

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Harvesters Resources 15R-323**

Surface Location: Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
Ground Elevation: 4815.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1423919.71	3206833.67	40.494680	-104.756310	
RKB - 15' WELL @ 4830.0ft (RKB - 15')						

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape Point
BHL 500'FSL, 1044'FEL	7166.0	-4455.6	-434.0	Point

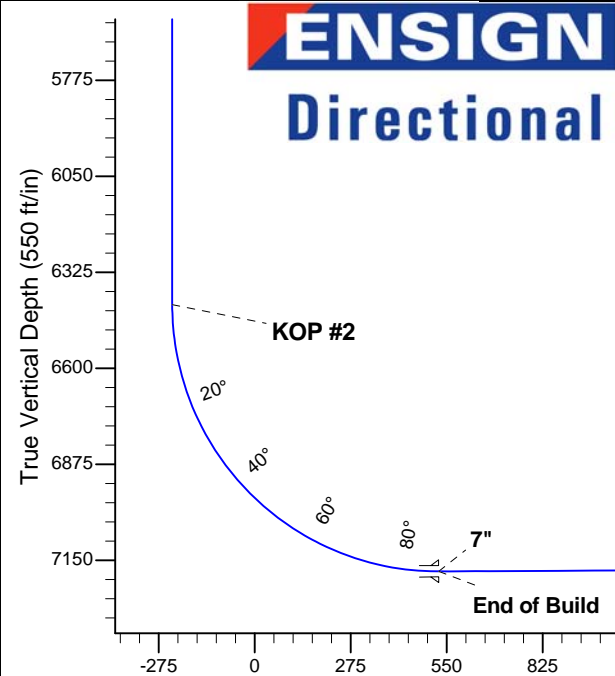
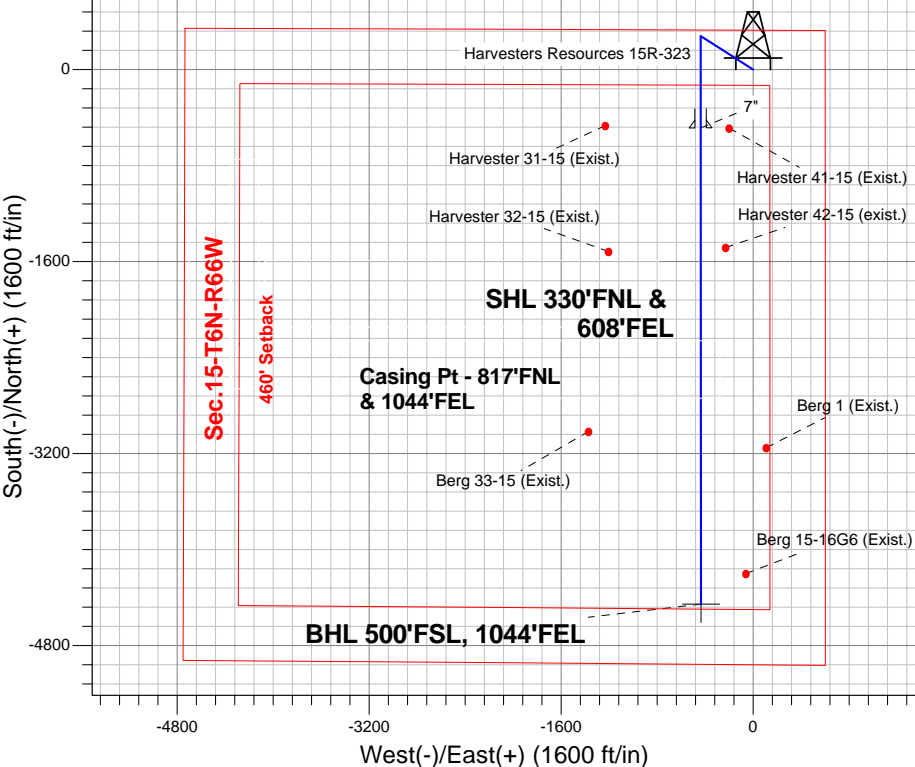


Azimuths to True North  
Magnetic North: 8.60°  
  
Magnetic Field  
Strength: 52972.2snT  
Dip Angle: 67.06°  
Date: 6/11/2013  
Model: IGRF2010

Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W  
Harvesters Resources 15R-323  
Plan #1 (6-11-13)  
9:48, June 11 2013

ANNOTATIONS

TVD	MD	Annotation
1200.0	1200.0	KOP #1
6418.0	6451.0	KOP #2
7181.9	7654.0	End of Build



SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target	
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0		
3	1576.2	7.52	302.71	1575.1	13.3	-20.8	2.00	302.71	-11.3		
4	5156.8	7.52	302.71	5124.9	266.7	-415.2	0.00	0.00	-225.2		
5	5533.0	0.00	0.00	5500.0	280.0	-436.0	2.00	180.00	-236.4		
6	6451.0	0.00	0.00	6418.0	280.0	-436.0	0.00	0.00	-236.4		
7	7654.0	90.23	179.98	7181.9	-487.0	-435.7	7.50	179.98	526.9		
8	16222.7	90.23	179.98	7166.0	-4455.6	-434.0	0.00	0.00	4476.7	BHL 500'FSL, 1044'FEL	

BHL 500'FSL, 1044'FEL



## **Directional**

# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.15-T6N-R66W**

**Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W**

**Harvesters Resources 15R-323**

**Wellbore #1**

**Plan: Plan #1 (6-11-13)**

## **Standard Planning Report**

**11 June, 2013**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Project:</b>	SEC.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Harvesters Resources 15R-323	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-11-13)		

<b>Project</b>	SEC.15-T6N-R66W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W					
Site Position:		Northing:		1,423,919.73ft	
From:		Easting:		3,206,833.67ft	
Position Uncertainty:		Slot Radius:		Grid Convergence:	
Lat/Long		"		°	
0.0 ft				0.48	

Well	Harvesters Resources 15R-323					
Well Position	+N-S	0.0 ft	Northing:	1,423,919.71 ft	Latitude:	40.494680
	+E-W	0.0 ft	Easting:	3,206,833.67 ft	Longitude:	-104.756310
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,815.0 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	6/11/2013	8.60	67.06	52,972

<b>Design</b>	Plan #1 (6-11-13)			
<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	185.56

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,576.2	7.52	302.71	1,575.1	13.3	-20.8	2.00	2.00	0.00	302.71	
5,156.8	7.52	302.71	5,124.9	266.7	-415.2	0.00	0.00	0.00	0.00	
5,533.0	0.00	0.00	5,500.0	280.0	-436.0	2.00	-2.00	0.00	180.00	
6,451.0	0.00	0.00	6,418.0	280.0	-436.0	0.00	0.00	0.00	0.00	
7,654.0	90.23	179.98	7,181.9	-487.0	-435.7	7.50	7.50	0.00	179.98	
11,622.7	90.23	179.98	7,166.0	-4,455.6	-434.0	0.00	0.00	0.00	0.00	BHL 500'FSL, 1044

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<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Project:</b>	SEC.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Harvesters Resources 15R-323	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-11-13)		

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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	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
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	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
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	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
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	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
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP #1</b>									
1,240.0	0.80	302.71	1,240.0	0.2	-0.2	-0.1	2.00	2.00	0.00
1,280.0	1.60	302.71	1,280.0	0.6	-0.9	-0.5	2.00	2.00	0.00
1,320.0	2.40	302.71	1,320.0	1.4	-2.1	-1.1	2.00	2.00	0.00
1,360.0	3.20	302.71	1,359.9	2.4	-3.8	-2.0	2.00	2.00	0.00
1,400.0	4.00	302.71	1,399.8	3.8	-5.9	-3.2	2.00	2.00	0.00
1,440.0	4.80	302.71	1,439.7	5.4	-8.5	-4.6	2.00	2.00	0.00
1,480.0	5.60	302.71	1,479.6	7.4	-11.5	-6.2	2.00	2.00	0.00
1,520.0	6.40	302.71	1,519.3	9.6	-15.0	-8.1	2.00	2.00	0.00
1,560.0	7.20	302.71	1,559.1	12.2	-19.0	-10.3	2.00	2.00	0.00
1,576.2	7.52	302.71	1,575.1	13.3	-20.8	-11.3	2.00	2.00	0.00
1,600.0	7.52	302.71	1,598.7	15.0	-23.4	-12.7	0.00	0.00	0.00
1,640.0	7.52	302.71	1,638.4	17.8	-27.8	-15.1	0.00	0.00	0.00
1,680.0	7.52	302.71	1,678.0	20.7	-32.2	-17.5	0.00	0.00	0.00
1,720.0	7.52	302.71	1,717.7	23.5	-36.6	-19.8	0.00	0.00	0.00
1,760.0	7.52	302.71	1,757.3	26.3	-41.0	-22.2	0.00	0.00	0.00
1,800.0	7.52	302.71	1,797.0	29.2	-45.4	-24.6	0.00	0.00	0.00
1,840.0	7.52	302.71	1,836.6	32.0	-49.8	-27.0	0.00	0.00	0.00
1,880.0	7.52	302.71	1,876.3	34.8	-54.2	-29.4	0.00	0.00	0.00
1,920.0	7.52	302.71	1,916.0	37.7	-58.6	-31.8	0.00	0.00	0.00
1,960.0	7.52	302.71	1,955.6	40.5	-63.0	-34.2	0.00	0.00	0.00

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<b>Project:</b>	SEC.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Harvesters Resources 15R-323	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-11-13)		

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)
2,000.0	7.52	302.71	1,995.3	43.3	-67.4	-36.6	0.00	0.00	0.00
2,040.0	7.52	302.71	2,034.9	46.1	-71.9	-39.0	0.00	0.00	0.00
2,080.0	7.52	302.71	2,074.6	49.0	-76.3	-41.4	0.00	0.00	0.00
2,120.0	7.52	302.71	2,114.2	51.8	-80.7	-43.7	0.00	0.00	0.00
2,160.0	7.52	302.71	2,153.9	54.6	-85.1	-46.1	0.00	0.00	0.00
2,200.0	7.52	302.71	2,193.5	57.5	-89.5	-48.5	0.00	0.00	0.00
2,240.0	7.52	302.71	2,233.2	60.3	-93.9	-50.9	0.00	0.00	0.00
2,280.0	7.52	302.71	2,272.9	63.1	-98.3	-53.3	0.00	0.00	0.00
2,320.0	7.52	302.71	2,312.5	66.0	-102.7	-55.7	0.00	0.00	0.00
2,360.0	7.52	302.71	2,352.2	68.8	-107.1	-58.1	0.00	0.00	0.00
2,400.0	7.52	302.71	2,391.8	71.6	-111.5	-60.5	0.00	0.00	0.00
2,440.0	7.52	302.71	2,431.5	74.4	-115.9	-62.9	0.00	0.00	0.00
2,480.0	7.52	302.71	2,471.1	77.3	-120.3	-65.3	0.00	0.00	0.00
2,520.0	7.52	302.71	2,510.8	80.1	-124.7	-67.6	0.00	0.00	0.00
2,560.0	7.52	302.71	2,550.4	82.9	-129.1	-70.0	0.00	0.00	0.00
2,600.0	7.52	302.71	2,590.1	85.8	-133.6	-72.4	0.00	0.00	0.00
2,640.0	7.52	302.71	2,629.8	88.6	-138.0	-74.8	0.00	0.00	0.00
2,680.0	7.52	302.71	2,669.4	91.4	-142.4	-77.2	0.00	0.00	0.00
2,720.0	7.52	302.71	2,709.1	94.3	-146.8	-79.6	0.00	0.00	0.00
2,760.0	7.52	302.71	2,748.7	97.1	-151.2	-82.0	0.00	0.00	0.00
2,800.0	7.52	302.71	2,788.4	99.9	-155.6	-84.4	0.00	0.00	0.00
2,840.0	7.52	302.71	2,828.0	102.7	-160.0	-86.8	0.00	0.00	0.00
2,880.0	7.52	302.71	2,867.7	105.6	-164.4	-89.1	0.00	0.00	0.00
2,920.0	7.52	302.71	2,907.4	108.4	-168.8	-91.5	0.00	0.00	0.00
2,960.0	7.52	302.71	2,947.0	111.2	-173.2	-93.9	0.00	0.00	0.00
3,000.0	7.52	302.71	2,986.7	114.1	-177.6	-96.3	0.00	0.00	0.00
3,040.0	7.52	302.71	3,026.3	116.9	-182.0	-98.7	0.00	0.00	0.00
3,080.0	7.52	302.71	3,066.0	119.7	-186.4	-101.1	0.00	0.00	0.00
3,120.0	7.52	302.71	3,105.6	122.6	-190.8	-103.5	0.00	0.00	0.00
3,160.0	7.52	302.71	3,145.3	125.4	-195.2	-105.9	0.00	0.00	0.00
3,200.0	7.52	302.71	3,184.9	128.2	-199.7	-108.3	0.00	0.00	0.00
3,240.0	7.52	302.71	3,224.6	131.0	-204.1	-110.7	0.00	0.00	0.00
3,280.0	7.52	302.71	3,264.3	133.9	-208.5	-113.0	0.00	0.00	0.00
3,320.0	7.52	302.71	3,303.9	136.7	-212.9	-115.4	0.00	0.00	0.00
3,360.0	7.52	302.71	3,343.6	139.5	-217.3	-117.8	0.00	0.00	0.00
3,400.0	7.52	302.71	3,383.2	142.4	-221.7	-120.2	0.00	0.00	0.00
3,440.0	7.52	302.71	3,422.9	145.2	-226.1	-122.6	0.00	0.00	0.00
3,480.0	7.52	302.71	3,462.5	148.0	-230.5	-125.0	0.00	0.00	0.00
3,520.0	7.52	302.71	3,502.2	150.9	-234.9	-127.4	0.00	0.00	0.00
3,560.0	7.52	302.71	3,541.8	153.7	-239.3	-129.8	0.00	0.00	0.00
3,600.0	7.52	302.71	3,581.5	156.5	-243.7	-132.2	0.00	0.00	0.00
3,640.0	7.52	302.71	3,621.2	159.4	-248.1	-134.6	0.00	0.00	0.00
3,680.0	7.52	302.71	3,660.8	162.2	-252.5	-136.9	0.00	0.00	0.00
3,720.0	7.52	302.71	3,700.5	165.0	-256.9	-139.3	0.00	0.00	0.00
3,760.0	7.52	302.71	3,740.1	167.8	-261.4	-141.7	0.00	0.00	0.00
3,800.0	7.52	302.71	3,779.8	170.7	-265.8	-144.1	0.00	0.00	0.00
3,840.0	7.52	302.71	3,819.4	173.5	-270.2	-146.5	0.00	0.00	0.00
3,880.0	7.52	302.71	3,859.1	176.3	-274.6	-148.9	0.00	0.00	0.00
3,920.0	7.52	302.71	3,898.7	179.2	-279.0	-151.3	0.00	0.00	0.00
3,960.0	7.52	302.71	3,938.4	182.0	-283.4	-153.7	0.00	0.00	0.00
4,000.0	7.52	302.71	3,978.1	184.8	-287.8	-156.1	0.00	0.00	0.00
4,040.0	7.52	302.71	4,017.7	187.7	-292.2	-158.4	0.00	0.00	0.00

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<b>Project:</b>	SEC.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Harvesters Resources 15R-323	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-11-13)		

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)
4,080.0	7.52	302.71	4,057.4	190.5	-296.6	-160.8	0.00	0.00	0.00
4,120.0	7.52	302.71	4,097.0	193.3	-301.0	-163.2	0.00	0.00	0.00
4,160.0	7.52	302.71	4,136.7	196.1	-305.4	-165.6	0.00	0.00	0.00
4,200.0	7.52	302.71	4,176.3	199.0	-309.8	-168.0	0.00	0.00	0.00
4,240.0	7.52	302.71	4,216.0	201.8	-314.2	-170.4	0.00	0.00	0.00
4,280.0	7.52	302.71	4,255.6	204.6	-318.6	-172.8	0.00	0.00	0.00
4,320.0	7.52	302.71	4,295.3	207.5	-323.1	-175.2	0.00	0.00	0.00
4,360.0	7.52	302.71	4,335.0	210.3	-327.5	-177.6	0.00	0.00	0.00
4,400.0	7.52	302.71	4,374.6	213.1	-331.9	-180.0	0.00	0.00	0.00
4,440.0	7.52	302.71	4,414.3	216.0	-336.3	-182.3	0.00	0.00	0.00
4,480.0	7.52	302.71	4,453.9	218.8	-340.7	-184.7	0.00	0.00	0.00
4,520.0	7.52	302.71	4,493.6	221.6	-345.1	-187.1	0.00	0.00	0.00
4,560.0	7.52	302.71	4,533.2	224.4	-349.5	-189.5	0.00	0.00	0.00
4,600.0	7.52	302.71	4,572.9	227.3	-353.9	-191.9	0.00	0.00	0.00
4,640.0	7.52	302.71	4,612.5	230.1	-358.3	-194.3	0.00	0.00	0.00
4,680.0	7.52	302.71	4,652.2	232.9	-362.7	-196.7	0.00	0.00	0.00
4,720.0	7.52	302.71	4,691.9	235.8	-367.1	-199.1	0.00	0.00	0.00
4,760.0	7.52	302.71	4,731.5	238.6	-371.5	-201.5	0.00	0.00	0.00
4,800.0	7.52	302.71	4,771.2	241.4	-375.9	-203.9	0.00	0.00	0.00
4,840.0	7.52	302.71	4,810.8	244.3	-380.3	-206.2	0.00	0.00	0.00
4,880.0	7.52	302.71	4,850.5	247.1	-384.8	-208.6	0.00	0.00	0.00
4,920.0	7.52	302.71	4,890.1	249.9	-389.2	-211.0	0.00	0.00	0.00
4,960.0	7.52	302.71	4,929.8	252.7	-393.6	-213.4	0.00	0.00	0.00
5,000.0	7.52	302.71	4,969.4	255.6	-398.0	-215.8	0.00	0.00	0.00
5,040.0	7.52	302.71	5,009.1	258.4	-402.4	-218.2	0.00	0.00	0.00
5,080.0	7.52	302.71	5,048.8	261.2	-406.8	-220.6	0.00	0.00	0.00
5,120.0	7.52	302.71	5,088.4	264.1	-411.2	-223.0	0.00	0.00	0.00
5,156.8	7.52	302.71	5,124.9	266.7	-415.2	-225.2	0.00	0.00	0.00
5,160.0	7.46	302.71	5,128.1	266.9	-415.6	-225.4	2.00	-2.00	0.00
5,200.0	6.66	302.71	5,167.8	269.6	-419.7	-227.6	2.00	-2.00	0.00
5,240.0	5.86	302.71	5,207.5	271.9	-423.4	-229.6	2.00	-2.00	0.00
5,280.0	5.06	302.71	5,247.3	274.0	-426.6	-231.3	2.00	-2.00	0.00
5,320.0	4.26	302.71	5,287.2	275.7	-429.3	-232.8	2.00	-2.00	0.00
5,360.0	3.46	302.71	5,327.1	277.2	-431.6	-234.0	2.00	-2.00	0.00
5,400.0	2.66	302.71	5,367.1	278.3	-433.4	-235.0	2.00	-2.00	0.00
5,440.0	1.86	302.71	5,407.0	279.2	-434.7	-235.7	2.00	-2.00	0.00
5,480.0	1.06	302.71	5,447.0	279.7	-435.6	-236.2	2.00	-2.00	0.00
5,520.0	0.26	302.71	5,487.0	280.0	-436.0	-236.4	2.00	-2.00	0.00
5,533.0	0.00	0.00	5,500.0	280.0	-436.0	-236.4	2.00	-2.00	0.00
5,560.0	0.00	0.00	5,527.0	280.0	-436.0	-236.4	0.00	0.00	0.00
5,600.0	0.00	0.00	5,567.0	280.0	-436.0	-236.4	0.00	0.00	0.00
5,640.0	0.00	0.00	5,607.0	280.0	-436.0	-236.4	0.00	0.00	0.00
5,680.0	0.00	0.00	5,647.0	280.0	-436.0	-236.4	0.00	0.00	0.00
5,720.0	0.00	0.00	5,687.0	280.0	-436.0	-236.4	0.00	0.00	0.00
5,760.0	0.00	0.00	5,727.0	280.0	-436.0	-236.4	0.00	0.00	0.00
5,800.0	0.00	0.00	5,767.0	280.0	-436.0	-236.4	0.00	0.00	0.00
5,840.0	0.00	0.00	5,807.0	280.0	-436.0	-236.4	0.00	0.00	0.00
5,880.0	0.00	0.00	5,847.0	280.0	-436.0	-236.4	0.00	0.00	0.00
5,920.0	0.00	0.00	5,887.0	280.0	-436.0	-236.4	0.00	0.00	0.00
5,960.0	0.00	0.00	5,927.0	280.0	-436.0	-236.4	0.00	0.00	0.00
6,000.0	0.00	0.00	5,967.0	280.0	-436.0	-236.4	0.00	0.00	0.00
6,040.0	0.00	0.00	6,007.0	280.0	-436.0	-236.4	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Project:</b>	SEC.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Harvesters Resources 15R-323	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-11-13)		

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)
6,080.0	0.00	0.00	6,047.0	280.0	-436.0	-236.4	0.00	0.00	0.00
6,120.0	0.00	0.00	6,087.0	280.0	-436.0	-236.4	0.00	0.00	0.00
6,160.0	0.00	0.00	6,127.0	280.0	-436.0	-236.4	0.00	0.00	0.00
6,200.0	0.00	0.00	6,167.0	280.0	-436.0	-236.4	0.00	0.00	0.00
6,240.0	0.00	0.00	6,207.0	280.0	-436.0	-236.4	0.00	0.00	0.00
6,280.0	0.00	0.00	6,247.0	280.0	-436.0	-236.4	0.00	0.00	0.00
6,320.0	0.00	0.00	6,287.0	280.0	-436.0	-236.4	0.00	0.00	0.00
6,360.0	0.00	0.00	6,327.0	280.0	-436.0	-236.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,367.0	280.0	-436.0	-236.4	0.00	0.00	0.00
6,440.0	0.00	0.00	6,407.0	280.0	-436.0	-236.4	0.00	0.00	0.00
6,451.0	0.00	0.00	6,418.0	280.0	-436.0	-236.4	0.00	0.00	0.00
<b>KOP #2</b>									
6,480.0	2.18	179.98	6,447.0	279.4	-436.0	-235.9	7.51	7.51	0.00
6,520.0	5.18	179.98	6,486.9	276.9	-436.0	-233.3	7.50	7.50	0.00
6,560.0	8.18	179.98	6,526.6	272.2	-436.0	-228.7	7.50	7.50	0.00
6,600.0	11.18	179.98	6,566.1	265.5	-436.0	-222.0	7.50	7.50	0.00
6,640.0	14.18	179.98	6,605.1	256.7	-436.0	-213.3	7.50	7.50	0.00
6,680.0	17.18	179.98	6,643.6	245.9	-436.0	-202.5	7.50	7.50	0.00
6,720.0	20.18	179.98	6,681.5	233.1	-436.0	-189.8	7.50	7.50	0.00
6,760.0	23.18	179.98	6,718.7	218.3	-436.0	-175.1	7.50	7.50	0.00
6,800.0	26.18	179.98	6,755.0	201.6	-436.0	-158.4	7.50	7.50	0.00
6,840.0	29.18	179.98	6,790.4	183.1	-436.0	-140.0	7.50	7.50	0.00
6,880.0	32.18	179.98	6,824.8	162.7	-435.9	-119.6	7.50	7.50	0.00
6,920.0	35.18	179.98	6,858.1	140.5	-435.9	-97.6	7.50	7.50	0.00
6,960.0	38.18	179.98	6,890.2	116.6	-435.9	-73.8	7.50	7.50	0.00
7,000.0	41.18	179.98	6,921.0	91.1	-435.9	-48.4	7.50	7.50	0.00
7,040.0	44.18	179.98	6,950.4	64.0	-435.9	-21.4	7.50	7.50	0.00
7,080.0	47.18	179.98	6,978.3	35.3	-435.9	7.1	7.50	7.50	0.00
7,120.0	50.18	179.98	7,004.7	5.3	-435.9	37.0	7.50	7.50	0.00
7,160.0	53.18	179.98	7,029.5	-26.1	-435.9	68.2	7.50	7.50	0.00
7,200.0	56.18	179.98	7,052.6	-58.7	-435.9	100.7	7.50	7.50	0.00
7,240.0	59.18	179.98	7,074.0	-92.5	-435.8	134.3	7.50	7.50	0.00
7,280.0	62.18	179.98	7,093.6	-127.4	-435.8	169.0	7.50	7.50	0.00
7,320.0	65.18	179.98	7,111.4	-163.2	-435.8	204.7	7.50	7.50	0.00
7,360.0	68.18	179.98	7,127.2	-199.9	-435.8	241.2	7.50	7.50	0.00
7,400.0	71.18	179.98	7,141.1	-237.5	-435.8	278.6	7.50	7.50	0.00
7,440.0	74.18	179.98	7,153.0	-275.6	-435.8	316.6	7.50	7.50	0.00
7,480.0	77.18	179.98	7,162.9	-314.4	-435.7	355.1	7.50	7.50	0.00
7,520.0	80.18	179.98	7,170.7	-353.6	-435.7	394.2	7.50	7.50	0.00
7,560.0	83.18	179.98	7,176.5	-393.2	-435.7	433.6	7.50	7.50	0.00
7,600.0	86.18	179.98	7,180.2	-433.0	-435.7	473.2	7.50	7.50	0.00
7,640.0	89.18	179.98	7,181.9	-473.0	-435.7	513.0	7.50	7.50	0.00
7,654.0	90.23	179.98	7,181.9	-487.0	-435.7	526.9	7.50	7.50	0.00
<b>End of Build - 7"</b>									
7,680.0	90.23	179.98	7,181.8	-513.0	-435.7	552.8	0.01	0.01	0.00
7,720.0	90.23	179.98	7,181.7	-553.0	-435.6	592.6	0.00	0.00	0.00
7,760.0	90.23	179.98	7,181.5	-593.0	-435.6	632.4	0.00	0.00	0.00
7,800.0	90.23	179.98	7,181.3	-633.0	-435.6	672.2	0.00	0.00	0.00
7,840.0	90.23	179.98	7,181.2	-673.0	-435.6	712.0	0.00	0.00	0.00
7,880.0	90.23	179.98	7,181.0	-713.0	-435.6	751.8	0.00	0.00	0.00
7,920.0	90.23	179.98	7,180.9	-753.0	-435.6	791.6	0.00	0.00	0.00
7,960.0	90.23	179.98	7,180.7	-793.0	-435.5	831.4	0.00	0.00	0.00



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Project:</b>	SEC.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Harvesters Resources 15R-323	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-11-13)		

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)
8,000.0	90.23	179.98	7,180.5	-833.0	-435.5	871.2	0.00	0.00	0.00
8,040.0	90.23	179.98	7,180.4	-873.0	-435.5	911.1	0.00	0.00	0.00
8,080.0	90.23	179.98	7,180.2	-913.0	-435.5	950.9	0.00	0.00	0.00
8,120.0	90.23	179.98	7,180.1	-953.0	-435.5	990.7	0.00	0.00	0.00
8,160.0	90.23	179.98	7,179.9	-993.0	-435.5	1,030.5	0.00	0.00	0.00
8,200.0	90.23	179.98	7,179.7	-1,033.0	-435.4	1,070.3	0.00	0.00	0.00
8,240.0	90.23	179.98	7,179.6	-1,073.0	-435.4	1,110.1	0.00	0.00	0.00
8,280.0	90.23	179.98	7,179.4	-1,113.0	-435.4	1,149.9	0.00	0.00	0.00
8,320.0	90.23	179.98	7,179.3	-1,153.0	-435.4	1,189.7	0.00	0.00	0.00
8,360.0	90.23	179.98	7,179.1	-1,193.0	-435.4	1,229.5	0.00	0.00	0.00
8,400.0	90.23	179.98	7,178.9	-1,233.0	-435.3	1,269.3	0.00	0.00	0.00
8,440.0	90.23	179.98	7,178.8	-1,273.0	-435.3	1,309.2	0.00	0.00	0.00
8,480.0	90.23	179.98	7,178.6	-1,313.0	-435.3	1,349.0	0.00	0.00	0.00
8,520.0	90.23	179.98	7,178.5	-1,353.0	-435.3	1,388.8	0.00	0.00	0.00
8,560.0	90.23	179.98	7,178.3	-1,393.0	-435.3	1,428.6	0.00	0.00	0.00
8,600.0	90.23	179.98	7,178.1	-1,433.0	-435.3	1,468.4	0.00	0.00	0.00
8,640.0	90.23	179.98	7,178.0	-1,473.0	-435.2	1,508.2	0.00	0.00	0.00
8,680.0	90.23	179.98	7,177.8	-1,513.0	-435.2	1,548.0	0.00	0.00	0.00
8,720.0	90.23	179.98	7,177.7	-1,553.0	-435.2	1,587.8	0.00	0.00	0.00
8,760.0	90.23	179.98	7,177.5	-1,593.0	-435.2	1,627.6	0.00	0.00	0.00
8,800.0	90.23	179.98	7,177.3	-1,633.0	-435.2	1,667.4	0.00	0.00	0.00
8,840.0	90.23	179.98	7,177.2	-1,673.0	-435.2	1,707.3	0.00	0.00	0.00
8,880.0	90.23	179.98	7,177.0	-1,713.0	-435.1	1,747.1	0.00	0.00	0.00
8,920.0	90.23	179.98	7,176.8	-1,753.0	-435.1	1,786.9	0.00	0.00	0.00
8,960.0	90.23	179.98	7,176.7	-1,793.0	-435.1	1,826.7	0.00	0.00	0.00
9,000.0	90.23	179.98	7,176.5	-1,833.0	-435.1	1,866.5	0.00	0.00	0.00
9,040.0	90.23	179.98	7,176.4	-1,873.0	-435.1	1,906.3	0.00	0.00	0.00
9,080.0	90.23	179.98	7,176.2	-1,913.0	-435.1	1,946.1	0.00	0.00	0.00
9,120.0	90.23	179.98	7,176.0	-1,953.0	-435.0	1,985.9	0.00	0.00	0.00
9,160.0	90.23	179.98	7,175.9	-1,993.0	-435.0	2,025.7	0.00	0.00	0.00
9,200.0	90.23	179.98	7,175.7	-2,033.0	-435.0	2,065.5	0.00	0.00	0.00
9,240.0	90.23	179.98	7,175.6	-2,073.0	-435.0	2,105.4	0.00	0.00	0.00
9,280.0	90.23	179.98	7,175.4	-2,113.0	-435.0	2,145.2	0.00	0.00	0.00
9,320.0	90.23	179.98	7,175.2	-2,152.9	-435.0	2,185.0	0.00	0.00	0.00
9,360.0	90.23	179.98	7,175.1	-2,192.9	-434.9	2,224.8	0.00	0.00	0.00
9,400.0	90.23	179.98	7,174.9	-2,232.9	-434.9	2,264.6	0.00	0.00	0.00
9,440.0	90.23	179.98	7,174.8	-2,272.9	-434.9	2,304.4	0.00	0.00	0.00
9,480.0	90.23	179.98	7,174.6	-2,312.9	-434.9	2,344.2	0.00	0.00	0.00
9,520.0	90.23	179.98	7,174.4	-2,352.9	-434.9	2,384.0	0.00	0.00	0.00
9,560.0	90.23	179.98	7,174.3	-2,392.9	-434.9	2,423.8	0.00	0.00	0.00
9,600.0	90.23	179.98	7,174.1	-2,432.9	-434.8	2,463.6	0.00	0.00	0.00
9,640.0	90.23	179.98	7,174.0	-2,472.9	-434.8	2,503.4	0.00	0.00	0.00
9,680.0	90.23	179.98	7,173.8	-2,512.9	-434.8	2,543.3	0.00	0.00	0.00
9,720.0	90.23	179.98	7,173.6	-2,552.9	-434.8	2,583.1	0.00	0.00	0.00
9,760.0	90.23	179.98	7,173.5	-2,592.9	-434.8	2,622.9	0.00	0.00	0.00
9,800.0	90.23	179.98	7,173.3	-2,632.9	-434.7	2,662.7	0.00	0.00	0.00
9,840.0	90.23	179.98	7,173.2	-2,672.9	-434.7	2,702.5	0.00	0.00	0.00
9,880.0	90.23	179.98	7,173.0	-2,712.9	-434.7	2,742.3	0.00	0.00	0.00
9,920.0	90.23	179.98	7,172.8	-2,752.9	-434.7	2,782.1	0.00	0.00	0.00
9,960.0	90.23	179.98	7,172.7	-2,792.9	-434.7	2,821.9	0.00	0.00	0.00
10,000.0	90.23	179.98	7,172.5	-2,832.9	-434.7	2,861.7	0.00	0.00	0.00
10,040.0	90.23	179.98	7,172.4	-2,872.9	-434.6	2,901.5	0.00	0.00	0.00



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Project:</b>	SEC.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Harvesters Resources 15R-323	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-11-13)		

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)
10,080.0	90.23	179.98	7,172.2	-2,912.9	-434.6	2,941.4	0.00	0.00	0.00
10,120.0	90.23	179.98	7,172.0	-2,952.9	-434.6	2,981.2	0.00	0.00	0.00
10,160.0	90.23	179.98	7,171.9	-2,992.9	-434.6	3,021.0	0.00	0.00	0.00
10,200.0	90.23	179.98	7,171.7	-3,032.9	-434.6	3,060.8	0.00	0.00	0.00
10,240.0	90.23	179.98	7,171.6	-3,072.9	-434.6	3,100.6	0.00	0.00	0.00
10,280.0	90.23	179.98	7,171.4	-3,112.9	-434.5	3,140.4	0.00	0.00	0.00
10,320.0	90.23	179.98	7,171.2	-3,152.9	-434.5	3,180.2	0.00	0.00	0.00
10,360.0	90.23	179.98	7,171.1	-3,192.9	-434.5	3,220.0	0.00	0.00	0.00
10,400.0	90.23	179.98	7,170.9	-3,232.9	-434.5	3,259.8	0.00	0.00	0.00
10,440.0	90.23	179.98	7,170.7	-3,272.9	-434.5	3,299.6	0.00	0.00	0.00
10,480.0	90.23	179.98	7,170.6	-3,312.9	-434.5	3,339.5	0.00	0.00	0.00
10,520.0	90.23	179.98	7,170.4	-3,352.9	-434.4	3,379.3	0.00	0.00	0.00
10,560.0	90.23	179.98	7,170.3	-3,392.9	-434.4	3,419.1	0.00	0.00	0.00
10,600.0	90.23	179.98	7,170.1	-3,432.9	-434.4	3,458.9	0.00	0.00	0.00
10,640.0	90.23	179.98	7,169.9	-3,472.9	-434.4	3,498.7	0.00	0.00	0.00
10,680.0	90.23	179.98	7,169.8	-3,512.9	-434.4	3,538.5	0.00	0.00	0.00
10,720.0	90.23	179.98	7,169.6	-3,552.9	-434.4	3,578.3	0.00	0.00	0.00
10,760.0	90.23	179.98	7,169.5	-3,592.9	-434.3	3,618.1	0.00	0.00	0.00
10,800.0	90.23	179.98	7,169.3	-3,632.9	-434.3	3,657.9	0.00	0.00	0.00
10,840.0	90.23	179.98	7,169.1	-3,672.9	-434.3	3,697.7	0.00	0.00	0.00
10,880.0	90.23	179.98	7,169.0	-3,712.9	-434.3	3,737.5	0.00	0.00	0.00
10,920.0	90.23	179.98	7,168.8	-3,752.9	-434.3	3,777.4	0.00	0.00	0.00
10,960.0	90.23	179.98	7,168.7	-3,792.9	-434.2	3,817.2	0.00	0.00	0.00
11,000.0	90.23	179.98	7,168.5	-3,832.9	-434.2	3,857.0	0.00	0.00	0.00
11,040.0	90.23	179.98	7,168.3	-3,872.9	-434.2	3,896.8	0.00	0.00	0.00
11,080.0	90.23	179.98	7,168.2	-3,912.9	-434.2	3,936.6	0.00	0.00	0.00
11,120.0	90.23	179.98	7,168.0	-3,952.9	-434.2	3,976.4	0.00	0.00	0.00
11,160.0	90.23	179.98	7,167.9	-3,992.9	-434.2	4,016.2	0.00	0.00	0.00
11,200.0	90.23	179.98	7,167.7	-4,032.9	-434.1	4,056.0	0.00	0.00	0.00
11,240.0	90.23	179.98	7,167.5	-4,072.9	-434.1	4,095.8	0.00	0.00	0.00
11,280.0	90.23	179.98	7,167.4	-4,112.9	-434.1	4,135.6	0.00	0.00	0.00
11,320.0	90.23	179.98	7,167.2	-4,152.9	-434.1	4,175.5	0.00	0.00	0.00
11,360.0	90.23	179.98	7,167.1	-4,192.9	-434.1	4,215.3	0.00	0.00	0.00
11,400.0	90.23	179.98	7,166.9	-4,232.9	-434.1	4,255.1	0.00	0.00	0.00
11,440.0	90.23	179.98	7,166.7	-4,272.9	-434.0	4,294.9	0.00	0.00	0.00
11,480.0	90.23	179.98	7,166.6	-4,312.9	-434.0	4,334.7	0.00	0.00	0.00
11,520.0	90.23	179.98	7,166.4	-4,352.9	-434.0	4,374.5	0.00	0.00	0.00
11,560.0	90.23	179.98	7,166.3	-4,392.9	-434.0	4,414.3	0.00	0.00	0.00
11,600.0	90.23	179.98	7,166.1	-4,432.9	-434.0	4,454.1	0.00	0.00	0.00
11,622.7	90.23	179.98	7,166.0	-4,455.6	-434.0	4,476.7	0.00	0.00	0.00
BHL 500'FSL, 1044'FEL									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
BHL 500'FSL, 1044'FI	0.00	0.00	7,166.0	-4,455.6	-434.0	1,419,460.80	3,206,437.10	40.482450	-104.757870
- plan hits target center									
- Point									

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Project:</b>	SEC.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Harvesters Resources 15R-323	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-11-13)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,654.0	7,181.9	7"	7	7-1/2	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,200.0	1,200.0	0.0	0.0	KOP #1	
6,451.0	6,418.0	280.0	-436.0	KOP #2	
7,654.0	7,181.9	-487.0	-435.7	End of Build	



## **Directional**

# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.15-T6N-R66W**

**Harvesters Resources 15UR-HZ Pad**

**Sec.15-T6N-R66W**

**Harvesters Resources 15R-323**

**Wellbore #1**

**Plan #1 (6-11-13)**

## **Anticollision Report**

**11 June, 2013**



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1 (6-11-13)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b> 6/11/2013			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	11,622.7	Plan #1 (6-11-13) (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
<b>Offset Well - Wellbore - Design</b>						
<b>Existing Wells</b>						
Berg 1 (Exist.) - Wellbore #1 - Wellbore #1	10,318.6	7,118.2	545.8	339.9	2.651	CC, ES, SF
Berg 15-16G6 (Exist.) - Wellbore #1 - Wellbore #1	11,367.8	7,114.0	375.7	150.2	1.666	CC, ES, SF
Berg 33-15 (Exist.) - Wellbore #1 - Wellbore #1	10,183.2	7,124.8	936.8	733.3	4.604	CC
Berg 33-15 (Exist.) - Wellbore #1 - Wellbore #1	10,200.0	7,124.7	936.9	733.1	4.598	ES
Berg 33-15 (Exist.) - Wellbore #1 - Wellbore #1	10,300.0	7,124.3	944.0	738.4	4.591	SF
Harvester 31-15 (Exist.) - Wellbore #1 - Wellbore #1	7,633.0	7,161.7	796.5	634.6	4.921	CC, ES
Harvester 31-15 (Exist.) - Wellbore #1 - Wellbore #1	7,654.0	7,161.9	796.7	634.7	4.916	SF
Harvester 32-15 (Exist.) - Wellbore #1 - Wellbore #1	8,682.2	7,147.8	769.2	592.3	4.348	CC
Harvester 32-15 (Exist.) - Wellbore #1 - Wellbore #1	8,700.0	7,147.7	769.4	592.2	4.342	ES, SF
Harvester 41-15 (Exist.) - Wellbore #1 - Wellbore #1	7,655.3	7,161.9	235.4	73.3	1.452	Level 3, CC, ES, SF
Harvester 42-15 (exist.) - Wellbore #1 - Wellbore #1	8,649.9	7,137.9	207.2	31.0	1.176	Level 2, CC, ES, SF
<b>Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W</b>						
Harvesters Resources 15R-403 - Wellbore #1 - Plan #1 (	800.0	800.0	30.6	27.3	9.166	CC, ES
Harvesters Resources 15R-403 - Wellbore #1 - Plan #1 (	11,623.5	11,719.8	347.0	178.8	2.063	SF
Harvesters Resources 15U-203 - Wellbore #1 - Plan #1 (	1,200.0	1,200.0	61.2	56.1	11.914	CC, ES
Harvesters Resources 15U-203 - Wellbore #1 - Plan #1 (	11,623.5	11,535.8	876.6	701.1	4.995	SF
Harvesters Resources 15U-443 - Wellbore #1 - Plan #1 (	1,200.0	1,200.0	30.6	25.5	5.957	CC, ES
Harvesters Resources 15U-443 - Wellbore #1 - Plan #1 (	11,623.5	11,678.3	427.3	255.3	2.484	SF

<b>Offset Design</b>	Existing Wells - Berg 1 (Exist.) - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 ft
<b>Survey Program:</b>	7300-UNKNOWN											<b>Offset Well Error:</b>	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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	177.98	-3,151.3	111.3	3,153.8				
100.0	100.0	47.0	47.0	0.1	0.9	177.98	-3,151.3	111.3	3,153.3	3,152.3	1.04	3,044.547	
200.0	200.0	147.0	147.0	0.3	2.9	177.98	-3,151.3	111.3	3,153.3	3,150.1	3.26	967.129	
300.0	300.0	247.0	247.0	0.5	4.9	177.98	-3,151.3	111.3	3,153.3	3,147.8	5.49	574.871	
400.0	400.0	347.0	347.0	0.8	6.9	177.98	-3,151.3	111.3	3,153.3	3,145.6	7.71	408.989	
500.0	500.0	447.0	447.0	1.0	8.9	177.98	-3,151.3	111.3	3,153.3	3,143.4	9.93	317.401	
600.0	600.0	547.0	547.0	1.2	10.9	177.98	-3,151.3	111.3	3,153.3	3,141.2	12.16	259.328	

CC - Min centre to center distance or covergent 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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Existing Wells - Berg 1 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN														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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
700.0	700.0	647.0	647.0	1.4	12.9	177.98	-3,151.3	111.3	3,153.3	3,138.9	14.38	219.219			
800.0	800.0	747.0	747.0	1.7	14.9	177.98	-3,151.3	111.3	3,153.3	3,136.7	16.61	189.855			
900.0	900.0	847.0	847.0	1.9	16.9	177.98	-3,151.3	111.3	3,153.3	3,134.5	18.83	167.428			
1,000.0	1,000.0	947.0	947.0	2.1	18.9	177.98	-3,151.3	111.3	3,153.3	3,132.3	21.06	149.740			
1,100.0	1,100.0	1,047.0	1,047.0	2.3	20.9	177.98	-3,151.3	111.3	3,153.3	3,130.0	23.28	135.432			
1,200.0	1,200.0	1,147.0	1,147.0	2.6	22.9	177.98	-3,151.3	111.3	3,153.3	3,127.8	25.51	123.620			
1,300.0	1,300.0	1,247.0	1,247.0	2.8	24.9	-124.74	-3,151.3	111.3	3,154.3	3,126.6	27.72	113.785			
1,400.0	1,399.8	1,346.8	1,346.8	3.0	26.9	-124.77	-3,151.3	111.3	3,157.3	3,127.4	29.92	105.530			
1,500.0	1,499.5	1,446.5	1,446.5	3.2	28.9	-124.82	-3,151.3	111.3	3,162.3	3,130.2	32.10	98.501			
1,576.2	1,575.1	1,522.1	1,522.1	3.4	30.4	-124.86	-3,151.3	111.3	3,167.4	3,133.7	33.76	93.819			
1,600.0	1,598.7	1,545.7	1,545.7	3.5	30.9	-124.91	-3,151.3	111.3	3,169.2	3,134.9	34.29	92.424			
1,700.0	1,697.9	1,644.9	1,644.9	3.7	32.9	-125.10	-3,151.3	111.3	3,176.8	3,140.3	36.52	86.996			
1,800.0	1,797.0	1,744.0	1,744.0	4.0	34.9	-125.29	-3,151.3	111.3	3,184.4	3,145.6	38.75	82.175			
1,900.0	1,896.1	1,843.1	1,843.1	4.3	36.9	-125.49	-3,151.3	111.3	3,192.0	3,151.0	40.99	77.868			
2,000.0	1,995.3	1,942.3	1,942.3	4.6	38.8	-125.68	-3,151.3	111.3	3,199.7	3,156.4	43.24	74.001			
2,100.0	2,094.4	2,041.4	2,041.4	4.9	40.8	-125.86	-3,151.3	111.3	3,207.4	3,161.9	45.49	70.509			
2,200.0	2,193.5	2,140.5	2,140.5	5.2	42.8	-126.05	-3,151.3	111.3	3,215.1	3,167.3	47.74	67.343			
2,300.0	2,292.7	2,239.7	2,239.7	5.5	44.8	-126.24	-3,151.3	111.3	3,222.9	3,172.9	50.00	64.459			
2,400.0	2,391.8	2,338.8	2,338.8	5.8	46.8	-126.43	-3,151.3	111.3	3,230.7	3,178.4	52.26	61.822			
2,500.0	2,491.0	2,438.0	2,438.0	6.1	48.8	-126.61	-3,151.3	111.3	3,238.5	3,184.0	54.52	59.402			
2,600.0	2,590.1	2,537.1	2,537.1	6.4	50.7	-126.80	-3,151.3	111.3	3,246.4	3,189.6	56.78	57.175			
2,700.0	2,689.2	2,636.2	2,636.2	6.7	52.7	-126.98	-3,151.3	111.3	3,254.3	3,195.2	59.04	55.117			
2,800.0	2,788.4	2,735.4	2,735.4	7.0	54.7	-127.16	-3,151.3	111.3	3,262.2	3,200.9	61.31	53.211			
2,900.0	2,887.5	2,834.5	2,834.5	7.3	56.7	-127.34	-3,151.3	111.3	3,270.2	3,206.6	63.57	51.440			
3,000.0	2,986.7	2,933.7	2,933.7	7.6	58.7	-127.52	-3,151.3	111.3	3,278.2	3,212.3	65.84	49.792			
3,100.0	3,085.8	3,032.8	3,032.8	8.0	60.7	-127.70	-3,151.3	111.3	3,286.2	3,218.1	68.10	48.253			
3,200.0	3,184.9	3,131.9	3,131.9	8.3	62.6	-127.88	-3,151.3	111.3	3,294.3	3,223.9	70.37	46.814			
3,300.0	3,284.1	3,231.1	3,231.1	8.6	64.6	-128.06	-3,151.3	111.3	3,302.4	3,229.7	72.64	45.464			
3,400.0	3,383.2	3,330.2	3,330.2	8.9	66.6	-128.24	-3,151.3	111.3	3,310.5	3,235.6	74.90	44.197			
3,500.0	3,482.4	3,429.4	3,429.4	9.3	68.6	-128.42	-3,151.3	111.3	3,318.7	3,241.5	77.17	43.005			
3,600.0	3,581.5	3,528.5	3,528.5	9.6	70.6	-128.59	-3,151.3	111.3	3,326.9	3,247.4	79.44	41.881			
3,700.0	3,680.6	3,627.6	3,627.6	9.9	72.6	-128.77	-3,151.3	111.3	3,335.1	3,253.4	81.70	40.819			
3,800.0	3,779.8	3,726.8	3,726.8	10.2	74.5	-128.94	-3,151.3	111.3	3,343.3	3,259.4	83.97	39.816			
3,900.0	3,878.9	3,825.9	3,825.9	10.6	76.5	-129.11	-3,151.3	111.3	3,351.6	3,265.4	86.24	38.865			
4,000.0	3,978.1	3,925.1	3,925.1	10.9	78.5	-129.29	-3,151.3	111.3	3,360.0	3,271.5	88.50	37.964			
4,100.0	4,077.2	4,024.2	4,024.2	11.2	80.5	-129.46	-3,151.3	111.3	3,368.3	3,277.5	90.77	37.108			
4,200.0	4,176.3	4,123.3	4,123.3	11.5	82.5	-129.63	-3,151.3	111.3	3,376.7	3,283.6	93.04	36.294			
4,300.0	4,275.5	4,222.5	4,222.5	11.9	84.4	-129.80	-3,151.3	111.3	3,385.1	3,289.8	95.30	35.520			
4,400.0	4,374.6	4,321.6	4,321.6	12.2	86.4	-129.97	-3,151.3	111.3	3,393.5	3,296.0	97.57	34.781			
4,500.0	4,473.7	4,420.7	4,420.7	12.5	88.4	-130.14	-3,151.3	111.3	3,402.0	3,302.2	99.83	34.077			
4,600.0	4,572.9	4,519.9	4,519.9	12.8	90.4	-130.30	-3,151.3	111.3	3,410.5	3,308.4	102.10	33.404			
4,700.0	4,672.0	4,619.0	4,619.0	13.2	92.4	-130.47	-3,151.3	111.3	3,419.0	3,314.7	104.36	32.761			
4,800.0	4,771.2	4,718.2	4,718.2	13.5	94.4	-130.64	-3,151.3	111.3	3,427.6	3,321.0	106.63	32.146			
4,900.0	4,870.3	4,817.3	4,817.3	13.8	96.3	-130.80	-3,151.3	111.3	3,436.2	3,327.3	108.89	31.556			
5,000.0	4,969.4	4,916.4	4,916.4	14.2	98.3	-130.96	-3,151.3	111.3	3,444.8	3,333.6	111.15	30.991			
5,100.0	5,068.6	5,015.6	5,015.6	14.5	100.3	-131.13	-3,151.3	111.3	3,453.4	3,340.0	113.42	30.449			
5,156.8	5,124.9	5,071.9	5,071.9	14.7	101.4	-131.22	-3,151.3	111.3	3,458.3	3,343.6	114.70	30.150			
5,200.0	5,167.8	5,114.8	5,114.8	14.8	102.3	-131.34	-3,151.3	111.3	3,461.9	3,346.1	115.74	29.910			
5,300.0	5,267.3	5,214.3	5,214.3	15.0	104.3	-131.56	-3,151.3	111.3	3,468.4	3,350.3	118.07	29.375			
5,400.0	5,367.1	5,314.1	5,314.1	15.2	106.3	-131.70	-3,151.3	111.3	3,472.7	3,352.3	120.34	28.857			
5,500.0	5,467.0	5,414.0	5,414.0	15.4	108.3	-131.77	-3,151.3	111.3	3,474.6	3,352.1	122.53	28.356			

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells - Berg 1 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 7300-UNKNOWN													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation	Warning	
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Centres (ft)	Ellipses (ft)	Separation (ft)	Factor		
5,533.0	5,500.0	5,447.0	5,447.0	15.4	108.9	170.94	-3,151.3	111.3	3,474.7	3,351.5	123.24	28.194		
5,600.0	5,567.0	5,514.0	5,514.0	15.5	110.3	170.94	-3,151.3	111.3	3,474.7	3,350.0	124.70	27.866		
5,700.0	5,667.0	5,614.0	5,614.0	15.7	112.3	170.94	-3,151.3	111.3	3,474.7	3,347.8	126.88	27.386		
5,800.0	5,767.0	5,714.0	5,714.0	15.9	114.3	170.94	-3,151.3	111.3	3,474.7	3,345.6	129.07	26.922		
5,900.0	5,867.0	5,814.0	5,814.0	16.0	116.3	170.94	-3,151.3	111.3	3,474.7	3,343.5	131.26	26.473		
6,000.0	5,967.0	5,914.0	5,914.0	16.2	118.3	170.94	-3,151.3	111.3	3,474.7	3,341.3	133.44	26.039		
6,100.0	6,067.0	6,014.0	6,014.0	16.4	120.3	170.94	-3,151.3	111.3	3,474.7	3,339.1	135.63	25.618		
6,200.0	6,167.0	6,114.0	6,114.0	16.6	122.3	170.94	-3,151.3	111.3	3,474.7	3,336.9	137.82	25.211		
6,300.0	6,267.0	6,214.0	6,214.0	16.8	124.3	170.94	-3,151.3	111.3	3,474.7	3,334.7	140.02	24.816		
6,400.0	6,367.0	6,314.0	6,314.0	16.9	126.3	170.94	-3,151.3	111.3	3,474.7	3,332.5	142.21	24.434		
6,451.0	6,418.0	6,365.0	6,365.0	17.0	127.3	170.94	-3,151.3	111.3	3,474.7	3,331.4	143.33	24.243		
6,500.0	6,467.0	6,414.0	6,414.0	17.1	128.3	-9.06	-3,151.3	111.3	3,473.2	3,329.1	144.06	24.108		
6,550.0	6,516.7	6,463.7	6,463.7	17.2	129.3	-9.13	-3,151.3	111.3	3,468.4	3,324.2	144.21	24.051		
6,600.0	6,566.1	6,513.1	6,513.1	17.2	130.3	-9.25	-3,151.3	111.3	3,460.4	3,316.7	143.74	24.075		
6,650.0	6,614.8	6,561.8	6,561.8	17.2	131.2	-9.42	-3,151.3	111.3	3,449.3	3,306.6	142.64	24.182		
6,700.0	6,662.6	6,609.6	6,609.6	17.2	132.2	-9.64	-3,151.3	111.3	3,435.0	3,294.1	140.92	24.375		
6,750.0	6,709.4	6,656.4	6,656.4	17.2	133.1	-9.93	-3,151.3	111.3	3,417.7	3,279.1	138.58	24.661		
6,800.0	6,755.0	6,702.0	6,702.0	17.2	134.0	-10.28	-3,151.3	111.3	3,397.4	3,261.7	135.64	25.046		
6,850.0	6,799.1	6,746.1	6,746.1	17.2	134.9	-10.71	-3,151.3	111.3	3,374.2	3,242.0	132.12	25.539		
6,900.0	6,841.6	6,788.6	6,788.6	17.2	135.8	-11.23	-3,151.3	111.3	3,348.2	3,220.1	128.05	26.148		
6,950.0	6,882.3	6,829.3	6,829.3	17.2	136.6	-11.85	-3,151.3	111.3	3,319.5	3,196.0	123.48	26.884		
7,000.0	6,921.0	6,868.0	6,868.0	17.2	137.4	-12.61	-3,151.3	111.3	3,288.3	3,169.8	118.47	27.756		
7,050.0	6,957.5	6,904.5	6,904.5	17.2	138.1	-13.51	-3,151.3	111.3	3,254.6	3,141.5	113.13	28.768		
7,100.0	6,991.7	6,938.7	6,938.7	17.2	138.8	-14.61	-3,151.3	111.3	3,218.7	3,111.1	107.61	29.912		
7,150.0	7,023.5	6,970.5	6,970.5	17.2	139.4	-15.94	-3,151.3	111.3	3,180.7	3,078.6	102.10	31.154		
7,200.0	7,052.6	6,999.6	6,999.6	17.2	140.0	-17.59	-3,151.3	111.3	3,140.7	3,043.7	96.92	32.406		
7,250.0	7,079.1	7,026.1	7,026.1	17.3	140.5	-19.65	-3,151.3	111.3	3,098.9	3,006.4	92.54	33.487		
7,300.0	7,102.7	7,049.7	7,049.7	17.4	141.0	-22.26	-3,151.3	111.3	3,055.5	2,965.9	89.67	34.075		
7,350.0	7,123.4	7,070.4	7,070.4	17.5	141.4	-25.65	-3,151.3	111.3	3,010.8	2,921.5	89.29	33.719		
7,400.0	7,141.1	7,088.1	7,088.1	17.7	141.8	-30.13	-3,151.3	111.3	2,964.8	2,872.2	92.64	32.005		
7,450.0	7,155.7	7,102.7	7,102.7	18.0	142.1	-36.21	-3,151.3	111.3	2,917.8	2,816.8	100.98	28.896		
7,500.0	7,167.1	7,114.1	7,114.1	18.3	142.3	-44.61	-3,151.3	111.3	2,870.0	2,754.9	115.07	24.942		
7,550.0	7,175.3	7,122.3	7,122.3	18.7	142.4	-56.24	-3,151.3	111.3	2,821.6	2,687.7	133.93	21.069		
7,600.0	7,180.2	7,127.2	7,127.2	19.2	142.5	-71.63	-3,151.3	111.3	2,772.8	2,620.3	152.51	18.181		
7,654.0	7,181.9	7,128.9	7,128.9	19.7	142.6	-91.12	-3,151.3	111.3	2,719.9	2,558.5	161.42	16.850		
7,700.0	7,181.7	7,128.7	7,128.7	20.2	142.6	-91.10	-3,151.3	111.3	2,674.9	2,513.0	161.91	16.521		
7,800.0	7,181.3	7,128.3	7,128.3	21.3	142.6	-91.06	-3,151.3	111.3	2,577.1	2,414.0	163.07	15.804		
7,900.0	7,180.9	7,127.9	7,127.9	22.5	142.6	-91.02	-3,151.3	111.3	2,479.4	2,315.1	164.34	15.088		
8,000.0	7,180.5	7,127.5	7,127.5	23.9	142.6	-90.98	-3,151.3	111.3	2,382.0	2,216.3	165.69	14.376		
8,100.0	7,180.1	7,127.1	7,127.1	25.3	142.5	-90.93	-3,151.3	111.3	2,284.8	2,117.6	167.13	13.671		
8,200.0	7,179.7	7,126.7	7,126.7	26.8	142.5	-90.89	-3,151.3	111.3	2,187.8	2,019.2	168.62	12.975		
8,300.0	7,179.3	7,126.3	7,126.3	28.3	142.5	-90.85	-3,151.3	111.3	2,091.1	1,920.9	170.17	12.288		
8,400.0	7,178.9	7,125.9	7,125.9	29.9	142.5	-90.81	-3,151.3	111.3	1,994.7	1,823.0	171.76	11.614		
8,500.0	7,178.5	7,125.5	7,125.5	31.5	142.5	-90.77	-3,151.3	111.3	1,898.8	1,725.4	173.39	10.951		
8,600.0	7,178.1	7,125.1	7,125.1	33.1	142.5	-90.72	-3,151.3	111.3	1,803.2	1,628.2	175.05	10.301		
8,700.0	7,177.7	7,124.7	7,124.7	34.8	142.5	-90.68	-3,151.3	111.3	1,708.2	1,531.4	176.73	9.665		
8,800.0	7,177.3	7,124.3	7,124.3	36.5	142.5	-90.64	-3,151.3	111.3	1,613.7	1,435.3	178.44	9.044		
8,900.0	7,176.9	7,123.9	7,123.9	38.2	142.5	-90.60	-3,151.3	111.3	1,520.0	1,339.8	180.17	8.437		
9,000.0	7,176.5	7,123.5	7,123.5	39.9	142.5	-90.56	-3,151.3	111.3	1,427.1	1,245.2	181.92	7.845		
9,100.0	7,176.1	7,123.1	7,123.1	41.7	142.5	-90.51	-3,151.3	111.3	1,335.3	1,151.6	183.68	7.270		

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Existing Wells - Berg 1 (Exist.) - Wellbore #1 - Wellbore #1											Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN													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)			
9,200.0	7,175.7	7,122.7	7,122.7	43.4	142.5	-90.47	-3,151.3	111.3	1,244.7	1,059.2	185.45	6.712		
9,300.0	7,175.3	7,122.3	7,122.3	45.2	142.4	-90.43	-3,151.3	111.3	1,155.6	968.4	187.24	6.172		
9,400.0	7,174.9	7,121.9	7,121.9	47.0	142.4	-90.39	-3,151.3	111.3	1,068.5	879.5	189.03	5.653		
9,500.0	7,174.5	7,121.5	7,121.5	48.8	142.4	-90.34	-3,151.3	111.3	983.9	793.1	190.84	5.156		
9,600.0	7,174.1	7,121.1	7,121.1	50.6	142.4	-90.30	-3,151.3	111.3	902.4	709.7	192.65	4.684		
9,700.0	7,173.7	7,120.7	7,120.7	52.4	142.4	-90.26	-3,151.3	111.3	825.0	630.5	194.47	4.242		
9,800.0	7,173.3	7,120.3	7,120.3	54.3	142.4	-90.22	-3,151.3	111.3	752.9	556.6	196.30	3.836		
9,900.0	7,172.9	7,119.9	7,119.9	56.1	142.4	-90.18	-3,151.3	111.3	687.9	489.7	198.13	3.472		
10,000.0	7,172.5	7,119.5	7,119.5	57.9	142.4	-90.13	-3,151.3	111.3	632.0	432.0	199.97	3.160		
10,100.0	7,172.1	7,119.1	7,119.1	59.8	142.4	-90.09	-3,151.3	111.3	588.0	386.1	201.81	2.913		
10,200.0	7,171.7	7,118.7	7,118.7	61.6	142.4	-90.05	-3,151.3	111.3	558.5	354.9	203.66	2.742		
10,300.0	7,171.3	7,118.3	7,118.3	63.5	142.4	-90.01	-3,151.3	111.3	546.1	340.6	205.51	2.657		
10,318.6	7,171.2	7,118.2	7,118.2	63.8	142.4	-90.00	-3,151.3	111.3	545.8	339.9	205.86	2.651	CC, ES, SF	
10,400.0	7,170.9	7,117.9	7,117.9	65.3	142.4	-89.97	-3,151.3	111.3	551.8	344.5	207.37	2.661		
10,500.0	7,170.5	7,117.5	7,117.5	67.2	142.4	-89.92	-3,151.3	111.3	575.1	365.9	209.22	2.749		
10,600.0	7,170.1	7,117.1	7,117.1	69.0	142.3	-89.88	-3,151.3	111.3	614.0	403.0	211.09	2.909		
10,700.0	7,169.7	7,116.7	7,116.7	70.9	142.3	-89.84	-3,151.3	111.3	665.8	452.9	212.95	3.127		
10,800.0	7,169.3	7,116.3	7,116.3	72.8	142.3	-89.80	-3,151.3	111.3	727.7	512.9	214.82	3.388		
10,900.0	7,168.9	7,115.9	7,115.9	74.7	142.3	-89.76	-3,151.3	111.3	797.4	580.7	216.68	3.680		
11,000.0	7,168.5	7,115.5	7,115.5	76.5	142.3	-89.71	-3,151.3	111.3	873.0	654.4	218.55	3.994		
11,100.0	7,168.1	7,115.1	7,115.1	78.4	142.3	-89.67	-3,151.3	111.3	953.1	732.7	220.43	4.324		
11,200.0	7,167.7	7,114.7	7,114.7	80.3	142.3	-89.63	-3,151.3	111.3	1,036.7	814.4	222.30	4.663		
11,300.0	7,167.3	7,114.3	7,114.3	82.2	142.3	-89.59	-3,151.3	111.3	1,122.9	898.7	224.18	5.009		
11,400.0	7,166.9	7,113.9	7,113.9	84.0	142.3	-89.54	-3,151.3	111.3	1,211.3	985.2	226.06	5.358		
11,500.0	7,166.5	7,113.5	7,113.5	85.9	142.3	-89.50	-3,151.3	111.3	1,301.3	1,073.4	227.94	5.709		
11,600.0	7,166.1	7,113.1	7,113.1	87.8	142.3	-89.46	-3,151.3	111.3	1,392.7	1,162.9	229.82	6.060		
11,622.7	7,166.0	7,113.0	7,113.0	88.2	142.3	-89.45	-3,151.3	111.3	1,413.6	1,183.4	230.24	6.140		
11,623.5	7,166.0	7,113.0	7,113.0	88.3	142.3	-89.45	-3,151.3	111.3	1,414.4	1,184.2	230.26	6.143		



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Existing Wells - Berg 15-16G6 (Exist.) - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 ft	
Survey Program: 7300-UNKNOWN														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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
0.0	0.0	0.0	0.0	0.0	0.0	-179.20	-4,200.6	-58.4	4,201.3							
100.0	100.0	47.0	47.0	0.1	0.9	-179.20	-4,200.6	-58.4	4,201.0	4,200.0	1.04	4,056.087				
200.0	200.0	147.0	147.0	0.3	2.9	-179.20	-4,200.6	-58.4	4,201.0	4,197.7	3.26	1,288.454				
300.0	300.0	247.0	247.0	0.5	4.9	-179.20	-4,200.6	-58.4	4,201.0	4,195.5	5.49	765.870				
400.0	400.0	347.0	347.0	0.8	6.9	-179.20	-4,200.6	-58.4	4,201.0	4,193.3	7.71	544.874				
500.0	500.0	447.0	447.0	1.0	8.9	-179.20	-4,200.6	-58.4	4,201.0	4,191.1	9.93	422.857				
600.0	600.0	547.0	547.0	1.2	10.9	-179.20	-4,200.6	-58.4	4,201.0	4,188.8	12.16	345.489				
700.0	700.0	647.0	647.0	1.4	12.9	-179.20	-4,200.6	-58.4	4,201.0	4,186.6	14.38	292.054				
800.0	800.0	747.0	747.0	1.7	14.9	-179.20	-4,200.6	-58.4	4,201.0	4,184.4	16.61	252.933				
900.0	900.0	847.0	847.0	1.9	16.9	-179.20	-4,200.6	-58.4	4,201.0	4,182.2	18.83	223.055				
1,000.0	1,000.0	947.0	947.0	2.1	18.9	-179.20	-4,200.6	-58.4	4,201.0	4,179.9	21.06	199.490				
1,100.0	1,100.0	1,047.0	1,047.0	2.3	20.9	-179.20	-4,200.6	-58.4	4,201.0	4,177.7	23.28	180.429				
1,200.0	1,200.0	1,147.0	1,147.0	2.6	22.9	-179.20	-4,200.6	-58.4	4,201.0	4,175.5	25.51	164.692				
1,300.0	1,300.0	1,247.0	1,247.0	2.8	24.9	-121.92	-4,200.6	-58.4	4,201.9	4,174.2	27.72	151.571				
1,400.0	1,399.8	1,346.8	1,346.8	3.0	26.9	-121.93	-4,200.6	-58.4	4,204.7	4,174.8	29.92	140.522				
1,500.0	1,499.5	1,446.5	1,446.5	3.2	28.9	-121.95	-4,200.6	-58.4	4,209.3	4,177.2	32.11	131.081				
1,576.2	1,575.1	1,522.1	1,522.1	3.4	30.4	-121.97	-4,200.6	-58.4	4,214.1	4,180.3	33.78	124.767				
1,600.0	1,598.7	1,545.7	1,545.7	3.5	30.9	-122.01	-4,200.6	-58.4	4,215.7	4,181.4	34.30	122.891				
1,700.0	1,697.9	1,644.9	1,644.9	3.7	32.9	-122.16	-4,200.6	-58.4	4,222.7	4,186.2	36.53	115.583				
1,800.0	1,797.0	1,744.0	1,744.0	4.0	34.9	-122.31	-4,200.6	-58.4	4,229.8	4,191.0	38.77	109.094				
1,900.0	1,896.1	1,843.1	1,843.1	4.3	36.9	-122.46	-4,200.6	-58.4	4,236.8	4,195.8	41.02	103.296				
2,000.0	1,995.3	1,942.3	1,942.3	4.6	38.8	-122.61	-4,200.6	-58.4	4,243.9	4,200.6	43.27	98.088				
2,100.0	2,094.4	2,041.4	2,041.4	4.9	40.8	-122.75	-4,200.6	-58.4	4,251.0	4,205.5	45.52	93.386				
2,200.0	2,193.5	2,140.5	2,140.5	5.2	42.8	-122.90	-4,200.6	-58.4	4,258.2	4,210.4	47.78	89.122				
2,300.0	2,292.7	2,239.7	2,239.7	5.5	44.8	-123.05	-4,200.6	-58.4	4,265.3	4,215.3	50.04	85.238				
2,400.0	2,391.8	2,338.8	2,338.8	5.8	46.8	-123.19	-4,200.6	-58.4	4,272.5	4,220.2	52.30	81.686				
2,500.0	2,491.0	2,438.0	2,438.0	6.1	48.8	-123.34	-4,200.6	-58.4	4,279.8	4,225.2	54.57	78.427				
2,600.0	2,590.1	2,537.1	2,537.1	6.4	50.7	-123.48	-4,200.6	-58.4	4,287.0	4,230.2	56.84	75.426				
2,700.0	2,689.2	2,636.2	2,636.2	6.7	52.7	-123.63	-4,200.6	-58.4	4,294.3	4,235.2	59.11	72.654				
2,800.0	2,788.4	2,735.4	2,735.4	7.0	54.7	-123.77	-4,200.6	-58.4	4,301.6	4,240.2	61.38	70.086				
2,900.0	2,887.5	2,834.5	2,834.5	7.3	56.7	-123.92	-4,200.6	-58.4	4,308.9	4,245.3	63.65	67.700				
3,000.0	2,986.7	2,933.7	2,933.7	7.6	58.7	-124.06	-4,200.6	-58.4	4,316.3	4,250.4	65.92	65.479				
3,100.0	3,085.8	3,032.8	3,032.8	8.0	60.7	-124.20	-4,200.6	-58.4	4,323.7	4,255.5	68.19	63.405				
3,200.0	3,184.9	3,131.9	3,131.9	8.3	62.6	-124.35	-4,200.6	-58.4	4,331.1	4,260.6	70.46	61.465				
3,300.0	3,284.1	3,231.1	3,231.1	8.6	64.6	-124.49	-4,200.6	-58.4	4,338.5	4,265.8	72.74	59.646				
3,400.0	3,383.2	3,330.2	3,330.2	8.9	66.6	-124.63	-4,200.6	-58.4	4,346.0	4,271.0	75.01	57.938				
3,500.0	3,482.4	3,429.4	3,429.4	9.3	68.6	-124.77	-4,200.6	-58.4	4,353.5	4,276.2	77.29	56.330				
3,600.0	3,581.5	3,528.5	3,528.5	9.6	70.6	-124.91	-4,200.6	-58.4	4,361.0	4,281.5	79.56	54.815				
3,700.0	3,680.6	3,627.6	3,627.6	9.9	72.6	-125.05	-4,200.6	-58.4	4,368.6	4,286.8	81.83	53.384				
3,800.0	3,779.8	3,726.8	3,726.8	10.2	74.5	-125.19	-4,200.6	-58.4	4,376.2	4,292.1	84.11	52.030				
3,900.0	3,878.9	3,825.9	3,825.9	10.6	76.5	-125.33	-4,200.6	-58.4	4,383.8	4,297.4	86.38	50.748				
4,000.0	3,978.1	3,925.1	3,925.1	10.9	78.5	-125.47	-4,200.6	-58.4	4,391.4	4,302.7	88.66	49.532				
4,100.0	4,077.2	4,024.2	4,024.2	11.2	80.5	-125.61	-4,200.6	-58.4	4,399.1	4,308.1	90.93	48.378				
4,200.0	4,176.3	4,123.3	4,123.3	11.5	82.5	-125.74	-4,200.6	-58.4	4,406.7	4,313.5	93.21	47.280				
4,300.0	4,275.5	4,222.5	4,222.5	11.9	84.4	-125.88	-4,200.6	-58.4	4,414.4	4,319.0	95.48	46.234				
4,400.0	4,374.6	4,321.6	4,321.6	12.2	86.4	-126.02	-4,200.6	-58.4	4,422.2	4,324.4	97.75	45.238				
4,500.0	4,473.7	4,420.7	4,420.7	12.5	88.4	-126.15	-4,200.6	-58.4	4,429.9	4,329.9	100.03	44.287				
4,600.0	4,572.9	4,519.9	4,519.9	12.8	90.4	-126.29	-4,200.6	-58.4	4,437.7	4,335.4	102.30	43.379				
4,700.0	4,672.0	4,619.0	4,619.0	13.2	92.4	-126.43	-4,200.6	-58.4	4,445.5	4,340.9	104.57	42.511				
4,800.0	4,771.2	4,718.2	4,718.2	13.5	94.4	-126.56	-4,200.6	-58.4	4,453.3	4,346.5	106.85	41.679				
4,900.0	4,870.3	4,817.3	4,817.3	13.8	96.3	-126.69	-4,200.6	-58.4	4,461.2	4,352.1	109.12	40.883				

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells - Berg 15-16G6 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 7300-UNKNOWN													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		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
							+N/-S (ft)	+E/-W (ft)						
5,000.0	4,969.4	4,916.4	4,916.4	14.2	98.3	-126.83	-4,200.6	-58.4	4,469.1	4,357.7	111.39	40.120		
5,100.0	5,068.6	5,015.6	5,015.6	14.5	100.3	-126.96	-4,200.6	-58.4	4,477.0	4,363.3	113.67	39.387		
5,156.8	5,124.9	5,071.9	5,071.9	14.7	101.4	-127.04	-4,200.6	-58.4	4,481.5	4,366.5	114.96	38.984		
5,200.0	5,167.8	5,114.8	5,114.8	14.8	102.3	-127.14	-4,200.6	-58.4	4,484.7	4,368.7	115.99	38.666		
5,300.0	5,267.3	5,214.3	5,214.3	15.0	104.3	-127.34	-4,200.6	-58.4	4,490.7	4,372.4	118.30	37.961		
5,400.0	5,367.1	5,314.1	5,314.1	15.2	106.3	-127.46	-4,200.6	-58.4	4,494.6	4,374.0	120.55	37.284		
5,500.0	5,467.0	5,414.0	5,414.0	15.4	108.3	-127.52	-4,200.6	-58.4	4,496.3	4,373.6	122.74	36.633		
5,533.0	5,500.0	5,447.0	5,447.0	15.4	108.9	175.18	-4,200.6	-58.4	4,496.5	4,373.0	123.45	36.424		
5,600.0	5,567.0	5,514.0	5,514.0	15.5	110.3	175.18	-4,200.6	-58.4	4,496.5	4,371.6	124.90	36.001		
5,700.0	5,667.0	5,614.0	5,614.0	15.7	112.3	175.18	-4,200.6	-58.4	4,496.5	4,369.4	127.08	35.383		
5,800.0	5,767.0	5,714.0	5,714.0	15.9	114.3	175.18	-4,200.6	-58.4	4,496.5	4,367.2	129.27	34.785		
5,900.0	5,867.0	5,814.0	5,814.0	16.0	116.3	175.18	-4,200.6	-58.4	4,496.5	4,365.0	131.45	34.206		
6,000.0	5,967.0	5,914.0	5,914.0	16.2	118.3	175.18	-4,200.6	-58.4	4,496.5	4,362.8	133.64	33.647		
6,100.0	6,067.0	6,014.0	6,014.0	16.4	120.3	175.18	-4,200.6	-58.4	4,496.5	4,360.6	135.83	33.105		
6,200.0	6,167.0	6,114.0	6,114.0	16.6	122.3	175.18	-4,200.6	-58.4	4,496.5	4,358.4	138.01	32.580		
6,300.0	6,267.0	6,214.0	6,214.0	16.8	124.3	175.18	-4,200.6	-58.4	4,496.5	4,356.3	140.20	32.071		
6,400.0	6,367.0	6,314.0	6,314.0	16.9	126.3	175.18	-4,200.6	-58.4	4,496.5	4,354.1	142.39	31.578		
6,451.0	6,418.0	6,365.0	6,365.0	17.0	127.3	175.18	-4,200.6	-58.4	4,496.5	4,353.0	143.51	31.332		
6,500.0	6,467.0	6,414.0	6,414.0	17.1	128.3	-4.80	-4,200.6	-58.4	4,494.9	4,350.7	144.25	31.161		
6,550.0	6,516.7	6,463.7	6,463.7	17.2	129.3	-4.84	-4,200.6	-58.4	4,490.1	4,345.7	144.37	31.100		
6,600.0	6,566.1	6,513.1	6,513.1	17.2	130.3	-4.90	-4,200.6	-58.4	4,482.0	4,338.2	143.87	31.152		
6,650.0	6,614.8	6,561.8	6,561.8	17.2	131.2	-4.99	-4,200.6	-58.4	4,470.8	4,328.0	142.74	31.322		
6,700.0	6,662.6	6,609.6	6,609.6	17.2	132.2	-5.10	-4,200.6	-58.4	4,456.4	4,315.4	140.96	31.615		
6,750.0	6,709.4	6,656.4	6,656.4	17.2	133.1	-5.25	-4,200.6	-58.4	4,438.9	4,300.4	138.53	32.042		
6,800.0	6,755.0	6,702.0	6,702.0	17.2	134.0	-5.43	-4,200.6	-58.4	4,418.4	4,282.9	135.48	32.614		
6,850.0	6,799.1	6,746.1	6,746.1	17.2	134.9	-5.65	-4,200.6	-58.4	4,395.0	4,263.2	131.79	33.347		
6,900.0	6,841.6	6,788.6	6,788.6	17.2	135.8	-5.92	-4,200.6	-58.4	4,368.7	4,241.2	127.51	34.263		
6,950.0	6,882.3	6,829.3	6,829.3	17.2	136.6	-6.24	-4,200.6	-58.4	4,339.8	4,217.1	122.64	35.387		
7,000.0	6,921.0	6,868.0	6,868.0	17.2	137.4	-6.63	-4,200.6	-58.4	4,308.2	4,191.0	117.22	36.753		
7,050.0	6,957.5	6,904.5	6,904.5	17.2	138.1	-7.10	-4,200.6	-58.4	4,274.2	4,162.9	111.31	38.400		
7,100.0	6,991.7	6,938.7	6,938.7	17.2	138.8	-7.68	-4,200.6	-58.4	4,237.9	4,133.0	104.96	40.375		
7,150.0	7,023.5	6,970.5	6,970.5	17.2	139.4	-8.38	-4,200.6	-58.4	4,199.5	4,101.2	98.28	42.730		
7,200.0	7,052.6	6,999.6	6,999.6	17.2	140.0	-9.25	-4,200.6	-58.4	4,159.0	4,067.6	91.39	45.508		
7,250.0	7,079.1	7,026.1	7,026.1	17.3	140.5	-10.36	-4,200.6	-58.4	4,116.8	4,032.3	84.52	48.709		
7,300.0	7,102.7	7,049.7	7,049.7	17.4	141.0	-11.80	-4,200.6	-58.4	4,072.9	3,994.9	78.02	52.202		
7,350.0	7,123.4	7,070.4	7,070.4	17.5	141.4	-13.71	-4,200.6	-58.4	4,027.6	3,955.1	72.54	55.521		
7,400.0	7,141.1	7,088.1	7,088.1	17.7	141.8	-16.37	-4,200.6	-58.4	3,981.1	3,911.8	69.24	57.496		
7,450.0	7,155.7	7,102.7	7,102.7	18.0	142.1	-20.25	-4,200.6	-58.4	3,933.4	3,863.3	70.14	56.078		
7,500.0	7,167.1	7,114.1	7,114.1	18.3	142.3	-26.33	-4,200.6	-58.4	3,885.0	3,806.6	78.45	49.524		
7,550.0	7,175.3	7,122.3	7,122.3	18.7	142.4	-36.75	-4,200.6	-58.4	3,835.9	3,737.3	98.64	38.888		
7,600.0	7,180.2	7,127.2	7,127.2	19.2	142.5	-56.22	-4,200.6	-58.4	3,786.4	3,652.5	133.94	28.270		
7,654.0	7,181.9	7,128.9	7,128.9	19.7	142.6	-92.27	-4,200.6	-58.4	3,732.7	3,571.3	161.35	23.134		
7,700.0	7,181.7	7,128.7	7,128.7	20.2	142.6	-92.24	-4,200.6	-58.4	3,687.0	3,525.1	161.84	22.781		
7,800.0	7,181.3	7,128.3	7,128.3	21.3	142.6	-92.18	-4,200.6	-58.4	3,587.5	3,424.5	163.01	22.008		
7,900.0	7,180.9	7,127.9	7,127.9	22.5	142.6	-92.12	-4,200.6	-58.4	3,488.1	3,323.8	164.28	21.232		
8,000.0	7,180.5	7,127.5	7,127.5	23.9	142.6	-92.06	-4,200.6	-58.4	3,388.7	3,223.0	165.64	20.458		
8,100.0	7,180.1	7,127.1	7,127.1	25.3	142.5	-92.00	-4,200.6	-58.4	3,289.3	3,122.2	167.08	19.687		
8,200.0	7,179.7	7,126.7	7,126.7	26.8	142.5	-91.94	-4,200.6	-58.4	3,190.0	3,021.4	168.58	18.923		
8,300.0	7,179.3	7,126.3	7,126.3	28.3	142.5	-91.88	-4,200.6	-58.4	3,090.7	2,920.6	170.13	18.167		
8,400.0	7,178.9	7,125.9	7,125.9	29.9	142.5	-91.82	-4,200.6	-58.4	2,991.5	2,819.7	171.72	17.421		

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells - Berg 15-16G6 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN												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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor
8,500.0	7,178.5	7,125.5	7,125.5	31.5	142.5	-91.76	-4,200.6	-58.4	2,892.3	2,718.9	173.35	16.685	
8,600.0	7,178.1	7,125.1	7,125.1	33.1	142.5	-91.69	-4,200.6	-58.4	2,793.2	2,618.2	175.01	15.960	
8,700.0	7,177.7	7,124.7	7,124.7	34.8	142.5	-91.63	-4,200.6	-58.4	2,694.1	2,517.4	176.70	15.247	
8,800.0	7,177.3	7,124.3	7,124.3	36.5	142.5	-91.57	-4,200.6	-58.4	2,595.1	2,416.7	178.41	14.546	
8,900.0	7,176.9	7,123.9	7,123.9	38.2	142.5	-91.51	-4,200.6	-58.4	2,496.2	2,316.1	180.14	13.857	
9,000.0	7,176.5	7,123.5	7,123.5	39.9	142.5	-91.45	-4,200.6	-58.4	2,397.4	2,215.5	181.89	13.180	
9,100.0	7,176.1	7,123.1	7,123.1	41.7	142.5	-91.39	-4,200.6	-58.4	2,298.7	2,115.0	183.65	12.516	
9,200.0	7,175.7	7,122.7	7,122.7	43.4	142.5	-91.33	-4,200.6	-58.4	2,200.1	2,014.7	185.43	11.865	
9,300.0	7,175.3	7,122.3	7,122.3	45.2	142.4	-91.27	-4,200.6	-58.4	2,101.6	1,914.4	187.22	11.226	
9,400.0	7,174.9	7,121.9	7,121.9	47.0	142.4	-91.20	-4,200.6	-58.4	2,003.3	1,814.3	189.02	10.599	
9,500.0	7,174.5	7,121.5	7,121.5	48.8	142.4	-91.14	-4,200.6	-58.4	1,905.2	1,714.4	190.83	9.984	
9,600.0	7,174.1	7,121.1	7,121.1	50.6	142.4	-91.08	-4,200.6	-58.4	1,807.3	1,614.6	192.64	9.382	
9,700.0	7,173.7	7,120.7	7,120.7	52.4	142.4	-91.02	-4,200.6	-58.4	1,709.6	1,515.1	194.46	8.791	
9,800.0	7,173.3	7,120.3	7,120.3	54.3	142.4	-90.96	-4,200.6	-58.4	1,612.2	1,415.9	196.29	8.213	
9,900.0	7,172.9	7,119.9	7,119.9	56.1	142.4	-90.90	-4,200.6	-58.4	1,515.1	1,317.0	198.13	7.647	
10,000.0	7,172.5	7,119.5	7,119.5	57.9	142.4	-90.84	-4,200.6	-58.4	1,418.4	1,218.5	199.97	7.093	
10,100.0	7,172.1	7,119.1	7,119.1	59.8	142.4	-90.78	-4,200.6	-58.4	1,322.3	1,120.5	201.81	6.552	
10,200.0	7,171.7	7,118.7	7,118.7	61.6	142.4	-90.71	-4,200.6	-58.4	1,226.7	1,023.1	203.66	6.023	
10,300.0	7,171.3	7,118.3	7,118.3	63.5	142.4	-90.65	-4,200.6	-58.4	1,132.0	926.4	205.51	5.508	
10,400.0	7,170.9	7,117.9	7,117.9	65.3	142.4	-90.59	-4,200.6	-58.4	1,038.2	830.8	207.37	5.006	
10,500.0	7,170.5	7,117.5	7,117.5	67.2	142.4	-90.53	-4,200.6	-58.4	945.6	736.4	209.23	4.520	
10,600.0	7,170.1	7,117.1	7,117.1	69.0	142.3	-90.47	-4,200.6	-58.4	854.8	643.7	211.09	4.049	
10,700.0	7,169.7	7,116.7	7,116.7	70.9	142.3	-90.41	-4,200.6	-58.4	766.2	553.3	212.96	3.598	
10,800.0	7,169.3	7,116.3	7,116.3	72.8	142.3	-90.35	-4,200.6	-58.4	680.8	466.0	214.83	3.169	
10,900.0	7,168.9	7,115.9	7,115.9	74.7	142.3	-90.29	-4,200.6	-58.4	600.0	383.3	216.70	2.769	
11,000.0	7,168.5	7,115.5	7,115.5	76.5	142.3	-90.23	-4,200.6	-58.4	525.7	307.2	218.57	2.405	
11,100.0	7,168.1	7,115.1	7,115.1	78.4	142.3	-90.16	-4,200.6	-58.4	461.3	240.9	220.44	2.093	
11,200.0	7,167.7	7,114.7	7,114.7	80.3	142.3	-90.10	-4,200.6	-58.4	411.4	189.1	222.32	1.851	
11,300.0	7,167.3	7,114.3	7,114.3	82.2	142.3	-90.04	-4,200.6	-58.4	381.7	157.5	224.19	1.703	
11,367.8	7,167.0	7,114.0	7,114.0	83.4	142.3	-90.00	-4,200.6	-58.4	375.7	150.2	225.47	1.666	CC, ES, SF
11,400.0	7,166.9	7,113.9	7,113.9	84.0	142.3	-89.98	-4,200.6	-58.4	377.0	151.0	226.07	1.668	
11,500.0	7,166.5	7,113.5	7,113.5	85.9	142.3	-89.92	-4,200.6	-58.4	398.2	170.3	227.95	1.747	
11,600.0	7,166.1	7,113.1	7,113.1	87.8	142.3	-89.86	-4,200.6	-58.4	441.6	211.8	229.83	1.921	
11,622.7	7,166.0	7,113.0	7,113.0	88.2	142.3	-89.84	-4,200.6	-58.4	453.9	223.7	230.26	1.971	
11,623.5	7,166.0	7,113.0	7,113.0	88.3	142.3	-89.84	-4,200.6	-58.4	454.4	224.2	230.27	1.973	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Existing Wells - Berg 33-15 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN														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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-155.55	-3,016.5	-1,371.4	3,313.9						
100.0	100.0	53.0	53.0	0.1	1.1	-155.55	-3,016.5	-1,371.4	3,313.6	3,312.4	1.16	2,867.119			
200.0	200.0	153.0	153.0	0.3	3.1	-155.55	-3,016.5	-1,371.4	3,313.6	3,310.2	3.38	980.213			
300.0	300.0	253.0	253.0	0.5	5.1	-155.55	-3,016.5	-1,371.4	3,313.6	3,308.0	5.61	591.160			
400.0	400.0	353.0	353.0	0.8	7.1	-155.55	-3,016.5	-1,371.4	3,313.6	3,305.8	7.83	423.192			
500.0	500.0	453.0	453.0	1.0	9.1	-155.55	-3,016.5	-1,371.4	3,313.6	3,303.5	10.05	329.555			
600.0	600.0	553.0	553.0	1.2	11.1	-155.55	-3,016.5	-1,371.4	3,313.6	3,301.3	12.28	269.847			
700.0	700.0	653.0	653.0	1.4	13.1	-155.55	-3,016.5	-1,371.4	3,313.6	3,299.1	14.50	228.456			
800.0	800.0	753.0	753.0	1.7	15.1	-155.55	-3,016.5	-1,371.4	3,313.6	3,296.9	16.73	198.074			
900.0	900.0	853.0	853.0	1.9	17.1	-155.55	-3,016.5	-1,371.4	3,313.6	3,294.6	18.95	174.825			
1,000.0	1,000.0	953.0	953.0	2.1	19.1	-155.55	-3,016.5	-1,371.4	3,313.6	3,292.4	21.18	156.460			
1,100.0	1,100.0	1,053.0	1,053.0	2.3	21.1	-155.55	-3,016.5	-1,371.4	3,313.6	3,290.2	23.40	141.586			
1,200.0	1,200.0	1,153.0	1,153.0	2.6	23.1	-155.55	-3,016.5	-1,371.4	3,313.6	3,288.0	25.63	129.295			
1,300.0	1,300.0	1,253.0	1,253.0	2.8	25.1	-98.29	-3,016.5	-1,371.4	3,313.9	3,286.0	27.85	119.004			
1,400.0	1,399.8	1,352.8	1,352.8	3.0	27.1	-98.36	-3,016.5	-1,371.4	3,314.6	3,284.5	30.06	110.267			
1,500.0	1,499.5	1,452.5	1,452.5	3.2	29.0	-98.48	-3,016.5	-1,371.4	3,315.9	3,283.6	32.28	102.731			
1,576.2	1,575.1	1,528.1	1,528.1	3.4	30.6	-98.61	-3,016.5	-1,371.4	3,317.2	3,283.3	33.97	97.646			
1,600.0	1,598.7	1,551.7	1,551.7	3.5	31.0	-98.66	-3,016.5	-1,371.4	3,317.7	3,283.2	34.50	96.154			
1,700.0	1,697.9	1,650.9	1,650.9	3.7	33.0	-98.88	-3,016.5	-1,371.4	3,319.7	3,283.0	36.75	90.344			
1,800.0	1,797.0	1,750.0	1,750.0	4.0	35.0	-99.10	-3,016.5	-1,371.4	3,321.8	3,282.8	39.00	85.180			
1,900.0	1,896.1	1,849.1	1,849.1	4.3	37.0	-99.33	-3,016.5	-1,371.4	3,323.9	3,282.6	41.26	80.564			
2,000.0	1,995.3	1,948.3	1,948.3	4.6	39.0	-99.55	-3,016.5	-1,371.4	3,326.1	3,282.5	43.53	76.416			
2,100.0	2,094.4	2,047.4	2,047.4	4.9	40.9	-99.77	-3,016.5	-1,371.4	3,328.3	3,282.5	45.80	72.671			
2,200.0	2,193.5	2,146.5	2,146.5	5.2	42.9	-99.99	-3,016.5	-1,371.4	3,330.5	3,282.5	48.08	69.275			
2,300.0	2,292.7	2,245.7	2,245.7	5.5	44.9	-100.21	-3,016.5	-1,371.4	3,332.9	3,282.5	50.36	66.181			
2,400.0	2,391.8	2,344.8	2,344.8	5.8	46.9	-100.43	-3,016.5	-1,371.4	3,335.2	3,282.6	52.64	63.353			
2,500.0	2,491.0	2,444.0	2,444.0	6.1	48.9	-100.65	-3,016.5	-1,371.4	3,337.6	3,282.7	54.93	60.758			
2,600.0	2,590.1	2,543.1	2,543.1	6.4	50.9	-100.86	-3,016.5	-1,371.4	3,340.1	3,282.9	57.22	58.370			
2,700.0	2,689.2	2,642.2	2,642.2	6.7	52.8	-101.08	-3,016.5	-1,371.4	3,342.6	3,283.1	59.52	56.164			
2,800.0	2,788.4	2,741.4	2,741.4	7.0	54.8	-101.30	-3,016.5	-1,371.4	3,345.2	3,283.4	61.81	54.121			
2,900.0	2,887.5	2,840.5	2,840.5	7.3	56.8	-101.52	-3,016.5	-1,371.4	3,347.8	3,283.7	64.10	52.224			
3,000.0	2,986.7	2,939.7	2,939.7	7.6	58.8	-101.74	-3,016.5	-1,371.4	3,350.5	3,284.0	66.40	50.458			
3,100.0	3,085.8	3,038.8	3,038.8	8.0	60.8	-101.95	-3,016.5	-1,371.4	3,353.2	3,284.5	68.70	48.810			
3,200.0	3,184.9	3,137.9	3,137.9	8.3	62.8	-102.17	-3,016.5	-1,371.4	3,355.9	3,284.9	71.00	47.269			
3,300.0	3,284.1	3,237.1	3,237.1	8.6	64.7	-102.39	-3,016.5	-1,371.4	3,358.7	3,285.4	73.30	45.824			
3,400.0	3,383.2	3,336.2	3,336.2	8.9	66.7	-102.60	-3,016.5	-1,371.4	3,361.6	3,286.0	75.60	44.468			
3,500.0	3,482.4	3,435.4	3,435.4	9.3	68.7	-102.82	-3,016.5	-1,371.4	3,364.5	3,286.6	77.90	43.192			
3,600.0	3,581.5	3,534.5	3,534.5	9.6	70.7	-103.04	-3,016.5	-1,371.4	3,367.4	3,287.2	80.20	41.990			
3,700.0	3,680.6	3,633.6	3,633.6	9.9	72.7	-103.25	-3,016.5	-1,371.4	3,370.4	3,287.9	82.50	40.856			
3,800.0	3,779.8	3,732.8	3,732.8	10.2	74.7	-103.46	-3,016.5	-1,371.4	3,373.5	3,288.7	84.80	39.783			
3,900.0	3,878.9	3,831.9	3,831.9	10.6	76.6	-103.68	-3,016.5	-1,371.4	3,376.6	3,289.5	87.10	38.767			
4,000.0	3,978.1	3,931.1	3,931.1	10.9	78.6	-103.89	-3,016.5	-1,371.4	3,379.7	3,290.3	89.40	37.805			
4,100.0	4,077.2	4,030.2	4,030.2	11.2	80.6	-104.11	-3,016.5	-1,371.4	3,382.9	3,291.2	91.70	36.891			
4,200.0	4,176.3	4,129.3	4,129.3	11.5	82.6	-104.32	-3,016.5	-1,371.4	3,386.2	3,292.2	94.00	36.022			
4,300.0	4,275.5	4,228.5	4,228.5	11.9	84.6	-104.53	-3,016.5	-1,371.4	3,389.5	3,293.2	96.30	35.195			
4,400.0	4,374.6	4,327.6	4,327.6	12.2	86.6	-104.74	-3,016.5	-1,371.4	3,392.8	3,294.2	98.61	34.408			
4,500.0	4,473.7	4,426.7	4,426.7	12.5	88.5	-104.96	-3,016.5	-1,371.4	3,396.2	3,295.3	100.91	33.656			
4,600.0	4,572.9	4,525.9	4,525.9	12.8	90.5	-105.17	-3,016.5	-1,371.4	3,399.6	3,296.4	103.21	32.939			
4,700.0	4,672.0	4,625.0	4,625.0	13.2	92.5	-105.38	-3,016.5	-1,371.4	3,403.1	3,297.6	105.51	32.254			
4,800.0	4,771.2	4,724.2	4,724.2	13.5	94.5	-105.59	-3,016.5	-1,371.4	3,406.6	3,298.8	107.81	31.598			
4,900.0	4,870.3	4,823.3	4,823.3	13.8	96.5	-105.80	-3,016.5	-1,371.4	3,410.2	3,300.1	110.11	30.970			

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Existing Wells - Berg 33-15 (Exist.) - Wellbore #1 - Wellbore #1											Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN													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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.0	4,969.4	4,922.4	4,922.4	14.2	98.4	-106.01	-3,016.5	-1,371.4	3,413.8	3,301.4	112.41	30.368		
5,100.0	5,068.6	5,021.6	5,021.6	14.5	100.4	-106.22	-3,016.5	-1,371.4	3,417.5	3,302.7	114.71	29.791		
5,156.8	5,124.9	5,077.9	5,077.9	14.7	101.6	-106.34	-3,016.5	-1,371.4	3,419.6	3,303.5	116.02	29.474		
5,200.0	5,167.8	5,120.8	5,120.8	14.8	102.4	-106.45	-3,016.5	-1,371.4	3,421.1	3,304.1	117.01	29.238		
5,300.0	5,267.3	5,220.3	5,220.3	15.0	104.4	-106.66	-3,016.5	-1,371.4	3,423.9	3,304.7	119.24	28.715		
5,400.0	5,367.1	5,320.1	5,320.1	15.2	106.4	-106.80	-3,016.5	-1,371.4	3,425.7	3,304.3	121.44	28.210		
5,500.0	5,467.0	5,420.0	5,420.0	15.4	108.4	-106.86	-3,016.5	-1,371.4	3,426.6	3,303.0	123.61	27.722		
5,533.0	5,500.0	5,453.0	5,453.0	15.4	109.1	-164.16	-3,016.5	-1,371.4	3,426.6	3,302.3	124.31	27.565		
5,600.0	5,567.0	5,520.0	5,520.0	15.5	110.4	-164.16	-3,016.5	-1,371.4	3,426.6	3,300.9	125.76	27.248		
5,700.0	5,667.0	5,620.0	5,620.0	15.7	112.4	-164.16	-3,016.5	-1,371.4	3,426.6	3,298.7	127.93	26.785		
5,800.0	5,767.0	5,720.0	5,720.0	15.9	114.4	-164.16	-3,016.5	-1,371.4	3,426.6	3,296.5	130.11	26.337		
5,900.0	5,867.0	5,820.0	5,820.0	16.0	116.4	-164.16	-3,016.5	-1,371.4	3,426.6	3,294.4	132.29	25.903		
6,000.0	5,967.0	5,920.0	5,920.0	16.2	118.4	-164.16	-3,016.5	-1,371.4	3,426.6	3,292.2	134.47	25.483		
6,100.0	6,067.0	6,020.0	6,020.0	16.4	120.4	-164.16	-3,016.5	-1,371.4	3,426.6	3,290.0	136.64	25.077		
6,200.0	6,167.0	6,120.0	6,120.0	16.6	122.4	-164.16	-3,016.5	-1,371.4	3,426.6	3,287.8	138.83	24.683		
6,300.0	6,267.0	6,220.0	6,220.0	16.8	124.4	-164.16	-3,016.5	-1,371.4	3,426.6	3,285.6	141.01	24.301		
6,400.0	6,367.0	6,320.0	6,320.0	16.9	126.4	-164.16	-3,016.5	-1,371.4	3,426.6	3,283.4	143.19	23.931		
6,451.0	6,418.0	6,371.0	6,371.0	17.0	127.4	-164.16	-3,016.5	-1,371.4	3,426.6	3,282.3	144.30	23.746		
6,500.0	6,467.0	6,420.0	6,420.0	17.1	128.4	15.90	-3,016.5	-1,371.4	3,425.1	3,280.1	145.07	23.610		
6,550.0	6,516.7	6,469.7	6,469.7	17.2	129.4	16.02	-3,016.5	-1,371.4	3,420.5	3,275.2	145.27	23.546		
6,600.0	6,566.1	6,519.1	6,519.1	17.2	130.4	16.22	-3,016.5	-1,371.4	3,412.7	3,267.8	144.88	23.555		
6,650.0	6,614.8	6,567.8	6,567.8	17.2	131.4	16.51	-3,016.5	-1,371.4	3,401.9	3,257.9	143.91	23.639		
6,700.0	6,662.6	6,615.6	6,615.6	17.2	132.3	16.89	-3,016.5	-1,371.4	3,388.0	3,245.6	142.36	23.799		
6,750.0	6,709.4	6,662.4	6,662.4	17.2	133.2	17.38	-3,016.5	-1,371.4	3,371.1	3,230.9	140.25	24.037		
6,800.0	6,755.0	6,708.0	6,708.0	17.2	134.2	17.97	-3,016.5	-1,371.4	3,351.3	3,213.7	137.61	24.354		
6,850.0	6,799.1	6,752.1	6,752.1	17.2	135.0	18.70	-3,016.5	-1,371.4	3,328.8	3,194.3	134.49	24.751		
6,900.0	6,841.6	6,794.6	6,794.6	17.2	135.9	19.56	-3,016.5	-1,371.4	3,303.5	3,172.5	130.96	25.225		
6,950.0	6,882.3	6,835.3	6,835.3	17.2	136.7	20.60	-3,016.5	-1,371.4	3,275.6	3,148.5	127.12	25.769		
7,000.0	6,921.0	6,874.0	6,874.0	17.2	137.5	21.83	-3,016.5	-1,371.4	3,245.3	3,122.2	123.09	26.366		
7,050.0	6,957.5	6,910.5	6,910.5	17.2	138.2	23.29	-3,016.5	-1,371.4	3,212.7	3,093.6	119.06	26.982		
7,100.0	6,991.7	6,944.7	6,944.7	17.2	138.9	25.04	-3,016.5	-1,371.4	3,177.8	3,062.5	115.29	27.563		
7,150.0	7,023.5	6,976.5	6,976.5	17.2	139.5	27.13	-3,016.5	-1,371.4	3,140.9	3,028.8	112.11	28.017		
7,200.0	7,052.6	7,005.6	7,005.6	17.2	140.1	29.64	-3,016.5	-1,371.4	3,102.2	2,992.3	109.94	28.217		
7,250.0	7,079.1	7,032.1	7,032.1	17.3	140.6	32.67	-3,016.5	-1,371.4	3,061.8	2,952.5	109.31	28.011		
7,300.0	7,102.7	7,055.7	7,055.7	17.4	141.1	36.35	-3,016.5	-1,371.4	3,019.9	2,909.1	110.75	27.267		
7,350.0	7,123.4	7,076.4	7,076.4	17.5	141.5	40.82	-3,016.5	-1,371.4	2,976.7	2,861.9	114.74	25.943		
7,400.0	7,141.1	7,094.1	7,094.1	17.7	141.9	46.26	-3,016.5	-1,371.4	2,932.3	2,810.9	121.45	24.143		
7,450.0	7,155.7	7,108.7	7,108.7	18.0	142.2	52.83	-3,016.5	-1,371.4	2,887.0	2,756.4	130.59	22.108		
7,500.0	7,167.1	7,120.1	7,120.1	18.3	142.4	60.66	-3,016.5	-1,371.4	2,841.0	2,699.9	141.11	20.133		
7,550.0	7,175.3	7,128.3	7,128.3	18.7	142.6	69.67	-3,016.5	-1,371.4	2,794.5	2,643.3	151.21	18.481		
7,600.0	7,180.2	7,133.2	7,133.2	19.2	142.7	79.58	-3,016.5	-1,371.4	2,747.7	2,589.1	158.61	17.324		
7,654.0	7,181.9	7,134.9	7,134.9	19.7	142.7	90.62	-3,016.5	-1,371.4	2,697.0	2,535.5	161.51	16.698		
7,700.0	7,181.7	7,134.7	7,134.7	20.2	142.7	90.61	-3,016.5	-1,371.4	2,654.0	2,492.0	162.00	16.382		
7,800.0	7,181.3	7,134.3	7,134.3	21.3	142.7	90.59	-3,016.5	-1,371.4	2,560.6	2,397.5	163.16	15.694		
7,900.0	7,180.9	7,133.9	7,133.9	22.5	142.7	90.56	-3,016.5	-1,371.4	2,467.9	2,303.4	164.43	15.008		
8,000.0	7,180.5	7,133.5	7,133.5	23.9	142.7	90.54	-3,016.5	-1,371.4	2,375.6	2,209.9	165.79	14.329		
8,100.0	7,180.1	7,133.1	7,133.1	25.3	142.7	90.51	-3,016.5	-1,371.4	2,284.1	2,116.9	167.22	13.659		
8,200.0	7,179.7	7,132.7	7,132.7	26.8	142.7	90.49	-3,016.5	-1,371.4	2,193.3	2,024.5	168.72	13.000		
8,300.0	7,179.3	7,132.3	7,132.3	28.3	142.6	90.46	-3,016.5	-1,371.4	2,103.3	1,933.0	170.27	12.353		
8,400.0	7,178.9	7,131.9	7,131.9	29.9	142.6	90.44	-3,016.5	-1,371.4	2,014.2	1,842.4	171.86	11.720		

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Existing Wells - Berg 33-15 (Exist.) - Wellbore #1 - Wellbore #1											Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN													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)			
8,500.0	7,178.5	7,131.5	7,131.5	31.5	142.6	90.41	-3,016.5	-1,371.4	1,926.3	1,752.8	173.49	11.103		
8,600.0	7,178.1	7,131.1	7,131.1	33.1	142.6	90.39	-3,016.5	-1,371.4	1,839.5	1,664.4	175.15	10.503		
8,700.0	7,177.7	7,130.7	7,130.7	34.8	142.6	90.36	-3,016.5	-1,371.4	1,754.2	1,577.4	176.83	9.920		
8,800.0	7,177.3	7,130.3	7,130.3	36.5	142.6	90.34	-3,016.5	-1,371.4	1,670.5	1,492.0	178.54	9.356		
8,900.0	7,176.9	7,129.9	7,129.9	38.2	142.6	90.32	-3,016.5	-1,371.4	1,588.7	1,408.4	180.27	8.813		
9,000.0	7,176.5	7,129.5	7,129.5	39.9	142.6	90.29	-3,016.5	-1,371.4	1,509.1	1,327.1	182.02	8.291		
9,100.0	7,176.1	7,129.1	7,129.1	41.7	142.6	90.27	-3,016.5	-1,371.4	1,432.0	1,248.3	183.78	7.792		
9,200.0	7,175.7	7,128.7	7,128.7	43.4	142.6	90.24	-3,016.5	-1,371.4	1,358.0	1,172.4	185.56	7.318		
9,300.0	7,175.3	7,128.3	7,128.3	45.2	142.6	90.22	-3,016.5	-1,371.4	1,287.4	1,100.1	187.34	6.872		
9,400.0	7,174.9	7,127.9	7,127.9	47.0	142.6	90.19	-3,016.5	-1,371.4	1,221.0	1,031.9	189.14	6.456		
9,500.0	7,174.5	7,127.5	7,127.5	48.8	142.6	90.17	-3,016.5	-1,371.4	1,159.4	968.5	190.95	6.072		
9,600.0	7,174.1	7,127.1	7,127.1	50.6	142.5	90.14	-3,016.5	-1,371.4	1,103.5	910.7	192.76	5.724		
9,700.0	7,173.7	7,126.7	7,126.7	52.4	142.5	90.12	-3,016.5	-1,371.4	1,054.0	859.4	194.58	5.417		
9,800.0	7,173.3	7,126.3	7,126.3	54.3	142.5	90.09	-3,016.5	-1,371.4	1,012.1	815.7	196.41	5.153		
9,900.0	7,172.9	7,125.9	7,125.9	56.1	142.5	90.07	-3,016.5	-1,371.4	978.6	780.4	198.25	4.936		
10,000.0	7,172.5	7,125.5	7,125.5	57.9	142.5	90.04	-3,016.5	-1,371.4	954.5	754.4	200.09	4.770		
10,100.0	7,172.1	7,125.1	7,125.1	59.8	142.5	90.02	-3,016.5	-1,371.4	940.5	738.5	201.93	4.657		
10,183.2	7,171.8	7,124.8	7,124.8	61.3	142.5	90.00	-3,016.5	-1,371.4	936.8	733.3	203.47	4.604 CC		
10,200.0	7,171.7	7,124.7	7,124.7	61.6	142.5	90.00	-3,016.5	-1,371.4	936.9	733.1	203.78	4.598 ES		
10,300.0	7,171.3	7,124.3	7,124.3	63.5	142.5	89.97	-3,016.5	-1,371.4	944.0	738.4	205.63	4.591 SF		
10,400.0	7,170.9	7,123.9	7,123.9	65.3	142.5	89.95	-3,016.5	-1,371.4	961.5	754.1	207.49	4.634		
10,500.0	7,170.5	7,123.5	7,123.5	67.2	142.5	89.92	-3,016.5	-1,371.4	988.9	779.6	209.35	4.724		
10,600.0	7,170.1	7,123.1	7,123.1	69.0	142.5	89.90	-3,016.5	-1,371.4	1,025.3	814.1	211.21	4.855		
10,700.0	7,169.7	7,122.7	7,122.7	70.9	142.5	89.87	-3,016.5	-1,371.4	1,069.9	856.8	213.08	5.021		
10,800.0	7,169.3	7,122.3	7,122.3	72.8	142.4	89.85	-3,016.5	-1,371.4	1,121.6	906.7	214.94	5.218		
10,900.0	7,168.9	7,121.9	7,121.9	74.7	142.4	89.82	-3,016.5	-1,371.4	1,179.6	962.8	216.81	5.440		
11,000.0	7,168.5	7,121.5	7,121.5	76.5	142.4	89.80	-3,016.5	-1,371.4	1,242.9	1,024.2	218.69	5.683		
11,100.0	7,168.1	7,121.1	7,121.1	78.4	142.4	89.77	-3,016.5	-1,371.4	1,310.8	1,090.2	220.56	5.943		
11,200.0	7,167.7	7,120.7	7,120.7	80.3	142.4	89.75	-3,016.5	-1,371.4	1,382.6	1,160.1	222.44	6.215		
11,300.0	7,167.3	7,120.3	7,120.3	82.2	142.4	89.73	-3,016.5	-1,371.4	1,457.7	1,233.4	224.32	6.498		
11,400.0	7,166.9	7,119.9	7,119.9	84.0	142.4	89.70	-3,016.5	-1,371.4	1,535.6	1,309.5	226.20	6.789		
11,500.0	7,166.5	7,119.5	7,119.5	85.9	142.4	89.68	-3,016.5	-1,371.4	1,616.0	1,388.0	228.08	7.085		
11,600.0	7,166.1	7,119.1	7,119.1	87.8	142.4	89.65	-3,016.5	-1,371.4	1,698.5	1,468.5	229.96	7.386		
11,622.7	7,166.0	7,119.0	7,119.0	88.2	142.4	89.65	-3,016.5	-1,371.4	1,717.5	1,487.1	230.39	7.455		
11,623.5	7,166.0	7,119.0	7,119.0	88.3	142.4	89.65	-3,016.5	-1,371.4	1,718.2	1,487.8	230.40	7.457		



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Existing Wells - Harvester 31-15 (Exist.) - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 ft	
Survey Program: 7300-UNKNOWN														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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
0.0	0.0	0.0	0.0	0.0	0.0	-110.73	-466.3	-1,232.1	1,317.6							
100.0	100.0	80.0	80.0	0.1	1.6	-110.73	-466.3	-1,232.1	1,317.4	1,315.7	1.70	776.911				
200.0	200.0	180.0	180.0	0.3	3.6	-110.73	-466.3	-1,232.1	1,317.4	1,313.5	3.92	336.036				
300.0	300.0	280.0	280.0	0.5	5.6	-110.73	-466.3	-1,232.1	1,317.4	1,311.3	6.15	214.381				
400.0	400.0	380.0	380.0	0.8	7.6	-110.73	-466.3	-1,232.1	1,317.4	1,309.1	8.37	157.398				
500.0	500.0	480.0	480.0	1.0	9.6	-110.73	-466.3	-1,232.1	1,317.4	1,306.8	10.59	124.347				
600.0	600.0	580.0	580.0	1.2	11.6	-110.73	-466.3	-1,232.1	1,317.4	1,304.6	12.82	102.767				
700.0	700.0	680.0	680.0	1.4	13.6	-110.73	-466.3	-1,232.1	1,317.4	1,302.4	15.04	87.570				
800.0	800.0	780.0	780.0	1.7	15.6	-110.73	-466.3	-1,232.1	1,317.4	1,300.2	17.27	76.288				
900.0	900.0	880.0	880.0	1.9	17.6	-110.73	-466.3	-1,232.1	1,317.4	1,297.9	19.49	67.582				
1,000.0	1,000.0	980.0	980.0	2.1	19.6	-110.73	-466.3	-1,232.1	1,317.4	1,295.7	21.72	60.659				
1,100.0	1,100.0	1,080.0	1,080.0	2.3	21.6	-110.73	-466.3	-1,232.1	1,317.4	1,293.5	23.94	55.023				
1,200.0	1,200.0	1,180.0	1,180.0	2.6	23.6	-110.73	-466.3	-1,232.1	1,317.4	1,291.3	26.17	50.345				
1,300.0	1,300.0	1,280.0	1,280.0	2.8	25.6	-53.51	-466.3	-1,232.1	1,316.4	1,288.0	28.38	46.384				
1,400.0	1,399.8	1,379.8	1,379.8	3.0	27.6	-53.75	-466.3	-1,232.1	1,313.3	1,282.7	30.57	42.957				
1,500.0	1,499.5	1,479.5	1,479.5	3.2	29.6	-54.14	-466.3	-1,232.1	1,308.1	1,275.4	32.75	39.943				
1,576.2	1,575.1	1,555.1	1,555.1	3.4	31.1	-54.54	-466.3	-1,232.1	1,302.9	1,268.5	34.40	37.872				
1,600.0	1,598.7	1,578.7	1,578.7	3.5	31.6	-54.65	-466.3	-1,232.1	1,301.1	1,266.1	34.93	37.248				
1,700.0	1,697.9	1,677.9	1,677.9	3.7	33.6	-55.12	-466.3	-1,232.1	1,293.5	1,256.3	37.15	34.816				
1,800.0	1,797.0	1,777.0	1,777.0	4.0	35.5	-55.60	-466.3	-1,232.1	1,286.0	1,246.6	39.38	32.652				
1,900.0	1,896.1	1,876.1	1,876.1	4.3	37.5	-56.08	-466.3	-1,232.1	1,278.6	1,237.0	41.63	30.717				
2,000.0	1,995.3	1,975.3	1,975.3	4.6	39.5	-56.57	-466.3	-1,232.1	1,271.3	1,227.4	43.87	28.977				
2,100.0	2,094.4	2,074.4	2,074.4	4.9	41.5	-57.06	-466.3	-1,232.1	1,264.1	1,218.0	46.13	27.405				
2,200.0	2,193.5	2,173.5	2,173.5	5.2	43.5	-57.56	-466.3	-1,232.1	1,257.0	1,208.6	48.39	25.979				
2,300.0	2,292.7	2,272.7	2,272.7	5.5	45.5	-58.06	-466.3	-1,232.1	1,250.0	1,199.3	50.65	24.679				
2,400.0	2,391.8	2,371.8	2,371.8	5.8	47.4	-58.57	-466.3	-1,232.1	1,243.0	1,190.1	52.92	23.490				
2,500.0	2,491.0	2,471.0	2,471.0	6.1	49.4	-59.09	-466.3	-1,232.1	1,236.2	1,181.0	55.19	22.399				
2,600.0	2,590.1	2,570.1	2,570.1	6.4	51.4	-59.61	-466.3	-1,232.1	1,229.5	1,172.0	57.47	21.395				
2,700.0	2,689.2	2,669.2	2,669.2	6.7	53.4	-60.13	-466.3	-1,232.1	1,222.9	1,163.1	59.75	20.468				
2,800.0	2,788.4	2,768.4	2,768.4	7.0	55.4	-60.66	-466.3	-1,232.1	1,216.4	1,154.3	62.03	19.610				
2,900.0	2,887.5	2,867.5	2,867.5	7.3	57.4	-61.20	-466.3	-1,232.1	1,210.0	1,145.7	64.31	18.814				
3,000.0	2,986.7	2,966.7	2,966.7	7.6	59.3	-61.74	-466.3	-1,232.1	1,203.7	1,137.1	66.60	18.073				
3,100.0	3,085.8	3,065.8	3,065.8	8.0	61.3	-62.29	-466.3	-1,232.1	1,197.5	1,128.6	68.89	17.382				
3,200.0	3,184.9	3,164.9	3,164.9	8.3	63.3	-62.84	-466.3	-1,232.1	1,191.4	1,120.2	71.19	16.736				
3,300.0	3,284.1	3,264.1	3,264.1	8.6	65.3	-63.40	-466.3	-1,232.1	1,185.5	1,112.0	73.48	16.132				
3,400.0	3,383.2	3,363.2	3,363.2	8.9	67.3	-63.97	-466.3	-1,232.1	1,179.6	1,103.8	75.78	15.566				
3,500.0	3,482.4	3,462.4	3,462.4	9.3	69.2	-64.54	-466.3	-1,232.1	1,173.9	1,095.8	78.08	15.034				
3,600.0	3,581.5	3,561.5	3,561.5	9.6	71.2	-65.11	-466.3	-1,232.1	1,168.3	1,087.9	80.39	14.533				
3,700.0	3,680.6	3,660.6	3,660.6	9.9	73.2	-65.69	-466.3	-1,232.1	1,162.8	1,080.1	82.69	14.062				
3,800.0	3,779.8	3,759.8	3,759.8	10.2	75.2	-66.28	-466.3	-1,232.1	1,157.4	1,072.4	85.00	13.617				
3,900.0	3,878.9	3,858.9	3,858.9	10.6	77.2	-66.87	-466.3	-1,232.1	1,152.2	1,064.9	87.31	13.197				
4,000.0	3,978.1	3,958.1	3,958.1	10.9	79.2	-67.47	-466.3	-1,232.1	1,147.1	1,057.4	89.62	12.799				
4,100.0	4,077.2	4,057.2	4,057.2	11.2	81.1	-68.07	-466.3	-1,232.1	1,142.1	1,050.1	91.93	12.423				
4,200.0	4,176.3	4,156.3	4,156.3	11.5	83.1	-68.68	-466.3	-1,232.1	1,137.2	1,043.0	94.25	12.066				
4,300.0	4,275.5	4,255.5	4,255.5	11.9	85.1	-69.29	-466.3	-1,232.1	1,132.5	1,035.9	96.56	11.728				
4,400.0	4,374.6	4,354.6	4,354.6	12.2	87.1	-69.91	-466.3	-1,232.1	1,127.9	1,029.0	98.88	11.406				
4,500.0	4,473.7	4,453.7	4,453.7	12.5	89.1	-70.53	-466.3	-1,232.1	1,123.4	1,022.2	101.20	11.101				
4,600.0	4,572.9	4,552.9	4,552.9	12.8	91.1	-71.16	-466.3	-1,232.1	1,119.1	1,015.6	103.52	10.810				
4,700.0	4,672.0	4,652.0	4,652.0	13.2	93.0	-71.79	-466.3	-1,232.1	1,114.9	1,009.1	105.84	10.534				
4,800.0	4,771.2	4,751.2	4,751.2	13.5	95.0	-72.43	-466.3	-1,232.1	1,110.8	1,002.7	108.16	10.270				
4,900.0	4,870.3	4,850.3	4,850.3	13.8	97.0	-73.07	-466.3	-1,232.1	1,106.9	996.4	110.49	10.018				

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Existing Wells - Harvester 31-15 (Exist.) - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 ft	
Survey Program: 7300-UNKNOWN														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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
5,000.0	4,969.4	4,949.4	4,949.4	14.2	99.0	-73.71	-466.3	-1,232.1	1,103.2	990.3	112.81	9.779				
5,100.0	5,068.6	5,048.6	5,048.6	14.5	101.0	-74.36	-466.3	-1,232.1	1,099.5	984.4	115.14	9.550				
5,156.8	5,124.9	5,104.9	5,104.9	14.7	102.1	-74.74	-466.3	-1,232.1	1,097.5	981.1	116.46	9.424				
5,200.0	5,167.8	5,147.8	5,147.8	14.8	103.0	-74.97	-466.3	-1,232.1	1,096.1	978.7	117.46	9.332				
5,300.0	5,267.3	5,247.3	5,247.3	15.0	104.9	-75.42	-466.3	-1,232.1	1,093.6	973.9	119.71	9.135				
5,400.0	5,367.1	5,347.1	5,347.1	15.2	106.9	-75.72	-466.3	-1,232.1	1,092.0	970.1	121.93	8.956				
5,500.0	5,467.0	5,447.0	5,447.0	15.4	108.9	-75.85	-466.3	-1,232.1	1,091.3	967.2	124.10	8.794				
5,533.0	5,500.0	5,480.0	5,480.0	15.4	109.6	-133.15	-466.3	-1,232.1	1,091.2	966.4	124.81	8.743				
5,600.0	5,567.0	5,547.0	5,547.0	15.5	110.9	-133.15	-466.3	-1,232.1	1,091.2	965.0	126.25	8.643				
5,700.0	5,667.0	5,647.0	5,647.0	15.7	112.9	-133.15	-466.3	-1,232.1	1,091.2	962.8	128.43	8.497				
5,800.0	5,767.0	5,747.0	5,747.0	15.9	114.9	-133.15	-466.3	-1,232.1	1,091.2	960.6	130.60	8.356				
5,900.0	5,867.0	5,847.0	5,847.0	16.0	116.9	-133.15	-466.3	-1,232.1	1,091.2	958.5	132.78	8.219				
6,000.0	5,967.0	5,947.0	5,947.0	16.2	118.9	-133.15	-466.3	-1,232.1	1,091.2	956.3	134.95	8.086				
6,100.0	6,067.0	6,047.0	6,047.0	16.4	120.9	-133.15	-466.3	-1,232.1	1,091.2	954.1	137.13	7.958				
6,200.0	6,167.0	6,147.0	6,147.0	16.6	122.9	-133.15	-466.3	-1,232.1	1,091.2	951.9	139.31	7.833				
6,300.0	6,267.0	6,247.0	6,247.0	16.8	124.9	-133.15	-466.3	-1,232.1	1,091.2	949.7	141.49	7.712				
6,400.0	6,367.0	6,347.0	6,347.0	16.9	126.9	-133.15	-466.3	-1,232.1	1,091.2	947.6	143.67	7.595				
6,451.0	6,418.0	6,398.0	6,398.0	17.0	128.0	-133.15	-466.3	-1,232.1	1,091.2	946.5	144.79	7.537				
6,500.0	6,467.0	6,447.0	6,447.0	17.1	128.9	47.00	-466.3	-1,232.1	1,090.2	944.5	145.70	7.482				
6,550.0	6,516.7	6,496.7	6,496.7	17.2	129.9	47.36	-466.3	-1,232.1	1,086.9	940.5	146.32	7.428				
6,600.0	6,566.1	6,546.1	6,546.1	17.2	130.9	47.98	-466.3	-1,232.1	1,081.4	934.7	146.65	7.374				
6,650.0	6,614.8	6,594.8	6,594.8	17.2	131.9	48.86	-466.3	-1,232.1	1,073.8	927.1	146.72	7.319				
6,700.0	6,662.6	6,642.6	6,642.6	17.2	132.9	49.99	-466.3	-1,232.1	1,064.1	917.5	146.59	7.259				
6,750.0	6,709.4	6,689.4	6,689.4	17.2	133.8	51.39	-466.3	-1,232.1	1,052.6	906.2	146.36	7.192				
6,800.0	6,755.0	6,735.0	6,735.0	17.2	134.7	53.05	-466.3	-1,232.1	1,039.3	893.2	146.10	7.113				
6,850.0	6,799.1	6,779.1	6,779.1	17.2	135.6	54.97	-466.3	-1,232.1	1,024.3	878.4	145.93	7.019				
6,900.0	6,841.6	6,821.6	6,821.6	17.2	136.4	57.16	-466.3	-1,232.1	1,008.0	862.0	145.95	6.906				
6,950.0	6,882.3	6,862.3	6,862.3	17.2	137.2	59.59	-466.3	-1,232.1	990.4	844.2	146.25	6.772				
7,000.0	6,921.0	6,901.0	6,901.0	17.2	138.0	62.24	-466.3	-1,232.1	971.9	825.0	146.91	6.616				
7,050.0	6,957.5	6,937.5	6,937.5	17.2	138.7	65.07	-466.3	-1,232.1	952.8	804.8	147.93	6.441				
7,100.0	6,991.7	6,971.7	6,971.7	17.2	139.4	68.04	-466.3	-1,232.1	933.3	784.0	149.28	6.252				
7,150.0	7,023.5	7,003.5	7,003.5	17.2	140.1	71.07	-466.3	-1,232.1	913.7	762.9	150.88	6.056				
7,200.0	7,052.6	7,032.6	7,032.6	17.2	140.7	74.11	-466.3	-1,232.1	894.5	741.9	152.61	5.862				
7,250.0	7,079.1	7,059.1	7,059.1	17.3	141.2	77.07	-466.3	-1,232.1	876.0	721.7	154.34	5.676				
7,300.0	7,102.7	7,082.7	7,082.7	17.4	141.7	79.87	-466.3	-1,232.1	858.6	702.7	155.95	5.506				
7,350.0	7,123.4	7,103.4	7,103.4	17.5	142.1	82.44	-466.3	-1,232.1	842.7	685.3	157.37	5.355				
7,400.0	7,141.1	7,121.1	7,121.1	17.7	142.4	84.71	-466.3	-1,232.1	828.6	670.0	158.55	5.226				
7,450.0	7,155.7	7,135.7	7,135.7	18.0	142.7	86.62	-466.3	-1,232.1	816.7	657.2	159.51	5.120				
7,500.0	7,167.1	7,147.1	7,147.1	18.3	142.9	88.14	-466.3	-1,232.1	807.3	647.1	160.28	5.037				
7,550.0	7,175.3	7,155.3	7,155.3	18.7	143.1	89.22	-466.3	-1,232.1	800.7	639.8	160.93	4.976				
7,600.0	7,180.2	7,160.2	7,160.2	19.2	143.2	89.84	-466.3	-1,232.1	797.1	635.6	161.50	4.936				
7,633.0	7,181.7	7,161.7	7,161.7	19.5	143.2	90.00	-466.3	-1,232.1	796.5	634.6	161.86	4.921 CC, ES				
7,654.0	7,181.9	7,161.9	7,161.9	19.7	143.2	89.99	-466.3	-1,232.1	796.7	634.7	162.08	4.916 SF				
7,700.0	7,181.7	7,161.7	7,161.7	20.2	143.2	89.98	-466.3	-1,232.1	799.3	636.7	162.57	4.917				
7,800.0	7,181.3	7,161.3	7,161.3	21.3	143.2	89.95	-466.3	-1,232.1	813.8	650.1	163.73	4.970				
7,900.0	7,180.9	7,160.9	7,160.9	22.5	143.2	89.92	-466.3	-1,232.1	840.0	675.0	165.00	5.091				
8,000.0	7,180.5	7,160.5	7,160.5	23.9	143.2	89.89	-466.3	-1,232.1	877.0	710.6	166.35	5.272				
8,100.0	7,180.1	7,160.1	7,160.1	25.3	143.2	89.87	-466.3	-1,232.1	923.3	755.5	167.79	5.503				
8,200.0	7,179.7	7,159.7	7,159.7	26.8	143.2	89.84	-466.3	-1,232.1	977.7	808.4	169.28	5.775				
8,300.0	7,179.3	7,159.3	7,159.3	28.3	143.2	89.81	-466.3	-1,232.1	1,038.9	868.0	170.83	6.081				

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells - Harvester 31-15 (Exist.) - Wellbore #1 - Wellbore #1														Offset Site Error: 0.0 ft
Survey Program: 7300-UNKNOWN														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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,400.0	7,178.9	7,158.9	7,158.9	29.9	143.2	89.78	-466.3	-1,232.1	1,105.7	933.3	172.42	6.413		
8,500.0	7,178.5	7,158.5	7,158.5	31.5	143.2	89.75	-466.3	-1,232.1	1,177.3	1,003.3	174.05	6.764		
8,600.0	7,178.1	7,158.1	7,158.1	33.1	143.2	89.72	-466.3	-1,232.1	1,252.8	1,077.1	175.71	7.130		
8,700.0	7,177.7	7,157.7	7,157.7	34.8	143.2	89.69	-466.3	-1,232.1	1,331.5	1,154.1	177.39	7.506		
8,800.0	7,177.3	7,157.3	7,157.3	36.5	143.1	89.66	-466.3	-1,232.1	1,412.9	1,233.8	179.10	7.889		
8,900.0	7,176.9	7,156.9	7,156.9	38.2	143.1	89.63	-466.3	-1,232.1	1,496.5	1,315.7	180.83	8.276		
9,000.0	7,176.5	7,156.5	7,156.5	39.9	143.1	89.61	-466.3	-1,232.1	1,582.1	1,399.5	182.58	8.665		
9,100.0	7,176.1	7,156.1	7,156.1	41.7	143.1	89.58	-466.3	-1,232.1	1,669.3	1,484.9	184.34	9.056		
9,200.0	7,175.7	7,155.7	7,155.7	43.4	143.1	89.55	-466.3	-1,232.1	1,757.8	1,571.7	186.11	9.445		
9,300.0	7,175.3	7,155.3	7,155.3	45.2	143.1	89.52	-466.3	-1,232.1	1,847.5	1,659.6	187.90	9.833		
9,400.0	7,174.9	7,154.9	7,154.9	47.0	143.1	89.49	-466.3	-1,232.1	1,938.2	1,748.5	189.69	10.218		
9,500.0	7,174.5	7,154.5	7,154.5	48.8	143.1	89.46	-466.3	-1,232.1	2,029.8	1,838.3	191.50	10.600		
9,600.0	7,174.1	7,154.1	7,154.1	50.6	143.1	89.43	-466.3	-1,232.1	2,122.1	1,928.8	193.31	10.978		
9,700.0	7,173.7	7,153.7	7,153.7	52.4	143.1	89.40	-466.3	-1,232.1	2,215.1	2,020.0	195.13	11.352		
9,800.0	7,173.3	7,153.3	7,153.3	54.3	143.1	89.37	-466.3	-1,232.1	2,308.7	2,111.8	196.96	11.722		
9,900.0	7,172.9	7,152.9	7,152.9	56.1	143.1	89.35	-466.3	-1,232.1	2,402.8	2,204.0	198.79	12.087		
10,000.0	7,172.5	7,152.5	7,152.5	57.9	143.1	89.32	-466.3	-1,232.1	2,497.4	2,296.8	200.63	12.448		
10,100.0	7,172.1	7,152.1	7,152.1	59.8	143.0	89.29	-466.3	-1,232.1	2,592.4	2,389.9	202.47	12.804		
10,200.0	7,171.7	7,151.7	7,151.7	61.6	143.0	89.26	-466.3	-1,232.1	2,687.7	2,483.4	204.32	13.154		
10,300.0	7,171.3	7,151.3	7,151.3	63.5	143.0	89.23	-466.3	-1,232.1	2,783.4	2,577.2	206.17	13.500		
10,400.0	7,170.9	7,150.9	7,150.9	65.3	143.0	89.20	-466.3	-1,232.1	2,879.3	2,671.3	208.03	13.841		
10,500.0	7,170.5	7,150.5	7,150.5	67.2	143.0	89.17	-466.3	-1,232.1	2,975.6	2,765.7	209.89	14.177		
10,600.0	7,170.1	7,150.1	7,150.1	69.0	143.0	89.14	-466.3	-1,232.1	3,072.0	2,860.3	211.75	14.508		
10,700.0	7,169.7	7,149.7	7,149.7	70.9	143.0	89.11	-466.3	-1,232.1	3,168.7	2,955.1	213.61	14.834		
10,800.0	7,169.3	7,149.3	7,149.3	72.8	143.0	89.09	-466.3	-1,232.1	3,265.6	3,050.1	215.48	15.155		
10,900.0	7,168.9	7,148.9	7,148.9	74.7	143.0	89.06	-466.3	-1,232.1	3,362.7	3,145.3	217.35	15.472		
11,000.0	7,168.5	7,148.5	7,148.5	76.5	143.0	89.03	-466.3	-1,232.1	3,459.9	3,240.7	219.22	15.783		
11,100.0	7,168.1	7,148.1	7,148.1	78.4	143.0	89.00	-466.3	-1,232.1	3,557.3	3,336.2	221.09	16.090		
11,200.0	7,167.7	7,147.7	7,147.7	80.3	143.0	88.97	-466.3	-1,232.1	3,654.8	3,431.9	222.97	16.392		
11,300.0	7,167.3	7,147.3	7,147.3	82.2	142.9	88.94	-466.3	-1,232.1	3,752.5	3,527.6	224.84	16.689		
11,400.0	7,166.9	7,146.9	7,146.9	84.0	142.9	88.91	-466.3	-1,232.1	3,850.3	3,623.5	226.72	16.982		
11,500.0	7,166.5	7,146.5	7,146.5	85.9	142.9	88.88	-466.3	-1,232.1	3,948.2	3,719.6	228.60	17.271		
11,600.0	7,166.1	7,146.1	7,146.1	87.8	142.9	88.85	-466.3	-1,232.1	4,046.1	3,815.7	230.48	17.555		
11,622.7	7,166.0	7,146.0	7,146.0	88.2	142.9	88.85	-466.3	-1,232.1	4,068.4	3,837.5	230.91	17.619		
11,623.5	7,166.0	7,146.0	7,146.0	88.3	142.9	88.85	-466.3	-1,232.1	4,069.2	3,838.3	230.92	17.622		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Existing Wells - Harvester 32-15 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:		0.0 ft	
Survey Program: 7300-UNKNOWN														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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor					
0.0	0.0	0.0	0.0	0.0	0.0	-141.53	-1,515.5	-1,204.4	1,936.0								
100.0	100.0	70.0	70.0	0.1	1.4	-141.53	-1,515.5	-1,204.4	1,935.8	1,934.3	1.50	1,294.231					
200.0	200.0	170.0	170.0	0.3	3.4	-141.53	-1,515.5	-1,204.4	1,935.8	1,932.1	3.72	520.311					
300.0	300.0	270.0	270.0	0.5	5.4	-141.53	-1,515.5	-1,204.4	1,935.8	1,929.9	5.95	325.606					
400.0	400.0	370.0	370.0	0.8	7.4	-141.53	-1,515.5	-1,204.4	1,935.8	1,927.6	8.17	236.941					
500.0	500.0	470.0	470.0	1.0	9.4	-141.53	-1,515.5	-1,204.4	1,935.8	1,925.4	10.39	186.229					
600.0	600.0	570.0	570.0	1.2	11.4	-141.53	-1,515.5	-1,204.4	1,935.8	1,923.2	12.62	153.398					
700.0	700.0	670.0	670.0	1.4	13.4	-141.53	-1,515.5	-1,204.4	1,935.8	1,921.0	14.84	130.408					
800.0	800.0	770.0	770.0	1.7	15.4	-141.53	-1,515.5	-1,204.4	1,935.8	1,918.7	17.07	113.411					
900.0	900.0	870.0	870.0	1.9	17.4	-141.53	-1,515.5	-1,204.4	1,935.8	1,916.5	19.29	100.333					
1,000.0	1,000.0	970.0	970.0	2.1	19.4	-141.53	-1,515.5	-1,204.4	1,935.8	1,914.3	21.52	89.960					
1,100.0	1,100.0	1,070.0	1,070.0	2.3	21.4	-141.53	-1,515.5	-1,204.4	1,935.8	1,912.1	23.74	81.531					
1,200.0	1,200.0	1,170.0	1,170.0	2.6	23.4	-141.53	-1,515.5	-1,204.4	1,935.8	1,909.8	25.97	74.546					
1,300.0	1,300.0	1,270.0	1,270.0	2.8	25.4	-84.29	-1,515.5	-1,204.4	1,935.6	1,907.5	28.19	68.673					
1,400.0	1,399.8	1,369.8	1,369.8	3.0	27.4	-84.45	-1,515.5	-1,204.4	1,935.1	1,904.7	30.40	63.656					
1,500.0	1,499.5	1,469.5	1,469.5	3.2	29.4	-84.73	-1,515.5	-1,204.4	1,934.3	1,901.7	32.62	59.302					
1,576.2	1,575.1	1,545.1	1,545.1	3.4	30.9	-85.01	-1,515.5	-1,204.4	1,933.5	1,899.2	34.31	56.348					
1,600.0	1,598.7	1,568.7	1,568.7	3.5	31.4	-85.10	-1,515.5	-1,204.4	1,933.2	1,898.4	34.84	55.481					
1,700.0	1,697.9	1,667.9	1,667.9	3.7	33.4	-85.48	-1,515.5	-1,204.4	1,932.1	1,895.0	37.09	52.098					
1,800.0	1,797.0	1,767.0	1,767.0	4.0	35.3	-85.86	-1,515.5	-1,204.4	1,931.1	1,891.8	39.34	49.090					
1,900.0	1,896.1	1,866.1	1,866.1	4.3	37.3	-86.25	-1,515.5	-1,204.4	1,930.2	1,888.6	41.60	46.400					
2,000.0	1,995.3	1,965.3	1,965.3	4.6	39.3	-86.63	-1,515.5	-1,204.4	1,929.4	1,885.5	43.87	43.981					
2,100.0	2,094.4	2,064.4	2,064.4	4.9	41.3	-87.02	-1,515.5	-1,204.4	1,928.7	1,882.5	46.14	41.797					
2,200.0	2,193.5	2,163.5	2,163.5	5.2	43.3	-87.40	-1,515.5	-1,204.4	1,928.0	1,879.6	48.42	39.815					
2,300.0	2,292.7	2,262.7	2,262.7	5.5	45.3	-87.79	-1,515.5	-1,204.4	1,927.5	1,876.8	50.71	38.010					
2,400.0	2,391.8	2,361.8	2,361.8	5.8	47.2	-88.17	-1,515.5	-1,204.4	1,927.0	1,874.0	53.00	36.360					
2,500.0	2,491.0	2,461.0	2,461.0	6.1	49.2	-88.56	-1,515.5	-1,204.4	1,926.6	1,871.3	55.29	34.847					
2,600.0	2,590.1	2,560.1	2,560.1	6.4	51.2	-88.95	-1,515.5	-1,204.4	1,926.4	1,868.8	57.58	33.454					
2,700.0	2,689.2	2,659.2	2,659.2	6.7	53.2	-89.33	-1,515.5	-1,204.4	1,926.2	1,866.3	59.88	32.167					
2,800.0	2,788.4	2,758.4	2,758.4	7.0	55.2	-89.72	-1,515.5	-1,204.4	1,926.0	1,863.9	62.18	30.977					
2,873.0	2,860.7	2,830.7	2,830.7	7.2	56.6	-90.00	-1,515.5	-1,204.4	1,926.0	1,862.2	63.85	30.162					
2,900.0	2,887.5	2,857.5	2,857.5	7.3	57.2	-90.10	-1,515.5	-1,204.4	1,926.0	1,861.5	64.48	29.872					
3,000.0	2,986.7	2,956.7	2,956.7	7.6	59.1	-90.49	-1,515.5	-1,204.4	1,926.1	1,859.3	66.78	28.843					
3,100.0	3,085.8	3,055.8	3,055.8	8.0	61.1	-90.88	-1,515.5	-1,204.4	1,926.2	1,857.2	69.08	27.884					
3,200.0	3,184.9	3,154.9	3,154.9	8.3	63.1	-91.26	-1,515.5	-1,204.4	1,926.5	1,855.1	71.38	26.988					
3,300.0	3,284.1	3,254.1	3,254.1	8.6	65.1	-91.65	-1,515.5	-1,204.4	1,926.8	1,853.1	73.69	26.148					
3,400.0	3,383.2	3,353.2	3,353.2	8.9	67.1	-92.03	-1,515.5	-1,204.4	1,927.3	1,851.3	75.99	25.361					
3,500.0	3,482.4	3,452.4	3,452.4	9.3	69.0	-92.42	-1,515.5	-1,204.4	1,927.8	1,849.5	78.30	24.621					
3,600.0	3,581.5	3,551.5	3,551.5	9.6	71.0	-92.81	-1,515.5	-1,204.4	1,928.4	1,847.8	80.61	23.924					
3,700.0	3,680.6	3,650.6	3,650.6	9.9	73.0	-93.19	-1,515.5	-1,204.4	1,929.1	1,846.1	82.91	23.266					
3,800.0	3,779.8	3,749.8	3,749.8	10.2	75.0	-93.58	-1,515.5	-1,204.4	1,929.8	1,844.6	85.22	22.646					
3,900.0	3,878.9	3,848.9	3,848.9	10.6	77.0	-93.96	-1,515.5	-1,204.4	1,930.7	1,843.2	87.53	22.059					
4,000.0	3,978.1	3,948.1	3,948.1	10.9	79.0	-94.34	-1,515.5	-1,204.4	1,931.7	1,841.8	89.83	21.503					
4,100.0	4,077.2	4,047.2	4,047.2	11.2	80.9	-94.73	-1,515.5	-1,204.4	1,932.7	1,840.6	92.14	20.975					
4,200.0	4,176.3	4,146.3	4,146.3	11.5	82.9	-95.11	-1,515.5	-1,204.4	1,933.8	1,839.4	94.45	20.475					
4,300.0	4,275.5	4,245.5	4,245.5	11.9	84.9	-95.49	-1,515.5	-1,204.4	1,935.1	1,838.3	96.76	19.999					
4,400.0	4,374.6	4,344.6	4,344.6	12.2	86.9	-95.88	-1,515.5	-1,204.4	1,936.4	1,837.3	99.06	19.547					
4,500.0	4,473.7	4,443.7	4,443.7	12.5	88.9	-96.26	-1,515.5	-1,204.4	1,937.8	1,836.4	101.37	19.115					
4,600.0	4,572.9	4,542.9	4,542.9	12.8	90.9	-96.64	-1,515.5	-1,204.4	1,939.2	1,835.6	103.68	18.704					
4,700.0	4,672.0	4,642.0	4,642.0	13.2	92.8	-97.02	-1,515.5	-1,204.4	1,940.8	1,834.8	105.99	18.312					
4,800.0	4,771.2	4,741.2	4,741.2	13.5	94.8	-97.40	-1,515.5	-1,204.4	1,942.5	1,834.2	108.29	17.937					

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells - Harvester 32-15 (Exist.) - Wellbore #1 - Wellbore #1														Offset Site Error:	0.0ft
Survey Program: 7300-UNKNOWN														Offset Well Error:	0.0ft
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		
4,900.0	4,870.3	4,840.3	4,840.3	13.8	96.8	-97.78	-1,515.5	-1,204.4	1,944.2	1,833.6	110.60	17.579			
5,000.0	4,969.4	4,939.4	4,939.4	14.2	98.8	-98.16	-1,515.5	-1,204.4	1,946.1	1,833.1	112.91	17.236			
5,100.0	5,068.6	5,038.6	5,038.6	14.5	100.8	-98.54	-1,515.5	-1,204.4	1,948.0	1,832.8	115.21	16.908			
5,156.8	5,124.9	5,094.9	5,094.9	14.7	101.9	-98.75	-1,515.5	-1,204.4	1,949.1	1,832.6	116.52	16.727			
5,200.0	5,167.8	5,137.8	5,137.8	14.8	102.8	-98.92	-1,515.5	-1,204.4	1,949.9	1,832.4	117.50	16.595			
5,300.0	5,267.3	5,237.3	5,237.3	15.0	104.7	-99.24	-1,515.5	-1,204.4	1,951.5	1,831.8	119.72	16.300			
5,400.0	5,367.1	5,337.1	5,337.1	15.2	106.7	-99.44	-1,515.5	-1,204.4	1,952.5	1,830.6	121.91	16.016			
5,500.0	5,467.0	5,437.0	5,437.0	15.4	108.7	-99.53	-1,515.5	-1,204.4	1,953.0	1,828.9	124.07	15.741			
5,533.0	5,500.0	5,470.0	5,470.0	15.4	109.4	-156.83	-1,515.5	-1,204.4	1,953.0	1,828.3	124.78	15.652			
5,600.0	5,567.0	5,537.0	5,537.0	15.5	110.7	-156.83	-1,515.5	-1,204.4	1,953.0	1,826.8	126.22	15.473			
5,700.0	5,667.0	5,637.0	5,637.0	15.7	112.7	-156.83	-1,515.5	-1,204.4	1,953.0	1,824.6	128.40	15.211			
5,800.0	5,767.0	5,737.0	5,737.0	15.9	114.7	-156.83	-1,515.5	-1,204.4	1,953.0	1,822.5	130.57	14.957			
5,900.0	5,867.0	5,837.0	5,837.0	16.0	116.7	-156.83	-1,515.5	-1,204.4	1,953.0	1,820.3	132.75	14.712			
6,000.0	5,967.0	5,937.0	5,937.0	16.2	118.7	-156.83	-1,515.5	-1,204.4	1,953.0	1,818.1	134.93	14.475			
6,100.0	6,067.0	6,037.0	6,037.0	16.4	120.7	-156.83	-1,515.5	-1,204.4	1,953.0	1,815.9	137.10	14.245			
6,200.0	6,167.0	6,137.0	6,137.0	16.6	122.7	-156.83	-1,515.5	-1,204.4	1,953.0	1,813.8	139.28	14.022			
6,300.0	6,267.0	6,237.0	6,237.0	16.8	124.7	-156.83	-1,515.5	-1,204.4	1,953.0	1,811.6	141.46	13.806			
6,400.0	6,367.0	6,337.0	6,337.0	16.9	126.7	-156.83	-1,515.5	-1,204.4	1,953.0	1,809.4	143.64	13.596			
6,451.0	6,418.0	6,388.0	6,388.0	17.0	127.8	-156.83	-1,515.5	-1,204.4	1,953.0	1,808.3	144.76	13.492			
6,500.0	6,467.0	6,437.0	6,437.0	17.1	128.7	23.25	-1,515.5	-1,204.4	1,951.6	1,806.0	145.55	13.408			
6,550.0	6,516.7	6,486.7	6,486.7	17.2	129.7	23.44	-1,515.5	-1,204.4	1,947.1	1,801.3	145.83	13.353			
6,600.0	6,566.1	6,536.1	6,536.1	17.2	130.7	23.76	-1,515.5	-1,204.4	1,939.7	1,794.2	145.57	13.325			
6,650.0	6,614.8	6,584.8	6,584.8	17.2	131.7	24.22	-1,515.5	-1,204.4	1,929.4	1,784.6	144.78	13.326			
6,700.0	6,662.6	6,632.6	6,632.6	17.2	132.7	24.83	-1,515.5	-1,204.4	1,916.1	1,772.6	143.50	13.353			
6,750.0	6,709.4	6,679.4	6,679.4	17.2	133.6	25.59	-1,515.5	-1,204.4	1,900.1	1,758.3	141.76	13.403			
6,800.0	6,755.0	6,725.0	6,725.0	17.2	134.5	26.53	-1,515.5	-1,204.4	1,881.3	1,741.6	139.62	13.474			
6,850.0	6,799.1	6,769.1	6,769.1	17.2	135.4	27.66	-1,515.5	-1,204.4	1,859.8	1,722.7	137.17	13.558			
6,900.0	6,841.6	6,811.6	6,811.6	17.2	136.2	29.01	-1,515.5	-1,204.4	1,835.9	1,701.4	134.53	13.647			
6,950.0	6,882.3	6,852.3	6,852.3	17.2	137.0	30.60	-1,515.5	-1,204.4	1,809.5	1,677.7	131.84	13.725			
7,000.0	6,921.0	6,891.0	6,891.0	17.2	137.8	32.46	-1,515.5	-1,204.4	1,780.9	1,651.6	129.31	13.772			
7,050.0	6,957.5	6,927.5	6,927.5	17.2	138.5	34.64	-1,515.5	-1,204.4	1,750.2	1,623.0	127.19	13.760			
7,100.0	6,991.7	6,961.7	6,961.7	17.2	139.2	37.18	-1,515.5	-1,204.4	1,717.5	1,591.8	125.76	13.657			
7,150.0	7,023.5	6,993.5	6,993.5	17.2	139.9	40.12	-1,515.5	-1,204.4	1,683.1	1,557.8	125.32	13.430			
7,200.0	7,052.6	7,022.6	7,022.6	17.2	140.5	43.49	-1,515.5	-1,204.4	1,647.1	1,521.0	126.16	13.056			
7,250.0	7,079.1	7,049.1	7,049.1	17.3	141.0	47.35	-1,515.5	-1,204.4	1,609.7	1,481.3	128.44	12.533			
7,300.0	7,102.7	7,072.7	7,072.7	17.4	141.5	51.70	-1,515.5	-1,204.4	1,571.2	1,439.0	132.19	11.886			
7,350.0	7,123.4	7,093.4	7,093.4	17.5	141.9	56.53	-1,515.5	-1,204.4	1,531.6	1,394.5	137.17	11.166			
7,400.0	7,141.1	7,111.1	7,111.1	17.7	142.2	61.81	-1,515.5	-1,204.4	1,491.4	1,348.5	142.91	10.436			
7,450.0	7,155.7	7,125.7	7,125.7	18.0	142.5	67.42	-1,515.5	-1,204.4	1,450.6	1,301.9	148.76	9.752			
7,500.0	7,167.1	7,137.1	7,137.1	18.3	142.7	73.22	-1,515.5	-1,204.4	1,409.6	1,255.6	154.02	9.152			
7,550.0	7,175.3	7,145.3	7,145.3	18.7	142.9	79.02	-1,515.5	-1,204.4	1,368.5	1,210.4	158.12	8.655			
7,600.0	7,180.2	7,150.2	7,150.2	19.2	143.0	84.64	-1,515.5	-1,204.4	1,327.7	1,167.0	160.73	8.260			
7,654.0	7,181.9	7,151.9	7,151.9	19.7	143.0	90.31	-1,515.5	-1,204.4	1,284.0	1,122.2	161.87	7.933			
7,700.0	7,181.7	7,151.7	7,151.7	20.2	143.0	90.29	-1,515.5	-1,204.4	1,247.6	1,085.2	162.36	7.684			
7,800.0	7,181.3	7,151.3	7,151.3	21.3	143.0	90.26	-1,515.5	-1,204.4	1,170.4	1,006.9	163.52	7.158			
7,900.0	7,180.9	7,150.9	7,150.9	22.5	143.0	90.23	-1,515.5	-1,204.4	1,097.0	932.3	164.79	6.657			
8,000.0	7,180.5	7,150.5	7,150.5	23.9	143.0	90.20	-1,515.5	-1,204.4	1,028.1	862.0	166.15	6.188			
8,100.0	7,180.1	7,150.1	7,150.1	25.3	143.0	90.17	-1,515.5	-1,204.4	964.7	797.1	167.58	5.757			
8,200.0	7,179.7	7,149.7	7,149.7	26.8	143.0	90.14	-1,515.5	-1,204.4	907.8	738.8	169.07	5.369			
8,300.0	7,179.3	7,149.3	7,149.3	28.3	143.0	90.11	-1,515.5	-1,204.4	858.9	688.3	170.62	5.034			

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells - Harvester 32-15 (Exist.) - Wellbore #1 - Wellbore #1														Offset Site Error: 0.0 ft
Survey Program: 7300-UNKNOWN														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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,400.0	7,178.9	7,148.9	7,148.9	29.9	143.0	90.08	-1,515.5	-1,204.4	819.3	647.1	172.21	4.758		
8,500.0	7,178.5	7,148.5	7,148.5	31.5	143.0	90.05	-1,515.5	-1,204.4	790.5	616.6	173.84	4.547		
8,600.0	7,178.1	7,148.1	7,148.1	33.1	143.0	90.02	-1,515.5	-1,204.4	773.5	598.0	175.50	4.408		
8,682.2	7,177.8	7,147.8	7,147.8	34.5	143.0	90.00	-1,515.5	-1,204.4	769.2	592.3	176.89	4.348 CC		
8,700.0	7,177.7	7,147.7	7,147.7	34.8	143.0	89.99	-1,515.5	-1,204.4	769.4	592.2	177.19	4.342 ES, SF		
8,800.0	7,177.3	7,147.3	7,147.3	36.5	142.9	89.96	-1,515.5	-1,204.4	778.1	599.2	178.90	4.350		
8,900.0	7,176.9	7,146.9	7,146.9	38.2	142.9	89.93	-1,515.5	-1,204.4	799.4	618.8	180.62	4.426		
9,000.0	7,176.5	7,146.5	7,146.5	39.9	142.9	89.90	-1,515.5	-1,204.4	832.2	649.8	182.37	4.563		
9,100.0	7,176.1	7,146.1	7,146.1	41.7	142.9	89.88	-1,515.5	-1,204.4	875.3	691.1	184.13	4.754		
9,200.0	7,175.7	7,145.7	7,145.7	43.4	142.9	89.85	-1,515.5	-1,204.4	927.2	741.3	185.91	4.987		
9,300.0	7,175.3	7,145.3	7,145.3	45.2	142.9	89.82	-1,515.5	-1,204.4	986.5	798.8	187.69	5.256		
9,400.0	7,174.9	7,144.9	7,144.9	47.0	142.9	89.79	-1,515.5	-1,204.4	1,052.0	862.5	189.49	5.552		
9,500.0	7,174.5	7,144.5	7,144.5	48.8	142.9	89.76	-1,515.5	-1,204.4	1,122.6	931.3	191.30	5.869		
9,600.0	7,174.1	7,144.1	7,144.1	50.6	142.9	89.73	-1,515.5	-1,204.4	1,197.4	1,004.3	193.11	6.201		
9,700.0	7,173.7	7,143.7	7,143.7	52.4	142.9	89.70	-1,515.5	-1,204.4	1,275.7	1,080.8	194.93	6.544		
9,800.0	7,173.3	7,143.3	7,143.3	54.3	142.9	89.67	-1,515.5	-1,204.4	1,356.8	1,160.1	196.76	6.896		
9,900.0	7,172.9	7,142.9	7,142.9	56.1	142.9	89.64	-1,515.5	-1,204.4	1,440.3	1,241.7	198.59	7.253		
10,000.0	7,172.5	7,142.5	7,142.5	57.9	142.9	89.61	-1,515.5	-1,204.4	1,525.8	1,325.4	200.43	7.613		
10,100.0	7,172.1	7,142.1	7,142.1	59.8	142.8	89.58	-1,515.5	-1,204.4	1,612.9	1,410.7	202.28	7.974		
10,200.0	7,171.7	7,141.7	7,141.7	61.6	142.8	89.55	-1,515.5	-1,204.4	1,701.5	1,497.4	204.12	8.336		
10,300.0	7,171.3	7,141.3	7,141.3	63.5	142.8	89.52	-1,515.5	-1,204.4	1,791.3	1,585.3	205.98	8.697		
10,400.0	7,170.9	7,140.9	7,140.9	65.3	142.8	89.49	-1,515.5	-1,204.4	1,882.1	1,674.3	207.83	9.056		
10,500.0	7,170.5	7,140.5	7,140.5	67.2	142.8	89.46	-1,515.5	-1,204.4	1,973.8	1,764.1	209.69	9.413		
10,600.0	7,170.1	7,140.1	7,140.1	69.0	142.8	89.43	-1,515.5	-1,204.4	2,066.2	1,854.7	211.55	9.767		
10,700.0	7,169.7	7,139.7	7,139.7	70.9	142.8	89.40	-1,515.5	-1,204.4	2,159.4	1,946.0	213.42	10.118		
10,800.0	7,169.3	7,139.3	7,139.3	72.8	142.8	89.37	-1,515.5	-1,204.4	2,253.1	2,037.8	215.28	10.466		
10,900.0	7,168.9	7,138.9	7,138.9	74.7	142.8	89.34	-1,515.5	-1,204.4	2,347.3	2,130.2	217.15	10.810		
11,000.0	7,168.5	7,138.5	7,138.5	76.5	142.8	89.31	-1,515.5	-1,204.4	2,442.0	2,223.0	219.03	11.150		
11,100.0	7,168.1	7,138.1	7,138.1	78.4	142.8	89.28	-1,515.5	-1,204.4	2,537.1	2,316.2	220.90	11.485		
11,200.0	7,167.7	7,137.7	7,137.7	80.3	142.8	89.25	-1,515.5	-1,204.4	2,632.6	2,409.8	222.77	11.817		
11,300.0	7,167.3	7,137.3	7,137.3	82.2	142.7	89.22	-1,515.5	-1,204.4	2,728.4	2,503.7	224.65	12.145		
11,400.0	7,166.9	7,136.9	7,136.9	84.0	142.7	89.19	-1,515.5	-1,204.4	2,824.5	2,597.9	226.53	12.468		
11,500.0	7,166.5	7,136.5	7,136.5	85.9	142.7	89.16	-1,515.5	-1,204.4	2,920.8	2,692.4	228.41	12.788		
11,600.0	7,166.1	7,136.1	7,136.1	87.8	142.7	89.13	-1,515.5	-1,204.4	3,017.4	2,787.1	230.29	13.102		
11,622.7	7,166.0	7,136.0	7,136.0	88.2	142.7	89.12	-1,515.5	-1,204.4	3,039.3	2,808.6	230.72	13.173		
11,623.5	7,166.0	7,136.0	7,136.0	88.3	142.7	89.12	-1,515.5	-1,204.4	3,040.2	2,809.4	230.73	13.176		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells - Harvester 41-15 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 7300-UNKNOWN													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-157.70	-488.2	-200.3	528.0					
100.0	100.0	80.0	80.0	0.1	1.6	-157.70	-488.2	-200.3	527.7	526.0	1.70	311.171		
200.0	200.0	180.0	180.0	0.3	3.6	-157.70	-488.2	-200.3	527.7	523.7	3.92	134.590		
300.0	300.0	280.0	280.0	0.5	5.6	-157.70	-488.2	-200.3	527.7	521.5	6.15	85.865		
400.0	400.0	380.0	380.0	0.8	7.6	-157.70	-488.2	-200.3	527.7	519.3	8.37	63.042		
500.0	500.0	480.0	480.0	1.0	9.6	-157.70	-488.2	-200.3	527.7	517.1	10.59	49.804		
600.0	600.0	580.0	580.0	1.2	11.6	-157.70	-488.2	-200.3	527.7	514.8	12.82	41.161		
700.0	700.0	680.0	680.0	1.4	13.6	-157.70	-488.2	-200.3	527.7	512.6	15.04	35.074		
800.0	800.0	780.0	780.0	1.7	15.6	-157.70	-488.2	-200.3	527.7	510.4	17.27	30.555		
900.0	900.0	880.0	880.0	1.9	17.6	-157.70	-488.2	-200.3	527.7	508.2	19.49	27.068		
1,000.0	1,000.0	980.0	980.0	2.1	19.6	-157.70	-488.2	-200.3	527.7	505.9	21.72	24.295		
1,100.0	1,100.0	1,080.0	1,080.0	2.3	21.6	-157.70	-488.2	-200.3	527.7	503.7	23.94	22.038		
1,200.0	1,200.0	1,180.0	1,180.0	2.6	23.6	-157.70	-488.2	-200.3	527.7	501.5	26.17	20.164		
1,300.0	1,300.0	1,280.0	1,280.0	2.8	25.6	-100.58	-488.2	-200.3	528.0	499.6	28.39	18.600		
1,400.0	1,399.8	1,379.8	1,379.8	3.0	27.6	-101.12	-488.2	-200.3	529.0	498.4	30.60	17.287		
1,500.0	1,499.5	1,479.5	1,479.5	3.2	29.6	-102.01	-488.2	-200.3	530.7	497.9	32.81	16.174		
1,576.2	1,575.1	1,555.1	1,555.1	3.4	31.1	-102.91	-488.2	-200.3	532.7	498.2	34.50	15.438		
1,600.0	1,598.7	1,578.7	1,578.7	3.5	31.6	-103.23	-488.2	-200.3	533.4	498.3	35.04	15.224		
1,700.0	1,697.9	1,677.9	1,677.9	3.7	33.6	-104.58	-488.2	-200.3	536.5	499.3	37.27	14.395		
1,800.0	1,797.0	1,777.0	1,777.0	4.0	35.5	-105.91	-488.2	-200.3	540.0	500.5	39.52	13.665		
1,900.0	1,896.1	1,876.1	1,876.1	4.3	37.5	-107.23	-488.2	-200.3	543.8	502.0	41.77	13.018		
2,000.0	1,995.3	1,975.3	1,975.3	4.6	39.5	-108.53	-488.2	-200.3	547.8	503.8	44.03	12.443		
2,100.0	2,094.4	2,074.4	2,074.4	4.9	41.5	-109.81	-488.2	-200.3	552.2	505.9	46.29	11.928		
2,200.0	2,193.5	2,173.5	2,173.5	5.2	43.5	-111.07	-488.2	-200.3	556.8	508.2	48.55	11.467		
2,300.0	2,292.7	2,272.7	2,272.7	5.5	45.5	-112.30	-488.2	-200.3	561.7	510.8	50.82	11.052		
2,400.0	2,391.8	2,371.8	2,371.8	5.8	47.4	-113.52	-488.2	-200.3	566.8	513.7	53.08	10.677		
2,500.0	2,491.0	2,471.0	2,471.0	6.1	49.4	-114.71	-488.2	-200.3	572.2	516.8	55.35	10.338		
2,600.0	2,590.1	2,570.1	2,570.1	6.4	51.4	-115.88	-488.2	-200.3	577.8	520.2	57.61	10.029		
2,700.0	2,689.2	2,669.2	2,669.2	6.7	53.4	-117.03	-488.2	-200.3	583.7	523.8	59.88	9.748		
2,800.0	2,788.4	2,768.4	2,768.4	7.0	55.4	-118.16	-488.2	-200.3	589.8	527.7	62.14	9.491		
2,900.0	2,887.5	2,867.5	2,867.5	7.3	57.4	-119.26	-488.2	-200.3	596.1	531.7	64.40	9.257		
3,000.0	2,986.7	2,966.7	2,966.7	7.6	59.3	-120.34	-488.2	-200.3	602.7	536.0	66.66	9.041		
3,100.0	3,085.8	3,065.8	3,065.8	8.0	61.3	-121.40	-488.2	-200.3	609.4	540.5	68.92	8.843		
3,200.0	3,184.9	3,164.9	3,164.9	8.3	63.3	-122.43	-488.2	-200.3	616.4	545.2	71.17	8.661		
3,300.0	3,284.1	3,264.1	3,264.1	8.6	65.3	-123.44	-488.2	-200.3	623.6	550.1	73.42	8.493		
3,400.0	3,383.2	3,363.2	3,363.2	8.9	67.3	-124.42	-488.2	-200.3	630.9	555.2	75.68	8.337		
3,500.0	3,482.4	3,462.4	3,462.4	9.3	69.2	-125.39	-488.2	-200.3	638.5	560.5	77.92	8.193		
3,600.0	3,581.5	3,561.5	3,561.5	9.6	71.2	-126.33	-488.2	-200.3	646.2	566.0	80.17	8.060		
3,700.0	3,680.6	3,660.6	3,660.6	9.9	73.2	-127.25	-488.2	-200.3	654.1	571.6	82.42	7.936		
3,800.0	3,779.8	3,759.8	3,759.8	10.2	75.2	-128.15	-488.2	-200.3	662.1	577.4	84.66	7.821		
3,900.0	3,878.9	3,858.9	3,858.9	10.6	77.2	-129.02	-488.2	-200.3	670.3	583.4	86.90	7.714		
4,000.0	3,978.1	3,958.1	3,958.1	10.9	79.2	-129.88	-488.2	-200.3	678.7	589.5	89.14	7.614		
4,100.0	4,077.2	4,057.2	4,057.2	11.2	81.1	-130.71	-488.2	-200.3	687.2	595.8	91.37	7.521		
4,200.0	4,176.3	4,156.3	4,156.3	11.5	83.1	-131.52	-488.2	-200.3	695.8	602.2	93.61	7.434		
4,300.0	4,275.5	4,255.5	4,255.5	11.9	85.1	-132.32	-488.2	-200.3	704.6	608.8	95.84	7.352		
4,400.0	4,374.6	4,354.6	4,354.6	12.2	87.1	-133.09	-488.2	-200.3	713.5	615.5	98.07	7.276		
4,500.0	4,473.7	4,453.7	4,453.7	12.5	89.1	-133.84	-488.2	-200.3	722.6	622.3	100.30	7.204		
4,600.0	4,572.9	4,552.9	4,552.9	12.8	91.1	-134.58	-488.2	-200.3	731.8	629.2	102.53	7.137		
4,700.0	4,672.0	4,652.0	4,652.0	13.2	93.0	-135.30	-488.2	-200.3	741.1	636.3	104.75	7.074		
4,800.0	4,771.2	4,751.2	4,751.2	13.5	95.0	-136.00	-488.2	-200.3	750.5	643.5	106.98	7.015		
4,900.0	4,870.3	4,850.3	4,850.3	13.8	97.0	-136.68	-488.2	-200.3	760.0	650.8	109.20	6.959		

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design				Existing Wells - Harvester 41-15 (Exist.) - Wellbore #1 - Wellbore #1										Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN														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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,000.0	4,969.4	4,949.4	4,949.4	14.2	99.0	-137.35	-488.2	-200.3	769.6	658.2	111.42	6.907			
5,100.0	5,068.6	5,048.6	5,048.6	14.5	101.0	-138.00	-488.2	-200.3	779.3	665.7	113.64	6.857			
5,156.8	5,124.9	5,104.9	5,104.9	14.7	102.1	-138.36	-488.2	-200.3	784.9	670.0	114.90	6.831			
5,200.0	5,167.8	5,147.8	5,147.8	14.8	103.0	-138.67	-488.2	-200.3	788.9	672.9	115.95	6.803			
5,300.0	5,267.3	5,247.3	5,247.3	15.0	104.9	-139.24	-488.2	-200.3	796.3	678.0	118.30	6.731			
5,400.0	5,367.1	5,347.1	5,347.1	15.2	106.9	-139.60	-488.2	-200.3	801.2	680.6	120.59	6.644			
5,500.0	5,467.0	5,447.0	5,447.0	15.4	108.9	-139.76	-488.2	-200.3	803.4	680.6	122.79	6.543			
5,533.0	5,500.0	5,480.0	5,480.0	15.4	109.6	162.94	-488.2	-200.3	803.5	680.0	123.50	6.507			
5,600.0	5,567.0	5,547.0	5,547.0	15.5	110.9	162.94	-488.2	-200.3	803.5	678.6	124.95	6.431			
5,700.0	5,667.0	5,647.0	5,647.0	15.7	112.9	162.94	-488.2	-200.3	803.5	676.4	127.14	6.320			
5,800.0	5,767.0	5,747.0	5,747.0	15.9	114.9	162.94	-488.2	-200.3	803.5	674.2	129.33	6.213			
5,900.0	5,867.0	5,847.0	5,847.0	16.0	116.9	162.94	-488.2	-200.3	803.5	672.0	131.53	6.109			
6,000.0	5,967.0	5,947.0	5,947.0	16.2	118.9	162.94	-488.2	-200.3	803.5	669.8	133.72	6.009			
6,100.0	6,067.0	6,047.0	6,047.0	16.4	120.9	162.94	-488.2	-200.3	803.5	667.6	135.91	5.912			
6,200.0	6,167.0	6,147.0	6,147.0	16.6	122.9	162.94	-488.2	-200.3	803.5	665.4	138.11	5.818			
6,300.0	6,267.0	6,247.0	6,247.0	16.8	124.9	162.94	-488.2	-200.3	803.5	663.2	140.30	5.727			
6,400.0	6,367.0	6,347.0	6,347.0	16.9	126.9	162.94	-488.2	-200.3	803.5	661.0	142.50	5.639			
6,451.0	6,418.0	6,398.0	6,398.0	17.0	128.0	162.94	-488.2	-200.3	803.5	659.9	143.62	5.595			
6,500.0	6,467.0	6,447.0	6,447.0	17.1	128.9	-17.10	-488.2	-200.3	802.0	657.7	144.37	5.555			
6,550.0	6,516.7	6,496.7	6,496.7	17.2	129.9	-17.31	-488.2	-200.3	797.4	652.9	144.56	5.516			
6,600.0	6,566.1	6,546.1	6,546.1	17.2	130.9	-17.66	-488.2	-200.3	789.7	645.5	144.18	5.477			
6,650.0	6,614.8	6,594.8	6,594.8	17.2	131.9	-18.17	-488.2	-200.3	778.9	635.7	143.23	5.438			
6,700.0	6,662.6	6,642.6	6,642.6	17.2	132.9	-18.85	-488.2	-200.3	765.2	623.4	141.74	5.399			
6,750.0	6,709.4	6,689.4	6,689.4	17.2	133.8	-19.72	-488.2	-200.3	748.5	608.8	139.73	5.357			
6,800.0	6,755.0	6,735.0	6,735.0	17.2	134.7	-20.82	-488.2	-200.3	729.0	591.7	137.28	5.310			
6,850.0	6,799.1	6,779.1	6,779.1	17.2	135.6	-22.18	-488.2	-200.3	706.8	572.3	134.48	5.255			
6,900.0	6,841.6	6,821.6	6,821.6	17.2	136.4	-23.84	-488.2	-200.3	682.0	550.5	131.48	5.187			
6,950.0	6,882.3	6,862.3	6,862.3	17.2	137.2	-25.88	-488.2	-200.3	654.8	526.3	128.47	5.097			
7,000.0	6,921.0	6,901.0	6,901.0	17.2	138.0	-28.36	-488.2	-200.3	625.3	499.6	125.74	4.973			
7,050.0	6,957.5	6,937.5	6,937.5	17.2	138.7	-31.38	-488.2	-200.3	593.9	470.2	123.69	4.801			
7,100.0	6,991.7	6,971.7	6,971.7	17.2	139.4	-35.02	-488.2	-200.3	560.6	437.8	122.81	4.565			
7,150.0	7,023.5	7,003.5	7,003.5	17.2	140.1	-39.39	-488.2	-200.3	525.8	402.2	123.60	4.254			
7,200.0	7,052.6	7,032.6	7,032.6	17.2	140.7	-44.55	-488.2	-200.3	489.9	363.4	126.47	3.873			
7,250.0	7,079.1	7,059.1	7,059.1	17.3	141.2	-50.51	-488.2	-200.3	453.1	321.7	131.45	3.447			
7,300.0	7,102.7	7,082.7	7,082.7	17.4	141.7	-57.13	-488.2	-200.3	416.1	278.1	137.98	3.016			
7,350.0	7,123.4	7,103.4	7,103.4	17.5	142.1	-64.11	-488.2	-200.3	379.4	234.4	145.01	2.617			
7,400.0	7,141.1	7,121.1	7,121.1	17.7	142.4	-71.03	-488.2	-200.3	344.0	192.7	151.30	2.274			
7,450.0	7,155.7	7,135.7	7,135.7	18.0	142.7	-77.36	-488.2	-200.3	310.9	154.8	156.01	1.993			
7,500.0	7,167.1	7,147.1	7,147.1	18.3	142.9	-82.66	-488.2	-200.3	281.5	122.5	158.98	1.771			
7,550.0	7,175.3	7,155.3	7,155.3	18.7	143.1	-86.63	-488.2	-200.3	257.8	97.2	160.60	1.605			
7,600.0	7,180.2	7,160.2	7,160.2	19.2	143.2	-89.10	-488.2	-200.3	241.8	80.4	161.46	1.498 Level 3			
7,654.0	7,181.9	7,161.9	7,161.9	19.7	143.2	-90.00	-488.2	-200.3	235.4	73.3	162.08	1.452 Level 3			
7,655.3	7,181.9	7,161.9	7,161.9	19.7	143.2	-90.00	-488.2	-200.3	235.4	73.3	162.09	1.452 Level 3, CC, ES, SF			
7,700.0	7,181.7	7,161.7	7,161.7	20.2	143.2	-89.96	-488.2	-200.3	239.6	77.0	162.57	1.474 Level 3			
7,800.0	7,181.3	7,161.3	7,161.3	21.3	143.2	-89.86	-488.2	-200.3	276.3	112.6	163.72	1.688			
7,900.0	7,180.9	7,160.9	7,160.9	22.5	143.2	-89.76	-488.2	-200.3	339.5	174.6	164.99	2.058			
8,000.0	7,180.5	7,160.5	7,160.5	23.9	143.2	-89.66	-488.2	-200.3	417.4	251.1	166.34	2.509			
8,100.0	7,180.1	7,160.1	7,160.1	25.3	143.2	-89.57	-488.2	-200.3	503.1	335.4	167.77	2.999			
8,200.0	7,179.7	7,159.7	7,159.7	26.8	143.2	-89.47	-488.2	-200.3	593.4	424.1	169.26	3.506			
8,300.0	7,179.3	7,159.3	7,159.3	28.3	143.2	-89.37	-488.2	-200.3	686.3	515.5	170.80	4.018			

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Existing Wells - Harvester 41-15 (Exist.) - Wellbore #1 - Wellbore #1											Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN													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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,400.0	7,178.9	7,158.9	7,158.9	29.9	143.2	-89.27	-488.2	-200.3	781.0	608.6	172.38	4.531		
8,500.0	7,178.5	7,158.5	7,158.5	31.5	143.2	-89.17	-488.2	-200.3	876.9	702.9	174.00	5.039		
8,600.0	7,178.1	7,158.1	7,158.1	33.1	143.2	-89.08	-488.2	-200.3	973.6	797.9	175.65	5.543		
8,700.0	7,177.7	7,157.7	7,157.7	34.8	143.2	-88.98	-488.2	-200.3	1,070.9	893.5	177.33	6.039		
8,800.0	7,177.3	7,157.3	7,157.3	36.5	143.1	-88.88	-488.2	-200.3	1,168.6	989.6	179.03	6.527		
8,900.0	7,176.9	7,156.9	7,156.9	38.2	143.1	-88.78	-488.2	-200.3	1,266.7	1,086.0	180.75	7.008		
9,000.0	7,176.5	7,156.5	7,156.5	39.9	143.1	-88.69	-488.2	-200.3	1,365.1	1,182.6	182.49	7.481		
9,100.0	7,176.1	7,156.1	7,156.1	41.7	143.1	-88.59	-488.2	-200.3	1,463.7	1,279.5	184.24	7.945		
9,200.0	7,175.7	7,155.7	7,155.7	43.4	143.1	-88.49	-488.2	-200.3	1,562.5	1,376.5	186.00	8.400		
9,300.0	7,175.3	7,155.3	7,155.3	45.2	143.1	-88.39	-488.2	-200.3	1,661.4	1,473.7	187.78	8.848		
9,400.0	7,174.9	7,154.9	7,154.9	47.0	143.1	-88.30	-488.2	-200.3	1,760.5	1,570.9	189.56	9.287		
9,500.0	7,174.5	7,154.5	7,154.5	48.8	143.1	-88.20	-488.2	-200.3	1,859.6	1,668.3	191.36	9.718		
9,600.0	7,174.1	7,154.1	7,154.1	50.6	143.1	-88.10	-488.2	-200.3	1,958.9	1,765.7	193.16	10.141		
9,700.0	7,173.7	7,153.7	7,153.7	52.4	143.1	-88.00	-488.2	-200.3	2,058.2	1,863.2	194.96	10.557		
9,800.0	7,173.3	7,153.3	7,153.3	54.3	143.1	-87.91	-488.2	-200.3	2,157.5	1,960.8	196.78	10.964		
9,900.0	7,172.9	7,152.9	7,152.9	56.1	143.1	-87.81	-488.2	-200.3	2,257.0	2,058.4	198.60	11.365		
10,000.0	7,172.5	7,152.5	7,152.5	57.9	143.1	-87.71	-488.2	-200.3	2,356.5	2,156.0	200.42	11.758		
10,100.0	7,172.1	7,152.1	7,152.1	59.8	143.0	-87.61	-488.2	-200.3	2,456.0	2,253.7	202.25	12.143		
10,200.0	7,171.7	7,151.7	7,151.7	61.6	143.0	-87.52	-488.2	-200.3	2,555.5	2,351.4	204.08	12.522		
10,300.0	7,171.3	7,151.3	7,151.3	63.5	143.0	-87.42	-488.2	-200.3	2,655.1	2,449.2	205.91	12.895		
10,400.0	7,170.9	7,150.9	7,150.9	65.3	143.0	-87.32	-488.2	-200.3	2,754.7	2,547.0	207.75	13.260		
10,500.0	7,170.5	7,150.5	7,150.5	67.2	143.0	-87.22	-488.2	-200.3	2,854.4	2,644.8	209.59	13.619		
10,600.0	7,170.1	7,150.1	7,150.1	69.0	143.0	-87.13	-488.2	-200.3	2,954.1	2,742.6	211.43	13.972		
10,700.0	7,169.7	7,149.7	7,149.7	70.9	143.0	-87.03	-488.2	-200.3	3,053.7	2,840.5	213.27	14.319		
10,800.0	7,169.3	7,149.3	7,149.3	72.8	143.0	-86.93	-488.2	-200.3	3,153.5	2,938.3	215.12	14.659		
10,900.0	7,168.9	7,148.9	7,148.9	74.7	143.0	-86.83	-488.2	-200.3	3,253.2	3,036.2	216.96	14.994		
11,000.0	7,168.5	7,148.5	7,148.5	76.5	143.0	-86.74	-488.2	-200.3	3,352.9	3,134.1	218.81	15.323		
11,100.0	7,168.1	7,148.1	7,148.1	78.4	143.0	-86.64	-488.2	-200.3	3,452.7	3,232.0	220.66	15.647		
11,200.0	7,167.7	7,147.7	7,147.7	80.3	143.0	-86.54	-488.2	-200.3	3,552.5	3,329.9	222.51	15.965		
11,300.0	7,167.3	7,147.3	7,147.3	82.2	142.9	-86.44	-488.2	-200.3	3,652.2	3,427.9	224.36	16.278		
11,400.0	7,166.9	7,146.9	7,146.9	84.0	142.9	-86.35	-488.2	-200.3	3,752.0	3,525.8	226.21	16.586		
11,500.0	7,166.5	7,146.5	7,146.5	85.9	142.9	-86.25	-488.2	-200.3	3,851.9	3,623.8	228.07	16.889		
11,600.0	7,166.1	7,146.1	7,146.1	87.8	142.9	-86.15	-488.2	-200.3	3,951.7	3,721.7	229.92	17.187		
11,622.7	7,166.0	7,146.0	7,146.0	88.2	142.9	-86.13	-488.2	-200.3	3,974.3	3,743.9	230.34	17.254		
11,623.5	7,166.0	7,146.0	7,146.0	88.3	142.9	-86.13	-488.2	-200.3	3,975.2	3,744.8	230.35	17.257		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells - Harvester 42-15 (exist.) - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN													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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-171.26	-1,482.8	-228.1	1,500.7					
100.0	100.0	60.0	60.0	0.1	1.2	-171.26	-1,482.8	-228.1	1,500.2	1,498.9	1.30	1,157.818		
200.0	200.0	160.0	160.0	0.3	3.2	-171.26	-1,482.8	-228.1	1,500.2	1,496.7	3.52	426.138		
300.0	300.0	260.0	260.0	0.5	5.2	-171.26	-1,482.8	-228.1	1,500.2	1,494.5	5.75	261.122		
400.0	400.0	360.0	360.0	0.8	7.2	-171.26	-1,482.8	-228.1	1,500.2	1,492.2	7.97	188.232		
500.0	500.0	460.0	460.0	1.0	9.2	-171.26	-1,482.8	-228.1	1,500.2	1,490.0	10.19	147.155		
600.0	600.0	560.0	560.0	1.2	11.2	-171.26	-1,482.8	-228.1	1,500.2	1,487.8	12.42	120.794		
700.0	700.0	660.0	660.0	1.4	13.2	-171.26	-1,482.8	-228.1	1,500.2	1,485.6	14.64	102.443		
800.0	800.0	760.0	760.0	1.7	15.2	-171.26	-1,482.8	-228.1	1,500.2	1,483.3	16.87	88.933		
900.0	900.0	860.0	860.0	1.9	17.2	-171.26	-1,482.8	-228.1	1,500.2	1,481.1	19.09	78.571		
1,000.0	1,000.0	960.0	960.0	2.1	19.2	-171.26	-1,482.8	-228.1	1,500.2	1,478.9	21.32	70.371		
1,100.0	1,100.0	1,060.0	1,060.0	2.3	21.2	-171.26	-1,482.8	-228.1	1,500.2	1,476.7	23.54	63.721		
1,200.0	1,200.0	1,160.0	1,160.0	2.6	23.2	-171.26	-1,482.8	-228.1	1,500.2	1,474.4	25.77	58.220		
1,300.0	1,300.0	1,260.0	1,260.0	2.8	25.2	-114.01	-1,482.8	-228.1	1,500.9	1,472.9	27.98	53.635		
1,400.0	1,399.8	1,359.8	1,359.8	3.0	27.2	-114.15	-1,482.8	-228.1	1,503.1	1,472.9	30.19	49.787		
1,500.0	1,499.5	1,459.5	1,459.5	3.2	29.2	-114.39	-1,482.8	-228.1	1,506.7	1,474.3	32.39	46.514		
1,576.2	1,575.1	1,535.1	1,535.1	3.4	30.7	-114.63	-1,482.8	-228.1	1,510.4	1,476.3	34.07	44.335		
1,600.0	1,598.7	1,558.7	1,558.7	3.5	31.2	-114.74	-1,482.8	-228.1	1,511.7	1,477.1	34.60	43.694		
1,700.0	1,697.9	1,657.9	1,657.9	3.7	33.2	-115.18	-1,482.8	-228.1	1,517.3	1,480.4	36.83	41.196		
1,800.0	1,797.0	1,757.0	1,757.0	4.0	35.1	-115.63	-1,482.8	-228.1	1,522.9	1,483.9	39.07	38.977		
1,900.0	1,896.1	1,856.1	1,856.1	4.3	37.1	-116.07	-1,482.8	-228.1	1,528.7	1,487.4	41.32	36.994		
2,000.0	1,995.3	1,955.3	1,955.3	4.6	39.1	-116.50	-1,482.8	-228.1	1,534.5	1,490.9	43.58	35.214		
2,100.0	2,094.4	2,054.4	2,054.4	4.9	41.1	-116.93	-1,482.8	-228.1	1,540.4	1,494.6	45.84	33.608		
2,200.0	2,193.5	2,153.5	2,153.5	5.2	43.1	-117.36	-1,482.8	-228.1	1,546.5	1,498.4	48.10	32.152		
2,300.0	2,292.7	2,252.7	2,252.7	5.5	45.1	-117.79	-1,482.8	-228.1	1,552.6	1,502.2	50.36	30.828		
2,400.0	2,391.8	2,351.8	2,351.8	5.8	47.0	-118.21	-1,482.8	-228.1	1,558.8	1,506.1	52.63	29.617		
2,500.0	2,491.0	2,451.0	2,451.0	6.1	49.0	-118.63	-1,482.8	-228.1	1,565.0	1,510.1	54.90	28.508		
2,600.0	2,590.1	2,550.1	2,550.1	6.4	51.0	-119.05	-1,482.8	-228.1	1,571.4	1,514.2	57.17	27.487		
2,700.0	2,689.2	2,649.2	2,649.2	6.7	53.0	-119.46	-1,482.8	-228.1	1,577.8	1,518.4	59.44	26.545		
2,800.0	2,788.4	2,748.4	2,748.4	7.0	55.0	-119.87	-1,482.8	-228.1	1,584.4	1,522.6	61.71	25.674		
2,900.0	2,887.5	2,847.5	2,847.5	7.3	57.0	-120.28	-1,482.8	-228.1	1,591.0	1,527.0	63.98	24.866		
3,000.0	2,986.7	2,946.7	2,946.7	7.6	58.9	-120.68	-1,482.8	-228.1	1,597.6	1,531.4	66.25	24.114		
3,100.0	3,085.8	3,045.8	3,045.8	8.0	60.9	-121.08	-1,482.8	-228.1	1,604.4	1,535.9	68.52	23.413		
3,200.0	3,184.9	3,144.9	3,144.9	8.3	62.9	-121.48	-1,482.8	-228.1	1,611.2	1,540.4	70.80	22.759		
3,300.0	3,284.1	3,244.1	3,244.1	8.6	64.9	-121.87	-1,482.8	-228.1	1,618.2	1,545.1	73.07	22.146		
3,400.0	3,383.2	3,343.2	3,343.2	8.9	66.9	-122.26	-1,482.8	-228.1	1,625.2	1,549.8	75.34	21.571		
3,500.0	3,482.4	3,442.4	3,442.4	9.3	68.8	-122.65	-1,482.8	-228.1	1,632.2	1,554.6	77.61	21.031		
3,600.0	3,581.5	3,541.5	3,541.5	9.6	70.8	-123.03	-1,482.8	-228.1	1,639.4	1,559.5	79.88	20.523		
3,700.0	3,680.6	3,640.6	3,640.6	9.9	72.8	-123.41	-1,482.8	-228.1	1,646.6	1,564.4	82.15	20.044		
3,800.0	3,779.8	3,739.8	3,739.8	10.2	74.8	-123.78	-1,482.8	-228.1	1,653.9	1,569.5	84.42	19.592		
3,900.0	3,878.9	3,838.9	3,838.9	10.6	76.8	-124.16	-1,482.8	-228.1	1,661.2	1,574.5	86.69	19.164		
4,000.0	3,978.1	3,938.1	3,938.1	10.9	78.8	-124.53	-1,482.8	-228.1	1,668.7	1,579.7	88.95	18.759		
4,100.0	4,077.2	4,037.2	4,037.2	11.2	80.7	-124.89	-1,482.8	-228.1	1,676.2	1,584.9	91.22	18.375		
4,200.0	4,176.3	4,136.3	4,136.3	11.5	82.7	-125.26	-1,482.8	-228.1	1,683.7	1,590.2	93.49	18.011		
4,300.0	4,275.5	4,235.5	4,235.5	11.9	84.7	-125.62	-1,482.8	-228.1	1,691.4	1,595.6	95.75	17.664		
4,400.0	4,374.6	4,334.6	4,334.6	12.2	86.7	-125.97	-1,482.8	-228.1	1,699.1	1,601.1	98.01	17.335		
4,500.0	4,473.7	4,433.7	4,433.7	12.5	88.7	-126.33	-1,482.8	-228.1	1,706.8	1,606.6	100.28	17.021		
4,600.0	4,572.9	4,532.9	4,532.9	12.8	90.7	-126.68	-1,482.8	-228.1	1,714.7	1,612.1	102.54	16.722		
4,700.0	4,672.0	4,632.0	4,632.0	13.2	92.6	-127.03	-1,482.8	-228.1	1,722.6	1,617.8	104.80	16.436		
4,800.0	4,771.2	4,731.2	4,731.2	13.5	94.6	-127.37	-1,482.8	-228.1	1,730.5	1,623.5	107.06	16.164		
4,900.0	4,870.3	4,830.3	4,830.3	13.8	96.6	-127.71	-1,482.8	-228.1	1,738.5	1,629.2	109.32	15.903		

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells - Harvester 42-15 (exist.) - Wellbore #1 - Wellbore #1												Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN												Offset Well Error: 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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.0	4,969.4	4,929.4	4,929.4	14.2	98.6	-128.05	-1,482.8	-228.1	1,746.6	1,635.0	111.58	15.653	
5,100.0	5,068.6	5,028.6	5,028.6	14.5	100.6	-128.38	-1,482.8	-228.1	1,754.8	1,640.9	113.84	15.414	
5,156.8	5,124.9	5,084.9	5,084.9	14.7	101.7	-128.57	-1,482.8	-228.1	1,759.4	1,644.3	115.12	15.283	
5,200.0	5,167.8	5,127.8	5,127.8	14.8	102.6	-128.76	-1,482.8	-228.1	1,762.8	1,646.6	116.15	15.176	
5,300.0	5,267.3	5,227.3	5,227.3	15.0	104.5	-129.11	-1,482.8	-228.1	1,769.0	1,650.5	118.46	14.933	
5,400.0	5,367.1	5,327.1	5,327.1	15.2	106.5	-129.33	-1,482.8	-228.1	1,773.0	1,652.3	120.72	14.687	
5,500.0	5,467.0	5,427.0	5,427.0	15.4	108.5	-129.43	-1,482.8	-228.1	1,774.9	1,652.0	122.91	14.441	
5,533.0	5,500.0	5,460.0	5,460.0	15.4	109.2	173.27	-1,482.8	-228.1	1,775.0	1,651.4	123.62	14.359	
5,600.0	5,567.0	5,527.0	5,527.0	15.5	110.5	173.27	-1,482.8	-228.1	1,775.0	1,649.9	125.07	14.192	
5,700.0	5,667.0	5,627.0	5,627.0	15.7	112.5	173.27	-1,482.8	-228.1	1,775.0	1,647.7	127.25	13.949	
5,800.0	5,767.0	5,727.0	5,727.0	15.9	114.5	173.27	-1,482.8	-228.1	1,775.0	1,645.6	129.44	13.713	
5,900.0	5,867.0	5,827.0	5,827.0	16.0	116.5	173.27	-1,482.8	-228.1	1,775.0	1,643.4	131.62	13.485	
6,000.0	5,967.0	5,927.0	5,927.0	16.2	118.5	173.27	-1,482.8	-228.1	1,775.0	1,641.2	133.81	13.265	
6,100.0	6,067.0	6,027.0	6,027.0	16.4	120.5	173.27	-1,482.8	-228.1	1,775.0	1,639.0	136.00	13.051	
6,200.0	6,167.0	6,127.0	6,127.0	16.6	122.5	173.27	-1,482.8	-228.1	1,775.0	1,636.8	138.19	12.845	
6,300.0	6,267.0	6,227.0	6,227.0	16.8	124.5	173.27	-1,482.8	-228.1	1,775.0	1,634.6	140.38	12.644	
6,400.0	6,367.0	6,327.0	6,327.0	16.9	126.5	173.27	-1,482.8	-228.1	1,775.0	1,632.4	142.57	12.450	
6,451.0	6,418.0	6,378.0	6,378.0	17.0	127.6	173.27	-1,482.8	-228.1	1,775.0	1,631.3	143.69	12.353	
6,500.0	6,467.0	6,427.0	6,427.0	17.1	128.5	-6.72	-1,482.8	-228.1	1,773.4	1,629.0	144.42	12.279	
6,550.0	6,516.7	6,476.7	6,476.7	17.2	129.5	-6.78	-1,482.8	-228.1	1,768.6	1,624.1	144.56	12.235	
6,600.0	6,566.1	6,526.1	6,526.1	17.2	130.5	-6.89	-1,482.8	-228.1	1,760.6	1,616.5	144.06	12.221	
6,650.0	6,614.8	6,574.8	6,574.8	17.2	131.5	-7.04	-1,482.8	-228.1	1,749.4	1,606.5	142.94	12.239	
6,700.0	6,662.6	6,622.6	6,622.6	17.2	132.5	-7.23	-1,482.8	-228.1	1,735.0	1,593.9	141.18	12.290	
6,750.0	6,709.4	6,669.4	6,669.4	17.2	133.4	-7.49	-1,482.8	-228.1	1,717.6	1,578.8	138.78	12.376	
6,800.0	6,755.0	6,715.0	6,715.0	17.2	134.3	-7.80	-1,482.8	-228.1	1,697.2	1,561.4	135.77	12.501	
6,850.0	6,799.1	6,759.1	6,759.1	17.2	135.2	-8.19	-1,482.8	-228.1	1,673.9	1,541.7	132.15	12.667	
6,900.0	6,841.6	6,801.6	6,801.6	17.2	136.0	-8.66	-1,482.8	-228.1	1,647.7	1,519.8	127.95	12.878	
6,950.0	6,882.3	6,842.3	6,842.3	17.2	136.8	-9.23	-1,482.8	-228.1	1,618.9	1,495.7	123.22	13.139	
7,000.0	6,921.0	6,881.0	6,881.0	17.2	137.6	-9.92	-1,482.8	-228.1	1,587.5	1,469.5	118.00	13.453	
7,050.0	6,957.5	6,917.5	6,917.5	17.2	138.3	-10.76	-1,482.8	-228.1	1,553.7	1,441.3	112.40	13.823	
7,100.0	6,991.7	6,951.7	6,951.7	17.2	139.0	-11.79	-1,482.8	-228.1	1,517.6	1,411.0	106.52	14.247	
7,150.0	7,023.5	6,983.5	6,983.5	17.2	139.7	-13.06	-1,482.8	-228.1	1,479.3	1,378.8	100.55	14.712	
7,200.0	7,052.6	7,012.6	7,012.6	17.2	140.3	-14.65	-1,482.8	-228.1	1,439.1	1,344.4	94.79	15.183	
7,250.0	7,079.1	7,039.1	7,039.1	17.3	140.8	-16.66	-1,482.8	-228.1	1,397.2	1,307.5	89.69	15.578	
7,300.0	7,102.7	7,062.7	7,062.7	17.4	141.3	-19.25	-1,482.8	-228.1	1,353.6	1,267.6	85.99	15.741	
7,350.0	7,123.4	7,083.4	7,083.4	17.5	141.7	-22.67	-1,482.8	-228.1	1,308.7	1,223.9	84.81	15.430	
7,400.0	7,141.1	7,101.1	7,101.1	17.7	142.0	-27.27	-1,482.8	-228.1	1,262.5	1,174.9	87.66	14.402	
7,450.0	7,155.7	7,115.7	7,115.7	18.0	142.3	-33.63	-1,482.8	-228.1	1,215.4	1,119.2	96.20	12.634	
7,500.0	7,167.1	7,127.1	7,127.1	18.3	142.5	-42.56	-1,482.8	-228.1	1,167.4	1,056.0	111.47	10.473	
7,550.0	7,175.3	7,135.3	7,135.3	18.7	142.7	-55.02	-1,482.8	-228.1	1,118.9	986.6	132.31	8.457	
7,600.0	7,180.2	7,140.2	7,140.2	19.2	142.8	-71.33	-1,482.8	-228.1	1,070.1	917.6	152.49	7.017	
7,654.0	7,181.9	7,141.9	7,141.9	19.7	142.8	-91.11	-1,482.8	-228.1	1,017.2	855.5	161.68	6.291	
7,700.0	7,181.7	7,141.7	7,141.7	20.2	142.8	-91.05	-1,482.8	-228.1	972.2	810.1	162.17	5.995	
7,800.0	7,181.3	7,141.3	7,141.3	21.3	142.8	-90.94	-1,482.8	-228.1	874.8	711.5	163.33	5.356	
7,900.0	7,180.9	7,140.9	7,140.9	22.5	142.8	-90.83	-1,482.8	-228.1	778.0	613.4	164.60	4.727	
8,000.0	7,180.5	7,140.5	7,140.5	23.9	142.8	-90.72	-1,482.8	-228.1	682.1	516.2	165.96	4.110	
8,100.0	7,180.1	7,140.1	7,140.1	25.3	142.8	-90.61	-1,482.8	-228.1	587.6	420.2	167.39	3.511	
8,200.0	7,179.7	7,139.7	7,139.7	26.8	142.8	-90.50	-1,482.8	-228.1	495.3	326.4	168.88	2.933	
8,300.0	7,179.3	7,139.3	7,139.3	28.3	142.8	-90.39	-1,482.8	-228.1	406.6	236.2	170.43	2.386	
8,400.0	7,178.9	7,138.9	7,138.9	29.9	142.8	-90.28	-1,482.8	-228.1	324.6	152.6	172.02	1.887	

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells - Harvester 42-15 (exist.) - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN													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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,500.0	7,178.5	7,138.5	7,138.5	31.5	142.8	-90.17	-1,482.8	-228.1	255.7	82.1	173.64	1.473	Level 3	
8,600.0	7,178.1	7,138.1	7,138.1	33.1	142.8	-90.06	-1,482.8	-228.1	213.1	37.8	175.30	1.216	Level 2	
8,649.9	7,177.9	7,137.9	7,137.9	33.9	142.8	-90.00	-1,482.8	-228.1	207.2	31.0	176.14	1.176	Level 2, CC, ES, SF	
8,700.0	7,177.7	7,137.7	7,137.7	34.8	142.8	-89.94	-1,482.8	-228.1	213.1	36.1	176.98	1.204	Level 2	
8,800.0	7,177.3	7,137.3	7,137.3	36.5	142.7	-89.83	-1,482.8	-228.1	255.8	77.1	178.69	1.432	Level 3	
8,900.0	7,176.9	7,136.9	7,136.9	38.2	142.7	-89.72	-1,482.8	-228.1	324.7	144.3	180.41	1.800		
9,000.0	7,176.5	7,136.5	7,136.5	39.9	142.7	-89.61	-1,482.8	-228.1	406.8	224.6	182.16	2.233		
9,100.0	7,176.1	7,136.1	7,136.1	41.7	142.7	-89.50	-1,482.8	-228.1	495.5	311.6	183.91	2.694		
9,200.0	7,175.7	7,135.7	7,135.7	43.4	142.7	-89.39	-1,482.8	-228.1	587.8	402.1	185.68	3.166		
9,300.0	7,175.3	7,135.3	7,135.3	45.2	142.7	-89.28	-1,482.8	-228.1	682.3	494.8	187.46	3.640		
9,400.0	7,174.9	7,134.9	7,134.9	47.0	142.7	-89.17	-1,482.8	-228.1	778.2	588.9	189.25	4.112		
9,500.0	7,174.5	7,134.5	7,134.5	48.8	142.7	-89.06	-1,482.8	-228.1	875.0	683.9	191.04	4.580		
9,600.0	7,174.1	7,134.1	7,134.1	50.6	142.7	-88.95	-1,482.8	-228.1	972.4	779.6	192.85	5.042		
9,700.0	7,173.7	7,133.7	7,133.7	52.4	142.7	-88.83	-1,482.8	-228.1	1,070.3	875.7	194.66	5.498		
9,800.0	7,173.3	7,133.3	7,133.3	54.3	142.7	-88.72	-1,482.8	-228.1	1,168.6	972.1	196.48	5.948		
9,900.0	7,172.9	7,132.9	7,132.9	56.1	142.7	-88.61	-1,482.8	-228.1	1,267.1	1,068.8	198.30	6.390		
10,000.0	7,172.5	7,132.5	7,132.5	57.9	142.7	-88.50	-1,482.8	-228.1	1,365.9	1,165.8	200.13	6.825		
10,100.0	7,172.1	7,132.1	7,132.1	59.8	142.6	-88.39	-1,482.8	-228.1	1,464.8	1,262.8	201.96	7.253		
10,200.0	7,171.7	7,131.7	7,131.7	61.6	142.6	-88.28	-1,482.8	-228.1	1,563.9	1,360.1	203.79	7.674		
10,300.0	7,171.3	7,131.3	7,131.3	63.5	142.6	-88.17	-1,482.8	-228.1	1,663.0	1,457.4	205.63	8.088		
10,400.0	7,170.9	7,130.9	7,130.9	65.3	142.6	-88.06	-1,482.8	-228.1	1,762.3	1,554.8	207.47	8.494		
10,500.0	7,170.5	7,130.5	7,130.5	67.2	142.6	-87.95	-1,482.8	-228.1	1,861.6	1,652.3	209.31	8.894		
10,600.0	7,170.1	7,130.1	7,130.1	69.0	142.6	-87.84	-1,482.8	-228.1	1,961.1	1,749.9	211.15	9.287		
10,700.0	7,169.7	7,129.7	7,129.7	70.9	142.6	-87.73	-1,482.8	-228.1	2,060.5	1,847.5	213.00	9.674		
10,800.0	7,169.3	7,129.3	7,129.3	72.8	142.6	-87.61	-1,482.8	-228.1	2,160.0	1,945.2	214.85	10.054		
10,900.0	7,168.9	7,128.9	7,128.9	74.7	142.6	-87.50	-1,482.8	-228.1	2,259.6	2,042.9	216.70	10.427		
11,000.0	7,168.5	7,128.5	7,128.5	76.5	142.6	-87.39	-1,482.8	-228.1	2,359.2	2,140.6	218.55	10.795		
11,100.0	7,168.1	7,128.1	7,128.1	78.4	142.6	-87.28	-1,482.8	-228.1	2,458.8	2,238.4	220.40	11.156		
11,200.0	7,167.7	7,127.7	7,127.7	80.3	142.6	-87.17	-1,482.8	-228.1	2,558.5	2,336.2	222.25	11.512		
11,300.0	7,167.3	7,127.3	7,127.3	82.2	142.5	-87.06	-1,482.8	-228.1	2,658.2	2,434.1	224.11	11.861		
11,400.0	7,166.9	7,126.9	7,126.9	84.0	142.5	-86.95	-1,482.8	-228.1	2,757.9	2,531.9	225.96	12.205		
11,500.0	7,166.5	7,126.5	7,126.5	85.9	142.5	-86.84	-1,482.8	-228.1	2,857.6	2,629.8	227.81	12.543		
11,600.0	7,166.1	7,126.1	7,126.1	87.8	142.5	-86.73	-1,482.8	-228.1	2,957.3	2,727.7	229.67	12.876		
11,622.7	7,166.0	7,126.0	7,126.0	88.2	142.5	-86.70	-1,482.8	-228.1	2,979.9	2,749.8	230.09	12.951		
11,623.5	7,166.0	7,126.0	7,126.0	88.3	142.5	-86.70	-1,482.8	-228.1	2,980.8	2,750.7	230.10	12.954		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W - Harvesters Resources 15R-403 - Wellbore #										Offset Site Error:		0.0 ft
Survey Program: 0-MWD												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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.01	0.0	-30.6	30.6					
100.0	100.0	100.0	100.0	0.1	0.1	-90.01	0.0	-30.6	30.6	30.4	0.19	160.137		
200.0	200.0	200.0	200.0	0.3	0.3	-90.01	0.0	-30.6	30.6	30.0	0.64	47.760		
300.0	300.0	300.0	300.0	0.5	0.5	-90.01	0.0	-30.6	30.6	29.5	1.09	28.065		
400.0	400.0	400.0	400.0	0.8	0.8	-90.01	0.0	-30.6	30.6	29.1	1.54	19.871		
500.0	500.0	500.0	500.0	1.0	1.0	-90.01	0.0	-30.6	30.6	28.6	1.99	15.380		
600.0	600.0	600.0	600.0	1.2	1.2	-90.01	0.0	-30.6	30.6	28.2	2.44	12.545		
700.0	700.0	700.0	700.0	1.4	1.4	-90.01	0.0	-30.6	30.6	27.7	2.89	10.593		
800.0	800.0	800.0	800.0	1.7	1.7	-90.01	0.0	-30.6	30.6	27.3	3.34	9.166 CC, ES		
900.0	900.0	899.0	899.0	1.9	1.9	-88.93	0.6	-32.2	32.2	28.4	3.78	8.528		
1,000.0	1,000.0	997.7	997.6	2.1	2.1	-86.25	2.4	-37.0	37.1	32.9	4.22	8.808		
1,100.0	1,100.0	1,096.0	1,095.5	2.3	2.3	-83.10	5.4	-44.9	45.4	40.8	4.66	9.743		
1,200.0	1,200.0	1,193.6	1,192.3	2.6	2.6	-80.25	9.6	-55.8	57.2	52.0	5.12	11.156		
1,300.0	1,300.0	1,291.6	1,289.3	2.8	2.8	-21.09	14.8	-69.5	70.3	64.8	5.53	12.708		
1,400.0	1,399.8	1,391.1	1,387.6	3.0	3.1	-20.60	20.3	-83.8	80.6	74.7	5.96	13.534		
1,500.0	1,499.5	1,490.8	1,486.1	3.2	3.5	-21.02	25.7	-98.2	87.7	81.3	6.39	13.729		
1,576.2	1,575.1	1,567.0	1,561.3	3.4	3.7	-21.85	29.9	-109.1	91.0	84.2	6.72	13.529		
1,600.0	1,598.7	1,590.7	1,584.8	3.5	3.8	-22.17	31.2	-112.6	91.7	84.9	6.83	13.419		
1,700.0	1,697.9	1,690.7	1,683.6	3.7	4.1	-23.49	36.6	-126.9	94.8	87.5	7.30	12.983		
1,800.0	1,797.0	1,790.6	1,782.3	4.0	4.4	-24.73	42.1	-141.3	97.9	90.1	7.77	12.592		
1,900.0	1,896.1	1,890.5	1,881.1	4.3	4.8	-25.89	47.6	-155.7	101.0	92.8	8.26	12.237		
2,000.0	1,995.3	1,990.5	1,979.8	4.6	5.1	-26.98	53.0	-170.0	104.2	95.5	8.75	11.915		
2,100.0	2,094.4	2,090.4	2,078.5	4.9	5.5	-28.00	58.5	-184.4	107.4	98.2	9.24	11.622		
2,200.0	2,193.5	2,190.3	2,177.3	5.2	5.8	-28.96	64.0	-198.8	110.7	101.0	9.75	11.354		
2,300.0	2,292.7	2,290.3	2,276.0	5.5	6.2	-29.87	69.5	-213.2	114.0	103.7	10.26	11.108		
2,400.0	2,391.8	2,390.2	2,374.8	5.8	6.5	-30.73	74.9	-227.5	117.3	106.5	10.78	10.882		
2,500.0	2,491.0	2,490.1	2,473.5	6.1	6.9	-31.54	80.4	-241.9	120.7	109.3	11.30	10.673		
2,600.0	2,590.1	2,590.0	2,572.2	6.4	7.3	-32.31	85.9	-256.3	124.0	112.2	11.83	10.480		
2,700.0	2,689.2	2,690.0	2,671.0	6.7	7.6	-33.03	91.3	-270.6	127.4	115.0	12.37	10.301		
2,800.0	2,788.4	2,789.9	2,769.7	7.0	8.0	-33.72	96.8	-285.0	130.8	117.9	12.91	10.134		
2,900.0	2,887.5	2,889.8	2,868.5	7.3	8.3	-34.37	102.3	-299.4	134.2	120.8	13.45	9.979		
3,000.0	2,986.7	2,989.8	2,967.2	7.6	8.7	-34.99	107.7	-313.8	137.7	123.7	14.00	9.834		
3,100.0	3,085.8	3,089.7	3,065.9	8.0	9.1	-35.58	113.2	-328.1	141.1	126.6	14.55	9.699		
3,200.0	3,184.9	3,189.6	3,164.7	8.3	9.4	-36.15	118.7	-342.5	144.6	129.5	15.11	9.572		
3,300.0	3,284.1	3,289.6	3,263.4	8.6	9.8	-36.68	124.1	-356.9	148.1	132.4	15.67	9.453		
3,400.0	3,383.2	3,389.5	3,362.2	8.9	10.1	-37.19	129.6	-371.3	151.6	135.3	16.23	9.341		
3,500.0	3,482.4	3,489.4	3,460.9	9.3	10.5	-37.68	135.1	-385.6	155.1	138.3	16.79	9.235		
3,600.0	3,581.5	3,589.3	3,559.6	9.6	10.9	-38.15	140.5	-400.0	158.6	141.2	17.36	9.136		
3,700.0	3,680.6	3,689.3	3,658.4	9.9	11.2	-38.59	146.0	-414.4	162.1	144.2	17.93	9.042		
3,800.0	3,779.8	3,789.2	3,757.1	10.2	11.6	-39.02	151.5	-428.7	165.7	147.2	18.50	8.954		
3,900.0	3,878.9	3,889.1	3,855.9	10.6	12.0	-39.43	156.9	-443.1	169.2	150.1	19.08	8.870		
4,000.0	3,978.1	3,989.1	3,954.6	10.9	12.3	-39.82	162.4	-457.5	172.8	153.1	19.65	8.790		
4,100.0	4,077.2	4,089.0	4,053.3	11.2	12.7	-40.20	167.9	-471.9	176.3	156.1	20.23	8.715		
4,200.0	4,176.3	4,188.9	4,152.1	11.5	13.1	-40.56	173.3	-486.2	179.9	159.1	20.81	8.643		
4,300.0	4,275.5	4,288.9	4,250.8	11.9	13.4	-40.90	178.8	-500.6	183.5	162.1	21.40	8.575		
4,400.0	4,374.6	4,388.8	4,349.6	12.2	13.8	-41.24	184.3	-515.0	187.1	165.1	21.98	8.510		
4,500.0	4,473.7	4,488.7	4,448.3	12.5	14.2	-41.56	189.7	-529.3	190.6	168.1	22.57	8.448		
4,600.0	4,572.9	4,588.6	4,547.0	12.8	14.5	-41.87	195.2	-543.7	194.2	171.1	23.15	8.389		
4,700.0	4,672.0	4,688.6	4,645.8	13.2	14.9	-42.17	200.7	-558.1	197.8	174.1	23.74	8.333		
4,800.0	4,771.2	4,788.5	4,744.5	13.5	15.3	-42.46	206.1	-572.5	201.4	177.1	24.33	8.279		
4,900.0	4,870.3	4,888.4	4,843.3	13.8	15.6	-42.73	211.6	-586.8	205.0	180.1	24.92	8.227		

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W - Harvesters Resources 15R-403 - Wellbore #										Offset Site Error:		0.0 ft	
Survey Program: 0-MWD												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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,000.0	4,969.4	4,988.4	4,942.0	14.2	16.0	-43.00	217.1	-601.2	208.7	183.1	25.52	8.178			
5,100.0	5,068.6	5,088.3	5,040.7	14.5	16.4	-43.26	222.5	-615.6	212.3	186.2	26.11	8.131			
5,156.8	5,124.9	5,145.1	5,096.8	14.7	16.6	-43.40	225.6	-623.7	214.3	187.9	26.45	8.105			
5,200.0	5,167.8	5,188.2	5,139.5	14.8	16.7	-43.48	228.0	-629.9	216.1	189.5	26.68	8.100			
5,300.0	5,267.3	5,288.0	5,238.1	15.0	17.1	-43.22	233.5	-644.3	222.1	195.0	27.14	8.186			
5,400.0	5,367.1	5,387.6	5,336.5	15.2	17.5	-42.43	238.9	-658.6	230.7	203.2	27.48	8.393			
5,500.0	5,467.0	5,486.8	5,434.5	15.4	17.8	-41.18	244.3	-672.9	241.9	214.2	27.74	8.720			
5,533.0	5,500.0	5,519.4	5,466.7	15.4	17.9	-97.98	246.1	-677.6	246.2	218.4	27.80	8.855			
5,600.0	5,567.0	5,585.6	5,532.1	15.5	18.2	-96.87	249.8	-687.1	255.3	227.4	27.96	9.131			
5,700.0	5,667.0	5,684.4	5,629.8	15.7	18.6	-95.35	255.2	-701.3	269.1	240.8	28.23	9.531			
5,800.0	5,767.0	5,783.2	5,727.4	15.9	18.9	-93.98	260.6	-715.5	283.0	254.5	28.52	9.923			
5,900.0	5,867.0	5,882.0	5,825.0	16.0	19.3	-92.73	266.0	-729.7	297.1	268.2	28.83	10.304			
6,000.0	5,967.0	5,988.0	5,929.9	16.2	19.6	-91.59	271.5	-744.2	310.5	281.4	29.15	10.652			
6,100.0	6,067.0	6,098.7	6,039.9	16.4	19.9	-90.75	275.8	-755.5	320.7	291.2	29.47	10.881			
6,200.0	6,167.0	6,210.3	6,151.1	16.6	20.1	-90.24	278.6	-763.0	327.4	297.5	29.82	10.978			
6,300.0	6,267.0	6,322.2	6,263.0	16.8	20.3	-90.02	279.9	-766.4	330.4	300.2	30.18	10.946			
6,400.0	6,367.0	6,426.2	6,367.0	16.9	20.4	-90.00	280.0	-766.6	330.6	300.0	30.56	10.816			
6,451.0	6,418.0	6,477.2	6,418.0	17.0	20.5	-90.00	280.0	-766.6	330.6	299.8	30.76	10.747			
6,458.9	6,425.9	6,485.1	6,425.9	17.0	20.5	90.03	280.0	-766.6	330.6	299.8	30.79	10.737			
6,500.0	6,467.0	6,526.2	6,467.0	17.1	20.6	90.30	280.0	-766.6	330.6	299.7	30.91	10.697			
6,550.0	6,516.7	6,576.1	6,516.9	17.2	20.6	91.06	279.6	-766.6	330.7	299.7	30.97	10.677			
6,600.0	6,566.1	6,626.4	6,567.1	17.2	20.7	91.90	276.3	-766.6	330.8	299.8	30.99	10.674			
6,650.0	6,614.8	6,677.1	6,617.4	17.2	20.7	92.72	269.7	-766.6	331.0	300.0	30.98	10.683			
6,700.0	6,662.6	6,728.1	6,667.3	17.2	20.8	93.54	259.6	-766.6	331.2	300.3	30.96	10.700			
6,750.0	6,709.4	6,779.4	6,716.9	17.2	20.8	94.35	246.2	-766.6	331.6	300.6	30.92	10.724			
6,800.0	6,755.0	6,831.1	6,765.7	17.2	20.8	95.14	229.4	-766.6	331.9	301.1	30.87	10.752			
6,850.0	6,799.1	6,883.0	6,813.5	17.2	20.8	95.90	209.1	-766.6	332.4	301.5	30.83	10.780			
6,900.0	6,841.6	6,935.3	6,860.2	17.2	20.8	96.64	185.5	-766.6	332.9	302.1	30.80	10.807			
6,950.0	6,882.3	6,988.0	6,905.4	17.2	20.8	97.35	158.6	-766.6	333.4	302.6	30.79	10.827			
7,000.0	6,921.0	7,040.9	6,948.9	17.2	20.8	98.03	128.4	-766.5	333.9	303.1	30.81	10.839			
7,050.0	6,957.5	7,094.2	6,990.5	17.2	20.8	98.67	95.1	-766.5	334.5	303.6	30.86	10.838			
7,100.0	6,991.7	7,147.7	7,029.8	17.2	20.8	99.28	58.8	-766.5	335.0	304.1	30.96	10.822			
7,150.0	7,023.5	7,201.5	7,066.7	17.2	20.8	99.84	19.6	-766.5	335.6	304.5	31.11	10.787			
7,200.0	7,052.6	7,255.6	7,100.8	17.2	20.8	100.35	-22.3	-766.5	336.1	304.8	31.33	10.728			
7,250.0	7,079.1	7,309.9	7,132.1	17.3	20.8	100.82	-66.7	-766.5	336.6	305.0	31.60	10.651			
7,300.0	7,102.7	7,364.5	7,160.2	17.4	20.9	101.24	-113.4	-766.5	337.1	305.2	31.96	10.547			
7,350.0	7,123.4	7,419.2	7,185.1	17.5	20.9	101.61	-162.2	-766.4	337.6	305.2	32.40	10.419			
7,400.0	7,141.1	7,474.2	7,206.4	17.7	21.1	101.92	-212.8	-766.4	337.9	305.0	32.91	10.268			
7,450.0	7,155.7	7,529.2	7,224.1	18.0	21.2	102.18	-264.9	-766.4	338.3	304.8	33.51	10.095			
7,500.0	7,167.1	7,584.4	7,238.0	18.3	21.4	102.39	-318.3	-766.4	338.5	304.3	34.18	9.903			
7,550.0	7,175.3	7,639.7	7,248.0	18.7	21.7	102.53	-372.7	-766.4	338.7	303.8	34.94	9.695			
7,600.0	7,180.2	7,692.7	7,254.2	19.2	22.0	102.66	-425.3	-766.4	338.9	303.2	35.74	9.483			
7,654.0	7,181.9	7,746.7	7,259.8	19.7	22.4	103.25	-479.0	-766.3	339.8	303.3	36.56	9.295			
7,700.0	7,181.7	7,796.0	7,263.9	20.2	22.8	103.94	-528.1	-766.3	340.7	303.3	37.40	9.110			
7,800.0	7,181.3	7,900.9	7,266.0	21.3	23.8	104.36	-633.0	-766.3	341.3	301.8	39.59	8.622			
7,900.0	7,180.9	8,000.9	7,266.1	22.5	24.9	104.44	-733.0	-766.3	341.5	299.5	42.01	8.129			
8,000.0	7,180.5	8,100.9	7,266.2	23.9	26.0	104.52	-833.0	-766.2	341.6	297.0	44.61	7.658			
8,100.0	7,180.1	8,200.9	7,266.3	25.3	27.3	104.60	-933.0	-766.2	341.7	294.4	47.35	7.217			
8,200.0	7,179.7	8,300.9	7,266.4	26.8	28.7	104.69	-1,033.0	-766.2	341.9	291.7	50.22	6.807			
8,300.0	7,179.3	8,400.9	7,266.5	28.3	30.1	104.77	-1,133.0	-766.1	342.0	288.8	53.20	6.429			

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design										Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W - Harvesters Resources 15R-403 - Wellbore #				Offset Site Error:		0.0 ft
Survey Program: 0-MWD														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		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
							+N/-S (ft)	+E/-W (ft)								
8,400.0	7,178.9	8,500.9	7,266.6	29.9	31.6	104.85	-1,233.0	-766.1	342.2	285.9	56.26	6.082				
8,500.0	7,178.5	8,600.9	7,266.7	31.5	33.1	104.93	-1,333.0	-766.0	342.3	282.9	59.40	5.763				
8,600.0	7,178.1	8,700.9	7,266.8	33.1	34.7	105.01	-1,433.0	-766.0	342.4	279.8	62.59	5.471				
8,700.0	7,177.7	8,800.9	7,266.9	34.8	36.3	105.09	-1,533.0	-766.0	342.6	276.7	65.84	5.203				
8,800.0	7,177.3	8,900.9	7,267.0	36.5	37.9	105.18	-1,633.0	-765.9	342.7	273.6	69.14	4.957				
8,900.0	7,176.9	9,000.9	7,267.2	38.2	39.6	105.26	-1,733.0	-765.9	342.9	270.4	72.47	4.731				
9,000.0	7,176.5	9,100.9	7,267.3	39.9	41.2	105.34	-1,833.0	-765.9	343.0	267.2	75.83	4.523				
9,100.0	7,176.1	9,200.9	7,267.4	41.7	42.9	105.42	-1,933.0	-765.8	343.1	263.9	79.22	4.331				
9,200.0	7,175.7	9,300.9	7,267.5	43.4	44.6	105.50	-2,033.0	-765.8	343.3	260.7	82.64	4.154				
9,300.0	7,175.3	9,400.9	7,267.6	45.2	46.4	105.58	-2,133.0	-765.8	343.4	257.4	86.08	3.990				
9,400.0	7,174.9	9,500.9	7,267.7	47.0	48.1	105.66	-2,233.0	-765.7	343.6	254.0	89.53	3.837				
9,500.0	7,174.5	9,600.9	7,267.8	48.8	49.9	105.74	-2,333.0	-765.7	343.7	250.7	93.01	3.696				
9,600.0	7,174.1	9,700.9	7,267.9	50.6	51.7	105.82	-2,433.0	-765.7	343.9	247.4	96.49	3.564				
9,700.0	7,173.7	9,800.9	7,268.0	52.4	53.4	105.90	-2,533.0	-765.6	344.0	244.0	99.99	3.441				
9,800.0	7,173.3	9,900.9	7,268.1	54.3	55.2	105.98	-2,633.0	-765.6	344.2	240.7	103.50	3.325				
9,900.0	7,172.9	10,000.9	7,268.2	56.1	57.0	106.07	-2,733.0	-765.6	344.3	237.3	107.02	3.217				
10,000.0	7,172.5	10,100.9	7,268.3	57.9	58.8	106.15	-2,833.0	-765.5	344.5	233.9	110.54	3.116				
10,100.0	7,172.1	10,200.9	7,268.4	59.8	60.7	106.23	-2,933.0	-765.5	344.6	230.5	114.07	3.021				
10,200.0	7,171.7	10,300.9	7,268.5	61.6	62.5	106.31	-3,033.0	-765.5	344.8	227.2	117.61	2.931				
10,300.0	7,171.3	10,400.9	7,268.6	63.5	64.3	106.39	-3,133.0	-765.4	344.9	223.8	121.16	2.847				
10,400.0	7,170.9	10,500.9	7,268.7	65.3	66.1	106.47	-3,233.0	-765.4	345.1	220.4	124.71	2.767				
10,500.0	7,170.5	10,600.9	7,268.8	67.2	68.0	106.55	-3,332.9	-765.4	345.2	217.0	128.26	2.692				
10,600.0	7,170.1	10,700.9	7,268.9	69.0	69.8	106.63	-3,432.9	-765.3	345.4	213.6	131.82	2.620				
10,700.0	7,169.7	10,800.9	7,269.0	70.9	71.7	106.71	-3,532.9	-765.3	345.5	210.2	135.38	2.552				
10,800.0	7,169.3	10,900.9	7,269.1	72.8	73.5	106.79	-3,632.9	-765.3	345.7	206.7	138.94	2.488				
10,900.0	7,168.9	11,000.9	7,269.2	74.7	75.4	106.87	-3,732.9	-765.2	345.8	203.3	142.50	2.427				
11,000.0	7,168.5	11,100.9	7,269.4	76.5	77.2	106.95	-3,832.9	-765.2	346.0	199.9	146.07	2.369				
11,100.0	7,168.1	11,200.8	7,269.5	78.4	79.1	107.03	-3,932.9	-765.2	346.2	196.5	149.64	2.313				
11,200.0	7,167.7	11,300.8	7,269.6	80.3	81.0	107.11	-4,032.9	-765.1	346.3	193.1	153.20	2.260				
11,300.0	7,167.3	11,400.8	7,269.7	82.2	82.8	107.19	-4,132.9	-765.1	346.5	189.7	156.77	2.210				
11,400.0	7,166.9	11,500.8	7,269.8	84.0	84.7	107.26	-4,232.9	-765.1	346.6	186.3	160.34	2.162				
11,500.0	7,166.5	11,600.8	7,269.9	85.9	86.6	107.34	-4,332.9	-765.0	346.8	182.9	163.91	2.116				
11,600.0	7,166.1	11,700.8	7,270.0	87.8	88.4	107.42	-4,432.9	-765.0	346.9	179.5	167.48	2.072				
11,605.2	7,166.1	11,706.1	7,270.0	87.9	88.5	107.43	-4,438.1	-765.0	347.0	179.3	167.67	2.069				
11,622.7	7,166.0	11,719.8	7,270.0	88.2	88.8	107.44	-4,451.9	-765.0	347.0	178.8	168.23	2.063				
11,623.5	7,166.0	11,719.8	7,270.0	88.3	88.8	107.44	-4,451.9	-765.0	347.0	178.8	168.24	2.063 SF				



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W - Harvesters Resources 15U-203 - Wellbore #										Offset Site Error:		0.0 ft
Survey Program: 0-MWD												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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	61.2	61.2					
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	61.2	61.2	61.0	0.19	320.275		
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	61.2	61.2	60.5	0.64	95.521		
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	61.2	61.2	60.1	1.09	56.131		
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	61.2	61.2	59.6	1.54	39.742		
500.0	500.0	500.0	500.0	1.0	1.0	90.00	0.0	61.2	61.2	59.2	1.99	30.761		
600.0	600.0	600.0	600.0	1.2	1.2	90.00	0.0	61.2	61.2	58.8	2.44	25.091		
700.0	700.0	700.0	700.0	1.4	1.4	90.00	0.0	61.2	61.2	58.3	2.89	21.186		
800.0	800.0	800.0	800.0	1.7	1.7	90.00	0.0	61.2	61.2	57.9	3.34	18.332		
900.0	900.0	900.0	900.0	1.9	1.9	90.00	0.0	61.2	61.2	57.4	3.79	16.156		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.00	0.0	61.2	61.2	57.0	4.24	14.442		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	90.00	0.0	61.2	61.2	56.5	4.69	13.057		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	90.00	0.0	61.2	61.2	56.1	5.14	11.914 CC, ES		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	148.14	0.0	61.2	62.7	57.1	5.58	11.235		
1,400.0	1,399.8	1,399.8	1,399.8	3.0	3.0	150.45	0.0	61.2	67.2	61.2	6.01	11.175		
1,500.0	1,499.5	1,499.5	1,499.5	3.2	3.2	153.67	0.0	61.2	74.9	68.4	6.44	11.628		
1,576.2	1,575.1	1,568.4	1,568.0	3.4	3.4	152.63	4.4	67.1	88.6	81.8	6.76	13.106		
1,600.0	1,598.7	1,591.8	1,591.3	3.5	3.5	152.46	5.9	69.1	93.2	86.4	6.86	13.585		
1,700.0	1,697.9	1,689.9	1,688.8	3.7	3.7	151.87	12.1	77.6	112.8	105.5	7.30	15.451		
1,800.0	1,797.0	1,787.9	1,786.2	4.0	3.9	151.46	18.4	86.1	132.4	124.6	7.75	17.088		
1,900.0	1,896.1	1,886.0	1,883.7	4.3	4.1	151.15	24.7	94.6	151.9	143.7	8.20	18.528		
2,000.0	1,995.3	1,984.0	1,981.2	4.6	4.4	150.91	31.0	103.0	171.5	162.8	8.66	19.800		
2,100.0	2,094.4	2,082.1	2,078.7	4.9	4.6	150.73	37.3	111.5	191.1	181.9	9.13	20.931		
2,200.0	2,193.5	2,180.2	2,176.2	5.2	4.9	150.57	43.6	120.0	210.7	201.1	9.60	21.938		
2,300.0	2,292.7	2,278.2	2,273.7	5.5	5.2	150.44	49.8	128.5	230.2	220.2	10.08	22.841		
2,400.0	2,391.8	2,376.3	2,371.2	5.8	5.4	150.34	56.1	137.0	249.8	239.3	10.56	23.655		
2,500.0	2,491.0	2,474.4	2,468.7	6.1	5.7	150.25	62.4	145.4	269.4	258.3	11.05	24.389		
2,600.0	2,590.1	2,572.4	2,566.2	6.4	6.0	150.17	68.7	153.9	289.0	277.4	11.53	25.056		
2,700.0	2,689.2	2,670.5	2,663.7	6.7	6.2	150.10	75.0	162.4	308.6	296.5	12.02	25.663		
2,800.0	2,788.4	2,768.6	2,761.2	7.0	6.5	150.04	81.3	170.9	328.1	315.6	12.52	26.218		
2,900.0	2,887.5	2,866.6	2,858.7	7.3	6.8	149.98	87.5	179.4	347.7	334.7	13.01	26.726		
3,000.0	2,986.7	2,964.7	2,956.2	7.6	7.1	149.93	93.8	187.8	367.3	353.8	13.51	27.194		
3,100.0	3,085.8	3,062.7	3,053.7	8.0	7.4	149.89	100.1	196.3	386.9	372.9	14.00	27.625		
3,200.0	3,184.9	3,160.8	3,151.2	8.3	7.6	149.85	106.4	204.8	406.5	392.0	14.50	28.024		
3,300.0	3,284.1	3,258.9	3,248.7	8.6	7.9	149.82	112.7	213.3	426.0	411.0	15.01	28.393		
3,400.0	3,383.2	3,356.9	3,346.1	8.9	8.2	149.78	119.0	221.8	445.6	430.1	15.51	28.737		
3,500.0	3,482.4	3,455.0	3,443.6	9.3	8.5	149.75	125.2	230.3	465.2	449.2	16.01	29.057		
3,600.0	3,581.5	3,553.1	3,541.1	9.6	8.8	149.73	131.5	238.7	484.8	468.3	16.51	29.356		
3,700.0	3,680.6	3,651.1	3,638.6	9.9	9.0	149.70	137.8	247.2	504.4	487.4	17.02	29.636		
3,800.0	3,779.8	3,749.2	3,736.1	10.2	9.3	149.68	144.1	255.7	524.0	506.4	17.53	29.898		
3,900.0	3,878.9	3,847.3	3,833.6	10.6	9.6	149.66	150.4	264.2	543.5	525.5	18.03	30.144		
4,000.0	3,978.1	3,945.3	3,931.1	10.9	9.9	149.64	156.6	272.7	563.1	544.6	18.54	30.375		
4,100.0	4,077.2	4,043.4	4,028.6	11.2	10.2	149.62	162.9	281.1	582.7	563.7	19.05	30.593		
4,200.0	4,176.3	4,141.4	4,126.1	11.5	10.5	149.60	169.2	289.6	602.3	582.7	19.56	30.799		
4,300.0	4,275.5	4,239.5	4,223.6	11.9	10.8	149.58	175.5	298.1	621.9	601.8	20.06	30.993		
4,400.0	4,374.6	4,337.6	4,321.1	12.2	11.1	149.57	181.8	306.6	641.5	620.9	20.57	31.177		
4,500.0	4,473.7	4,435.6	4,418.6	12.5	11.3	149.55	188.1	315.1	661.0	640.0	21.08	31.352		
4,600.0	4,572.9	4,533.7	4,516.1	12.8	11.6	149.54	194.3	323.5	680.6	659.0	21.60	31.517		
4,700.0	4,672.0	4,631.8	4,613.6	13.2	11.9	149.53	200.6	332.0	700.2	678.1	22.11	31.674		
4,800.0	4,771.2	4,729.8	4,711.1	13.5	12.2	149.51	206.9	340.5	719.8	697.2	22.62	31.824		
4,900.0	4,870.3	4,827.9	4,808.6	13.8	12.5	149.50	213.2	349.0	739.4	716.2	23.13	31.966		

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W - Harvesters Resources 15U-203 - Wellbore #										Offset Site Error:		0.0 ft
Survey Program: 0-MWD												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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.0	4,969.4	4,926.0	4,906.1	14.2	12.8	149.49	219.5	357.5	759.0	735.3	23.64	32.102		
5,100.0	5,068.6	5,024.0	5,003.5	14.5	13.1	149.48	225.8	366.0	778.5	754.4	24.15	32.232		
5,156.8	5,124.9	5,079.7	5,058.9	14.7	13.2	149.48	229.3	370.8	789.7	765.2	24.45	32.303		
5,200.0	5,167.8	5,122.1	5,101.1	14.8	13.4	149.54	232.0	374.4	797.9	773.2	24.68	32.328		
5,300.0	5,267.3	5,220.7	5,199.1	15.0	13.7	149.59	238.4	383.0	814.7	789.5	25.18	32.356		
5,400.0	5,367.1	5,319.7	5,297.5	15.2	13.9	149.49	244.7	391.5	828.5	802.9	25.65	32.303		
5,500.0	5,467.0	5,418.9	5,396.2	15.4	14.2	149.24	251.1	400.1	839.4	813.4	26.09	32.175		
5,533.0	5,500.0	5,451.7	5,428.7	15.4	14.3	91.83	253.2	402.9	842.4	816.2	26.23	32.117		
5,600.0	5,567.0	5,518.3	5,495.0	15.5	14.5	91.53	257.4	408.7	848.1	821.5	26.52	31.973		
5,700.0	5,667.0	5,617.7	5,593.8	15.7	14.8	91.09	263.8	417.3	856.6	829.6	26.98	31.750		
5,800.0	5,767.0	5,717.5	5,693.0	15.9	15.1	90.65	270.2	425.9	865.2	837.7	27.43	31.535		
5,900.0	5,867.0	5,849.1	5,824.1	16.0	15.4	90.21	276.8	434.8	871.9	844.0	27.91	31.236		
6,000.0	5,967.0	5,981.4	5,956.3	16.2	15.7	90.01	279.8	438.9	875.0	846.6	28.35	30.865		
6,100.0	6,067.0	6,092.1	6,067.0	16.4	15.8	90.00	280.0	439.2	875.2	846.4	28.74	30.448		
6,200.0	6,167.0	6,192.1	6,167.0	16.6	16.0	90.00	280.0	439.2	875.2	846.0	29.14	30.034		
6,300.0	6,267.0	6,292.1	6,267.0	16.8	16.2	90.00	280.0	439.2	875.2	845.7	29.54	29.629		
6,360.4	6,327.5	6,352.5	6,327.5	16.9	16.3	90.00	280.0	439.2	875.2	845.4	29.78	29.388		
6,400.0	6,367.0	6,392.1	6,367.0	16.9	16.4	90.03	279.5	439.2	875.2	845.3	29.93	29.241		
6,451.0	6,418.0	6,442.8	6,417.6	17.0	16.5	90.27	275.9	439.2	875.2	845.1	30.10	29.079		
6,500.0	6,467.0	6,491.1	6,465.4	17.1	16.5	-89.38	269.4	439.2	875.2	845.0	30.22	28.960		
6,550.0	6,516.7	6,540.1	6,513.5	17.2	16.5	-89.05	259.7	439.2	875.3	845.0	30.31	28.880		
6,600.0	6,566.1	6,588.8	6,560.4	17.2	16.6	-88.72	247.0	439.2	875.4	845.0	30.36	28.830		
6,650.0	6,614.8	6,637.2	6,606.3	17.2	16.6	-88.40	231.5	439.2	875.5	845.1	30.40	28.804		
6,700.0	6,662.6	6,685.2	6,650.7	17.2	16.6	-88.08	213.3	439.2	875.7	845.3	30.41	28.798		
6,750.0	6,709.4	6,733.1	6,693.7	17.2	16.6	-87.78	192.4	439.2	875.8	845.4	30.41	28.804		
6,800.0	6,755.0	6,780.6	6,735.1	17.2	16.6	-87.48	169.0	439.2	876.0	845.6	30.40	28.814		
6,850.0	6,799.1	6,827.9	6,774.7	17.2	16.5	-87.20	143.2	439.2	876.2	845.8	30.40	28.822		
6,900.0	6,841.6	6,875.0	6,812.5	17.2	16.5	-86.93	115.1	439.2	876.4	846.0	30.41	28.817		
6,950.0	6,882.3	6,921.8	6,848.4	17.2	16.5	-86.67	84.9	439.2	876.6	846.2	30.45	28.791		
7,000.0	6,921.0	6,968.5	6,882.1	17.2	16.5	-86.42	52.8	439.2	876.8	846.3	30.51	28.735		
7,050.0	6,957.5	7,014.9	6,913.7	17.2	16.5	-86.19	18.7	439.2	877.0	846.4	30.62	28.641		
7,100.0	6,991.7	7,061.2	6,943.1	17.2	16.5	-85.98	-17.0	439.2	877.2	846.5	30.78	28.501		
7,150.0	7,023.5	7,107.3	6,970.2	17.2	16.6	-85.78	-54.3	439.2	877.5	846.5	31.00	28.304		
7,200.0	7,052.6	7,153.2	6,994.8	17.2	16.6	-85.60	-93.1	439.2	877.6	846.4	31.29	28.052		
7,250.0	7,079.1	7,200.0	7,017.5	17.3	16.7	-85.43	-134.0	439.2	877.8	846.2	31.65	27.737		
7,300.0	7,102.7	7,244.8	7,036.9	17.4	16.9	-85.29	-174.3	439.2	878.0	845.9	32.08	27.366		
7,350.0	7,123.4	7,290.4	7,054.1	17.5	17.1	-85.16	-216.5	439.2	878.1	845.5	32.60	26.934		
7,400.0	7,141.1	7,335.9	7,068.7	17.7	17.4	-85.05	-259.6	439.2	878.3	845.1	33.20	26.451		
7,450.0	7,155.7	7,381.3	7,080.8	18.0	17.7	-84.96	-303.4	439.2	878.4	844.5	33.88	25.923		
7,500.0	7,167.1	7,426.7	7,090.2	18.3	18.0	-84.89	-347.8	439.2	878.4	843.8	34.64	25.359		
7,550.0	7,175.3	7,472.0	7,096.9	18.7	18.4	-84.84	-392.6	439.2	878.5	843.0	35.47	24.766		
7,600.0	7,180.2	7,517.3	7,101.0	19.2	18.8	-84.82	-437.7	439.2	878.5	842.2	36.37	24.154		
7,654.0	7,181.9	7,566.4	7,102.4	19.7	19.3	-84.81	-486.7	439.2	878.5	841.1	37.41	23.482		
7,700.0	7,181.7	7,612.3	7,102.3	20.2	19.8	-84.81	-532.7	439.2	878.5	840.1	38.41	22.872		
7,800.0	7,181.3	7,712.3	7,102.0	21.3	21.0	-84.82	-632.7	439.3	878.4	837.7	40.75	21.559		
7,900.0	7,180.9	7,812.3	7,101.8	22.5	22.3	-84.83	-732.7	439.3	878.4	835.1	43.30	20.288		
8,000.0	7,180.5	7,912.3	7,101.5	23.9	23.6	-84.84	-832.7	439.3	878.4	832.3	46.03	19.084		
8,100.0	7,180.1	8,012.3	7,101.2	25.3	25.0	-84.85	-932.7	439.3	878.3	829.4	48.90	17.960		
8,200.0	7,179.7	8,112.3	7,101.0	26.8	26.5	-84.86	-1,032.7	439.3	878.3	826.3	51.91	16.920		
8,300.0	7,179.3	8,212.3	7,100.7	28.3	28.1	-84.86	-1,132.7	439.3	878.2	823.2	55.01	15.964		

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W - Harvesters Resources 15U-203 - Wellbore #										Offset Site Error:		0.0 ft
Survey Program: 0-MWD												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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,400.0	7,178.9	8,312.3	7,100.5	29.9	29.7	-84.87	-1,232.7	439.3	878.2	820.0	58.20	15.088		
8,500.0	7,178.5	8,412.3	7,100.2	31.5	31.3	-84.88	-1,332.7	439.3	878.1	816.6	61.47	14.286		
8,600.0	7,178.1	8,512.3	7,099.9	33.1	32.9	-84.89	-1,432.7	439.3	878.1	813.3	64.80	13.551		
8,700.0	7,177.7	8,612.3	7,099.7	34.8	34.6	-84.90	-1,532.7	439.3	878.0	809.8	68.18	12.878		
8,800.0	7,177.3	8,712.3	7,099.4	36.5	36.3	-84.91	-1,632.7	439.3	878.0	806.4	71.61	12.261		
8,900.0	7,176.9	8,812.3	7,099.1	38.2	38.0	-84.92	-1,732.7	439.3	877.9	802.8	75.07	11.694		
9,000.0	7,176.5	8,912.3	7,098.9	39.9	39.8	-84.93	-1,832.7	439.3	877.9	799.3	78.57	11.173		
9,100.0	7,176.1	9,012.3	7,098.6	41.7	41.5	-84.93	-1,932.7	439.3	877.8	795.7	82.10	10.692		
9,200.0	7,175.7	9,112.3	7,098.4	43.4	43.3	-84.94	-2,032.7	439.3	877.8	792.1	85.66	10.247		
9,300.0	7,175.3	9,212.3	7,098.1	45.2	45.1	-84.95	-2,132.7	439.4	877.7	788.5	89.24	9.835		
9,400.0	7,174.9	9,312.3	7,097.8	47.0	46.9	-84.96	-2,232.7	439.4	877.7	784.8	92.84	9.453		
9,500.0	7,174.5	9,412.3	7,097.6	48.8	48.7	-84.97	-2,332.7	439.4	877.6	781.2	96.46	9.098		
9,600.0	7,174.1	9,512.3	7,097.3	50.6	50.5	-84.98	-2,432.7	439.4	877.6	777.5	100.10	8.767		
9,700.0	7,173.7	9,612.3	7,097.1	52.4	52.3	-84.99	-2,532.7	439.4	877.5	773.8	103.74	8.459		
9,800.0	7,173.3	9,712.3	7,096.8	54.3	54.2	-85.00	-2,632.7	439.4	877.5	770.1	107.41	8.170		
9,900.0	7,172.9	9,812.3	7,096.5	56.1	56.0	-85.01	-2,732.7	439.4	877.4	766.4	111.08	7.899		
10,000.0	7,172.5	9,912.3	7,096.3	57.9	57.8	-85.01	-2,832.7	439.4	877.4	762.6	114.77	7.645		
10,100.0	7,172.1	10,012.3	7,096.0	59.8	59.7	-85.02	-2,932.7	439.4	877.3	758.9	118.46	7.406		
10,200.0	7,171.7	10,112.3	7,095.7	61.6	61.5	-85.03	-3,032.7	439.4	877.3	755.1	122.16	7.181		
10,300.0	7,171.3	10,212.3	7,095.5	63.5	63.4	-85.04	-3,132.7	439.4	877.2	751.4	125.88	6.969		
10,400.0	7,170.9	10,312.3	7,095.2	65.3	65.2	-85.05	-3,232.7	439.4	877.2	747.6	129.59	6.769		
10,500.0	7,170.5	10,412.3	7,095.0	67.2	67.1	-85.06	-3,332.7	439.4	877.1	743.8	133.32	6.579		
10,600.0	7,170.1	10,512.3	7,094.7	69.0	69.0	-85.07	-3,432.7	439.4	877.1	740.0	137.05	6.400		
10,700.0	7,169.7	10,612.3	7,094.4	70.9	70.8	-85.08	-3,532.7	439.5	877.0	736.3	140.79	6.230		
10,800.0	7,169.3	10,712.3	7,094.2	72.8	72.7	-85.09	-3,632.7	439.5	877.0	732.5	144.53	6.068		
10,900.0	7,168.9	10,812.3	7,093.9	74.7	74.6	-85.09	-3,732.7	439.5	877.0	728.7	148.28	5.914		
11,000.0	7,168.5	10,912.3	7,093.6	76.5	76.5	-85.10	-3,832.7	439.5	876.9	724.9	152.03	5.768		
11,100.0	7,168.1	11,012.3	7,093.4	78.4	78.3	-85.11	-3,932.7	439.5	876.9	721.1	155.79	5.629		
11,200.0	7,167.7	11,112.3	7,093.1	80.3	80.2	-85.12	-4,032.7	439.5	876.8	717.3	159.55	5.496		
11,300.0	7,167.3	11,212.3	7,092.9	82.2	82.1	-85.13	-4,132.7	439.5	876.8	713.5	163.31	5.369		
11,400.0	7,166.9	11,312.3	7,092.6	84.0	84.0	-85.14	-4,232.7	439.5	876.7	709.6	167.08	5.247		
11,500.0	7,166.5	11,412.3	7,092.3	85.9	85.9	-85.15	-4,332.7	439.5	876.7	705.8	170.85	5.131		
11,600.0	7,166.1	11,512.3	7,092.1	87.8	87.8	-85.16	-4,432.7	439.5	876.6	702.0	174.62	5.020		
11,622.7	7,166.0	11,535.0	7,092.0	88.2	88.2	-85.16	-4,455.3	439.5	876.6	701.1	175.48	4.996		
11,623.5	7,166.0	11,535.8	7,092.0	88.3	88.2	-85.16	-4,456.2	439.5	876.6	701.1	175.51	4.995 SF		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W - Harvesters Resources 15U-443 - Wellbore #										Offset Site Error:		0.0 ft
Survey Program: 0-MWD												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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	30.6	30.6					
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	30.6	30.6	30.4	0.19	160.137		
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	30.6	30.6	30.0	0.64	47.760		
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	30.6	30.6	29.5	1.09	28.065		
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	30.6	30.6	29.1	1.54	19.871		
500.0	500.0	500.0	500.0	1.0	1.0	90.00	0.0	30.6	30.6	28.6	1.99	15.380		
600.0	600.0	600.0	600.0	1.2	1.2	90.00	0.0	30.6	30.6	28.2	2.44	12.545		
700.0	700.0	700.0	700.0	1.4	1.4	90.00	0.0	30.6	30.6	27.7	2.89	10.593		
800.0	800.0	800.0	800.0	1.7	1.7	90.00	0.0	30.6	30.6	27.3	3.34	9.166		
900.0	900.0	900.0	900.0	1.9	1.9	90.00	0.0	30.6	30.6	26.8	3.79	8.078		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.00	0.0	30.6	30.6	26.4	4.24	7.221		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	90.00	0.0	30.6	30.6	25.9	4.69	6.528		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	90.00	0.0	30.6	30.6	25.5	5.14	5.957 CC, ES		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	148.96	0.0	30.6	32.1	26.5	5.58	5.751		
1,400.0	1,399.8	1,399.8	1,399.8	3.0	3.0	153.14	0.0	30.6	36.7	30.7	6.01	6.100		
1,500.0	1,499.5	1,499.5	1,499.5	3.2	3.2	158.14	0.0	30.6	44.6	38.2	6.44	6.930		
1,576.2	1,575.1	1,575.1	1,575.1	3.4	3.4	161.69	0.0	30.6	53.0	46.3	6.76	7.848		
1,600.0	1,598.7	1,598.7	1,598.7	3.5	3.5	162.70	0.0	30.6	56.0	49.2	6.86	8.161		
1,700.0	1,697.9	1,697.9	1,697.9	3.7	3.7	165.95	0.0	30.6	68.6	61.3	7.31	9.396		
1,800.0	1,797.0	1,797.0	1,797.0	4.0	3.9	168.18	0.0	30.6	81.4	73.7	7.75	10.506		
1,900.0	1,896.1	1,896.1	1,896.1	4.3	4.1	169.81	0.0	30.6	94.3	86.1	8.20	11.503		
2,000.0	1,995.3	1,995.3	1,995.3	4.6	4.4	171.05	0.0	30.6	107.2	98.5	8.64	12.401		
2,100.0	2,094.4	2,096.7	2,096.7	4.9	4.6	171.40	1.6	30.3	119.2	110.1	9.10	13.106		
2,200.0	2,193.5	2,198.7	2,198.5	5.2	4.8	170.36	6.8	29.3	129.3	119.7	9.55	13.534		
2,300.0	2,292.7	2,300.2	2,299.7	5.5	5.0	168.25	15.4	27.7	137.5	127.5	10.01	13.734		
2,400.0	2,391.8	2,399.8	2,398.8	5.8	5.3	166.04	24.9	26.0	145.4	134.9	10.48	13.871		
2,500.0	2,491.0	2,499.3	2,497.8	6.1	5.5	164.06	34.4	24.2	153.4	142.5	10.96	14.004		
2,600.0	2,590.1	2,598.8	2,596.9	6.4	5.7	162.28	43.9	22.4	161.7	150.2	11.44	14.130		
2,700.0	2,689.2	2,698.4	2,696.0	6.7	6.0	160.67	53.4	20.7	170.0	158.1	11.93	14.249		
2,800.0	2,788.4	2,797.9	2,795.0	7.0	6.2	159.22	62.8	18.9	178.5	166.1	12.43	14.361		
2,900.0	2,887.5	2,897.5	2,894.1	7.3	6.5	157.90	72.3	17.2	187.1	174.2	12.94	14.465		
3,000.0	2,986.7	2,997.0	2,993.2	7.6	6.7	156.69	81.8	15.4	195.8	182.4	13.45	14.561		
3,100.0	3,085.8	3,096.6	3,092.3	8.0	7.0	155.59	91.3	13.6	204.6	190.6	13.96	14.651		
3,200.0	3,184.9	3,196.1	3,191.3	8.3	7.2	154.57	100.8	11.9	213.4	198.9	14.48	14.735		
3,300.0	3,284.1	3,295.6	3,290.4	8.6	7.5	153.64	110.3	10.1	222.3	207.3	15.01	14.813		
3,400.0	3,383.2	3,395.2	3,389.5	8.9	7.8	152.78	119.8	8.3	231.2	215.7	15.53	14.886		
3,500.0	3,482.4	3,494.7	3,488.5	9.3	8.0	151.99	129.3	6.6	240.2	224.1	16.06	14.953		
3,600.0	3,581.5	3,594.3	3,587.6	9.6	8.3	151.25	138.8	4.8	249.2	232.6	16.60	15.016		
3,700.0	3,680.6	3,693.8	3,686.7	9.9	8.6	150.56	148.3	3.1	258.3	241.2	17.14	15.075		
3,800.0	3,779.8	3,793.3	3,785.8	10.2	8.8	149.92	157.8	1.3	267.4	249.8	17.67	15.130		
3,900.0	3,878.9	3,892.9	3,884.8	10.6	9.1	149.32	167.3	-0.5	276.6	258.3	18.22	15.182		
4,000.0	3,978.1	3,992.4	3,983.9	10.9	9.4	148.76	176.8	-2.2	285.7	267.0	18.76	15.230		
4,100.0	4,077.2	4,092.0	4,083.0	11.2	9.6	148.24	186.3	-4.0	294.9	275.6	19.31	15.276		
4,200.0	4,176.3	4,191.5	4,182.0	11.5	9.9	147.74	195.8	-5.8	304.1	284.3	19.85	15.318		
4,300.0	4,275.5	4,291.1	4,281.1	11.9	10.2	147.28	205.3	-7.5	313.4	293.0	20.40	15.359		
4,400.0	4,374.6	4,390.6	4,380.2	12.2	10.4	146.84	214.8	-9.3	322.6	301.7	20.95	15.397		
4,500.0	4,473.7	4,490.1	4,479.3	12.5	10.7	146.43	224.3	-11.1	331.9	310.4	21.51	15.432		
4,600.0	4,572.9	4,589.7	4,578.3	12.8	11.0	146.04	233.8	-12.8	341.2	319.1	22.06	15.466		
4,700.0	4,672.0	4,689.2	4,677.4	13.2	11.3	145.67	243.3	-14.6	350.5	327.9	22.61	15.498		
4,800.0	4,771.2	4,788.8	4,776.5	13.5	11.5	145.32	252.8	-16.3	359.8	336.6	23.17	15.529		
4,900.0	4,870.3	4,888.3	4,875.6	13.8	11.8	144.98	262.3	-18.1	369.1	345.4	23.73	15.558		

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W - Harvesters Resources 15U-443 - Wellbore #										Offset Site Error:		0.0 ft
Survey Program: 0-MWD												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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.0	4,969.4	4,986.9	4,973.7	14.2	12.1	144.74	271.2	-19.8	378.5	354.3	24.26	15.604		
5,100.0	5,068.6	5,084.5	5,071.1	14.5	12.2	144.95	277.1	-20.9	388.4	363.7	24.71	15.715		
5,156.8	5,124.9	5,139.8	5,126.4	14.7	12.3	145.27	279.1	-21.2	394.2	369.3	24.95	15.800		
5,200.0	5,167.8	5,181.9	5,168.5	14.8	12.4	145.64	279.8	-21.4	398.5	373.4	25.12	15.863		
5,300.0	5,267.3	5,280.7	5,267.3	15.0	12.6	146.48	280.0	-21.4	406.7	381.2	25.48	15.960		
5,400.0	5,367.1	5,380.5	5,367.1	15.2	12.8	147.03	280.0	-21.4	412.0	386.2	25.85	15.941		
5,500.0	5,467.0	5,480.4	5,467.0	15.4	13.0	147.28	280.0	-21.4	414.4	388.2	26.20	15.819		
5,533.0	5,500.0	5,513.4	5,500.0	15.4	13.1	90.00	280.0	-21.4	414.6	388.3	26.31	15.757		
5,600.0	5,567.0	5,580.4	5,567.0	15.5	13.2	90.00	280.0	-21.4	414.6	388.0	26.57	15.604		
5,700.0	5,667.0	5,680.4	5,667.0	15.7	13.4	90.00	280.0	-21.4	414.6	387.6	26.97	15.373		
5,800.0	5,767.0	5,780.4	5,767.0	15.9	13.6	90.00	280.0	-21.4	414.6	387.2	27.37	15.147		
5,900.0	5,867.0	5,880.4	5,867.0	16.0	13.8	90.00	280.0	-21.4	414.6	386.8	27.77	14.928		
6,000.0	5,967.0	5,980.4	5,967.0	16.2	14.0	90.00	280.0	-21.4	414.6	386.4	28.18	14.714		
6,100.0	6,067.0	6,080.4	6,067.0	16.4	14.2	90.00	280.0	-21.4	414.6	386.0	28.58	14.505		
6,200.0	6,167.0	6,180.4	6,167.0	16.6	14.4	90.00	280.0	-21.4	414.6	385.6	28.99	14.301		
6,300.0	6,267.0	6,280.4	6,267.0	16.8	14.7	90.00	280.0	-21.4	414.6	385.2	29.40	14.103		
6,400.0	6,367.0	6,380.4	6,367.0	16.9	14.9	90.00	280.0	-21.4	414.6	384.8	29.81	13.909		
6,451.0	6,418.0	6,431.4	6,418.0	17.0	15.0	90.00	280.0	-21.4	414.6	384.6	30.02	13.812		
6,467.4	6,434.4	6,447.8	6,434.4	17.1	15.0	-90.00	280.0	-21.4	414.6	384.5	30.08	13.783		
6,500.0	6,467.0	6,480.4	6,467.0	17.1	15.1	-90.19	280.0	-21.4	414.6	384.4	30.21	13.723		
6,550.0	6,516.7	6,530.3	6,516.9	17.2	15.2	-90.80	279.6	-21.4	414.6	384.2	30.39	13.642		
6,600.0	6,566.1	6,580.6	6,567.1	17.2	15.2	-91.47	276.3	-21.4	414.7	384.2	30.53	13.583		
6,650.0	6,614.8	6,631.3	6,617.3	17.2	15.3	-92.13	269.7	-21.4	414.9	384.2	30.63	13.543		
6,700.0	6,662.6	6,682.3	6,667.3	17.2	15.3	-92.78	259.7	-21.4	415.1	384.4	30.70	13.519		
6,750.0	6,709.4	6,733.5	6,716.8	17.2	15.3	-93.43	246.2	-21.4	415.3	384.6	30.75	13.509		
6,800.0	6,755.0	6,785.2	6,765.6	17.2	15.3	-94.06	229.4	-21.4	415.6	384.9	30.76	13.510		
6,850.0	6,799.1	6,837.1	6,813.4	17.2	15.4	-94.67	209.2	-21.4	416.0	385.2	30.77	13.520		
6,900.0	6,841.6	6,889.4	6,860.1	17.2	15.4	-95.27	185.6	-21.4	416.4	385.6	30.77	13.533		
6,950.0	6,882.3	6,942.0	6,905.3	17.2	15.4	-95.84	158.7	-21.4	416.8	386.0	30.77	13.546		
7,000.0	6,921.0	6,995.0	6,948.8	17.2	15.4	-96.38	128.5	-21.3	417.2	386.4	30.78	13.552		
7,050.0	6,957.5	7,048.2	6,990.3	17.2	15.4	-96.90	95.3	-21.3	417.6	386.8	30.83	13.547		
7,100.0	6,991.7	7,101.7	7,029.6	17.2	15.4	-97.39	59.0	-21.3	418.1	387.2	30.91	13.524		
7,150.0	7,023.5	7,155.5	7,066.5	17.2	15.5	-97.84	19.8	-21.3	418.5	387.5	31.06	13.476		
7,200.0	7,052.6	7,209.6	7,100.7	17.2	15.6	-98.26	-22.1	-21.3	419.0	387.7	31.27	13.398		
7,250.0	7,079.1	7,263.9	7,132.0	17.3	15.8	-98.64	-66.5	-21.3	419.4	387.8	31.56	13.287		
7,300.0	7,102.7	7,318.4	7,160.1	17.4	16.0	-98.99	-113.2	-21.2	419.7	387.8	31.94	13.140		
7,350.0	7,123.4	7,373.2	7,184.9	17.5	16.2	-99.29	-161.9	-21.2	420.1	387.7	32.43	12.955		
7,400.0	7,141.1	7,428.1	7,206.3	17.7	16.5	-99.54	-212.5	-21.2	420.4	387.4	33.01	12.734		
7,450.0	7,155.7	7,483.1	7,224.0	18.0	16.9	-99.76	-264.6	-21.2	420.7	387.0	33.71	12.480		
7,500.0	7,167.1	7,538.3	7,237.9	18.3	17.3	-99.92	-318.0	-21.2	420.9	386.4	34.51	12.197		
7,550.0	7,175.3	7,593.6	7,247.9	18.7	17.8	-100.05	-372.4	-21.1	421.0	385.6	35.41	11.890		
7,600.0	7,180.2	7,646.7	7,254.1	19.2	18.3	-100.16	-425.1	-21.1	421.2	384.8	36.39	11.574		
7,654.0	7,181.9	7,700.6	7,259.8	19.7	18.8	-100.63	-478.7	-21.1	421.9	384.4	37.47	11.259		
7,700.0	7,181.7	7,749.9	7,263.8	20.2	19.4	-101.20	-527.8	-21.1	422.7	384.2	38.46	10.989		
7,800.0	7,181.3	7,854.8	7,266.0	21.3	20.6	-101.54	-632.7	-21.0	423.1	382.3	40.79	10.373		
7,900.0	7,180.9	7,954.8	7,266.1	22.5	21.9	-101.61	-732.7	-21.0	423.2	379.9	43.30	9.774		
8,000.0	7,180.5	8,054.8	7,266.2	23.9	23.3	-101.67	-832.7	-21.0	423.3	377.3	45.98	9.207		
8,100.0	7,180.1	8,154.8	7,266.3	25.3	24.7	-101.74	-932.7	-20.9	423.4	374.6	48.80	8.676		
8,200.0	7,179.7	8,254.8	7,266.4	26.8	26.2	-101.81	-1,032.7	-20.9	423.5	371.8	51.75	8.185		
8,300.0	7,179.3	8,354.8	7,266.5	28.3	27.8	-101.88	-1,132.7	-20.8	423.6	368.8	54.79	7.732		

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 Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

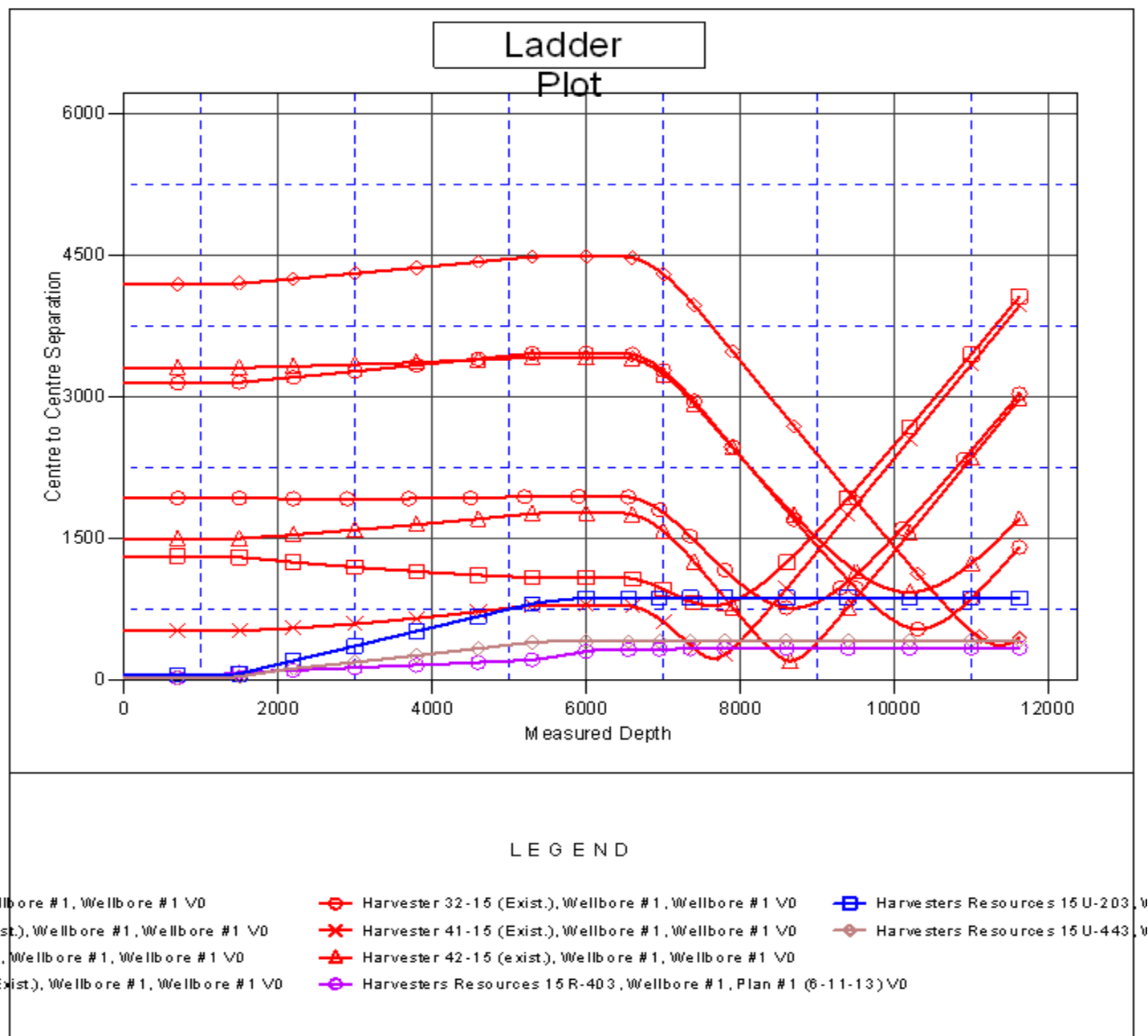
Offset Design		Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W - Harvesters Resources 15U-443 - Wellbore #										Offset Site Error:		0.0 ft	
Survey Program: 0-MWD												Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
8,400.0	7,178.9	8,454.8	7,266.6	29.9	29.4	-101.94	-1,232.7	-20.8	423.7	365.8	57.92	7.316			
8,500.0	7,178.5	8,554.8	7,266.7	31.5	31.0	-102.01	-1,332.7	-20.7	423.8	362.7	61.11	6.935			
8,600.0	7,178.1	8,654.8	7,266.8	33.1	32.7	-102.08	-1,432.7	-20.7	423.9	359.6	64.37	6.586			
8,700.0	7,177.7	8,754.8	7,266.9	34.8	34.4	-102.14	-1,532.7	-20.7	424.0	356.4	67.68	6.265			
8,800.0	7,177.3	8,854.8	7,267.0	36.5	36.1	-102.21	-1,632.7	-20.6	424.1	353.1	71.03	5.971			
8,900.0	7,176.9	8,954.8	7,267.1	38.2	37.8	-102.28	-1,732.7	-20.6	424.3	349.8	74.42	5.701			
9,000.0	7,176.5	9,054.8	7,267.2	39.9	39.6	-102.34	-1,832.7	-20.5	424.4	346.5	77.85	5.451			
9,100.0	7,176.1	9,154.8	7,267.4	41.7	41.3	-102.41	-1,932.7	-20.5	424.5	343.2	81.30	5.221			
9,200.0	7,175.7	9,254.8	7,267.5	43.4	43.1	-102.48	-2,032.7	-20.5	424.6	339.8	84.77	5.008			
9,300.0	7,175.3	9,354.8	7,267.6	45.2	44.9	-102.54	-2,132.7	-20.4	424.7	336.4	88.27	4.811			
9,400.0	7,174.9	9,454.8	7,267.7	47.0	46.7	-102.61	-2,232.7	-20.4	424.8	333.0	91.78	4.628			
9,500.0	7,174.5	9,554.8	7,267.8	48.8	48.5	-102.68	-2,332.7	-20.3	424.9	329.6	95.31	4.458			
9,600.0	7,174.1	9,654.8	7,267.9	50.6	50.4	-102.74	-2,432.7	-20.3	425.0	326.1	98.86	4.299			
9,700.0	7,173.7	9,754.8	7,268.0	52.4	52.2	-102.81	-2,532.7	-20.3	425.1	322.7	102.42	4.151			
9,800.0	7,173.3	9,854.8	7,268.1	54.3	54.0	-102.88	-2,632.7	-20.2	425.2	319.2	105.99	4.012			
9,900.0	7,172.9	9,954.8	7,268.2	56.1	55.9	-102.94	-2,732.7	-20.2	425.3	315.8	109.56	3.882			
10,000.0	7,172.5	10,054.8	7,268.3	57.9	57.7	-103.01	-2,832.7	-20.1	425.4	312.3	113.15	3.760			
10,100.0	7,172.1	10,154.8	7,268.4	59.8	59.6	-103.08	-2,932.7	-20.1	425.6	308.8	116.75	3.645			
10,200.0	7,171.7	10,254.8	7,268.5	61.6	61.4	-103.14	-3,032.7	-20.1	425.7	305.3	120.35	3.537			
10,300.0	7,171.3	10,354.8	7,268.6	63.5	63.3	-103.21	-3,132.7	-20.0	425.8	301.8	123.96	3.435			
10,400.0	7,170.9	10,454.8	7,268.7	65.3	65.1	-103.28	-3,232.7	-20.0	425.9	298.3	127.57	3.338			
10,500.0	7,170.5	10,554.8	7,268.8	67.2	67.0	-103.34	-3,332.7	-19.9	426.0	294.8	131.19	3.247			
10,600.0	7,170.1	10,654.8	7,268.9	69.0	68.9	-103.41	-3,432.7	-19.9	426.1	291.3	134.82	3.161			
10,700.0	7,169.7	10,754.8	7,269.0	70.9	70.7	-103.48	-3,532.7	-19.9	426.2	287.8	138.44	3.079			
10,800.0	7,169.3	10,854.8	7,269.1	72.8	72.6	-103.54	-3,632.7	-19.8	426.4	284.3	142.07	3.001			
10,900.0	7,168.9	10,954.8	7,269.2	74.7	74.5	-103.61	-3,732.7	-19.8	426.5	280.8	145.71	2.927			
11,000.0	7,168.5	11,054.8	7,269.3	76.5	76.4	-103.67	-3,832.7	-19.7	426.6	277.2	149.34	2.856			
11,100.0	7,168.1	11,154.8	7,269.4	78.4	78.3	-103.74	-3,932.7	-19.7	426.7	273.7	152.98	2.789			
11,200.0	7,167.7	11,254.8	7,269.6	80.3	80.1	-103.81	-4,032.7	-19.7	426.8	270.2	156.62	2.725			
11,300.0	7,167.3	11,354.8	7,269.7	82.2	82.0	-103.87	-4,132.7	-19.6	426.9	266.7	160.26	2.664			
11,400.0	7,166.9	11,454.8	7,269.8	84.0	83.9	-103.94	-4,232.7	-19.6	427.1	263.2	163.90	2.606			
11,500.0	7,166.5	11,554.8	7,269.9	85.9	85.8	-104.00	-4,332.7	-19.5	427.2	259.6	167.55	2.550			
11,600.0	7,166.1	11,654.8	7,270.0	87.8	87.7	-104.07	-4,432.7	-19.5	427.3	256.1	171.19	2.496			
11,622.7	7,166.0	11,677.4	7,270.0	88.2	88.1	-104.08	-4,455.3	-19.5	427.3	255.3	172.02	2.484			
11,623.5	7,166.0	11,678.3	7,270.0	88.3	88.1	-104.09	-4,456.2	-19.5	427.3	255.3	172.05	2.484 SF			



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4830.0ft (RKB - 15')  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °

Coordinates are relative to: Harvesters Resources 15R-323  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.48°



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Harvesters Resources 15R-323
<b>Project:</b>	SEC.15-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Reference Site:</b>	Harvesters Resources 15UR-HZ Pad Sec.15-T6N-R66W	<b>MD Reference:</b>	WELL @ 4830.0ft (RKB - 15')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Harvesters Resources 15R-323	<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 #1 (6-11-13)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4830.0ft (RKB - 15')  
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Central Meridian is -105.500000 °

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