

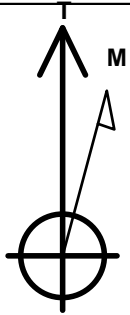
# PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Tarin 32Y-314**

Surface Location: Tarin 32X-HZ Pad Sec.32-T4N-R66W  
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
 Ground Elevation: 4776.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1339555.14 3197254.28 40.263320 -104.793170  
 RKB - 15' WELL @ 4791.0ft (RKB - 15')

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 883'FSL & 355'FEL, Sec.32	1.0	0.0	0.0	Point
BHL 375'FSL & 2142'FEL, Sec.31	7138.0	-546.3	-7083.3	Point



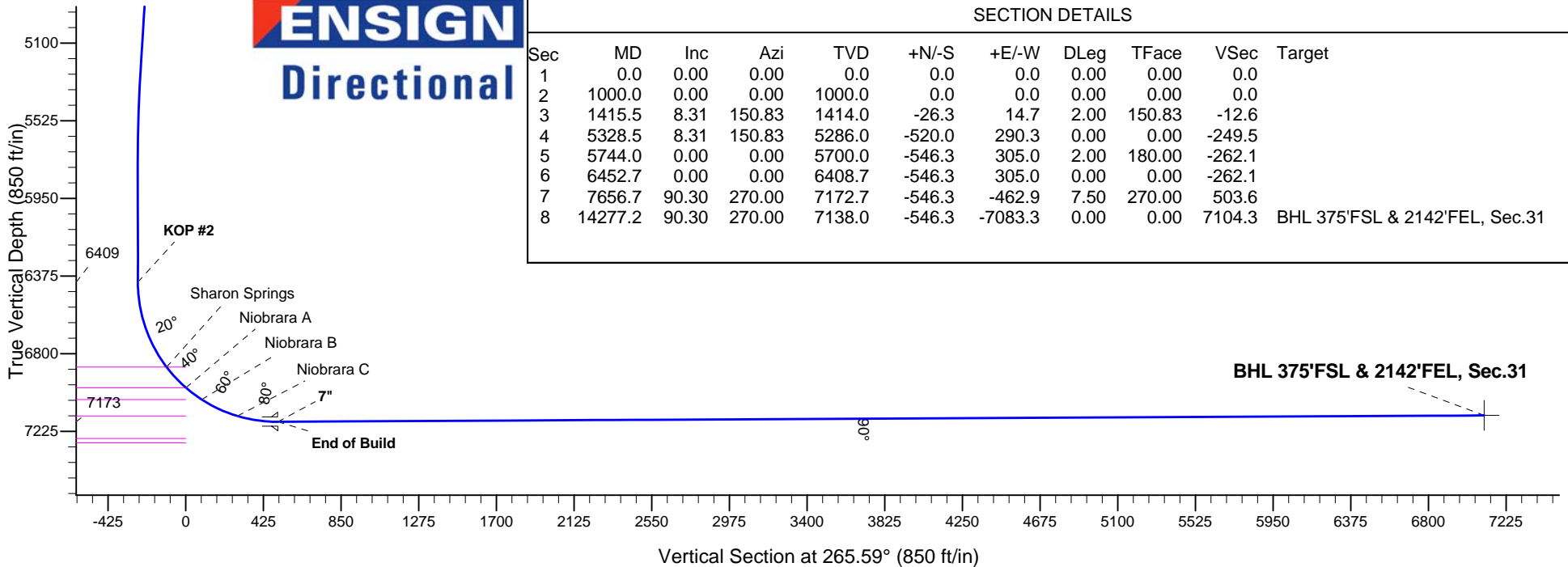
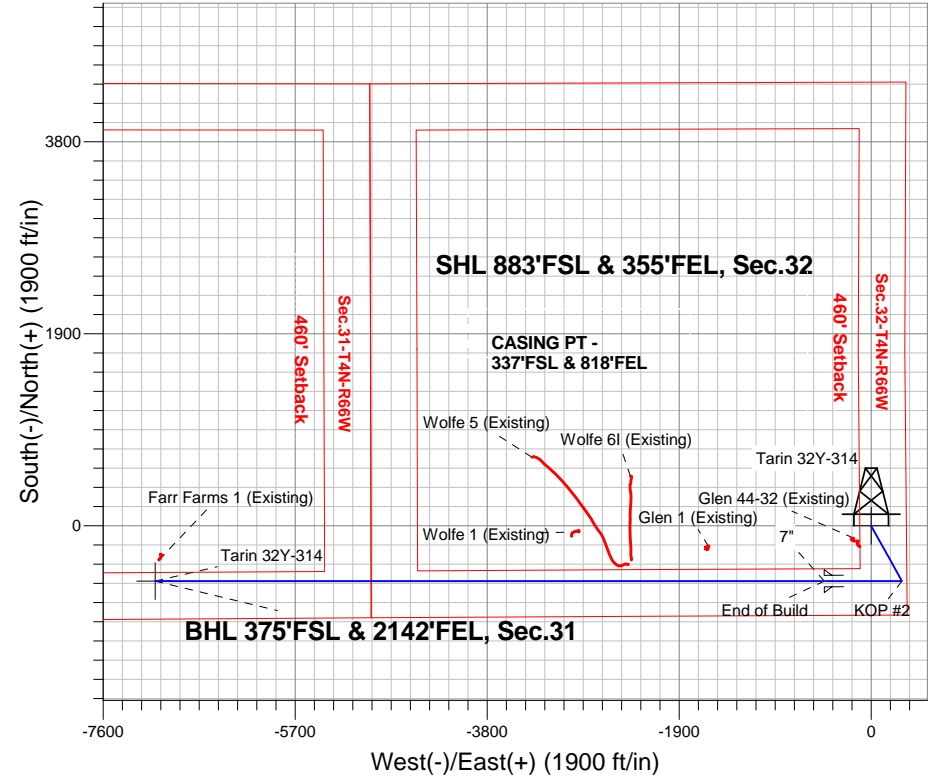
Azimuths to True North  
 Magnetic North: 8.47°

Magnetic Field  
 Strength: 52747.9nT  
 Dip Angle: 66.83°  
 Date: 5/22/2014  
 Model: IGRF2010

Tarin 32X-HZ Pad Sec.32-T4N-R66W  
 Tarin 32Y-314  
 Plan #2 (5-22-14)  
 13:46, May 22 2014

## ANNOTATIONS

TVD	MD	Annotation
1000.0	1000.0	KOP #1
6408.7	6452.7	KOP #2
7172.7	7656.7	End of Build





# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.32-T4N-R66W**

**Tarin 32X-HZ Pad Sec.32-T4N-R66W**

**Tarin 32Y-314**

**Wellbore #1**

**Plan: Plan #2 (5-22-14)**

## **Standard Planning Report**

**22 May, 2014**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Project:</b>	SEC.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (5-22-14)		

<b>Project</b>	SEC.32-T4N-R66W, 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

<b>Site</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W		
<b>Site Position:</b>		<b>Northing:</b>	1,339,733.63 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,197,250.06 ft
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	40.263810
		<b>Longitude:</b>	-104.793180
		<b>Grid Convergence:</b>	0.46 °

<b>Well</b>	Tarin 32Y-314		
<b>Well Position</b>	<b>+N/-S</b>	-178.5 ft	<b>Northing:</b>
	<b>+E/-W</b>	2.8 ft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>
			ft
			<b>Latitude:</b>
			40.263320
			<b>Longitude:</b>
			-104.793170
			<b>Ground Level:</b>
			4,776.0 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	5/22/2014	8.47	66.83	52,748

<b>Design</b>	Plan #2 (5-22-14)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<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	265.59

<b>Plan Sections</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>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,415.5	8.31	150.83	1,414.0	-26.3	14.7	2.00	2.00	0.00	150.83	
5,328.5	8.31	150.83	5,286.0	-520.0	290.3	0.00	0.00	0.00	0.00	
5,744.0	0.00	0.00	5,700.0	-546.3	305.0	2.00	-2.00	0.00	180.00	
6,452.7	0.00	0.00	6,408.7	-546.3	305.0	0.00	0.00	0.00	0.00	
7,656.7	90.30	270.00	7,172.7	-546.3	-462.9	7.50	7.50	0.00	270.00	
14,277.2	90.30	270.00	7,138.0	-546.3	-7,083.3	0.00	0.00	0.00	0.00	BHL 375'FSL & 214

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Project:</b>	SEC.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (5-22-14)		

Planned 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
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>SHL 883'FSL &amp; 355'FEL, Sec.32</b>									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP #1</b>									
1,100.0	2.00	150.83	1,100.0	-1.5	0.9	-0.7	2.00	2.00	0.00
1,200.0	4.00	150.83	1,199.8	-6.1	3.4	-2.9	2.00	2.00	0.00
1,300.0	6.00	150.83	1,299.5	-13.7	7.7	-6.6	2.00	2.00	0.00
1,400.0	8.00	150.83	1,398.7	-24.3	13.6	-11.7	2.00	2.00	0.00
1,415.5	8.31	150.83	1,414.0	-26.3	14.7	-12.6	2.00	2.00	0.00
1,500.0	8.31	150.83	1,497.7	-36.9	20.6	-17.7	0.00	0.00	0.00
1,600.0	8.31	150.83	1,596.6	-49.5	27.7	-23.8	0.00	0.00	0.00
1,700.0	8.31	150.83	1,695.6	-62.2	34.7	-29.8	0.00	0.00	0.00
1,800.0	8.31	150.83	1,794.5	-74.8	41.8	-35.9	0.00	0.00	0.00
1,900.0	8.31	150.83	1,893.5	-87.4	48.8	-41.9	0.00	0.00	0.00
2,000.0	8.31	150.83	1,992.4	-100.0	55.8	-48.0	0.00	0.00	0.00
2,100.0	8.31	150.83	2,091.4	-112.6	62.9	-54.0	0.00	0.00	0.00
2,200.0	8.31	150.83	2,190.3	-125.3	69.9	-60.1	0.00	0.00	0.00
2,300.0	8.31	150.83	2,289.3	-137.9	77.0	-66.1	0.00	0.00	0.00
2,400.0	8.31	150.83	2,388.2	-150.5	84.0	-72.2	0.00	0.00	0.00
2,500.0	8.31	150.83	2,487.2	-163.1	91.1	-78.3	0.00	0.00	0.00
2,600.0	8.31	150.83	2,586.1	-175.7	98.1	-84.3	0.00	0.00	0.00
2,700.0	8.31	150.83	2,685.1	-188.4	105.2	-90.4	0.00	0.00	0.00
2,800.0	8.31	150.83	2,784.0	-201.0	112.2	-96.4	0.00	0.00	0.00
2,900.0	8.31	150.83	2,883.0	-213.6	119.2	-102.5	0.00	0.00	0.00
3,000.0	8.31	150.83	2,981.9	-226.2	126.3	-108.5	0.00	0.00	0.00
3,100.0	8.31	150.83	3,080.9	-238.8	133.3	-114.6	0.00	0.00	0.00
3,200.0	8.31	150.83	3,179.8	-251.4	140.4	-120.6	0.00	0.00	0.00
3,300.0	8.31	150.83	3,278.8	-264.1	147.4	-126.7	0.00	0.00	0.00
3,400.0	8.31	150.83	3,377.7	-276.7	154.5	-132.7	0.00	0.00	0.00
3,500.0	8.31	150.83	3,476.7	-289.3	161.5	-138.8	0.00	0.00	0.00
3,600.0	8.31	150.83	3,575.6	-301.9	168.6	-144.8	0.00	0.00	0.00
3,700.0	8.31	150.83	3,674.6	-314.5	175.6	-150.9	0.00	0.00	0.00
3,735.8	8.31	150.83	3,710.0	-319.1	178.1	-153.1	0.00	0.00	0.00
<b>Parkman</b>									
3,800.0	8.31	150.83	3,773.5	-327.2	182.7	-157.0	0.00	0.00	0.00
3,900.0	8.31	150.83	3,872.5	-339.8	189.7	-163.0	0.00	0.00	0.00
4,000.0	8.31	150.83	3,971.4	-352.4	196.7	-169.1	0.00	0.00	0.00
4,100.0	8.31	150.83	4,070.4	-365.0	203.8	-175.1	0.00	0.00	0.00
4,200.0	8.31	150.83	4,169.3	-377.6	210.8	-181.2	0.00	0.00	0.00
4,300.0	8.31	150.83	4,268.3	-390.3	217.9	-187.2	0.00	0.00	0.00
4,400.0	8.31	150.83	4,367.2	-402.9	224.9	-193.3	0.00	0.00	0.00
4,423.0	8.31	150.83	4,390.0	-405.8	226.5	-194.7	0.00	0.00	0.00
<b>Sussex</b>									

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
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<b>Project:</b>	SEC.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (5-22-14)		

Planned 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)
4,500.0	8.31	150.83	4,466.2	-415.5	232.0	-199.3	0.00	0.00	0.00
4,600.0	8.31	150.83	4,565.1	-428.1	239.0	-205.4	0.00	0.00	0.00
4,700.0	8.31	150.83	4,664.1	-440.7	246.1	-211.4	0.00	0.00	0.00
4,800.0	8.31	150.83	4,763.0	-453.3	253.1	-217.5	0.00	0.00	0.00
4,837.4	8.31	150.83	4,800.0	-458.1	255.7	-219.8	0.00	0.00	0.00
<b>Shannon</b>									
4,900.0	8.31	150.83	4,862.0	-466.0	260.1	-223.5	0.00	0.00	0.00
5,000.0	8.31	150.83	4,960.9	-478.6	267.2	-229.6	0.00	0.00	0.00
5,100.0	8.31	150.83	5,059.9	-491.2	274.2	-235.7	0.00	0.00	0.00
5,200.0	8.31	150.83	5,158.8	-503.8	281.3	-241.7	0.00	0.00	0.00
5,300.0	8.31	150.83	5,257.8	-516.4	288.3	-247.8	0.00	0.00	0.00
5,328.5	8.31	150.83	5,286.0	-520.0	290.3	-249.5	0.00	0.00	0.00
5,400.0	6.88	150.83	5,356.8	-528.3	294.9	-253.4	2.00	-2.00	0.00
5,500.0	4.88	150.83	5,456.3	-537.2	299.9	-257.7	2.00	-2.00	0.00
5,600.0	2.88	150.83	5,556.1	-543.1	303.2	-260.6	2.00	-2.00	0.00
5,700.0	0.88	150.83	5,656.0	-546.0	304.8	-261.9	2.00	-2.00	0.00
5,744.0	0.00	0.00	5,700.0	-546.3	305.0	-262.1	2.00	-2.00	0.00
5,800.0	0.00	0.00	5,756.0	-546.3	305.0	-262.1	0.00	0.00	0.00
5,900.0	0.00	0.00	5,856.0	-546.3	305.0	-262.1	0.00	0.00	0.00
6,000.0	0.00	0.00	5,956.0	-546.3	305.0	-262.1	0.00	0.00	0.00
6,100.0	0.00	0.00	6,056.0	-546.3	305.0	-262.1	0.00	0.00	0.00
6,200.0	0.00	0.00	6,156.0	-546.3	305.0	-262.1	0.00	0.00	0.00
6,300.0	0.00	0.00	6,256.0	-546.3	305.0	-262.1	0.00	0.00	0.00
6,400.0	0.00	0.00	6,356.0	-546.3	305.0	-262.1	0.00	0.00	0.00
6,452.7	0.00	0.00	6,408.7	-546.3	305.0	-262.1	0.00	0.00	0.00
<b>KOP #2</b>									
6,500.0	3.55	270.00	6,456.0	-546.3	303.5	-260.6	7.50	7.50	0.00
6,600.0	11.05	270.00	6,555.1	-546.3	290.8	-248.0	7.50	7.50	0.00
6,700.0	18.55	270.00	6,651.7	-546.3	265.3	-222.5	7.50	7.50	0.00
6,800.0	26.05	270.00	6,744.2	-546.3	227.4	-184.7	7.50	7.50	0.00
6,900.0	33.55	270.00	6,830.9	-546.3	177.8	-135.2	7.50	7.50	0.00
6,951.7	37.43	270.00	6,873.0	-546.3	147.7	-105.3	7.50	7.50	0.00
<b>Sharon Springs</b>									
7,000.0	41.05	270.00	6,910.4	-546.3	117.2	-74.9	7.50	7.50	0.00
7,100.0	48.55	270.00	6,981.3	-546.3	46.8	-4.7	7.50	7.50	0.00
7,107.1	49.08	270.00	6,986.0	-546.3	41.4	0.7	7.50	7.50	0.00
<b>Niobrara A</b>									
7,200.0	56.05	270.00	7,042.4	-546.3	-32.3	74.2	7.50	7.50	0.00
7,215.6	57.22	270.00	7,051.0	-546.3	-45.3	87.2	7.50	7.50	0.00
<b>Niobrara B</b>									
7,300.0	63.55	270.00	7,092.7	-546.3	-118.6	160.3	7.50	7.50	0.00
7,400.0	71.05	270.00	7,131.3	-546.3	-210.8	252.2	7.50	7.50	0.00
7,432.0	73.44	270.00	7,141.0	-546.3	-241.2	282.5	7.50	7.50	0.00
<b>Niobrara C</b>									
7,500.0	78.55	270.00	7,157.5	-546.3	-307.2	348.3	7.50	7.50	0.00
7,600.0	86.05	270.00	7,170.9	-546.3	-406.3	447.1	7.50	7.50	0.00
7,656.7	90.30	270.00	7,172.7	-546.3	-462.9	503.6	7.50	7.50	0.00
<b>End of Build - 7"</b>									
7,700.0	90.30	270.00	7,172.4	-546.3	-506.2	546.7	0.00	0.00	0.00
7,800.0	90.30	270.00	7,171.9	-546.3	-606.2	646.4	0.00	0.00	0.00
7,900.0	90.30	270.00	7,171.4	-546.3	-706.2	746.1	0.00	0.00	0.00
8,000.0	90.30	270.00	7,170.9	-546.3	-806.2	845.8	0.00	0.00	0.00

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<b>Project:</b>	SEC.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (5-22-14)		

Planned 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)
8,100.0	90.30	270.00	7,170.3	-546.3	-906.2	945.5	0.00	0.00	0.00
8,200.0	90.30	270.00	7,169.8	-546.3	-1,006.2	1,045.2	0.00	0.00	0.00
8,300.0	90.30	270.00	7,169.3	-546.3	-1,106.2	1,144.9	0.00	0.00	0.00
8,400.0	90.30	270.00	7,168.8	-546.3	-1,206.2	1,244.6	0.00	0.00	0.00
8,500.0	90.30	270.00	7,168.2	-546.3	-1,306.2	1,344.4	0.00	0.00	0.00
8,600.0	90.30	270.00	7,167.7	-546.3	-1,406.2	1,444.1	0.00	0.00	0.00
8,700.0	90.30	270.00	7,167.2	-546.3	-1,506.2	1,543.8	0.00	0.00	0.00
8,800.0	90.30	270.00	7,166.7	-546.3	-1,606.2	1,643.5	0.00	0.00	0.00
8,900.0	90.30	270.00	7,166.2	-546.3	-1,706.2	1,743.2	0.00	0.00	0.00
9,000.0	90.30	270.00	7,165.6	-546.3	-1,806.2	1,842.9	0.00	0.00	0.00
9,100.0	90.30	270.00	7,165.1	-546.3	-1,906.2	1,942.6	0.00	0.00	0.00
9,200.0	90.30	270.00	7,164.6	-546.3	-2,006.2	2,042.3	0.00	0.00	0.00
9,300.0	90.30	270.00	7,164.1	-546.3	-2,106.2	2,142.0	0.00	0.00	0.00
9,400.0	90.30	270.00	7,163.5	-546.3	-2,206.2	2,241.7	0.00	0.00	0.00
9,500.0	90.30	270.00	7,163.0	-546.3	-2,306.2	2,341.4	0.00	0.00	0.00
9,600.0	90.30	270.00	7,162.5	-546.3	-2,406.2	2,441.1	0.00	0.00	0.00
9,700.0	90.30	270.00	7,162.0	-546.3	-2,506.2	2,540.8	0.00	0.00	0.00
9,800.0	90.30	270.00	7,161.4	-546.3	-2,606.2	2,640.5	0.00	0.00	0.00
9,900.0	90.30	270.00	7,160.9	-546.3	-2,706.2	2,740.2	0.00	0.00	0.00
10,000.0	90.30	270.00	7,160.4	-546.3	-2,806.2	2,839.9	0.00	0.00	0.00
10,100.0	90.30	270.00	7,159.9	-546.3	-2,906.2	2,939.6	0.00	0.00	0.00
10,200.0	90.30	270.00	7,159.3	-546.3	-3,006.2	3,039.3	0.00	0.00	0.00
10,300.0	90.30	270.00	7,158.8	-546.3	-3,106.2	3,139.0	0.00	0.00	0.00
10,400.0	90.30	270.00	7,158.3	-546.3	-3,206.2	3,238.7	0.00	0.00	0.00
10,500.0	90.30	270.00	7,157.8	-546.3	-3,306.2	3,338.4	0.00	0.00	0.00
10,600.0	90.30	270.00	7,157.3	-546.3	-3,406.2	3,438.1	0.00	0.00	0.00
10,700.0	90.30	270.00	7,156.7	-546.3	-3,506.2	3,537.8	0.00	0.00	0.00
10,800.0	90.30	270.00	7,156.2	-546.3	-3,606.2	3,637.5	0.00	0.00	0.00
10,900.0	90.30	270.00	7,155.7	-546.3	-3,706.2	3,737.2	0.00	0.00	0.00
11,000.0	90.30	270.00	7,155.2	-546.3	-3,806.2	3,836.9	0.00	0.00	0.00
11,100.0	90.30	270.00	7,154.6	-546.3	-3,906.2	3,936.6	0.00	0.00	0.00
11,200.0	90.30	270.00	7,154.1	-546.3	-4,006.2	4,036.3	0.00	0.00	0.00
11,300.0	90.30	270.00	7,153.6	-546.3	-4,106.2	4,136.0	0.00	0.00	0.00
11,400.0	90.30	270.00	7,153.1	-546.3	-4,206.2	4,235.7	0.00	0.00	0.00
11,500.0	90.30	270.00	7,152.5	-546.3	-4,306.2	4,335.4	0.00	0.00	0.00
11,600.0	90.30	270.00	7,152.0	-546.3	-4,406.2	4,435.1	0.00	0.00	0.00
11,700.0	90.30	270.00	7,151.5	-546.3	-4,506.2	4,534.8	0.00	0.00	0.00
11,800.0	90.30	270.00	7,151.0	-546.3	-4,606.2	4,634.5	0.00	0.00	0.00
11,900.0	90.30	270.00	7,150.4	-546.3	-4,706.2	4,734.2	0.00	0.00	0.00
12,000.0	90.30	270.00	7,149.9	-546.3	-4,806.2	4,833.9	0.00	0.00	0.00
12,100.0	90.30	270.00	7,149.4	-546.3	-4,906.2	4,933.6	0.00	0.00	0.00
12,200.0	90.30	270.00	7,148.9	-546.3	-5,006.2	5,033.3	0.00	0.00	0.00
12,300.0	90.30	270.00	7,148.4	-546.3	-5,106.2	5,133.0	0.00	0.00	0.00
12,400.0	90.30	270.00	7,147.8	-546.3	-5,206.2	5,232.8	0.00	0.00	0.00
12,500.0	90.30	270.00	7,147.3	-546.3	-5,306.2	5,332.5	0.00	0.00	0.00
12,600.0	90.30	270.00	7,146.8	-546.3	-5,406.2	5,432.2	0.00	0.00	0.00
12,700.0	90.30	270.00	7,146.3	-546.3	-5,506.2	5,531.9	0.00	0.00	0.00
12,800.0	90.30	270.00	7,145.7	-546.3	-5,606.2	5,631.6	0.00	0.00	0.00
12,900.0	90.30	270.00	7,145.2	-546.3	-5,706.2	5,731.3	0.00	0.00	0.00
13,000.0	90.30	270.00	7,144.7	-546.3	-5,806.1	5,831.0	0.00	0.00	0.00
13,100.0	90.30	270.00	7,144.2	-546.3	-5,906.1	5,930.7	0.00	0.00	0.00
13,200.0	90.30	270.00	7,143.6	-546.3	-6,006.1	6,030.4	0.00	0.00	0.00
13,300.0	90.30	270.00	7,143.1	-546.3	-6,106.1	6,130.1	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Project:</b>	SEC.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (5-22-14)		

## Planned 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)
13,400.0	90.30	270.00	7,142.6	-546.3	-6,206.1	6,229.8	0.00	0.00	0.00
13,500.0	90.30	270.00	7,142.1	-546.3	-6,306.1	6,329.5	0.00	0.00	0.00
13,600.0	90.30	270.00	7,141.5	-546.3	-6,406.1	6,429.2	0.00	0.00	0.00
13,700.0	90.30	270.00	7,141.0	-546.3	-6,506.1	6,528.9	0.00	0.00	0.00
13,800.0	90.30	270.00	7,140.5	-546.3	-6,606.1	6,628.6	0.00	0.00	0.00
13,900.0	90.30	270.00	7,140.0	-546.3	-6,706.1	6,728.3	0.00	0.00	0.00
14,000.0	90.30	270.00	7,139.5	-546.3	-6,806.1	6,828.0	0.00	0.00	0.00
14,100.0	90.30	270.00	7,138.9	-546.3	-6,906.1	6,927.7	0.00	0.00	0.00
14,200.0	90.30	270.00	7,138.4	-546.3	-7,006.1	7,027.4	0.00	0.00	0.00
14,277.2	90.30	270.00	7,138.0	-546.3	-7,083.3	7,104.3	0.00	0.00	0.00

BHL 375'FSL & 2142'FEL, Sec.31

## Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,656.7	7,172.7	7"	7	7-1/2

## Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,735.8	3,710.0	Parkman		0.00	
4,423.0	4,390.0	Sussex		0.00	
4,837.4	4,800.0	Shannon		0.00	
6,951.7	6,873.0	Sharon Springs		0.00	
7,107.1	6,986.0	Niobrara A		0.00	
7,215.6	7,051.0	Niobrara B		0.00	
7,432.0	7,141.0	Niobrara C		0.00	
	7,264.0	Ft Hays		0.00	
	7,288.0	Codell		0.00	

## Plan Annotations

	Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
			+N/-S (ft)	+E/-W (ft)	
	1,000.0	1,000.0	0.0	0.0	KOP #1
	6,452.7	6,408.7	-546.3	305.0	KOP #2
	7,656.7	7,172.7	-546.3	-462.9	End of Build



# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.32-T4N-R66W**

**Tarin 32X-HZ Pad Sec.32-T4N-R66W**

**Tarin 32Y-314**

**Wellbore #1**

**Plan #2 (5-22-14)**

## **Anticollision Report**

**22 May, 2014**





<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #2 (5-22-14)
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria
<b>Interpolation Method:</b>	MD Interval 100.0ft
<b>Depth Range:</b>	Unlimited
<b>Results Limited by:</b>	Maximum center-center distance of 1,000.0ft
<b>Warning Levels Evaluated at:</b>	2.00 Sigma
<b>Error Model:</b>	ISCWSA
<b>Scan Method:</b>	Closest Approach 3D
<b>Error Surface:</b>	Elliptical Conic

Survey Tool Program		Date	5/22/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	14,277.2	Plan #2 (5-22-14) (Wellbore #1)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Tarin 32X-HZ Pad Sec.32-T4N-R66W						
Tarin 32W-234 - Wellbore #1 - Plan #1 (4-14-14)	200.0	198.0	178.5	177.9	266.530	CC, ES
Tarin 32W-234 - Wellbore #1 - Plan #1 (4-14-14)	1,100.0	1,036.2	304.6	299.8	63.927	SF
Tarin 32W-434 - Wellbore #1 - Plan #1 (5-14-14)	400.0	398.0	149.4	147.8	95.205	CC, ES
Tarin 32W-434 - Wellbore #1 - Plan #1 (5-14-14)	1,100.0	1,064.6	224.1	219.4	47.557	SF
Tarin 32X-204 - Wellbore #1 - Plan #2 (5-14-14)	1,000.0	999.0	58.3	54.0	13.656	CC, ES
Tarin 32X-204 - Wellbore #1 - Plan #2 (5-14-14)	14,277.2	14,153.3	857.3	454.5	2.128	SF
Tarin 32X-314 - Wellbore #1 - Plan #1 (4-14-14)	600.0	599.0	120.2	117.8	48.670	CC, ES
Tarin 32X-314 - Wellbore #1 - Plan #1 (4-14-14)	1,100.0	1,079.9	159.5	154.8	33.998	SF
Tarin 32X-404 - Wellbore #1 - Plan #1 (4-14-14)	1,000.0	999.0	91.1	86.8	21.339	CC, ES
Tarin 32X-404 - Wellbore #1 - Plan #1 (4-14-14)	14,277.2	14,376.5	932.4	533.3	2.336	SF
Tarin 32Y-404 - Wellbore #1 - Plan #1 (4-14-14)	500.0	500.0	29.1	27.1	14.407	CC
Tarin 32Y-404 - Wellbore #1 - Plan #1 (4-14-14)	14,277.2	14,404.7	335.0	-31.1	0.915	Level 1, ES, SF
Tarin 32Y-414 - Wellbore #1 - Plan #2 (5-22-14)	1,000.0	999.0	29.1	24.9	6.827	CC
Tarin 32Y-414 - Wellbore #1 - Plan #2 (5-22-14)	14,277.2	14,373.8	182.0	-73.0	0.714	Level 1, ES, SF
Tarin Existing Wells Sec.32-T4N-R66W						
Farr Farms 1 (Existing) - Wellbore #1 - Wellbore #1	14,242.0	7,127.0	208.7	-6.8	0.968	Level 1, CC, ES, SF
Glen 1 (Existing) - Wellbore #1 - Wellbore #1	8,809.3	7,143.5	342.3	277.7	5.302	CC, ES
Glen 1 (Existing) - Wellbore #1 - Wellbore #1	8,900.0	7,141.5	354.1	287.1	5.288	SF
Glen 44-32 (Existing) - Wellbore #1 - Wellbore #1	1,831.7	1,810.4	206.8	198.1	24.015	CC
Glen 44-32 (Existing) - Wellbore #1 - Wellbore #1	1,900.0	1,878.1	207.0	198.0	23.003	ES
Glen 44-32 (Existing) - Wellbore #1 - Wellbore #1	7,500.0	7,144.0	445.0	410.9	13.034	SF
Wolfe 1 (Existing) - Wellbore #1 - Wellbore #1	10,086.9	7,145.0	488.4	388.9	4.909	CC
Wolfe 1 (Existing) - Wellbore #1 - Wellbore #1	10,100.0	7,145.0	488.6	388.7	4.893	ES
Wolfe 1 (Existing) - Wellbore #1 - Wellbore #1	10,200.0	7,144.4	501.3	398.7	4.885	SF
Wolfe 5 (Existing) - Wellbore #1 - Wellbore #1						Out of range
Wolfe 6I (Existing) - Wellbore #1 - Wellbore #1						Out of range

Offset Design											Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32W-234 - Wellbore #1 - Plan #1 (4-14-14)											Offset Site Error:		0.0 ft	
Survey Program: 0-MWD																						Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance																		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning												
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)														

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32W-234 - Wellbore #1 - Plan #1 (4-14-14)													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-0.90	178.5	-2.8	178.5					
100.0	100.0	98.0	98.0	0.1	0.1	-0.90	178.5	-2.8	178.5	178.3	0.22	802.267		
200.0	200.0	198.0	198.0	0.3	0.3	-0.90	178.5	-2.8	178.5	177.9	0.67	266.530 CC, ES		
300.0	300.0	292.4	292.4	0.6	0.5	-0.78	179.9	-2.4	180.1	178.9	1.11	162.389		
400.0	400.0	386.5	386.3	0.8	0.8	-0.43	184.4	-1.4	184.8	183.2	1.55	118.837		
500.0	500.0	480.1	479.7	1.0	1.0	0.11	191.8	0.4	192.7	190.7	2.00	96.127		
600.0	600.0	573.2	572.2	1.2	1.2	0.80	202.1	2.8	203.8	201.3	2.46	82.889		
700.0	700.0	665.5	663.5	1.5	1.5	1.58	215.2	5.9	218.1	215.1	2.92	74.738		
800.0	800.0	756.8	753.3	1.7	1.9	2.40	231.0	9.7	235.5	232.1	3.38	69.583		
900.0	900.0	847.0	841.5	1.9	2.2	3.22	249.3	14.0	256.0	252.1	3.86	66.331		
1,000.0	1,000.0	939.5	931.4	2.1	2.6	4.04	270.6	19.1	279.3	275.0	4.35	64.210		
1,100.0	1,100.0	1,036.2	1,025.2	2.3	3.1	-145.95	293.3	24.5	304.6	299.8	4.76	63.927 SF		
1,200.0	1,199.8	1,132.1	1,118.3	2.5	3.5	-145.51	315.9	29.9	332.7	327.5	5.19	64.095		
1,300.0	1,299.5	1,227.2	1,210.6	2.7	4.0	-145.37	338.2	35.2	363.5	357.9	5.62	64.690		
1,400.0	1,398.7	1,321.4	1,302.0	2.9	4.4	-145.46	360.4	40.4	397.1	391.0	6.06	65.581		
1,500.0	1,497.7	1,414.8	1,392.6	3.2	4.9	-145.99	382.3	45.6	432.4	425.9	6.51	66.395		
1,600.0	1,596.6	1,508.3	1,483.3	3.5	5.4	-146.50	404.3	50.9	467.9	460.9	6.99	66.966		
1,700.0	1,695.6	1,601.7	1,574.0	3.7	5.8	-146.93	426.3	56.1	503.3	495.8	7.47	67.379		
1,800.0	1,794.5	1,695.2	1,664.7	4.0	6.3	-147.31	448.2	61.3	538.8	530.8	7.96	67.677		
1,900.0	1,893.5	1,788.6	1,755.3	4.3	6.7	-147.65	470.2	66.5	574.2	565.8	8.46	67.891		
2,000.0	1,992.4	1,882.1	1,846.0	4.7	7.2	-147.94	492.2	71.8	609.7	600.8	8.96	68.043		
2,100.0	2,091.4	1,975.5	1,936.7	5.0	7.7	-148.20	514.1	77.0	645.2	635.8	9.47	68.149		
2,200.0	2,190.3	2,069.0	2,027.4	5.3	8.1	-148.44	536.1	82.2	680.8	670.8	9.98	68.220		
2,300.0	2,289.3	2,162.4	2,118.1	5.6	8.6	-148.65	558.1	87.4	716.3	705.8	10.49	68.264		
2,400.0	2,388.2	2,255.9	2,208.7	6.0	9.0	-148.84	580.0	92.6	751.8	740.8	11.01	68.288		
2,500.0	2,487.2	2,349.3	2,299.4	6.3	9.5	-149.01	602.0	97.9	787.4	775.8	11.53	68.298		
2,600.0	2,586.1	2,442.7	2,390.1	6.6	10.0	-149.17	624.0	103.1	822.9	810.9	12.05	68.295		
2,700.0	2,685.1	2,536.2	2,480.8	7.0	10.4	-149.32	645.9	108.3	858.5	845.9	12.57	68.284		
2,800.0	2,784.0	2,629.6	2,571.4	7.3	10.9	-149.45	667.9	113.5	894.0	880.9	13.10	68.266		
2,900.0	2,883.0	2,723.1	2,662.1	7.7	11.4	-149.58	689.9	118.7	929.6	916.0	13.62	68.242		
3,000.0	2,981.9	2,816.5	2,752.8	8.0	11.8	-149.69	711.8	124.0	965.2	951.0	14.15	68.215		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32W-434 - Wellbore #1 - Plan #1 (5-14-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	149.4	0.0	149.4				
100.0	100.0	98.0	98.0	0.1	0.1	0.00	0.00	149.4	0.0	149.4	149.1	0.22	671.233	
200.0	200.0	198.0	198.0	0.3	0.3	0.00	0.00	149.4	0.0	149.4	148.7	0.67	222.998	
300.0	300.0	298.0	298.0	0.6	0.6	0.00	0.00	149.4	0.0	149.4	148.2	1.12	133.440	
400.0	400.0	398.0	398.0	0.8	0.8	0.00	0.00	149.4	0.0	149.4	147.8	1.57	95.205 CC, ES	
500.0	500.0	493.3	493.3	1.0	1.0	0.18	0.18	150.8	0.5	150.9	148.9	2.01	75.120	
600.0	600.0	588.4	588.2	1.2	1.2	0.71	0.71	155.2	1.9	155.6	153.1	2.45	63.428	
700.0	700.0	683.0	682.5	1.5	1.4	1.53	1.53	162.6	4.3	163.4	160.5	2.90	56.362	
800.0	800.0	777.0	775.9	1.7	1.7	2.55	2.55	172.9	7.7	174.5	171.1	3.35	52.085	
900.0	900.0	870.2	868.1	1.9	2.0	3.69	3.69	186.0	12.0	188.7	184.9	3.80	49.611	
1,000.0	1,000.0	966.4	962.8	2.1	2.3	4.86	4.86	201.8	17.2	205.6	201.3	4.27	48.162	
1,100.0	1,100.0	1,064.6	1,059.5	2.3	2.6	-144.97	-144.97	218.2	22.5	224.1	219.4	4.71	47.557 SF	
1,200.0	1,199.8	1,162.3	1,155.7	2.5	3.0	-144.55	-144.55	234.5	27.9	245.5	240.4	5.13	47.854	
1,300.0	1,299.5	1,259.3	1,251.2	2.7	3.3	-144.56	-144.56	250.7	33.2	269.6	264.1	5.55	48.557	
1,400.0	1,398.7	1,355.6	1,345.9	2.9	3.7	-144.88	-144.88	266.8	38.4	296.6	290.6	5.98	49.572	
1,500.0	1,497.7	1,451.3	1,440.2	3.2	4.0	-145.61	-145.61	282.8	43.7	325.3	318.9	6.44	50.544	
1,600.0	1,596.6	1,547.0	1,534.4	3.5	4.4	-146.26	-146.26	298.7	48.9	354.1	347.2	6.90	51.313	
1,700.0	1,695.6	1,642.6	1,628.6	3.7	4.8	-146.81	-146.81	314.7	54.1	382.9	375.6	7.38	51.922	
1,800.0	1,794.5	1,738.3	1,722.8	4.0	5.1	-147.29	-147.29	330.7	59.4	411.8	404.0	7.86	52.411	
1,900.0	1,893.5	1,834.0	1,817.0	4.3	5.5	-147.71	-147.71	346.7	64.6	440.7	432.4	8.35	52.808	
2,000.0	1,992.4	1,929.7	1,911.2	4.7	5.9	-148.07	-148.07	362.6	69.8	469.6	460.8	8.84	53.133	
2,100.0	2,091.4	2,025.4	2,005.4	5.0	6.2	-148.39	-148.39	378.6	75.1	498.5	489.2	9.34	53.402	
2,200.0	2,190.3	2,121.1	2,099.6	5.3	6.6	-148.68	-148.68	394.6	80.3	527.5	517.6	9.84	53.626	
2,300.0	2,289.3	2,216.8	2,193.8	5.6	7.0	-148.94	-148.94	410.6	85.5	556.4	546.1	10.34	53.814	
2,400.0	2,388.2	2,312.5	2,288.0	6.0	7.3	-149.17	-149.17	426.6	90.8	585.4	574.5	10.85	53.973	
2,500.0	2,487.2	2,408.2	2,382.2	6.3	7.7	-149.38	-149.38	442.5	96.0	614.4	603.0	11.35	54.108	
2,600.0	2,586.1	2,503.8	2,476.4	6.6	8.1	-149.57	-149.57	458.5	101.2	643.3	631.5	11.86	54.224	
2,700.0	2,685.1	2,599.5	2,570.6	7.0	8.5	-149.74	-149.74	474.5	106.4	672.3	659.9	12.38	54.323	
2,800.0	2,784.0	2,695.2	2,664.8	7.3	8.8	-149.90	-149.90	490.5	111.7	701.3	688.4	12.89	54.409	
2,900.0	2,883.0	2,790.9	2,759.0	7.7	9.2	-150.05	-150.05	506.4	116.9	730.3	716.9	13.40	54.484	
3,000.0	2,981.9	2,886.6	2,853.2	8.0	9.6	-150.18	-150.18	522.4	122.1	759.3	745.4	13.92	54.548	
3,100.0	3,080.9	2,982.3	2,947.4	8.4	9.9	-150.31	-150.31	538.4	127.4	788.3	773.9	14.44	54.605	
3,200.0	3,179.8	3,078.0	3,041.6	8.7	10.3	-150.43	-150.43	554.4	132.6	817.3	802.3	14.95	54.655	
3,300.0	3,278.8	3,173.7	3,135.8	9.1	10.7	-150.54	-150.54	570.3	137.8	846.3	830.8	15.47	54.698	
3,400.0	3,377.7	3,269.4	3,230.0	9.4	11.1	-150.64	-150.64	586.3	143.1	875.3	859.3	15.99	54.736	
3,500.0	3,476.7	3,365.0	3,324.2	9.8	11.4	-150.73	-150.73	602.3	148.3	904.3	887.8	16.51	54.770	
3,600.0	3,575.6	3,460.7	3,418.4	10.1	11.8	-150.82	-150.82	618.3	153.5	933.3	916.3	17.03	54.800	
3,700.0	3,674.6	3,556.4	3,512.6	10.5	12.2	-150.91	-150.91	634.3	158.8	962.3	944.8	17.55	54.827	
3,800.0	3,773.5	3,652.1	3,606.8	10.8	12.6	-150.99	-150.99	650.2	164.0	991.4	973.3	18.07	54.850	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	0.00	58.3	0.0	58.3					
100.0	100.0	99.0	99.0	0.1	0.1	0.00	58.3	0.0	58.3	58.1	0.22	260.631		
200.0	200.0	199.0	199.0	0.3	0.3	0.00	58.3	0.0	58.3	57.6	0.67	86.732		
300.0	300.0	299.0	299.0	0.6	0.6	0.00	58.3	0.0	58.3	57.2	1.12	51.970		
400.0	400.0	399.0	399.0	0.8	0.8	0.00	58.3	0.0	58.3	56.7	1.57	37.100		
500.0	500.0	499.0	499.0	1.0	1.0	0.00	58.3	0.0	58.3	56.3	2.02	28.846		
600.0	600.0	599.0	599.0	1.2	1.2	0.00	58.3	0.0	58.3	55.8	2.47	23.597		
700.0	700.0	699.0	699.0	1.5	1.5	0.00	58.3	0.0	58.3	55.4	2.92	19.964		
800.0	800.0	799.0	799.0	1.7	1.7	0.00	58.3	0.0	58.3	54.9	3.37	17.300		
900.0	900.0	899.0	899.0	1.9	1.9	0.00	58.3	0.0	58.3	54.5	3.82	15.264		
1,000.0	1,000.0	999.0	999.0	2.1	2.1	0.00	58.3	0.0	58.3	54.0	4.27	13.656 CC, ES		
1,100.0	1,100.0	1,099.0	1,099.0	2.3	2.4	-151.63	58.3	0.0	59.8	55.1	4.69	12.751		
1,200.0	1,199.8	1,198.8	1,198.8	2.5	2.6	-153.79	58.3	0.0	64.5	59.4	5.09	12.661		
1,300.0	1,299.5	1,298.5	1,298.5	2.7	2.8	-156.78	58.3	0.0	72.4	66.9	5.50	13.170		
1,400.0	1,398.7	1,397.7	1,397.7	2.9	3.0	-159.99	58.3	0.0	83.7	77.8	5.90	14.185		
1,500.0	1,497.7	1,496.7	1,496.7	3.2	3.3	-162.87	58.3	0.0	97.4	91.1	6.32	15.403		
1,600.0	1,596.6	1,594.0	1,594.0	3.5	3.5	-164.31	59.3	1.2	112.0	105.2	6.75	16.596		
1,700.0	1,695.6	1,691.0	1,690.8	3.7	3.7	-164.06	62.3	4.9	128.1	120.9	7.18	17.838		
1,800.0	1,794.5	1,787.3	1,786.8	4.0	3.9	-162.70	67.4	11.1	145.6	138.0	7.62	19.104		
1,900.0	1,893.5	1,885.0	1,884.0	4.3	4.1	-160.93	74.0	19.1	164.3	156.2	8.08	20.326		
2,000.0	1,992.4	1,983.1	1,981.5	4.7	4.4	-159.50	80.6	27.1	183.2	174.6	8.56	21.408		
2,100.0	2,091.4	2,081.2	2,079.1	5.0	4.6	-158.33	87.2	35.2	202.1	193.1	9.04	22.366		
2,200.0	2,190.3	2,179.3	2,176.6	5.3	4.8	-157.37	93.9	43.3	221.1	211.6	9.52	23.215		
2,300.0	2,289.3	2,277.4	2,274.2	5.6	5.1	-156.56	100.5	51.3	240.1	230.1	10.02	23.973		
2,400.0	2,388.2	2,375.6	2,371.8	6.0	5.4	-155.87	107.1	59.4	259.2	248.7	10.52	24.650		
2,500.0	2,487.2	2,473.7	2,469.3	6.3	5.6	-155.27	113.7	67.4	278.4	267.3	11.02	25.258		
2,600.0	2,586.1	2,571.8	2,566.9	6.6	5.9	-154.75	120.3	75.5	297.5	286.0	11.53	25.806		
2,700.0	2,685.1	2,669.9	2,664.4	7.0	6.1	-154.29	127.0	83.5	316.7	304.6	12.04	26.301		
2,800.0	2,784.0	2,768.0	2,762.0	7.3	6.4	-153.89	133.6	91.6	335.9	323.3	12.55	26.751		
2,900.0	2,883.0	2,866.1	2,859.6	7.7	6.7	-153.52	140.2	99.6	355.1	342.0	13.07	27.161		
3,000.0	2,981.9	2,964.3	2,957.1	8.0	7.0	-153.20	146.8	107.7	374.3	360.7	13.59	27.536		
3,100.0	3,080.9	3,062.4	3,054.7	8.4	7.2	-152.91	153.5	115.7	393.5	379.4	14.11	27.880		
3,200.0	3,179.8	3,160.5	3,152.2	8.7	7.5	-152.64	160.1	123.8	412.7	398.1	14.64	28.197		
3,300.0	3,278.8	3,258.6	3,249.8	9.1	7.8	-152.40	166.7	131.8	432.0	416.8	15.16	28.489		
3,400.0	3,377.7	3,356.7	3,347.4	9.4	8.1	-152.18	173.3	139.9	451.2	435.5	15.69	28.759		
3,500.0	3,476.7	3,454.8	3,444.9	9.8	8.3	-151.98	180.0	148.0	470.5	454.2	16.22	29.009		
3,600.0	3,575.6	3,553.0	3,542.5	10.1	8.6	-151.79	186.6	156.0	489.7	473.0	16.75	29.241		
3,700.0	3,674.6	3,651.1	3,640.0	10.5	8.9	-151.62	193.2	164.1	509.0	491.7	17.28	29.458		
3,800.0	3,773.5	3,749.2	3,737.6	10.8	9.2	-151.46	199.8	172.1	528.2	510.4	17.81	29.661		
3,900.0	3,872.5	3,847.3	3,835.2	11.2	9.5	-151.31	206.4	180.2	547.5	529.2	18.34	29.850		
4,000.0	3,971.4	3,945.4	3,932.7	11.5	9.7	-151.17	213.1	188.2	566.8	547.9	18.88	30.027		
4,100.0	4,070.4	4,043.5	4,030.3	11.9	10.0	-151.04	219.7	196.3	586.1	566.6	19.41	30.194		
4,200.0	4,169.3	4,141.7	4,127.9	12.2	10.3	-150.92	226.3	204.3	605.3	585.4	19.94	30.350		
4,300.0	4,268.3	4,239.8	4,225.4	12.6	10.6	-150.80	232.9	212.4	624.6	604.1	20.48	30.498		
4,400.0	4,367.2	4,337.9	4,323.0	12.9	10.9	-150.69	239.6	220.4	643.9	622.9	21.02	30.637		
4,500.0	4,466.2	4,436.0	4,420.5	13.3	11.2	-150.59	246.2	228.5	663.2	641.6	21.55	30.769		
4,600.0	4,565.1	4,534.1	4,518.1	13.7	11.4	-150.50	252.8	236.5	682.5	660.4	22.09	30.893		
4,700.0	4,664.1	4,632.2	4,615.7	14.0	11.7	-150.41	259.4	244.6	701.8	679.1	22.63	31.011		
4,800.0	4,763.0	4,730.4	4,713.2	14.4	12.0	-150.32	266.0	252.7	721.0	697.9	23.17	31.123		
4,900.0	4,862.0	4,828.5	4,810.8	14.7	12.3	-150.24	272.7	260.7	740.3	716.6	23.71	31.229		
5,000.0	4,960.9	4,926.6	4,908.3	15.1	12.6	-150.17	279.3	268.8	759.6	735.4	24.25	31.330		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,059.9	5,024.7	5,005.9	15.4	12.9	-150.09		285.9	276.8	778.9	754.1	24.79	31.426	
5,200.0	5,158.8	5,122.8	5,103.5	15.8	13.2	-150.02		292.5	284.9	798.2	772.9	25.33	31.518	
5,300.0	5,257.8	5,222.2	5,202.2	16.2	13.4	-149.96		299.2	293.0	817.5	791.6	25.87	31.605	
5,400.0	5,356.8	5,343.1	5,322.7	16.5	13.7	-150.11		305.6	300.8	834.6	808.2	26.41	31.597	
5,500.0	5,456.3	5,465.4	5,444.9	16.7	13.9	-150.39		308.8	304.6	846.1	819.2	26.87	31.493	
5,600.0	5,556.1	5,575.5	5,555.1	16.9	14.1	-150.68		309.1	305.0	852.2	825.0	27.26	31.266	
5,700.0	5,656.0	5,675.5	5,655.0	17.0	14.3	-150.81		309.1	305.0	855.1	827.5	27.63	30.952	
5,800.0	5,756.0	5,775.5	5,755.0	17.2	14.5	0.00		309.1	305.0	855.4	825.6	29.79	28.719	
5,900.0	5,856.0	5,875.5	5,855.0	17.3	14.7	0.00		309.1	305.0	855.4	825.3	30.13	28.392	
6,000.0	5,956.0	5,975.5	5,955.0	17.5	14.9	0.00		309.1	305.0	855.4	824.9	30.47	28.070	
6,100.0	6,056.0	6,075.5	6,055.0	17.6	15.1	0.00		309.1	305.0	855.4	824.6	30.82	27.753	
6,200.0	6,156.0	6,175.5	6,155.0	17.7	15.3	0.00		309.1	305.0	855.4	824.2	31.17	27.440	
6,300.0	6,256.0	6,275.5	6,255.0	17.9	15.5	0.00		309.1	305.0	855.4	823.9	31.53	27.133	
6,364.0	6,320.0	6,339.5	6,319.0	18.0	15.6	0.00		309.1	304.9	855.4	823.6	31.75	26.940	
6,400.0	6,356.0	6,375.4	6,354.9	18.0	15.6	-0.09		309.1	303.6	855.4	823.5	31.87	26.839	
6,500.0	6,456.0	6,474.0	6,452.7	18.2	15.8	89.17		309.1	291.3	855.5	825.0	30.47	28.079	
6,600.0	6,555.1	6,570.8	6,546.4	18.3	15.8	88.33		309.1	267.0	855.7	825.1	30.60	27.965	
6,700.0	6,651.7	6,666.3	6,634.9	18.3	15.8	87.53		309.1	231.7	856.2	825.5	30.66	27.927	
6,800.0	6,744.2	6,760.3	6,717.3	18.3	15.8	86.77		309.1	186.4	856.7	826.0	30.71	27.899	
6,900.0	6,830.9	6,853.3	6,792.6	18.3	15.8	86.07		309.0	132.0	857.4	826.5	30.85	27.792	
7,000.0	6,910.4	6,945.1	6,860.0	18.2	15.9	85.43		309.0	69.6	858.1	826.9	31.21	27.495	
7,100.0	6,981.3	7,036.1	6,918.9	18.2	16.2	84.87		309.0	0.3	858.8	826.8	31.92	26.903	
7,200.0	7,042.4	7,126.3	6,968.7	18.2	16.9	84.39		309.0	-74.8	859.4	826.3	33.11	25.959	
7,300.0	7,092.7	7,215.9	7,009.2	18.2	17.8	84.00		309.0	-154.7	860.0	825.1	34.84	24.682	
7,400.0	7,131.3	7,305.1	7,039.8	18.6	19.0	83.70		308.9	-238.3	860.4	823.3	37.15	23.161	
7,500.0	7,157.5	7,393.9	7,060.5	20.1	20.4	83.49		308.9	-324.6	860.8	820.8	40.00	21.520	
7,600.0	7,170.9	7,482.4	7,070.9	21.9	22.0	83.39		308.9	-412.5	860.9	817.6	43.28	19.891	
7,700.0	7,172.4	7,576.1	7,072.2	23.8	23.8	83.38		308.9	-506.2	860.9	813.9	47.00	18.318	
7,800.0	7,171.9	7,676.1	7,072.0	25.9	25.9	83.40		308.8	-606.2	860.8	809.7	51.15	16.830	
7,900.0	7,171.4	7,776.1	7,071.7	28.2	28.1	83.42		308.8	-706.2	860.8	805.2	55.55	15.497	
8,000.0	7,170.9	7,876.1	7,071.4	30.5	30.4	83.43		308.8	-806.2	860.7	800.6	60.14	14.312	
8,100.0	7,170.3	7,976.1	7,071.2	32.9	32.8	83.45		308.8	-906.2	860.7	795.8	64.89	13.263	
8,200.0	7,169.8	8,076.1	7,070.9	35.3	35.2	83.47		308.7	-1,006.2	860.6	790.8	69.77	12.335	
8,300.0	7,169.3	8,176.1	7,070.7	37.8	37.7	83.49		308.7	-1,106.2	860.6	785.8	74.74	11.514	
8,400.0	7,168.8	8,276.1	7,070.4	40.3	40.3	83.50		308.7	-1,206.2	860.5	780.7	79.80	10.784	
8,500.0	7,168.2	8,376.1	7,070.1	42.9	42.8	83.52		308.6	-1,306.2	860.4	775.5	84.92	10.133	
8,600.0	7,167.7	8,476.1	7,069.9	45.5	45.4	83.54		308.6	-1,406.2	860.4	770.3	90.10	9.550	
8,700.0	7,167.2	8,576.1	7,069.6	48.1	48.0	83.55		308.6	-1,506.2	860.3	765.0	95.32	9.026	
8,800.0	7,166.7	8,676.1	7,069.4	50.8	50.7	83.57		308.6	-1,606.2	860.3	759.7	100.58	8.553	
8,900.0	7,166.2	8,776.1	7,069.1	53.4	53.3	83.59		308.5	-1,706.2	860.2	754.3	105.88	8.125	
9,000.0	7,165.6	8,876.1	7,068.8	56.1	56.0	83.61		308.5	-1,806.2	860.2	749.0	111.20	7.735	
9,100.0	7,165.1	8,976.1	7,068.6	58.8	58.7	83.62		308.5	-1,906.2	860.1	743.5	116.55	7.380	
9,200.0	7,164.6	9,076.1	7,068.3	61.5	61.4	83.64		308.4	-2,006.2	860.0	738.1	121.92	7.054	
9,300.0	7,164.1	9,176.1	7,068.0	64.2	64.1	83.66		308.4	-2,106.2	860.0	732.7	127.31	6.755	
9,400.0	7,163.5	9,276.1	7,067.8	66.9	66.8	83.67		308.4	-2,206.2	859.9	727.2	132.72	6.479	
9,500.0	7,163.0	9,376.1	7,067.5	69.6	69.5	83.69		308.4	-2,306.2	859.9	721.7	138.14	6.225	
9,600.0	7,162.5	9,476.1	7,067.3	72.3	72.3	83.71		308.3	-2,406.2	859.8	716.2	143.58	5.989	
9,700.0	7,162.0	9,576.1	7,067.0	75.1	75.0	83.73		308.3	-2,506.2	859.8	710.7	149.02	5.769	
9,800.0	7,161.4	9,676.1	7,066.7	77.8	77.7	83.74		308.3	-2,606.2	859.7	705.2	154.48	5.565	
9,900.0	7,160.9	9,776.1	7,066.5	80.5	80.5	83.76		308.3	-2,706.2	859.6	699.7	159.94	5.375	
10,000.0	7,160.4	9,876.1	7,066.2	83.3	83.2	83.78		308.2	-2,806.2	859.6	694.2	165.42	5.196	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference													
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
								+N/-S (ft)	+E/-W (ft)				
10,100.0	7,159.9	9,976.1	7,065.9	86.0	86.0	83.79	308.2	-2,906.2	859.5	688.6	170.90	5.029	
10,200.0	7,159.3	10,076.1	7,065.7	88.8	88.7	83.81	308.2	-3,006.2	859.5	683.1	176.39	4.873	
10,300.0	7,158.8	10,176.1	7,065.4	91.5	91.5	83.83	308.1	-3,106.2	859.4	677.5	181.89	4.725	
10,400.0	7,158.3	10,276.1	7,065.2	94.3	94.3	83.85	308.1	-3,206.2	859.4	672.0	187.39	4.586	
10,500.0	7,157.8	10,376.1	7,064.9	97.1	97.0	83.86	308.1	-3,306.2	859.3	666.4	192.89	4.455	
10,600.0	7,157.3	10,476.1	7,064.6	99.8	99.8	83.88	308.1	-3,406.2	859.3	660.9	198.41	4.331	
10,700.0	7,156.7	10,576.1	7,064.4	102.6	102.6	83.90	308.0	-3,506.2	859.2	655.3	203.92	4.213	
10,800.0	7,156.2	10,676.1	7,064.1	105.4	105.3	83.91	308.0	-3,606.2	859.1	649.7	209.44	4.102	
10,900.0	7,155.7	10,776.1	7,063.9	108.1	108.1	83.93	308.0	-3,706.2	859.1	644.1	214.97	3.996	
11,000.0	7,155.2	10,876.1	7,063.6	110.9	110.9	83.95	308.0	-3,806.2	859.0	638.5	220.50	3.896	
11,100.0	7,154.6	10,976.1	7,063.3	113.7	113.7	83.97	307.9	-3,906.2	859.0	633.0	226.03	3.800	
11,200.0	7,154.1	11,076.1	7,063.1	116.5	116.4	83.98	307.9	-4,006.2	858.9	627.4	231.56	3.709	
11,300.0	7,153.6	11,176.1	7,062.8	119.2	119.2	84.00	307.9	-4,106.2	858.9	621.8	237.10	3.622	
11,400.0	7,153.1	11,276.1	7,062.5	122.0	122.0	84.02	307.8	-4,206.2	858.8	616.2	242.64	3.539	
11,500.0	7,152.5	11,376.1	7,062.3	124.8	124.8	84.03	307.8	-4,306.2	858.8	610.6	248.19	3.460	
11,600.0	7,152.0	11,476.1	7,062.0	127.6	127.6	84.05	307.8	-4,406.2	858.7	605.0	253.73	3.384	
11,700.0	7,151.5	11,576.1	7,061.8	130.4	130.3	84.07	307.8	-4,506.2	858.7	599.4	259.28	3.312	
11,800.0	7,151.0	11,676.1	7,061.5	133.1	133.1	84.09	307.7	-4,606.2	858.6	593.8	264.83	3.242	
11,900.0	7,150.4	11,776.1	7,061.2	135.9	135.9	84.10	307.7	-4,706.2	858.5	588.2	270.38	3.175	
12,000.0	7,149.9	11,876.1	7,061.0	138.7	138.7	84.12	307.7	-4,806.2	858.5	582.6	275.94	3.111	
12,100.0	7,149.4	11,976.1	7,060.7	141.5	141.5	84.14	307.6	-4,906.2	858.4	576.9	281.50	3.050	
12,200.0	7,148.9	12,076.1	7,060.5	144.3	144.3	84.15	307.6	-5,006.2	858.4	571.3	287.05	2.990	
12,300.0	7,148.4	12,176.1	7,060.2	147.1	147.1	84.17	307.6	-5,106.2	858.3	565.7	292.61	2.933	
12,400.0	7,147.8	12,276.1	7,059.9	149.9	149.8	84.19	307.6	-5,206.2	858.3	560.1	298.18	2.878	
12,500.0	7,147.3	12,376.1	7,059.7	152.6	152.6	84.21	307.5	-5,306.2	858.2	554.5	303.74	2.826	
12,600.0	7,146.8	12,476.1	7,059.4	155.4	155.4	84.22	307.5	-5,406.2	858.2	548.9	309.30	2.775	
12,700.0	7,146.3	12,576.1	7,059.1	158.2	158.2	84.24	307.5	-5,506.2	858.1	543.2	314.87	2.725	
12,800.0	7,145.7	12,676.1	7,058.9	161.0	161.0	84.26	307.5	-5,606.2	858.1	537.6	320.44	2.678	
12,900.0	7,145.2	12,776.1	7,058.6	163.8	163.8	84.27	307.4	-5,706.2	858.0	532.0	326.01	2.632	
13,000.0	7,144.7	12,876.1	7,058.4	166.6	166.6	84.29	307.4	-5,806.2	858.0	526.4	331.58	2.587	
13,100.0	7,144.2	12,976.1	7,058.1	169.4	169.4	84.31	307.4	-5,906.2	857.9	520.7	337.15	2.545	
13,200.0	7,143.6	13,076.1	7,057.8	172.2	172.2	84.33	307.3	-6,006.2	857.8	515.1	342.72	2.503	
13,300.0	7,143.1	13,176.1	7,057.6	175.0	175.0	84.34	307.3	-6,106.2	857.8	509.5	348.30	2.463	
13,400.0	7,142.6	13,276.1	7,057.3	177.8	177.8	84.36	307.3	-6,206.2	857.7	503.9	353.87	2.424	
13,500.0	7,142.1	13,376.1	7,057.0	180.6	180.6	84.38	307.3	-6,306.2	857.7	498.2	359.45	2.386	
13,600.0	7,141.5	13,476.1	7,056.8	183.4	183.4	84.40	307.2	-6,406.2	857.6	492.6	365.02	2.350	
13,700.0	7,141.0	13,576.1	7,056.5	186.2	186.2	84.41	307.2	-6,506.2	857.6	487.0	370.60	2.314	
13,800.0	7,140.5	13,676.1	7,056.3	189.0	189.0	84.43	307.2	-6,606.2	857.5	481.3	376.18	2.280	
13,900.0	7,140.0	13,776.1	7,056.0	191.7	191.7	84.45	307.1	-6,706.2	857.5	475.7	381.76	2.246	
14,000.0	7,139.5	13,876.1	7,055.7	194.5	194.5	84.46	307.1	-6,806.2	857.4	470.1	387.34	2.214	
14,100.0	7,138.9	13,976.1	7,055.5	197.3	197.3	84.48	307.1	-6,906.2	857.4	464.4	392.92	2.182	
14,200.0	7,138.4	14,076.1	7,055.2	200.1	200.1	84.50	307.1	-7,006.2	857.3	458.8	398.50	2.151	
14,277.2	7,138.0	14,153.3	7,055.0	202.3	202.3	84.51	307.0	-7,083.3	857.3	454.5	402.81	2.128 SF	



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	0.00	120.2	0.0	120.2					
100.0	100.0	99.0	99.0	0.1	0.1	0.00	120.2	0.0	120.2	120.0	0.22	537.569		
200.0	200.0	199.0	199.0	0.3	0.3	0.00	120.2	0.0	120.2	119.6	0.67	178.892		
300.0	300.0	299.0	299.0	0.6	0.6	0.00	120.2	0.0	120.2	119.1	1.12	107.192		
400.0	400.0	399.0	399.0	0.8	0.8	0.00	120.2	0.0	120.2	118.7	1.57	76.522		
500.0	500.0	499.0	499.0	1.0	1.0	0.00	120.2	0.0	120.2	118.2	2.02	59.498		
600.0	600.0	599.0	599.0	1.2	1.2	0.00	120.2	0.0	120.2	117.8	2.47	48.670 CC, ES		
700.0	700.0	695.3	695.3	1.5	1.5	0.30	121.7	0.6	121.7	118.8	2.91	41.815		
800.0	800.0	791.4	791.2	1.7	1.7	1.19	126.1	2.6	126.3	123.0	3.35	37.653		
900.0	900.0	887.0	886.5	1.9	1.9	2.52	133.3	5.9	134.0	130.2	3.80	35.267		
1,000.0	1,000.0	982.0	980.9	2.1	2.1	4.14	143.4	10.4	145.0	140.7	4.25	34.113		
1,100.0	1,100.0	1,079.9	1,077.8	2.3	2.4	-145.18	155.9	15.9	159.5	154.8	4.69	33.998 SF		
1,200.0	1,199.8	1,178.4	1,175.3	2.5	2.7	-144.51	168.4	21.5	177.0	171.9	5.11	34.671		
1,300.0	1,299.5	1,276.3	1,272.3	2.7	3.0	-144.49	180.9	27.1	197.3	191.8	5.53	35.713		
1,400.0	1,398.7	1,373.5	1,368.6	2.9	3.3	-144.94	193.3	32.7	220.4	214.5	5.95	37.027		
1,500.0	1,497.7	1,470.3	1,464.4	3.2	3.6	-145.78	205.7	38.2	245.3	238.9	6.40	38.338		
1,600.0	1,596.6	1,567.1	1,560.2	3.5	3.9	-146.51	218.0	43.7	270.3	263.5	6.86	39.395		
1,700.0	1,695.6	1,663.9	1,656.1	3.7	4.2	-147.12	230.3	49.2	295.4	288.0	7.33	40.287		
1,800.0	1,794.5	1,760.6	1,751.9	4.0	4.5	-147.63	242.7	54.7	320.4	312.6	7.81	41.034		
1,900.0	1,893.5	1,857.4	1,847.7	4.3	4.8	-148.06	255.0	60.3	345.5	337.2	8.29	41.666		
2,000.0	1,992.4	1,954.2	1,943.5	4.7	5.1	-148.44	267.4	65.8	370.6	361.8	8.78	42.206		
2,100.0	2,091.4	2,051.0	2,039.3	5.0	5.5	-148.77	279.7	71.3	395.7	386.5	9.27	42.672		
2,200.0	2,190.3	2,147.7	2,135.2	5.3	5.8	-149.06	292.0	76.8	420.8	411.1	9.77	43.077		
2,300.0	2,289.3	2,244.5	2,231.0	5.6	6.1	-149.32	304.4	82.3	446.0	435.7	10.27	43.431		
2,400.0	2,388.2	2,341.3	2,326.8	6.0	6.4	-149.55	316.7	87.8	471.1	460.3	10.77	43.742		
2,500.0	2,487.2	2,438.0	2,422.6	6.3	6.8	-149.76	329.1	93.4	496.3	485.0	11.27	44.018		
2,600.0	2,586.1	2,534.8	2,518.5	6.6	7.1	-149.94	341.4	98.9	521.4	509.6	11.78	44.264		
2,700.0	2,685.1	2,631.6	2,614.3	7.0	7.4	-150.11	353.7	104.4	546.6	534.3	12.29	44.484		
2,800.0	2,784.0	2,728.4	2,710.1	7.3	7.7	-150.27	366.1	109.9	571.7	558.9	12.80	44.682		
2,900.0	2,883.0	2,825.1	2,805.9	7.7	8.0	-150.41	378.4	115.4	596.9	583.6	13.31	44.861		
3,000.0	2,981.9	2,921.9	2,901.8	8.0	8.4	-150.54	390.8	120.9	622.0	608.2	13.82	45.022		
3,100.0	3,080.9	3,018.7	2,997.6	8.4	8.7	-150.66	403.1	126.5	647.2	632.9	14.33	45.170		
3,200.0	3,179.8	3,115.4	3,093.4	8.7	9.0	-150.77	415.4	132.0	672.4	657.5	14.84	45.304		
3,300.0	3,278.8	3,212.2	3,189.2	9.1	9.4	-150.88	427.8	137.5	697.6	682.2	15.36	45.428		
3,400.0	3,377.7	3,309.0	3,285.1	9.4	9.7	-150.97	440.1	143.0	722.7	706.9	15.87	45.541		
3,500.0	3,476.7	3,405.8	3,380.9	9.8	10.0	-151.06	452.5	148.5	747.9	731.5	16.39	45.645		
3,600.0	3,575.6	3,502.5	3,476.7	10.1	10.3	-151.14	464.8	154.0	773.1	756.2	16.90	45.742		
3,700.0	3,674.6	3,599.3	3,572.5	10.5	10.7	-151.22	477.1	159.6	798.3	780.8	17.42	45.831		
3,800.0	3,773.5	3,696.1	3,668.4	10.8	11.0	-151.30	489.5	165.1	823.4	805.5	17.93	45.914		
3,900.0	3,872.5	3,792.9	3,764.2	11.2	11.3	-151.37	501.8	170.6	848.6	830.2	18.45	45.991		
4,000.0	3,971.4	3,889.6	3,860.0	11.5	11.6	-151.43	514.2	176.1	873.8	854.8	18.97	46.062		
4,100.0	4,070.4	3,986.4	3,955.8	11.9	12.0	-151.49	526.5	181.6	899.0	879.5	19.49	46.129		
4,200.0	4,169.3	4,083.2	4,051.6	12.2	12.3	-151.55	538.8	187.1	924.2	904.2	20.01	46.192		
4,300.0	4,268.3	4,179.9	4,147.5	12.6	12.6	-151.61	551.2	192.7	949.4	928.8	20.53	46.251		
4,400.0	4,367.2	4,276.7	4,243.3	12.9	12.9	-151.66	563.5	198.2	974.5	953.5	21.05	46.306		
4,500.0	4,466.2	4,373.5	4,339.1	13.3	13.3	-151.71	575.9	203.7	999.7	978.2	21.57	46.358		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	0.00	91.1	0.0	91.1					
100.0	100.0	99.0	99.0	0.1	0.1	0.00	91.1	0.0	91.1	90.9	0.22	407.254		
200.0	200.0	199.0	199.0	0.3	0.3	0.00	91.1	0.0	91.1	90.4	0.67	135.526		
300.0	300.0	299.0	299.0	0.6	0.6	0.00	91.1	0.0	91.1	90.0	1.12	81.207		
400.0	400.0	399.0	399.0	0.8	0.8	0.00	91.1	0.0	91.1	89.5	1.57	57.972		
500.0	500.0	499.0	499.0	1.0	1.0	0.00	91.1	0.0	91.1	89.1	2.02	45.075		
600.0	600.0	599.0	599.0	1.2	1.2	0.00	91.1	0.0	91.1	88.6	2.47	36.872		
700.0	700.0	699.0	699.0	1.5	1.5	0.00	91.1	0.0	91.1	88.2	2.92	31.195		
800.0	800.0	799.0	799.0	1.7	1.7	0.00	91.1	0.0	91.1	87.7	3.37	27.033		
900.0	900.0	899.0	899.0	1.9	1.9	0.00	91.1	0.0	91.1	87.3	3.82	23.851		
1,000.0	1,000.0	999.0	999.0	2.1	2.1	0.00	91.1	0.0	91.1	86.8	4.27	21.339 CC, ES		
1,100.0	1,100.0	1,096.7	1,096.7	2.3	2.3	-150.62	92.3	1.1	93.8	89.1	4.68	20.029		
1,200.0	1,199.8	1,193.9	1,193.8	2.5	2.6	-150.03	95.8	4.5	102.0	97.0	5.08	20.088		
1,300.0	1,299.5	1,290.3	1,289.8	2.7	2.8	-149.21	101.7	10.2	115.8	110.3	5.49	21.090		
1,400.0	1,398.7	1,386.8	1,385.7	2.9	3.0	-148.40	109.7	17.8	134.6	128.7	5.91	22.766		
1,500.0	1,497.7	1,484.5	1,482.7	3.2	3.3	-148.21	118.2	25.9	155.8	149.4	6.36	24.505		
1,600.0	1,596.6	1,582.3	1,579.7	3.5	3.5	-148.10	126.6	34.0	177.0	170.2	6.82	25.963		
1,700.0	1,695.6	1,680.0	1,676.7	3.7	3.8	-148.01	135.1	42.1	198.2	190.9	7.29	27.191		
1,800.0	1,794.5	1,777.7	1,773.8	4.0	4.1	-147.94	143.6	50.2	219.4	211.6	7.77	28.232		
1,900.0	1,893.5	1,875.4	1,870.8	4.3	4.3	-147.89	152.0	58.3	240.6	232.3	8.26	29.123		
2,000.0	1,992.4	1,973.2	1,967.8	4.7	4.6	-147.84	160.5	66.4	261.8	253.0	8.76	29.892		
2,100.0	2,091.4	2,070.9	2,064.8	5.0	4.9	-147.80	168.9	74.5	283.0	273.7	9.26	30.559		
2,200.0	2,190.3	2,168.6	2,161.8	5.3	5.2	-147.76	177.4	82.6	304.2	294.4	9.77	31.142		
2,300.0	2,289.3	2,266.3	2,258.9	5.6	5.5	-147.73	185.9	90.7	325.4	315.1	10.28	31.655		
2,400.0	2,388.2	2,364.1	2,355.9	6.0	5.8	-147.70	194.3	98.8	346.6	335.8	10.79	32.108		
2,500.0	2,487.2	2,461.8	2,452.9	6.3	6.1	-147.68	202.8	106.9	367.8	356.5	11.31	32.511		
2,600.0	2,586.1	2,559.5	2,549.9	6.6	6.4	-147.66	211.3	114.9	389.0	377.1	11.83	32.872		
2,700.0	2,685.1	2,657.3	2,647.0	7.0	6.6	-147.64	219.7	123.0	410.2	397.8	12.36	33.196		
2,800.0	2,784.0	2,755.0	2,744.0	7.3	6.9	-147.62	228.2	131.1	431.4	418.5	12.88	33.488		
2,900.0	2,883.0	2,852.7	2,841.0	7.7	7.2	-147.61	236.7	139.2	452.5	439.1	13.41	33.753		
3,000.0	2,981.9	2,950.4	2,938.0	8.0	7.5	-147.59	245.1	147.3	473.7	459.8	13.94	33.994		
3,100.0	3,080.9	3,048.2	3,035.1	8.4	7.8	-147.58	253.6	155.4	494.9	480.5	14.47	34.214		
3,200.0	3,179.8	3,145.9	3,132.1	8.7	8.1	-147.57	262.1	163.5	516.1	501.1	15.00	34.415		
3,300.0	3,278.8	3,243.6	3,229.1	9.1	8.4	-147.56	270.5	171.6	537.3	521.8	15.53	34.600		
3,400.0	3,377.7	3,341.4	3,326.1	9.4	8.7	-147.55	279.0	179.7	558.5	542.5	16.06	34.770		
3,500.0	3,476.7	3,439.1	3,423.2	9.8	9.0	-147.54	287.4	187.8	579.7	563.1	16.60	34.928		
3,600.0	3,575.6	3,536.8	3,520.2	10.1	9.3	-147.53	295.9	195.9	600.9	583.8	17.13	35.074		
3,700.0	3,674.6	3,634.5	3,617.2	10.5	9.6	-147.52	304.4	204.0	622.1	604.5	17.67	35.209		
3,800.0	3,773.5	3,732.3	3,714.2	10.8	9.9	-147.51	312.8	212.1	643.3	625.1	18.21	35.336		
3,900.0	3,872.5	3,830.0	3,811.2	11.2	10.2	-147.51	321.3	220.2	664.5	645.8	18.74	35.453		
4,000.0	3,971.4	3,927.7	3,908.3	11.5	10.6	-147.50	329.8	228.3	685.7	666.4	19.28	35.563		
4,100.0	4,070.4	4,025.4	4,005.3	11.9	10.9	-147.49	338.2	236.4	706.9	687.1	19.82	35.666		
4,200.0	4,169.3	4,123.2	4,102.3	12.2	11.2	-147.49	346.7	244.5	728.1	707.7	20.36	35.763		
4,300.0	4,268.3	4,220.9	4,199.3	12.6	11.5	-147.48	355.2	252.6	749.3	728.4	20.90	35.854		
4,400.0	4,367.2	4,318.6	4,296.4	12.9	11.8	-147.48	363.6	260.7	770.5	749.1	21.44	35.939		
4,500.0	4,466.2	4,416.4	4,393.4	13.3	12.1	-147.47	372.1	268.8	791.7	769.7	21.98	36.020		
4,600.0	4,565.1	4,514.1	4,490.4	13.7	12.4	-147.47	380.6	276.9	812.9	790.4	22.52	36.096		
4,700.0	4,664.1	4,611.8	4,587.4	14.0	12.7	-147.46	389.0	285.0	834.1	811.0	23.06	36.168		
4,800.0	4,763.0	4,711.7	4,692.6	14.4	13.0	-147.47	398.0	293.6	855.2	831.6	23.61	36.228		
4,900.0	4,862.0	4,845.0	4,819.4	14.7	13.3	-147.65	405.9	301.1	873.8	849.7	24.12	36.228		
5,000.0	4,960.9	4,973.4	4,947.7	15.1	13.5	-148.08	409.6	304.7	889.1	864.5	24.61	36.134		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,059.9	5,084.6	5,058.9	15.4	13.7	-148.60		410.0	305.0	901.7	876.7	25.06	35.989	
5,200.0	5,158.8	5,183.5	5,157.8	15.8	13.8	-149.07		410.0	305.0	914.1	888.6	25.51	35.836	
5,300.0	5,257.8	5,282.5	5,256.8	16.2	14.0	-149.53		410.0	305.0	926.6	900.6	25.96	35.687	
5,400.0	5,356.8	5,381.5	5,355.8	16.5	14.2	-150.03		410.0	305.0	938.3	911.9	26.44	35.485	
5,500.0	5,456.3	5,481.0	5,455.3	16.7	14.4	-150.43		410.0	305.0	947.2	920.3	26.88	35.237	
5,600.0	5,556.1	5,580.8	5,555.1	16.9	14.6	-150.69		410.0	305.0	953.1	925.8	27.29	34.925	
5,700.0	5,656.0	5,680.7	5,655.0	17.0	14.7	-150.81		410.0	305.0	956.0	928.3	27.67	34.550	
5,800.0	5,756.0	5,780.7	5,755.0	17.2	14.9	0.00		410.0	305.0	956.3	926.0	30.25	31.618	
5,900.0	5,856.0	5,880.7	5,855.0	17.3	15.1	0.00		410.0	305.0	956.3	925.7	30.58	31.269	
6,000.0	5,956.0	5,980.7	5,955.0	17.5	15.3	0.00		410.0	305.0	956.3	925.4	30.92	30.926	
6,100.0	6,056.0	6,080.7	6,055.0	17.6	15.5	0.00		410.0	305.0	956.3	925.0	31.26	30.588	
6,200.0	6,156.0	6,180.7	6,155.0	17.7	15.7	0.00		410.0	305.0	956.3	924.7	31.61	30.254	
6,300.0	6,256.0	6,280.7	6,255.0	17.9	15.9	0.00		410.0	305.0	956.3	924.3	31.96	29.926	
6,400.0	6,356.0	6,380.7	6,355.0	18.0	16.1	0.00		410.0	305.0	956.3	924.0	32.30	29.602	
6,450.8	6,406.8	6,431.5	6,405.8	18.1	16.1	90.05		410.0	305.0	956.3	925.8	30.47	31.380	
6,500.0	6,456.0	6,480.7	6,455.0	18.2	16.2	90.09		410.0	305.0	956.3	925.6	30.66	31.192	
6,600.0	6,555.1	6,580.6	6,554.9	18.3	16.4	90.80		410.0	304.3	956.4	925.4	30.97	30.882	
6,700.0	6,651.7	6,683.0	6,656.5	18.3	16.5	91.68		409.9	292.9	956.6	925.5	31.16	30.702	
6,800.0	6,744.2	6,787.4	6,757.8	18.3	16.6	92.54		409.8	267.5	957.0	925.8	31.26	30.614	
6,900.0	6,830.9	6,894.1	6,856.5	18.3	16.6	93.36		409.6	227.5	957.6	926.2	31.35	30.545	
7,000.0	6,910.4	7,002.8	6,950.5	18.2	16.6	94.13		409.3	173.0	958.1	926.6	31.54	30.378	
7,100.0	6,981.3	7,113.7	7,037.4	18.2	16.6	94.84		409.0	104.3	958.7	926.7	32.00	29.957	
7,200.0	7,042.4	7,226.4	7,114.6	18.2	16.7	95.45		408.6	22.3	959.2	926.3	32.93	29.130	
7,300.0	7,092.7	7,340.8	7,179.7	18.2	17.3	95.97		408.1	-71.7	959.6	925.1	34.49	27.822	
7,400.0	7,131.3	7,456.6	7,230.7	18.6	18.5	96.37		407.6	-175.5	959.8	923.0	36.80	26.080	
7,500.0	7,157.5	7,573.3	7,265.5	20.1	20.1	96.64		407.0	-286.8	959.7	919.9	39.86	24.074	
7,600.0	7,170.9	7,687.1	7,283.1	21.9	22.1	96.79		406.4	-399.2	959.5	916.0	43.49	22.062	
7,608.3	7,171.4	7,695.4	7,284.0	22.0	22.2	96.81		406.4	-407.4	959.5	915.7	43.79	21.908	
7,700.0	7,172.4	7,792.2	7,292.9	23.8	24.1	97.27		405.9	-503.7	959.9	912.6	47.36	20.268	
7,800.0	7,171.9	7,899.5	7,295.0	25.9	26.3	97.43		405.4	-611.0	959.7	908.1	51.61	18.595	
7,900.0	7,171.4	7,999.5	7,295.0	28.2	28.5	97.47		404.8	-711.0	959.3	903.3	55.97	17.138	
8,000.0	7,170.9	8,099.5	7,295.0	30.5	30.8	97.50		404.3	-811.0	958.9	898.3	60.53	15.840	
8,100.0	7,170.3	8,199.5	7,295.0	32.9	33.2	97.54		403.8	-911.0	958.4	893.2	65.25	14.689	
8,200.0	7,169.8	8,299.5	7,295.0	35.3	35.6	97.57		403.3	-1,011.0	958.0	887.9	70.09	13.669	
8,300.0	7,169.3	8,399.5	7,295.0	37.8	38.1	97.61		402.8	-1,111.0	957.6	882.5	75.02	12.763	
8,400.0	7,168.8	8,499.5	7,295.0	40.3	40.6	97.64		402.3	-1,211.0	957.1	877.1	80.04	11.958	
8,500.0	7,168.2	8,599.5	7,295.0	42.9	43.2	97.68		401.8	-1,311.0	956.7	871.6	85.13	11.238	
8,600.0	7,167.7	8,699.5	7,295.0	45.5	45.7	97.71		401.3	-1,411.0	956.3	866.0	90.27	10.594	
8,700.0	7,167.2	8,799.5	7,295.0	48.1	48.3	97.75		400.8	-1,511.0	955.8	860.4	95.45	10.013	
8,800.0	7,166.7	8,899.5	7,295.0	50.8	51.0	97.78		400.3	-1,611.0	955.4	854.7	100.68	9.490	
8,900.0	7,166.2	8,999.5	7,295.0	53.4	53.6	97.82		399.8	-1,711.0	955.0	849.0	105.94	9.014	
9,000.0	7,165.6	9,099.5	7,295.0	56.1	56.3	97.85		399.3	-1,811.0	954.5	843.3	111.22	8.582	
9,100.0	7,165.1	9,199.5	7,295.0	58.8	59.0	97.89		398.8	-1,911.0	954.1	837.6	116.53	8.187	
9,200.0	7,164.6	9,299.5	7,295.0	61.5	61.7	97.92		398.3	-2,011.0	953.7	831.8	121.86	7.826	
9,300.0	7,164.1	9,399.5	7,295.0	64.2	64.4	97.96		397.8	-2,111.0	953.3	826.0	127.21	7.493	
9,400.0	7,163.5	9,499.5	7,295.0	66.9	67.1	97.99		397.3	-2,211.0	952.8	820.3	132.58	7.187	
9,500.0	7,163.0	9,599.5	7,295.0	69.6	69.8	98.03		396.8	-2,311.0	952.4	814.4	137.96	6.904	
9,600.0	7,162.5	9,699.5	7,295.0	72.3	72.5	98.06		396.3	-2,411.0	952.0	808.6	143.35	6.641	
9,700.0	7,162.0	9,799.5	7,295.0	75.1	75.2	98.10		395.7	-2,511.0	951.5	802.8	148.75	6.397	
9,800.0	7,161.4	9,899.5	7,295.0	77.8	78.0	98.13		395.2	-2,611.0	951.1	797.0	154.16	6.170	
9,900.0	7,160.9	9,999.5	7,295.0	80.5	80.7	98.17		394.7	-2,710.9	950.7	791.1	159.58	5.958	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32X-404 - Wellbore #1 - Plan #1 (4-14-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,000.0	7,160.4	10,099.5	7,295.0	83.3	83.4	98.21	98.21	394.2	-2,810.9	950.3	785.3	165.00	5.759	
10,100.0	7,159.9	10,199.5	7,295.0	86.0	86.2	98.24	98.24	393.7	-2,910.9	949.8	779.4	170.44	5.573	
10,200.0	7,159.3	10,299.4	7,295.0	88.8	88.9	98.28	98.28	393.2	-3,010.9	949.4	773.5	175.88	5.398	
10,300.0	7,158.8	10,399.4	7,295.0	91.5	91.7	98.31	98.31	392.7	-3,110.9	949.0	767.7	181.32	5.234	
10,400.0	7,158.3	10,499.4	7,295.0	94.3	94.5	98.35	98.35	392.2	-3,210.9	948.6	761.8	186.77	5.079	
10,500.0	7,157.8	10,599.4	7,295.0	97.1	97.2	98.38	98.38	391.7	-3,310.9	948.1	755.9	192.22	4.933	
10,600.0	7,157.3	10,699.4	7,295.0	99.8	100.0	98.42	98.42	391.2	-3,410.9	947.7	750.0	197.68	4.794	
10,700.0	7,156.7	10,799.4	7,295.0	102.6	102.7	98.46	98.46	390.7	-3,510.9	947.3	744.2	203.14	4.663	
10,800.0	7,156.2	10,899.4	7,295.0	105.4	105.5	98.49	98.49	390.2	-3,610.9	946.9	738.3	208.60	4.539	
10,900.0	7,155.7	10,999.4	7,295.0	108.1	108.3	98.53	98.53	389.7	-3,710.9	946.5	732.4	214.07	4.421	
11,000.0	7,155.2	11,099.4	7,295.0	110.9	111.0	98.56	98.56	389.2	-3,810.9	946.0	726.5	219.54	4.309	
11,100.0	7,154.6	11,199.4	7,295.0	113.7	113.8	98.60	98.60	388.7	-3,910.9	945.6	720.6	225.01	4.203	
11,200.0	7,154.1	11,299.4	7,295.0	116.5	116.6	98.64	98.64	388.2	-4,010.9	945.2	714.7	230.48	4.101	
11,300.0	7,153.6	11,399.4	7,295.0	119.2	119.4	98.67	98.67	387.7	-4,110.9	944.8	708.8	235.95	4.004	
11,400.0	7,153.1	11,499.4	7,295.0	122.0	122.1	98.71	98.71	387.2	-4,210.9	944.4	702.9	241.43	3.911	
11,500.0	7,152.5	11,599.4	7,295.0	124.8	124.9	98.74	98.74	386.7	-4,310.9	943.9	697.0	246.91	3.823	
11,600.0	7,152.0	11,699.4	7,295.0	127.6	127.7	98.78	98.78	386.1	-4,410.9	943.5	691.1	252.39	3.738	
11,700.0	7,151.5	11,799.4	7,295.0	130.4	130.5	98.82	98.82	385.6	-4,510.9	943.1	685.2	257.86	3.657	
11,800.0	7,151.0	11,899.4	7,295.0	133.1	133.3	98.85	98.85	385.1	-4,610.9	942.7	679.3	263.34	3.580	
11,900.0	7,150.4	11,999.4	7,295.0	135.9	136.0	98.89	98.89	384.6	-4,710.9	942.3	673.4	268.83	3.505	
12,000.0	7,149.9	12,099.4	7,295.0	138.7	138.8	98.92	98.92	384.1	-4,810.9	941.8	667.5	274.31	3.434	
12,100.0	7,149.4	12,199.4	7,295.0	141.5	141.6	98.96	98.96	383.6	-4,910.9	941.4	661.6	279.79	3.365	
12,200.0	7,148.9	12,299.4	7,295.0	144.3	144.4	99.00	99.00	383.1	-5,010.9	941.0	655.7	285.27	3.299	
12,300.0	7,148.4	12,399.4	7,295.0	147.1	147.2	99.03	99.03	382.6	-5,110.9	940.6	649.8	290.75	3.235	
12,400.0	7,147.8	12,499.4	7,295.0	149.9	150.0	99.07	99.07	382.1	-5,210.8	940.2	643.9	296.24	3.174	
12,500.0	7,147.3	12,599.4	7,295.0	152.6	152.8	99.11	99.11	381.6	-5,310.8	939.8	638.0	301.72	3.115	
12,600.0	7,146.8	12,699.4	7,295.0	155.4	155.5	99.14	99.14	381.1	-5,410.8	939.3	632.1	307.20	3.058	
12,700.0	7,146.3	12,799.4	7,295.0	158.2	158.3	99.18	99.18	380.6	-5,510.8	938.9	626.2	312.68	3.003	
12,800.0	7,145.7	12,899.4	7,295.0	161.0	161.1	99.21	99.21	380.1	-5,610.8	938.5	620.3	318.17	2.950	
12,900.0	7,145.2	12,999.4	7,295.0	163.8	163.9	99.25	99.25	379.6	-5,710.8	938.1	614.4	323.65	2.898	
13,000.0	7,144.7	13,099.4	7,295.0	166.6	166.7	99.29	99.29	379.1	-5,810.8	937.7	608.5	329.13	2.849	
13,100.0	7,144.2	13,199.4	7,295.0	169.4	169.5	99.32	99.32	378.6	-5,910.8	937.3	602.6	334.61	2.801	
13,200.0	7,143.6	13,299.4	7,295.0	172.2	172.3	99.36	99.36	378.1	-6,010.8	936.8	596.8	340.10	2.755	
13,300.0	7,143.1	13,399.4	7,295.0	175.0	175.1	99.40	99.40	377.6	-6,110.8	936.4	590.9	345.58	2.710	
13,400.0	7,142.6	13,499.4	7,295.0	177.8	177.9	99.43	99.43	377.1	-6,210.8	936.0	585.0	351.06	2.666	
13,500.0	7,142.1	13,599.4	7,295.0	180.6	180.7	99.47	99.47	376.5	-6,310.8	935.6	579.1	356.54	2.624	
13,600.0	7,141.5	13,699.4	7,295.0	183.4	183.5	99.51	99.51	376.0	-6,410.8	935.2	573.2	362.02	2.583	
13,700.0	7,141.0	13,799.4	7,295.0	186.2	186.2	99.54	99.54	375.5	-6,510.8	934.8	567.3	367.50	2.544	
13,800.0	7,140.5	13,899.4	7,295.0	189.0	189.0	99.58	99.58	375.0	-6,610.8	934.4	561.4	372.98	2.505	
13,900.0	7,140.0	13,999.4	7,295.0	191.7	191.8	99.62	99.62	374.5	-6,710.8	934.0	555.5	378.45	2.468	
14,000.0	7,139.5	14,099.3	7,295.0	194.5	194.6	99.66	99.66	374.0	-6,810.8	933.6	549.6	383.93	2.432	
14,100.0	7,138.9	14,199.3	7,295.0	197.3	197.4	99.69	99.69	373.5	-6,910.8	933.1	543.7	389.41	2.396	
14,200.0	7,138.4	14,299.3	7,295.0	200.1	200.2	99.73	99.73	373.0	-7,010.8	932.7	537.8	394.88	2.362	
14,277.2	7,138.0	14,376.5	7,295.0	202.3	202.4	99.76	99.76	372.6	-7,088.0	932.4	533.3	399.11	2.336 SF	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-29.1	0.0	29.1					
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-29.1	0.0	29.1	28.9	0.22	129.665		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-29.1	0.0	29.1	28.5	0.67	43.222		
300.0	300.0	300.0	300.0	0.6	0.6	180.00	-29.1	0.0	29.1	28.0	1.12	25.933		
400.0	400.0	400.0	400.0	0.8	0.8	180.00	-29.1	0.0	29.1	27.6	1.57	18.524		
500.0	500.0	500.0	500.0	1.0	1.0	180.00	-29.1	0.0	29.1	27.1	2.02	14.407 CC		
600.0	600.0	599.0	599.0	1.2	1.2	178.89	-30.7	0.6	30.8	28.3	2.44	12.585		
700.0	700.0	697.8	697.6	1.5	1.4	176.16	-35.5	2.4	35.7	32.8	2.86	12.493		
800.0	800.0	796.1	795.6	1.7	1.6	173.00	-43.5	5.3	44.0	40.7	3.29	13.386		
900.0	900.0	893.7	892.5	1.9	1.8	170.18	-54.5	9.4	55.8	52.0	3.74	14.924		
1,000.0	1,000.0	991.3	988.9	2.1	2.1	167.94	-68.3	14.6	70.7	66.5	4.20	16.822		
1,100.0	1,100.0	1,090.3	1,086.6	2.3	2.4	15.83	-83.0	20.1	84.8	80.2	4.57	18.533		
1,200.0	1,199.8	1,189.7	1,184.8	2.5	2.8	15.45	-97.8	25.6	95.5	90.6	4.97	19.219		
1,300.0	1,299.5	1,289.4	1,283.3	2.7	3.1	15.66	-112.6	31.1	102.9	97.5	5.38	19.129		
1,400.0	1,398.7	1,389.3	1,381.9	2.9	3.5	16.38	-127.4	36.6	107.0	101.1	5.80	18.432		
1,500.0	1,497.7	1,489.3	1,480.6	3.2	3.8	17.40	-142.3	42.1	108.9	102.6	6.25	17.414		
1,600.0	1,596.6	1,589.2	1,579.3	3.5	4.2	18.40	-157.1	47.7	110.8	104.1	6.72	16.497		
1,700.0	1,695.6	1,689.2	1,678.0	3.7	4.6	19.36	-172.0	53.2	112.7	105.5	7.19	15.677		
1,800.0	1,794.5	1,789.2	1,776.7	4.0	4.9	20.30	-186.8	58.7	114.7	107.0	7.67	14.945		
1,900.0	1,893.5	1,889.1	1,875.4	4.3	5.3	21.20	-201.7	64.3	116.7	108.5	8.17	14.287		
2,000.0	1,992.4	1,989.1	1,974.1	4.7	5.7	22.06	-216.5	69.8	118.7	110.1	8.67	13.693		
2,100.0	2,091.4	2,089.0	2,072.8	5.0	6.0	22.90	-231.3	75.3	120.8	111.6	9.18	13.157		
2,200.0	2,190.3	2,189.0	2,171.5	5.3	6.4	23.72	-246.2	80.9	122.9	113.2	9.70	12.669		
2,300.0	2,289.3	2,289.0	2,270.2	5.6	6.8	24.50	-261.0	86.4	125.0	114.8	10.22	12.225		
2,400.0	2,388.2	2,388.9	2,368.9	6.0	7.2	25.26	-275.9	91.9	127.1	116.3	10.75	11.819		
2,500.0	2,487.2	2,488.9	2,467.6	6.3	7.5	25.99	-290.7	97.5	129.3	118.0	11.29	11.447		
2,600.0	2,586.1	2,588.9	2,566.3	6.6	7.9	26.70	-305.6	103.0	131.4	119.6	11.83	11.105		
2,700.0	2,685.1	2,688.8	2,665.0	7.0	8.3	27.39	-320.4	108.5	133.6	121.2	12.38	10.789		
2,800.0	2,784.0	2,788.8	2,763.7	7.3	8.7	28.05	-335.3	114.0	135.8	122.9	12.94	10.498		
2,900.0	2,883.0	2,888.8	2,862.4	7.7	9.0	28.69	-350.1	119.6	138.0	124.6	13.50	10.227		
3,000.0	2,981.9	2,988.7	2,961.1	8.0	9.4	29.31	-364.9	125.1	140.3	126.2	14.06	9.976		
3,100.0	3,080.9	3,088.7	3,059.8	8.4	9.8	29.92	-379.8	130.6	142.6	127.9	14.63	9.742		
3,200.0	3,179.8	3,188.6	3,158.5	8.7	10.2	30.50	-394.6	136.2	144.8	129.6	15.21	9.524		
3,300.0	3,278.8	3,288.6	3,257.2	9.1	10.6	31.06	-409.5	141.7	147.1	131.3	15.78	9.320		
3,400.0	3,377.7	3,388.6	3,355.9	9.4	10.9	31.61	-424.3	147.2	149.4	133.0	16.37	9.129		
3,500.0	3,476.7	3,488.5	3,454.6	9.8	11.3	32.14	-439.2	152.8	151.7	134.8	16.95	8.950		
3,600.0	3,575.6	3,588.5	3,553.3	10.1	11.7	32.66	-454.0	158.3	154.1	136.5	17.54	8.782		
3,700.0	3,674.6	3,688.5	3,652.0	10.5	12.1	33.16	-468.9	163.8	156.4	138.3	18.14	8.624		
3,800.0	3,773.5	3,788.4	3,750.7	10.8	12.5	33.64	-483.7	169.4	158.8	140.0	18.73	8.475		
3,900.0	3,872.5	3,888.4	3,849.4	11.2	12.8	34.11	-498.5	174.9	161.1	141.8	19.33	8.334		
4,000.0	3,971.4	3,988.4	3,948.1	11.5	13.2	34.57	-513.4	180.4	163.5	143.6	19.93	8.201		
4,100.0	4,070.4	4,088.3	4,046.8	11.9	13.6	35.01	-528.2	185.9	165.9	145.3	20.54	8.076		
4,200.0	4,169.3	4,188.3	4,145.5	12.2	14.0	35.45	-543.1	191.5	168.3	147.1	21.15	7.956		
4,300.0	4,268.3	4,288.2	4,244.2	12.6	14.4	35.87	-557.9	197.0	170.7	148.9	21.76	7.843		
4,400.0	4,367.2	4,388.2	4,342.9	12.9	14.7	36.27	-572.8	202.5	173.1	150.7	22.37	7.736		
4,500.0	4,466.2	4,488.2	4,441.6	13.3	15.1	36.67	-587.6	208.1	175.5	152.5	22.99	7.634		
4,600.0	4,565.1	4,588.1	4,540.3	13.7	15.5	37.06	-602.5	213.6	177.9	154.3	23.61	7.537		
4,700.0	4,664.1	4,688.1	4,639.0	14.0	15.9	37.43	-617.3	219.1	180.4	156.1	24.23	7.444		
4,800.0	4,763.0	4,788.1	4,737.7	14.4	16.3	37.80	-632.2	224.7	182.8	158.0	24.85	7.356		
4,900.0	4,862.0	4,888.0	4,836.4	14.7	16.6	38.15	-647.0	230.2	185.3	159.8	25.48	7.272		
5,000.0	4,960.9	4,988.0	4,935.1	15.1	17.0	38.50	-661.8	235.7	187.7	161.6	26.10	7.192		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32Y-404 - Wellbore #1 - Plan #1 (4-14-14)													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,059.9	5,088.0	5,033.8	15.4	17.4	38.83	-676.7	241.2	190.2	163.5	26.73	7.115	
5,200.0	5,158.8	5,187.9	5,132.5	15.8	17.8	39.16	-691.5	246.8	192.7	165.3	27.36	7.041	
5,300.0	5,257.8	5,287.9	5,231.2	16.2	18.2	39.48	-706.4	252.3	195.1	167.1	27.99	6.971	
5,400.0	5,356.8	5,387.8	5,329.9	16.5	18.5	39.66	-721.2	257.8	198.3	169.7	28.57	6.940	
5,500.0	5,456.3	5,487.6	5,428.5	16.7	18.9	39.28	-736.0	263.4	204.1	175.1	28.99	7.038	
5,600.0	5,556.1	5,587.2	5,526.8	16.9	19.3	38.36	-750.8	268.9	212.5	183.3	29.28	7.258	
5,700.0	5,656.0	5,686.4	5,624.7	17.0	19.7	37.01	-765.6	274.4	223.9	194.4	29.46	7.598	
5,800.0	5,756.0	5,785.2	5,722.2	17.2	20.0	-173.86	-780.2	279.8	237.7	202.7	34.96	6.798	
5,900.0	5,856.0	5,883.9	5,819.7	17.3	20.4	-175.47	-794.9	285.3	252.0	216.3	35.69	7.061	
6,000.0	5,956.0	5,982.7	5,917.2	17.5	20.8	-176.90	-809.6	290.7	266.5	230.1	36.38	7.324	
6,100.0	6,056.0	6,088.3	6,021.7	17.6	21.1	-178.20	-824.3	296.2	280.2	243.2	37.03	7.568	
6,200.0	6,156.0	6,197.8	6,130.5	17.7	21.4	-179.12	-835.9	300.6	290.8	253.2	37.54	7.746	
6,300.0	6,256.0	6,308.2	6,240.5	17.9	21.6	-179.70	-843.6	303.4	297.7	259.8	37.95	7.845	
6,400.0	6,356.0	6,418.9	6,351.2	18.0	21.8	-179.97	-847.4	304.9	301.2	262.9	38.30	7.863	
6,500.0	6,456.0	6,523.7	6,456.0	18.2	21.9	-90.28	-847.8	305.0	301.5	270.2	31.36	9.615	
6,600.0	6,555.1	6,623.6	6,555.8	18.3	22.0	-92.46	-847.8	303.9	301.8	270.5	31.30	9.643	
6,700.0	6,651.7	6,725.3	6,656.7	18.3	22.1	-95.04	-847.8	291.7	302.7	271.6	31.11	9.729	
6,800.0	6,744.2	6,828.9	6,756.9	18.3	22.1	-97.54	-847.8	265.6	304.2	273.3	30.91	9.841	
6,900.0	6,830.9	6,934.6	6,854.5	18.3	22.1	-99.91	-847.8	225.3	306.1	275.4	30.76	9.951	
7,000.0	6,910.4	7,042.2	6,947.2	18.2	22.1	-102.10	-847.8	170.8	308.4	277.7	30.77	10.025	
7,100.0	6,981.3	7,151.7	7,032.7	18.2	22.1	-104.06	-847.8	102.6	310.9	279.9	31.04	10.015	
7,200.0	7,042.4	7,263.0	7,108.8	18.2	22.0	-105.75	-847.8	21.4	313.4	281.6	31.75	9.869	
7,300.0	7,092.7	7,375.9	7,173.1	18.2	22.0	-107.15	-847.8	-71.3	315.6	282.6	33.02	9.558	
7,400.0	7,131.3	7,490.2	7,223.5	18.6	22.1	-108.22	-847.8	-173.7	317.5	282.5	34.92	9.090	
7,500.0	7,157.5	7,605.4	7,258.3	20.1	22.4	-108.95	-847.8	-283.4	318.8	281.3	37.51	8.500	
7,600.0	7,170.9	7,718.7	7,276.2	21.9	23.4	-109.35	-847.8	-395.2	319.6	278.9	40.64	7.863	
7,700.0	7,172.4	7,822.9	7,286.2	23.8	25.0	-110.66	-847.8	-498.9	322.3	278.5	43.80	7.359	
7,800.0	7,171.9	7,930.3	7,288.5	25.9	27.1	-111.14	-847.8	-606.3	323.3	275.6	47.65	6.784	
7,900.0	7,171.4	8,030.3	7,288.5	28.2	29.2	-111.22	-847.8	-706.3	323.4	271.7	51.73	6.252	
8,000.0	7,170.9	8,130.3	7,288.4	30.5	31.4	-111.29	-847.8	-806.3	323.6	267.6	56.00	5.779	
8,100.0	7,170.3	8,230.3	7,288.3	32.9	33.7	-111.37	-847.8	-906.3	323.8	263.3	60.41	5.359	
8,200.0	7,169.8	8,330.3	7,288.2	35.3	36.1	-111.44	-847.8	-1,006.3	323.9	259.0	64.95	4.988	
8,300.0	7,169.3	8,430.3	7,288.2	37.8	38.5	-111.52	-847.8	-1,106.3	324.1	254.5	69.57	4.658	
8,400.0	7,168.8	8,530.3	7,288.1	40.3	41.0	-111.59	-847.8	-1,206.3	324.3	250.0	74.28	4.366	
8,500.0	7,168.2	8,630.3	7,288.0	42.9	43.5	-111.67	-847.8	-1,306.3	324.4	245.4	79.04	4.105	
8,600.0	7,167.7	8,730.3	7,288.0	45.5	46.1	-111.74	-847.8	-1,406.3	324.6	240.7	83.85	3.871	
8,700.0	7,167.2	8,830.3	7,287.9	48.1	48.7	-111.82	-847.8	-1,506.3	324.8	236.1	88.70	3.661	
8,800.0	7,166.7	8,930.3	7,287.8	50.8	51.3	-111.89	-847.8	-1,606.3	324.9	231.3	93.59	3.472	
8,900.0	7,166.2	9,030.3	7,287.8	53.4	53.9	-111.96	-847.8	-1,706.3	325.1	226.6	98.50	3.301	
9,000.0	7,165.6	9,130.3	7,287.7	56.1	56.6	-112.04	-847.8	-1,806.3	325.3	221.8	103.43	3.145	
9,100.0	7,165.1	9,230.3	7,287.6	58.8	59.2	-112.11	-847.8	-1,906.3	325.4	217.1	108.39	3.003	
9,200.0	7,164.6	9,330.3	7,287.5	61.5	61.9	-112.19	-847.8	-2,006.3	325.6	212.3	113.36	2.872	
9,300.0	7,164.1	9,430.3	7,287.5	64.2	64.6	-112.26	-847.8	-2,106.3	325.8	207.4	118.34	2.753	
9,400.0	7,163.5	9,530.3	7,287.4	66.9	67.3	-112.33	-847.8	-2,206.3	326.0	202.6	123.33	2.643	
9,500.0	7,163.0	9,630.3	7,287.3	69.6	70.0	-112.41	-847.8	-2,306.3	326.1	197.8	128.34	2.541	
9,600.0	7,162.5	9,730.3	7,287.3	72.3	72.7	-112.48	-847.8	-2,406.3	326.3	193.0	133.35	2.447	
9,700.0	7,162.0	9,830.3	7,287.2	75.1	75.4	-112.55	-847.8	-2,506.3	326.5	188.1	138.36	2.360	
9,800.0	7,161.4	9,930.3	7,287.1	77.8	78.1	-112.63	-847.8	-2,606.3	326.7	183.3	143.38	2.278	
9,900.0	7,160.9	10,030.3	7,287.1	80.5	80.8	-112.70	-847.8	-2,706.3	326.8	178.4	148.40	2.202	
10,000.0	7,160.4	10,130.3	7,287.0	83.3	83.6	-112.78	-847.8	-2,806.3	327.0	173.6	153.43	2.131	
10,100.0	7,159.9	10,230.3	7,286.9	86.0	86.3	-112.85	-847.8	-2,906.3	327.2	168.7	158.46	2.065	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32Y-404 - Wellbore #1 - Plan #1 (4-14-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,200.0	7,159.3	10,330.3	7,286.8	88.8	89.1	-112.92	-847.8	-3,006.3	327.4	163.9	163.49	2.002		
10,300.0	7,158.8	10,430.3	7,286.8	91.5	91.8	-112.99	-847.8	-3,106.3	327.5	159.0	168.52	1.944		
10,400.0	7,158.3	10,530.3	7,286.7	94.3	94.6	-113.07	-847.8	-3,206.3	327.7	154.2	173.55	1.888		
10,500.0	7,157.8	10,630.3	7,286.6	97.1	97.3	-113.14	-847.8	-3,306.3	327.9	149.3	178.58	1.836		
10,600.0	7,157.3	10,730.3	7,286.6	99.8	100.1	-113.21	-847.8	-3,406.3	328.1	144.5	183.61	1.787		
10,700.0	7,156.7	10,830.3	7,286.5	102.6	102.8	-113.29	-847.8	-3,506.3	328.2	139.6	188.64	1.740		
10,800.0	7,156.2	10,930.3	7,286.4	105.4	105.6	-113.36	-847.8	-3,606.3	328.4	134.8	193.66	1.696		
10,900.0	7,155.7	11,030.3	7,286.4	108.1	108.3	-113.43	-847.8	-3,706.3	328.6	129.9	198.69	1.654		
11,000.0	7,155.2	11,130.3	7,286.3	110.9	111.1	-113.50	-847.8	-3,806.3	328.8	125.1	203.71	1.614		
11,100.0	7,154.6	11,230.3	7,286.2	113.7	113.9	-113.58	-847.8	-3,906.3	329.0	120.2	208.73	1.576		
11,200.0	7,154.1	11,330.3	7,286.1	116.5	116.7	-113.65	-847.8	-4,006.3	329.1	115.4	213.75	1.540		
11,300.0	7,153.6	11,430.3	7,286.1	119.2	119.4	-113.72	-847.8	-4,106.3	329.3	110.6	218.76	1.505		
11,400.0	7,153.1	11,530.3	7,286.0	122.0	122.2	-113.79	-847.8	-4,206.3	329.5	105.7	223.77	1.473 Level 3		
11,500.0	7,152.5	11,630.3	7,285.9	124.8	125.0	-113.87	-847.8	-4,306.3	329.7	100.9	228.78	1.441 Level 3		
11,600.0	7,152.0	11,730.3	7,285.9	127.6	127.7	-113.94	-847.8	-4,406.3	329.9	96.1	233.79	1.411 Level 3		
11,700.0	7,151.5	11,830.3	7,285.8	130.4	130.5	-114.01	-847.8	-4,506.3	330.1	91.3	238.79	1.382 Level 3		
11,800.0	7,151.0	11,930.3	7,285.7	133.1	133.3	-114.08	-847.8	-4,606.3	330.2	86.5	243.79	1.355 Level 3		
11,900.0	7,150.4	12,030.3	7,285.7	135.9	136.1	-114.15	-847.8	-4,706.3	330.4	81.7	248.78	1.328 Level 3		
12,000.0	7,149.9	12,130.3	7,285.6	138.7	138.9	-114.23	-847.8	-4,806.3	330.6	76.8	253.77	1.303 Level 3		
12,100.0	7,149.4	12,230.3	7,285.5	141.5	141.6	-114.30	-847.8	-4,906.3	330.8	72.0	258.76	1.278 Level 3		
12,200.0	7,148.9	12,330.3	7,285.4	144.3	144.4	-114.37	-847.8	-5,006.3	331.0	67.3	263.74	1.255 Level 3		
12,300.0	7,148.4	12,430.3	7,285.4	147.1	147.2	-114.44	-847.8	-5,106.3	331.2	62.5	268.72	1.232 Level 2		
12,400.0	7,147.8	12,530.3	7,285.3	149.9	150.0	-114.51	-847.8	-5,206.3	331.4	57.7	273.69	1.211 Level 2		
12,500.0	7,147.3	12,630.3	7,285.2	152.6	152.8	-114.58	-847.8	-5,306.3	331.6	52.9	278.66	1.190 Level 2		
12,600.0	7,146.8	12,730.3	7,285.2	155.4	155.6	-114.65	-847.8	-5,406.3	331.7	48.1	283.63	1.170 Level 2		
12,700.0	7,146.3	12,830.3	7,285.1	158.2	158.3	-114.73	-847.8	-5,506.2	331.9	43.3	288.59	1.150 Level 2		
12,800.0	7,145.7	12,930.3	7,285.0	161.0	161.1	-114.80	-847.8	-5,606.2	332.1	38.6	293.55	1.131 Level 2		
12,900.0	7,145.2	13,030.3	7,285.0	163.8	163.9	-114.87	-847.8	-5,706.2	332.3	33.8	298.50	1.113 Level 2		
13,000.0	7,144.7	13,130.3	7,284.9	166.6	166.7	-114.94	-847.8	-5,806.2	332.5	29.1	303.45	1.096 Level 2		
13,100.0	7,144.2	13,230.3	7,284.8	169.4	169.5	-115.01	-847.8	-5,906.2	332.7	24.3	308.39	1.079 Level 2		
13,200.0	7,143.6	13,330.3	7,284.8	172.2	172.3	-115.08	-847.8	-6,006.2	332.9	19.6	313.32	1.062 Level 2		
13,300.0	7,143.1	13,430.3	7,284.7	175.0	175.1	-115.15	-847.8	-6,106.2	333.1	14.8	318.26	1.047 Level 2		
13,400.0	7,142.6	13,530.3	7,284.6	177.8	177.9	-115.22	-847.8	-6,206.2	333.3	10.1	323.19	1.031 Level 2		
13,500.0	7,142.1	13,630.3	7,284.5	180.6	180.7	-115.29	-847.8	-6,306.2	333.5	5.4	328.11	1.016 Level 2		
13,600.0	7,141.5	13,730.3	7,284.5	183.4	183.5	-115.36	-847.8	-6,406.2	333.7	0.6	333.03	1.002 Level 2		
13,700.0	7,141.0	13,830.3	7,284.4	186.2	186.2	-115.43	-847.8	-6,506.2	333.9	-4.1	337.94	0.988 Level 1		
13,800.0	7,140.5	13,930.3	7,284.3	189.0	189.0	-115.50	-847.8	-6,606.2	334.1	-8.8	342.85	0.974 Level 1		
13,900.0	7,140.0	14,030.3	7,284.3	191.7	191.8	-115.57	-847.8	-6,706.2	334.2	-13.5	347.75	0.961 Level 1		
14,000.0	7,139.5	14,130.3	7,284.2	194.5	194.6	-115.64	-847.8	-6,806.2	334.4	-18.2	352.65	0.948 Level 1		
14,100.0	7,138.9	14,230.3	7,284.1	197.3	197.4	-115.71	-847.8	-6,906.2	334.6	-22.9	357.54	0.936 Level 1		
14,200.0	7,138.4	14,330.3	7,284.1	200.1	200.2	-115.78	-847.8	-7,006.2	334.8	-27.6	362.43	0.924 Level 1		
14,277.2	7,138.0	14,404.7	7,284.0	202.3	202.3	-115.84	-847.8	-7,080.6	335.0	-31.1	366.13	0.915 Level 1, ES, SF		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	29.1	0.0	29.2				
100.0	100.0	99.0	99.0	0.1	0.1	0.00	0.00	29.1	0.0	29.1	28.9	0.22	130.297	
200.0	200.0	199.0	199.0	0.3	0.3	0.00	0.00	29.1	0.0	29.1	28.5	0.67	43.360	
300.0	300.0	299.0	299.0	0.6	0.6	0.00	0.00	29.1	0.0	29.1	28.0	1.12	25.981	
400.0	400.0	399.0	399.0	0.8	0.8	0.00	0.00	29.1	0.0	29.1	27.6	1.57	18.547	
500.0	500.0	499.0	499.0	1.0	1.0	0.00	0.00	29.1	0.0	29.1	27.1	2.02	14.421	
600.0	600.0	599.0	599.0	1.2	1.2	0.00	0.00	29.1	0.0	29.1	26.7	2.47	11.797	
700.0	700.0	699.0	699.0	1.5	1.5	0.00	0.00	29.1	0.0	29.1	26.2	2.92	9.980	
800.0	800.0	799.0	799.0	1.7	1.7	0.00	0.00	29.1	0.0	29.1	25.8	3.37	8.649	
900.0	900.0	899.0	899.0	1.9	1.9	0.00	0.00	29.1	0.0	29.1	25.3	3.82	7.631	
1,000.0	1,000.0	999.0	999.0	2.1	2.1	0.00	0.00	29.1	0.0	29.1	24.9	4.27	6.827 CC	
1,100.0	1,100.0	1,099.0	1,099.0	2.3	2.4	-152.40		29.1	0.0	30.7	26.0	4.69	6.539	
1,200.0	1,199.8	1,198.8	1,198.8	2.5	2.6	-156.29		29.1	0.0	35.4	30.3	5.09	6.952	
1,300.0	1,299.5	1,298.5	1,298.5	2.7	2.8	-159.99		27.7	0.9	41.9	36.5	5.47	7.667	
1,400.0	1,398.7	1,401.0	1,400.9	2.9	3.0	-162.39		23.2	3.8	48.7	42.8	5.83	8.347	
1,500.0	1,497.7	1,502.6	1,502.0	3.2	3.2	-163.62		15.8	8.7	54.3	48.1	6.22	8.728	
1,600.0	1,596.6	1,603.6	1,602.3	3.5	3.4	-163.56		5.7	15.3	57.0	50.3	6.63	8.593	
1,700.0	1,695.6	1,703.5	1,701.5	3.7	3.6	-163.32		-4.8	22.1	59.1	52.1	7.05	8.386	
1,800.0	1,794.5	1,803.5	1,800.7	4.0	3.9	-163.10		-15.3	28.9	61.3	53.8	7.49	8.190	
1,900.0	1,893.5	1,903.5	1,899.9	4.3	4.1	-162.89		-25.7	35.7	63.5	55.6	7.93	8.006	
2,000.0	1,992.4	2,003.5	1,999.1	4.7	4.4	-162.70		-36.2	42.6	65.7	57.3	8.38	7.834	
2,100.0	2,091.4	2,103.4	2,098.2	5.0	4.7	-162.52		-46.6	49.4	67.9	59.0	8.84	7.673	
2,200.0	2,190.3	2,203.4	2,197.4	5.3	5.0	-162.35		-57.1	56.2	70.0	60.7	9.31	7.524	
2,300.0	2,289.3	2,303.4	2,296.6	5.6	5.2	-162.19		-67.5	63.0	72.2	62.4	9.78	7.385	
2,400.0	2,388.2	2,403.4	2,395.8	6.0	5.5	-162.04		-78.0	69.8	74.4	64.1	10.25	7.255	
2,500.0	2,487.2	2,503.3	2,495.0	6.3	5.8	-161.90		-88.4	76.6	76.6	65.8	10.73	7.134	
2,600.0	2,586.1	2,603.3	2,594.2	6.6	6.1	-161.77		-98.9	83.4	78.8	67.5	11.22	7.021	
2,700.0	2,685.1	2,703.3	2,693.4	7.0	6.4	-161.64		-109.4	90.2	80.9	69.2	11.70	6.916	
2,800.0	2,784.0	2,803.3	2,792.6	7.3	6.8	-161.52		-119.8	97.0	83.1	70.9	12.19	6.818	
2,900.0	2,883.0	2,903.3	2,891.8	7.7	7.1	-161.41		-130.3	103.9	85.3	72.6	12.68	6.725	
3,000.0	2,981.9	3,003.2	2,991.0	8.0	7.4	-161.30		-140.7	110.7	87.5	74.3	13.18	6.639	
3,100.0	3,080.9	3,103.2	3,090.2	8.4	7.7	-161.20		-151.2	117.5	89.7	76.0	13.67	6.558	
3,200.0	3,179.8	3,203.2	3,189.4	8.7	8.0	-161.10		-161.6	124.3	91.9	77.7	14.17	6.481	
3,300.0	3,278.8	3,303.2	3,288.6	9.1	8.3	-161.01		-172.1	131.1	94.0	79.4	14.67	6.410	
3,400.0	3,377.7	3,403.1	3,387.8	9.4	8.6	-160.92		-182.5	137.9	96.2	81.1	15.17	6.342	
3,500.0	3,476.7	3,503.1	3,487.0	9.8	9.0	-160.84		-193.0	144.7	98.4	82.7	15.68	6.278	
3,600.0	3,575.6	3,603.1	3,586.2	10.1	9.3	-160.76		-203.5	151.5	100.6	84.4	16.18	6.217	
3,700.0	3,674.6	3,703.1	3,685.4	10.5	9.6	-160.68		-213.9	158.4	102.8	86.1	16.68	6.160	
3,800.0	3,773.5	3,803.0	3,784.5	10.8	9.9	-160.60		-224.4	165.2	105.0	87.8	17.19	6.106	
3,900.0	3,872.5	3,903.0	3,883.7	11.2	10.2	-160.53		-234.8	172.0	107.2	89.5	17.70	6.054	
4,000.0	3,971.4	4,003.0	3,982.9	11.5	10.6	-160.46		-245.3	178.8	109.3	91.1	18.21	6.006	
4,100.0	4,070.4	4,103.0	4,082.1	11.9	10.9	-160.40		-255.7	185.6	111.5	92.8	18.71	5.959	
4,200.0	4,169.3	4,202.9	4,181.3	12.2	11.2	-160.34		-266.2	192.4	113.7	94.5	19.22	5.915	
4,300.0	4,268.3	4,302.9	4,280.5	12.6	11.5	-160.27		-276.6	199.2	115.9	96.2	19.74	5.873	
4,400.0	4,367.2	4,402.9	4,379.7	12.9	11.9	-160.22		-287.1	206.0	118.1	97.8	20.25	5.832	
4,500.0	4,466.2	4,502.9	4,478.9	13.3	12.2	-160.16		-297.5	212.9	120.3	99.5	20.76	5.794	
4,600.0	4,565.1	4,602.8	4,578.1	13.7	12.5	-160.10		-308.0	219.7	122.5	101.2	21.27	5.757	
4,700.0	4,664.1	4,702.8	4,677.3	14.0	12.8	-160.05		-318.5	226.5	124.6	102.9	21.78	5.722	
4,800.0	4,763.0	4,802.8	4,776.5	14.4	13.2	-160.00		-328.9	233.3	126.8	104.5	22.30	5.688	
4,900.0	4,862.0	4,902.8	4,875.7	14.7	13.5	-159.95		-339.4	240.1	129.0	106.2	22.81	5.656	
5,000.0	4,960.9	5,002.7	4,974.9	15.1	13.8	-159.90		-349.8	246.9	131.2	107.9	23.33	5.625	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32Y-414 - Wellbore #1 - Plan #2 (5-22-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,059.9	5,102.7	5,074.1	15.4	14.1	-159.86	-360.3	253.7	133.4	109.5	23.84	5.595		
5,200.0	5,158.8	5,202.7	5,173.3	15.8	14.5	-159.81	-370.7	260.5	135.6	111.2	24.36	5.566		
5,300.0	5,257.8	5,302.7	5,272.5	16.2	14.8	-159.77	-381.2	267.4	137.8	112.9	24.87	5.539		
5,400.0	5,356.8	5,402.7	5,371.7	16.5	15.1	-159.61	-391.7	274.2	139.1	113.7	25.39	5.478		
5,500.0	5,456.3	5,502.6	5,470.8	16.7	15.4	-158.94	-402.1	281.0	137.3	111.4	25.91	5.300		
5,600.0	5,556.1	5,602.5	5,569.9	16.9	15.8	-157.67	-412.5	287.8	132.3	105.9	26.47	5.000		
5,700.0	5,656.0	5,700.0	5,666.7	17.0	16.1	-155.70	-422.7	294.4	124.3	97.3	27.06	4.595		
5,800.0	5,756.0	5,797.1	5,763.3	17.2	16.3	-2.65	-430.8	299.7	116.0	84.0	32.00	3.623		
5,900.0	5,856.0	5,893.6	5,859.6	17.3	16.5	-0.98	-436.1	303.1	110.3	78.2	32.16	3.431		
6,000.0	5,956.0	5,990.4	5,956.4	17.5	16.6	-0.10	-438.7	304.8	107.6	75.3	32.37	3.325		
6,060.6	6,016.6	6,049.6	6,015.6	17.5	16.7	0.00	-439.0	305.0	107.3	74.8	32.54	3.298		
6,100.0	6,056.0	6,089.1	6,055.0	17.6	16.8	0.00	-439.0	305.0	107.3	74.7	32.66	3.286		
6,200.0	6,156.0	6,189.1	6,155.0	17.7	16.9	0.00	-439.0	305.0	107.3	74.4	32.97	3.256		
6,300.0	6,256.0	6,289.1	6,255.0	17.9	17.1	0.00	-439.0	305.0	107.3	74.1	33.27	3.227		
6,400.0	6,356.0	6,389.1	6,355.0	18.0	17.2	0.00	-439.0	305.0	107.3	73.8	33.57	3.197		
6,450.8	6,406.8	6,439.9	6,405.8	18.1	17.3	90.43	-439.0	305.0	107.3	77.0	30.31	3.541		
6,500.0	6,456.0	6,489.0	6,455.0	18.2	17.4	90.78	-439.0	305.0	107.4	76.8	30.52	3.517		
6,600.0	6,555.1	6,588.9	6,554.8	18.3	17.5	96.90	-439.0	304.0	108.1	76.6	31.52	3.431		
6,700.0	6,651.7	6,690.6	6,655.7	18.3	17.6	104.00	-439.0	291.9	110.7	78.3	32.41	3.416		
6,800.0	6,744.2	6,794.3	6,756.0	18.3	17.7	110.54	-439.0	265.9	114.8	81.9	32.84	3.495		
6,900.0	6,830.9	6,899.9	6,853.6	18.3	17.7	116.32	-439.0	225.7	119.9	87.2	32.75	3.662		
7,000.0	6,910.4	7,007.6	6,946.5	18.2	17.7	121.26	-439.0	171.3	125.8	93.6	32.24	3.902		
7,100.0	6,981.3	7,117.2	7,032.1	18.2	17.6	125.36	-439.0	103.1	131.8	100.3	31.51	4.184		
7,200.0	7,042.4	7,228.6	7,108.3	18.2	17.6	128.64	-439.0	22.0	137.6	106.8	30.86	4.461		
7,300.0	7,092.7	7,341.7	7,172.8	18.2	17.6	131.18	-439.0	-70.8	142.8	112.2	30.60	4.665		
7,400.0	7,131.3	7,456.1	7,223.3	18.6	18.1	133.03	-439.0	-173.3	146.9	115.9	31.06	4.730		
7,500.0	7,157.5	7,571.5	7,258.2	20.1	19.7	134.24	-439.0	-283.2	149.9	117.4	32.44	4.619		
7,600.0	7,170.9	7,684.9	7,276.2	21.9	21.7	134.88	-439.0	-395.1	151.5	116.8	34.74	4.361		
7,700.0	7,172.4	7,789.2	7,286.2	23.8	23.7	136.90	-439.0	-498.8	157.3	120.5	36.79	4.276		
7,800.0	7,171.9	7,896.7	7,288.5	25.9	26.0	137.61	-439.0	-606.3	159.2	119.8	39.41	4.041		
7,900.0	7,171.4	7,996.7	7,288.5	28.2	28.2	137.72	-439.0	-706.3	159.6	117.2	42.35	3.767		
8,000.0	7,170.9	8,096.7	7,288.4	30.5	30.5	137.83	-439.0	-806.3	159.9	114.5	45.43	3.520		
8,100.0	7,170.3	8,196.7	7,288.3	32.9	32.9	137.94	-439.0	-906.3	160.2	111.6	48.61	3.296		
8,200.0	7,169.8	8,296.7	7,288.2	35.3	35.3	138.05	-439.0	-1,006.3	160.6	108.7	51.86	3.096		
8,300.0	7,169.3	8,396.7	7,288.2	37.8	37.8	138.16	-439.0	-1,106.3	160.9	105.7	55.18	2.916		
8,400.0	7,168.8	8,496.7	7,288.1	40.3	40.3	138.27	-439.0	-1,206.3	161.2	102.7	58.55	2.754		
8,500.0	7,168.2	8,596.7	7,288.0	42.9	42.9	138.37	-439.0	-1,306.3	161.6	99.6	61.95	2.608		
8,600.0	7,167.7	8,696.7	7,288.0	45.5	45.5	138.48	-439.0	-1,406.3	161.9	96.5	65.39	2.476		
8,700.0	7,167.2	8,796.7	7,287.9	48.1	48.1	138.59	-439.0	-1,506.3	162.3	93.4	68.85	2.357		
8,800.0	7,166.7	8,896.7	7,287.8	50.8	50.8	138.69	-439.0	-1,606.3	162.6	90.3	72.32	2.248		
8,900.0	7,166.2	8,996.7	7,287.8	53.4	53.4	138.80	-439.0	-1,706.3	162.9	87.1	75.81	2.149		
9,000.0	7,165.6	9,096.7	7,287.7	56.1	56.1	138.90	-439.0	-1,806.3	163.3	84.0	79.31	2.059		
9,100.0	7,165.1	9,196.7	7,287.6	58.8	58.8	139.01	-439.0	-1,906.3	163.6	80.8	82.82	1.976		
9,200.0	7,164.6	9,296.7	7,287.5	61.5	61.5	139.11	-439.0	-2,006.3	164.0	77.6	86.33	1.899		
9,300.0	7,164.1	9,396.7	7,287.5	64.2	64.2	139.21	-439.0	-2,106.3	164.3	74.5	89.84	1.829		
9,400.0	7,163.5	9,496.7	7,287.4	66.9	66.9	139.32	-439.0	-2,206.3	164.7	71.3	93.35	1.764		
9,500.0	7,163.0	9,596.7	7,287.3	69.6	69.6	139.42	-439.0	-2,306.3	165.0	68.1	96.87	1.703		
9,600.0	7,162.5	9,696.7	7,287.3	72.3	72.3	139.52	-439.0	-2,406.3	165.4	65.0	100.37	1.647		
9,700.0	7,162.0	9,796.7	7,287.2	75.1	75.0	139.62	-439.0	-2,506.3	165.7	61.8	103.88	1.595		
9,800.0	7,161.4	9,896.7	7,287.1	77.8	77.8	139.72	-439.0	-2,606.3	166.0	58.7	107.38	1.546		
9,900.0	7,160.9	9,996.7	7,287.1	80.5	80.5	139.83	-439.0	-2,706.3	166.4	55.5	110.88	1.501		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Tarin 32X-HZ Pad Sec.32-T4N-R66W - Tarin 32Y-414 - Wellbore #1 - Plan #2 (5-22-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,000.0	7,160.4	10,096.7	7,287.0	83.3	83.3	139.93		-439.0	-2,806.3	166.7	52.4	114.37	1.458	Level 3
10,100.0	7,159.9	10,196.7	7,286.9	86.0	86.0	140.03		-439.0	-2,906.3	167.1	49.2	117.86	1.418	Level 3
10,200.0	7,159.3	10,296.7	7,286.8	88.8	88.8	140.13		-439.0	-3,006.3	167.4	46.1	121.33	1.380	Level 3
10,300.0	7,158.8	10,396.7	7,286.8	91.5	91.5	140.23		-439.0	-3,106.3	167.8	43.0	124.80	1.344	Level 3
10,400.0	7,158.3	10,496.7	7,286.7	94.3	94.3	140.32		-439.0	-3,206.3	168.1	39.9	128.27	1.311	Level 3
10,500.0	7,157.8	10,596.7	7,286.6	97.1	97.0	140.42		-439.0	-3,306.3	168.5	36.8	131.72	1.279	Level 3
10,600.0	7,157.3	10,696.6	7,286.6	99.8	99.8	140.52		-439.0	-3,406.3	168.8	33.7	135.16	1.249	Level 2
10,700.0	7,156.7	10,796.6	7,286.5	102.6	102.6	140.62		-439.0	-3,506.3	169.2	30.6	138.60	1.221	Level 2
10,800.0	7,156.2	10,896.6	7,286.4	105.4	105.3	140.72		-439.0	-3,606.3	169.5	27.5	142.03	1.194	Level 2
10,900.0	7,155.7	10,996.6	7,286.4	108.1	108.1	140.81		-439.0	-3,706.3	169.9	24.4	145.45	1.168	Level 2
11,000.0	7,155.2	11,096.6	7,286.3	110.9	110.9	140.91		-439.0	-3,806.3	170.2	21.4	148.86	1.144	Level 2
11,100.0	7,154.6	11,196.6	7,286.2	113.7	113.7	141.01		-439.0	-3,906.3	170.6	18.3	152.26	1.120	Level 2
11,200.0	7,154.1	11,296.6	7,286.1	116.5	116.4	141.10		-439.0	-4,006.3	170.9	15.3	155.65	1.098	Level 2
11,300.0	7,153.6	11,396.6	7,286.1	119.2	119.2	141.20		-439.0	-4,106.3	171.3	12.3	159.03	1.077	Level 2
11,400.0	7,153.1	11,496.6	7,286.0	122.0	122.0	141.29		-439.0	-4,206.3	171.6	9.2	162.40	1.057	Level 2
11,500.0	7,152.5	11,596.6	7,285.9	124.8	124.8	141.39		-439.0	-4,306.3	172.0	6.2	165.76	1.038	Level 2
11,600.0	7,152.0	11,696.6	7,285.9	127.6	127.6	141.48		-439.0	-4,406.3	172.4	3.2	169.11	1.019	Level 2
11,700.0	7,151.5	11,796.6	7,285.8	130.4	130.3	141.57		-439.0	-4,506.3	172.7	0.3	172.45	1.002	Level 2
11,800.0	7,151.0	11,896.6	7,285.7	133.1	133.1	141.67		-439.0	-4,606.3	173.1	-2.7	175.78	0.985	Level 1
11,900.0	7,150.4	11,996.6	7,285.7	135.9	135.9	141.76		-439.0	-4,706.3	173.4	-5.7	179.10	0.968	Level 1
12,000.0	7,149.9	12,096.6	7,285.6	138.7	138.7	141.85		-439.0	-4,806.3	173.8	-8.6	182.41	0.953	Level 1
12,100.0	7,149.4	12,196.6	7,285.5	141.5	141.5	141.95		-439.0	-4,906.3	174.1	-11.6	185.71	0.938	Level 1
12,200.0	7,148.9	12,296.6	7,285.5	144.3	144.3	142.04		-439.0	-5,006.3	174.5	-14.5	189.00	0.923	Level 1
12,300.0	7,148.4	12,396.6	7,285.4	147.1	147.0	142.13		-439.0	-5,106.3	174.9	-17.4	192.28	0.909	Level 1
12,400.0	7,147.8	12,496.6	7,285.3	149.9	149.8	142.22		-439.0	-5,206.3	175.2	-20.3	195.55	0.896	Level 1
12,500.0	7,147.3	12,596.6	7,285.2	152.6	152.6	142.31		-439.0	-5,306.3	175.6	-23.2	198.81	0.883	Level 1
12,600.0	7,146.8	12,696.6	7,285.2	155.4	155.4	142.40		-439.0	-5,406.3	175.9	-26.1	202.06	0.871	Level 1
12,700.0	7,146.3	12,796.6	7,285.1	158.2	158.2	142.49		-439.0	-5,506.3	176.3	-29.0	205.30	0.859	Level 1
12,800.0	7,145.7	12,896.6	7,285.0	161.0	161.0	142.58		-439.0	-5,606.2	176.6	-31.9	208.53	0.847	Level 1
12,900.0	7,145.2	12,996.6	7,285.0	163.8	163.8	142.67		-439.0	-5,706.2	177.0	-34.7	211.74	0.836	Level 1
13,000.0	7,144.7	13,096.6	7,284.9	166.6	166.6	142.76		-439.0	-5,806.2	177.4	-37.6	214.95	0.825	Level 1
13,100.0	7,144.2	13,196.6	7,284.8	169.4	169.4	142.85		-439.0	-5,906.2	177.7	-40.4	218.15	0.815	Level 1
13,200.0	7,143.6	13,296.6	7,284.8	172.2	172.2	142.94		-439.0	-6,006.2	178.1	-43.2	221.34	0.805	Level 1
13,300.0	7,143.1	13,396.6	7,284.7	175.0	175.0	143.02		-439.0	-6,106.2	178.5	-46.1	224.51	0.795	Level 1
13,400.0	7,142.6	13,496.6	7,284.6	177.8	177.7	143.11		-439.0	-6,206.2	178.8	-48.9	227.68	0.785	Level 1
13,500.0	7,142.1	13,596.6	7,284.5	180.6	180.5	143.20		-439.0	-6,306.2	179.2	-51.7	230.84	0.776	Level 1
13,600.0	7,141.5	13,696.6	7,284.5	183.4	183.3	143.28		-439.0	-6,406.2	179.5	-54.4	233.98	0.767	Level 1
13,700.0	7,141.0	13,796.6	7,284.4	186.2	186.1	143.37		-439.0	-6,506.2	179.9	-57.2	237.12	0.759	Level 1
13,800.0	7,140.5	13,896.6	7,284.3	189.0	188.9	143.46		-439.0	-6,606.2	180.3	-60.0	240.25	0.750	Level 1
13,900.0	7,140.0	13,996.6	7,284.3	191.7	191.7	143.54		-439.0	-6,706.2	180.6	-62.7	243.36	0.742	Level 1
14,000.0	7,139.5	14,096.6	7,284.2	194.5	194.5	143.63		-439.0	-6,806.2	181.0	-65.5	246.47	0.734	Level 1
14,100.0	7,138.9	14,196.6	7,284.1	197.3	197.3	143.71		-439.0	-6,906.2	181.4	-68.2	249.56	0.727	Level 1
14,200.0	7,138.4	14,296.6	7,284.1	200.1	200.1	143.80		-439.0	-7,006.2	181.7	-70.9	252.65	0.719	Level 1
14,277.2	7,138.0	14,373.8	7,284.0	202.3	202.3	143.86		-439.0	-7,083.4	182.0	-73.0	255.02	0.714	Level 1, ES, SF



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design      Tarin Existing Wells Sec.32-T4N-R66W - Farr Farms 1 (Existing) - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 ft	
Survey Program: 100-NS-GYRO-MS											Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
13,300.0	7,143.1	7,126.9	7,125.9	175.0	14.3	90.19	-337.6	-7,048.2	964.9	775.7	189.17	5.101		
13,400.0	7,142.6	7,126.9	7,125.9	177.8	14.3	90.20	-337.6	-7,048.2	867.5	675.6	191.96	4.519		
13,500.0	7,142.1	7,126.9	7,125.9	180.6	14.3	90.20	-337.6	-7,048.2	770.8	576.1	194.76	3.958		
13,600.0	7,141.5	7,127.0	7,125.9	183.4	14.3	90.20	-337.6	-7,048.2	675.1	477.6	197.55	3.417		
13,700.0	7,141.0	7,127.0	7,125.9	186.2	14.3	90.21	-337.6	-7,048.2	580.8	380.5	200.35	2.899		
13,800.0	7,140.5	7,127.0	7,126.0	189.0	14.3	90.21	-337.6	-7,048.2	488.8	285.7	203.14	2.406		
13,900.0	7,140.0	7,127.0	7,126.0	191.7	14.3	90.21	-337.6	-7,048.2	400.7	194.7	205.94	1.946		
14,000.0	7,139.5	7,127.0	7,126.0	194.5	14.3	90.22	-337.6	-7,048.2	319.6	110.9	208.74	1.531		
14,100.0	7,138.9	7,127.0	7,126.0	197.3	14.3	90.22	-337.6	-7,048.2	252.4	40.9	211.53	1.193 Level 2		
14,200.0	7,138.4	7,127.0	7,126.0	200.1	14.3	90.23	-337.6	-7,048.2	212.9	-1.4	214.33	0.993 Level 1		
14,242.0	7,138.2	7,127.0	7,126.0	201.3	14.3	90.23	-337.6	-7,048.2	208.7	-6.8	215.51	0.968 Level 1, CC, ES, SF		
14,277.2	7,138.0	7,127.0	7,126.0	202.3	14.3	90.23	-337.6	-7,048.2	211.6	-4.9	216.49	0.978 Level 1		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Tarin Existing Wells Sec.32-T4N-R66W - Glen 1 (Existing) - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 ft
<b>Survey Program:</b> 100-NS-GYRO-MS												<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,900.0	7,171.4	7,164.7	7,164.5	28.2	13.8	92.81	-203.8	-1,615.1	971.4	929.6	41.75	23.268	
8,000.0	7,170.9	7,162.3	7,162.0	30.5	13.8	92.40	-203.8	-1,615.2	878.5	834.5	44.06	19.942	
8,100.0	7,170.3	7,159.8	7,159.5	32.9	13.8	91.99	-203.8	-1,615.2	787.4	741.0	46.44	16.956	
8,200.0	7,169.8	7,157.4	7,157.1	35.3	13.8	91.59	-203.9	-1,615.3	698.7	649.9	48.89	14.293	
8,300.0	7,169.3	7,155.1	7,154.8	37.8	13.8	91.19	-203.9	-1,615.3	613.5	562.2	51.38	11.941	
8,400.0	7,168.8	7,152.7	7,152.4	40.3	13.8	90.80	-203.9	-1,615.4	533.5	479.6	53.91	9.895	
8,500.0	7,168.2	7,150.4	7,150.1	42.9	13.8	90.42	-204.0	-1,615.4	461.3	404.8	56.48	8.167	
8,600.0	7,167.7	7,148.1	7,147.9	45.5	13.8	90.04	-204.0	-1,615.4	401.2	342.1	59.07	6.791	
8,700.0	7,167.2	7,145.9	7,145.6	48.1	13.8	89.66	-204.0	-1,615.5	359.3	297.6	61.68	5.825	
8,800.0	7,166.7	7,143.7	7,143.4	50.8	13.8	89.29	-204.1	-1,615.5	342.4	278.1	64.31	5.324	
8,809.3	7,166.6	7,143.5	7,143.2	51.0	13.8	89.26	-204.1	-1,615.5	342.3	277.7	64.56	5.302 CC, ES	
8,900.0	7,166.2	7,141.5	7,141.2	53.4	13.8	88.93	-204.1	-1,615.5	354.1	287.1	66.96	5.288 SF	
9,000.0	7,165.6	7,139.3	7,139.1	56.1	13.8	88.57	-204.1	-1,615.6	391.8	322.2	69.61	5.628	
9,100.0	7,165.1	7,137.2	7,137.0	58.8	13.8	88.21	-204.1	-1,615.6	449.0	376.7	72.28	6.212	
9,200.0	7,164.6	7,135.1	7,134.9	61.5	13.7	87.86	-204.2	-1,615.6	519.3	444.4	74.95	6.929	
9,300.0	7,164.1	7,133.1	7,132.8	64.2	13.7	87.52	-204.2	-1,615.7	598.2	520.5	77.63	7.705	
9,400.0	7,163.5	7,131.0	7,130.7	66.9	13.7	87.17	-204.2	-1,615.7	682.6	602.2	80.31	8.498	
9,500.0	7,163.0	7,129.0	7,128.7	69.6	13.7	86.84	-204.2	-1,615.7	770.7	687.7	83.00	9.285	
9,600.0	7,162.5	7,127.0	7,126.7	72.3	13.7	86.51	-204.3	-1,615.8	861.4	775.7	85.69	10.052	
9,700.0	7,162.0	7,125.1	7,124.8	75.1	13.7	86.18	-204.3	-1,615.8	954.0	865.6	88.38	10.794	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Tarin Existing Wells Sec.32-T4N-R66W - Glen 44-32 (Existing) - Wellbore #1 - Wellbore #1		Offset Site Error: 0.0 ft	
Survey Program: 100-NS-GYRO-MS													Offset Well Error: 0.0 ft			
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)					
0.0	0.0	0.0	0.0	0.0	0.0	-151.31	-204.0	-111.6	233.0							
100.0	100.0	84.8	84.8	0.1	0.1	-151.21	-204.0	-112.1	232.8	232.6	0.23	1,033.869				
200.0	200.0	183.9	183.9	0.3	0.4	-150.94	-204.1	-113.4	233.5	232.8	0.69	337.558				
300.0	300.0	286.1	286.1	0.6	0.6	-150.67	-204.0	-114.7	234.0	232.9	1.17	199.887				
400.0	400.0	386.5	386.5	0.8	0.9	-150.35	-203.2	-115.7	233.8	232.2	1.64	142.401				
436.0	436.0	422.0	422.0	0.9	0.9	-150.22	-202.9	-116.1	233.8	232.0	1.81	128.968				
500.0	500.0	484.8	484.7	1.0	1.1	-150.02	-202.7	-116.9	234.0	231.9	2.12	110.491				
600.0	600.0	585.9	585.9	1.2	1.4	-149.70	-202.4	-118.2	234.4	231.8	2.60	90.017				
700.0	700.0	688.2	688.1	1.5	1.6	-149.35	-201.3	-119.3	234.0	230.9	3.06	76.458				
800.0	800.0	786.3	786.3	1.7	1.8	-149.13	-200.3	-119.7	233.4	229.8	3.51	66.499				
900.0	900.0	887.1	887.1	1.9	2.1	-148.80	-199.4	-120.8	233.2	229.2	3.99	58.413				
1,000.0	1,000.0	986.6	986.5	2.1	2.3	-148.45	-198.4	-121.8	232.8	228.3	4.47	52.040				
1,100.0	1,100.0	1,087.3	1,087.2	2.3	2.6	61.32	-197.7	-122.3	231.6	226.7	4.92	47.041				
1,200.0	1,199.8	1,186.8	1,186.7	2.5	2.8	62.76	-196.7	-122.8	228.7	223.3	5.35	42.731				
1,300.0	1,299.5	1,286.0	1,285.8	2.7	3.1	65.09	-195.9	-123.6	224.5	218.7	5.80	38.694				
1,400.0	1,398.7	1,385.7	1,385.6	2.9	3.4	68.46	-194.7	-124.7	219.4	213.2	6.28	34.933				
1,500.0	1,497.7	1,483.9	1,483.8	3.2	3.6	72.51	-193.3	-126.0	214.3	207.5	6.79	31.568				
1,600.0	1,596.6	1,582.7	1,582.6	3.5	3.9	76.69	-192.0	-127.2	210.4	203.1	7.32	28.748				
1,700.0	1,695.6	1,680.6	1,680.4	3.7	4.1	80.97	-190.8	-128.5	207.8	200.0	7.87	26.419				
1,800.0	1,794.5	1,779.1	1,778.9	4.0	4.4	85.41	-189.7	-130.2	206.8	198.4	8.43	24.537				
1,831.7	1,825.9	1,810.4	1,810.2	4.1	4.5	86.82	-189.3	-130.7	206.8	198.1	8.61	24.015 CC				
1,900.0	1,893.5	1,878.1	1,877.9	4.3	4.7	89.90	-188.4	-131.9	207.0	198.0	9.00	23.003 ES				
2,000.0	1,992.4	1,976.4	1,976.1	4.7	4.9	94.41	-186.9	-133.6	208.4	198.9	9.57	21.781				
2,100.0	2,091.4	2,075.5	2,075.2	5.0	5.2	98.94	-185.1	-135.6	211.3	201.1	10.14	20.837				
2,200.0	2,190.3	2,175.9	2,175.6	5.3	5.4	103.49	-182.8	-137.1	214.9	204.2	10.70	20.088				
2,300.0	2,289.3	2,277.9	2,277.6	5.6	5.7	107.89	-180.3	-137.4	218.5	207.3	11.21	19.485				
2,400.0	2,388.2	2,375.0	2,374.6	6.0	5.9	112.09	-177.2	-137.0	222.6	210.9	11.70	19.026				
2,500.0	2,487.2	2,475.3	2,474.8	6.3	6.1	116.39	-173.5	-137.1	228.4	216.3	12.18	18.752				
2,600.0	2,586.1	2,573.8	2,573.3	6.6	6.3	120.37	-169.9	-136.4	234.6	221.9	12.64	18.553				
2,700.0	2,685.1	2,672.2	2,671.6	7.0	6.5	124.05	-166.7	-135.9	242.0	228.9	13.10	18.478				
2,800.0	2,784.0	2,770.0	2,769.4	7.3	6.7	127.45	-163.6	-135.5	250.5	236.9	13.55	18.485				
2,900.0	2,883.0	2,870.0	2,869.3	7.7	6.9	130.74	-160.2	-135.1	259.9	245.9	13.99	18.570				
3,000.0	2,981.9	2,969.7	2,969.0	8.0	7.1	133.74	-157.2	-134.0	269.3	254.8	14.42	18.674				
3,100.0	3,080.9	3,071.7	3,070.8	8.4	7.3	136.65	-154.1	-132.3	278.8	264.0	14.82	18.819				
3,200.0	3,179.8	3,172.6	3,171.8	8.7	7.5	139.20	-152.1	-129.6	287.7	272.6	15.17	18.968				
3,300.0	3,278.8	3,268.9	3,268.0	9.1	7.6	141.29	-151.1	-127.4	297.2	281.6	15.52	19.152				
3,400.0	3,377.7	3,363.7	3,362.8	9.4	7.8	143.08	-150.3	-126.7	308.2	292.3	15.91	19.370				
3,500.0	3,476.7	3,458.2	3,457.3	9.8	8.0	144.58	-149.8	-127.4	320.9	304.6	16.35	19.623				
3,600.0	3,575.6	3,552.9	3,551.9	10.1	8.2	145.83	-149.5	-129.7	335.1	318.3	16.79	19.957				
3,700.0	3,674.6	3,650.0	3,649.0	10.5	8.4	146.84	-149.6	-133.4	350.4	333.2	17.22	20.347				
3,800.0	3,773.5	3,746.2	3,745.1	10.8	8.5	147.70	-150.0	-137.3	366.0	348.4	17.65	20.736				
3,900.0	3,872.5	3,840.8	3,839.5	11.2	8.7	148.43	-150.1	-142.3	382.9	364.8	18.09	21.170				
4,000.0	3,971.4	3,940.3	3,938.9	11.5	8.9	149.08	-150.3	-148.2	400.2	381.7	18.53	21.593				
4,100.0	4,070.4	4,039.2	4,037.7	11.9	9.1	149.66	-150.9	-153.4	416.9	397.9	18.98	21.963				
4,200.0	4,169.3	4,133.7	4,132.0	12.2	9.3	150.17	-151.1	-159.2	434.4	415.0	19.43	22.362				
4,300.0	4,268.3	4,232.2	4,230.3	12.6	9.6	150.72	-150.8	-165.1	452.3	432.4	19.89	22.740				
4,400.0	4,367.2	4,330.8	4,328.7	12.9	9.8	151.27	-150.2	-170.9	470.2	449.9	20.36	23.093				
4,500.0	4,466.2	4,429.2	4,427.0	13.3	10.0	151.83	-149.2	-176.3	488.1	467.2	20.84	23.424				
4,600.0	4,565.1	4,526.9	4,524.6	13.7	10.3	152.44	-147.6	-181.3	506.0	484.7	21.32	23.741				
4,700.0	4,664.1	4,626.8	4,624.3	14.0	10.5	153.15	-145.0	-185.8	524.0	502.2	21.80	24.037				
4,800.0	4,763.0	4,728.4	4,725.8	14.4	10.8	153.90	-142.2	-189.3	541.4	519.1	22.29	24.284				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design											Tarin Existing Wells Sec.32-T4N-R66W - Glen 44-32 (Existing) - Wellbore #1 - Wellbore #1		Offset Site Error:		0.0 ft
Survey Program: 100-NS-GYRO-MS													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface	Distance		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset		Offset Wellbore Centre								
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
4,900.0	4,862.0	4,825.2	4,822.5	14.7	11.1	154.66	-138.7	-192.2	558.9	536.1	22.77	24.545			
5,000.0	4,960.9	4,928.3	4,925.5	15.1	11.3	155.45	-135.0	-194.9	576.2	553.0	23.26	24.773			
5,100.0	5,059.9	5,036.7	5,033.9	15.4	11.6	156.20	-132.2	-196.7	592.3	568.5	23.76	24.925			
5,200.0	5,158.8	5,144.4	5,141.6	15.8	11.9	156.89	-130.7	-197.2	606.8	582.5	24.24	25.035			
5,300.0	5,257.8	5,243.0	5,240.1	16.2	12.1	157.56	-129.3	-196.4	620.4	595.7	24.66	25.159			
5,400.0	5,356.8	5,338.7	5,335.8	16.5	12.2	158.19	-127.7	-196.5	634.1	609.0	25.11	25.256			
5,500.0	5,456.3	5,442.9	5,439.9	16.7	12.5	158.78	-125.8	-195.9	644.3	618.8	25.52	25.246			
5,600.0	5,556.1	5,546.7	5,543.7	16.9	12.6	159.22	-124.3	-194.7	650.7	624.8	25.87	25.152			
5,700.0	5,656.0	5,651.4	5,648.5	17.0	12.7	159.54	-123.0	-192.8	653.1	627.0	26.15	24.980			
5,800.0	5,756.0	5,759.0	5,756.0	17.2	12.8	-49.52	-123.1	-190.8	652.0	622.5	29.52	22.084			
5,900.0	5,856.0	5,859.9	5,856.9	17.3	12.8	-49.42	-123.9	-188.1	649.5	619.8	29.70	21.865			
6,000.0	5,956.0	5,955.4	5,952.3	17.5	12.9	-49.41	-125.0	-186.7	647.6	617.7	29.87	21.677			
6,100.0	6,056.0	6,052.0	6,048.9	17.6	12.9	-49.44	-126.1	-185.9	646.3	616.2	30.05	21.506			
6,200.0	6,156.0	6,151.8	6,148.7	17.7	13.0	-49.41	-126.4	-185.0	645.3	615.0	30.25	21.331			
6,300.0	6,256.0	6,252.3	6,249.2	17.9	13.0	-49.48	-127.8	-184.6	644.2	613.7	30.45	21.156			
6,400.0	6,356.0	6,353.0	6,349.9	18.0	13.1	-49.59	-129.5	-184.6	643.0	612.4	30.65	20.983			
6,500.0	6,456.0	6,455.3	6,452.3	18.2	13.1	40.51	-131.1	-184.1	640.5	612.7	27.85	23.001			
6,600.0	6,555.1	6,552.9	6,549.8	18.3	13.2	41.83	-131.9	-182.6	629.3	601.6	27.73	22.697			
6,700.0	6,651.7	6,645.8	6,642.7	18.3	13.3	44.56	-131.3	-180.8	609.3	581.9	27.42	22.223			
6,800.0	6,744.2	6,733.4	6,730.2	18.3	13.4	48.80	-129.7	-178.6	581.7	554.6	27.10	21.466			
6,900.0	6,830.9	6,813.4	6,810.1	18.3	13.6	54.49	-127.2	-176.6	548.9	521.9	27.02	20.318			
7,000.0	6,910.4	6,891.1	6,887.9	18.2	13.7	61.77	-124.8	-175.4	513.2	485.7	27.45	18.697			
7,100.0	6,981.3	6,965.3	6,962.0	18.2	13.9	70.39	-123.2	-174.9	477.7	449.2	28.49	16.765			
7,200.0	7,042.4	7,029.0	7,025.7	18.2	14.0	79.08	-122.5	-174.5	447.1	417.2	29.87	14.967			
7,300.0	7,092.7	7,080.0	7,076.7	18.2	14.1	86.42	-122.1	-174.2	427.8	396.5	31.26	13.687			
7,359.8	7,117.2	7,104.6	7,101.2	18.2	14.2	89.71	-122.0	-174.0	424.3	392.2	32.11	13.215			
7,400.0	7,131.3	7,118.4	7,115.1	18.6	14.2	91.34	-121.9	-173.8	426.0	393.3	32.62	13.058			
7,500.0	7,157.5	7,144.0	7,140.6	20.1	14.2	93.21	-121.8	-173.6	445.0	410.9	34.14	13.034 SF			
7,600.0	7,170.9	7,150.0	7,146.7	21.9	14.2	90.80	-121.8	-173.5	484.2	448.3	35.90	13.486			
7,700.0	7,172.4	7,150.0	7,146.7	23.8	14.2	88.18	-121.8	-173.5	539.4	501.7	37.77	14.282			
7,800.0	7,171.9	7,150.0	7,146.7	25.9	14.2	88.18	-121.8	-173.5	606.2	566.4	39.86	15.210			
7,900.0	7,171.4	7,150.0	7,146.7	28.2	14.2	88.18	-121.8	-173.5	681.2	639.1	42.07	16.192			
8,000.0	7,170.9	7,150.0	7,146.7	30.5	14.2	88.18	-121.8	-173.5	762.0	717.6	44.38	17.168			
8,100.0	7,170.3	7,150.0	7,146.7	32.9	14.2	88.18	-121.8	-173.5	846.8	800.0	46.77	18.105			
8,200.0	7,169.8	7,150.4	7,147.1	35.3	14.2	88.23	-121.8	-173.5	934.7	885.4	49.23	18.987			

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Tarin Existing Wells Sec.32-T4N-R66W - Wolfe 1 (Existing) - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 ft
<b>Survey Program:</b> 100-NS-GYRO-MS												<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,300.0	7,164.1	7,149.9	7,148.6	64.2	14.0	91.02	-58.0	-2,893.1	926.1	848.2	77.97	11.878	
9,400.0	7,163.5	7,149.2	7,148.0	66.9	14.0	90.95	-58.0	-2,893.1	842.8	762.1	80.69	10.446	
9,500.0	7,163.0	7,148.6	7,147.4	69.6	14.0	90.87	-58.0	-2,893.1	763.5	680.1	83.41	9.154	
9,600.0	7,162.5	7,148.0	7,146.7	72.3	14.0	90.80	-58.0	-2,893.1	689.6	603.5	86.14	8.006	
9,700.0	7,162.0	7,147.4	7,146.1	75.1	14.0	90.72	-58.0	-2,893.1	623.1	534.2	88.87	7.011	
9,800.0	7,161.4	7,146.7	7,145.5	77.8	14.0	90.65	-57.9	-2,893.1	566.4	474.8	91.61	6.183	
9,900.0	7,160.9	7,146.1	7,144.9	80.5	14.0	90.58	-57.9	-2,893.1	522.9	428.6	94.36	5.542	
10,000.0	7,160.4	7,145.5	7,144.3	83.3	14.0	90.51	-57.9	-2,893.1	496.1	398.9	97.10	5.108	
10,086.9	7,159.9	7,145.0	7,143.8	85.7	14.0	90.45	-57.9	-2,893.1	488.4	388.9	99.50	4.909 CC	
10,100.0	7,159.9	7,145.0	7,143.7	86.0	14.0	90.44	-57.9	-2,893.1	488.6	388.7	99.86	4.893 ES	
10,200.0	7,159.3	7,144.4	7,143.1	88.8	14.0	90.37	-57.9	-2,893.1	501.3	398.7	102.61	4.885 SF	
10,300.0	7,158.8	7,143.8	7,142.5	91.5	14.0	90.31	-57.9	-2,893.1	532.8	427.5	105.37	5.057	
10,400.0	7,158.3	7,143.2	7,142.0	94.3	14.0	90.24	-57.9	-2,893.1	580.1	472.0	108.13	5.365	
10,500.0	7,157.8	7,142.7	7,141.4	97.1	14.0	90.17	-57.9	-2,893.1	639.7	528.8	110.89	5.768	
10,600.0	7,157.3	7,142.1	7,140.9	99.8	14.0	90.11	-57.9	-2,893.1	708.4	594.7	113.66	6.232	
10,700.0	7,156.7	7,141.5	7,140.3	102.6	14.0	90.04	-57.9	-2,893.1	783.8	667.4	116.43	6.732	
10,800.0	7,156.2	7,141.0	7,139.8	105.4	14.0	89.98	-57.9	-2,893.1	864.3	745.1	119.20	7.251	
10,900.0	7,155.7	7,140.5	7,139.2	108.1	14.0	89.92	-57.9	-2,893.1	948.5	826.5	121.97	7.776	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4791.0ft (RKB - 15')

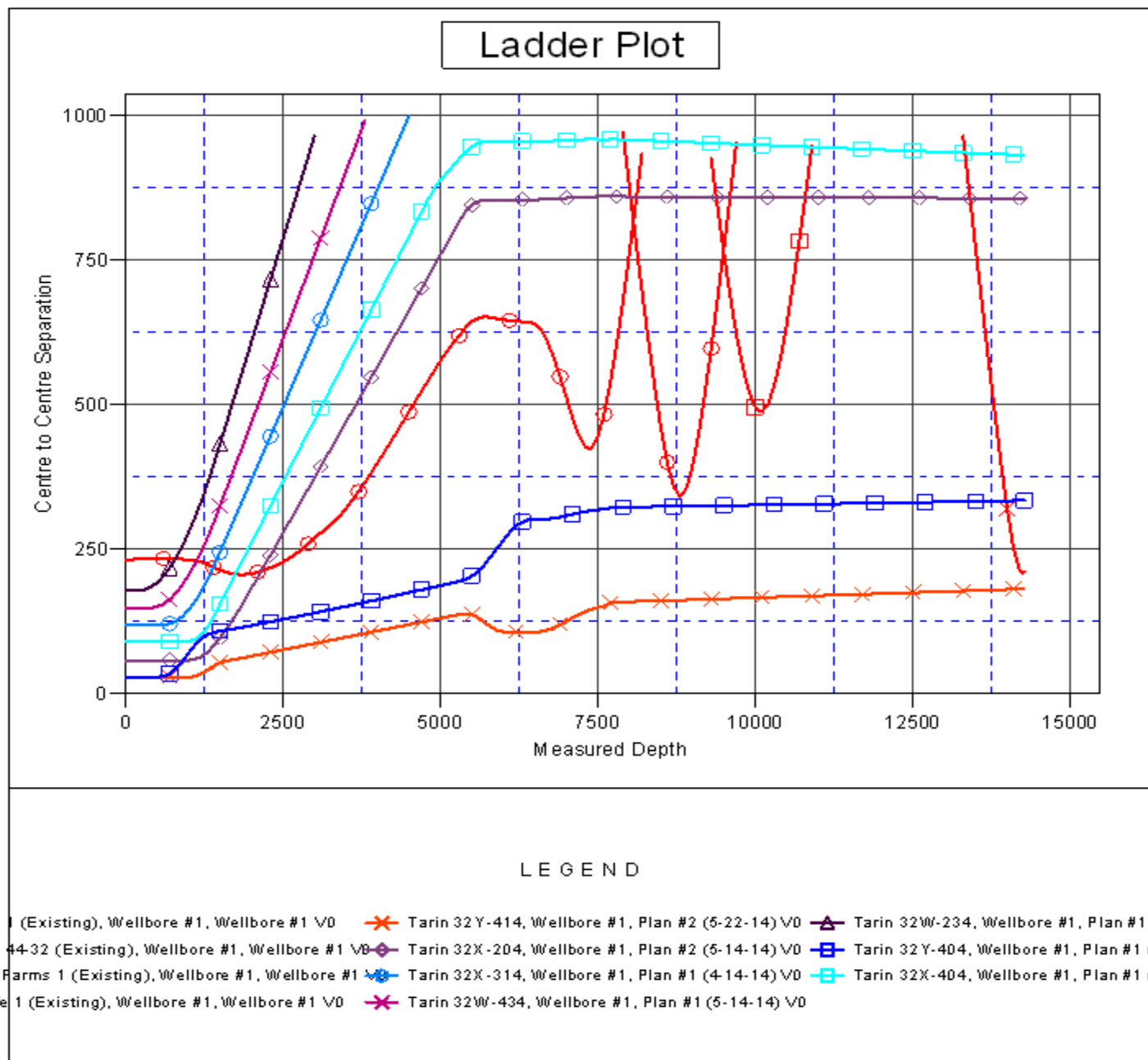
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Tarin 32Y-314

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.46°



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Tarin 32Y-314
<b>Project:</b>	SEC.32-T4N-R66W	<b>TVD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Reference Site:</b>	Tarin 32X-HZ Pad Sec.32-T4N-R66W	<b>MD Reference:</b>	WELL @ 4791.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tarin 32Y-314	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #2 (5-22-14)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4791.0ft (RKB - 15')  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °

Coordinates are relative to: Tarin 32Y-314  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.46°

