

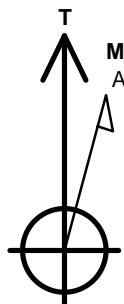
# PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Rio-LA 6F-204**

Surface Location: Rio-LA 1S67W6E Pad Sec.6-T1S-R67W  
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone  
 Ground Elevation: 5070.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1242767.06 3156950.24 39.998420 -104.939780  
 RKB - 13' WELL @ 5083.0ft (RKB - 13')

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
50°N/S Hardline (6F-204)	1.0	-502.2	-2818.9	Rectangle (Sides: L4325.1 W100.0)
SHL 699'FNL & 155'FWL, Sec.6	1.0	0.0	0.0	Point
BHL 1198'FNL & 500'FWL, Sec.1	7635.0	-502.2	-4981.5	Point



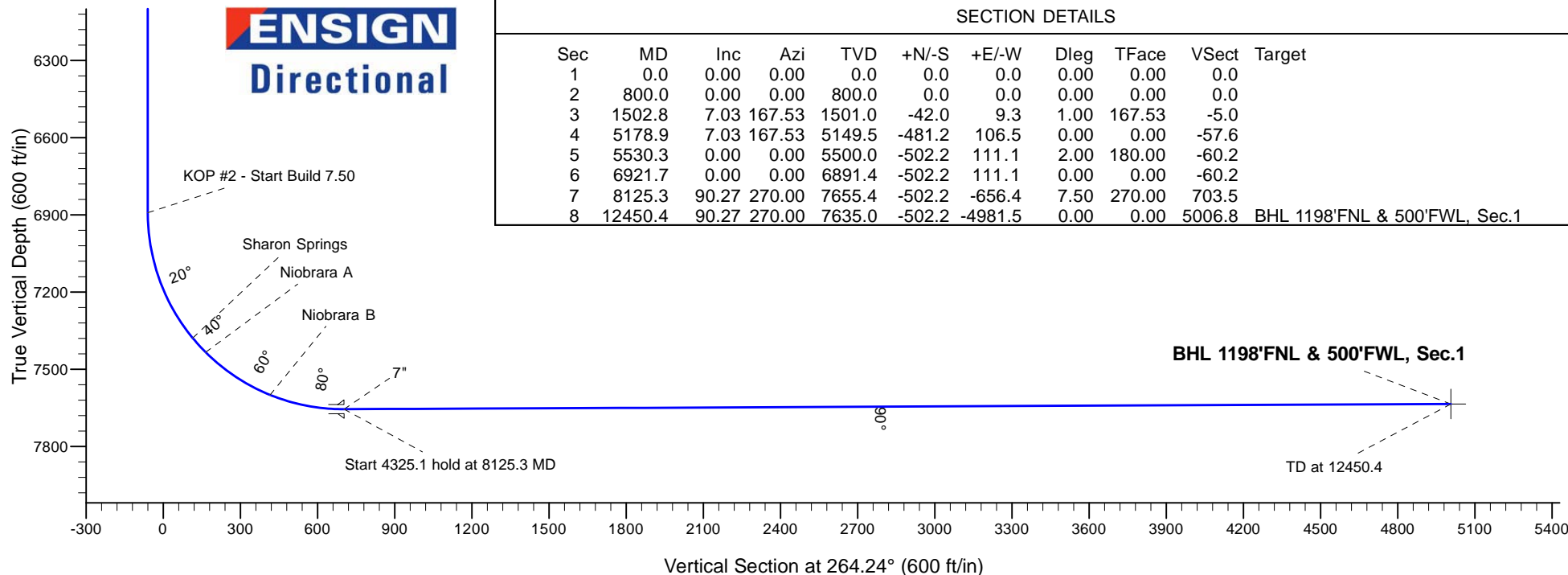
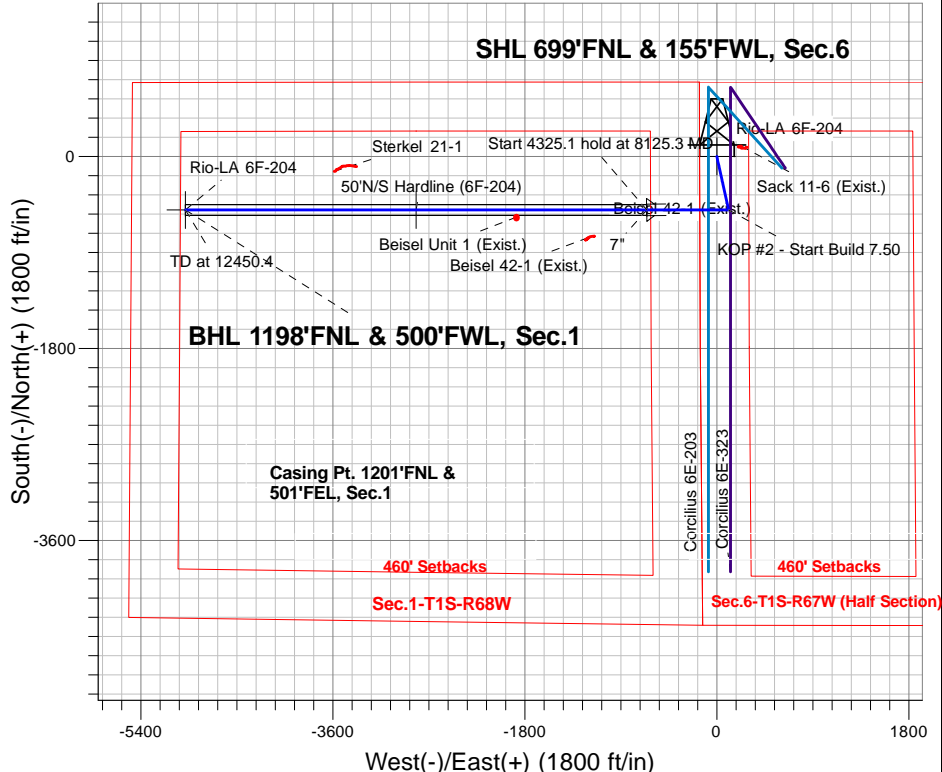
Azimuths to True North  
 Magnetic North: 8.37°  
 Magnetic Field  
 Strength: 52464.3snT  
 Dip Angle: 66.56°  
 Date: 8/4/2015  
 Model: IGRF2010

## ANNOTATIONS

TVD	MD	Annotation
800.0	800.0	KOP - Start Build 1.00
5149.5	5178.9	Start Drop -2.00
6891.4	6921.7	KOP #2 - Start Build 7.50
7655.4	8125.3	Start 4325.1 hold at 8125.3 MD
7635.0	12450.4	TD at 12450.4

Rio-LA 1S67W6E Pad Sec.6-T1S-R67W  
 Rio-LA 6F-204  
 Plan #1 (8-4-15)

South(-)/North(+) (1800 ft/in)





# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.6-T1S-R67W**

**Rio-LA 1S67W6E Pad Sec.6-T1S-R67W**

**Rio-LA 6F-204**

**Wellbore #1**

**Plan: Plan #1 (8-4-15)**

## **Standard Planning Report**

**11 August, 2015**

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Project:</b>	SEC.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (8-4-15)		

<b>Project</b>	SEC.6-T1S-R67W, Adams 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		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W				
Site Position:		Northing:	1,242,767.06 usft	Latitude:	39.998420
From:	Lat/Long	Easting:	3,156,950.24 usft	Longitude:	-104.939780
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.36

Well	Rio-LA 6F-204					
Well Position	+N/-S	0.0 ft	Northing:	1,242,767.05 usft	Latitude:	39.998420
	+E/-W	0.0 ft	Easting:	3,156,950.24 usft	Longitude:	-104.939780
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	5,070.0 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	8/4/2015	8.37	66.56	52,464

<b>Design</b>	Plan #1 (8-4-15)			
<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	264.24

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,502.8	7.03	167.53	1,501.0	-42.0	9.3	1.00	1.00	0.00	167.53	
5,178.9	7.03	167.53	5,149.5	-481.2	106.5	0.00	0.00	0.00	0.00	
5,530.3	0.00	0.00	5,500.0	-502.2	111.1	2.00	-2.00	0.00	180.00	
6,921.7	0.00	0.00	6,891.4	-502.2	111.1	0.00	0.00	0.00	0.00	
8,125.3	90.27	270.00	7,655.4	-502.2	-656.4	7.50	7.50	0.00	270.00	
12,450.4	90.27	270.00	7,635.0	-502.2	-4,981.5	0.00	0.00	0.00	0.00	BHL 1198'FNL & 500'I

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Project:</b>	SEC.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (8-4-15)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.00									
900.0	1.00	167.53	900.0	-0.9	0.2	-0.1	1.00	1.00	0.00
1,000.0	2.00	167.53	1,000.0	-3.4	0.8	-0.4	1.00	1.00	0.00
1,100.0	3.00	167.53	1,099.9	-7.7	1.7	-0.9	1.00	1.00	0.00
1,200.0	4.00	167.53	1,199.7	-13.6	3.0	-1.6	1.00	1.00	0.00
1,300.0	5.00	167.53	1,299.4	-21.3	4.7	-2.6	1.00	1.00	0.00
1,400.0	6.00	167.53	1,398.9	-30.6	6.8	-3.7	1.00	1.00	0.00
1,500.0	7.00	167.53	1,498.3	-41.7	9.2	-5.0	1.00	1.00	0.00
1,502.8	7.03	167.53	1,501.0	-42.0	9.3	-5.0	1.00	1.00	0.00
1,600.0	7.03	167.53	1,597.5	-53.6	11.9	-6.4	0.00	0.00	0.00
1,700.0	7.03	167.53	1,696.8	-65.6	14.5	-7.9	0.00	0.00	0.00
1,800.0	7.03	167.53	1,796.0	-77.5	17.2	-9.3	0.00	0.00	0.00
1,900.0	7.03	167.53	1,895.3	-89.5	19.8	-10.7	0.00	0.00	0.00
2,000.0	7.03	167.53	1,994.5	-101.4	22.4	-12.2	0.00	0.00	0.00
2,100.0	7.03	167.53	2,093.8	-113.4	25.1	-13.6	0.00	0.00	0.00
2,200.0	7.03	167.53	2,193.0	-125.3	27.7	-15.0	0.00	0.00	0.00
2,300.0	7.03	167.53	2,292.2	-137.3	30.4	-16.4	0.00	0.00	0.00
2,400.0	7.03	167.53	2,391.5	-149.2	33.0	-17.9	0.00	0.00	0.00
2,500.0	7.03	167.53	2,490.7	-161.2	35.7	-19.3	0.00	0.00	0.00
2,600.0	7.03	167.53	2,590.0	-173.1	38.3	-20.7	0.00	0.00	0.00
2,700.0	7.03	167.53	2,689.2	-185.1	40.9	-22.2	0.00	0.00	0.00
2,800.0	7.03	167.53	2,788.5	-197.0	43.6	-23.6	0.00	0.00	0.00
2,900.0	7.03	167.53	2,887.7	-209.0	46.2	-25.0	0.00	0.00	0.00
3,000.0	7.03	167.53	2,987.0	-220.9	48.9	-26.5	0.00	0.00	0.00
3,100.0	7.03	167.53	3,086.2	-232.8	51.5	-27.9	0.00	0.00	0.00
3,200.0	7.03	167.53	3,185.5	-244.8	54.2	-29.3	0.00	0.00	0.00
3,300.0	7.03	167.53	3,284.7	-256.7	56.8	-30.8	0.00	0.00	0.00
3,400.0	7.03	167.53	3,384.0	-268.7	59.4	-32.2	0.00	0.00	0.00
3,500.0	7.03	167.53	3,483.2	-280.6	62.1	-33.6	0.00	0.00	0.00
3,600.0	7.03	167.53	3,582.5	-292.6	64.7	-35.1	0.00	0.00	0.00
3,700.0	7.03	167.53	3,681.7	-304.5	67.4	-36.5	0.00	0.00	0.00
3,800.0	7.03	167.53	3,781.0	-316.5	70.0	-37.9	0.00	0.00	0.00
3,900.0	7.03	167.53	3,880.2	-328.4	72.7	-39.3	0.00	0.00	0.00
4,000.0	7.03	167.53	3,979.5	-340.4	75.3	-40.8	0.00	0.00	0.00
4,100.0	7.03	167.53	4,078.7	-352.3	77.9	-42.2	0.00	0.00	0.00
4,200.0	7.03	167.53	4,178.0	-364.3	80.6	-43.6	0.00	0.00	0.00
4,300.0	7.03	167.53	4,277.2	-376.2	83.2	-45.1	0.00	0.00	0.00
4,400.0	7.03	167.53	4,376.5	-388.1	85.9	-46.5	0.00	0.00	0.00
4,500.0	7.03	167.53	4,475.7	-400.1	88.5	-47.9	0.00	0.00	0.00
4,600.0	7.03	167.53	4,575.0	-412.0	91.2	-49.4	0.00	0.00	0.00
4,700.0	7.03	167.53	4,674.2	-424.0	93.8	-50.8	0.00	0.00	0.00
4,800.0	7.03	167.53	4,773.5	-435.9	96.4	-52.2	0.00	0.00	0.00
4,900.0	7.03	167.53	4,872.7	-447.9	99.1	-53.7	0.00	0.00	0.00
5,000.0	7.03	167.53	4,972.0	-459.8	101.7	-55.1	0.00	0.00	0.00

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<b>Project:</b>	SEC.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (8-4-15)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.0	7.03	167.53	5,071.2	-471.8	104.4	-56.5	0.00	0.00	0.00
5,178.9	7.03	167.53	5,149.5	-481.2	106.5	-57.6	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,200.0	6.61	167.53	5,170.5	-483.6	107.0	-57.9	2.00	-2.00	0.00
5,300.0	4.61	167.53	5,270.0	-493.2	109.1	-59.1	2.00	-2.00	0.00
5,400.0	2.61	167.53	5,369.8	-499.3	110.5	-59.8	2.00	-2.00	0.00
5,500.0	0.61	167.53	5,469.7	-502.1	111.1	-60.1	2.00	-2.00	0.00
5,530.3	0.00	0.00	5,500.0	-502.2	111.1	-60.2	2.00	-2.00	0.00
5,600.0	0.00	0.00	5,569.7	-502.2	111.1	-60.2	0.00	0.00	0.00
5,700.0	0.00	0.00	5,669.7	-502.2	111.1	-60.2	0.00	0.00	0.00
5,800.0	0.00	0.00	5,769.7	-502.2	111.1	-60.2	0.00	0.00	0.00
5,900.0	0.00	0.00	5,869.7	-502.2	111.1	-60.2	0.00	0.00	0.00
6,000.0	0.00	0.00	5,969.7	-502.2	111.1	-60.2	0.00	0.00	0.00
6,100.0	0.00	0.00	6,069.7	-502.2	111.1	-60.2	0.00	0.00	0.00
6,200.0	0.00	0.00	6,169.7	-502.2	111.1	-60.2	0.00	0.00	0.00
6,300.0	0.00	0.00	6,269.7	-502.2	111.1	-60.2	0.00	0.00	0.00
6,400.0	0.00	0.00	6,369.7	-502.2	111.1	-60.2	0.00	0.00	0.00
6,500.0	0.00	0.00	6,469.7	-502.2	111.1	-60.2	0.00	0.00	0.00
6,600.0	0.00	0.00	6,569.7	-502.2	111.1	-60.2	0.00	0.00	0.00
6,700.0	0.00	0.00	6,669.7	-502.2	111.1	-60.2	0.00	0.00	0.00
6,800.0	0.00	0.00	6,769.7	-502.2	111.1	-60.2	0.00	0.00	0.00
6,900.0	0.00	0.00	6,869.7	-502.2	111.1	-60.2	0.00	0.00	0.00
6,921.7	0.00	0.00	6,891.4	-502.2	111.1	-60.2	0.00	0.00	0.00
<b>KOP #2 - Start Build 7.50</b>									
7,000.0	5.87	270.00	6,969.6	-502.2	107.1	-56.2	7.50	7.50	0.00
7,100.0	13.37	270.00	7,068.1	-502.2	90.4	-39.6	7.50	7.50	0.00
7,200.0	20.87	270.00	7,163.6	-502.2	61.0	-10.3	7.50	7.50	0.00
7,300.0	28.37	270.00	7,254.5	-502.2	19.3	31.1	7.50	7.50	0.00
7,400.0	35.87	270.00	7,339.1	-502.2	-33.8	84.0	7.50	7.50	0.00
7,500.0	43.37	270.00	7,416.1	-502.2	-97.5	147.4	7.50	7.50	0.00
7,600.0	50.87	270.00	7,484.1	-502.2	-170.8	220.3	7.50	7.50	0.00
7,700.0	58.37	270.00	7,541.9	-502.2	-252.2	301.3	7.50	7.50	0.00
7,800.0	65.87	270.00	7,588.6	-502.2	-340.6	389.2	7.50	7.50	0.00
7,900.0	73.37	270.00	7,623.4	-502.2	-434.2	482.4	7.50	7.50	0.00
8,000.0	80.87	270.00	7,645.7	-502.2	-531.7	579.3	7.50	7.50	0.00
8,100.0	88.37	270.00	7,655.1	-502.2	-631.1	678.3	7.50	7.50	0.00
8,125.3	90.27	270.00	7,655.4	-502.2	-656.4	703.5	7.50	7.50	0.00
<b>Start 4325.1 hold at 8125.3 MD - 7"</b>									
8,200.0	90.27	270.00	7,655.0	-502.2	-731.1	777.8	0.00	0.00	0.00
8,300.0	90.27	270.00	7,654.6	-502.2	-831.1	877.3	0.00	0.00	0.00
8,400.0	90.27	270.00	7,654.1	-502.2	-931.1	976.8	0.00	0.00	0.00
8,500.0	90.27	270.00	7,653.6	-502.2	-1,031.1	1,076.3	0.00	0.00	0.00
8,600.0	90.27	270.00	7,653.1	-502.2	-1,131.1	1,175.8	0.00	0.00	0.00
8,700.0	90.27	270.00	7,652.7	-502.2	-1,231.1	1,275.3	0.00	0.00	0.00
8,800.0	90.27	270.00	7,652.2	-502.2	-1,331.1	1,374.8	0.00	0.00	0.00
8,900.0	90.27	270.00	7,651.7	-502.2	-1,431.1	1,474.3	0.00	0.00	0.00
9,000.0	90.27	270.00	7,651.3	-502.2	-1,531.1	1,573.8	0.00	0.00	0.00
9,100.0	90.27	270.00	7,650.8	-502.2	-1,631.1	1,673.3	0.00	0.00	0.00
9,200.0	90.27	270.00	7,650.3	-502.2	-1,731.1	1,772.8	0.00	0.00	0.00
9,300.0	90.27	270.00	7,649.8	-502.2	-1,831.1	1,872.3	0.00	0.00	0.00
9,400.0	90.27	270.00	7,649.4	-502.2	-1,931.1	1,971.8	0.00	0.00	0.00
9,500.0	90.27	270.00	7,648.9	-502.2	-2,031.1	2,071.3	0.00	0.00	0.00
9,600.0	90.27	270.00	7,648.4	-502.2	-2,131.1	2,170.7	0.00	0.00	0.00

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
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<b>Project:</b>	SEC.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (8-4-15)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,700.0	90.27	270.00	7,648.0	-502.2	-2,231.1	2,270.2	0.00	0.00	0.00
9,800.0	90.27	270.00	7,647.5	-502.2	-2,331.1	2,369.7	0.00	0.00	0.00
9,900.0	90.27	270.00	7,647.0	-502.2	-2,431.1	2,469.2	0.00	0.00	0.00
10,000.0	90.27	270.00	7,646.5	-502.2	-2,531.1	2,568.7	0.00	0.00	0.00
10,100.0	90.27	270.00	7,646.1	-502.2	-2,631.1	2,668.2	0.00	0.00	0.00
10,200.0	90.27	270.00	7,645.6	-502.2	-2,731.1	2,767.7	0.00	0.00	0.00
10,300.0	90.27	270.00	7,645.1	-502.2	-2,831.1	2,867.2	0.00	0.00	0.00
10,400.0	90.27	270.00	7,644.7	-502.2	-2,931.1	2,966.7	0.00	0.00	0.00
10,500.0	90.27	270.00	7,644.2	-502.2	-3,031.1	3,066.2	0.00	0.00	0.00
10,600.0	90.27	270.00	7,643.7	-502.2	-3,131.1	3,165.7	0.00	0.00	0.00
10,700.0	90.27	270.00	7,643.2	-502.2	-3,231.1	3,265.2	0.00	0.00	0.00
10,800.0	90.27	270.00	7,642.8	-502.2	-3,331.1	3,364.7	0.00	0.00	0.00
10,900.0	90.27	270.00	7,642.3	-502.2	-3,431.1	3,464.2	0.00	0.00	0.00
11,000.0	90.27	270.00	7,641.8	-502.2	-3,531.1	3,563.7	0.00	0.00	0.00
11,100.0	90.27	270.00	7,641.4	-502.2	-3,631.1	3,663.2	0.00	0.00	0.00
11,200.0	90.27	270.00	7,640.9	-502.2	-3,731.1	3,762.7	0.00	0.00	0.00
11,300.0	90.27	270.00	7,640.4	-502.2	-3,831.1	3,862.2	0.00	0.00	0.00
11,400.0	90.27	270.00	7,639.9	-502.2	-3,931.1	3,961.6	0.00	0.00	0.00
11,500.0	90.27	270.00	7,639.5	-502.2	-4,031.1	4,061.1	0.00	0.00	0.00
11,600.0	90.27	270.00	7,639.0	-502.2	-4,131.1	4,160.6	0.00	0.00	0.00
11,700.0	90.27	270.00	7,638.5	-502.2	-4,231.1	4,260.1	0.00	0.00	0.00
11,800.0	90.27	270.00	7,638.1	-502.2	-4,331.1	4,359.6	0.00	0.00	0.00
11,900.0	90.27	270.00	7,637.6	-502.2	-4,431.1	4,459.1	0.00	0.00	0.00
12,000.0	90.27	270.00	7,637.1	-502.2	-4,531.1	4,558.6	0.00	0.00	0.00
12,100.0	90.27	270.00	7,636.7	-502.2	-4,631.1	4,658.1	0.00	0.00	0.00
12,200.0	90.27	270.00	7,636.2	-502.2	-4,731.1	4,757.6	0.00	0.00	0.00
12,300.0	90.27	270.00	7,635.7	-502.2	-4,831.1	4,857.1	0.00	0.00	0.00
12,400.0	90.27	270.00	7,635.2	-502.2	-4,931.1	4,956.6	0.00	0.00	0.00
12,450.4	90.27	270.00	7,635.0	-502.2	-4,981.5	5,006.7	0.00	0.00	0.00
TD at 12450.4									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
50°N/S Hardline (6F-204)	0.00	0.00	1.0	-502.2	-2,818.9	1,242,247.07	3,154,134.62	39.997041	-104.949842
- plan misses target center by 2863.3ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E)									
- Rectangle (sides W100.0 H4,325.1 D0.0)									
SHL 699°FNL & 155°FWI	0.00	0.00	1.0	0.0	0.0	1,242,767.06	3,156,950.24	39.998420	-104.939780
- plan hits target center									
- Point									
BHL 1198°FNL & 500°FWI	0.00	0.00	7,635.0	-502.2	-4,981.5	1,242,233.40	3,151,972.16	39.997040	-104.957560
- plan hits target center									
- Point									

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Project:</b>	SEC.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (8-4-15)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
8,125.3	7,655.4	7"	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,453.9	4,430.0	Parkman		0.00	
4,826.7	4,800.0	Sussex		0.00	
5,410.2	5,380.0	Shannon		0.00	
7,450.5	7,379.0	Sharon Springs		0.00	
7,525.1	7,434.0	Niobrara A		0.00	
7,829.0	7,600.0	Niobrara B		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
800.0	800.0	0.0	0.0	KOP - Start Build 1.00	
5,178.9	5,149.5	-42.0	9.3	Start Drop -2.00	
6,921.7	6,891.4	-481.2	106.5	KOP #2 - Start Build 7.50	
8,125.3	7,655.4	-502.2	111.1	Start 4325.1 hold at 8125.3 MD	
12,450.4	7,635.0	-502.2	111.1	TD at 12450.4	



# Directional

## **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.6-T1S-R67W**

**Rio-LA 1S67W6E Pad Sec.6-T1S-R67W**

**Rio-LA 6F-204**

**Wellbore #1**

**Plan #1 (8-4-15)**

## **Anticollision Report**

**11 August, 2015**





<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1 (8-4-15)		
<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 1,000.0 ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	8/11/2015		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	12,450.4	Plan #1 (8-4-15) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Corcilus 1S67W6J Pad Sec.6-T1S-R67W						
Corcilus 6E-203 - Wellbore #1 - Plan #1 (4-29-15)	7,600.0	8,559.0	190.9	160.4	6.257	SF
Corcilus 6E-203 - Wellbore #1 - Plan #1 (4-29-15)	7,627.2	8,558.8	188.5	158.7	6.337	CC, ES
Corcilus 6E-323 - Wellbore #1 - Plan #1 (4-29-15)	7,500.0	8,646.4	402.4	369.7	12.310	SF
Corcilus 6E-323 - Wellbore #1 - Plan #1 (4-29-15)	7,550.0	8,646.2	396.3	364.9	12.622	ES
Corcilus 6E-323 - Wellbore #1 - Plan #1 (4-29-15)	7,556.9	8,646.2	396.2	365.0	12.695	CC
Existing Pad Sec.12-T1S-R68W						
Beisel 42-1 (Exist.) - Wellbore #1 - Wellbore #1	8,686.5	7,646.0	272.2	219.3	5.146	CC
Beisel 42-1 (Exist.) - Wellbore #1 - Wellbore #1	8,700.0	7,645.8	272.6	219.3	5.120	ES, SF
Beisel Unit 1 (Exist.) - Wellbore #1 - Wellbore #1	9,347.5	7,640.6	66.4	-140.9	0.320	Level 1, CC, ES, SF
Sterkel 21-1 - Wellbore #1 - Wellbore #1	11,038.6	7,662.1	370.0	249.9	3.081	CC, ES
Sterkel 21-1 - Wellbore #1 - Wellbore #1	11,100.0	7,662.3	375.1	253.3	3.079	SF
Existing Wells Sec.6-T1S-R67W						
Sack 11-6 (Exist.) - Wellbore #1 - Wellbore #1	1,314.2	1,301.3	283.1	277.2	47.629	CC
Sack 11-6 (Exist.) - Wellbore #1 - Wellbore #1	1,400.0	1,386.6	283.3	277.0	44.496	ES
Sack 11-6 (Exist.) - Wellbore #1 - Wellbore #1	6,921.7	6,874.0	601.0	568.5	18.524	SF
Rio-LA 1S67W6E Pad Sec.6-T1S-R67W						
Rio-LA 6E-234 - Wellbore #1 - Plan #1 (8-4-15)	800.0	800.0	47.4	44.1	14.070	CC, ES
Rio-LA 6E-234 - Wellbore #1 - Plan #1 (8-4-15)	12,450.4	12,424.1	768.7	489.1	2.749	SF
Rio-LA 6E-304 - Wellbore #1 - Plan #1 (8-4-15)	800.0	800.0	62.2	58.8	18.442	CC, ES
Rio-LA 6E-304 - Wellbore #1 - Plan #1 (8-4-15)	1,100.0	1,098.7	70.8	66.2	15.371	SF
Rio-LA 6F-314 - Wellbore #1 - Plan #1 (8-4-15)	800.0	800.0	14.6	11.2	4.321	CC, ES
Rio-LA 6F-314 - Wellbore #1 - Plan #1 (8-4-15)	12,450.4	12,533.5	285.9	24.1	1.092	Level 2, SF
Rio-LA 6F-334 - Wellbore #1 - Plan #1 (8-4-15)	400.0	400.0	14.8	13.3	9.436	CC, ES
Rio-LA 6F-334 - Wellbore #1 - Plan #1 (8-4-15)	12,450.4	12,598.5	372.1	104.4	1.390	Level 3, SF
Rio-LA 6F-414 - Wellbore #1 - Plan #1 (8-4-15)	800.0	800.0	32.9	29.5	9.759	CC, ES
Rio-LA 6F-414 - Wellbore #1 - Plan #1 (8-4-15)	12,450.4	12,523.2	605.7	356.1	2.426	SF
Rio-LA 6F-434 - Wellbore #1 - Plan #1 (8-4-15)	200.0	200.0	29.3	28.6	43.438	CC, ES
Rio-LA 6F-434 - Wellbore #1 - Plan #1 (8-4-15)	12,450.4	12,641.3	641.5	388.3	2.534	SF

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		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	100.14	-109.3	610.8	620.5				
100.0	100.0	91.0	91.0	0.1	0.1	100.14	-109.3	610.8	620.5	620.3	0.21	2,890.363	
200.0	200.0	191.0	191.0	0.3	0.3	100.14	-109.3	610.8	620.5	619.8	0.65	948.635	
300.0	300.0	304.4	304.4	0.6	0.6	100.06	-108.2	609.8	619.5	618.4	1.13	547.330	
400.0	400.0	419.0	418.8	0.8	0.8	99.79	-104.6	606.6	616.1	614.5	1.62	381.009	
500.0	500.0	533.1	532.7	1.0	1.1	99.31	-98.5	601.0	610.5	608.4	2.11	289.433	
600.0	600.0	646.7	645.7	1.2	1.4	98.62	-90.0	593.2	602.5	599.9	2.61	231.064	
700.0	700.0	759.5	757.5	1.5	1.8	97.71	-79.0	583.3	592.3	589.2	3.12	190.096	
800.0	800.0	871.3	867.8	1.7	2.1	96.56	-65.7	571.2	580.1	576.5	3.64	159.449	
900.0	900.0	970.5	965.5	1.9	2.5	-72.35	-52.7	559.4	566.6	562.4	4.18	135.526	
1,000.0	1,000.0	1,068.5	1,061.9	2.1	2.9	-73.97	-39.9	547.8	552.8	548.1	4.67	118.427	
1,100.0	1,099.9	1,166.1	1,158.0	2.2	3.2	-75.83	-27.1	536.2	539.0	533.8	5.18	104.054	
1,200.0	1,199.7	1,263.4	1,253.8	2.4	3.6	-77.95	-14.4	524.6	525.4	519.7	5.72	91.867	
1,300.0	1,299.4	1,360.4	1,349.2	2.7	4.0	-80.34	-1.7	513.0	512.1	505.8	6.29	81.455	
1,400.0	1,398.9	1,456.9	1,444.2	2.9	4.4	-83.02	11.0	501.6	499.5	492.6	6.89	72.525	
1,502.8	1,501.0	1,555.6	1,541.3	3.2	4.8	-86.08	23.9	489.8	487.5	480.0	7.54	64.652	
1,600.0	1,597.5	1,648.7	1,633.0	3.4	5.1	-89.07	36.1	478.8	477.5	469.3	8.19	58.328	
1,700.0	1,696.8	1,744.5	1,727.3	3.7	5.5	-92.26	48.6	467.4	468.7	459.8	8.87	52.831	
1,800.0	1,796.0	1,840.3	1,821.6	4.0	5.9	-95.55	61.2	456.0	461.5	451.9	9.57	48.213	
1,900.0	1,895.3	1,936.1	1,915.9	4.3	6.3	-98.93	73.7	444.6	446.0	445.7	10.28	44.349	
2,000.0	1,994.5	2,031.9	2,010.2	4.6	6.6	-102.37	86.3	433.2	452.3	441.3	11.00	41.130	
2,100.0	2,093.8	2,127.7	2,104.5	4.8	7.0	-105.85	98.8	421.8	450.3	438.6	11.71	38.466	
2,157.1	2,150.5	2,182.5	2,158.3	5.0	7.2	-107.85	106.0	415.3	450.0	437.9	12.11	37.162	
2,200.0	2,193.0	2,223.5	2,198.8	5.2	7.4	-109.35	111.4	410.4	450.2	437.8	12.41	36.278	
2,300.0	2,292.2	2,319.3	2,293.0	5.5	7.8	-112.83	123.9	399.0	451.9	438.8	13.10	34.499	
2,400.0	2,391.5	2,415.1	2,387.3	5.8	8.2	-116.28	136.5	387.6	455.4	441.6	13.77	33.070	
2,500.0	2,490.7	2,510.9	2,481.6	6.1	8.5	-119.67	149.0	376.2	460.6	446.2	14.42	31.942	
2,600.0	2,590.0	2,606.7	2,575.9	6.4	8.9	-122.97	161.5	364.8	467.6	452.5	15.05	31.071	
2,700.0	2,689.2	2,702.6	2,670.2	6.7	9.3	-126.18	174.1	353.4	476.2	460.5	15.65	30.419	
2,800.0	2,788.5	2,798.4	2,764.5	7.0	9.7	-129.27	186.6	342.0	486.3	470.0	16.23	29.954	
2,900.0	2,887.7	2,894.2	2,858.8	7.3	10.1	-132.23	199.2	330.6	497.8	481.0	16.79	29.648	
3,000.0	2,987.0	2,990.0	2,953.1	7.6	10.5	-135.07	211.7	319.2	510.8	493.4	17.33	29.474	
3,100.0	3,086.2	3,085.8	3,047.4	8.0	10.8	-137.76	224.3	307.8	524.9	507.1	17.85	29.412	
3,200.0	3,185.5	3,181.6	3,141.7	8.3	11.2	-140.32	236.8	296.4	540.2	521.9	18.35	29.444	
3,300.0	3,284.7	3,277.4	3,236.0	8.6	11.6	-142.74	249.4	285.0	556.6	537.8	18.83	29.553	
3,400.0	3,384.0	3,373.2	3,330.3	8.9	12.0	-145.03	261.9	273.6	573.9	554.6	19.31	29.725	
3,500.0	3,483.2	3,469.0	3,424.6	9.2	12.4	-147.18	274.5	262.2	592.2	572.4	19.77	29.950	
3,600.0	3,582.5	3,564.8	3,518.9	9.6	12.8	-149.21	287.0	250.8	611.2	591.0	20.23	30.216	
3,700.0	3,681.7	3,660.6	3,613.1	9.9	13.1	-151.12	299.6	239.4	630.9	610.3	20.68	30.516	
3,800.0	3,781.0	3,756.4	3,707.4	10.2	13.5	-152.92	312.1	228.0	651.3	630.2	21.12	30.841	
3,900.0	3,880.2	3,852.2	3,801.7	10.5	13.9	-154.61	324.7	216.7	672.4	650.8	21.56	31.187	
4,000.0	3,979.5	3,948.0	3,896.0	10.8	14.3	-156.20	337.2	205.3	693.9	671.9	22.00	31.548	
4,100.0	4,078.7	4,043.8	3,990.3	11.2	14.7	-157.70	349.7	193.9	716.0	693.5	22.43	31.919	
4,200.0	4,178.0	4,139.6	4,084.6	11.5	15.1	-159.11	362.3	182.5	738.5	715.6	22.87	32.298	
4,300.0	4,277.2	4,235.4	4,178.9	11.8	15.4	-160.44	374.8	171.1	761.4	738.1	23.30	32.680	
4,400.0	4,376.5	4,331.2	4,273.2	12.1	15.8	-161.69	387.4	159.7	784.7	761.0	23.73	33.065	
4,500.0	4,475.7	4,427.0	4,367.5	12.5	16.2	-162.88	399.9	148.3	808.4	784.2	24.17	33.448	
4,600.0	4,575.0	4,522.8	4,461.8	12.8	16.6	-163.99	412.5	136.9	832.3	807.7	24.60	33.830	
4,700.0	4,674.2	4,618.6	4,556.1	13.1	17.0	-165.05	425.0	125.5	856.6	831.5	25.04	34.209	
4,800.0	4,773.5	4,714.4	4,650.4	13.4	17.4	-166.05	437.6	114.1	881.1	855.6	25.48	34.583	
4,900.0	4,872.7	4,810.2	4,744.7	13.8	17.8	-166.99	450.1	102.7	905.9	879.9	25.92	34.952	

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Corcilus 1S67W6J Pad Sec.6-T1S-R67W - Corcilus 6E-203 - Wellbore #1 - Plan #1 (4-29-15)													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
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	4,972.0	4,906.0	4,839.0	14.1	18.1	-167.89	462.7	91.3	930.9	904.5	26.36	35.315		
5,100.0	5,071.2	5,001.9	4,933.2	14.4	18.5	-168.74	475.2	79.9	956.0	929.2	26.80	35.672		
5,178.9	5,149.5	5,077.4	5,007.6	14.7	18.8	-169.38	485.1	70.9	976.0	948.9	27.15	35.948		
5,200.0	5,170.5	5,097.7	5,027.6	14.7	18.9	-169.56	487.8	68.5	981.3	954.1	27.26	36.001		
6,700.0	6,669.7	8,565.5	7,642.2	17.1	22.8	-92.38	-510.1	-78.5	999.6	963.9	35.70	28.001		
6,800.0	6,769.7	8,564.7	7,642.2	17.2	22.8	-92.14	-509.3	-78.5	901.6	865.8	35.88	25.127		
6,900.0	6,869.7	8,563.9	7,642.2	17.4	22.8	-91.90	-508.5	-78.5	804.2	768.1	36.07	22.295		
6,921.7	6,891.4	8,563.7	7,642.2	17.4	22.8	-91.84	-508.3	-78.5	783.1	747.0	36.11	21.686		
6,950.0	6,919.7	8,563.5	7,642.2	17.5	22.8	-2.08	-508.1	-78.5	755.5	716.1	39.47	19.141		
7,000.0	6,969.6	8,563.1	7,642.2	17.6	22.8	-2.73	-507.7	-78.5	706.4	666.9	39.55	17.863		
7,050.0	7,019.1	8,562.7	7,642.2	17.6	22.8	-4.11	-507.3	-78.5	656.9	617.5	39.45	16.650		
7,100.0	7,068.1	8,562.3	7,642.2	17.7	22.8	-9.02	-506.9	-78.5	607.1	568.0	39.07	15.538		
7,150.0	7,116.4	8,561.9	7,642.2	17.8	22.8	-153.39	-506.5	-78.5	557.1	517.9	39.18	14.220		
7,200.0	7,163.6	8,561.6	7,642.2	17.8	22.8	-174.84	-506.1	-78.5	507.2	468.4	38.73	13.096		
7,250.0	7,209.7	8,561.2	7,642.2	17.9	22.8	-177.28	-505.8	-78.5	457.6	419.5	38.07	12.019		
7,300.0	7,254.5	8,560.8	7,642.2	18.0	22.7	-178.22	-505.4	-78.5	408.6	371.3	37.31	10.952		
7,350.0	7,297.7	8,560.5	7,642.2	18.0	22.7	-178.71	-505.1	-78.5	361.0	324.5	36.44	9.906		
7,400.0	7,339.1	8,560.1	7,642.2	18.1	22.7	-179.02	-504.7	-78.5	315.3	279.9	35.45	8.894		
7,450.0	7,378.6	8,559.8	7,642.2	18.2	22.7	-179.23	-504.4	-78.5	273.0	238.6	34.35	7.945		
7,500.0	7,416.1	8,559.5	7,642.2	18.2	22.7	-179.38	-504.1	-78.5	235.9	202.8	33.16	7.115		
7,550.0	7,451.3	8,559.2	7,642.2	18.3	22.7	-179.50	-503.8	-78.5	207.2	175.4	31.87	6.502		
7,600.0	7,484.1	8,559.0	7,642.2	18.5	22.7	-179.59	-503.6	-78.5	190.9	160.4	30.51	6.257 SF		
7,627.2	7,500.9	8,558.8	7,642.2	18.5	22.7	-179.63	-503.4	-78.5	188.5	158.7	29.74	6.337 CC, ES		
7,650.0	7,514.3	8,558.7	7,642.2	18.6	22.7	-179.67	-503.3	-78.5	190.2	161.1	29.09	6.539		
7,700.0	7,541.9	8,558.5	7,642.2	18.9	22.7	-179.73	-503.1	-78.5	205.2	177.6	27.62	7.431		
7,750.0	7,566.7	8,558.3	7,642.2	19.2	22.7	-179.78	-502.9	-78.5	233.0	206.8	26.12	8.917		
7,800.0	7,588.6	8,558.1	7,642.2	19.6	22.7	-179.83	-502.7	-78.5	269.4	244.8	24.64	10.934		
7,850.0	7,607.6	8,558.0	7,642.2	20.2	22.7	-179.87	-502.6	-78.5	311.4	288.2	23.19	13.428		
7,900.0	7,623.4	8,557.8	7,642.2	20.9	22.7	-179.90	-502.4	-78.5	356.8	335.0	21.81	16.356		
7,950.0	7,636.2	8,557.7	7,642.2	21.6	22.7	-179.94	-502.3	-78.5	404.3	383.7	20.57	19.657		
8,000.0	7,645.7	8,557.7	7,642.2	22.5	22.7	-179.98	-502.2	-78.5	453.1	433.6	19.51	23.226		
8,050.0	7,652.0	8,557.6	7,642.2	23.4	22.7	179.98	-502.2	-78.5	502.7	484.0	18.70	26.880		
8,100.0	7,655.1	8,557.6	7,642.2	24.3	22.7	179.79	-502.2	-78.5	552.6	534.4	18.20	30.359		
8,125.3	7,655.4	8,557.6	7,642.2	24.8	22.7	0.40	-502.2	-78.5	577.9	559.9	18.06	32.007		
8,200.0	7,655.0	8,557.6	7,642.2	26.3	22.7	0.39	-502.2	-78.5	652.6	634.1	18.52	35.239		
8,300.0	7,654.6	8,557.6	7,642.2	28.5	22.7	0.38	-502.2	-78.5	752.6	733.4	19.16	39.282		
8,400.0	7,654.1	8,557.6	7,642.2	30.7	22.7	0.37	-502.2	-78.5	852.6	832.8	19.82	43.027		
8,500.0	7,653.6	8,557.6	7,642.2	33.1	22.7	0.35	-502.2	-78.5	952.6	932.1	20.48	46.502		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Corcilus 1S67W6J Pad Sec.6-T1S-R67W - Corcilus 6E-323 - Wellbore #1 - Plan #1 (4-29-15)											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	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Centres (ft)	Ellipses (ft)	Separation (ft)	Factor			
0.0	0.0	0.0	0.0	0.0	0.0	99.67	-109.3	641.6	650.9						
100.0	100.0	91.0	91.0	0.1	0.1	99.67	-109.3	641.6	650.8	650.6	0.21	3,031.788			
200.0	200.0	191.0	191.0	0.3	0.3	99.67	-109.3	641.6	650.8	650.2	0.65	995.052			
300.0	300.0	291.0	291.0	0.6	0.5	99.67	-109.3	641.6	650.8	649.7	1.10	589.735			
400.0	400.0	391.0	391.0	0.8	0.8	99.67	-109.3	641.6	650.8	649.3	1.55	419.045			
500.0	500.0	503.1	503.1	1.0	1.0	99.58	-108.1	640.8	650.0	648.0	2.03	320.528			
600.0	600.0	616.3	616.2	1.2	1.3	99.27	-104.2	638.2	647.1	644.6	2.51	258.127			
700.0	700.0	729.0	728.6	1.5	1.5	98.75	-97.6	633.7	642.2	639.2	2.99	214.668			
800.0	800.0	841.2	840.3	1.7	1.8	98.00	-88.2	627.3	635.4	631.9	3.48	182.369			
900.0	900.0	952.5	950.6	1.9	2.1	-70.68	-76.2	619.2	626.5	622.5	3.98	157.438			
1,000.0	1,000.0	1,062.5	1,059.2	2.1	2.5	-72.27	-61.8	609.5	615.3	610.8	4.47	137.608			
1,100.0	1,099.9	1,163.2	1,158.2	2.2	2.8	-74.12	-46.9	599.4	602.7	597.8	4.97	121.162			
1,200.0	1,199.7	1,260.3	1,253.8	2.4	3.2	-76.15	-32.4	589.6	590.2	584.7	5.50	107.408			
1,300.0	1,299.4	1,357.0	1,348.9	2.7	3.6	-78.40	-17.9	579.8	578.1	572.0	6.05	95.618			
1,400.0	1,398.9	1,453.3	1,443.6	2.9	3.9	-80.90	-3.5	570.1	566.5	559.9	6.63	85.479			
1,502.8	1,501.0	1,551.9	1,540.5	3.2	4.3	-83.71	11.2	560.1	555.5	548.2	7.26	76.517			
1,600.0	1,597.5	1,644.8	1,631.9	3.4	4.7	-86.42	25.0	550.7	546.3	538.4	7.88	69.286			
1,700.0	1,696.8	1,740.3	1,725.9	3.7	5.0	-89.30	39.3	541.1	538.3	529.7	8.55	62.969			
1,800.0	1,796.0	1,835.9	1,819.9	4.0	5.4	-92.25	53.6	531.4	531.7	522.5	9.23	57.629			
1,900.0	1,895.3	1,931.5	1,913.9	4.3	5.8	-95.26	67.9	521.7	526.8	516.8	9.92	53.124			
2,000.0	1,994.5	2,027.0	2,007.9	4.6	6.2	-98.31	82.1	512.1	523.4	512.8	10.61	49.331			
2,100.0	2,093.8	2,122.6	2,101.9	4.8	6.5	-101.39	96.4	502.4	521.7	510.4	11.30	46.148			
2,153.2	2,146.5	2,173.4	2,151.9	5.0	6.7	-103.04	104.0	497.3	521.5	509.8	11.67	44.671			
2,200.0	2,193.0	2,218.2	2,195.9	5.2	6.9	-104.48	110.7	492.8	521.6	509.7	12.00	43.487			
2,300.0	2,292.2	2,313.7	2,289.9	5.5	7.3	-107.57	124.9	483.1	523.3	510.6	12.68	41.273			
2,400.0	2,391.5	2,409.3	2,383.9	5.8	7.7	-110.62	139.2	473.5	526.5	513.2	13.35	39.443			
2,500.0	2,490.7	2,504.9	2,478.0	6.1	8.1	-113.63	153.5	463.8	531.4	517.4	14.00	37.944			
2,600.0	2,590.0	2,600.5	2,572.0	6.4	8.4	-116.59	167.8	454.2	537.8	523.1	14.64	36.728			
2,700.0	2,689.2	2,696.0	2,666.0	6.7	8.8	-119.47	182.0	444.5	545.7	530.5	15.26	35.756			
2,800.0	2,788.5	2,791.6	2,760.0	7.0	9.2	-122.27	196.3	434.8	555.1	539.3	15.86	34.993			
2,900.0	2,887.7	2,887.2	2,854.0	7.3	9.6	-124.98	210.6	425.2	565.9	549.4	16.45	34.410			
3,000.0	2,987.0	2,982.7	2,948.0	7.6	10.0	-127.59	224.9	415.5	578.0	561.0	17.01	33.980			
3,100.0	3,086.2	3,078.3	3,042.0	8.0	10.4	-130.09	239.1	405.9	591.3	573.7	17.55	33.681			
3,200.0	3,185.5	3,173.9	3,136.0	8.3	10.7	-132.49	253.4	396.2	605.7	587.6	18.08	33.494			
3,300.0	3,284.7	3,269.5	3,230.0	8.6	11.1	-134.78	267.7	386.6	621.2	602.6	18.60	33.402			
3,400.0	3,384.0	3,365.0	3,324.0	8.9	11.5	-136.96	281.9	376.9	637.6	618.5	19.10	33.390			
3,500.0	3,483.2	3,460.6	3,418.0	9.2	11.9	-139.03	296.2	367.3	655.0	635.4	19.58	33.446			
3,600.0	3,582.5	3,556.2	3,512.0	9.6	12.3	-141.01	310.5	357.6	673.2	653.2	20.06	33.558			
3,700.0	3,681.7	3,651.7	3,606.0	9.9	12.7	-142.88	324.8	347.9	692.2	671.7	20.53	33.717			
3,800.0	3,781.0	3,747.3	3,700.0	10.2	13.1	-144.65	339.0	338.3	711.9	690.9	20.99	33.916			
3,900.0	3,880.2	3,842.9	3,794.0	10.5	13.4	-146.33	353.3	328.6	732.3	710.8	21.45	34.146			
4,000.0	3,979.5	3,938.5	3,888.0	10.8	13.8	-147.93	367.6	319.0	753.2	731.3	21.89	34.402			
4,100.0	4,078.7	4,034.0	3,982.0	11.2	14.2	-149.44	381.9	309.3	774.7	752.4	22.34	34.679			
4,200.0	4,178.0	4,129.6	4,076.0	11.5	14.6	-150.87	396.1	299.7	796.8	774.0	22.78	34.973			
4,300.0	4,277.2	4,225.2	4,170.0	11.8	15.0	-152.22	410.4	290.0	819.2	796.0	23.22	35.279			
4,400.0	4,376.5	4,320.7	4,264.0	12.1	15.4	-153.51	424.7	280.3	842.1	818.5	23.66	35.595			
4,500.0	4,475.7	4,416.3	4,358.0	12.5	15.8	-154.73	438.9	270.7	865.4	841.3	24.10	35.918			
4,600.0	4,575.0	4,511.9	4,452.0	12.8	16.1	-155.89	453.2	261.0	889.1	864.6	24.53	36.245			
4,700.0	4,674.2	4,607.4	4,546.1	13.1	16.5	-156.99	467.5	251.4	913.1	888.1	24.97	36.574			
4,800.0	4,773.5	4,703.0	4,640.1	13.4	16.9	-158.03	481.8	241.7	937.4	912.0	25.40	36.905			
4,900.0	4,872.7	4,798.6	4,734.1	13.8	17.3	-159.02	496.0	232.1	962.0	936.2	25.84	37.235			

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Corcilus 1S67W6J Pad Sec.6-T1S-R67W - Corcilus 6E-323 - Wellbore #1 - Plan #1 (4-29-15)											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	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)				
5,000.0	4,972.0	4,894.2	4,828.1	14.1	17.7	-159.96	510.3	222.4	986.9	960.6	26.27	37.564			
6,800.0	6,769.7	8,649.8	7,739.7	17.2	22.2	106.14	-507.3	128.8	979.2	944.8	34.33	28.524			
6,900.0	6,869.7	8,649.3	7,739.7	17.4	22.2	104.57	-506.8	128.8	879.2	844.7	34.45	25.518			
6,921.7	6,891.4	8,649.2	7,739.7	17.4	22.2	104.22	-506.7	128.8	857.5	823.0	34.48	24.868			
6,950.0	6,919.7	8,649.0	7,739.7	17.5	22.2	-174.93	-506.6	128.8	829.2	789.8	39.43	21.029			
7,000.0	6,969.6	8,648.7	7,739.7	17.6	22.2	-177.69	-506.3	128.8	779.5	740.0	39.49	19.739			
7,050.0	7,019.1	8,648.5	7,739.7	17.6	22.2	-178.54	-506.0	128.8	730.2	690.8	39.40	18.534			
7,100.0	7,068.1	8,648.2	7,739.7	17.7	22.2	-178.95	-505.8	128.8	681.7	642.5	39.16	17.406			
7,150.0	7,116.4	8,648.0	7,739.7	17.8	22.2	-179.19	-505.5	128.8	634.5	595.7	38.79	16.355			
7,200.0	7,163.6	8,647.7	7,739.7	17.8	22.2	-179.35	-505.3	128.8	589.0	550.8	38.29	15.384			
7,250.0	7,209.7	8,647.5	7,739.7	17.9	22.2	-179.47	-505.0	128.8	546.0	508.4	37.65	14.502			
7,300.0	7,254.5	8,647.3	7,739.7	18.0	22.2	-179.55	-504.8	128.8	506.3	469.4	36.89	13.725			
7,350.0	7,297.7	8,647.0	7,739.7	18.0	22.2	-179.62	-504.6	128.8	470.8	434.8	36.00	13.077			
7,400.0	7,339.1	8,646.8	7,739.7	18.1	22.2	-179.67	-504.4	128.8	440.7	405.8	35.00	12.593			
7,450.0	7,378.6	8,646.6	7,739.8	18.2	22.2	-179.71	-504.1	128.8	417.5	383.6	33.89	12.319			
7,500.0	7,416.1	8,646.4	7,739.8	18.2	22.2	-179.75	-503.9	128.8	402.4	369.7	32.69	12.310 SF			
7,550.0	7,451.3	8,646.2	7,739.8	18.3	22.2	-179.78	-503.8	128.8	396.3	364.9	31.40	12.622 ES			
7,556.9	7,456.0	8,646.2	7,739.8	18.3	22.2	-179.78	-503.7	128.8	396.2	365.0	31.21	12.695 CC			
7,600.0	7,484.1	8,646.0	7,739.8	18.5	22.2	-179.80	-503.6	128.8	399.7	369.7	30.04	13.309			
7,650.0	7,514.3	8,645.9	7,739.8	18.6	22.2	-179.82	-503.4	128.8	412.5	383.8	28.62	14.411			
7,700.0	7,541.9	8,645.7	7,739.8	18.9	22.2	-179.84	-503.3	128.8	433.6	406.4	27.17	15.960			
7,750.0	7,566.7	8,645.6	7,739.8	19.2	22.2	-179.85	-503.2	128.8	461.8	436.1	25.70	17.972			
7,800.0	7,588.6	8,645.5	7,739.8	19.6	22.2	-179.86	-503.0	128.8	495.9	471.7	24.24	20.459			
7,850.0	7,607.6	8,645.4	7,739.8	20.2	22.2	-179.87	-502.9	128.8	534.6	511.8	22.83	23.418			
7,900.0	7,623.4	8,645.3	7,739.8	20.9	22.2	-179.87	-502.9	128.8	576.8	555.3	21.51	26.822			
7,950.0	7,636.2	8,645.2	7,739.8	21.6	22.2	-179.87	-502.8	128.8	621.7	601.4	20.32	30.597			
8,000.0	7,645.7	8,645.2	7,739.8	22.5	22.2	-179.86	-502.7	128.8	668.5	649.1	19.33	34.588			
8,050.0	7,652.0	8,645.2	7,739.8	23.4	22.2	-179.83	-502.7	128.8	716.6	698.0	18.59	38.546			
8,100.0	7,655.1	8,645.1	7,739.8	24.3	22.2	-179.77	-502.7	128.8	765.7	747.5	18.16	42.155			
8,125.3	7,655.4	8,645.1	7,739.8	24.8	22.2	-179.70	-502.7	128.8	790.8	772.7	18.07	43.753			
8,200.0	7,655.0	8,645.1	7,739.8	26.3	22.2	-179.70	-502.7	128.8	865.0	846.5	18.54	46.666			
8,300.0	7,654.6	8,645.1	7,739.8	28.5	22.2	-179.70	-502.7	128.8	964.6	945.4	19.18	50.301			

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 100-Reference													Offset Well Error:	0.0 ft
Existing Pad Sec.12-T1S-R68W - Beisel 42-1 (Exist.) - Wellbore #1 - Wellbore #1														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
7,750.0	7,566.7	7,563.3	7,562.0	19.2	15.6	-32.49	-774.6	-1,218.5	962.2	938.7	23.50	40.938		
7,800.0	7,588.6	7,589.1	7,587.8	19.6	15.6	-37.79	-774.6	-1,218.3	919.0	894.3	24.71	37.193		
7,850.0	7,607.6	7,609.7	7,608.3	20.2	15.6	-44.18	-774.6	-1,218.1	874.8	848.0	26.76	32.692		
7,900.0	7,623.4	7,625.6	7,624.2	20.9	15.6	-51.72	-774.5	-1,217.9	829.7	800.1	29.53	28.100		
7,950.0	7,636.2	7,638.1	7,636.8	21.6	15.6	-60.43	-774.5	-1,217.7	784.0	751.3	32.70	23.979		
8,000.0	7,645.7	7,647.4	7,646.0	22.5	15.6	-69.90	-774.4	-1,217.6	738.1	702.4	35.71	20.669		
8,050.0	7,652.0	7,653.3	7,651.9	23.4	15.7	-79.43	-774.4	-1,217.5	692.1	654.1	38.03	18.198		
8,100.0	7,655.1	7,655.8	7,654.4	24.3	15.7	-88.25	-774.4	-1,217.5	646.5	607.1	39.44	16.392		
8,125.3	7,655.4	7,655.7	7,654.4	24.8	15.7	-92.24	-774.4	-1,217.5	623.7	583.8	39.84	15.655		
8,200.0	7,655.0	7,654.4	7,653.1	26.3	15.7	-91.97	-774.4	-1,217.5	557.4	516.0	41.40	13.464		
8,300.0	7,654.6	7,652.7	7,651.3	28.5	15.7	-91.60	-774.4	-1,217.6	472.7	429.1	43.61	10.840		
8,400.0	7,654.1	7,650.9	7,649.6	30.7	15.7	-91.23	-774.4	-1,217.6	395.2	349.3	45.91	8.607		
8,500.0	7,653.6	7,649.2	7,647.9	33.1	15.7	-90.87	-774.4	-1,217.6	330.0	281.7	48.30	6.832		
8,600.0	7,653.1	7,647.5	7,646.2	35.5	15.6	-90.51	-774.4	-1,217.6	285.6	234.9	50.74	5.629		
8,686.5	7,652.7	7,646.0	7,644.7	37.6	15.6	-90.20	-774.4	-1,217.6	272.2	219.3	52.90	5.146 CC		
8,700.0	7,652.7	7,645.8	7,644.4	37.9	15.6	-90.15	-774.4	-1,217.6	272.6	219.3	53.24	5.120 ES, SF		
8,800.0	7,652.2	7,644.1	7,642.8	40.4	15.6	-89.79	-774.4	-1,217.7	294.9	239.2	55.78	5.288		
8,900.0	7,651.7	7,642.4	7,641.1	43.0	15.6	-89.44	-774.5	-1,217.7	345.9	287.6	58.34	5.929		
9,000.0	7,651.3	7,640.7	7,639.4	45.6	15.6	-89.09	-774.5	-1,217.7	415.2	354.2	60.94	6.813		
9,100.0	7,650.8	7,639.1	7,637.8	48.2	15.6	-88.74	-774.5	-1,217.7	495.0	431.5	63.55	7.789		
9,200.0	7,650.3	7,637.4	7,636.1	50.8	15.6	-88.40	-774.5	-1,217.7	581.1	515.0	66.19	8.780		
9,300.0	7,649.8	7,635.8	7,634.5	53.4	15.6	-88.05	-774.5	-1,217.8	671.1	602.3	68.83	9.750		
9,400.0	7,649.4	7,634.2	7,632.9	56.1	15.6	-87.71	-774.5	-1,217.8	763.6	692.1	71.49	10.681		
9,500.0	7,648.9	7,632.6	7,631.2	58.8	15.6	-87.37	-774.5	-1,217.8	857.7	783.6	74.16	11.566		
9,600.0	7,648.4	7,631.0	7,629.6	61.4	15.6	-87.04	-774.5	-1,217.8	953.1	876.3	76.83	12.405		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 8087- Existing Pad Sec.12-T1S-R68W - Beisel Unit 1 (Exist.) - Wellbore #1 - Wellbore #1													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
8,400.0	7,654.1	7,645.1	7,645.1	30.7	152.9	-93.85	-568.6	-1,878.6	949.8	767.1	182.71	5.198		
8,500.0	7,653.6	7,644.6	7,644.6	33.1	152.9	-93.44	-568.6	-1,878.6	850.0	664.9	185.16	4.591		
8,600.0	7,653.1	7,644.1	7,644.1	35.5	152.9	-93.04	-568.6	-1,878.6	750.4	562.7	187.66	3.999		
8,700.0	7,652.7	7,643.7	7,643.7	37.9	152.9	-92.63	-568.6	-1,878.6	650.8	460.6	190.21	3.422		
8,800.0	7,652.2	7,643.2	7,643.2	40.4	152.9	-92.23	-568.6	-1,878.6	551.5	358.7	192.80	2.860		
8,900.0	7,651.7	7,642.7	7,642.7	43.0	152.9	-91.82	-568.6	-1,878.6	452.4	256.9	195.41	2.315		
9,000.0	7,651.3	7,642.3	7,642.3	45.6	152.8	-91.41	-568.6	-1,878.6	353.7	155.7	198.04	1.786		
9,100.0	7,650.8	7,641.8	7,641.8	48.2	152.8	-91.01	-568.6	-1,878.6	256.2	55.5	200.68	1.277 Level 3		
9,200.0	7,650.3	7,641.3	7,641.3	50.8	152.8	-90.60	-568.6	-1,878.6	161.7	-41.6	203.33	0.795 Level 1		
9,300.0	7,649.8	7,640.8	7,640.8	53.4	152.8	-90.19	-568.6	-1,878.6	81.6	-124.4	206.00	0.396 Level 1		
9,347.5	7,649.6	7,640.6	7,640.6	54.7	152.8	-90.00	-568.6	-1,878.6	66.4	-140.9	207.26	0.320 Level 1, CC, ES, SF		
9,400.0	7,649.4	7,640.4	7,640.4	56.1	152.8	-89.79	-568.6	-1,878.6	84.7	-124.0	208.66	0.406 Level 1		
9,500.0	7,648.9	7,639.9	7,639.9	58.8	152.8	-89.38	-568.6	-1,878.6	166.4	-45.0	211.33	0.787 Level 1		
9,600.0	7,648.4	7,639.4	7,639.4	61.4	152.8	-88.97	-568.6	-1,878.6	261.1	47.1	214.00	1.220 Level 2		
9,700.0	7,648.0	7,639.0	7,639.0	64.1	152.8	-88.57	-568.6	-1,878.6	358.7	142.1	216.67	1.656		
9,800.0	7,647.5	7,638.5	7,638.5	66.8	152.8	-88.16	-568.6	-1,878.6	457.4	238.0	219.33	2.085		
9,900.0	7,647.0	7,638.0	7,638.0	69.5	152.8	-87.75	-568.6	-1,878.6	556.5	334.5	221.99	2.507		
10,000.0	7,646.5	7,637.5	7,637.5	72.3	152.8	-87.35	-568.6	-1,878.6	655.9	431.3	224.64	2.920		
10,100.0	7,646.1	7,637.1	7,637.1	75.0	152.7	-86.94	-568.6	-1,878.6	755.5	528.2	227.29	3.324		
10,200.0	7,645.6	7,636.6	7,636.6	77.7	152.7	-86.54	-568.6	-1,878.6	855.1	625.2	229.93	3.719		
10,300.0	7,645.1	7,636.1	7,636.1	80.5	152.7	-86.13	-568.6	-1,878.6	954.8	722.3	232.56	4.106		



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Existing Pad Sec.12-T1S-R68W - Sterkel 21-1 - Wellbore #1 - Wellbore #1		Offset Site Error:		0.0 ft	
Survey Program: 100-													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)							
10,200.0	7,645.6	7,658.9	7,655.8	77.7	19.5	91.26	-132.3	-3,569.7	916.6	819.6	97.04	9.446						
10,300.0	7,645.1	7,659.3	7,656.1	80.5	19.5	91.31	-132.3	-3,569.8	826.1	726.3	99.78	8.279						
10,400.0	7,644.7	7,659.6	7,656.5	83.2	19.5	91.36	-132.3	-3,569.8	738.1	635.5	102.52	7.199						
10,500.0	7,644.2	7,660.0	7,656.8	85.9	19.5	91.42	-132.3	-3,569.8	653.5	548.2	105.27	6.207						
10,600.0	7,643.7	7,660.4	7,657.2	88.7	19.5	91.48	-132.3	-3,569.8	573.8	465.8	108.02	5.312						
10,700.0	7,643.2	7,660.7	7,657.6	91.4	19.5	91.54	-132.3	-3,569.8	501.6	390.8	110.77	4.528						
10,800.0	7,642.8	7,661.1	7,657.9	94.2	19.5	91.59	-132.3	-3,569.8	440.3	326.8	113.53	3.878						
10,900.0	7,642.3	7,661.5	7,658.3	96.9	19.5	91.65	-132.3	-3,569.8	395.1	278.8	116.29	3.398						
11,000.0	7,641.8	7,661.9	7,658.7	99.7	19.5	91.72	-132.4	-3,569.8	372.0	253.0	119.05	3.125						
11,038.6	7,641.7	7,662.1	7,658.9	100.8	19.5	91.74	-132.4	-3,569.8	370.0	249.9	120.12	3.081 CC, ES						
11,100.0	7,641.4	7,662.3	7,659.1	102.5	19.5	91.78	-132.4	-3,569.8	375.1	253.3	121.81	3.079 SF						
11,200.0	7,640.9	7,662.7	7,659.6	105.2	19.5	91.84	-132.4	-3,569.8	403.7	279.1	124.57	3.240						
11,300.0	7,640.4	7,663.2	7,660.0	108.0	19.5	91.91	-132.4	-3,569.8	453.0	325.7	127.34	3.558						
11,400.0	7,639.9	7,663.6	7,660.4	110.8	19.5	91.98	-132.4	-3,569.8	517.2	387.1	130.11	3.975						
11,500.0	7,639.5	7,664.0	7,660.9	113.5	19.5	92.05	-132.4	-3,569.8	591.4	458.6	132.87	4.451						
11,600.0	7,639.0	7,664.5	7,661.3	116.3	19.5	92.12	-132.4	-3,569.8	672.4	536.7	135.64	4.957						
11,700.0	7,638.5	7,665.0	7,661.8	119.1	19.5	92.19	-132.5	-3,569.8	757.8	619.4	138.41	5.475						
11,800.0	7,638.1	7,665.5	7,662.3	121.9	19.5	92.27	-132.5	-3,569.8	846.5	705.3	141.18	5.996						
11,900.0	7,637.6	7,665.9	7,662.8	124.6	19.5	92.34	-132.5	-3,569.8	937.5	793.5	143.96	6.512						



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Sec.6-T1S-R67W - Sack 11-6 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 100-NS-GYRO-MS													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+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	72.83	87.4	283.0	296.6					
100.0	100.0	87.1	87.1	0.1	0.1	72.83	87.3	282.5	295.7	295.5	0.23	1,295.488		
200.0	200.0	187.3	187.3	0.3	0.4	72.87	86.8	281.5	294.6	293.9	0.70	420.776		
300.0	300.0	286.0	286.0	0.6	0.6	72.94	86.1	280.7	293.7	292.5	1.18	248.793		
400.0	400.0	385.9	385.9	0.8	0.9	73.02	85.6	280.3	293.0	291.4	1.66	176.006		
500.0	500.0	486.7	486.7	1.0	1.1	73.04	85.2	279.5	292.3	290.1	2.15	136.224		
600.0	600.0	587.9	587.9	1.2	1.4	73.00	85.1	278.4	291.1	288.5	2.62	110.976		
700.0	700.0	688.7	688.7	1.5	1.6	73.01	84.6	277.0	289.7	286.5	3.11	93.159		
800.0	800.0	788.7	788.7	1.7	1.9	73.16	83.4	275.6	288.0	284.4	3.59	80.146		
900.0	900.0	888.5	888.5	1.9	2.2	-94.34	82.0	274.4	286.5	282.5	4.05	70.791		
1,000.0	1,000.0	988.0	987.9	2.1	2.4	-94.69	80.6	273.3	285.2	280.7	4.48	63.628		
1,100.0	1,099.9	1,088.1	1,088.0	2.2	2.7	-95.45	79.6	272.1	284.2	279.3	4.93	57.595		
1,200.0	1,199.7	1,187.6	1,187.5	2.4	3.0	-96.62	78.9	270.9	283.4	278.0	5.40	52.511		
1,300.0	1,299.4	1,287.2	1,287.1	2.7	3.2	-98.17	78.4	269.7	283.1	277.2	5.87	48.195		
1,314.2	1,313.5	1,301.3	1,301.2	2.7	3.3	-98.41	78.3	269.5	283.1	277.2	5.94	47.629 CC		
1,400.0	1,398.9	1,386.6	1,386.5	2.9	3.5	-100.03	77.7	268.6	283.3	277.0	6.37	44.496 ES		
1,502.8	1,501.0	1,488.2	1,488.1	3.2	3.7	-102.25	77.0	267.6	284.4	277.5	6.89	41.271		
1,600.0	1,597.5	1,585.1	1,585.0	3.4	4.0	-104.55	76.4	266.6	286.1	278.7	7.40	38.663		
1,700.0	1,696.8	1,684.1	1,684.0	3.7	4.3	-106.93	76.1	265.4	288.2	280.3	7.92	36.391		
1,800.0	1,796.0	1,783.5	1,783.3	4.0	4.5	-109.34	76.1	264.2	290.9	282.5	8.44	34.482		
1,900.0	1,895.3	1,883.0	1,882.8	4.3	4.7	-111.75	76.2	262.7	294.1	285.1	8.95	32.861		
2,000.0	1,994.5	1,982.3	1,982.1	4.6	5.0	-114.14	76.4	261.1	297.6	288.2	9.46	31.471		
2,100.0	2,093.8	2,081.8	2,081.6	4.8	5.2	-116.49	76.7	259.3	301.6	291.7	9.97	30.261		
2,200.0	2,193.0	2,182.1	2,181.9	5.2	5.5	-118.82	76.9	257.3	305.9	295.4	10.49	29.177		
2,300.0	2,292.2	2,281.7	2,281.5	5.5	5.7	-121.06	76.8	255.0	310.4	299.4	11.00	28.206		
2,400.0	2,391.5	2,380.8	2,380.6	5.8	6.0	-123.24	76.8	252.7	315.3	303.7	11.52	27.368		
2,500.0	2,490.7	2,479.8	2,479.5	6.1	6.2	-125.39	77.0	250.3	320.6	308.6	12.03	26.658		
2,600.0	2,590.0	2,578.5	2,578.2	6.4	6.5	-127.47	77.3	247.8	326.6	314.0	12.53	26.065		
2,700.0	2,689.2	2,676.7	2,676.4	6.7	6.7	-129.52	78.0	245.3	333.1	320.1	13.02	25.587		
2,800.0	2,788.5	2,776.2	2,775.8	7.0	6.9	-131.55	78.8	242.6	340.2	326.7	13.50	25.192		
2,900.0	2,887.7	2,875.2	2,874.8	7.3	7.2	-133.48	79.6	239.9	347.5	333.5	13.99	24.846		
3,000.0	2,987.0	2,975.2	2,974.7	7.6	7.4	-135.29	80.1	237.4	355.2	340.7	14.48	24.532		
3,100.0	3,086.2	3,075.1	3,074.6	8.0	7.7	-136.89	79.9	235.5	362.9	347.9	14.98	24.228		
3,200.0	3,185.5	3,173.7	3,173.2	8.3	8.0	-138.31	79.4	234.2	370.8	355.4	15.48	23.957		
3,300.0	3,284.7	3,272.1	3,271.6	8.6	8.2	-139.61	78.9	233.3	379.2	363.3	15.98	23.738		
3,400.0	3,384.0	3,370.4	3,369.9	8.9	8.5	-140.82	78.5	232.7	388.0	371.6	16.47	23.561		
3,500.0	3,483.2	3,469.1	3,468.6	9.2	8.7	-141.96	78.3	232.3	397.2	380.3	16.96	23.415		
3,600.0	3,582.5	3,566.2	3,565.7	9.6	8.9	-143.05	78.3	231.9	406.8	389.4	17.42	23.358		
3,700.0	3,681.7	3,663.7	3,663.1	9.9	9.1	-144.10	78.9	231.7	417.2	399.4	17.80	23.439		
3,800.0	3,781.0	3,762.7	3,762.2	10.2	9.2	-145.10	79.7	231.6	427.8	409.7	18.14	23.590		
3,900.0	3,880.2	3,864.2	3,863.7	10.5	9.3	-146.07	80.2	231.6	438.4	419.9	18.51	23.679		
4,000.0	3,979.5	3,964.4	3,963.9	10.8	9.6	-146.96	80.1	231.5	448.6	429.6	18.97	23.641		
4,100.0	4,078.7	4,063.5	4,063.0	11.2	9.8	-147.82	80.2	231.2	458.8	439.3	19.46	23.577		
4,200.0	4,178.0	4,161.8	4,161.3	11.5	10.1	-148.73	80.5	230.3	469.2	449.3	19.93	23.544		
4,300.0	4,277.2	4,260.5	4,259.9	11.8	10.3	-149.63	81.1	229.2	480.0	459.6	20.39	23.541		
4,400.0	4,376.5	4,359.5	4,359.0	12.1	10.5	-150.52	81.8	227.8	490.9	470.1	20.85	23.545		
4,500.0	4,475.7	4,459.3	4,458.7	12.5	10.8	-151.41	82.6	226.2	501.9	480.6	21.32	23.547		
4,600.0	4,575.0	4,558.5	4,557.9	12.8	11.0	-152.30	83.3	224.2	512.9	491.1	21.78	23.545		
4,700.0	4,674.2	4,657.0	4,656.4	13.1	11.3	-153.19	84.2	221.9	524.1	501.8	22.25	23.553		
4,800.0	4,773.5	4,755.1	4,754.4	13.4	11.5	-154.06	85.2	219.4	535.5	512.8	22.71	23.577		
4,900.0	4,872.7	4,853.5	4,852.8	13.8	11.7	-154.88	86.4	217.2	547.2	524.0	23.17	23.614		

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Sec.6-T1S-R67W - Sack 11-6 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 100-NS-GYRO-MS													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,000.0	4,972.0	4,952.9	4,952.1	14.1	12.0	-155.66	87.6	214.9	559.0	535.4	23.64	23.653		
5,100.0	5,071.2	5,053.1	5,052.3	14.4	12.2	-156.43	88.7	212.6	570.9	546.8	24.10	23.683		
5,178.9	5,149.5	5,132.7	5,131.9	14.7	12.4	-157.02	89.4	210.6	580.0	555.6	24.48	23.694		
5,200.0	5,170.5	5,154.1	5,153.3	14.7	12.5	-157.19	89.6	210.1	582.4	557.8	24.59	23.688		
5,300.0	5,270.0	5,254.8	5,254.0	14.9	12.7	-157.90	90.1	207.4	591.5	566.4	25.05	23.611		
5,400.0	5,369.8	5,355.9	5,355.0	15.1	13.0	-158.39	90.4	205.1	597.3	571.8	25.50	23.425		
5,500.0	5,469.7	5,457.1	5,456.2	15.3	13.3	-158.62	90.2	203.9	599.5	573.6	25.92	23.134		
5,530.3	5,500.0	5,487.6	5,486.8	15.3	13.4	8.88	90.1	203.6	599.5	571.2	28.32	21.173		
5,600.0	5,569.7	5,557.1	5,556.3	15.4	13.5	8.84	89.9	203.2	599.2	570.6	28.60	20.951		
5,700.0	5,669.7	5,656.2	5,655.3	15.6	13.8	8.81	89.6	202.8	598.9	569.9	28.99	20.661		
5,800.0	5,769.7	5,757.3	5,756.4	15.7	14.0	8.79	89.4	202.6	598.6	569.2	29.36	20.386		
5,900.0	5,869.7	5,857.4	5,856.5	15.9	14.2	8.76	88.8	202.2	598.0	568.3	29.74	20.111		
6,000.0	5,969.7	5,956.2	5,955.4	16.0	14.5	8.73	88.6	201.8	597.7	567.6	30.13	19.839		
6,100.0	6,069.7	6,056.1	6,055.3	16.2	14.7	8.68	88.4	201.3	597.5	566.9	30.54	19.564		
6,193.4	6,163.1	6,148.0	6,147.1	16.3	14.9	8.64	88.3	200.8	597.3	566.4	30.88	19.339		
6,200.0	6,169.7	6,154.4	6,153.5	16.3	14.9	8.64	88.3	200.8	597.3	566.4	30.91	19.325		
6,300.0	6,269.7	6,252.4	6,251.5	16.5	15.1	8.63	88.5	200.8	597.5	566.3	31.18	19.161		
6,400.0	6,369.7	6,351.9	6,351.1	16.6	15.1	8.65	88.9	201.0	598.0	566.6	31.40	19.044		
6,500.0	6,469.7	6,451.4	6,450.5	16.8	15.2	8.67	89.4	201.3	598.4	566.8	31.60	18.936		
6,600.0	6,569.7	6,550.0	6,549.1	16.9	15.2	8.69	90.0	201.6	599.1	567.3	31.83	18.824		
6,700.0	6,669.7	6,650.3	6,649.4	17.1	15.3	8.71	90.7	202.0	599.9	567.9	32.05	18.720		
6,800.0	6,769.7	6,751.8	6,750.9	17.2	15.3	8.79	91.2	202.9	600.5	568.2	32.23	18.629		
6,900.0	6,869.7	6,852.3	6,851.4	17.4	15.3	8.88	91.5	203.8	600.9	568.5	32.40	18.543		
6,921.7	6,891.4	6,874.0	6,873.1	17.4	15.3	8.90	91.5	204.0	601.0	568.5	32.44	18.524 SF		
6,950.0	6,919.7	6,902.3	6,901.4	17.5	15.3	98.96	91.6	204.3	601.1	570.5	30.61	19.638		
7,000.0	6,969.6	6,951.2	6,950.3	17.6	15.3	99.26	91.7	204.8	601.9	571.2	30.72	19.594		
7,050.0	7,019.1	7,000.0	6,999.1	17.6	15.4	99.82	92.0	205.4	603.4	572.6	30.82	19.577		
7,100.0	7,068.1	7,047.8	7,046.9	17.7	15.4	100.60	92.2	205.9	605.6	574.7	30.92	19.586		
7,150.0	7,116.4	7,095.1	7,094.2	17.8	15.4	101.56	92.6	206.5	608.7	577.7	31.01	19.632		
7,200.0	7,163.6	7,143.2	7,142.3	17.8	15.4	102.74	92.9	207.0	612.8	581.7	31.08	19.719		
7,250.0	7,209.7	7,190.2	7,189.3	17.9	15.4	104.05	93.2	207.6	618.1	587.0	31.13	19.856		
7,300.0	7,254.5	7,234.9	7,234.0	18.0	15.4	105.40	93.3	208.2	624.8	593.6	31.16	20.053		
7,350.0	7,297.7	7,277.8	7,276.9	18.0	15.4	106.75	93.4	208.8	633.2	602.0	31.16	20.321		
7,400.0	7,339.1	7,318.4	7,317.5	18.1	15.5	108.01	93.6	209.3	643.5	612.4	31.15	20.661		
7,450.0	7,378.6	7,356.5	7,355.6	18.2	15.5	109.13	93.8	209.9	656.1	625.0	31.13	21.076		
7,500.0	7,416.1	7,392.4	7,391.5	18.2	15.5	110.08	94.0	210.4	671.1	639.9	31.12	21.561		
7,550.0	7,451.3	7,426.9	7,425.9	18.3	15.5	110.86	94.2	211.0	688.6	657.4	31.15	22.104		
7,600.0	7,484.1	7,459.1	7,458.1	18.5	15.5	111.38	94.4	211.5	708.6	677.4	31.23	22.687		
7,650.0	7,514.3	7,488.7	7,487.8	18.6	15.5	111.58	94.5	212.0	731.3	699.9	31.41	23.281		
7,700.0	7,541.9	7,515.6	7,514.7	18.9	15.5	111.42	94.7	212.5	756.5	724.8	31.71	23.856		
7,750.0	7,566.7	7,539.8	7,538.8	19.2	15.5	110.84	94.8	212.9	784.3	752.2	32.17	24.380		
7,800.0	7,588.6	7,561.0	7,560.0	19.6	15.6	109.79	94.9	213.2	814.5	781.7	32.81	24.825		
7,850.0	7,607.6	7,579.2	7,578.2	20.2	15.6	108.22	95.0	213.5	847.0	813.3	33.64	25.176		
7,900.0	7,623.4	7,594.3	7,593.4	20.9	15.6	106.06	95.1	213.8	881.5	846.8	34.66	25.432		
7,950.0	7,636.2	7,606.3	7,605.3	21.6	15.6	103.26	95.2	214.0	917.8	882.0	35.83	25.617		
8,000.0	7,645.7	7,615.1	7,614.1	22.5	15.6	99.77	95.2	214.1	955.7	918.6	37.08	25.776		
8,050.0	7,652.0	7,620.6	7,619.6	23.4	15.6	95.56	95.3	214.2	995.0	956.7	38.30	25.977		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		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	-3.39	47.4	-2.8	47.4					
100.0	100.0	100.0	100.0	0.1	0.1	-3.39	47.4	-2.8	47.4	47.2	0.22	211.046		
200.0	200.0	200.0	200.0	0.3	0.3	-3.39	47.4	-2.8	47.4	46.8	0.67	70.349		
300.0	300.0	300.0	300.0	0.6	0.6	-3.39	47.4	-2.8	47.4	46.3	1.12	42.209		
400.0	400.0	400.0	400.0	0.8	0.8	-3.39	47.4	-2.8	47.4	45.9	1.57	30.149		
500.0	500.0	500.0	500.0	1.0	1.0	-3.39	47.4	-2.8	47.4	45.4	2.02	23.450		
600.0	600.0	600.0	600.0	1.2	1.2	-3.39	47.4	-2.8	47.4	45.0	2.47	19.186		
700.0	700.0	700.0	700.0	1.5	1.5	-3.39	47.4	-2.8	47.4	44.5	2.92	16.234		
800.0	800.0	800.0	800.0	1.7	1.7	-3.39	47.4	-2.8	47.4	44.1	3.37	14.070 CC, ES		
900.0	900.0	900.0	900.0	1.9	1.9	-171.07	47.4	-2.8	48.3	44.5	3.79	12.730		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-171.53	47.4	-2.8	50.9	46.7	4.20	12.123		
1,100.0	1,099.9	1,099.9	1,099.9	2.2	2.4	-172.19	47.4	-2.8	55.2	50.6	4.61	11.976		
1,200.0	1,199.7	1,199.7	1,199.7	2.4	2.6	-172.96	47.4	-2.8	61.3	56.2	5.03	12.185		
1,300.0	1,299.4	1,299.4	1,299.4	2.7	2.8	-173.75	47.4	-2.8	69.1	63.6	5.45	12.671		
1,400.0	1,398.9	1,398.9	1,398.9	2.9	3.0	-174.50	47.4	-2.8	78.6	72.7	5.87	13.376		
1,502.8	1,501.0	1,501.0	1,501.0	3.2	3.3	-175.20	47.4	-2.8	90.2	83.9	6.31	14.284		
1,600.0	1,597.5	1,597.5	1,597.5	3.4	3.5	-175.76	47.4	-2.8	102.1	95.3	6.74	15.149		
1,700.0	1,696.8	1,696.8	1,696.8	3.7	3.7	-176.21	47.4	-2.8	114.3	107.1	7.18	15.925		
1,800.0	1,796.0	1,796.0	1,796.0	4.0	3.9	-176.58	47.4	-2.8	126.5	118.9	7.62	16.607		
1,900.0	1,895.3	1,895.3	1,895.3	4.3	4.1	-176.69	48.0	-2.5	139.3	131.3	8.05	17.296		
2,000.0	1,994.5	1,990.4	1,990.4	4.6	4.4	-176.41	50.2	-1.4	153.5	145.0	8.50	18.072		
2,100.0	2,093.8	2,087.0	2,086.8	4.8	4.6	-175.86	53.8	0.4	169.1	160.1	8.94	18.920		
2,200.0	2,193.0	2,183.0	2,182.8	5.2	4.8	-175.11	58.8	3.0	186.0	176.6	9.38	19.832		
2,300.0	2,292.2	2,278.6	2,278.0	5.5	5.0	-174.23	65.2	6.2	204.4	194.5	9.83	20.800		
2,400.0	2,391.5	2,373.6	2,372.6	5.8	5.2	-173.28	72.9	10.2	224.1	213.8	10.27	21.816		
2,500.0	2,490.7	2,469.4	2,467.9	6.1	5.5	-172.28	82.1	14.8	245.2	234.5	10.73	22.858		
2,600.0	2,590.0	2,567.0	2,564.9	6.4	5.7	-171.39	91.6	19.6	266.6	255.4	11.19	23.829		
2,700.0	2,689.2	2,664.6	2,661.9	6.7	5.9	-170.64	101.1	24.5	288.0	276.3	11.65	24.727		
2,800.0	2,788.5	2,762.2	2,758.9	7.0	6.2	-169.99	110.7	29.3	309.4	297.3	12.11	25.555		
2,900.0	2,887.7	2,859.8	2,856.0	7.3	6.4	-169.42	120.2	34.2	330.9	318.4	12.57	26.320		
3,000.0	2,987.0	2,957.4	2,953.0	7.6	6.7	-168.93	129.8	39.0	352.5	339.4	13.04	27.028		
3,100.0	3,086.2	3,055.1	3,050.0	8.0	6.9	-168.49	139.3	43.8	374.0	360.5	13.51	27.687		
3,200.0	3,185.5	3,152.7	3,147.0	8.3	7.2	-168.10	148.9	48.7	395.6	381.6	13.98	28.300		
3,300.0	3,284.7	3,250.3	3,244.1	8.6	7.5	-167.74	158.4	53.5	417.1	402.7	14.45	28.872		
3,400.0	3,384.0	3,347.9	3,341.1	8.9	7.7	-167.43	167.9	58.4	438.7	423.8	14.92	29.406		
3,500.0	3,483.2	3,445.5	3,438.1	9.2	8.0	-167.14	177.5	63.2	460.3	444.9	15.39	29.907		
3,600.0	3,582.5	3,543.1	3,535.1	9.6	8.3	-166.88	187.0	68.0	481.9	466.1	15.87	30.377		
3,700.0	3,681.7	3,640.7	3,632.2	9.9	8.5	-166.64	196.6	72.9	503.6	487.2	16.34	30.819		
3,800.0	3,781.0	3,738.4	3,729.2	10.2	8.8	-166.42	206.1	77.7	525.2	508.4	16.81	31.235		
3,900.0	3,880.2	3,836.0	3,826.2	10.5	9.1	-166.22	215.7	82.5	546.8	529.5	17.29	31.627		
4,000.0	3,979.5	3,933.6	3,923.3	10.8	9.4	-166.03	225.2	87.4	568.5	550.7	17.77	31.997		
4,100.0	4,078.7	4,031.2	4,020.3	11.2	9.6	-165.86	234.7	92.2	590.1	571.9	18.24	32.348		
4,200.0	4,178.0	4,128.8	4,117.3	11.5	9.9	-165.70	244.3	97.1	611.8	593.1	18.72	32.680		
4,300.0	4,277.2	4,233.6	4,221.4	11.8	10.2	-165.55	254.3	102.2	633.3	614.1	19.19	32.993		
4,400.0	4,376.5	4,356.9	4,344.4	12.1	10.4	-165.53	262.7	106.4	651.9	632.3	19.65	33.170		
4,500.0	4,475.7	4,481.8	4,469.2	12.5	10.7	-165.71	266.3	108.2	666.7	646.6	20.11	33.156		
4,600.0	4,575.0	4,587.5	4,575.0	12.8	10.9	-165.98	266.4	108.3	678.7	658.1	20.54	33.038		
4,700.0	4,674.2	4,686.8	4,674.2	13.1	11.1	-166.22	266.4	108.3	690.6	669.6	20.99	32.893		
4,800.0	4,773.5	4,786.0	4,773.5	13.4	11.3	-166.46	266.4	108.3	702.5	681.0	21.45	32.750		
4,900.0	4,872.7	4,885.3	4,872.7	13.8	11.5	-166.69	266.4	108.3	714.4	692.5	21.90	32.613		
5,000.0	4,972.0	4,984.5	4,972.0	14.1	11.7	-166.91	266.4	108.3	726.3	703.9	22.36	32.482		

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		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		
5,100.0	5,071.2	5,083.8	5,071.2	14.4	11.9	-167.13	266.4	108.3	738.2	715.4	22.81	32.357		
5,178.9	5,149.5	5,162.0	5,149.5	14.7	12.0	-167.29	266.4	108.3	747.6	724.5	23.17	32.261		
5,200.0	5,170.5	5,183.0	5,170.5	14.7	12.1	-167.34	266.4	108.3	750.1	726.8	23.28	32.219		
5,300.0	5,270.0	5,282.5	5,270.0	14.9	12.3	-167.55	266.4	108.3	759.6	735.9	23.74	31.993		
5,400.0	5,369.8	5,382.3	5,369.8	15.1	12.5	-167.68	266.4	108.3	765.8	741.6	24.17	31.676		
5,500.0	5,469.7	5,482.3	5,469.7	15.3	12.7	-167.73	266.4	108.3	768.5	743.9	24.57	31.273		
5,530.3	5,500.0	5,512.6	5,500.0	15.3	12.8	-0.21	266.4	108.3	768.6	740.8	27.83	27.624		
5,600.0	5,569.7	5,582.3	5,569.7	15.4	12.9	-0.21	266.4	108.3	768.6	740.6	28.08	27.371		
5,700.0	5,669.7	5,682.3	5,669.7	15.6	13.1	-0.21	266.4	108.3	768.6	740.2	28.44	27.031		
5,800.0	5,769.7	5,782.3	5,769.7	15.7	13.3	-0.21	266.4	108.3	768.6	739.9	28.79	26.697		
5,900.0	5,869.7	5,882.3	5,869.7	15.9	13.5	-0.21	266.4	108.3	768.6	739.5	29.15	26.370		
6,000.0	5,969.7	5,982.3	5,969.7	16.0	13.8	-0.21	266.4	108.3	768.6	739.1	29.51	26.048		
6,100.0	6,069.7	6,082.3	6,069.7	16.2	14.0	-0.21	266.4	108.3	768.6	738.8	29.87	25.733		
6,200.0	6,169.7	6,182.3	6,169.7	16.3	14.2	-0.21	266.4	108.3	768.6	738.4	30.23	25.423		
6,300.0	6,269.7	6,282.3	6,269.7	16.5	14.4	-0.21	266.4	108.3	768.6	738.0	30.60	25.119		
6,400.0	6,369.7	6,382.3	6,369.7	16.6	14.6	-0.21	266.4	108.3	768.6	737.7	30.97	24.820		
6,500.0	6,469.7	6,482.3	6,469.7	16.8	14.8	-0.21	266.4	108.3	768.6	737.3	31.34	24.527		
6,600.0	6,569.7	6,582.3	6,569.7	16.9	15.0	-0.21	266.4	108.3	768.6	736.9	31.71	24.239		
6,700.0	6,669.7	6,682.3	6,669.7	17.1	15.2	-0.21	266.4	108.3	768.6	736.6	32.08	23.957		
6,800.0	6,769.7	6,782.3	6,769.7	17.2	15.5	-0.21	266.4	108.3	768.6	736.2	32.46	23.680		
6,900.0	6,869.7	6,882.3	6,869.7	17.4	15.7	-0.21	266.4	108.3	768.6	735.8	32.84	23.408		
6,914.5	6,884.2	6,896.7	6,884.2	17.4	15.7	-0.21	266.4	108.3	768.6	735.8	32.89	23.369		
6,921.7	6,891.4	6,904.0	6,891.4	17.4	15.7	-0.21	266.4	108.3	768.6	735.7	32.92	23.350		
6,950.0	6,919.7	6,932.2	6,919.6	17.5	15.8	89.79	266.4	107.8	768.6	738.2	30.44	25.249		
7,000.0	6,969.6	6,982.0	6,969.3	17.6	15.9	89.79	266.4	104.3	768.6	738.0	30.62	25.099		
7,050.0	7,019.1	7,031.8	7,018.7	17.6	15.9	89.79	266.4	97.6	768.6	737.9	30.79	24.961		
7,100.0	7,068.1	7,081.6	7,067.5	17.7	16.0	89.80	266.4	87.7	768.6	737.7	30.95	24.832		
7,150.0	7,116.4	7,131.5	7,115.6	17.8	16.1	89.80	266.4	74.7	768.6	737.5	31.11	24.707		
7,200.0	7,163.6	7,181.3	7,162.7	17.8	16.2	89.80	266.4	58.5	768.6	737.4	31.27	24.581		
7,250.0	7,209.7	7,231.1	7,208.7	17.9	16.2	89.81	266.4	39.3	768.6	737.2	31.44	24.448		
7,300.0	7,254.5	7,281.0	7,253.3	18.0	16.3	89.81	266.4	17.1	768.6	737.0	31.63	24.301		
7,350.0	7,297.7	7,330.8	7,296.4	18.0	16.3	89.82	266.4	-7.9	768.6	736.8	31.86	24.129		
7,400.0	7,339.1	7,380.6	7,337.8	18.1	16.4	89.83	266.4	-35.7	768.6	736.5	32.13	23.923		
7,450.0	7,378.6	7,430.5	7,377.2	18.2	16.6	89.84	266.4	-66.1	768.6	736.2	32.47	23.674		
7,500.0	7,416.1	7,480.4	7,414.7	18.2	16.8	89.85	266.4	-99.0	768.6	735.8	32.89	23.371		
7,550.0	7,451.3	7,530.2	7,449.8	18.3	17.0	89.86	266.4	-134.3	768.6	735.2	33.41	23.008		
7,600.0	7,484.1	7,580.1	7,482.7	18.5	17.4	89.87	266.4	-171.9	768.6	734.6	34.04	22.579		
7,650.0	7,514.3	7,630.0	7,513.0	18.6	17.8	89.88	266.4	-211.5	768.6	733.8	34.81	22.083		
7,700.0	7,541.9	7,679.9	7,540.6	18.9	18.2	89.89	266.4	-253.0	768.6	732.9	35.71	21.524		
7,750.0	7,566.7	7,729.8	7,565.5	19.2	18.7	89.90	266.4	-296.3	768.6	731.9	36.76	20.908		
7,800.0	7,588.6	7,779.7	7,587.6	19.6	19.3	89.91	266.4	-341.0	768.6	730.7	37.97	20.245		
7,850.0	7,607.6	7,829.6	7,606.6	20.2	20.0	89.92	266.4	-387.2	768.6	729.3	39.32	19.549		
7,900.0	7,623.4	7,879.6	7,622.6	20.9	20.8	89.94	266.4	-434.5	768.6	727.8	40.81	18.833		
7,950.0	7,636.2	7,929.5	7,635.5	21.6	21.6	89.95	266.4	-482.7	768.6	726.2	42.44	18.111		
8,000.0	7,645.7	7,979.5	7,645.2	22.5	22.4	89.96	266.4	-531.7	768.6	724.5	44.19	17.395		
8,050.0	7,652.0	8,029.5	7,651.7	23.4	23.3	89.98	266.4	-581.3	768.6	722.6	46.04	16.696		
8,100.0	7,655.1	8,079.5	7,655.0	24.3	24.3	89.99	266.4	-631.1	768.6	720.7	47.97	16.022		
8,125.3	7,655.4	8,104.8	7,655.3	24.8	24.8	90.00	266.4	-656.4	768.6	719.7	48.98	15.694		
8,125.9	7,655.4	8,105.4	7,655.3	24.8	24.8	90.00	266.4	-657.1	768.6	719.6	49.00	15.686		
8,200.0	7,655.0	8,179.4	7,655.0	26.3	26.3	90.00	266.4	-731.1	768.6	716.6	52.06	14.764		
8,300.0	7,654.6	8,279.4	7,654.5	28.5	28.5	90.00	266.4	-831.1	768.6	712.2	56.41	13.627		

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Rio-LA 1S67W6E Pad Sec.6-T1S-R67W - Rio-LA 6E-234 - Wellbore #1 - Plan #1 (8-4-15)		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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor					
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)						
8,400.0	7,654.1	8,379.4	7,654.1	30.7	30.7	90.00	266.4	-931.1	768.6	707.7	60.96	12.610					
8,500.0	7,653.6	8,479.4	7,653.6	33.1	33.1	90.00	266.4	-1,031.1	768.6	703.0	65.67	11.704					
8,600.0	7,653.1	8,579.4	7,653.1	35.5	35.5	90.00	266.4	-1,131.1	768.6	698.1	70.52	10.900					
8,700.0	7,652.7	8,679.4	7,652.6	37.9	37.9	90.00	266.4	-1,231.1	768.6	693.2	75.47	10.185					
8,800.0	7,652.2	8,779.4	7,652.2	40.4	40.4	90.00	266.4	-1,331.1	768.6	688.1	80.51	9.548					
8,900.0	7,651.7	8,879.4	7,651.7	43.0	43.0	90.00	266.4	-1,431.1	768.6	683.0	85.62	8.978					
9,000.0	7,651.3	8,979.4	7,651.2	45.6	45.6	90.00	266.4	-1,531.1	768.6	677.9	90.78	8.467					
9,100.0	7,650.8	9,079.4	7,650.8	48.2	48.2	90.00	266.4	-1,631.1	768.6	672.6	96.00	8.007					
9,200.0	7,650.3	9,179.4	7,650.3	50.8	50.8	90.00	266.4	-1,731.1	768.6	667.4	101.26	7.591					
9,300.0	7,649.8	9,279.4	7,649.8	53.4	53.4	90.00	266.4	-1,831.1	768.6	662.1	106.56	7.213					
9,400.0	7,649.4	9,379.4	7,649.3	56.1	56.1	90.00	266.4	-1,931.1	768.6	656.8	111.88	6.870					
9,500.0	7,648.9	9,479.4	7,648.9	58.8	58.7	90.00	266.4	-2,031.1	768.6	651.4	117.24	6.556					
9,600.0	7,648.4	9,579.4	7,648.4	61.4	61.4	90.00	266.4	-2,131.1	768.6	646.0	122.61	6.269					
9,700.0	7,648.0	9,679.4	7,647.9	64.1	64.1	90.00	266.4	-2,231.1	768.6	640.6	128.01	6.005					
9,800.0	7,647.5	9,779.4	7,647.5	66.8	66.8	90.00	266.4	-2,331.1	768.6	635.2	133.42	5.761					
9,900.0	7,647.0	9,879.4	7,647.0	69.5	69.5	90.00	266.4	-2,431.1	768.6	629.8	138.85	5.536					
10,000.0	7,646.5	9,979.4	7,646.5	72.3	72.2	90.00	266.4	-2,531.1	768.6	624.4	144.29	5.327					
10,100.0	7,646.1	10,079.4	7,646.0	75.0	75.0	90.00	266.4	-2,631.1	768.6	618.9	149.75	5.133					
10,200.0	7,645.6	10,179.4	7,645.6	77.7	77.7	90.00	266.4	-2,731.1	768.6	613.4	155.21	4.952					
10,300.0	7,645.1	10,279.4	7,645.1	80.5	80.4	90.00	266.4	-2,831.1	768.6	608.0	160.69	4.783					
10,400.0	7,644.7	10,379.4	7,644.6	83.2	83.2	90.00	266.4	-2,931.1	768.6	602.5	166.17	4.626					
10,500.0	7,644.2	10,479.4	7,644.2	85.9	85.9	90.00	266.4	-3,031.1	768.6	597.0	171.67	4.478					
10,600.0	7,643.7	10,579.4	7,643.7	88.7	88.7	90.00	266.4	-3,131.1	768.6	591.5	177.17	4.339					
10,700.0	7,643.2	10,679.4	7,643.2	91.4	91.4	90.00	266.4	-3,231.1	768.6	586.0	182.67	4.208					
10,800.0	7,642.8	10,779.4	7,642.8	94.2	94.2	90.00	266.4	-3,331.1	768.6	580.5	188.19	4.084					
10,900.0	7,642.3	10,879.4	7,642.3	96.9	96.9	90.00	266.4	-3,431.1	768.6	574.9	193.71	3.968					
11,000.0	7,641.8	10,979.4	7,641.8	99.7	99.7	90.00	266.4	-3,531.1	768.6	569.4	199.23	3.858					
11,100.0	7,641.4	11,079.4	7,641.3	102.5	102.4	90.00	266.4	-3,631.1	768.6	563.9	204.76	3.754					
11,200.0	7,640.9	11,179.4	7,640.9	105.2	105.2	90.00	266.4	-3,731.1	768.6	558.4	210.29	3.655					
11,300.0	7,640.4	11,279.4	7,640.4	108.0	108.0	90.00	266.4	-3,831.1	768.6	552.8	215.83	3.561					
11,400.0	7,639.9	11,379.4	7,639.9	110.8	110.7	90.00	266.4	-3,931.1	768.6	547.3	221.37	3.472					
11,500.0	7,639.5	11,479.4	7,639.5	113.5	113.5	90.00	266.4	-4,031.1	768.6	541.7	226.91	3.387					
11,600.0	7,639.0	11,579.4	7,639.0	116.3	116.3	90.00	266.4	-4,131.1	768.6	536.2	232.46	3.307					
11,700.0	7,638.5	11,679.4	7,638.5	119.1	119.1	90.00	266.4	-4,231.1	768.6	530.6	238.01	3.229					
11,800.0	7,638.1	11,779.4	7,638.0	121.9	121.8	90.00	266.4	-4,331.1	768.6	525.1	243.56	3.156					
11,900.0	7,637.6	11,879.4	7,637.6	124.6	124.6	90.00	266.4	-4,431.1	768.6	519.5	249.12	3.085					
12,000.0	7,637.1	11,979.4	7,637.1	127.4	127.4	90.00	266.4	-4,531.1	768.6	514.0	254.67	3.018					
12,100.0	7,636.7	12,079.4	7,636.6	130.2	130.2	90.00	266.4	-4,631.1	768.6	508.4	260.23	2.954					
12,200.0	7,636.2	12,179.4	7,636.2	133.0	132.9	90.00	266.4	-4,731.1	768.6	502.8	265.79	2.892					
12,300.0	7,635.7	12,279.4	7,635.7	135.7	135.7	90.00	266.4	-4,831.1	768.6	497.3	271.36	2.833					
12,400.0	7,635.2	12,379.4	7,635.2	138.5	138.5	90.00	266.4	-4,931.1	768.6	491.7	276.92	2.776					
12,425.9	7,635.1	12,405.4	7,635.1	139.3	139.2	90.00	266.4	-4,957.0	768.6	490.3	278.37	2.761					
12,450.4	7,635.0	12,424.1	7,635.0	139.9	139.8	90.00	266.4	-4,975.8	768.7	489.1	279.57	2.749 SF					

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference				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	-5.17	61.9	-5.6	62.2				
100.0	100.0	100.0	100.0	0.1	0.1	-5.17	61.9	-5.6	62.2	62.0	0.22	276.632	
200.0	200.0	200.0	200.0	0.3	0.3	-5.17	61.9	-5.6	62.2	61.5	0.67	92.211	
300.0	300.0	300.0	300.0	0.6	0.6	-5.17	61.9	-5.6	62.2	61.1	1.12	55.326	
400.0	400.0	400.0	400.0	0.8	0.8	-5.17	61.9	-5.6	62.2	60.6	1.57	39.519	
500.0	500.0	500.0	500.0	1.0	1.0	-5.17	61.9	-5.6	62.2	60.2	2.02	30.737	
600.0	600.0	600.0	600.0	1.2	1.2	-5.17	61.9	-5.6	62.2	59.7	2.47	25.148	
700.0	700.0	700.0	700.0	1.5	1.5	-5.17	61.9	-5.6	62.2	59.3	2.92	21.279	
800.0	800.0	800.0	800.0	1.7	1.7	-5.17	61.9	-5.6	62.2	58.8	3.37	18.442 CC, ES	
900.0	900.0	900.0	900.0	1.9	1.9	-172.80	61.9	-5.6	63.0	59.2	3.79	16.616	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-173.08	61.9	-5.6	65.6	61.4	4.20	15.638	
1,100.0	1,099.9	1,098.7	1,098.7	2.2	2.4	-173.63	62.7	-5.9	70.8	66.2	4.61	15.371 SF	
1,200.0	1,199.7	1,197.0	1,197.0	2.4	2.6	-174.46	65.2	-6.6	79.4	74.4	5.02	15.809	
1,300.0	1,299.4	1,294.9	1,294.7	2.7	2.8	-175.39	69.2	-7.8	91.4	86.0	5.44	16.795	
1,400.0	1,398.9	1,392.0	1,391.7	2.9	3.0	-176.30	74.7	-9.6	106.9	101.0	5.87	18.214	
1,502.8	1,501.0	1,490.9	1,490.3	3.2	3.2	-177.13	82.0	-11.8	126.3	120.0	6.30	20.029	
1,600.0	1,597.5	1,583.7	1,582.7	3.4	3.5	-177.82	90.3	-14.4	147.1	140.4	6.72	21.881	
1,700.0	1,696.8	1,678.4	1,676.8	3.7	3.7	-178.40	100.2	-17.5	170.1	162.9	7.15	23.777	
1,800.0	1,796.0	1,772.3	1,770.0	4.0	4.0	-178.89	111.6	-21.0	194.7	187.1	7.59	25.662	
1,900.0	1,895.3	1,865.5	1,862.2	4.3	4.2	-179.31	124.3	-24.9	220.8	212.8	8.02	27.535	
2,000.0	1,994.5	1,957.8	1,953.3	4.6	4.5	-179.68	138.2	-29.2	248.6	240.1	8.46	29.393	
2,100.0	2,093.8	2,052.0	2,046.1	4.8	4.8	-179.99	153.6	-34.0	277.6	268.7	8.90	31.183	
2,200.0	2,193.0	2,147.6	2,140.4	5.2	5.1	179.74	169.4	-38.8	306.6	297.3	9.35	32.811	
2,300.0	2,292.2	2,243.3	2,234.6	5.5	5.4	179.52	185.1	-43.7	335.7	325.9	9.79	34.281	
2,400.0	2,391.5	2,339.0	2,328.9	5.8	5.7	179.34	200.8	-48.6	364.8	354.6	10.24	35.614	
2,500.0	2,490.7	2,434.7	2,423.1	6.1	6.1	179.18	216.5	-53.4	393.9	383.2	10.70	36.827	
2,600.0	2,590.0	2,530.3	2,517.3	6.4	6.4	179.05	232.3	-58.3	423.0	411.9	11.15	37.934	
2,700.0	2,689.2	2,626.0	2,611.6	6.7	6.7	178.93	248.0	-63.1	452.1	440.5	11.61	38.950	
2,800.0	2,788.5	2,721.7	2,705.8	7.0	7.1	178.83	263.7	-68.0	481.2	469.2	12.07	39.884	
2,900.0	2,887.7	2,817.3	2,800.1	7.3	7.4	178.73	279.5	-72.9	510.3	497.8	12.52	40.745	
3,000.0	2,987.0	2,913.0	2,894.3	7.6	7.8	178.65	295.2	-77.7	539.4	526.4	12.99	41.541	
3,100.0	3,086.2	3,008.7	2,988.6	8.0	8.1	178.58	310.9	-82.6	568.5	555.1	13.45	42.280	
3,200.0	3,185.5	3,104.3	3,082.8	8.3	8.5	178.51	326.7	-87.5	597.6	583.7	13.91	42.966	
3,300.0	3,284.7	3,200.0	3,177.0	8.6	8.8	178.45	342.4	-92.3	626.7	612.4	14.37	43.606	
3,400.0	3,384.0	3,295.7	3,271.3	8.9	9.2	178.40	358.1	-97.2	655.8	641.0	14.84	44.203	
3,500.0	3,483.2	3,391.3	3,365.5	9.2	9.5	178.35	373.9	-102.1	684.9	669.6	15.30	44.762	
3,600.0	3,582.5	3,487.0	3,459.8	9.6	9.9	178.30	389.6	-106.9	714.0	698.3	15.77	45.285	
3,700.0	3,681.7	3,582.7	3,554.0	9.9	10.3	178.26	405.3	-111.8	743.2	726.9	16.23	45.778	
3,800.0	3,781.0	3,678.4	3,648.2	10.2	10.6	178.22	421.0	-116.7	772.3	755.6	16.70	46.241	
3,900.0	3,880.2	3,774.0	3,742.5	10.5	11.0	178.18	436.8	-121.5	801.4	784.2	17.17	46.677	
4,000.0	3,979.5	3,869.7	3,836.7	10.8	11.3	178.15	452.5	-126.4	830.5	812.8	17.64	47.089	
4,100.0	4,078.7	3,965.4	3,931.0	11.2	11.7	178.12	468.2	-131.2	859.6	841.5	18.10	47.479	
4,200.0	4,178.0	4,061.0	4,025.2	11.5	12.1	178.09	484.0	-136.1	888.7	870.1	18.57	47.848	
4,300.0	4,277.2	4,156.7	4,119.4	11.8	12.4	178.06	499.7	-141.0	917.8	898.8	19.04	48.198	
4,400.0	4,376.5	4,252.4	4,213.7	12.1	12.8	178.03	515.4	-145.8	946.9	927.4	19.51	48.530	
4,500.0	4,475.7	4,348.0	4,307.9	12.5	13.2	178.01	531.2	-150.7	976.0	956.0	19.98	48.845	



<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		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	0.00	14.6	0.0	14.6	14.6	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	0.00	14.6	0.0	14.6	14.3	0.22	64.811		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	14.6	0.0	14.6	13.9	0.67	21.604		
300.0	300.0	300.0	300.0	0.6	0.6	0.00	14.6	0.0	14.6	13.4	1.12	12.962		
400.0	400.0	400.0	400.0	0.8	0.8	0.00	14.6	0.0	14.6	13.0	1.57	9.259		
500.0	500.0	500.0	500.0	1.0	1.0	0.00	14.6	0.0	14.6	12.5	2.02	7.201		
600.0	600.0	600.0	600.0	1.2	1.2	0.00	14.6	0.0	14.6	12.1	2.47	5.892		
700.0	700.0	700.0	700.0	1.5	1.5	0.00	14.6	0.0	14.6	11.6	2.92	4.985		
800.0	800.0	800.0	800.0	1.7	1.7	0.00	14.6	0.0	14.6	11.2	3.37	4.321 CC, ES		
900.0	900.0	900.0	900.0	1.9	1.9	-168.22	14.6	0.0	15.4	11.6	3.79	4.064		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-169.92	14.6	0.0	18.0	13.8	4.20	4.286		
1,100.0	1,099.9	1,099.9	1,099.9	2.2	2.4	-171.88	14.6	0.0	22.3	17.7	4.61	4.838		
1,200.0	1,199.7	1,199.7	1,199.7	2.4	2.6	-173.61	14.6	0.0	28.4	23.3	5.03	5.640		
1,300.0	1,299.4	1,299.4	1,299.4	2.7	2.8	-174.99	14.6	0.0	36.2	30.7	5.45	6.636		
1,400.0	1,398.9	1,398.9	1,398.9	2.9	3.0	-176.03	14.6	0.0	45.7	39.8	5.87	7.782		
1,502.8	1,501.0	1,502.0	1,502.0	3.2	3.2	-176.61	13.7	0.4	56.5	50.2	6.29	8.985		
1,600.0	1,597.5	1,599.8	1,599.7	3.4	3.4	-176.65	11.4	1.4	65.9	59.2	6.66	9.892		
1,700.0	1,696.8	1,700.6	1,700.5	3.7	3.6	-176.34	7.4	3.2	73.9	66.9	7.06	10.470		
1,800.0	1,796.0	1,801.7	1,801.4	4.0	3.8	-175.75	1.7	5.7	80.2	72.8	7.47	10.746		
1,900.0	1,895.3	1,902.8	1,902.1	4.3	4.0	-174.93	-5.6	8.9	84.9	77.0	7.88	10.770		
2,000.0	1,994.5	2,002.7	2,001.7	4.6	4.2	-174.08	-13.3	12.3	89.0	80.7	8.31	10.717		
2,100.0	2,093.8	2,102.6	2,101.2	4.8	4.4	-173.31	-21.0	15.8	93.2	84.4	8.74	10.664		
2,200.0	2,193.0	2,202.5	2,200.8	5.2	4.6	-172.60	-28.7	19.2	97.3	88.1	9.17	10.610		
2,300.0	2,292.2	2,302.4	2,300.3	5.5	4.9	-171.96	-36.4	22.6	101.5	91.9	9.61	10.557		
2,400.0	2,391.5	2,402.3	2,399.9	5.8	5.1	-171.36	-44.1	26.0	105.6	95.6	10.06	10.505		
2,500.0	2,490.7	2,502.2	2,499.4	6.1	5.3	-170.81	-51.9	29.4	109.8	99.3	10.50	10.455		
2,600.0	2,590.0	2,602.1	2,599.0	6.4	5.6	-170.30	-59.6	32.8	114.0	103.1	10.96	10.406		
2,700.0	2,689.2	2,702.0	2,698.5	6.7	5.8	-169.83	-67.3	36.3	118.2	106.8	11.41	10.359		
2,800.0	2,788.5	2,801.9	2,798.1	7.0	6.1	-169.38	-75.0	39.7	122.4	110.6	11.87	10.313		
2,900.0	2,887.7	2,901.8	2,897.6	7.3	6.3	-168.97	-82.7	43.1	126.7	114.3	12.33	10.269		
3,000.0	2,987.0	3,001.8	2,997.2	7.6	6.6	-168.59	-90.4	46.5	130.9	118.1	12.80	10.226		
3,100.0	3,086.2	3,101.7	3,096.7	8.0	6.8	-168.23	-98.2	49.9	135.1	121.8	13.26	10.186		
3,200.0	3,185.5	3,201.6	3,196.3	8.3	7.1	-167.89	-105.9	53.3	139.3	125.6	13.73	10.147		
3,300.0	3,284.7	3,301.5	3,295.8	8.6	7.4	-167.57	-113.6	56.8	143.6	129.4	14.20	10.109		
3,400.0	3,384.0	3,401.4	3,395.4	8.9	7.6	-167.27	-121.3	60.2	147.8	133.1	14.68	10.073		
3,500.0	3,483.2	3,501.3	3,494.9	9.2	7.9	-166.98	-129.0	63.6	152.1	136.9	15.15	10.038		
3,600.0	3,582.5	3,601.2	3,594.5	9.6	8.1	-166.71	-136.7	67.0	156.3	140.7	15.62	10.005		
3,700.0	3,681.7	3,701.1	3,694.0	9.9	8.4	-166.46	-144.5	70.4	160.6	144.5	16.10	9.973		
3,800.0	3,781.0	3,801.0	3,793.6	10.2	8.7	-166.22	-152.2	73.8	164.8	148.2	16.58	9.942		
3,900.0	3,880.2	3,900.9	3,893.1	10.5	8.9	-165.99	-159.9	77.3	169.1	152.0	17.06	9.913		
4,000.0	3,979.5	4,000.8	3,992.7	10.8	9.2	-165.77	-167.6	80.7	173.3	155.8	17.54	9.884		
4,100.0	4,078.7	4,100.7	4,092.2	11.2	9.5	-165.56	-175.3	84.1	177.6	159.6	18.02	9.857		
4,200.0	4,178.0	4,200.6	4,191.8	11.5	9.7	-165.36	-183.0	87.5	181.9	163.4	18.50	9.831		
4,300.0	4,277.2	4,300.5	4,291.3	11.8	10.0	-165.18	-190.7	90.9	186.1	167.2	18.98	9.805		
4,400.0	4,376.5	4,400.5	4,390.9	12.1	10.3	-164.99	-198.5	94.4	190.4	171.0	19.47	9.781		
4,500.0	4,475.7	4,500.4	4,490.4	12.5	10.5	-164.82	-206.2	97.8	194.7	174.7	19.95	9.758		
4,600.0	4,575.0	4,600.3	4,590.0	12.8	10.8	-164.66	-213.9	101.2	199.0	178.5	20.44	9.735		
4,700.0	4,674.2	4,700.2	4,689.5	13.1	11.1	-164.50	-221.6	104.6	203.2	182.3	20.92	9.713		
4,800.0	4,773.5	4,798.2	4,787.2	13.4	11.3	-164.37	-229.0	107.9	207.7	186.3	21.40	9.703		
4,900.0	4,872.7	4,891.8	4,880.7	13.8	11.5	-164.54	-234.0	110.1	214.3	192.5	21.83	9.818		
5,000.0	4,972.0	4,985.0	4,973.8	14.1	11.7	-165.05	-236.2	111.1	223.9	201.6	22.23	10.070		

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Offset														
Semi Major Axis														
Distance														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,100.0	5,071.2	5,082.4	5,071.2	14.4	11.9	-165.79	-236.3	111.1	235.6	212.9	22.64	10.407		
5,178.9	5,149.5	5,160.7	5,149.5	14.7	12.0	-166.34	-236.3	111.1	245.0	222.0	22.96	10.670		
5,200.0	5,170.5	5,181.6	5,170.5	14.7	12.1	-166.49	-236.3	111.1	247.4	224.4	23.05	10.735		
5,300.0	5,270.0	5,281.2	5,270.0	14.9	12.2	-167.04	-236.3	111.1	256.9	233.5	23.43	10.966		
5,400.0	5,369.8	5,381.0	5,369.8	15.1	12.4	-167.37	-236.3	111.1	263.0	239.3	23.79	11.058		
5,500.0	5,469.7	5,480.9	5,469.7	15.3	12.6	-167.52	-236.3	111.1	265.8	241.6	24.12	11.017		
5,530.3	5,500.0	5,511.2	5,500.0	15.3	12.7	0.00	-236.3	111.1	265.9	238.2	27.71	9.595		
5,600.0	5,569.7	5,580.9	5,569.7	15.4	12.8	0.00	-236.3	111.1	265.9	238.0	27.95	9.513		
5,700.0	5,669.7	5,680.9	5,669.7	15.6	13.0	0.00	-236.3	111.1	265.9	237.6	28.28	9.404		
5,800.0	5,769.7	5,780.9	5,769.7	15.7	13.2	0.00	-236.3	111.1	265.9	237.3	28.61	9.296		
5,900.0	5,869.7	5,880.9	5,869.7	15.9	13.3	0.00	-236.3	111.1	265.9	237.0	28.94	9.189		
6,000.0	5,969.7	5,980.9	5,969.7	16.0	13.5	0.00	-236.3	111.1	265.9	236.7	29.28	9.084		
6,100.0	6,069.7	6,080.9	6,069.7	16.2	13.7	0.00	-236.3	111.1	265.9	236.3	29.61	8.980		
6,200.0	6,169.7	6,180.9	6,169.7	16.3	13.9	0.00	-236.3	111.1	265.9	236.0	29.95	8.878		
6,300.0	6,269.7	6,280.9	6,269.7	16.5	14.1	0.00	-236.3	111.1	265.9	235.6	30.30	8.777		
6,400.0	6,369.7	6,380.9	6,369.7	16.6	14.3	0.00	-236.3	111.1	265.9	235.3	30.65	8.678		
6,500.0	6,469.7	6,480.9	6,469.7	16.8	14.5	0.00	-236.3	111.1	265.9	234.9	30.99	8.580		
6,600.0	6,569.7	6,580.9	6,569.7	16.9	14.7	0.00	-236.3	111.1	265.9	234.6	31.35	8.484		
6,700.0	6,669.7	6,680.9	6,669.7	17.1	14.9	0.00	-236.3	111.1	265.9	234.2	31.70	8.389		
6,800.0	6,769.7	6,780.9	6,769.7	17.2	15.1	0.00	-236.3	111.1	265.9	233.9	32.06	8.296		
6,900.0	6,869.7	6,880.9	6,869.7	17.4	15.3	0.00	-236.3	111.1	265.9	233.5	32.41	8.204		
6,921.7	6,891.4	6,902.6	6,891.4	17.4	15.3	0.00	-236.3	111.1	265.9	233.4	32.49	8.185		
6,925.6	6,895.3	6,906.5	6,895.3	17.4	15.3	90.00	-236.3	111.1	265.9	236.3	29.63	8.974		
6,950.0	6,919.7	6,930.9	6,919.7	17.5	15.4	90.11	-236.3	111.1	265.9	236.2	29.73	8.944		
7,000.0	6,969.6	6,980.8	6,969.6	17.6	15.5	90.86	-236.3	111.1	266.0	236.0	29.95	8.879		
7,050.0	7,019.1	7,030.6	7,019.4	17.6	15.5	92.22	-236.3	110.8	266.1	235.9	30.18	8.817		
7,100.0	7,068.1	7,081.1	7,069.8	17.7	15.6	93.68	-236.3	107.6	266.5	236.1	30.41	8.764		
7,150.0	7,116.4	7,132.0	7,120.3	17.8	15.7	95.13	-236.3	101.0	267.0	236.4	30.61	8.722		
7,200.0	7,163.6	7,183.4	7,170.7	17.8	15.8	96.55	-236.3	91.0	267.7	236.9	30.80	8.691		
7,250.0	7,209.7	7,235.2	7,220.7	17.9	15.9	97.95	-236.3	77.4	268.6	237.6	30.98	8.669		
7,300.0	7,254.5	7,287.6	7,270.2	18.0	16.0	99.31	-236.3	60.4	269.5	238.4	31.14	8.656		
7,350.0	7,297.7	7,340.5	7,318.9	18.0	16.0	100.62	-236.3	39.7	270.6	239.3	31.30	8.648		
7,400.0	7,339.1	7,393.8	7,366.4	18.1	16.1	101.89	-236.3	15.5	271.8	240.4	31.46	8.641		
7,450.0	7,378.6	7,447.7	7,412.5	18.2	16.2	103.10	-236.3	-12.2	273.1	241.5	31.64	8.632		
7,500.0	7,416.1	7,502.0	7,457.0	18.2	16.2	104.24	-236.3	-43.4	274.5	242.6	31.86	8.614		
7,550.0	7,451.3	7,556.7	7,499.5	18.3	16.3	105.32	-236.3	-77.9	275.8	243.7	32.15	8.579		
7,600.0	7,484.1	7,612.0	7,539.7	18.5	16.5	106.32	-236.3	-115.8	277.2	244.7	32.53	8.522		
7,650.0	7,514.3	7,667.6	7,577.4	18.6	16.7	107.25	-236.3	-156.7	278.5	245.5	33.01	8.437		
7,700.0	7,541.9	7,723.7	7,612.2	18.9	17.1	108.09	-236.3	-200.6	279.8	246.2	33.64	8.319		
7,750.0	7,566.7	7,780.1	7,643.9	19.2	17.6	108.85	-236.3	-247.3	281.1	246.6	34.43	8.165		
7,800.0	7,588.6	7,836.9	7,672.2	19.6	18.2	109.51	-236.3	-296.5	282.2	246.8	35.39	7.975		
7,850.0	7,607.6	7,894.0	7,696.9	20.2	18.9	110.09	-236.3	-348.0	283.2	246.7	36.54	7.751		
7,900.0	7,623.4	7,951.3	7,717.8	20.9	19.7	110.57	-236.3	-401.3	284.1	246.2	37.88	7.499		
7,950.0	7,636.2	8,008.9	7,734.7	21.6	20.7	110.96	-236.3	-456.4	284.8	245.4	39.42	7.224		
8,000.0	7,645.7	8,066.6	7,747.4	22.5	21.6	111.25	-236.3	-512.7	285.3	244.2	41.14	6.936		
8,050.0	7,652.0	8,124.5	7,755.9	23.4	22.7	111.44	-236.3	-569.9	285.7	242.7	43.02	6.641		
8,100.0	7,655.1	8,182.4	7,760.0	24.3	23.8	111.53	-236.3	-627.7	285.9	240.8	45.05	6.346		
8,125.3	7,655.4	8,211.7	7,760.4	24.8	24.4	111.54	-236.3	-656.9	285.9	239.8	46.12	6.199		
8,200.0	7,655.0	8,286.4	7,760.0	26.3	26.0	111.54	-236.3	-731.6	285.9	236.9	49.03	5.831		
8,300.0	7,654.6	8,386.4	7,759.5	28.5	28.2	111.54	-236.3	-831.6	285.9	232.8	53.12	5.383		
8,400.0	7,654.1	8,486.4	7,759.1	30.7	30.4	111.54	-236.3	-931.6	285.9	228.5	57.39	4.982		

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		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	7,653.6	8,586.4	7,758.6	33.1	32.8	111.54	-236.3	-1,031.6	285.9	224.1	61.82	4.625			
8,600.0	7,653.1	8,686.4	7,758.1	35.5	35.2	111.54	-236.3	-1,131.6	285.9	219.5	66.36	4.308			
8,700.0	7,652.7	8,786.4	7,757.7	37.9	37.7	111.54	-236.3	-1,231.6	285.9	214.9	71.00	4.027			
8,800.0	7,652.2	8,886.4	7,757.2	40.4	40.2	111.54	-236.3	-1,331.6	285.9	210.2	75.72	3.776			
8,900.0	7,651.7	8,986.4	7,756.7	43.0	42.8	111.54	-236.3	-1,431.6	285.9	205.4	80.50	3.552			
9,000.0	7,651.3	9,086.4	7,756.2	45.6	45.4	111.54	-236.3	-1,531.6	285.9	200.6	85.34	3.350			
9,100.0	7,650.8	9,186.4	7,755.8	48.2	48.0	111.54	-236.3	-1,631.6	285.9	195.7	90.22	3.169			
9,200.0	7,650.3	9,286.4	7,755.3	50.8	50.6	111.54	-236.3	-1,731.6	285.9	190.8	95.14	3.005			
9,300.0	7,649.8	9,386.4	7,754.8	53.4	53.3	111.54	-236.3	-1,831.6	285.9	185.8	100.09	2.856			
9,400.0	7,649.4	9,486.4	7,754.4	56.1	55.9	111.54	-236.3	-1,931.6	285.9	180.8	105.07	2.721			
9,500.0	7,648.9	9,586.4	7,753.9	58.8	58.6	111.54	-236.3	-2,031.6	285.9	175.8	110.08	2.597			
9,600.0	7,648.4	9,686.4	7,753.4	61.4	61.3	111.54	-236.3	-2,131.6	285.9	170.8	115.11	2.484			
9,700.0	7,648.0	9,786.4	7,752.9	64.1	64.0	111.54	-236.3	-2,231.6	285.9	165.8	120.15	2.380			
9,800.0	7,647.5	9,886.4	7,752.5	66.8	66.7	111.54	-236.3	-2,331.6	285.9	160.7	125.21	2.283			
9,900.0	7,647.0	9,986.4	7,752.0	69.5	69.4	111.54	-236.3	-2,431.6	285.9	155.6	130.29	2.194			
10,000.0	7,646.5	10,086.4	7,751.5	72.3	72.2	111.54	-236.3	-2,531.6	285.9	150.5	135.38	2.112			
10,100.0	7,646.1	10,186.4	7,751.1	75.0	74.9	111.54	-236.3	-2,631.6	285.9	145.4	140.47	2.035			
10,200.0	7,645.6	10,286.4	7,750.6	77.7	77.6	111.54	-236.3	-2,731.6	285.9	140.3	145.58	1.964			
10,300.0	7,645.1	10,386.4	7,750.1	80.5	80.4	111.54	-236.3	-2,831.6	285.9	135.2	150.70	1.897			
10,400.0	7,644.7	10,486.4	7,749.6	83.2	83.1	111.54	-236.3	-2,931.6	285.9	130.1	155.83	1.835			
10,500.0	7,644.2	10,586.4	7,749.2	85.9	85.8	111.54	-236.3	-3,031.6	285.9	124.9	160.96	1.776			
10,600.0	7,643.7	10,686.4	7,748.7	88.7	88.6	111.54	-236.3	-3,131.6	285.9	119.8	166.10	1.721			
10,700.0	7,643.2	10,786.4	7,748.2	91.4	91.4	111.54	-236.3	-3,231.6	285.9	114.7	171.25	1.669			
10,800.0	7,642.8	10,886.4	7,747.8	94.2	94.1	111.54	-236.3	-3,331.6	285.9	109.5	176.40	1.621			
10,900.0	7,642.3	10,986.4	7,747.3	96.9	96.9	111.54	-236.3	-3,431.6	285.9	104.3	181.56	1.575			
11,000.0	7,641.8	11,086.4	7,746.8	99.7	99.6	111.54	-236.3	-3,531.6	285.9	99.2	186.72	1.531			
11,100.0	7,641.4	11,186.4	7,746.3	102.5	102.4	111.54	-236.3	-3,631.6	285.9	94.0	191.89	1.490 Level 3			
11,200.0	7,640.9	11,286.4	7,745.9	105.2	105.2	111.54	-236.3	-3,731.6	285.9	88.8	197.06	1.451 Level 3			
11,300.0	7,640.4	11,386.4	7,745.4	108.0	107.9	111.54	-236.3	-3,831.6	285.9	83.7	202.23	1.414 Level 3			
11,400.0	7,639.9	11,486.4	7,744.9	110.8	110.7	111.54	-236.3	-3,931.6	285.9	78.5	207.41	1.378 Level 3			
11,500.0	7,639.5	11,586.4	7,744.5	113.5	113.5	111.54	-236.3	-4,031.6	285.9	73.3	212.59	1.345 Level 3			
11,600.0	7,639.0	11,686.4	7,744.0	116.3	116.3	111.54	-236.3	-4,131.6	285.9	68.1	217.77	1.313 Level 3			
11,700.0	7,638.5	11,786.4	7,743.5	119.1	119.0	111.54	-236.3	-4,231.6	285.9	62.9	222.96	1.282 Level 3			
11,800.0	7,638.1	11,886.4	7,743.0	121.9	121.8	111.54	-236.3	-4,331.6	285.9	57.8	228.15	1.253 Level 3			
11,900.0	7,637.6	11,986.4	7,742.6	124.6	124.6	111.54	-236.3	-4,431.6	285.9	52.6	233.34	1.225 Level 2			
12,000.0	7,637.1	12,086.4	7,742.1	127.4	127.4	111.54	-236.3	-4,531.6	285.9	47.4	238.53	1.199 Level 2			
12,100.0	7,636.7	12,186.4	7,741.6	130.2	130.1	111.54	-236.3	-4,631.6	285.9	42.2	243.73	1.173 Level 2			
12,200.0	7,636.2	12,286.4	7,741.2	133.0	132.9	111.54	-236.3	-4,731.6	285.9	37.0	248.93	1.149 Level 2			
12,300.0	7,635.7	12,386.4	7,740.7	135.7	135.7	111.54	-236.3	-4,831.6	285.9	31.8	254.13	1.125 Level 2			
12,400.0	7,635.2	12,486.4	7,740.2	138.5	138.5	111.54	-236.3	-4,931.6	285.9	26.6	259.33	1.102 Level 2			
12,437.5	7,635.1	12,523.9	7,740.0	139.6	139.5	111.54	-236.3	-4,969.1	285.9	24.6	261.28	1.094 Level 2			
12,450.4	7,635.0	12,533.5	7,740.0	139.9	139.8	111.54	-236.3	-4,978.7	285.9	24.1	261.86	1.092 Level 2, SF			

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
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	169.12	-14.6	2.8	14.8	14.8	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	169.12	-14.6	2.8	14.8	14.6	0.22	66.054		
200.0	200.0	200.0	200.0	0.3	0.3	169.12	-14.6	2.8	14.8	14.2	0.67	22.018		
300.0	300.0	300.0	300.0	0.6	0.6	169.12	-14.6	2.8	14.8	13.7	1.12	13.211		
400.0	400.0	400.0	400.0	0.8	0.8	169.12	-14.6	2.8	14.8	13.3	1.57	9.436 CC, ES		
500.0	500.0	499.7	499.7	1.0	1.0	169.31	-15.4	2.9	15.7	13.7	2.00	7.873		
600.0	600.0	599.4	599.4	1.2	1.2	169.76	-18.0	3.3	18.3	15.9	2.41	7.610		
700.0	700.0	699.0	698.8	1.5	1.4	170.29	-22.3	3.8	22.7	19.8	2.83	8.004		
800.0	800.0	798.3	798.0	1.7	1.6	170.76	-28.3	4.6	28.7	25.5	3.26	8.805		
900.0	900.0	897.5	896.9	1.9	1.8	3.69	-36.0	5.6	35.7	32.0	3.67	9.717		
1,000.0	1,000.0	996.6	995.5	2.1	2.1	4.19	-45.3	6.8	42.6	38.5	4.07	10.479		
1,100.0	1,099.9	1,095.6	1,093.9	2.2	2.3	4.73	-56.4	8.3	49.5	45.1	4.47	11.072		
1,200.0	1,199.7	1,194.4	1,191.9	2.4	2.6	5.29	-69.1	10.0	56.4	51.6	4.89	11.538		
1,300.0	1,299.4	1,293.1	1,289.5	2.7	3.0	5.85	-83.5	11.9	63.3	58.0	5.32	11.906		
1,400.0	1,398.9	1,391.8	1,386.8	2.9	3.3	6.43	-99.5	14.0	70.2	64.5	5.76	12.199		
1,502.8	1,501.0	1,494.3	1,487.8	3.2	3.7	7.06	-117.1	16.3	76.5	70.3	6.22	12.301		
1,600.0	1,597.5	1,591.4	1,583.4	3.4	4.0	7.65	-133.7	18.5	81.6	74.9	6.66	12.240		
1,700.0	1,696.8	1,691.2	1,681.8	3.7	4.4	8.19	-150.8	20.7	86.8	79.6	7.13	12.174		
1,800.0	1,796.0	1,791.1	1,780.1	4.0	4.8	8.67	-167.9	23.0	92.0	84.4	7.60	12.109		
1,900.0	1,895.3	1,891.0	1,878.5	4.3	5.2	9.09	-185.1	25.2	97.2	89.1	8.07	12.046		
2,000.0	1,994.5	1,990.8	1,976.8	4.6	5.5	9.48	-202.2	27.5	102.4	93.9	8.55	11.986		
2,100.0	2,093.8	2,090.7	2,075.2	4.8	5.9	9.82	-219.3	29.7	107.7	98.6	9.03	11.928		
2,200.0	2,193.0	2,190.5	2,173.6	5.2	6.3	10.14	-236.4	32.0	112.9	103.4	9.51	11.873		
2,300.0	2,292.2	2,290.4	2,271.9	5.5	6.7	10.42	-253.6	34.2	118.1	108.1	9.99	11.820		
2,400.0	2,391.5	2,390.3	2,370.3	5.8	7.1	10.68	-270.7	36.5	123.4	112.9	10.48	11.771		
2,500.0	2,490.7	2,490.1	2,468.6	6.1	7.5	10.92	-287.8	38.7	128.6	117.6	10.97	11.724		
2,600.0	2,590.0	2,590.0	2,567.0	6.4	7.9	11.15	-304.9	41.0	133.9	122.4	11.46	11.679		
2,700.0	2,689.2	2,689.8	2,665.3	6.7	8.3	11.35	-322.1	43.2	139.1	127.2	11.95	11.637		
2,800.0	2,788.5	2,789.7	2,763.7	7.0	8.7	11.54	-339.2	45.5	144.4	131.9	12.45	11.597		
2,900.0	2,887.7	2,889.6	2,862.0	7.3	9.1	11.72	-356.3	47.8	149.6	136.7	12.94	11.559		
3,000.0	2,987.0	2,989.4	2,960.4	7.6	9.5	11.88	-373.4	50.0	154.9	141.4	13.44	11.524		
3,100.0	3,086.2	3,089.3	3,058.8	8.0	9.9	12.04	-390.6	52.3	160.1	146.2	13.94	11.490		
3,200.0	3,185.5	3,189.1	3,157.1	8.3	10.3	12.18	-407.7	54.5	165.4	150.9	14.43	11.457		
3,300.0	3,284.7	3,289.0	3,255.5	8.6	10.7	12.31	-424.8	56.8	170.6	155.7	14.93	11.427		
3,400.0	3,384.0	3,388.9	3,353.8	8.9	11.1	12.44	-441.9	59.0	175.9	160.4	15.43	11.397		
3,500.0	3,483.2	3,488.7	3,452.2	9.2	11.4	12.56	-459.1	61.3	181.1	165.2	15.93	11.370		
3,600.0	3,582.5	3,588.6	3,550.5	9.6	11.8	12.67	-476.2	63.5	186.4	170.0	16.43	11.343		
3,700.0	3,681.7	3,688.5	3,648.9	9.9	12.2	12.78	-493.3	65.8	191.6	174.7	16.93	11.318		
3,800.0	3,781.0	3,788.3	3,747.3	10.2	12.6	12.88	-510.4	68.0	196.9	179.5	17.43	11.294		
3,900.0	3,880.2	3,888.2	3,845.6	10.5	13.0	12.98	-527.6	70.3	202.2	184.2	17.94	11.271		
4,000.0	3,979.5	3,988.0	3,944.0	10.8	13.4	13.07	-544.7	72.5	207.4	189.0	18.44	11.249		
4,100.0	4,078.7	4,087.9	4,042.3	11.2	13.8	13.15	-561.8	74.8	212.7	193.7	18.94	11.228		
4,200.0	4,178.0	4,187.8	4,140.7	11.5	14.2	13.24	-578.9	77.0	217.9	198.5	19.45	11.208		
4,300.0	4,277.2	4,287.6	4,239.0	11.8	14.6	13.32	-596.1	79.3	223.2	203.3	19.95	11.188		
4,400.0	4,376.5	4,387.5	4,337.4	12.1	15.0	13.39	-613.2	81.5	228.5	208.0	20.45	11.170		
4,500.0	4,475.7	4,487.3	4,435.7	12.5	15.4	13.46	-630.3	83.8	233.7	212.8	20.96	11.152		
4,600.0	4,575.0	4,587.2	4,534.1	12.8	15.8	13.53	-647.4	86.0	239.0	217.5	21.46	11.135		
4,700.0	4,674.2	4,687.1	4,632.5	13.1	16.2	13.60	-664.6	88.3	244.2	222.3	21.97	11.119		
4,800.0	4,773.5	4,786.9	4,730.8	13.4	16.6	13.66	-681.7	90.6	249.5	227.0	22.47	11.103		
4,900.0	4,872.7	4,886.8	4,829.2	13.8	17.0	13.72	-698.8	92.8	254.8	231.8	22.98	11.088		
5,000.0	4,972.0	4,986.6	4,927.5	14.1	17.4	13.78	-715.9	95.1	260.0	236.6	23.48	11.073		

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,071.2	5,086.5	5,025.9	14.4	17.8	13.83	-733.1	97.3	265.3	241.3	23.99	11.059	
5,178.9	5,149.5	5,165.3	5,103.4	14.7	18.2	13.87	-746.6	99.1	269.4	245.1	24.39	11.048	
5,200.0	5,170.5	5,186.4	5,124.2	14.7	18.2	13.89	-750.2	99.6	270.6	246.1	24.49	11.051	
5,300.0	5,270.0	5,286.1	5,222.4	14.9	18.6	13.85	-767.3	101.8	278.3	253.4	24.92	11.169	
5,400.0	5,369.8	5,385.4	5,320.3	15.1	19.0	13.67	-784.3	104.1	289.4	264.0	25.30	11.436	
5,500.0	5,469.7	5,484.4	5,417.7	15.3	19.4	13.37	-801.3	106.3	303.8	278.1	25.64	11.849	
5,530.3	5,500.0	5,514.2	5,447.1	15.3	19.6	-179.22	-806.4	107.0	308.8	274.1	34.65	8.911	
5,600.0	5,569.7	5,584.2	5,516.1	15.4	19.8	-179.53	-818.4	108.5	320.7	285.7	35.05	9.150	
5,700.0	5,669.7	5,695.7	5,626.3	15.6	20.1	-179.93	-835.0	110.7	335.6	300.1	35.50	9.452	
5,800.0	5,769.7	5,808.4	5,738.3	15.7	20.4	179.79	-847.3	112.3	346.6	310.7	35.90	9.653	
5,900.0	5,869.7	5,921.9	5,851.6	15.9	20.6	179.63	-855.4	113.4	353.7	317.4	36.25	9.755	
6,000.0	5,969.7	6,035.9	5,965.5	16.0	20.7	179.55	-859.0	113.9	356.8	320.3	36.57	9.758	
6,100.0	6,069.7	6,140.2	6,069.7	16.2	20.9	179.55	-859.2	113.9	357.0	320.2	36.85	9.689	
6,200.0	6,169.7	6,240.2	6,169.7	16.3	21.0	179.55	-859.2	113.9	357.0	319.9	37.11	9.621	
6,300.0	6,269.7	6,340.2	6,269.7	16.5	21.1	179.55	-859.2	113.9	357.0	319.6	37.37	9.554	
6,400.0	6,369.7	6,440.2	6,369.7	16.6	21.2	179.55	-859.2	113.9	357.0	319.4	37.64	9.486	
6,500.0	6,469.7	6,540.2	6,469.7	16.8	21.3	179.55	-859.2	113.9	357.0	319.1	37.91	9.419	
6,600.0	6,569.7	6,640.2	6,569.7	16.9	21.4	179.55	-859.2	113.9	357.0	318.8	38.18	9.351	
6,700.0	6,669.7	6,740.2	6,669.7	17.1	21.5	179.55	-859.2	113.9	357.0	318.6	38.46	9.284	
6,800.0	6,769.7	6,840.2	6,769.7	17.2	21.7	179.55	-859.2	113.9	357.0	318.3	38.73	9.217	
6,900.0	6,869.7	6,940.2	6,869.7	17.4	21.8	179.55	-859.2	113.9	357.0	318.0	39.02	9.150	
6,921.7	6,891.4	6,961.9	6,891.4	17.4	21.8	179.55	-859.2	113.9	357.0	317.9	39.08	9.136	
6,950.0	6,919.7	6,990.2	6,919.7	17.5	21.8	-90.53	-859.2	113.9	357.0	326.1	30.93	11.545	
7,000.0	6,969.6	7,040.1	6,969.6	17.6	21.9	-91.09	-859.2	113.9	357.1	326.0	31.07	11.492	
7,050.0	7,019.1	7,090.0	7,019.5	17.6	22.0	-92.10	-859.2	113.6	357.2	326.1	31.19	11.454	
7,100.0	7,068.1	7,140.6	7,070.1	17.7	22.0	-93.18	-859.2	110.3	357.6	326.3	31.30	11.424	
7,150.0	7,116.4	7,191.7	7,120.7	17.8	22.1	-94.26	-859.2	103.7	358.0	326.6	31.41	11.399	
7,200.0	7,163.6	7,243.3	7,171.3	17.8	22.2	-95.32	-859.2	93.6	358.6	327.1	31.52	11.377	
7,250.0	7,209.7	7,295.4	7,221.6	17.9	22.2	-96.36	-859.2	80.0	359.3	327.6	31.63	11.357	
7,300.0	7,254.5	7,340.0	7,271.2	18.0	22.3	-97.37	-859.2	62.8	360.0	328.3	31.76	11.335	
7,350.0	7,297.7	7,401.0	7,320.0	18.0	22.3	-98.35	-859.2	42.0	360.9	329.0	31.92	11.308	
7,400.0	7,339.1	7,454.6	7,367.7	18.1	22.4	-99.30	-859.2	17.6	361.8	329.7	32.10	11.272	
7,450.0	7,378.6	7,508.6	7,414.0	18.2	22.4	-100.20	-859.2	-10.3	362.8	330.5	32.34	11.220	
7,500.0	7,416.1	7,563.1	7,458.5	18.2	22.5	-101.05	-859.2	-41.7	363.8	331.2	32.61	11.156	
7,550.0	7,451.3	7,618.1	7,501.0	18.3	22.6	-101.86	-859.2	-76.4	364.9	331.9	32.97	11.065	
7,600.0	7,484.1	7,673.5	7,541.3	18.5	22.6	-102.61	-859.2	-114.5	365.9	332.5	33.42	10.947	
7,650.0	7,514.3	7,729.3	7,578.9	18.6	22.7	-103.30	-859.2	-155.7	366.9	332.9	33.98	10.798	
7,700.0	7,541.9	7,785.5	7,613.7	18.9	22.9	-103.93	-859.2	-199.9	367.9	333.2	34.66	10.615	
7,750.0	7,566.7	7,842.1	7,645.3	19.2	23.0	-104.49	-859.2	-246.8	368.8	333.3	35.47	10.397	
7,800.0	7,588.6	7,899.0	7,673.5	19.6	23.2	-104.99	-859.2	-296.2	369.6	333.2	36.43	10.147	
7,850.0	7,607.6	7,956.2	7,698.1	20.2	23.5	-105.41	-859.2	-347.8	370.4	332.8	37.54	9.865	
7,900.0	7,623.4	8,013.7	7,718.8	20.9	23.8	-105.76	-859.2	-401.4	371.0	332.2	38.82	9.557	
7,950.0	7,636.2	8,071.3	7,735.5	21.6	24.3	-106.04	-859.2	-456.6	371.5	331.2	40.24	9.232	
8,000.0	7,645.7	8,129.1	7,748.0	22.5	24.9	-106.24	-859.2	-513.0	371.8	330.0	41.80	8.895	
8,050.0	7,652.0	8,187.0	7,756.2	23.4	25.6	-106.36	-859.2	-570.3	372.1	328.6	43.50	8.553	
8,100.0	7,655.1	8,245.0	7,760.1	24.3	26.5	-106.40	-859.2	-628.1	372.1	326.8	45.31	8.213	
8,125.3	7,655.4	8,273.8	7,760.4	24.8	26.9	-106.39	-859.2	-656.9	372.1	325.9	46.26	8.045	
8,200.0	7,655.0	8,348.5	7,760.0	26.3	28.2	-106.39	-859.2	-731.6	372.1	322.9	49.24	7.558	
8,300.0	7,654.6	8,448.5	7,759.6	28.5	30.2	-106.39	-859.2	-831.6	372.1	318.7	53.43	6.965	
8,400.0	7,654.1	8,548.5	7,759.1	30.7	32.3	-106.39	-859.2	-931.6	372.1	314.3	57.81	6.437	
8,500.0	7,653.6	8,648.5	7,758.6	33.1	34.5	-106.39	-859.2	-1,031.6	372.1	309.8	62.36	5.967	

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
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		
8,600.0	7,653.1	8,748.5	7,758.1	35.5	36.8	-106.39	-859.2	-1,131.6	372.1	305.1	67.04	5.551		
8,700.0	7,652.7	8,848.5	7,757.7	37.9	39.1	-106.39	-859.2	-1,231.6	372.1	300.3	71.82	5.182		
8,800.0	7,652.2	8,948.5	7,757.2	40.4	41.6	-106.39	-859.2	-1,331.6	372.1	295.4	76.68	4.853		
8,900.0	7,651.7	9,048.5	7,756.7	43.0	44.0	-106.39	-859.2	-1,431.6	372.1	290.5	81.60	4.560		
9,000.0	7,651.3	9,148.5	7,756.3	45.6	46.6	-106.39	-859.2	-1,531.6	372.1	285.5	86.59	4.298		
9,100.0	7,650.8	9,248.5	7,755.8	48.2	49.1	-106.39	-859.2	-1,631.6	372.1	280.5	91.62	4.062		
9,200.0	7,650.3	9,348.5	7,755.3	50.8	51.7	-106.39	-859.2	-1,731.6	372.1	275.4	96.69	3.849		
9,300.0	7,649.8	9,448.5	7,754.8	53.4	54.3	-106.39	-859.2	-1,831.6	372.1	270.3	101.80	3.656		
9,400.0	7,649.4	9,548.5	7,754.4	56.1	56.9	-106.39	-859.2	-1,931.6	372.1	265.2	106.93	3.480		
9,500.0	7,648.9	9,648.5	7,753.9	58.8	59.5	-106.39	-859.2	-2,031.6	372.1	260.0	112.09	3.320		
9,600.0	7,648.4	9,748.5	7,753.4	61.4	62.2	-106.39	-859.2	-2,131.6	372.1	254.9	117.27	3.173		
9,700.0	7,648.0	9,848.5	7,753.0	64.1	64.8	-106.39	-859.2	-2,231.6	372.1	249.7	122.47	3.038		
9,800.0	7,647.5	9,948.5	7,752.5	66.8	67.5	-106.39	-859.2	-2,331.6	372.1	244.4	127.69	2.914		
9,900.0	7,647.0	10,048.5	7,752.0	69.5	70.2	-106.39	-859.2	-2,431.6	372.1	239.2	132.92	2.800		
10,000.0	7,646.5	10,148.5	7,751.5	72.3	72.9	-106.39	-859.2	-2,531.6	372.1	234.0	138.17	2.693		
10,100.0	7,646.1	10,248.5	7,751.1	75.0	75.6	-106.39	-859.2	-2,631.6	372.1	228.7	143.42	2.595		
10,200.0	7,645.6	10,348.5	7,750.6	77.7	78.3	-106.39	-859.2	-2,731.6	372.1	223.4	148.69	2.503		
10,300.0	7,645.1	10,448.5	7,750.1	80.5	81.0	-106.39	-859.2	-2,831.6	372.1	218.2	153.96	2.417		
10,400.0	7,644.7	10,548.5	7,749.7	83.2	83.8	-106.39	-859.2	-2,931.6	372.1	212.9	159.25	2.337		
10,500.0	7,644.2	10,648.5	7,749.2	85.9	86.5	-106.39	-859.2	-3,031.6	372.1	207.6	164.54	2.262		
10,600.0	7,643.7	10,748.5	7,748.7	88.7	89.2	-106.39	-859.2	-3,131.6	372.1	202.3	169.84	2.191		
10,700.0	7,643.2	10,848.5	7,748.2	91.4	92.0	-106.39	-859.2	-3,231.6	372.1	197.0	175.14	2.125		
10,800.0	7,642.8	10,948.5	7,747.8	94.2	94.7	-106.39	-859.2	-3,331.6	372.1	191.7	180.45	2.062		
10,900.0	7,642.3	11,048.5	7,747.3	96.9	97.4	-106.39	-859.2	-3,431.6	372.1	186.4	185.77	2.003		
11,000.0	7,641.8	11,148.5	7,746.8	99.7	100.2	-106.39	-859.2	-3,531.6	372.1	181.0	191.09	1.947		
11,100.0	7,641.4	11,248.5	7,746.4	102.5	102.9	-106.39	-859.2	-3,631.6	372.1	175.7	196.41	1.895		
11,200.0	7,640.9	11,348.5	7,745.9	105.2	105.7	-106.39	-859.2	-3,731.6	372.1	170.4	201.74	1.845		
11,300.0	7,640.4	11,448.5	7,745.4	108.0	108.5	-106.39	-859.2	-3,831.6	372.1	165.0	207.08	1.797		
11,400.0	7,639.9	11,548.5	7,744.9	110.8	111.2	-106.39	-859.2	-3,931.6	372.1	159.7	212.41	1.752		
11,500.0	7,639.5	11,648.5	7,744.5	113.5	114.0	-106.39	-859.2	-4,031.6	372.1	154.4	217.75	1.709		
11,600.0	7,639.0	11,748.5	7,744.0	116.3	116.7	-106.39	-859.2	-4,131.6	372.1	149.0	223.09	1.668		
11,700.0	7,638.5	11,848.5	7,743.5	119.1	119.5	-106.39	-859.2	-4,231.6	372.1	143.7	228.44	1.629		
11,800.0	7,638.1	11,948.5	7,743.1	121.9	122.3	-106.39	-859.2	-4,331.6	372.1	138.3	233.79	1.592		
11,900.0	7,637.6	12,048.5	7,742.6	124.6	125.0	-106.39	-859.2	-4,431.6	372.1	133.0	239.14	1.556		
12,000.0	7,637.1	12,148.5	7,742.1	127.4	127.8	-106.39	-859.2	-4,531.6	372.1	127.6	244.49	1.522		
12,100.0	7,636.7	12,248.5	7,741.6	130.2	130.6	-106.39	-859.2	-4,631.6	372.1	122.3	249.84	1.489 Level 3		
12,200.0	7,636.2	12,348.5	7,741.2	133.0	133.4	-106.39	-859.2	-4,731.6	372.1	116.9	255.20	1.458 Level 3		
12,300.0	7,635.7	12,448.5	7,740.7	135.7	136.1	-106.39	-859.2	-4,831.6	372.1	111.6	260.56	1.428 Level 3		
12,400.0	7,635.2	12,548.5	7,740.2	138.5	138.4	-106.39	-859.2	-4,931.6	372.1	106.7	265.46	1.402 Level 3		
12,438.5	7,635.1	12,587.0	7,740.1	139.6	139.1	-106.39	-859.2	-4,970.1	372.1	105.0	267.16	1.393 Level 3		
12,450.4	7,635.0	12,598.5	7,740.0	139.9	139.3	-106.39	-859.2	-4,981.6	372.1	104.4	267.68	1.390 Level 3, SF		

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		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	-4.88	32.8	-2.8	32.9				
100.0	100.0	100.0	100.0	0.1	0.1	-4.88	32.8	-2.8	32.9	32.7	0.22	146.379	
200.0	200.0	200.0	200.0	0.3	0.3	-4.88	32.8	-2.8	32.9	32.2	0.67	48.793	
300.0	300.0	300.0	300.0	0.6	0.6	-4.88	32.8	-2.8	32.9	31.8	1.12	29.276	
400.0	400.0	400.0	400.0	0.8	0.8	-4.88	32.8	-2.8	32.9	31.3	1.57	20.911	
500.0	500.0	500.0	500.0	1.0	1.0	-4.88	32.8	-2.8	32.9	30.9	2.02	16.264	
600.0	600.0	600.0	600.0	1.2	1.2	-4.88	32.8	-2.8	32.9	30.4	2.47	13.307	
700.0	700.0	700.0	700.0	1.5	1.5	-4.88	32.8	-2.8	32.9	30.0	2.92	11.260	
800.0	800.0	800.0	800.0	1.7	1.7	-4.88	32.8	-2.8	32.9	29.5	3.37	9.759	CC, ES
900.0	900.0	900.0	900.0	1.9	1.9	-172.61	32.8	-2.8	33.8	30.0	3.79	8.900	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-173.13	32.8	-2.8	36.4	32.2	4.20	8.663	
1,100.0	1,099.9	1,099.9	1,099.9	2.2	2.4	-173.86	32.8	-2.8	40.7	36.1	4.61	8.830	
1,200.0	1,199.7	1,199.7	1,199.7	2.4	2.6	-174.66	32.8	-2.8	46.8	41.7	5.03	9.304	
1,300.0	1,299.4	1,299.4	1,299.4	2.7	2.8	-175.42	32.8	-2.8	54.6	49.1	5.45	10.018	
1,400.0	1,398.9	1,398.9	1,398.9	2.9	3.0	-176.09	32.8	-2.8	64.1	58.3	5.87	10.919	
1,502.8	1,501.0	1,501.0	1,501.0	3.2	3.3	-176.69	32.8	-2.8	75.8	69.5	6.31	12.002	
1,600.0	1,597.5	1,597.5	1,597.5	3.4	3.5	-177.14	32.8	-2.8	87.7	80.9	6.74	13.013	
1,700.0	1,696.8	1,696.8	1,696.8	3.7	3.7	-177.49	32.8	-2.8	99.9	92.7	7.17	13.922	
1,800.0	1,796.0	1,796.0	1,796.0	4.0	3.9	-177.76	32.8	-2.8	112.1	104.5	7.62	14.722	
1,900.0	1,895.3	1,895.3	1,895.3	4.3	4.1	-177.98	32.8	-2.8	124.3	116.3	8.06	15.429	
2,000.0	1,994.5	1,994.5	1,994.5	4.6	4.4	-178.16	32.8	-2.8	136.6	128.1	8.50	16.058	
2,100.0	2,093.8	2,093.8	2,093.8	4.8	4.6	-178.31	32.8	-2.8	148.8	139.8	8.95	16.622	
2,200.0	2,193.0	2,193.0	2,193.0	5.2	4.8	-178.44	32.8	-2.8	161.0	151.6	9.40	17.130	
2,300.0	2,292.2	2,292.2	2,292.2	5.5	5.0	-178.55	32.8	-2.8	173.3	163.4	9.85	17.589	
2,400.0	2,391.5	2,391.5	2,391.5	5.8	5.3	-178.65	32.8	-2.8	185.5	175.2	10.30	18.005	
2,500.0	2,490.7	2,490.7	2,490.7	6.1	5.5	-178.73	32.8	-2.8	197.7	187.0	10.75	18.386	
2,600.0	2,590.0	2,590.0	2,590.0	6.4	5.7	-178.81	32.8	-2.8	210.0	198.7	11.21	18.734	
2,700.0	2,689.2	2,689.2	2,689.2	6.7	5.9	-178.87	32.8	-2.8	222.2	210.5	11.66	19.054	
2,800.0	2,788.5	2,788.5	2,788.5	7.0	6.2	-178.93	32.8	-2.8	234.4	222.3	12.12	19.348	
2,900.0	2,887.7	2,887.7	2,887.7	7.3	6.4	-178.98	32.8	-2.8	246.7	234.1	12.57	19.621	
3,000.0	2,987.0	2,987.0	2,987.0	7.6	6.6	-179.03	32.8	-2.8	258.9	245.9	13.03	19.874	
3,100.0	3,086.2	3,086.2	3,086.2	8.0	6.8	-179.07	32.8	-2.8	271.1	257.6	13.48	20.109	
3,200.0	3,185.5	3,185.5	3,185.5	8.3	7.0	-179.11	32.8	-2.8	283.4	269.4	13.94	20.328	
3,300.0	3,284.7	3,284.7	3,284.7	8.6	7.3	-179.15	32.8	-2.8	295.6	281.2	14.40	20.532	
3,400.0	3,384.0	3,384.0	3,384.0	8.9	7.5	-179.19	32.8	-2.8	307.8	293.0	14.85	20.724	
3,500.0	3,483.2	3,483.2	3,483.2	9.2	7.7	-179.22	32.8	-2.8	320.1	304.7	15.31	20.903	
3,600.0	3,582.5	3,582.5	3,582.5	9.6	7.9	-179.25	32.8	-2.8	332.3	316.5	15.77	21.072	
3,700.0	3,681.7	3,681.7	3,681.7	9.9	8.2	-179.27	32.8	-2.8	344.5	328.3	16.23	21.231	
3,800.0	3,781.0	3,781.0	3,781.0	10.2	8.4	-179.30	32.8	-2.8	356.8	340.1	16.69	21.381	
3,900.0	3,880.2	3,880.2	3,880.2	10.5	8.6	-179.32	32.8	-2.8	369.0	351.8	17.14	21.522	
4,000.0	3,979.5	3,979.5	3,979.5	10.8	8.8	-179.34	32.8	-2.8	381.2	363.6	17.60	21.656	
4,100.0	4,078.7	4,078.7	4,078.7	11.2	9.1	-179.36	32.8	-2.8	393.5	375.4	18.06	21.783	
4,200.0	4,178.0	4,178.0	4,178.0	11.5	9.3	-179.38	32.8	-2.8	405.7	387.2	18.52	21.904	
4,300.0	4,277.2	4,277.2	4,277.2	11.8	9.5	-179.40	32.8	-2.8	417.9	399.0	18.98	22.018	
4,400.0	4,376.5	4,376.5	4,376.5	12.1	9.7	-179.42	32.8	-2.8	430.2	410.7	19.44	22.127	
4,500.0	4,475.7	4,475.7	4,475.7	12.5	9.9	-179.43	32.8	-2.8	442.4	422.5	19.90	22.231	
4,600.0	4,575.0	4,575.0	4,575.0	12.8	10.2	-179.45	32.8	-2.8	454.6	434.3	20.36	22.329	
4,700.0	4,674.2	4,674.2	4,674.2	13.1	10.4	-179.46	32.8	-2.8	466.9	446.1	20.82	22.424	
4,800.0	4,773.5	4,773.5	4,773.5	13.4	10.6	-179.48	32.8	-2.8	479.1	457.8	21.28	22.514	
4,900.0	4,872.7	4,872.7	4,872.7	13.8	10.8	-179.49	32.8	-2.8	491.3	469.6	21.74	22.600	
5,000.0	4,972.0	4,972.0	4,972.0	14.1	11.1	-179.50	32.8	-2.8	503.6	481.4	22.20	22.682	

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference														
Offset														
Semi Major Axis														
Distance														
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,100.0	5,071.2	5,071.2	5,071.2	14.4	11.3	-179.51	32.8	-2.8	515.8	493.2	22.66	22.762		
5,178.9	5,149.5	5,149.5	5,149.5	14.7	11.5	-179.52	32.8	-2.8	525.5	502.4	23.02	22.822		
5,200.0	5,170.5	5,170.5	5,170.5	14.7	11.5	-179.53	32.8	-2.8	528.0	504.8	23.13	22.827		
5,300.0	5,270.0	5,270.0	5,270.0	14.9	11.7	-179.54	32.8	-2.8	537.7	514.2	23.58	22.802		
5,400.0	5,369.8	5,369.8	5,369.8	15.1	12.0	-179.54	32.8	-2.8	544.0	520.0	24.01	22.663		
5,500.0	5,469.7	5,469.7	5,469.7	15.3	12.2	-179.54	32.8	-2.8	546.8	522.4	24.39	22.417		
5,530.3	5,500.0	5,500.0	5,500.0	15.3	12.2	-12.02	32.8	-2.8	547.0	519.4	27.58	19.829		
5,600.0	5,569.7	5,569.7	5,569.7	15.4	12.4	-12.02	32.8	-2.8	547.0	519.1	27.85	19.640		
5,700.0	5,669.7	5,669.7	5,669.7	15.6	12.6	-12.02	32.8	-2.8	547.0	518.8	28.22	19.386		
5,800.0	5,769.7	5,769.7	5,769.7	15.7	12.9	-12.02	32.8	-2.8	547.0	518.4	28.58	19.137		
5,900.0	5,869.7	5,869.7	5,869.7	15.9	13.1	-12.02	32.8	-2.8	547.0	518.0	28.95	18.893		
6,000.0	5,969.7	5,969.7	5,969.7	16.0	13.3	-12.02	32.8	-2.8	547.0	517.7	29.32	18.654		
6,100.0	6,069.7	6,069.7	6,069.7	16.2	13.5	-12.02	32.8	-2.8	547.0	517.3	29.70	18.420		
6,200.0	6,169.7	6,169.7	6,169.7	16.3	13.8	-12.02	32.8	-2.8	547.0	516.9	30.07	18.190		
6,300.0	6,269.7	6,269.7	6,269.7	16.5	14.0	-12.02	32.8	-2.8	547.0	516.5	30.45	17.966		
6,400.0	6,369.7	6,369.7	6,369.7	16.6	14.2	-12.02	32.8	-2.8	547.0	516.2	30.82	17.745		
6,500.0	6,469.7	6,469.7	6,469.7	16.8	14.4	-12.02	32.8	-2.8	547.0	515.8	31.20	17.530		
6,600.0	6,569.7	6,569.7	6,569.7	16.9	14.7	-12.02	32.8	-2.8	547.0	515.4	31.58	17.318		
6,700.0	6,669.7	6,669.7	6,669.7	17.1	14.9	-12.02	32.8	-2.8	547.0	515.0	31.97	17.111		
6,800.0	6,769.7	6,769.7	6,769.7	17.2	15.1	-12.02	32.8	-2.8	547.0	514.6	32.35	16.908		
6,900.0	6,869.7	6,869.7	6,869.7	17.4	15.3	-12.02	32.8	-2.8	547.0	514.2	32.74	16.709		
6,921.7	6,891.4	6,891.4	6,891.4	17.4	15.4	-12.02	32.8	-2.8	547.0	514.2	32.82	16.666		
6,950.0	6,919.7	6,919.7	6,919.7	17.5	15.4	78.04	32.8	-2.8	546.9	516.5	30.34	18.024		
7,000.0	6,969.6	6,969.6	6,969.6	17.6	15.6	78.45	32.8	-2.8	546.2	515.6	30.53	17.889		
7,050.0	7,019.1	7,019.1	7,019.1	17.6	15.7	79.24	32.8	-2.8	544.8	514.1	30.72	17.739		
7,100.0	7,068.1	7,068.1	7,068.1	17.7	15.8	80.38	32.8	-2.8	543.0	512.1	30.90	17.573		
7,150.0	7,116.4	7,116.1	7,116.1	17.8	15.9	81.86	32.8	-2.8	540.9	509.9	31.10	17.396		
7,200.0	7,163.6	7,159.7	7,159.7	17.8	16.0	83.36	32.8	-4.2	539.0	507.7	31.28	17.229		
7,250.0	7,209.7	7,204.0	7,203.8	17.9	16.1	84.91	32.8	-8.1	537.3	505.9	31.48	17.071		
7,300.0	7,254.5	7,250.0	7,249.3	18.0	16.2	86.52	32.8	-14.9	536.1	504.4	31.69	16.916		
7,350.0	7,297.7	7,294.8	7,293.1	18.0	16.3	88.09	32.8	-24.1	535.3	503.4	31.92	16.769		
7,400.0	7,339.1	7,341.5	7,338.2	18.1	16.4	89.71	32.8	-36.4	535.0	502.8	32.18	16.625		
7,407.4	7,345.1	7,348.5	7,344.9	18.1	16.4	89.96	32.8	-38.5	535.0	502.8	32.23	16.602		
7,450.0	7,378.6	7,389.1	7,383.2	18.2	16.5	91.35	32.8	-51.8	535.2	502.7	32.47	16.482		
7,500.0	7,416.1	7,437.7	7,428.1	18.2	16.6	93.00	32.8	-70.4	535.9	503.1	32.80	16.338		
7,550.0	7,451.3	7,487.4	7,472.7	18.3	16.7	94.64	32.9	-92.3	537.0	503.9	33.17	16.189		
7,600.0	7,484.1	7,538.2	7,516.8	18.5	16.9	96.28	32.9	-117.6	538.7	505.1	33.60	16.032		
7,650.0	7,514.3	7,590.3	7,560.0	18.6	17.1	97.91	32.9	-146.6	540.9	506.8	34.10	15.862		
7,700.0	7,541.9	7,643.7	7,602.2	18.9	17.4	99.51	32.9	-179.2	543.5	508.8	34.67	15.674		
7,750.0	7,566.7	7,698.4	7,643.1	19.2	17.7	101.09	33.0	-215.7	546.5	511.1	35.34	15.462		
7,800.0	7,588.6	7,754.7	7,682.2	19.6	18.0	102.62	33.0	-256.1	549.8	513.7	36.13	15.219		
7,850.0	7,607.6	7,812.4	7,719.1	20.2	18.5	104.12	33.0	-300.4	553.5	516.5	37.04	14.944		
7,900.0	7,623.4	7,871.8	7,753.5	20.9	19.1	105.56	33.1	-348.8	557.4	519.3	38.09	14.634		
7,950.0	7,636.2	7,932.8	7,784.8	21.6	19.7	106.93	33.1	-401.2	561.5	522.2	39.29	14.289		
8,000.0	7,645.7	7,995.4	7,812.5	22.5	20.5	108.24	33.2	-457.3	565.6	525.0	40.66	13.913		
8,050.0	7,652.0	8,059.8	7,836.0	23.4	21.5	109.46	33.2	-517.2	569.8	527.6	42.19	13.504		
8,100.0	7,655.1	8,125.8	7,854.9	24.3	22.5	110.59	33.3	-580.5	573.8	529.9	43.90	13.071		
8,125.3	7,655.4	8,159.8	7,862.4	24.8	23.1	111.12	33.3	-613.6	575.7	530.9	44.82	12.846		
8,200.0	7,655.0	8,263.1	7,876.2	26.3	25.0	112.43	33.4	-715.9	579.7	532.0	47.69	12.155		
8,300.0	7,654.6	8,376.2	7,878.4	28.5	27.3	112.68	33.5	-828.9	580.6	528.8	51.77	11.215		
8,400.0	7,654.1	8,476.2	7,879.2	30.7	29.5	112.79	33.6	-928.9	581.1	525.3	55.85	10.406		

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		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	7,653.6	8,576.1	7,880.0	33.1	31.7	112.90	33.6	-1,028.9	581.7	521.6	60.09	9.681			
8,600.0	7,653.1	8,676.1	7,880.8	35.5	34.1	113.01	33.7	-1,128.9	582.3	517.8	64.46	9.034			
8,700.0	7,652.7	8,776.1	7,881.6	37.9	36.5	113.12	33.8	-1,228.9	582.8	513.9	68.93	8.456			
8,800.0	7,652.2	8,876.1	7,882.4	40.4	38.9	113.23	33.9	-1,328.9	583.4	509.9	73.48	7.940			
8,900.0	7,651.7	8,976.1	7,883.1	43.0	41.4	113.34	34.0	-1,428.9	584.0	505.9	78.10	7.478			
9,000.0	7,651.3	9,076.1	7,883.9	45.6	43.9	113.45	34.1	-1,528.9	584.6	501.8	82.77	7.063			
9,100.0	7,650.8	9,176.1	7,884.7	48.2	46.5	113.56	34.1	-1,628.8	585.1	497.7	87.48	6.689			
9,200.0	7,650.3	9,276.1	7,885.5	50.8	49.1	113.67	34.2	-1,728.8	585.7	493.5	92.23	6.351			
9,300.0	7,649.8	9,376.1	7,886.3	53.4	51.7	113.78	34.3	-1,828.8	586.3	489.3	97.01	6.044			
9,400.0	7,649.4	9,476.1	7,887.1	56.1	54.4	113.89	34.4	-1,928.8	586.9	485.1	101.81	5.765			
9,500.0	7,648.9	9,576.1	7,887.9	58.8	57.0	114.00	34.5	-2,028.8	587.5	480.9	106.63	5.510			
9,600.0	7,648.4	9,676.1	7,888.6	61.4	59.7	114.11	34.6	-2,128.8	588.1	476.6	111.46	5.276			
9,700.0	7,648.0	9,776.0	7,889.4	64.1	62.4	114.22	34.6	-2,228.8	588.7	472.3	116.31	5.061			
9,800.0	7,647.5	9,876.0	7,890.2	66.8	65.0	114.32	34.7	-2,328.8	589.3	468.1	121.17	4.863			
9,900.0	7,647.0	9,976.0	7,891.0	69.5	67.7	114.43	34.8	-2,428.8	589.8	463.8	126.04	4.680			
10,000.0	7,646.5	10,076.0	7,891.8	72.3	70.4	114.54	34.9	-2,528.7	590.4	459.5	130.91	4.510			
10,100.0	7,646.1	10,176.0	7,892.6	75.0	73.2	114.65	35.0	-2,628.7	591.0	455.3	135.78	4.353			
10,200.0	7,645.6	10,276.0	7,893.4	77.7	75.9	114.75	35.1	-2,728.7	591.6	451.0	140.66	4.206			
10,300.0	7,645.1	10,376.0	7,894.1	80.5	78.6	114.86	35.1	-2,828.7	592.2	446.7	145.54	4.069			
10,400.0	7,644.7	10,476.0	7,894.9	83.2	81.3	114.97	35.2	-2,928.7	592.9	442.4	150.42	3.941			
10,500.0	7,644.2	10,576.0	7,895.7	85.9	84.1	115.07	35.3	-3,028.7	593.5	438.2	155.30	3.821			
10,600.0	7,643.7	10,676.0	7,896.5	88.7	86.8	115.18	35.4	-3,128.7	594.1	433.9	160.18	3.709			
10,700.0	7,643.2	10,776.0	7,897.3	91.4	89.6	115.29	35.5	-3,228.7	594.7	429.6	165.06	3.603			
10,800.0	7,642.8	10,876.0	7,898.1	94.2	92.3	115.39	35.6	-3,328.7	595.3	425.4	169.93	3.503			
10,900.0	7,642.3	10,976.0	7,898.8	96.9	95.1	115.50	35.6	-3,428.6	595.9	421.1	174.81	3.409			
11,000.0	7,641.8	11,075.9	7,899.6	99.7	97.8	115.60	35.7	-3,528.6	596.5	416.8	179.68	3.320			
11,100.0	7,641.4	11,175.9	7,900.4	102.5	100.6	115.71	35.8	-3,628.6	597.1	412.6	184.54	3.236			
11,200.0	7,640.9	11,275.9	7,901.2	105.2	103.3	115.81	35.9	-3,728.6	597.8	408.4	189.40	3.156			
11,300.0	7,640.4	11,375.9	7,902.0	108.0	106.1	115.92	36.0	-3,828.6	598.4	404.1	194.26	3.080			
11,400.0	7,639.9	11,475.9	7,902.8	110.8	108.8	116.02	36.1	-3,928.6	599.0	399.9	199.11	3.008			
11,500.0	7,639.5	11,575.9	7,903.6	113.5	111.6	116.13	36.1	-4,028.6	599.6	395.7	203.96	2.940			
11,600.0	7,639.0	11,675.9	7,904.3	116.3	114.4	116.23	36.2	-4,128.6	600.3	391.5	208.80	2.875			
11,700.0	7,638.5	11,775.9	7,905.1	119.1	117.2	116.34	36.3	-4,228.6	600.9	387.3	213.63	2.813			
11,800.0	7,638.1	11,875.9	7,905.9	121.9	119.9	116.44	36.4	-4,328.5	601.5	383.1	218.46	2.753			
11,900.0	7,637.6	11,975.9	7,906.7	124.6	122.7	116.54	36.5	-4,428.5	602.2	378.9	223.29	2.697			
12,000.0	7,637.1	12,075.9	7,907.5	127.4	125.5	116.65	36.6	-4,528.5	602.8	374.7	228.11	2.643			
12,100.0	7,636.7	12,175.9	7,908.3	130.2	128.2	116.75	36.6	-4,628.5	603.4	370.5	232.92	2.591			
12,200.0	7,636.2	12,275.9	7,909.1	133.0	131.0	116.85	36.7	-4,728.5	604.1	366.4	237.72	2.541			
12,300.0	7,635.7	12,375.8	7,909.8	135.7	133.8	116.96	36.8	-4,828.5	604.7	362.2	242.52	2.494			
12,400.0	7,635.2	12,475.8	7,910.6	138.5	136.6	117.06	36.9	-4,928.5	605.4	358.1	247.31	2.448			
12,450.4	7,635.0	12,523.2	7,911.0	139.9	137.9	117.11	36.9	-4,975.8	605.7	356.1	249.65	2.426 SF			

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Rio-LA 1S67W6E Pad Sec.6-T1S-R67W - Rio-LA 6F-434 - Wellbore #1 - Plan #1 (8-4-15)											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	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Centres (ft)	Ellipses (ft)	Separation (ft)	Factor			
0.0	0.0	0.0	0.0	0.0	0.0	174.51	-29.2	2.8	29.3						
100.0	100.0	100.0	100.0	0.1	0.1	174.51	-29.2	2.8	29.3	29.1	0.22	130.313			
200.0	200.0	200.0	200.0	0.3	0.3	174.51	-29.2	2.8	29.3	28.6	0.67	43.438	CC, ES		
300.0	300.0	299.5	299.5	0.6	0.5	174.67	-30.0	2.8	30.2	29.1	1.10	27.429			
400.0	400.0	398.9	398.9	0.8	0.7	175.11	-32.6	2.8	32.7	31.2	1.52	21.505			
500.0	500.0	498.2	498.1	1.0	1.0	175.69	-36.9	2.8	37.1	35.1	1.96	18.918			
600.0	600.0	597.3	597.0	1.2	1.2	176.32	-42.9	2.8	43.1	40.7	2.40	17.944			
700.0	700.0	696.2	695.6	1.5	1.4	176.90	-50.6	2.7	50.9	48.0	2.85	17.852			
800.0	800.0	794.8	793.7	1.7	1.7	177.41	-60.0	2.7	60.4	57.1	3.30	18.286			
900.0	900.0	893.2	891.5	1.9	2.0	10.42	-71.0	2.7	70.7	67.0	3.72	19.000			
1,000.0	1,000.0	991.3	988.8	2.1	2.3	11.08	-83.7	2.6	81.1	77.0	4.13	19.634			
1,100.0	1,099.9	1,089.3	1,085.7	2.2	2.6	11.82	-98.0	2.6	91.5	86.9	4.55	20.100			
1,200.0	1,199.7	1,187.1	1,182.2	2.4	3.0	12.61	-114.0	2.6	101.9	96.9	4.98	20.446			
1,300.0	1,299.4	1,284.7	1,278.2	2.7	3.3	13.44	-131.5	2.5	112.3	106.8	5.42	20.701			
1,400.0	1,398.9	1,382.1	1,373.8	2.9	3.7	14.30	-150.7	2.5	122.7	116.8	5.88	20.886			
1,502.8	1,501.0	1,483.6	1,472.9	3.2	4.2	15.23	-172.0	2.4	133.1	126.8	6.35	20.963			
1,600.0	1,597.5	1,580.3	1,567.5	3.4	4.6	16.10	-192.4	2.3	142.3	135.5	6.82	20.881			
1,700.0	1,696.8	1,679.8	1,664.8	3.7	5.0	16.88	-213.5	2.3	151.8	144.5	7.30	20.794			
1,800.0	1,796.0	1,779.4	1,762.0	4.0	5.5	17.58	-234.5	2.2	161.3	153.5	7.79	20.705			
1,900.0	1,895.3	1,878.9	1,859.3	4.3	5.9	18.19	-255.6	2.2	170.9	162.6	8.29	20.615			
2,000.0	1,994.5	1,978.4	1,956.6	4.6	6.4	18.74	-276.6	2.1	180.4	171.6	8.79	20.525			
2,100.0	2,093.8	2,077.9	2,053.9	4.8	6.8	19.24	-297.7	2.0	190.0	180.7	9.29	20.438			
2,200.0	2,193.0	2,177.5	2,151.1	5.2	7.3	19.69	-318.7	2.0	199.5	189.7	9.80	20.353			
2,300.0	2,292.2	2,277.0	2,248.4	5.5	7.7	20.09	-339.8	1.9	209.1	198.8	10.32	20.271			
2,400.0	2,391.5	2,376.5	2,345.7	5.8	8.2	20.47	-360.8	1.9	218.7	207.9	10.83	20.192			
2,500.0	2,490.7	2,476.1	2,443.0	6.1	8.6	20.81	-381.8	1.8	228.3	217.0	11.35	20.117			
2,600.0	2,590.0	2,575.6	2,540.3	6.4	9.1	21.12	-402.9	1.7	237.9	226.1	11.87	20.045			
2,700.0	2,689.2	2,675.1	2,637.5	6.7	9.5	21.41	-423.9	1.7	247.5	235.2	12.39	19.976			
2,800.0	2,788.5	2,774.6	2,734.8	7.0	10.0	21.67	-445.0	1.6	257.2	244.2	12.92	19.910			
2,900.0	2,887.7	2,874.2	2,832.1	7.3	10.4	21.92	-466.0	1.6	266.8	253.4	13.44	19.848			
3,000.0	2,987.0	2,973.7	2,929.4	7.6	10.9	22.15	-487.1	1.5	276.4	262.5	13.97	19.788			
3,100.0	3,086.2	3,073.2	3,026.7	8.0	11.4	22.37	-508.1	1.4	286.1	271.6	14.50	19.731			
3,200.0	3,185.5	3,172.8	3,123.9	8.3	11.8	22.57	-529.2	1.4	295.7	280.7	15.03	19.677			
3,300.0	3,284.7	3,272.3	3,221.2	8.6	12.3	22.75	-550.2	1.3	305.3	289.8	15.56	19.625			
3,400.0	3,384.0	3,371.8	3,318.5	8.9	12.7	22.93	-571.2	1.3	315.0	298.9	16.09	19.575			
3,500.0	3,483.2	3,471.4	3,415.8	9.2	13.2	23.10	-592.3	1.2	324.6	308.0	16.62	19.528			
3,600.0	3,582.5	3,570.9	3,513.1	9.6	13.7	23.25	-613.3	1.1	334.3	317.1	17.16	19.483			
3,700.0	3,681.7	3,670.4	3,610.3	9.9	14.1	23.40	-634.4	1.1	343.9	326.3	17.69	19.439			
3,800.0	3,781.0	3,769.9	3,707.6	10.2	14.6	23.54	-655.4	1.0	353.6	335.4	18.23	19.398			
3,900.0	3,880.2	3,869.5	3,804.9	10.5	15.0	23.67	-676.5	1.0	363.3	344.5	18.76	19.359			
4,000.0	3,979.5	3,969.0	3,902.2	10.8	15.5	23.80	-697.5	0.9	372.9	353.6	19.30	19.321			
4,100.0	4,078.7	4,068.5	3,999.4	11.2	15.9	23.92	-718.6	0.8	382.6	362.7	19.84	19.284			
4,200.0	4,178.0	4,168.1	4,096.7	11.5	16.4	24.03	-739.6	0.8	392.2	371.9	20.38	19.249			
4,300.0	4,277.2	4,267.6	4,194.0	11.8	16.9	24.14	-760.7	0.7	401.9	381.0	20.92	19.216			
4,400.0	4,376.5	4,367.1	4,291.3	12.1	17.3	24.24	-781.7	0.7	411.6	390.1	21.45	19.184			
4,500.0	4,475.7	4,466.6	4,388.6	12.5	17.8	24.34	-802.7	0.6	421.2	399.3	21.99	19.153			
4,600.0	4,575.0	4,566.2	4,485.8	12.8	18.2	24.43	-823.8	0.5	430.9	408.4	22.53	19.123			
4,700.0	4,674.2	4,665.7	4,583.1	13.1	18.7	24.52	-844.8	0.5	440.6	417.5	23.07	19.094			
4,800.0	4,773.5	4,765.2	4,680.4	13.4	19.2	24.61	-865.9	0.4	450.3	426.6	23.61	19.067			
4,900.0	4,872.7	4,864.8	4,777.7	13.8	19.6	24.69	-886.9	0.4	459.9	435.8	24.16	19.040			
5,000.0	4,972.0	4,964.3	4,875.0	14.1	20.1	24.77	-908.0	0.3	469.6	444.9	24.70	19.015			

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		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		
5,100.0	5,071.2	5,063.8	4,972.2	14.4	20.5	24.84	-929.0	0.2	479.3	454.0	25.24	18.990		
5,178.9	5,149.5	5,142.3	5,048.9	14.7	20.9	24.90	-945.6	0.2	486.9	461.2	25.67	18.971		
5,200.0	5,170.5	5,163.3	5,069.5	14.7	21.0	24.93	-950.1	0.2	489.0	463.2	25.77	18.976		
5,300.0	5,270.0	5,262.6	5,166.5	14.9	21.5	24.98	-971.0	0.1	500.9	474.7	26.21	19.110		
5,400.0	5,369.8	5,361.5	5,263.1	15.1	21.9	24.90	-991.9	0.1	516.0	489.4	26.60	19.396		
5,500.0	5,469.7	5,459.7	5,359.2	15.3	22.4	24.69	-1,012.7	0.0	534.2	507.2	26.94	19.829		
5,530.3	5,500.0	5,489.3	5,388.1	15.3	22.5	-167.87	-1,019.0	0.0	540.3	503.2	37.08	14.570		
5,600.0	5,569.7	5,572.0	5,469.1	15.4	22.8	-168.23	-1,035.5	-0.1	553.9	516.4	37.48	14.778		
5,700.0	5,669.7	5,694.1	5,589.6	15.6	23.1	-168.64	-1,055.5	-0.1	570.0	532.1	37.99	15.005		
5,800.0	5,769.7	5,817.8	5,712.3	15.7	23.4	-168.92	-1,070.6	-0.2	582.0	543.6	38.43	15.143		
5,900.0	5,869.7	5,942.6	5,836.7	15.9	23.6	-169.11	-1,080.4	-0.2	589.7	550.9	38.82	15.193		
6,000.0	5,969.7	6,068.0	5,962.0	16.0	23.8	-169.19	-1,084.8	-0.2	593.2	554.1	39.15	15.152		
6,100.0	6,069.7	6,175.7	6,069.7	16.2	23.9	-169.19	-1,085.1	-0.2	593.4	554.0	39.43	15.050		
6,200.0	6,169.7	6,275.7	6,169.7	16.3	24.0	-169.19	-1,085.1	-0.2	593.4	553.7	39.68	14.955		
6,300.0	6,269.7	6,375.7	6,269.7	16.5	24.1	-169.19	-1,085.1	-0.2	593.4	553.5	39.93	14.861		
6,400.0	6,369.7	6,475.7	6,369.7	16.6	24.2	-169.19	-1,085.1	-0.2	593.4	553.2	40.18	14.767		
6,500.0	6,469.7	6,575.7	6,469.7	16.8	24.3	-169.19	-1,085.1	-0.2	593.4	553.0	40.44	14.673		
6,600.0	6,569.7	6,675.7	6,569.7	16.9	24.4	-169.19	-1,085.1	-0.2	593.4	552.7	40.70	14.579		
6,700.0	6,669.7	6,775.7	6,669.7	17.1	24.5	-169.19	-1,085.1	-0.2	593.4	552.4	40.96	14.486		
6,800.0	6,769.7	6,875.7	6,769.7	17.2	24.6	-169.19	-1,085.1	-0.2	593.4	552.2	41.23	14.392		
6,900.0	6,869.7	6,975.7	6,869.7	17.4	24.7	-169.19	-1,085.1	-0.2	593.4	551.9	41.50	14.299		
6,921.7	6,891.4	6,997.4	6,891.4	17.4	24.7	-169.19	-1,085.1	-0.2	593.4	551.8	41.56	14.278		
6,950.0	6,919.7	7,025.7	6,919.7	17.5	24.8	-79.25	-1,085.1	-0.2	593.3	561.2	32.10	18.483		
7,000.0	6,969.6	7,075.6	6,969.6	17.6	24.8	-79.62	-1,085.1	-0.2	592.7	560.4	32.26	18.371		
7,050.0	7,019.1	7,125.1	7,019.1	17.6	24.9	-80.35	-1,085.1	-0.2	591.5	559.1	32.37	18.273		
7,100.0	7,068.1	7,174.1	7,068.1	17.7	24.9	-81.40	-1,085.1	-0.2	589.9	557.4	32.44	18.185		
7,150.0	7,116.4	7,222.3	7,116.4	17.8	25.0	-82.76	-1,085.1	-0.2	588.0	555.5	32.48	18.102		
7,200.0	7,163.6	7,266.2	7,160.3	17.8	25.0	-84.18	-1,085.1	-1.3	586.2	553.7	32.53	18.022		
7,250.0	7,209.7	7,310.6	7,204.5	17.9	25.1	-85.63	-1,085.1	-5.0	584.8	552.2	32.59	17.941		
7,300.0	7,254.5	7,355.8	7,249.2	18.0	25.1	-87.10	-1,085.1	-11.3	583.7	551.0	32.68	17.860		
7,350.0	7,297.7	7,401.7	7,294.2	18.0	25.2	-88.60	-1,085.1	-20.5	583.1	550.3	32.80	17.774		
7,396.3	7,336.1	7,445.1	7,336.1	18.1	25.2	-90.00	-1,085.1	-31.7	582.9	549.9	32.96	17.686		
7,400.0	7,339.1	7,448.6	7,339.4	18.1	25.3	-90.11	-1,085.1	-32.6	582.9	549.9	32.97	17.680		
7,450.0	7,378.6	7,496.4	7,384.8	18.2	25.3	-91.64	-1,085.1	-47.9	583.1	550.0	33.18	17.575		
7,500.0	7,416.1	7,545.2	7,430.0	18.2	25.4	-93.17	-1,085.1	-66.3	583.9	550.4	33.44	17.459		
7,550.0	7,451.3	7,595.2	7,474.9	18.3	25.5	-94.70	-1,085.1	-88.1	585.1	551.3	33.76	17.329		
7,600.0	7,484.1	7,646.3	7,519.3	18.5	25.5	-96.22	-1,085.1	-113.4	586.7	552.6	34.14	17.184		
7,650.0	7,514.3	7,698.7	7,563.0	18.6	25.6	-97.73	-1,085.1	-142.4	588.9	554.3	34.59	17.023		
7,700.0	7,541.9	7,752.5	7,605.6	18.9	25.7	-99.23	-1,085.1	-175.1	591.4	556.3	35.11	16.843		
7,750.0	7,566.7	7,807.7	7,646.9	19.2	25.9	-100.69	-1,085.1	-211.7	594.3	558.6	35.71	16.642		
7,800.0	7,588.6	7,864.3	7,686.4	19.6	26.0	-102.13	-1,085.1	-252.4	597.5	561.1	36.39	16.419		
7,850.0	7,607.6	7,922.6	7,723.7	20.2	26.2	-103.52	-1,085.1	-297.1	601.1	563.9	37.17	16.172		
7,900.0	7,623.4	7,982.5	7,758.5	20.9	26.4	-104.86	-1,085.1	-345.9	604.8	566.7	38.04	15.899		
7,950.0	7,636.2	8,044.1	7,790.1	21.6	26.7	-106.14	-1,085.1	-398.8	608.6	569.6	39.02	15.599		
8,000.0	7,645.7	8,107.5	7,818.0	22.5	27.0	-107.36	-1,085.1	-455.6	612.5	572.4	40.12	15.268		
8,050.0	7,652.0	8,172.5	7,841.7	23.4	27.4	-108.49	-1,085.1	-516.1	616.4	575.1	41.35	14.907		
8,100.0	7,655.1	8,239.3	7,860.6	24.3	28.0	-109.54	-1,085.1	-580.1	620.1	577.4	42.70	14.522		
8,125.3	7,655.4	8,273.7	7,868.1	24.8	28.3	-110.04	-1,085.1	-613.7	622.0	578.5	43.44	14.317		
8,200.0	7,655.0	8,378.1	7,881.7	26.3	29.5	-111.24	-1,085.1	-717.2	625.5	579.2	46.28	13.516		
8,300.0	7,654.6	8,491.0	7,883.4	28.5	31.1	-111.44	-1,085.1	-830.1	626.2	575.8	50.40	12.425		
8,400.0	7,654.1	8,591.0	7,883.9	30.7	32.8	-111.52	-1,085.1	-930.1	626.5	572.0	54.53	11.489		

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 Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Rio-LA 1S67W6E Pad Sec.6-T1S-R67W - Rio-LA 6F-434 - Wellbore #1 - Plan #1 (8-4-15)											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	Vertical	Measured Depth	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Centres (ft)	Ellipses (ft)	Separation (ft)	Factor			
8,500.0	7,653.6	8,691.0	7,884.4	33.1	34.7	-111.60	-1,085.1	-1,030.0	626.9	568.0	58.84	10.654			
8,600.0	7,653.1	8,791.0	7,884.8	35.5	36.7	-111.68	-1,085.1	-1,130.0	627.2	563.9	63.28	9.912			
8,700.0	7,652.7	8,891.0	7,885.3	37.9	38.9	-111.76	-1,085.1	-1,230.0	627.6	559.8	67.83	9.253			
8,800.0	7,652.2	8,991.0	7,885.8	40.4	41.1	-111.84	-1,085.1	-1,330.0	627.9	555.5	72.46	8.666			
8,900.0	7,651.7	9,091.0	7,886.2	43.0	43.5	-111.92	-1,085.1	-1,430.0	628.3	551.1	77.16	8.143			
9,000.0	7,651.3	9,191.0	7,886.7	45.6	45.9	-112.00	-1,085.1	-1,530.0	628.6	546.7	81.91	7.675			
9,100.0	7,650.8	9,291.0	7,887.2	48.2	48.3	-112.08	-1,085.1	-1,630.0	629.0	542.3	86.71	7.254			
9,200.0	7,650.3	9,391.0	7,887.7	50.8	50.8	-112.16	-1,085.1	-1,730.0	629.3	537.8	91.55	6.874			
9,300.0	7,649.8	9,491.0	7,888.1	53.4	53.3	-112.24	-1,085.1	-1,830.0	629.7	533.3	96.42	6.531			
9,400.0	7,649.4	9,591.0	7,888.6	56.1	55.9	-112.31	-1,085.1	-1,930.0	630.1	528.7	101.31	6.219			
9,500.0	7,648.9	9,691.0	7,889.1	58.8	58.4	-112.39	-1,085.1	-2,030.0	630.4	524.2	106.23	5.935			
9,600.0	7,648.4	9,791.0	7,889.5	61.4	61.0	-112.47	-1,085.1	-2,130.0	630.8	519.6	111.16	5.675			
9,700.0	7,648.0	9,891.0	7,890.0	64.1	63.6	-112.55	-1,085.1	-2,230.0	631.1	515.0	116.11	5.436			
9,800.0	7,647.5	9,991.0	7,890.5	66.8	66.3	-112.63	-1,085.1	-2,330.0	631.5	510.4	121.06	5.216			
9,900.0	7,647.0	10,091.0	7,891.0	69.5	68.9	-112.71	-1,085.1	-2,430.0	631.9	505.8	126.03	5.013			
10,000.0	7,646.5	10,191.0	7,891.4	72.3	71.6	-112.79	-1,085.1	-2,530.0	632.2	501.2	131.01	4.826			
10,100.0	7,646.1	10,290.9	7,891.9	75.0	74.2	-112.87	-1,085.1	-2,630.0	632.6	496.6	135.99	4.652			
10,200.0	7,645.6	10,390.9	7,892.4	77.7	76.9	-112.95	-1,085.1	-2,730.0	633.0	492.0	140.98	4.490			
10,300.0	7,645.1	10,490.9	7,892.8	80.5	79.6	-113.02	-1,085.1	-2,829.9	633.3	487.3	145.97	4.339			
10,400.0	7,644.7	10,590.9	7,893.3	83.2	82.3	-113.10	-1,085.1	-2,929.9	633.7	482.7	150.97	4.197			
10,500.0	7,644.2	10,690.9	7,893.8	85.9	85.0	-113.18	-1,085.1	-3,029.9	634.1	478.1	155.97	4.065			
10,600.0	7,643.7	10,790.9	7,894.3	88.7	87.7	-113.26	-1,085.1	-3,129.9	634.4	473.5	160.97	3.941			
10,700.0	7,643.2	10,890.9	7,894.7	91.4	90.4	-113.34	-1,085.1	-3,229.9	634.8	468.8	165.97	3.825			
10,800.0	7,642.8	10,990.9	7,895.2	94.2	93.2	-113.42	-1,085.1	-3,329.9	635.2	464.2	170.97	3.715			
10,900.0	7,642.3	11,090.9	7,895.7	96.9	95.9	-113.49	-1,085.1	-3,429.9	635.6	459.6	175.97	3.612			
11,000.0	7,641.8	11,190.9	7,896.1	99.7	98.6	-113.57	-1,085.1	-3,529.9	635.9	455.0	180.97	3.514			
11,100.0	7,641.4	11,290.9	7,896.6	102.5	101.4	-113.65	-1,085.1	-3,629.9	636.3	450.3	185.97	3.422			
11,200.0	7,640.9	11,390.9	7,897.1	105.2	104.1	-113.73	-1,085.1	-3,729.9	636.7	445.7	190.96	3.334			
11,300.0	7,640.4	11,490.9	7,897.6	108.0	106.8	-113.80	-1,085.1	-3,829.9	637.1	441.1	195.96	3.251			
11,400.0	7,639.9	11,590.9	7,898.0	110.8	109.6	-113.88	-1,085.1	-3,929.9	637.4	436.5	200.95	3.172			
11,500.0	7,639.5	11,690.9	7,898.5	113.5	112.3	-113.96	-1,085.1	-4,029.9	637.8	431.9	205.94	3.097			
11,600.0	7,639.0	11,790.9	7,899.0	116.3	115.1	-114.04	-1,085.1	-4,129.9	638.2	427.3	210.92	3.026			
11,700.0	7,638.5	11,890.9	7,899.4	119.1	117.8	-114.11	-1,085.1	-4,229.9	638.6	422.7	215.91	2.958			
11,800.0	7,638.1	11,990.9	7,899.9	121.9	120.6	-114.19	-1,085.1	-4,329.9	639.0	418.1	220.89	2.893			
11,900.0	7,637.6	12,090.9	7,900.4	124.6	123.4	-114.27	-1,085.1	-4,429.9	639.4	413.5	225.87	2.831			
12,000.0	7,637.1	12,190.9	7,900.9	127.4	126.1	-114.35	-1,085.1	-4,529.9	639.8	408.9	230.84	2.771			
12,100.0	7,636.7	12,290.9	7,901.3	130.2	128.9	-114.42	-1,085.1	-4,629.8	640.1	404.3	235.81	2.715			
12,200.0	7,636.2	12,390.9	7,901.8	133.0	131.6	-114.50	-1,085.1	-4,729.8	640.5	399.8	240.77	2.660			
12,300.0	7,635.7	12,490.8	7,902.3	135.7	134.4	-114.58	-1,085.1	-4,829.8	640.9	395.2	245.74	2.608			
12,400.0	7,635.2	12,590.8	7,902.7	138.5	137.2	-114.65	-1,085.1	-4,929.8	641.3	390.6	250.69	2.558			
12,450.4	7,635.0	12,641.3	7,903.0	139.9	138.6	-114.69	-1,085.1	-4,980.3	641.5	388.3	253.19	2.534 SF			

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Rio-LA 6F-204
<b>Project:</b>	SEC.6-T1S-R67W	<b>TVD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Reference Site:</b>	Rio-LA 1S67W6E Pad Sec.6-T1S-R67W	<b>MD Reference:</b>	WELL @ 5083.0ft (RKB - 13')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rio-LA 6F-204	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (8-4-15)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5083.0ft (RKB - 13')

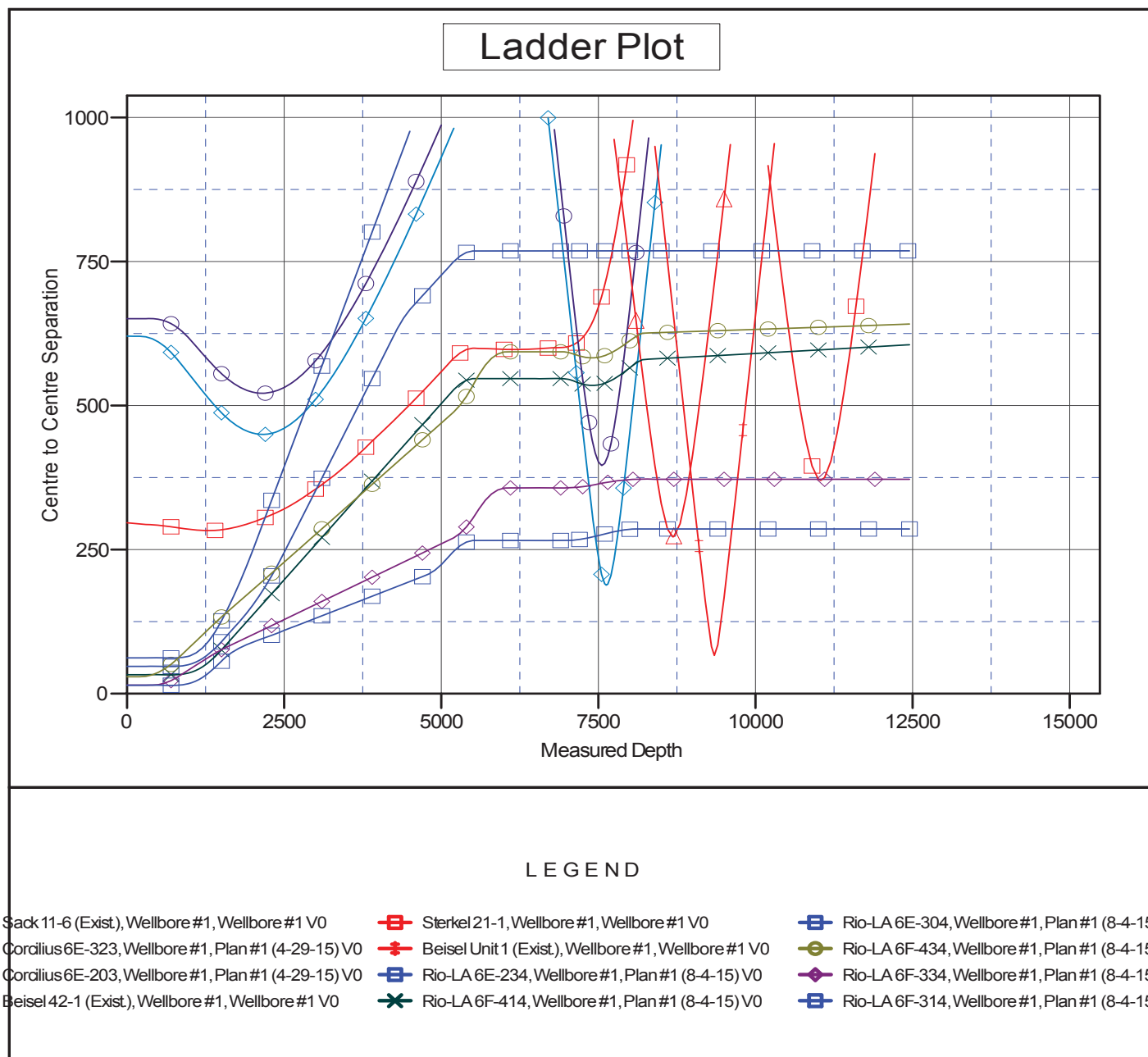
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: Rio-LA 6F-204

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.36°



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