758.4	341.4	463.4	8.19	8.13	-1.25
6,982.0	61.40	89.60	6,729.8	-758.2	369.0	490.7	10.00	10.00	0.00
7,013.0	65.00	89.80	6,743.8	-758.1	396.7	517.9	11.63	11.61	0.65
7,045.0	67.90	90.10	6,756.5	-758.1	426.0	546.8	9.10	9.06	0.94
7,077.0	71.20	90.70	6,767.7	-758.3	456.0	576.4	10.46	10.31	1.88
7,108.0	73.60	91.20	6,777.1	-758.8	485.6	605.6	7.89	7.74	1.61
7,140.0	75.30	92.10	6,785.7	-759.7	516.4	636.1	5.96	5.31	2.81
7,172.0	76.30	93.10	6,793.5	-761.1	547.4	666.9	4.35	3.13	3.13
7,204.0	78.20	93.20	6,800.6	-762.8	578.5	697.9	5.95	5.94	0.31
7,235.0	80.00	92.20	6,806.5	-764.2	608.9	728.2	6.61	5.81	-3.23
7,266.0	82.00	91.20	6,811.3	-765.1	639.5	758.5	7.20	6.45	-3.23
7,291.0	83.90	90.92	6,814.4	-765.6	664.3	783.0	7.68	7.60	-1.12
7,364.0	86.20	90.40	6,820.7	-766.4	737.1	854.9	3.23	3.15	-0.71
7,395.0	86.30	90.10	6,822.7	-766.6	768.0	885.4	1.02	0.32	-0.97
7,425.0	86.50	90.40	6,824.6	-766.7	797.9	914.9	1.20	0.67	1.00
7,455.0	86.90	90.30	6,826.3	-766.9	827.9	944.5	1.37	1.33	-0.33
7,485.0	87.30	90.30	6,827.8	-767.0	857.8	974.0	1.33	1.33	0.00
7,516.0	88.10	90.10	6,829.1	-767.1	888.8	1,004.6	2.66	2.58	-0.65
7,546.0	88.40	90.00	6,830.0	-767.2	918.8	1,034.2	1.05	1.00	-0.33
7,577.0	88.90	90.00	6,830.7	-767.2	949.8	1,064.7	1.61	1.61	0.00
7,607.0	89.00	90.00	6,831.3	-767.2	979.8	1,094.3	0.33	0.33	0.00
7,638.0	89.10	89.80	6,831.8	-767.1	1,010.8	1,124.8	0.72	0.32	-0.65
7,668.0	89.20	89.70	6,832.2	-767.0	1,040.8	1,154.4	0.47	0.33	-0.33

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Maxey 24P-312
<b>Project:</b>	SEC.24-T5N-R65W	<b>TVD Reference:</b>	WELL @ 4652.0ft (RKB - 15')
<b>Site:</b>	Maxey 24O-HZ Pad Sec.24-T5N-R65W	<b>MD Reference:</b>	WELL @ 4652.0ft (RKB - 15')
<b>Well:</b>	Maxey 24P-312	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
7,698.0	89.10	89.70	6,832.7	-766.8	1,070.8	1,183.9	0.33	-0.33	0.00
7,728.0	88.90	89.30	6,833.2	-766.6	1,100.8	1,213.5	1.49	-0.67	-1.33
7,759.0	88.80	88.90	6,833.8	-766.1	1,131.8	1,243.9	1.33	-0.32	-1.29
7,789.0	88.80	88.60	6,834.4	-765.4	1,161.7	1,273.4	1.00	0.00	-1.00
7,819.0	89.00	88.90	6,835.0	-764.8	1,191.7	1,302.9	1.20	0.67	1.00
7,849.0	89.50	89.30	6,835.4	-764.3	1,221.7	1,332.3	2.13	1.67	1.33
7,880.0	89.50	89.20	6,835.7	-763.9	1,252.7	1,362.8	0.32	0.00	-0.32
7,910.0	89.60	88.90	6,835.9	-763.4	1,282.7	1,392.3	1.05	0.33	-1.00
7,940.0	89.30	88.90	6,836.2	-762.8	1,312.7	1,421.8	1.00	-1.00	0.00
7,970.0	89.90	89.00	6,836.4	-762.3	1,342.7	1,451.3	2.03	2.00	0.33
8,000.0	90.20	88.70	6,836.4	-761.7	1,372.7	1,480.7	1.41	1.00	-1.00
8,030.0	90.10	88.80	6,836.3	-761.0	1,402.7	1,510.2	0.47	-0.33	0.33
8,061.0	90.20	88.70	6,836.2	-760.3	1,433.7	1,540.7	0.46	0.32	-0.32
8,091.0	90.70	88.50	6,836.0	-759.6	1,463.7	1,570.1	1.80	1.67	-0.67
8,122.0	91.10	88.30	6,835.5	-758.7	1,494.7	1,600.5	1.44	1.29	-0.65
8,154.0	91.30	87.80	6,834.8	-757.6	1,526.6	1,631.8	1.68	0.63	-1.56
8,185.0	91.30	87.70	6,834.1	-756.4	1,557.6	1,662.2	0.32	0.00	-0.32
8,217.0	91.40	87.60	6,833.4	-755.1	1,589.6	1,693.5	0.44	0.31	-0.31
8,249.0	91.70	87.30	6,832.5	-753.7	1,621.5	1,724.7	1.33	0.94	-0.94
8,280.0	91.70	87.40	6,831.6	-752.3	1,652.5	1,755.0	0.32	0.00	0.32
8,312.0	91.60	87.70	6,830.7	-750.9	1,684.4	1,786.3	0.99	-0.31	0.94
8,344.0	91.50	87.80	6,829.8	-749.6	1,716.4	1,817.6	0.44	-0.31	0.31
8,375.0	91.60	87.60	6,829.0	-748.4	1,747.4	1,847.9	0.72	0.32	-0.65
8,407.0	91.50	87.60	6,828.1	-747.0	1,779.3	1,879.2	0.31	-0.31	0.00
8,439.0	91.10	88.40	6,827.4	-745.9	1,811.3	1,910.5	2.79	-1.25	2.50
8,471.0	90.60	88.10	6,826.9	-745.0	1,843.3	1,941.9	1.82	-1.56	-0.94
8,502.0	91.20	88.40	6,826.4	-744.0	1,874.3	1,972.3	2.16	1.94	0.97
8,534.0	91.00	88.70	6,825.8	-743.2	1,906.2	2,003.7	1.13	-0.63	0.94
8,565.0	91.10	89.30	6,825.2	-742.7	1,937.2	2,034.1	1.96	0.32	1.94
8,597.0	91.40	89.70	6,824.5	-742.4	1,969.2	2,065.6	1.56	0.94	1.25
8,629.0	91.30	89.80	6,823.8	-742.2	2,001.2	2,097.2	0.44	-0.31	0.31
8,660.0	91.50	90.00	6,823.0	-742.2	2,032.2	2,127.7	0.91	0.65	0.65
8,691.0	91.60	90.60	6,822.2	-742.3	2,063.2	2,158.3	1.96	0.32	1.94
8,723.0	91.90	91.20	6,821.2	-742.9	2,095.2	2,189.9	2.10	0.94	1.88
8,755.0	92.30	91.10	6,820.0	-743.5	2,127.1	2,221.5	1.29	1.25	-0.31
8,787.0	92.90	91.60	6,818.6	-744.2	2,159.1	2,253.2	2.44	1.88	1.56
8,819.0	92.40	91.50	6,817.1	-745.1	2,191.1	2,284.8	1.59	-1.56	-0.31
8,851.0	92.90	91.70	6,815.6	-746.0	2,223.0	2,316.5	1.68	1.56	0.63
8,882.0	92.10	91.90	6,814.3	-747.0	2,254.0	2,347.1	2.66	-2.58	0.65
8,914.0	92.10	91.90	6,813.1	-748.0	2,285.9	2,378.8	0.00	0.00	0.00
8,945.0	92.10	92.00	6,812.0	-749.1	2,316.9	2,409.5	0.32	0.00	0.32
8,977.0	92.30	91.70	6,810.7	-750.1	2,348.8	2,441.2	1.13	0.63	-0.94
9,009.0	92.40	91.90	6,809.4	-751.1	2,380.8	2,472.9	0.70	0.31	0.63
9,041.0	92.50	91.90	6,808.1	-752.2	2,412.8	2,504.6	0.31	0.31	0.00
9,071.0	92.80	91.90	6,806.7	-753.2	2,442.7	2,534.3	1.00	1.00	0.00
9,105.0	92.80	92.40	6,805.0	-754.5	2,476.6	2,567.9	1.47	0.00	1.47
9,136.0	92.40	92.40	6,803.6	-755.8	2,507.6	2,598.7	1.29	-1.29	0.00
9,168.0	91.00	92.70	6,802.7	-757.2	2,539.5	2,630.4	4.47	-4.38	0.94
9,199.0	90.20	93.30	6,802.3	-758.8	2,570.5	2,661.2	3.23	-2.58	1.94
9,231.0	90.70	93.60	6,802.1	-760.7	2,602.4	2,693.0	1.82	1.56	0.94
9,262.0	90.70	93.70	6,801.7	-762.7	2,633.4	2,723.8	0.32	0.00	0.32
9,294.0	90.20	93.30	6,801.4	-764.6	2,665.3	2,755.6	2.00	-1.56	-1.25
9,326.0	90.10	93.30	6,801.4	-766.5	2,697.3	2,787.5	0.31	-0.31	0.00

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Maxey 24P-312
<b>Project:</b>	SEC.24-T5N-R65W	<b>TVD Reference:</b>	WELL @ 4652.0ft (RKB - 15')
<b>Site:</b>	Maxey 24O-HZ Pad Sec.24-T5N-R65W	<b>MD Reference:</b>	WELL @ 4652.0ft (RKB - 15')
<b>Well:</b>	Maxey 24P-312	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
9,357.0	89.80	92.90	6,801.4	-768.2	2,728.2	2,818.3	1.61	-0.97	-1.29
9,389.0	89.80	92.80	6,801.5	-769.8	2,760.2	2,850.0	0.31	0.00	-0.31
9,421.0	90.00	92.70	6,801.6	-771.3	2,792.1	2,881.8	0.70	0.63	-0.31
9,452.0	89.80	92.40	6,801.6	-772.7	2,823.1	2,912.6	1.16	-0.65	-0.97
9,484.0	89.70	92.40	6,801.7	-774.0	2,855.1	2,944.3	0.31	-0.31	0.00
9,515.0	90.10	92.50	6,801.8	-775.3	2,886.0	2,975.1	1.33	1.29	0.32
9,547.0	90.70	93.10	6,801.6	-776.9	2,918.0	3,006.8	2.65	1.88	1.88
9,578.0	90.90	93.40	6,801.1	-778.7	2,948.9	3,037.6	1.16	0.65	0.97
9,610.0	91.10	93.50	6,800.6	-780.6	2,980.9	3,069.5	0.70	0.63	0.31
9,641.0	90.70	92.20	6,800.1	-782.1	3,011.8	3,100.2	4.39	-1.29	-4.19
9,673.0	90.60	91.50	6,799.7	-783.2	3,043.8	3,131.9	2.21	-0.31	-2.19
9,705.0	90.50	91.30	6,799.4	-783.9	3,075.8	3,163.6	0.70	-0.31	-0.63
9,736.0	90.70	91.00	6,799.1	-784.6	3,106.8	3,194.3	1.16	0.65	-0.97
9,768.0	90.10	90.70	6,798.9	-785.0	3,138.8	3,225.9	2.10	-1.88	-0.94
9,800.0	90.20	91.00	6,798.8	-785.5	3,170.8	3,257.5	0.99	0.31	0.94
9,832.0	90.20	90.80	6,798.7	-786.0	3,202.8	3,289.1	0.62	0.00	-0.63
9,863.0	90.20	90.50	6,798.6	-786.4	3,233.8	3,319.8	0.97	0.00	-0.97
9,895.0	90.00	90.70	6,798.5	-786.7	3,265.8	3,351.4	0.88	-0.63	0.63
9,926.0	89.90	90.40	6,798.6	-787.0	3,296.8	3,382.0	1.02	-0.32	-0.97
9,958.0	90.20	90.70	6,798.5	-787.3	3,328.8	3,413.6	1.33	0.94	0.94
9,990.0	90.20	90.70	6,798.4	-787.7	3,360.8	3,445.2	0.00	0.00	0.00
10,022.0	90.10	90.70	6,798.3	-788.1	3,392.8	3,476.8	0.31	-0.31	0.00
10,054.0	90.00	90.60	6,798.3	-788.5	3,424.8	3,508.4	0.44	-0.31	-0.31
10,086.0	90.10	90.50	6,798.3	-788.8	3,456.8	3,540.0	0.44	0.31	-0.31
10,117.0	90.40	90.90	6,798.1	-789.1	3,487.8	3,570.6	1.61	0.97	1.29
10,149.0	90.70	91.00	6,797.8	-789.7	3,519.8	3,602.3	0.99	0.94	0.31
10,180.0	90.60	90.90	6,797.5	-790.2	3,550.8	3,632.9	0.46	-0.32	-0.32
10,212.0	90.70	90.70	6,797.1	-790.6	3,582.8	3,664.5	0.70	0.31	-0.63
10,244.0	90.80	91.00	6,796.7	-791.1	3,614.8	3,696.1	0.99	0.31	0.94
10,276.0	91.00	91.00	6,796.2	-791.7	3,646.7	3,727.8	0.63	0.63	0.00
10,307.0	91.00	90.80	6,795.7	-792.1	3,677.7	3,758.4	0.65	0.00	-0.65
10,339.0	91.20	91.10	6,795.0	-792.7	3,709.7	3,790.0	1.13	0.63	0.94
10,370.0	91.30	91.10	6,794.4	-793.3	3,740.7	3,820.7	0.32	0.32	0.00
10,402.0	91.70	91.10	6,793.5	-793.9	3,772.7	3,852.3	1.25	1.25	0.00
10,433.0	92.00	90.90	6,792.5	-794.4	3,803.7	3,883.0	1.16	0.97	-0.65
10,465.0	91.80	91.00	6,791.5	-795.0	3,835.7	3,914.6	0.70	-0.63	0.31
10,497.0	91.80	91.10	6,790.5	-795.5	3,867.6	3,946.2	0.31	0.00	0.31
10,528.0	91.80	90.90	6,789.5	-796.1	3,898.6	3,976.8	0.64	0.00	-0.65
10,560.0	92.10	91.10	6,788.4	-796.6	3,930.6	4,008.5	1.13	0.94	0.63
10,592.0	92.40	91.10	6,787.1	-797.3	3,962.6	4,040.1	0.94	0.94	0.00
10,623.0	92.60	91.30	6,785.8	-797.9	3,993.5	4,070.7	0.91	0.65	0.65
10,655.0	92.70	91.30	6,784.3	-798.6	4,025.5	4,102.3	0.31	0.31	0.00
10,687.0	92.00	90.80	6,783.0	-799.2	4,057.4	4,134.0	2.69	-2.19	-1.56
10,718.0	91.90	90.60	6,781.9	-799.6	4,088.4	4,164.6	0.72	-0.32	-0.65
10,749.0	92.30	90.60	6,780.8	-799.9	4,119.4	4,195.2	1.29	1.29	0.00
10,780.0	92.60	90.90	6,779.5	-800.3	4,150.4	4,225.8	1.37	0.97	0.97
10,811.0	92.30	90.70	6,778.2	-800.8	4,181.3	4,256.4	1.16	-0.97	-0.65
10,843.0	91.10	90.50	6,777.2	-801.1	4,213.3	4,288.0	3.80	-3.75	-0.63
10,874.0	90.20	90.00	6,776.9	-801.2	4,244.3	4,318.5	3.32	-2.90	-1.61
10,906.0	90.20	90.40	6,776.7	-801.3	4,276.3	4,350.1	1.25	0.00	1.25
10,940.0	90.40	90.00	6,776.6	-801.5	4,310.3	4,383.6	1.32	0.59	-1.18
10,972.0	90.50	90.40	6,776.3	-801.6	4,342.3	4,415.2	1.29	0.31	1.25
11,003.0	89.40	89.70	6,776.3	-801.6	4,373.3	4,445.8	4.21	-3.55	-2.26
11,035.0	88.70	89.60	6,776.9	-801.4	4,405.3	4,477.3	2.21	-2.19	-0.31



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Maxey 24P-312
<b>Project:</b>	SEC.24-T5N-R65W	<b>TVD Reference:</b>	WELL @ 4652.0ft (RKB - 15')
<b>Site:</b>	Maxey 24O-HZ Pad Sec.24-T5N-R65W	<b>MD Reference:</b>	WELL @ 4652.0ft (RKB - 15')
<b>Well:</b>	Maxey 24P-312	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
11,067.0	87.60	88.90	6,777.9	-801.0	4,437.3	4,508.8	4.07	-3.44	-2.19
11,098.0	87.30	88.90	6,779.3	-800.4	4,468.3	4,539.2	0.97	-0.97	0.00
11,130.0	87.50	89.30	6,780.7	-799.9	4,500.2	4,570.6	1.40	0.63	1.25
11,142.0	87.50	89.60	6,781.3	-799.8	4,512.2	4,582.4	2.50	0.00	2.50
11,196.0	87.50	89.60	6,783.6	-799.4	4,566.2	4,635.5	0.00	0.00	0.00
BHL 1596'FSL & 2081'FWL, SEC.19									

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------