PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: **Trimar Farms 29Q-321**

Surface Location: Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 4572.0

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.0	0.0	1377371.45	3290452.96	40.364600	-104.457640	

RKB - 13' WELL @ 4585.0ft (RKB - 13')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 485'FSL & 2000'FEL	1.0	0.0	0.0	Point
BHL 500'FNL & 2254'FEL	6437.0	4284.3	-250.8	Point

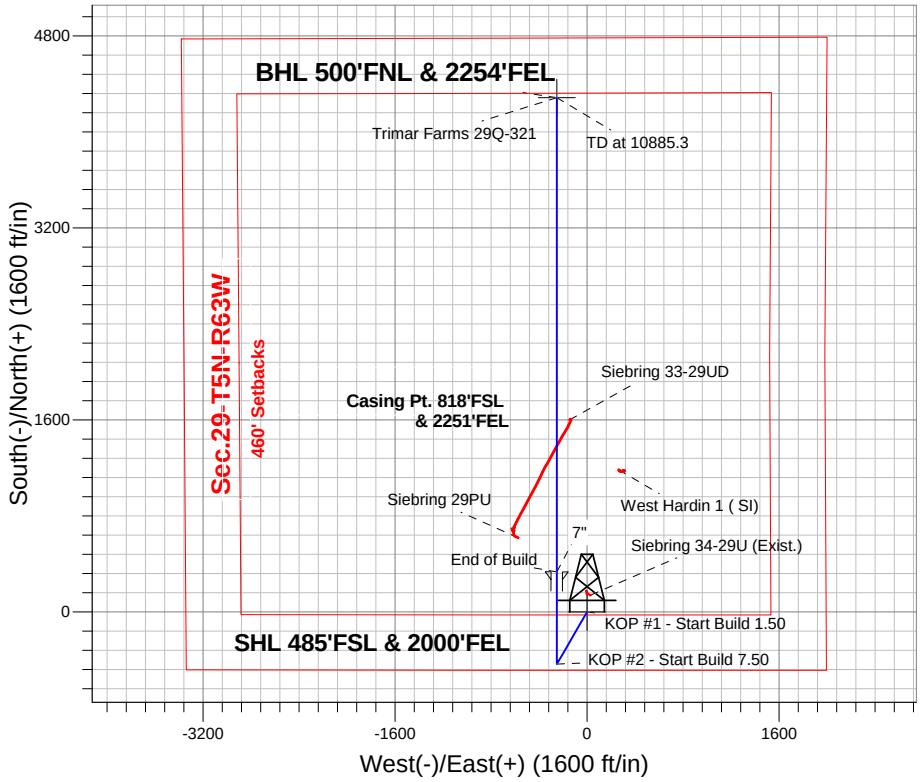
T
M
Azimuths to True North
Magnetic North: 8.20°

Magnetic Field
Strength: 52756.2snT
Dip Angle: 66.94°
Date: 2/27/2015
Model: IGRF2010

ANNOTATIONS

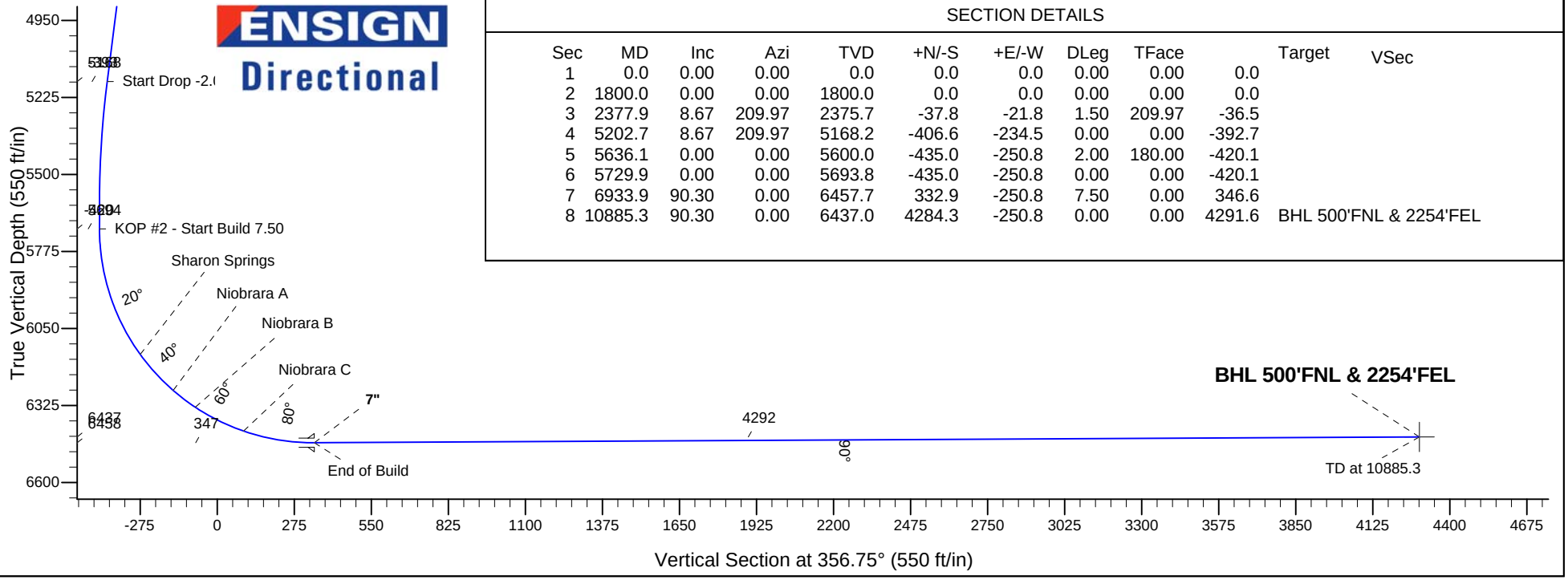
TVD	MD	Annotation
1800.0	1800.0	KOP #1 - Start Build 1.50
5168.2	5202.7	Start Drop -2.00
5693.8	5729.9	KOP #2 - Start Build 7.50
6457.7	6933.9	End of Build
6437.0	10885.3	TD at 10885.3

Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W
Trimar Farms 29Q-321
Plan #2 (2-25-15)
13:29, February 27 2015



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace		Target	VSec
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	1800.0	0.00	0.00	1800.0	0.0	0.0	0.00	0.00	0.0		
3	2377.9	8.67	209.97	2375.7	-37.8	-21.8	1.50	209.97	-36.5		
4	5202.7	8.67	209.97	5168.2	-406.6	-234.5	0.00	0.00	-392.7		
5	5636.1	0.00	0.00	5600.0	-435.0	-250.8	2.00	180.00	-420.1		
6	5729.9	0.00	0.00	5693.8	-435.0	-250.8	0.00	0.00	-420.1		
7	6933.9	90.30	0.00	6457.7	332.9	-250.8	7.50	0.00	346.6		
8	10885.3	90.30	0.00	6437.0	4284.3	-250.8	0.00	0.00	4291.6	BHL 500'FNL & 2254'FEL	



PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.29-T5N-R63W
Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W
Trimar Farms 29Q-321

Wellbore #1

Plan: Plan #2 (2-25-15)

Standard Planning Report

27 February, 2015

Database:	Landmark	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Project:	SEC.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**North Reference:**	True
Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (2-25-15)		

Project SEC.29-T5N-R63W, Weld County, Colorado

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W

Site Position:		**Northing:**	1,377,291.98 ft	**Latitude:**	40.364380
From:	Lat/Long	**Easting:**	3,290,509.63 ft	**Longitude:**	-104.457440
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.67 °

Well Trimar Farms 29Q-321

Well Position	**+N/-S**	80.1 ft	**Northing:**	1,377,371.45 ft	**Latitude:**	40.364600
	+E/-W	-55.7 ft	**Easting:**	3,290,452.96 ft	**Longitude:**	-104.457640
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,572.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/27/2015	8.20	66.94	52,756

Design Plan #2 (2-25-15)

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	356.75

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,377.9	8.67	209.97	2,375.7	-37.8	-21.8	1.50	1.50	0.00	209.97	
5,202.7	8.67	209.97	5,168.2	-406.6	-234.5	0.00	0.00	0.00	0.00	
5,636.1	0.00	0.00	5,600.0	-435.0	-250.8	2.00	-2.00	0.00	180.00	
5,729.9	0.00	0.00	5,693.8	-435.0	-250.8	0.00	0.00	0.00	0.00	
6,933.9	90.30	0.00	6,457.7	332.9	-250.8	7.50	7.50	0.00	0.00	
10,885.3	90.30	0.00	6,437.0	4,284.3	-250.8	0.00	0.00	0.00	0.00	BHL 500'FNL & 225

Database:	Landmark	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Project:	SEC.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**North Reference:**	True
Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (2-25-15)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 485'FSL & 2000'FEL									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1 - Start Build 1.50									
1,900.0	1.50	209.97	1,900.0	-1.1	-0.7	-1.1	1.50	1.50	0.00
2,000.0	3.00	209.97	1,999.9	-4.5	-2.6	-4.4	1.50	1.50	0.00
2,100.0	4.50	209.97	2,099.7	-10.2	-5.9	-9.9	1.50	1.50	0.00
2,200.0	6.00	209.97	2,199.3	-18.1	-10.5	-17.5	1.50	1.50	0.00
2,300.0	7.50	209.97	2,298.6	-28.3	-16.3	-27.3	1.50	1.50	0.00
2,377.9	8.67	209.97	2,375.7	-37.8	-21.8	-36.5	1.50	1.50	0.00
2,400.0	8.67	209.97	2,397.5	-40.7	-23.5	-39.3	0.00	0.00	0.00
2,500.0	8.67	209.97	2,496.4	-53.7	-31.0	-51.9	0.00	0.00	0.00
2,600.0	8.67	209.97	2,595.3	-66.8	-38.5	-64.5	0.00	0.00	0.00
2,700.0	8.67	209.97	2,694.1	-79.9	-46.0	-77.1	0.00	0.00	0.00
2,800.0	8.67	209.97	2,793.0	-92.9	-53.6	-89.7	0.00	0.00	0.00
2,900.0	8.67	209.97	2,891.8	-106.0	-61.1	-102.3	0.00	0.00	0.00
3,000.0	8.67	209.97	2,990.7	-119.0	-68.6	-114.9	0.00	0.00	0.00
3,100.0	8.67	209.97	3,089.5	-132.1	-76.2	-127.6	0.00	0.00	0.00
3,200.0	8.67	209.97	3,188.4	-145.1	-83.7	-140.2	0.00	0.00	0.00
3,300.0	8.67	209.97	3,287.3	-158.2	-91.2	-152.8	0.00	0.00	0.00
3,317.9	8.67	209.97	3,305.0	-160.5	-92.6	-155.0	0.00	0.00	0.00
Parkman									
3,400.0	8.67	209.97	3,386.1	-171.3	-98.7	-165.4	0.00	0.00	0.00
3,500.0	8.67	209.97	3,485.0	-184.3	-106.3	-178.0	0.00	0.00	0.00
3,600.0	8.67	209.97	3,583.8	-197.4	-113.8	-190.6	0.00	0.00	0.00
3,700.0	8.67	209.97	3,682.7	-210.4	-121.3	-203.2	0.00	0.00	0.00
3,800.0	8.67	209.97	3,781.6	-223.5	-128.9	-215.8	0.00	0.00	0.00
3,869.2	8.67	209.97	3,850.0	-232.5	-134.1	-224.6	0.00	0.00	0.00
Sussex									
3,900.0	8.67	209.97	3,880.4	-236.5	-136.4	-228.4	0.00	0.00	0.00
4,000.0	8.67	209.97	3,979.3	-249.6	-143.9	-241.0	0.00	0.00	0.00
4,100.0	8.67	209.97	4,078.1	-262.7	-151.4	-253.6	0.00	0.00	0.00
4,200.0	8.67	209.97	4,177.0	-275.7	-159.0	-266.3	0.00	0.00	0.00
4,300.0	8.67	209.97	4,275.8	-288.8	-166.5	-278.9	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Project:	SEC.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**North Reference:**	True
Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (2-25-15)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,400.0	8.67	209.97	4,374.7	-301.8	-174.0	-291.5	0.00	0.00	0.00
4,500.0	8.67	209.97	4,473.6	-314.9	-181.6	-304.1	0.00	0.00	0.00
4,600.0	8.67	209.97	4,572.4	-328.0	-189.1	-316.7	0.00	0.00	0.00
4,700.0	8.67	209.97	4,671.3	-341.0	-196.6	-329.3	0.00	0.00	0.00
4,800.0	8.67	209.97	4,770.1	-354.1	-204.1	-341.9	0.00	0.00	0.00
4,890.9	8.67	209.97	4,860.0	-365.9	-211.0	-353.4	0.00	0.00	0.00
Shannon									
4,900.0	8.67	209.97	4,869.0	-367.1	-211.7	-354.5	0.00	0.00	0.00
5,000.0	8.67	209.97	4,967.8	-380.2	-219.2	-367.1	0.00	0.00	0.00
5,100.0	8.67	209.97	5,066.7	-393.2	-226.7	-379.7	0.00	0.00	0.00
5,200.0	8.67	209.97	5,165.6	-406.3	-234.3	-392.4	0.00	0.00	0.00
5,202.7	8.67	209.97	5,168.2	-406.6	-234.5	-392.7	0.00	0.00	0.00
Start Drop -2.00									
5,300.0	6.72	209.97	5,264.6	-417.9	-241.0	-403.6	2.00	-2.00	0.00
5,400.0	4.72	209.97	5,364.1	-426.6	-245.9	-411.9	2.00	-2.00	0.00
5,500.0	2.72	209.97	5,463.9	-432.2	-249.2	-417.4	2.00	-2.00	0.00
5,600.0	0.72	209.97	5,563.9	-434.8	-250.7	-419.9	2.00	-2.00	0.00
5,636.1	0.00	0.00	5,600.0	-435.0	-250.8	-420.1	2.00	-2.00	0.00
5,700.0	0.00	0.00	5,663.9	-435.0	-250.8	-420.1	0.00	0.00	0.00
5,729.9	0.00	0.00	5,693.8	-435.0	-250.8	-420.1	0.00	0.00	0.00
KOP #2 - Start Build 7.50									
5,800.0	5.26	0.00	5,763.8	-431.8	-250.8	-416.9	7.50	7.50	0.00
5,900.0	12.76	0.00	5,862.5	-416.1	-250.8	-401.2	7.50	7.50	0.00
6,000.0	20.26	0.00	5,958.3	-387.7	-250.8	-372.9	7.50	7.50	0.00
6,100.0	27.76	0.00	6,049.6	-347.1	-250.8	-332.3	7.50	7.50	0.00
6,200.0	35.26	0.00	6,134.8	-294.9	-250.8	-280.2	7.50	7.50	0.00
6,208.9	35.93	0.00	6,142.0	-289.7	-250.8	-275.0	7.50	7.50	0.00
Sharon Springs									
6,300.0	42.76	0.00	6,212.4	-232.0	-250.8	-217.4	7.50	7.50	0.00
6,384.3	49.08	0.00	6,271.0	-171.5	-250.8	-157.0	7.50	7.50	0.00
Niobrara A									
6,400.0	50.26	0.00	6,281.2	-159.5	-250.8	-145.0	7.50	7.50	0.00
6,483.6	56.53	0.00	6,331.0	-92.4	-250.8	-78.0	7.50	7.50	0.00
Niobrara B									
6,500.0	57.76	0.00	6,339.9	-78.6	-250.8	-64.3	7.50	7.50	0.00
6,600.0	65.26	0.00	6,387.6	9.2	-250.8	23.4	7.50	7.50	0.00
6,676.3	70.98	0.00	6,416.0	80.0	-250.8	94.1	7.50	7.50	0.00
Niobrara C									
6,700.0	72.76	0.00	6,423.4	102.5	-250.8	116.6	7.50	7.50	0.00
6,800.0	80.26	0.00	6,446.7	199.7	-250.8	213.6	7.50	7.50	0.00
6,900.0	87.76	0.00	6,457.1	299.1	-250.8	312.8	7.50	7.50	0.00
6,933.9	90.30	0.00	6,457.7	333.0	-250.8	346.7	7.50	7.50	0.00
End of Build - 7"									
7,000.0	90.30	0.00	6,457.3	399.1	-250.8	412.6	0.00	0.00	0.00
7,100.0	90.30	0.00	6,456.8	499.1	-250.8	512.5	0.00	0.00	0.00
7,200.0	90.30	0.00	6,456.3	599.1	-250.8	612.3	0.00	0.00	0.00
7,300.0	90.30	0.00	6,455.8	699.1	-250.8	712.2	0.00	0.00	0.00
7,400.0	90.30	0.00	6,455.2	799.1	-250.8	812.0	0.00	0.00	0.00
7,500.0	90.30	0.00	6,454.7	899.1	-250.8	911.8	0.00	0.00	0.00
7,600.0	90.30	0.00	6,454.2	999.1	-250.8	1,011.7	0.00	0.00	0.00
7,700.0	90.30	0.00	6,453.7	1,099.1	-250.8	1,111.5	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Project:	SEC.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**North Reference:**	True
Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (2-25-15)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,800.0	90.30	0.00	6,453.2	1,199.1	-250.8	1,211.3	0.00	0.00	0.00
7,900.0	90.30	0.00	6,452.6	1,299.1	-250.8	1,311.2	0.00	0.00	0.00
8,000.0	90.30	0.00	6,452.1	1,399.0	-250.8	1,411.0	0.00	0.00	0.00
8,100.0	90.30	0.00	6,451.6	1,499.0	-250.8	1,510.9	0.00	0.00	0.00
8,200.0	90.30	0.00	6,451.1	1,599.0	-250.8	1,610.7	0.00	0.00	0.00
8,300.0	90.30	0.00	6,450.5	1,699.0	-250.8	1,710.5	0.00	0.00	0.00
8,400.0	90.30	0.00	6,450.0	1,799.0	-250.8	1,810.4	0.00	0.00	0.00
8,500.0	90.30	0.00	6,449.5	1,899.0	-250.8	1,910.2	0.00	0.00	0.00
8,600.0	90.30	0.00	6,449.0	1,999.0	-250.8	2,010.0	0.00	0.00	0.00
8,700.0	90.30	0.00	6,448.4	2,099.0	-250.8	2,109.9	0.00	0.00	0.00
8,800.0	90.30	0.00	6,447.9	2,199.0	-250.8	2,209.7	0.00	0.00	0.00
8,900.0	90.30	0.00	6,447.4	2,299.0	-250.8	2,309.6	0.00	0.00	0.00
9,000.0	90.30	0.00	6,446.9	2,399.0	-250.8	2,409.4	0.00	0.00	0.00
9,100.0	90.30	0.00	6,446.3	2,499.0	-250.8	2,509.2	0.00	0.00	0.00
9,200.0	90.30	0.00	6,445.8	2,599.0	-250.8	2,609.1	0.00	0.00	0.00
9,300.0	90.30	0.00	6,445.3	2,699.0	-250.8	2,708.9	0.00	0.00	0.00
9,400.0	90.30	0.00	6,444.8	2,799.0	-250.8	2,808.7	0.00	0.00	0.00
9,500.0	90.30	0.00	6,444.3	2,899.0	-250.8	2,908.6	0.00	0.00	0.00
9,600.0	90.30	0.00	6,443.7	2,999.0	-250.8	3,008.4	0.00	0.00	0.00
9,700.0	90.30	0.00	6,443.2	3,099.0	-250.8	3,108.3	0.00	0.00	0.00
9,800.0	90.30	0.00	6,442.7	3,199.0	-250.8	3,208.1	0.00	0.00	0.00
9,900.0	90.30	0.00	6,442.2	3,299.0	-250.8	3,307.9	0.00	0.00	0.00
10,000.0	90.30	0.00	6,441.6	3,399.0	-250.8	3,407.8	0.00	0.00	0.00
10,100.0	90.30	0.00	6,441.1	3,499.0	-250.8	3,507.6	0.00	0.00	0.00
10,200.0	90.30	0.00	6,440.6	3,599.0	-250.8	3,607.4	0.00	0.00	0.00
10,300.0	90.30	0.00	6,440.1	3,699.0	-250.8	3,707.3	0.00	0.00	0.00
10,400.0	90.30	0.00	6,439.5	3,799.0	-250.8	3,807.1	0.00	0.00	0.00
10,500.0	90.30	0.00	6,439.0	3,899.0	-250.8	3,907.0	0.00	0.00	0.00
10,600.0	90.30	0.00	6,438.5	3,999.0	-250.8	4,006.8	0.00	0.00	0.00
10,700.0	90.30	0.00	6,438.0	4,099.0	-250.8	4,106.6	0.00	0.00	0.00
10,800.0	90.30	0.00	6,437.4	4,199.0	-250.8	4,206.5	0.00	0.00	0.00
10,885.3	90.30	0.00	6,437.0	4,284.3	-250.8	4,291.6	0.00	0.00	0.00
BHL 500'FNL & 2254'FEL									

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
SHL 485'FSL & 2000'I - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,377,371.47	3,290,452.96	40.364600	-104.457640
BHL 500'FNL & 2254' - plan hits target center - Point	0.00	0.00	6,437.0	4,284.3	-250.8	1,381,652.33	3,290,151.87	40.376360	-104.458540

Database:	Landmark	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Project:	SEC.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**North Reference:**	True
Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (2-25-15)		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,933.9	6,457.7	7"	7	7-1/2

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,317.9	3,305.0	Parkman		0.00	
3,869.2	3,850.0	Sussex		0.00	
4,890.9	4,860.0	Shannon		0.00	
6,208.9	6,142.0	Sharon Springs		0.00	
6,384.3	6,271.0	Niobrara A		0.00	
6,483.6	6,331.0	Niobrara B		0.00	
6,676.3	6,416.0	Niobrara C		0.00	
	6,504.0	Ft Hays		0.00	
	6,528.0	Codell		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,800.0	1,800.0	0.0	0.0	KOP #1 - Start Build 1.50
5,202.7	5,168.2	-406.6	-234.5	Start Drop -2.00
5,729.9	5,693.8	-435.0	-250.8	KOP #2 - Start Build 7.50
6,933.9	6,457.7	333.0	-250.8	End of Build
10,885.3	6,437.0	4,284.3	-250.8	TD at 10885.3

ENSIGN Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.29-T5N-R63W
Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W
Trimar Farms 29Q-321

Wellbore #1
Plan #2 (2-25-15)

Anticollision Report

27 February, 2015

PDC ENERGY
Growing E&P Value

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Reference Plan #2 (2-25-15)

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	**Error Surface:**	Elliptical Conic

Warning Levels Evaluated at: 2.00 **Sigma**

Survey Tool Program **Date** 2/27/2015

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	10,885.3	Plan #2 (2-25-15) (Wellbore #1)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Existing Wells Sec.29-T5N-R63W						
Siebring 34-29U (Exist.) - Wellbore #1 - Wellbore #1	1,700.0	1,687.4	145.7	97.8	3.041	SF
Siebring 34-29U (Exist.) - Wellbore #1 - Wellbore #1	1,739.1	1,726.2	145.6	97.8	3.042	CC, ES
West Hardin 1 (SI) - Wellbore #1 - Wellbore #1	7,785.2	6,400.0	516.0	394.4	4.241	CC
West Hardin 1 (SI) - Wellbore #1 - Wellbore #1	7,800.0	6,400.0	516.2	394.3	4.235	ES, SF
Siebring Pad Sec.29-T5N-R63W						
Siebring 29PU - Wellbore #1 - Wellbore #1	7,221.2	6,465.6	328.9	295.7	9.901	CC, ES
Siebring 29PU - Wellbore #1 - Wellbore #1	7,300.0	6,464.6	338.2	303.9	9.863	SF
Siebring 33-29UD - Siebring 33-29UD - Siebring 33-29UI	8,203.6	6,587.8	108.2	51.5	1.907	CC, ES, SF
Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W						
Trimar Farms 29Q-221 - Wellbore #1 - Plan #2 (2-25-15)	1,600.0	1,600.0	29.1	22.2	4.183	CC
Trimar Farms 29Q-221 - Wellbore #1 - Plan #2 (2-25-15)	10,885.3	10,816.5	141.1	-18.0	0.887	Level 1, ES, SF
Trimar Farms 29T-241 - Wellbore #1 - Plan #2 (2-25-15)	1,400.0	1,400.0	58.3	52.2	9.604	CC, ES
Trimar Farms 29T-241 - Wellbore #1 - Plan #2 (2-25-15)	10,885.3	10,804.1	615.8	444.7	3.600	SF
Trimar Farms 29T-301 - Wellbore #1 - Plan #2 (2-25-15)	1,200.0	1,200.0	87.4	82.3	16.912	CC, ES
Trimar Farms 29T-301 - Wellbore #1 - Plan #2 (2-25-15)	10,885.3	10,901.1	866.5	694.2	5.029	SF
Trimar Farms 29T-401 - Wellbore #1 - Plan #2 (2-25-15)	966.3	967.3	120.2	116.1	29.170	CC
Trimar Farms 29T-401 - Wellbore #1 - Plan #2 (2-25-15)	1,100.0	1,100.0	120.6	115.9	25.652	ES
Trimar Farms 29T-401 - Wellbore #1 - Plan #2 (2-25-15)	1,900.0	1,886.2	160.8	152.7	19.643	SF

Offset Design Existing Wells Sec.29-T5N-R63W - Siebring 34-29U (Exist.) - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 600-UNKNOWN **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.00	156.7	0.0	157.2				
100.0	100.0	87.1	87.1	0.1	1.7	0.00	156.6	0.0	156.6	154.8	1.85	84.467	
200.0	200.0	187.2	187.2	0.3	3.7	0.02	156.5	0.1	156.5	152.5	4.08	38.356	
300.0	300.0	287.3	287.3	0.6	5.7	0.05	156.4	0.1	156.4	150.1	6.31	24.790	
400.0	400.0	387.4	387.4	0.8	7.7	0.09	156.1	0.2	156.1	147.6	8.53	18.295	
500.0	500.0	487.5	487.5	1.0	9.8	0.14	155.8	0.4	155.9	145.1	10.76	14.482	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Existing Wells Sec.29-T5N-R63W - Siebring 34-29U (Exist.) - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 600-UNKNOWN

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
600.0	600.0	587.6	587.6	1.2	11.8	0.21	155.5	0.6	155.5	142.5	12.99	11.971	
700.0	700.0	687.8	687.8	1.5	14.6	0.19	155.0	0.5	155.0	139.0	16.02	9.679	
800.0	800.0	788.3	788.3	1.7	17.7	0.11	154.4	0.3	154.4	135.0	19.34	7.979	
900.0	900.0	888.2	888.2	1.9	21.5	0.20	153.5	0.5	153.5	130.1	23.45	6.547	
1,000.0	1,000.0	988.6	988.6	2.1	25.5	0.27	152.6	0.7	152.6	125.0	27.65	5.521	
1,100.0	1,100.0	1,088.8	1,088.8	2.4	29.4	0.27	151.5	0.7	151.5	119.7	31.78	4.767	
1,200.0	1,200.0	1,188.5	1,188.4	2.6	33.3	0.26	150.4	0.7	150.4	114.5	35.91	4.189	
1,300.0	1,300.0	1,288.7	1,288.6	2.8	37.3	0.26	149.4	0.7	149.4	109.3	40.08	3.728	
1,400.0	1,400.0	1,388.6	1,388.5	3.0	41.0	0.18	148.3	0.5	148.3	104.3	44.03	3.369	
1,500.0	1,500.0	1,488.9	1,488.8	3.3	44.4	-0.05	147.2	-0.1	147.2	99.6	47.63	3.091	
1,600.0	1,600.0	1,588.2	1,588.1	3.5	44.5	-0.37	146.2	-1.0	146.2	98.2	47.96	3.047	
1,700.0	1,700.0	1,687.4	1,687.3	3.7	44.2	-0.65	145.7	-1.7	145.7	97.8	47.90	3.041	SF
1,739.1	1,739.1	1,726.2	1,726.1	3.8	44.1	-0.74	145.6	-1.9	145.6	97.8	47.88	3.042	CC, ES
1,800.0	1,800.0	1,786.6	1,786.5	3.9	43.9	-0.88	145.7	-2.2	145.7	97.9	47.84	3.046	
1,900.0	1,900.0	1,885.7	1,885.7	4.1	43.6	149.23	146.3	-2.7	147.5	99.7	47.74	3.089	
2,000.0	1,999.9	1,984.8	1,984.7	4.3	43.3	149.82	147.5	-3.0	152.0	104.4	47.61	3.193	
2,100.0	2,099.7	2,084.2	2,084.2	4.5	40.4	150.84	149.0	-3.3	159.2	114.4	44.81	3.554	
2,200.0	2,199.3	2,183.6	2,183.5	4.7	37.0	152.13	150.6	-3.7	168.9	127.4	41.52	4.068	
2,300.0	2,298.6	2,282.5	2,282.4	4.9	33.5	153.60	152.3	-4.3	181.1	142.8	38.25	4.734	
2,400.0	2,397.5	2,381.2	2,381.0	5.1	30.1	155.16	154.1	-4.9	195.7	160.7	35.01	5.591	
2,500.0	2,496.4	2,479.6	2,479.5	5.4	26.7	156.63	156.0	-5.6	211.3	179.5	31.86	6.633	
2,600.0	2,595.3	2,578.1	2,577.9	5.6	24.1	157.88	158.0	-6.4	227.1	197.6	29.47	7.706	
2,700.0	2,694.1	2,676.4	2,676.2	5.9	21.7	159.02	160.0	-6.9	243.1	215.8	27.29	8.907	
2,800.0	2,793.0	2,774.7	2,774.5	6.2	19.3	160.06	162.1	-7.2	259.3	234.2	25.12	10.322	
2,900.0	2,891.8	2,873.0	2,872.7	6.4	16.9	161.02	164.3	-7.4	275.7	252.7	22.95	12.009	
3,000.0	2,990.7	2,971.2	2,970.9	6.7	14.5	161.90	166.6	-7.3	292.2	271.4	20.80	14.049	
3,100.0	3,089.5	3,069.9	3,069.6	7.0	14.1	162.74	168.9	-7.0	308.9	288.4	20.50	15.069	
3,200.0	3,188.4	3,168.8	3,168.5	7.4	14.4	163.51	171.0	-6.6	325.5	304.5	21.01	15.494	
3,300.0	3,287.3	3,267.8	3,267.5	7.7	14.8	164.24	173.0	-6.1	342.0	320.5	21.52	15.891	
3,400.0	3,386.1	3,366.9	3,366.5	8.0	15.1	164.92	174.8	-5.4	358.4	336.5	21.99	16.298	
3,500.0	3,485.0	3,465.9	3,465.5	8.3	15.4	165.57	176.4	-4.7	374.8	352.4	22.42	16.715	
3,600.0	3,583.8	3,566.1	3,565.7	8.6	15.9	166.19	177.8	-3.9	391.0	368.0	23.01	16.995	
3,700.0	3,682.7	3,667.0	3,666.6	9.0	16.3	166.73	178.7	-3.4	406.7	383.0	23.68	17.172	
3,800.0	3,781.6	3,768.1	3,767.7	9.3	16.8	167.21	179.2	-3.3	421.8	397.5	24.36	17.315	
3,900.0	3,880.4	3,869.4	3,869.0	9.6	17.2	167.63	179.2	-3.5	436.5	411.4	25.04	17.429	
4,000.0	3,979.3	3,970.8	3,970.4	10.0	17.7	168.00	178.7	-4.1	450.6	424.9	25.73	17.515	
4,100.0	4,078.1	4,071.6	4,071.1	10.3	17.0	168.34	177.8	-4.8	464.2	438.8	25.44	18.249	
4,200.0	4,177.0	4,172.0	4,171.6	10.7	16.0	168.72	176.3	-5.2	477.6	452.8	24.74	19.305	
4,300.0	4,275.8	4,272.5	4,272.1	11.0	14.9	169.15	174.5	-5.1	490.7	466.6	24.01	20.438	
4,400.0	4,374.7	4,373.0	4,372.6	11.3	13.8	169.61	172.2	-4.7	503.5	480.2	23.24	21.664	
4,500.0	4,473.6	4,473.6	4,473.1	11.7	12.8	170.10	169.4	-3.9	516.0	493.6	22.47	22.962	
4,600.0	4,572.4	4,571.9	4,571.4	12.0	13.0	170.62	166.4	-2.7	528.5	505.5	22.98	22.997	
4,700.0	4,671.3	4,669.4	4,668.8	12.4	13.7	171.15	163.6	-1.0	541.3	517.4	23.95	22.600	
4,800.0	4,770.1	4,766.7	4,766.0	12.7	14.4	171.70	160.9	1.2	554.5	529.5	24.95	22.227	
4,900.0	4,869.0	4,863.8	4,863.1	13.1	15.1	172.27	158.3	3.9	568.0	542.0	25.96	21.882	
5,000.0	4,967.8	4,960.9	4,960.1	13.4	15.8	172.85	155.9	7.1	581.9	554.9	26.99	21.562	
5,100.0	5,066.7	5,059.9	5,059.0	13.8	18.1	173.43	153.5	10.6	596.0	566.5	29.54	20.180	
5,200.0	5,165.6	5,160.5	5,159.5	14.2	21.5	173.96	151.0	13.6	610.0	576.9	33.12	18.416	
5,300.0	5,264.6	5,261.3	5,260.3	14.5	24.9	174.41	148.5	16.1	622.1	585.4	36.72	16.941	
5,400.0	5,364.1	5,362.7	5,361.6	14.7	28.3	174.77	146.0	18.0	630.5	590.2	40.31	15.643	
5,500.0	5,463.9	5,464.4	5,463.3	14.9	31.8	175.03	143.4	19.2	635.2	591.3	43.88	14.478	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Existing Wells Sec.29-T5N-R63W - Siebring 34-29U (Exist.) - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 600-UNKNOWN

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,600.0	5,563.9	5,562.4	5,561.2	15.1	34.4	175.21	141.0	20.0	636.3	589.7	46.58	13.660	
5,700.0	5,663.9	5,658.3	5,657.1	15.2	36.5	25.32	139.2	20.9	635.2	586.3	48.90	12.990	
5,800.0	5,763.8	5,754.1	5,752.9	15.4	38.7	25.69	138.0	22.0	631.7	580.9	50.78	12.439	
5,900.0	5,862.5	5,848.8	5,847.5	15.4	40.8	26.90	137.3	23.3	617.6	565.7	51.87	11.907	
6,000.0	5,958.3	5,940.8	5,939.6	15.4	42.9	29.13	137.2	24.8	592.9	540.6	52.33	11.330	
6,100.0	6,049.6	6,030.4	6,029.2	15.3	43.9	32.66	137.6	26.4	558.4	506.8	51.57	10.829	
6,200.0	6,134.8	6,117.0	6,115.7	15.1	43.0	37.96	138.1	27.7	514.8	465.3	49.54	10.391	
6,300.0	6,212.4	6,196.0	6,194.7	15.0	42.2	45.44	138.4	28.7	464.0	415.1	48.92	9.486	
6,400.0	6,281.2	6,265.9	6,264.7	14.8	41.4	55.38	138.8	29.3	409.2	359.0	50.16	8.158	
6,500.0	6,339.9	6,325.7	6,324.4	14.8	40.8	67.16	139.0	29.7	355.1	302.5	52.52	6.760	
6,600.0	6,387.6	6,374.3	6,373.0	14.8	40.3	78.75	139.2	30.0	309.4	255.1	54.34	5.694	
6,700.0	6,423.4	6,410.8	6,409.5	15.1	39.9	87.61	139.3	30.1	283.3	228.4	54.91	5.159	
6,738.1	6,433.8	6,421.4	6,420.2	15.3	39.8	89.87	139.3	30.1	280.9	225.9	54.99	5.109	
6,800.0	6,446.7	6,434.7	6,433.4	15.7	39.6	92.03	139.4	30.1	287.3	232.2	55.11	5.214	
6,900.0	6,457.1	6,445.6	6,444.3	16.6	39.5	91.31	139.4	30.2	323.1	267.3	55.87	5.783	
7,000.0	6,457.3	6,446.2	6,444.9	17.6	39.5	89.83	139.4	30.2	382.6	325.6	56.94	6.718	
7,100.0	6,456.8	6,446.0	6,444.7	18.8	39.5	89.79	139.4	30.2	456.4	398.3	58.08	7.857	
7,200.0	6,456.3	6,445.8	6,444.5	20.1	39.5	89.75	139.4	30.2	538.7	479.4	59.34	9.078	
7,300.0	6,455.8	6,445.6	6,444.3	21.4	39.5	89.71	139.4	30.2	626.2	565.5	60.70	10.316	
7,400.0	6,455.2	6,445.4	6,444.1	22.9	39.5	89.67	139.4	30.2	717.0	654.8	62.14	11.537	
7,500.0	6,454.7	6,445.2	6,443.9	24.4	39.5	89.63	139.4	30.2	809.9	746.3	63.65	12.724	
7,600.0	6,454.2	6,445.0	6,443.7	25.9	39.5	89.59	139.4	30.2	904.4	839.2	65.21	13.868	
7,700.0	6,453.7	6,444.8	6,443.5	27.5	39.5	89.55	139.4	30.2	999.9	933.1	66.82	14.964	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Existing Wells Sec.29-T5N-R63W - West Hardin 1 (SI) - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 100-UNKNOWN

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,000.0	6,457.3	6,400.0	6,399.4	17.6	93.4	86.80	1,184.1	264.4	939.6	829.1	110.42	8.509	
7,100.0	6,456.8	6,400.0	6,399.4	18.8	93.4	86.80	1,184.1	264.4	857.8	746.2	111.56	7.689	
7,200.0	6,456.3	6,400.0	6,399.4	20.1	93.4	86.80	1,184.1	264.4	780.2	667.4	112.81	6.916	
7,300.0	6,455.8	6,400.0	6,399.4	21.4	93.4	86.80	1,184.1	264.4	708.3	594.1	114.17	6.204	
7,400.0	6,455.2	6,400.0	6,399.4	22.9	93.4	86.80	1,184.1	264.4	643.9	528.3	115.60	5.570	
7,500.0	6,454.7	6,400.0	6,399.4	24.4	93.4	86.80	1,184.1	264.4	589.6	472.5	117.11	5.035	
7,600.0	6,454.2	6,400.0	6,399.4	25.9	93.4	86.80	1,184.1	264.4	548.3	429.6	118.66	4.620	
7,700.0	6,453.7	6,400.0	6,399.4	27.5	93.4	86.80	1,184.1	264.4	523.0	402.7	120.27	4.349	
7,785.2	6,453.2	6,400.0	6,399.4	28.9	93.4	86.80	1,184.1	264.4	516.0	394.4	121.67	4.241	CC
7,800.0	6,453.2	6,400.0	6,399.4	29.2	93.4	86.80	1,184.1	264.4	516.2	394.3	121.91	4.235	ES, SF
7,900.0	6,452.6	6,400.0	6,399.4	30.9	93.4	86.80	1,184.1	264.4	528.6	405.1	123.58	4.278	
8,000.0	6,452.1	6,400.0	6,399.4	32.6	93.4	86.80	1,184.1	264.4	559.0	433.7	125.28	4.462	
8,100.0	6,451.6	6,400.0	6,399.4	34.3	93.4	86.80	1,184.1	264.4	604.5	477.5	127.01	4.759	
8,200.0	6,451.1	6,400.0	6,399.4	36.0	93.4	86.80	1,184.1	264.4	662.1	533.3	128.75	5.142	
8,300.0	6,450.5	6,400.0	6,399.4	37.8	93.4	86.80	1,184.1	264.4	728.9	598.4	130.51	5.585	
8,400.0	6,450.0	6,400.0	6,399.4	39.6	93.4	86.80	1,184.1	264.4	802.7	670.4	132.29	6.068	
8,500.0	6,449.5	6,400.0	6,399.4	41.3	93.4	86.80	1,184.1	264.4	881.6	747.5	134.08	6.576	
8,600.0	6,449.0	6,400.0	6,399.4	43.1	93.4	86.80	1,184.1	264.4	964.5	828.6	135.87	7.098	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Siebring Pad Sec.29-T5N-R63W - Siebring 29PU - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 600-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-41.88	677.6	-607.5	910.1				
100.0	100.0	99.4	99.4	0.1	0.1	-41.88	677.5	-607.5	910.0	909.8	0.23	4,037.735	
200.0	200.0	199.9	199.9	0.3	0.2	-41.90	677.3	-607.7	910.0	909.4	0.56	1,613.161	
300.0	300.0	300.3	300.3	0.6	0.3	-41.94	676.8	-608.1	909.8	908.9	0.90	1,007.813	
400.0	400.0	400.8	400.8	0.8	0.5	-41.98	676.2	-608.5	909.7	908.4	1.24	732.728	
500.0	500.0	501.2	501.2	1.0	0.6	-42.05	675.4	-609.1	909.5	907.9	1.58	575.538	
600.0	600.0	600.0	600.0	1.2	0.7	-42.12	674.4	-609.8	909.2	907.3	1.92	474.278	
635.6	635.6	634.6	634.6	1.3	0.8	-42.15	674.1	-610.0	909.1	907.1	2.07	439.886	
700.0	700.0	694.5	694.5	1.5	0.9	-42.18	673.8	-610.5	909.3	907.0	2.33	389.897	
800.0	800.0	799.7	799.7	1.7	1.1	-42.21	673.6	-611.1	909.6	906.8	2.76	329.300	
808.6	808.6	807.6	807.6	1.7	1.1	-42.22	673.6	-611.2	909.5	906.8	2.80	325.128	
900.0	900.0	891.1	891.0	1.9	1.3	-42.25	673.5	-611.8	909.9	906.8	3.18	286.547	
1,000.0	1,000.0	995.0	995.0	2.1	1.5	-42.30	673.6	-612.9	910.7	907.1	3.61	252.058	
1,100.0	1,100.0	1,097.6	1,097.6	2.4	1.7	-42.33	673.5	-613.4	911.0	906.9	4.05	224.967	
1,200.0	1,200.0	1,200.5	1,200.5	2.6	1.9	-42.39	672.8	-614.2	911.0	906.5	4.50	202.632	
1,300.0	1,300.0	1,305.9	1,305.8	2.8	2.1	-42.47	671.6	-614.8	910.5	905.5	4.94	184.160	
1,400.0	1,400.0	1,406.6	1,406.5	3.0	2.3	-42.52	670.5	-614.8	909.7	904.3	5.38	169.216	
1,500.0	1,500.0	1,500.0	1,499.9	3.3	2.5	-42.56	669.4	-614.7	908.8	903.0	5.80	156.722	
1,600.0	1,600.0	1,603.5	1,603.4	3.5	2.8	-42.60	668.4	-614.7	908.1	901.8	6.24	145.541	
1,700.0	1,700.0	1,699.2	1,699.1	3.7	3.0	-42.63	667.9	-614.8	907.8	901.2	6.66	136.239	
1,702.3	1,702.3	1,701.4	1,701.3	3.7	3.0	-42.63	667.9	-614.8	907.8	901.2	6.67	136.041	
1,800.0	1,800.0	1,794.9	1,794.8	3.9	3.2	-42.65	667.9	-615.2	908.1	901.0	7.09	128.118	
1,900.0	1,900.0	1,890.6	1,890.5	4.1	3.4	107.44	668.3	-615.7	909.1	901.7	7.48	121.469	
2,000.0	1,999.9	1,986.2	1,986.1	4.3	3.6	107.63	669.2	-616.4	911.5	903.6	7.86	115.996	
2,100.0	2,099.7	2,083.1	2,083.0	4.5	3.8	107.98	670.5	-617.3	915.1	906.8	8.24	111.079	
2,200.0	2,199.3	2,180.0	2,179.9	4.7	4.0	108.47	672.2	-618.1	919.8	911.2	8.63	106.611	
2,300.0	2,298.6	2,276.5	2,276.3	4.9	4.2	109.10	674.2	-618.9	925.8	916.8	9.03	102.522	
2,400.0	2,397.5	2,372.5	2,372.3	5.1	4.3	109.88	676.6	-619.7	933.1	923.6	9.45	98.751	
2,500.0	2,496.4	2,468.3	2,468.1	5.4	4.5	110.78	679.4	-620.4	941.1	931.2	9.88	95.226	
2,600.0	2,595.3	2,567.9	2,567.6	5.6	4.8	111.71	682.6	-621.1	949.6	939.2	10.34	91.849	
2,700.0	2,694.1	2,669.6	2,669.3	5.9	5.0	112.63	685.3	-621.9	958.0	947.2	10.81	88.630	
2,800.0	2,793.0	2,771.4	2,771.1	6.2	5.2	113.52	687.7	-622.7	966.3	955.0	11.29	85.608	
2,900.0	2,891.8	2,873.4	2,873.1	6.4	5.4	114.38	689.6	-623.5	974.5	962.7	11.77	82.774	
3,000.0	2,990.7	2,975.5	2,975.2	6.7	5.6	115.21	691.1	-624.4	982.5	970.3	12.26	80.118	
3,100.0	3,089.5	3,078.6	3,078.2	7.0	5.8	116.03	692.1	-625.1	990.4	977.6	12.76	77.606	
3,200.0	3,188.4	3,182.0	3,181.6	7.4	6.1	116.84	692.9	-625.6	998.0	984.7	13.26	75.240	
6,200.0	6,134.8	6,155.8	6,154.0	15.1	12.4	-24.57	623.1	-588.1	978.2	954.4	23.77	41.156	
6,300.0	6,212.4	6,231.5	6,229.7	15.0	12.5	-28.59	622.3	-585.9	917.8	894.8	23.07	39.789	
6,400.0	6,281.2	6,298.6	6,296.7	14.8	12.7	-34.40	621.7	-584.0	849.4	826.7	22.74	37.352	
6,500.0	6,339.9	6,355.7	6,353.8	14.8	12.8	-42.60	621.2	-582.5	774.5	751.3	23.19	33.393	
6,600.0	6,387.6	6,402.0	6,400.1	14.8	12.9	-53.60	620.8	-581.2	695.3	670.6	24.68	28.175	
6,700.0	6,423.4	6,436.7	6,434.8	15.1	13.0	-66.73	620.5	-580.3	614.1	587.3	26.77	22.937	
6,800.0	6,446.7	6,459.1	6,457.1	15.7	13.0	-79.68	620.4	-579.8	534.1	505.6	28.53	18.720	
6,900.0	6,457.1	6,468.7	6,466.8	16.6	13.0	-89.66	620.3	-579.5	459.7	430.1	29.59	15.537	
7,000.0	6,457.3	6,468.2	6,466.3	17.6	13.0	-91.94	620.3	-579.5	396.4	365.8	30.53	12.982	
7,100.0	6,456.8	6,467.0	6,465.1	18.8	13.0	-91.72	620.3	-579.6	350.5	318.9	31.67	11.068	
7,200.0	6,456.3	6,465.8	6,463.9	20.1	13.0	-91.51	620.3	-579.6	329.6	296.7	32.93	10.008	
7,221.2	6,456.2	6,465.6	6,463.6	20.3	13.0	-91.47	620.3	-579.6	328.9	295.7	33.22	9.901	CC, ES
7,300.0	6,455.8	6,464.6	6,462.6	21.4	13.0	-91.30	620.3	-579.6	338.2	303.9	34.29	9.863	SF
7,400.0	6,455.2	6,463.4	6,461.4	22.9	13.0	-91.09	620.3	-579.7	374.4	338.6	35.73	10.477	
7,500.0	6,454.7	6,462.1	6,460.2	24.4	13.0	-90.87	620.3	-579.7	431.2	393.9	37.24	11.579	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Siebring Pad Sec.29-T5N-R63W - Siebring 29PU - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 ft

Survey Program: 600-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,600.0	6,454.2	6,460.9	6,459.0	25.9	13.0	-90.66	620.3	-579.7	501.6	462.9	38.80	12.929	
7,700.0	6,453.7	6,459.7	6,457.7	27.5	13.0	-90.44	620.3	-579.7	580.9	540.5	40.41	14.375	
7,800.0	6,453.2	6,458.4	6,456.5	29.2	13.0	-90.23	620.4	-579.8	665.7	623.6	42.05	15.830	
7,900.0	6,452.6	6,457.2	6,455.2	30.9	13.0	-90.01	620.4	-579.8	754.2	710.5	43.73	17.248	
8,000.0	6,452.1	6,455.9	6,454.0	32.6	13.0	-89.79	620.4	-579.8	845.4	799.9	45.43	18.607	
8,100.0	6,451.6	6,454.7	6,452.7	34.3	13.0	-89.58	620.4	-579.9	938.3	891.1	47.16	19.896	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Siebring Pad Sec.29-T5N-R63W - Siebring 33-29UD - Siebring 33-29UD - Siebring 33-29UD

Offset Site Error: 0.0 ft

Survey Program: 630-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-40.97	699.5	-607.5	926.5				
100.0	100.0	98.5	98.5	0.1	0.1	-40.97	699.5	-607.5	926.5	926.3	0.22	4,150.277	
200.0	200.0	198.0	198.0	0.3	0.2	-40.97	699.6	-607.6	926.6	926.0	0.56	1,655.260	
300.0	300.0	297.5	297.5	0.6	0.3	-40.98	699.6	-607.7	926.7	925.8	0.90	1,033.909	
400.0	400.0	397.0	397.0	0.8	0.4	-40.98	699.7	-607.8	926.9	925.6	1.23	751.830	
500.0	500.0	496.5	496.5	1.0	0.6	-40.98	699.9	-608.0	927.1	925.6	1.57	590.762	
600.0	600.0	596.0	596.0	1.2	0.7	-40.99	700.1	-608.3	927.4	925.5	1.91	486.603	
700.0	700.0	696.0	696.0	1.5	0.8	-40.99	700.3	-608.5	927.7	925.4	2.31	402.390	
800.0	800.0	795.1	795.1	1.7	1.0	-40.99	700.6	-608.7	928.1	925.4	2.73	339.648	
900.0	900.0	895.8	895.8	1.9	1.2	-41.00	700.8	-609.1	928.5	925.4	3.16	293.909	
1,000.0	1,000.0	994.4	994.4	2.1	1.5	-41.00	701.0	-609.5	928.9	925.3	3.59	259.011	
1,100.0	1,100.0	1,091.4	1,091.4	2.4	1.7	-41.00	701.5	-609.8	929.6	925.5	4.02	231.069	
1,200.0	1,200.0	1,181.2	1,181.2	2.6	1.9	-40.93	703.2	-609.8	930.9	926.5	4.44	209.521	
1,300.0	1,300.0	1,275.1	1,275.0	2.8	2.1	-40.69	707.3	-608.2	933.2	928.3	4.87	191.531	
1,400.0	1,400.0	1,363.2	1,362.8	3.0	2.3	-40.31	713.5	-605.4	936.4	931.1	5.30	176.790	
1,500.0	1,500.0	1,454.2	1,453.3	3.3	2.5	-39.79	722.1	-601.3	940.8	935.0	5.74	163.899	
1,600.0	1,600.0	1,545.8	1,544.1	3.5	2.7	-39.11	732.9	-595.8	946.1	939.9	6.20	152.501	
1,700.0	1,700.0	1,632.1	1,629.3	3.7	3.0	-38.34	745.2	-589.3	952.6	945.9	6.68	142.639	
1,800.0	1,800.0	1,711.3	1,707.0	3.9	3.2	-37.51	758.8	-582.4	961.0	953.8	7.16	134.227	
1,900.0	1,900.0	1,797.2	1,790.8	4.1	3.5	113.43	776.1	-574.4	972.1	964.5	7.61	127.667	
2,000.0	1,999.9	1,888.9	1,879.5	4.3	3.9	114.66	796.4	-563.7	985.2	977.1	8.13	121.210	
7,300.0	6,455.8	6,596.8	6,459.9	21.4	22.1	95.23	1,602.6	-142.6	910.0	868.0	41.95	21.693	
7,400.0	6,455.2	6,595.8	6,458.9	22.9	22.1	94.71	1,602.6	-142.6	810.8	767.4	43.41	18.679	
7,500.0	6,454.7	6,594.8	6,457.9	24.4	22.1	94.18	1,602.6	-142.6	711.8	666.9	44.93	15.842	
7,600.0	6,454.2	6,593.8	6,456.9	25.9	22.1	93.65	1,602.6	-142.6	613.1	566.6	46.51	13.184	
7,700.0	6,453.7	6,592.8	6,455.9	27.5	22.1	93.12	1,602.6	-142.6	515.0	466.9	48.13	10.701	
7,800.0	6,453.2	6,591.8	6,454.9	29.2	22.1	92.59	1,602.6	-142.6	417.8	368.0	49.79	8.392	
7,900.0	6,452.6	6,590.8	6,453.9	30.9	22.1	92.06	1,602.6	-142.6	322.3	270.8	51.47	6.260	
8,000.0	6,452.1	6,589.8	6,452.9	32.6	22.1	91.53	1,602.6	-142.6	230.5	177.3	53.19	4.334	
8,100.0	6,451.6	6,588.8	6,451.9	34.3	22.1	91.00	1,602.6	-142.6	149.8	94.9	54.92	2.727	
8,200.0	6,451.1	6,587.8	6,450.9	36.0	22.1	90.47	1,602.6	-142.6	108.3	51.6	56.67	1.911	
8,203.6	6,451.0	6,587.8	6,450.9	36.1	22.1	90.45	1,602.6	-142.6	108.2	51.5	56.73	1.907	CC, ES, SF
8,300.0	6,450.5	6,586.8	6,449.9	37.8	22.1	89.94	1,602.6	-142.6	144.9	86.5	58.43	2.481	
8,400.0	6,450.0	6,585.8	6,448.9	39.6	22.1	89.41	1,602.6	-142.6	224.3	164.1	60.20	3.725	
8,500.0	6,449.5	6,584.8	6,447.9	41.3	22.1	88.88	1,602.6	-142.6	315.6	253.6	61.98	5.091	
8,600.0	6,449.0	6,583.8	6,446.9	43.1	22.1	88.35	1,602.6	-142.5	410.9	347.2	63.77	6.444	
8,700.0	6,448.4	6,582.8	6,445.9	45.0	22.1	87.82	1,602.6	-142.5	508.1	442.5	65.56	7.750	
8,800.0	6,447.9	6,581.8	6,444.9	46.8	22.1	87.29	1,602.6	-142.5	606.2	538.8	67.36	8.999	
8,900.0	6,447.4	6,580.8	6,443.9	48.6	22.1	86.76	1,602.6	-142.5	704.8	635.6	69.15	10.192	
9,000.0	6,446.9	6,579.8	6,442.9	50.4	22.1	86.23	1,602.6	-142.5	803.7	732.8	70.95	11.328	
9,100.0	6,446.3	6,578.8	6,441.9	52.3	22.1	85.71	1,602.6	-142.5	902.9	830.2	72.75	12.412	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W - Trimar Farms 29Q-221 - Wellbore #1 - Plan #2 (2-2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-29.1	0.0	29.1				
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-29.1	0.0	29.1	28.9	0.22	129.667	
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-29.1	0.0	29.1	28.5	0.67	43.222	
300.0	300.0	300.0	300.0	0.6	0.6	180.00	-29.1	0.0	29.1	28.0	1.12	25.933	
400.0	400.0	400.0	400.0	0.8	0.8	180.00	-29.1	0.0	29.1	27.6	1.57	18.524	
500.0	500.0	500.0	500.0	1.0	1.0	180.00	-29.1	0.0	29.1	27.1	2.02	14.407	
600.0	600.0	600.0	600.0	1.2	1.2	180.00	-29.1	0.0	29.1	26.7	2.47	11.788	
700.0	700.0	700.0	700.0	1.5	1.5	180.00	-29.1	0.0	29.1	26.2	2.92	9.974	
800.0	800.0	800.0	800.0	1.7	1.7	180.00	-29.1	0.0	29.1	25.8	3.37	8.644	
900.0	900.0	900.0	900.0	1.9	1.9	180.00	-29.1	0.0	29.1	25.3	3.82	7.627	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	180.00	-29.1	0.0	29.1	24.9	4.27	6.825	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	180.00	-29.1	0.0	29.1	24.4	4.72	6.175	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	180.00	-29.1	0.0	29.1	24.0	5.17	5.638	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	180.00	-29.1	0.0	29.1	23.5	5.62	5.187	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	180.00	-29.1	0.0	29.1	23.1	6.07	4.802	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	180.00	-29.1	0.0	29.1	22.6	6.52	4.471	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	180.00	-29.1	0.0	29.1	22.2	6.97	4.183	CC
1,700.0	1,700.0	1,699.4	1,699.4	3.7	3.7	-178.32	-30.1	-0.9	30.1	22.7	7.39	4.073	
1,800.0	1,800.0	1,798.7	1,798.6	3.9	3.9	-173.88	-32.9	-3.5	33.1	25.3	7.80	4.251	
1,900.0	1,900.0	1,897.8	1,897.5	4.1	4.0	-18.66	-37.6	-7.9	37.3	29.1	8.18	4.560	
2,000.0	1,999.9	1,996.8	1,996.1	4.3	4.2	-13.81	-44.2	-14.1	41.4	32.9	8.53	4.856	
2,100.0	2,099.7	2,095.6	2,094.2	4.5	4.5	-9.16	-52.6	-21.9	45.7	36.8	8.90	5.132	
2,200.0	2,199.3	2,194.3	2,191.9	4.7	4.7	-4.69	-62.8	-31.5	50.0	40.7	9.26	5.396	
2,300.0	2,298.6	2,293.7	2,290.0	4.9	4.9	-0.45	-74.6	-42.5	53.9	44.2	9.63	5.596	
2,400.0	2,397.5	2,393.6	2,388.6	5.1	5.2	3.39	-86.5	-53.7	55.6	45.6	10.00	5.560	
2,500.0	2,496.4	2,493.6	2,487.2	5.4	5.5	7.07	-98.4	-64.8	56.8	46.4	10.41	5.456	
2,600.0	2,595.3	2,593.5	2,585.8	5.6	5.8	10.59	-110.3	-76.0	58.2	47.4	10.83	5.376	
2,700.0	2,694.1	2,693.4	2,684.3	5.9	6.1	13.93	-122.3	-87.1	59.8	48.6	11.26	5.315	
2,800.0	2,793.0	2,793.3	2,782.9	6.2	6.4	17.09	-134.2	-98.3	61.7	49.9	11.70	5.268	
2,900.0	2,891.8	2,893.3	2,881.5	6.4	6.8	20.05	-146.1	-109.4	63.6	51.5	12.16	5.232	
3,000.0	2,990.7	2,993.2	2,980.1	6.7	7.1	22.83	-158.0	-120.6	65.8	53.2	12.64	5.203	
3,100.0	3,089.5	3,093.1	3,078.7	7.0	7.4	25.43	-169.9	-131.7	68.1	54.9	13.14	5.181	
3,200.0	3,188.4	3,193.1	3,177.3	7.4	7.8	27.85	-181.8	-142.9	70.5	56.9	13.66	5.163	
3,300.0	3,287.3	3,293.0	3,275.9	7.7	8.1	30.11	-193.8	-154.0	73.1	58.9	14.19	5.148	
3,400.0	3,386.1	3,392.9	3,374.4	8.0	8.5	32.22	-205.7	-165.2	75.7	61.0	14.74	5.136	
3,500.0	3,485.0	3,492.8	3,473.0	8.3	8.8	34.18	-217.6	-176.3	78.5	63.1	15.31	5.125	
3,600.0	3,583.8	3,592.8	3,571.6	8.6	9.2	36.00	-229.5	-187.5	81.3	65.4	15.89	5.115	
3,700.0	3,682.7	3,692.7	3,670.2	9.0	9.6	37.70	-241.4	-198.6	84.2	67.7	16.49	5.107	
3,800.0	3,781.6	3,792.6	3,768.8	9.3	9.9	39.29	-253.3	-209.8	87.2	70.1	17.10	5.099	
3,900.0	3,880.4	3,892.6	3,867.4	9.6	10.3	40.77	-265.3	-220.9	90.2	72.5	17.72	5.092	
4,000.0	3,979.3	3,992.5	3,966.0	10.0	10.6	42.15	-277.2	-232.1	93.3	75.0	18.35	5.086	
4,100.0	4,078.1	4,092.4	4,064.6	10.3	11.0	43.44	-289.1	-243.2	96.5	77.5	18.99	5.080	
4,200.0	4,177.0	4,192.3	4,163.1	10.7	11.4	44.66	-301.0	-254.3	99.6	80.0	19.63	5.075	
4,300.0	4,275.8	4,292.3	4,261.7	11.0	11.8	45.79	-312.9	-265.5	102.9	82.6	20.29	5.070	
4,400.0	4,374.7	4,392.2	4,360.3	11.3	12.1	46.86	-324.8	-276.6	106.2	85.2	20.95	5.066	
4,500.0	4,473.6	4,492.1	4,458.9	11.7	12.5	47.86	-336.8	-287.8	109.5	87.8	21.62	5.063	
4,600.0	4,572.4	4,592.0	4,557.5	12.0	12.9	48.80	-348.7	-298.9	112.8	90.5	22.30	5.059	
4,700.0	4,671.3	4,692.0	4,656.1	12.4	13.2	49.69	-360.6	-310.1	116.2	93.2	22.97	5.056	
4,800.0	4,770.1	4,791.9	4,754.7	12.7	13.6	50.53	-372.5	-321.2	119.6	95.9	23.66	5.053	
4,900.0	4,869.0	4,891.8	4,853.2	13.1	14.0	51.32	-384.4	-332.4	123.0	98.6	24.35	5.051	
5,000.0	4,967.8	4,991.8	4,951.8	13.4	14.4	52.07	-396.3	-343.5	126.4	101.4	25.04	5.049	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W - Trimar Farms 29Q-221 - Wellbore #1 - Plan #2 (2-2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,066.7	5,092.3	5,051.1	13.8	14.7	52.80	-408.3	-354.7	129.8	104.1	25.73	5.046	
5,200.0	5,165.6	5,195.9	5,153.6	14.2	15.0	54.22	-418.8	-364.5	131.4	105.0	26.44	4.971	
5,300.0	5,264.6	5,299.3	5,256.5	14.5	15.3	56.09	-426.6	-371.8	131.4	104.3	27.14	4.841	
5,400.0	5,364.1	5,402.7	5,359.6	14.7	15.5	57.77	-431.6	-376.5	130.8	103.0	27.74	4.715	
5,500.0	5,463.9	5,505.9	5,462.8	14.9	15.6	59.26	-434.0	-378.7	129.6	101.3	28.26	4.584	
5,600.0	5,563.9	5,607.0	5,563.9	15.1	15.8	60.33	-434.1	-378.9	128.2	99.5	28.71	4.466	
5,657.0	5,620.9	5,664.0	5,620.9	15.2	15.9	60.53	-434.1	-378.9	128.0	99.0	28.91	4.426	
5,700.0	5,663.9	5,706.9	5,663.7	15.2	15.9	-89.03	-432.8	-378.9	128.1	99.0	29.09	4.404	
5,800.0	5,763.8	5,805.6	5,761.7	15.4	16.0	-84.98	-420.7	-378.9	128.6	98.9	29.68	4.333	
5,900.0	5,862.5	5,903.1	5,856.0	15.4	16.0	-80.84	-396.4	-378.9	129.8	99.7	30.04	4.320	
6,000.0	5,958.3	6,000.0	5,946.0	15.4	15.9	-76.93	-360.6	-378.9	131.5	101.4	30.11	4.368	
6,100.0	6,049.6	6,094.9	6,029.0	15.3	15.8	-73.39	-314.7	-378.9	133.7	103.8	29.91	4.471	
6,200.0	6,134.8	6,189.4	6,105.3	15.1	15.7	-70.22	-259.2	-378.9	136.2	106.7	29.50	4.617	
6,300.0	6,212.4	6,283.0	6,173.7	15.0	15.5	-67.47	-195.3	-378.9	138.7	109.8	28.96	4.790	
6,400.0	6,281.2	6,376.0	6,233.3	14.8	15.4	-65.13	-124.1	-378.9	141.2	112.8	28.43	4.967	
6,500.0	6,339.9	6,468.3	6,283.6	14.8	15.3	-63.23	-46.7	-378.9	143.5	115.5	28.06	5.114	
6,600.0	6,387.6	6,560.2	6,324.0	14.8	15.1	-61.74	35.7	-378.9	145.5	117.5	28.00	5.195	
6,700.0	6,423.4	6,650.0	6,353.6	15.1	15.1	-60.67	120.5	-378.9	147.0	118.6	28.38	5.179	
6,800.0	6,446.7	6,742.9	6,373.6	15.7	15.9	-59.98	211.2	-378.9	148.0	118.7	29.30	5.050	
6,900.0	6,457.1	6,834.0	6,382.3	16.6	16.8	-59.70	301.8	-378.9	148.4	117.6	30.74	4.826	
7,000.0	6,457.3	6,931.2	6,382.7	17.6	17.8	-59.79	399.0	-378.9	148.2	115.6	32.61	4.546	
7,100.0	6,456.8	7,031.2	6,382.6	18.8	19.0	-59.92	499.0	-378.9	148.0	113.3	34.70	4.266	
7,200.0	6,456.3	7,131.2	6,382.5	20.1	20.3	-60.06	599.0	-378.9	147.8	110.9	37.00	3.996	
7,300.0	6,455.8	7,231.2	6,382.4	21.4	21.7	-60.19	699.0	-378.9	147.6	108.2	39.46	3.742	
7,400.0	6,455.2	7,331.2	6,382.3	22.9	23.2	-60.33	799.0	-378.9	147.5	105.4	42.06	3.505	
7,500.0	6,454.7	7,431.2	6,382.1	24.4	24.7	-60.47	899.0	-378.9	147.3	102.5	44.79	3.288	
7,600.0	6,454.2	7,531.2	6,382.0	25.9	26.2	-60.60	999.0	-378.9	147.1	99.4	47.61	3.089	
7,700.0	6,453.7	7,631.2	6,381.9	27.5	27.9	-60.74	1,099.0	-378.9	146.9	96.3	50.52	2.907	
7,800.0	6,453.2	7,731.2	6,381.8	29.2	29.5	-60.88	1,199.0	-378.9	146.7	93.2	53.50	2.741	
7,900.0	6,452.6	7,831.2	6,381.6	30.9	31.2	-61.01	1,299.0	-378.9	146.5	89.9	56.54	2.590	
8,000.0	6,452.1	7,931.2	6,381.5	32.6	32.9	-61.15	1,399.0	-378.9	146.3	86.6	59.64	2.453	
8,100.0	6,451.6	8,031.2	6,381.4	34.3	34.6	-61.29	1,499.0	-378.9	146.1	83.3	62.78	2.327	
8,200.0	6,451.1	8,131.2	6,381.3	36.0	36.3	-61.43	1,599.0	-378.9	145.9	79.9	65.97	2.212	
8,300.0	6,450.5	8,231.2	6,381.2	37.8	38.1	-61.57	1,699.0	-378.9	145.7	76.5	69.19	2.106	
8,400.0	6,450.0	8,331.2	6,381.0	39.6	39.9	-61.71	1,799.0	-378.9	145.5	73.1	72.44	2.009	
8,500.0	6,449.5	8,431.2	6,380.9	41.3	41.6	-61.84	1,899.0	-378.9	145.3	69.6	75.73	1.919	
8,600.0	6,449.0	8,531.2	6,380.8	43.1	43.4	-61.98	1,999.0	-378.9	145.1	66.1	79.04	1.836	
8,700.0	6,448.4	8,631.2	6,380.7	45.0	45.3	-62.13	2,099.0	-378.9	145.0	62.6	82.38	1.760	
8,800.0	6,447.9	8,731.2	6,380.5	46.8	47.1	-62.27	2,199.0	-378.9	144.8	59.0	85.74	1.689	
8,900.0	6,447.4	8,831.2	6,380.4	48.6	48.9	-62.41	2,299.0	-378.9	144.6	55.5	89.12	1.622	
9,000.0	6,446.9	8,931.2	6,380.3	50.4	50.7	-62.55	2,399.0	-378.9	144.4	51.9	92.52	1.561	
9,100.0	6,446.3	9,031.2	6,380.2	52.3	52.6	-62.69	2,499.0	-378.9	144.2	48.3	95.93	1.503	
9,200.0	6,445.8	9,131.2	6,380.1	54.1	54.4	-62.83	2,599.0	-378.9	144.0	44.7	99.37	1.449	Level 3
9,300.0	6,445.3	9,231.2	6,379.9	56.0	56.2	-62.97	2,699.0	-378.9	143.9	41.0	102.82	1.399	Level 3
9,400.0	6,444.8	9,331.2	6,379.8	57.8	58.1	-63.12	2,799.0	-378.9	143.7	37.4	106.29	1.352	Level 3
9,500.0	6,444.3	9,431.2	6,379.7	59.7	60.0	-63.26	2,898.9	-378.9	143.5	33.7	109.77	1.307	Level 3
9,600.0	6,443.7	9,531.2	6,379.6	61.5	61.8	-63.40	2,998.9	-378.9	143.3	30.1	113.26	1.265	Level 3
9,700.0	6,443.2	9,631.2	6,379.4	63.4	63.7	-63.55	3,098.9	-378.9	143.1	26.4	116.77	1.226	Level 2
9,800.0	6,442.7	9,731.2	6,379.3	65.3	65.5	-63.69	3,198.9	-378.9	143.0	22.7	120.29	1.188	Level 2
9,900.0	6,442.2	9,831.2	6,379.2	67.1	67.4	-63.84	3,298.9	-378.9	142.8	19.0	123.82	1.153	Level 2

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W - Trimar Farms 29Q-221 - Wellbore #1 - Plan #2 (2-2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,000.0	6,441.6	9,931.2	6,379.1	69.0	69.3	-63.98	3,398.9	-378.9	142.6	15.2	127.36	1.120	Level 2
10,100.0	6,441.1	10,031.2	6,379.0	70.9	71.2	-64.13	3,498.9	-378.9	142.4	11.5	130.92	1.088	Level 2
10,200.0	6,440.6	10,131.2	6,378.8	72.8	73.0	-64.27	3,598.9	-378.9	142.3	7.8	134.48	1.058	Level 2
10,300.0	6,440.1	10,231.2	6,378.7	74.6	74.9	-64.42	3,698.9	-378.9	142.1	4.0	138.06	1.029	Level 2
10,400.0	6,439.5	10,331.2	6,378.6	76.5	76.8	-64.57	3,798.9	-378.9	141.9	0.3	141.64	1.002	Level 2
10,500.0	6,439.0	10,431.2	6,378.5	78.4	78.7	-64.71	3,898.9	-378.9	141.7	-3.5	145.24	0.976	Level 1
10,600.0	6,438.5	10,531.2	6,378.3	80.3	80.6	-64.86	3,998.9	-378.9	141.6	-7.3	148.84	0.951	Level 1
10,700.0	6,438.0	10,631.2	6,378.2	82.2	82.5	-65.01	4,098.9	-378.9	141.4	-11.1	152.46	0.927	Level 1
10,800.0	6,437.4	10,731.2	6,378.1	84.1	84.3	-65.16	4,198.9	-378.9	141.2	-14.8	156.08	0.905	Level 1
10,885.3	6,437.0	10,816.5	6,378.0	85.7	85.9	-65.28	4,284.2	-378.9	141.1	-18.0	159.12	0.887	Level 1, ES, SF

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W - Trimar Farms 29T-241 - Wellbore #1 - Plan #2 (2-2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-58.3	0.0	58.3				
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-58.3	0.0	58.3	58.1	0.22	259.316	
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-58.3	0.0	58.3	57.6	0.67	86.439	
300.0	300.0	300.0	300.0	0.6	0.6	180.00	-58.3	0.0	58.3	57.2	1.12	51.863	
400.0	400.0	400.0	400.0	0.8	0.8	180.00	-58.3	0.0	58.3	56.7	1.57	37.045	
500.0	500.0	500.0	500.0	1.0	1.0	180.00	-58.3	0.0	58.3	56.3	2.02	28.813	
600.0	600.0	600.0	600.0	1.2	1.2	180.00	-58.3	0.0	58.3	55.8	2.47	23.574	
700.0	700.0	700.0	700.0	1.5	1.5	180.00	-58.3	0.0	58.3	55.4	2.92	19.947	
800.0	800.0	800.0	800.0	1.7	1.7	180.00	-58.3	0.0	58.3	54.9	3.37	17.288	
900.0	900.0	900.0	900.0	1.9	1.9	180.00	-58.3	0.0	58.3	54.5	3.82	15.254	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	180.00	-58.3	0.0	58.3	54.0	4.27	13.648	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	180.00	-58.3	0.0	58.3	53.6	4.72	12.348	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	180.00	-58.3	0.0	58.3	53.1	5.17	11.275	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	180.00	-58.3	0.0	58.3	52.7	5.62	10.373	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	180.00	-58.3	0.0	58.3	52.2	6.07	9.604	CC, ES
1,500.0	1,500.0	1,499.2	1,499.2	3.3	3.2	179.48	-59.0	0.5	59.0	52.5	6.49	9.084	
1,600.0	1,600.0	1,598.3	1,598.3	3.5	3.4	177.99	-61.0	2.1	61.0	54.1	6.89	8.853	
1,700.0	1,700.0	1,697.4	1,697.2	3.7	3.6	175.72	-64.3	4.8	64.6	57.3	7.30	8.842	
1,800.0	1,800.0	1,796.2	1,795.9	3.9	3.8	172.94	-69.0	8.5	69.6	61.9	7.71	9.028	
1,900.0	1,900.0	1,894.9	1,894.2	4.1	4.0	-40.62	-75.0	13.3	75.4	67.3	8.11	9.297	
2,000.0	1,999.9	1,993.2	1,992.2	4.3	4.2	-45.45	-82.3	19.2	81.1	72.6	8.47	9.568	
2,100.0	2,099.7	2,091.3	2,089.6	4.5	4.4	-51.22	-90.8	26.0	87.3	78.4	8.85	9.862	
2,200.0	2,199.3	2,190.2	2,187.8	4.7	4.7	-57.67	-100.4	33.7	94.1	84.8	9.24	10.181	
2,300.0	2,298.6	2,289.3	2,286.0	4.9	4.9	-64.51	-110.0	41.3	100.8	91.2	9.64	10.452	
2,400.0	2,397.5	2,388.1	2,384.1	5.1	5.2	-71.67	-119.7	49.0	108.0	97.9	10.08	10.718	
2,500.0	2,496.4	2,486.9	2,482.1	5.4	5.4	-78.31	-129.3	56.7	116.6	106.1	10.54	11.060	
2,600.0	2,595.3	2,585.7	2,580.1	5.6	5.7	-83.98	-138.9	64.4	126.5	115.5	11.03	11.473	
2,700.0	2,694.1	2,684.4	2,678.1	5.9	6.0	-88.80	-148.5	72.0	137.5	126.0	11.53	11.922	
2,800.0	2,793.0	2,783.2	2,776.2	6.2	6.3	-92.89	-158.1	79.7	149.3	137.3	12.06	12.385	
2,900.0	2,891.8	2,882.0	2,874.2	6.4	6.6	-96.37	-167.7	87.4	161.8	149.2	12.59	12.847	
3,000.0	2,990.7	2,980.8	2,972.2	6.7	6.9	-99.35	-177.3	95.1	174.7	161.6	13.14	13.299	
3,100.0	3,089.5	3,079.5	3,070.2	7.0	7.2	-101.92	-186.9	102.7	188.1	174.4	13.70	13.734	
3,200.0	3,188.4	3,178.3	3,168.2	7.4	7.5	-104.14	-196.5	110.4	201.8	187.5	14.26	14.151	
3,300.0	3,287.3	3,277.1	3,266.2	7.7	7.8	-106.08	-206.1	118.1	215.7	200.9	14.83	14.546	
3,400.0	3,386.1	3,375.8	3,364.2	8.0	8.1	-107.78	-215.7	125.8	229.9	214.5	15.41	14.921	
3,500.0	3,485.0	3,474.6	3,462.2	8.3	8.4	-109.28	-225.3	133.4	244.2	228.3	15.99	15.275	
3,600.0	3,583.8	3,573.4	3,560.2	8.6	8.7	-110.62	-234.9	141.1	258.7	242.2	16.58	15.609	
3,700.0	3,682.7	3,672.2	3,658.2	9.0	9.0	-111.82	-244.5	148.8	273.3	256.2	17.17	15.924	
3,800.0	3,781.6	3,770.9	3,756.2	9.3	9.3	-112.89	-254.1	156.5	288.1	270.3	17.76	16.222	
3,900.0	3,880.4	3,869.7	3,854.2	9.6	9.6	-113.86	-263.7	164.1	302.9	284.5	18.35	16.502	
4,000.0	3,979.3	3,968.5	3,952.2	10.0	9.9	-114.74	-273.3	171.8	317.8	298.8	18.95	16.766	
4,100.0	4,078.1	4,067.3	4,050.2	10.3	10.2	-115.54	-282.9	179.5	332.7	313.2	19.55	17.016	
4,200.0	4,177.0	4,166.0	4,148.2	10.7	10.5	-116.27	-292.6	187.1	347.7	327.6	20.16	17.251	
4,300.0	4,275.8	4,264.8	4,246.2	11.0	10.8	-116.94	-302.2	194.8	362.8	342.0	20.76	17.474	
4,400.0	4,374.7	4,363.6	4,344.2	11.3	11.2	-117.56	-311.8	202.5	377.9	356.5	21.37	17.685	
4,500.0	4,473.6	4,462.4	4,442.3	11.7	11.5	-118.13	-321.4	210.2	393.0	371.0	21.98	17.885	
4,600.0	4,572.4	4,561.1	4,540.3	12.0	11.8	-118.66	-331.0	217.8	408.2	385.6	22.58	18.075	
4,700.0	4,671.3	4,659.9	4,638.3	12.4	12.1	-119.15	-340.6	225.5	423.4	400.2	23.20	18.254	
4,800.0	4,770.1	4,758.7	4,736.3	12.7	12.4	-119.60	-350.2	233.2	438.7	414.8	23.81	18.425	
4,900.0	4,869.0	4,857.5	4,834.3	13.1	12.7	-120.03	-359.8	240.9	453.9	429.5	24.42	18.588	
5,000.0	4,967.8	4,956.2	4,932.3	13.4	13.1	-120.43	-369.4	248.5	469.2	444.2	25.03	18.742	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W - Trimar Farms 29T-241 - Wellbore #1 - Plan #2 (2-2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,066.7	5,055.0	5,030.3	13.8	13.4	-120.80	-379.0	256.2	484.5	458.9	25.65	18.890	
5,200.0	5,165.6	5,153.8	5,128.3	14.2	13.7	-121.15	-388.6	263.9	499.8	473.6	26.27	19.030	
5,300.0	5,264.6	5,252.7	5,226.4	14.5	14.0	-121.56	-398.2	271.6	514.3	487.5	26.87	19.144	
5,400.0	5,364.1	5,351.9	5,324.9	14.7	14.3	-121.62	-407.9	279.3	527.0	499.6	27.41	19.229	
5,500.0	5,463.9	5,451.2	5,423.4	14.9	14.7	-121.33	-417.5	287.0	537.9	510.0	27.92	19.267	
5,600.0	5,563.9	5,550.5	5,521.9	15.1	15.0	-120.72	-427.2	294.7	547.1	518.7	28.40	19.264	
5,700.0	5,663.9	5,649.7	5,620.6	15.2	15.2	89.82	-433.3	302.4	554.9	526.1	28.80	19.269	
5,800.0	5,763.8	5,748.9	5,719.2	15.4	15.4	89.09	-427.0	310.2	562.7	533.7	29.06	19.363	
5,900.0	5,862.5	5,847.7	5,815.8	15.4	15.5	88.16	-408.0	317.7	570.5	541.3	29.15	19.571	
6,000.0	5,958.3	5,946.0	5,908.7	15.4	15.5	87.28	-376.8	325.0	578.0	548.9	29.09	19.873	
6,100.0	6,049.6	6,044.0	5,996.6	15.3	15.4	86.45	-334.2	331.9	585.2	556.3	28.92	20.233	
6,200.0	6,134.8	6,141.7	6,078.0	15.1	15.3	85.70	-280.8	338.3	592.0	563.2	28.73	20.603	
6,300.0	6,212.4	6,239.0	6,151.8	15.0	15.2	85.03	-217.6	344.0	598.1	569.5	28.60	20.914	
6,400.0	6,281.2	6,336.2	6,216.8	14.8	15.1	84.45	-145.7	349.1	603.5	574.9	28.62	21.089	
6,500.0	6,339.9	6,433.1	6,272.1	14.8	15.1	83.96	-66.3	353.5	608.2	579.3	28.89	21.055	
6,600.0	6,387.6	6,529.9	6,316.9	14.8	15.0	83.58	19.4	357.0	612.0	582.5	29.48	20.759	
6,700.0	6,423.4	6,626.7	6,350.5	15.1	15.5	83.29	110.0	359.6	614.8	584.4	30.45	20.190	
6,800.0	6,446.7	6,723.3	6,372.5	15.7	16.3	83.12	204.0	361.4	616.7	584.9	31.81	19.388	
6,900.0	6,457.1	6,819.9	6,382.4	16.6	17.3	83.05	300.1	362.2	617.5	584.0	33.52	18.422	
7,000.0	6,457.3	6,918.8	6,382.9	17.6	18.4	83.08	399.0	362.2	617.5	581.9	35.56	17.367	
7,100.0	6,456.8	7,018.8	6,382.8	18.8	19.6	83.11	499.0	362.2	617.5	579.6	37.86	16.309	
7,200.0	6,456.3	7,118.8	6,382.7	20.1	20.9	83.15	599.0	362.2	617.4	577.0	40.40	15.284	
7,300.0	6,455.8	7,218.8	6,382.5	21.4	22.3	83.19	699.0	362.2	617.4	574.2	43.12	14.317	
7,400.0	6,455.2	7,318.8	6,382.4	22.9	23.8	83.22	799.0	362.2	617.3	571.3	46.00	13.419	
7,500.0	6,454.7	7,418.8	6,382.3	24.4	25.3	83.26	899.0	362.2	617.3	568.2	49.01	12.594	
7,600.0	6,454.2	7,518.8	6,382.2	25.9	26.9	83.30	999.0	362.2	617.2	565.1	52.13	11.840	
7,700.0	6,453.7	7,618.8	6,382.0	27.5	28.5	83.33	1,099.0	362.2	617.2	561.8	55.34	11.153	
7,800.0	6,453.2	7,718.8	6,381.9	29.2	30.1	83.37	1,199.0	362.2	617.1	558.5	58.62	10.528	
7,900.0	6,452.6	7,818.8	6,381.8	30.9	31.8	83.41	1,299.0	362.2	617.1	555.1	61.96	9.959	
8,000.0	6,452.1	7,918.8	6,381.7	32.6	33.5	83.44	1,399.0	362.2	617.0	551.7	65.36	9.441	
8,100.0	6,451.6	8,018.8	6,381.5	34.3	35.2	83.48	1,499.0	362.2	617.0	548.2	68.80	8.968	
8,200.0	6,451.1	8,118.8	6,381.4	36.0	37.0	83.52	1,599.0	362.2	616.9	544.7	72.28	8.536	
8,300.0	6,450.5	8,218.8	6,381.3	37.8	38.7	83.55	1,699.0	362.2	616.9	541.1	75.79	8.139	
8,400.0	6,450.0	8,318.8	6,381.1	39.6	40.5	83.59	1,799.0	362.2	616.8	537.5	79.33	7.775	
8,500.0	6,449.5	8,418.8	6,381.0	41.3	42.3	83.63	1,899.0	362.2	616.8	533.9	82.90	7.440	
8,600.0	6,449.0	8,518.8	6,380.9	43.1	44.1	83.66	1,999.0	362.2	616.8	530.3	86.49	7.131	
8,700.0	6,448.4	8,618.8	6,380.8	45.0	45.9	83.70	2,099.0	362.2	616.7	526.6	90.10	6.845	
8,800.0	6,447.9	8,718.8	6,380.6	46.8	47.7	83.74	2,199.0	362.2	616.7	522.9	93.73	6.579	
8,900.0	6,447.4	8,818.8	6,380.5	48.6	49.5	83.77	2,299.0	362.2	616.6	519.2	97.37	6.333	
9,000.0	6,446.9	8,918.8	6,380.4	50.4	51.4	83.81	2,399.0	362.2	616.6	515.5	101.03	6.103	
9,100.0	6,446.3	9,018.8	6,380.3	52.3	53.2	83.85	2,499.0	362.2	616.5	511.8	104.70	5.889	
9,200.0	6,445.8	9,118.8	6,380.1	54.1	55.0	83.88	2,598.9	362.2	616.5	508.1	108.38	5.688	
9,300.0	6,445.3	9,218.8	6,380.0	56.0	56.9	83.92	2,698.9	362.2	616.4	504.4	112.07	5.500	
9,400.0	6,444.8	9,318.8	6,379.9	57.8	58.7	83.96	2,798.9	362.2	616.4	500.6	115.77	5.324	
9,500.0	6,444.3	9,418.8	6,379.8	59.7	60.6	83.99	2,898.9	362.2	616.4	496.9	119.48	5.159	
9,600.0	6,443.7	9,518.8	6,379.6	61.5	62.4	84.03	2,998.9	362.2	616.3	493.1	123.20	5.003	
9,700.0	6,443.2	9,618.8	6,379.5	63.4	64.3	84.07	3,098.9	362.2	616.3	489.4	126.92	4.856	
9,800.0	6,442.7	9,718.8	6,379.4	65.3	66.2	84.10	3,198.9	362.2	616.2	485.6	130.65	4.717	
9,900.0	6,442.2	9,818.8	6,379.2	67.1	68.0	84.14	3,298.9	362.2	616.2	481.8	134.39	4.585	
10,000.0	6,441.6	9,918.8	6,379.1	69.0	69.9	84.18	3,398.9	362.2	616.2	478.0	138.13	4.461	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W - Trimar Farms 29T-241 - Wellbore #1 - Plan #2 (2-2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,100.0	6,441.1	10,018.8	6,379.0	70.9	71.8	84.21	3,498.9	362.2	616.1	474.2	141.88	4.343	
10,200.0	6,440.6	10,118.8	6,378.9	72.8	73.7	84.25	3,598.9	362.2	616.1	470.4	145.63	4.230	
10,300.0	6,440.1	10,218.8	6,378.7	74.6	75.5	84.29	3,698.9	362.2	616.0	466.6	149.38	4.124	
10,400.0	6,439.5	10,318.8	6,378.6	76.5	77.4	84.32	3,798.9	362.2	616.0	462.8	153.15	4.022	
10,500.0	6,439.0	10,418.8	6,378.5	78.4	79.3	84.36	3,898.9	362.2	615.9	459.0	156.91	3.926	
10,600.0	6,438.5	10,518.8	6,378.4	80.3	81.2	84.40	3,998.9	362.2	615.9	455.2	160.68	3.833	
10,700.0	6,438.0	10,618.8	6,378.2	82.2	83.1	84.43	4,098.9	362.2	615.9	451.4	164.45	3.745	
10,800.0	6,437.4	10,718.8	6,378.1	84.1	84.9	84.47	4,198.9	362.2	615.8	447.7	168.15	3.662	
10,885.3	6,437.0	10,804.1	6,378.0	85.7	86.2	84.50	4,284.2	362.2	615.8	444.7	171.06	3.600	SF

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W - Trimar Farms 29T-301 - Wellbore #1 - Plan #2 (2-2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-87.4	0.0	87.4				
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-87.4	0.0	87.4	87.2	0.22	388.983	
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-87.4	0.0	87.4	86.8	0.67	129.661	
300.0	300.0	300.0	300.0	0.6	0.6	180.00	-87.4	0.0	87.4	86.3	1.12	77.797	
400.0	400.0	400.0	400.0	0.8	0.8	180.00	-87.4	0.0	87.4	85.9	1.57	55.569	
500.0	500.0	500.0	500.0	1.0	1.0	180.00	-87.4	0.0	87.4	85.4	2.02	43.220	
600.0	600.0	600.0	600.0	1.2	1.2	180.00	-87.4	0.0	87.4	85.0	2.47	35.362	
700.0	700.0	700.0	700.0	1.5	1.5	180.00	-87.4	0.0	87.4	84.5	2.92	29.922	
800.0	800.0	800.0	800.0	1.7	1.7	180.00	-87.4	0.0	87.4	84.1	3.37	25.932	
900.0	900.0	900.0	900.0	1.9	1.9	180.00	-87.4	0.0	87.4	83.6	3.82	22.881	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	180.00	-87.4	0.0	87.4	83.2	4.27	20.473	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	180.00	-87.4	0.0	87.4	82.7	4.72	18.523	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	180.00	-87.4	0.0	87.4	82.3	5.17	16.912	CC, ES
1,300.0	1,300.0	1,299.1	1,299.1	2.8	2.8	179.54	-87.9	0.7	87.9	82.3	5.60	15.712	
1,400.0	1,400.0	1,398.2	1,398.2	3.0	3.0	178.18	-89.3	2.8	89.4	83.4	6.00	14.890	
1,500.0	1,500.0	1,497.2	1,497.1	3.3	3.2	176.02	-91.7	6.4	92.0	85.6	6.42	14.332	
1,600.0	1,600.0	1,596.0	1,595.7	3.5	3.4	173.20	-95.1	11.3	95.9	89.0	6.84	14.015	
1,700.0	1,700.0	1,694.5	1,693.9	3.7	3.6	169.91	-99.4	17.7	101.1	93.8	7.26	13.922	
1,800.0	1,800.0	1,792.8	1,791.7	3.9	3.8	166.35	-104.6	25.4	107.9	100.2	7.69	14.038	
1,900.0	1,900.0	1,890.7	1,889.0	4.1	4.0	-47.65	-110.7	34.5	115.6	107.4	8.12	14.237	
2,000.0	1,999.9	1,988.2	1,985.7	4.3	4.3	-52.49	-117.7	44.9	123.5	115.0	8.50	14.528	
2,100.0	2,099.7	2,085.3	2,081.8	4.5	4.6	-57.95	-125.6	56.6	132.4	123.5	8.89	14.889	
2,200.0	2,199.3	2,183.8	2,179.2	4.7	4.8	-63.76	-134.0	69.0	141.9	132.6	9.30	15.268	
2,300.0	2,298.6	2,282.1	2,276.3	4.9	5.1	-69.67	-142.3	81.4	151.8	142.1	9.71	15.642	
2,400.0	2,397.5	2,380.1	2,373.1	5.1	5.4	-75.66	-150.7	93.8	162.6	152.5	10.14	16.039	
2,500.0	2,496.4	2,477.9	2,469.8	5.4	5.8	-81.22	-159.0	106.1	174.9	164.3	10.59	16.510	
2,600.0	2,595.3	2,575.8	2,566.6	5.6	6.1	-86.03	-167.3	118.5	188.6	177.5	11.07	17.042	
2,700.0	2,694.1	2,673.7	2,663.3	5.9	6.4	-90.18	-175.7	130.8	203.5	191.9	11.56	17.601	
2,800.0	2,793.0	2,771.5	2,760.0	6.2	6.7	-93.75	-184.0	143.2	219.3	207.2	12.07	18.165	
2,900.0	2,891.8	2,869.4	2,856.7	6.4	7.0	-96.85	-192.3	155.5	235.8	223.2	12.60	18.720	
3,000.0	2,990.7	2,967.3	2,953.5	6.7	7.4	-99.53	-200.7	167.8	252.9	239.8	13.13	19.256	
3,100.0	3,089.5	3,065.1	3,050.2	7.0	7.7	-101.88	-209.0	180.2	270.5	256.8	13.68	19.770	
3,200.0	3,188.4	3,163.0	3,146.9	7.4	8.1	-103.94	-217.3	192.5	288.5	274.3	14.24	20.259	
3,300.0	3,287.3	3,260.9	3,243.7	7.7	8.4	-105.76	-225.6	204.9	306.8	292.0	14.81	20.722	
3,400.0	3,386.1	3,358.7	3,340.4	8.0	8.7	-107.37	-234.0	217.2	325.4	310.0	15.38	21.159	
3,500.0	3,485.0	3,456.6	3,437.1	8.3	9.1	-108.81	-242.3	229.6	344.2	328.2	15.95	21.571	
3,600.0	3,583.8	3,554.5	3,533.8	8.6	9.4	-110.10	-250.6	241.9	363.1	346.6	16.54	21.960	
3,700.0	3,682.7	3,652.3	3,630.6	9.0	9.8	-111.26	-259.0	254.3	382.3	365.2	17.12	22.325	
3,800.0	3,781.6	3,750.2	3,727.3	9.3	10.1	-112.31	-267.3	266.6	401.6	383.9	17.71	22.669	
3,900.0	3,880.4	3,848.1	3,824.0	9.6	10.5	-113.27	-275.6	279.0	421.0	402.7	18.31	22.994	
4,000.0	3,979.3	3,945.9	3,920.8	10.0	10.8	-114.14	-284.0	291.3	440.5	421.6	18.91	23.299	
4,100.0	4,078.1	4,043.8	4,017.5	10.3	11.2	-114.94	-292.3	303.7	460.1	440.6	19.50	23.588	
4,200.0	4,177.0	4,141.7	4,114.2	10.7	11.5	-115.67	-300.6	316.0	479.8	459.6	20.11	23.860	
4,300.0	4,275.8	4,239.5	4,210.9	11.0	11.9	-116.35	-308.9	328.4	499.5	478.8	20.71	24.118	
4,400.0	4,374.7	4,337.4	4,307.7	11.3	12.2	-116.97	-317.3	340.7	519.3	498.0	21.32	24.361	
4,500.0	4,473.6	4,435.3	4,404.4	11.7	12.6	-117.55	-325.6	353.0	539.2	517.2	21.92	24.592	
4,600.0	4,572.4	4,533.1	4,501.1	12.0	12.9	-118.09	-333.9	365.4	559.1	536.5	22.53	24.810	
4,700.0	4,671.3	4,631.0	4,597.8	12.4	13.3	-118.59	-342.3	377.7	579.0	555.9	23.14	25.018	
4,800.0	4,770.1	4,728.9	4,694.6	12.7	13.7	-119.05	-350.6	390.1	599.0	575.3	23.76	25.215	
4,900.0	4,869.0	4,826.8	4,791.3	13.1	14.0	-119.49	-358.9	402.4	619.1	594.7	24.37	25.402	
5,000.0	4,967.8	4,924.6	4,888.0	13.4	14.4	-119.90	-367.2	414.8	639.1	614.1	24.98	25.580	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W - Trimar Farms 29T-301 - Wellbore #1 - Plan #2 (2-2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,066.7	5,022.5	4,984.8	13.8	14.7	-120.28	-375.6	427.1	659.2	633.6	25.60	25.750	
5,200.0	5,165.6	5,120.4	5,081.5	14.2	15.1	-120.65	-383.9	439.5	679.3	653.1	26.22	25.912	
5,300.0	5,264.6	5,218.4	5,178.4	14.5	15.4	-121.20	-392.2	451.9	698.6	671.8	26.83	26.038	
5,400.0	5,364.1	5,316.9	5,275.7	14.7	15.8	-121.47	-400.6	464.3	716.2	688.8	27.38	26.157	
5,500.0	5,463.9	5,415.6	5,373.3	14.9	16.2	-121.48	-409.0	476.7	731.9	704.0	27.89	26.240	
5,600.0	5,563.9	5,514.4	5,470.9	15.1	16.5	-121.23	-417.4	489.2	745.9	717.5	28.37	26.291	
5,700.0	5,663.9	5,613.2	5,568.6	15.2	16.9	89.30	-425.8	501.7	758.5	729.7	28.82	26.322	
5,800.0	5,763.8	5,711.7	5,666.0	15.4	17.2	89.47	-433.6	514.1	771.1	741.9	29.22	26.390	
5,900.0	5,862.5	5,811.1	5,764.5	15.4	17.5	89.52	-431.7	526.7	783.8	754.3	29.43	26.631	
6,000.0	5,958.3	5,912.3	5,863.6	15.4	17.6	89.58	-416.4	539.3	796.3	766.8	29.47	27.016	
6,100.0	6,049.6	6,015.5	5,961.8	15.3	17.7	89.63	-387.5	551.9	808.5	779.1	29.39	27.511	
6,200.0	6,134.8	6,120.8	6,057.1	15.1	17.8	89.69	-344.4	564.1	820.1	790.9	29.23	28.054	
6,300.0	6,212.4	6,228.2	6,147.3	15.0	17.8	89.75	-287.4	575.6	830.9	801.8	29.09	28.559	
6,400.0	6,281.2	6,337.8	6,230.1	14.8	17.7	89.81	-216.6	586.3	840.6	811.5	29.08	28.910	
6,500.0	6,339.9	6,449.3	6,303.3	14.8	17.7	89.87	-133.1	595.7	849.0	819.7	29.29	28.983	
6,600.0	6,387.6	6,562.6	6,364.5	14.8	17.7	89.92	-38.2	603.6	856.0	826.1	29.86	28.664	
6,700.0	6,423.4	6,677.4	6,411.6	15.1	17.7	89.97	66.2	609.6	861.3	830.4	30.85	27.915	
6,800.0	6,446.7	6,793.4	6,442.9	15.7	18.1	90.00	177.7	613.7	864.8	832.5	32.29	26.779	
6,900.0	6,457.1	6,910.0	6,457.2	16.6	18.9	90.02	293.3	615.6	866.4	832.3	34.16	25.362	
7,000.0	6,457.3	7,015.8	6,457.7	17.6	20.0	90.02	399.1	615.7	866.5	830.3	36.26	23.895	
7,100.0	6,456.8	7,115.8	6,457.1	18.8	21.1	90.02	499.1	615.7	866.5	828.0	38.56	22.472	
7,200.0	6,456.3	7,215.8	6,456.6	20.1	22.3	90.02	599.1	615.7	866.5	825.5	41.09	21.089	
7,300.0	6,455.8	7,315.8	6,456.1	21.4	23.7	90.02	699.1	615.7	866.5	822.7	43.81	19.780	
7,400.0	6,455.2	7,415.8	6,455.5	22.9	25.1	90.02	799.1	615.7	866.5	819.9	46.69	18.561	
7,500.0	6,454.7	7,515.8	6,455.0	24.4	26.6	90.02	899.1	615.7	866.5	816.8	49.69	17.438	
7,600.0	6,454.2	7,615.8	6,454.5	25.9	28.1	90.02	999.1	615.7	866.5	813.7	52.81	16.409	
7,700.0	6,453.7	7,715.8	6,453.9	27.5	29.6	90.02	1,099.1	615.7	866.5	810.5	56.02	15.469	
7,800.0	6,453.2	7,815.8	6,453.4	29.2	31.2	90.02	1,199.1	615.7	866.5	807.2	59.30	14.613	
7,900.0	6,452.6	7,915.8	6,452.9	30.9	32.9	90.02	1,299.1	615.7	866.5	803.9	62.64	13.833	
8,000.0	6,452.1	8,015.8	6,452.3	32.6	34.5	90.02	1,399.1	615.7	866.5	800.5	66.04	13.121	
8,100.0	6,451.6	8,115.8	6,451.8	34.3	36.2	90.01	1,499.0	615.7	866.5	797.0	69.49	12.470	
8,200.0	6,451.1	8,215.8	6,451.3	36.0	37.9	90.01	1,599.0	615.7	866.5	793.6	72.97	11.875	
8,300.0	6,450.5	8,315.8	6,450.7	37.8	39.7	90.01	1,699.0	615.7	866.5	790.0	76.49	11.328	
8,400.0	6,450.0	8,415.8	6,450.2	39.6	41.4	90.01	1,799.0	615.7	866.5	786.5	80.04	10.826	
8,500.0	6,449.5	8,515.8	6,449.7	41.3	43.2	90.01	1,899.0	615.7	866.5	782.9	83.61	10.363	
8,600.0	6,449.0	8,615.8	6,449.2	43.1	44.9	90.01	1,999.0	615.7	866.5	779.3	87.21	9.936	
8,700.0	6,448.4	8,715.8	6,448.6	45.0	46.7	90.01	2,099.0	615.7	866.5	775.7	90.83	9.540	
8,800.0	6,447.9	8,815.8	6,448.1	46.8	48.5	90.01	2,199.0	615.7	866.5	772.1	94.46	9.173	
8,900.0	6,447.4	8,915.8	6,447.6	48.6	50.3	90.01	2,299.0	615.7	866.5	768.4	98.11	8.832	
9,000.0	6,446.9	9,015.8	6,447.0	50.4	52.1	90.01	2,399.0	615.7	866.5	764.7	101.78	8.514	
9,100.0	6,446.3	9,115.8	6,446.5	52.3	53.9	90.01	2,499.0	615.7	866.5	761.1	105.45	8.217	
9,200.0	6,445.8	9,215.8	6,446.0	54.1	55.8	90.01	2,599.0	615.7	866.5	757.4	109.14	7.939	
9,300.0	6,445.3	9,315.8	6,445.4	56.0	57.6	90.01	2,699.0	615.7	866.5	753.7	112.84	7.679	
9,400.0	6,444.8	9,415.8	6,444.9	57.8	59.4	90.01	2,799.0	615.7	866.5	750.0	116.55	7.435	
9,500.0	6,444.3	9,515.8	6,444.4	59.7	61.3	90.01	2,899.0	615.7	866.5	746.3	120.26	7.205	
9,600.0	6,443.7	9,615.8	6,443.8	61.5	63.1	90.01	2,999.0	615.7	866.5	742.5	123.99	6.989	
9,700.0	6,443.2	9,715.8	6,443.3	63.4	65.0	90.01	3,099.0	615.7	866.5	738.8	127.72	6.785	
9,800.0	6,442.7	9,815.8	6,442.8	65.3	66.8	90.01	3,199.0	615.7	866.5	735.1	131.45	6.592	
9,900.0	6,442.2	9,915.8	6,442.2	67.1	68.7	90.01	3,299.0	615.7	866.5	731.3	135.20	6.409	
10,000.0	6,441.6	10,015.8	6,441.7	69.0	70.5	90.01	3,399.0	615.7	866.5	727.6	138.95	6.236	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W - Trimar Farms 29T-301 - Wellbore #1 - Plan #2 (2-2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,100.0	6,441.1	10,115.8	6,441.2	70.9	72.4	90.00	3,499.0	615.7	866.5	723.8	142.70	6.072	
10,200.0	6,440.6	10,215.8	6,440.7	72.8	74.3	90.00	3,599.0	615.7	866.5	720.1	146.46	5.917	
10,300.0	6,440.1	10,315.8	6,440.1	74.6	76.1	90.00	3,699.0	615.7	866.5	716.3	150.22	5.768	
10,400.0	6,439.5	10,415.8	6,439.6	76.5	78.0	90.00	3,799.0	615.7	866.5	712.5	153.98	5.627	
10,500.0	6,439.0	10,515.8	6,439.1	78.4	79.9	90.00	3,899.0	615.7	866.5	708.8	157.75	5.493	
10,600.0	6,438.5	10,615.8	6,438.5	80.3	81.7	90.00	3,999.0	615.7	866.5	705.0	161.52	5.365	
10,700.0	6,438.0	10,715.8	6,438.0	82.2	83.6	90.00	4,099.0	615.7	866.5	701.2	165.30	5.242	
10,800.0	6,437.4	10,815.8	6,437.5	84.1	85.5	90.00	4,199.0	615.7	866.5	697.4	169.08	5.125	
10,885.3	6,437.0	10,901.1	6,437.0	85.7	87.1	90.00	4,284.3	615.7	866.5	694.2	172.30	5.029	SF

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W - Trimar Farms 29T-401 - Wellbore #1 - Plan #2 (2-2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	180.00	-120.2	0.0	120.2	120.2	0.00	N/A	
100.0	100.0	101.0	101.0	0.1	0.1	180.00	-120.2	0.0	120.2	120.0	0.23	529.582	
200.0	200.0	201.0	201.0	0.3	0.3	180.00	-120.2	0.0	120.2	119.5	0.68	177.700	
300.0	300.0	301.0	301.0	0.6	0.6	180.00	-120.2	0.0	120.2	119.1	1.13	106.762	
400.0	400.0	401.0	401.0	0.8	0.8	180.00	-120.2	0.0	120.2	118.6	1.58	76.302	
500.0	500.0	501.0	501.0	1.0	1.0	180.00	-120.2	0.0	120.2	118.2	2.03	59.365	
600.0	600.0	601.0	601.0	1.2	1.2	180.00	-120.2	0.0	120.2	117.7	2.47	48.581	
700.0	700.0	701.0	701.0	1.5	1.5	180.00	-120.2	0.0	120.2	117.3	2.92	41.113	
800.0	800.0	801.0	801.0	1.7	1.7	180.00	-120.2	0.0	120.2	116.8	3.37	35.635	
900.0	900.0	901.0	901.0	1.9	1.9	180.00	-120.2	0.0	120.2	116.4	3.82	31.445	
966.3	966.3	967.3	967.3	2.1	2.1	180.00	-120.2	0.0	120.2	116.1	4.12	29.170	CC
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	180.00	-120.2	0.0	120.2	115.9	4.27	28.138	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.3	179.62	-120.6	0.8	120.6	115.9	4.70	25.652	ES
1,200.0	1,200.0	1,199.2	1,199.2	2.6	2.5	178.51	-121.6	3.2	121.7	116.6	5.12	23.787	
1,300.0	1,300.0	1,298.2	1,298.1	2.8	2.7	176.71	-123.4	7.1	123.6	118.1	5.54	22.327	
1,400.0	1,400.0	1,397.0	1,396.7	3.0	2.9	174.29	-125.8	12.6	126.5	120.5	5.96	21.216	
1,500.0	1,500.0	1,495.5	1,494.9	3.3	3.2	171.36	-128.9	19.6	130.5	124.1	6.39	20.418	
1,600.0	1,600.0	1,593.8	1,592.7	3.5	3.4	168.04	-132.7	28.1	135.9	129.0	6.83	19.905	
1,700.0	1,700.0	1,691.7	1,690.0	3.7	3.6	164.46	-137.1	38.1	142.7	135.5	7.26	19.657	
1,800.0	1,800.0	1,789.2	1,786.7	3.9	3.9	160.76	-142.2	49.6	151.3	143.6	7.70	19.652	
1,900.0	1,900.0	1,886.2	1,882.7	4.1	4.2	-53.14	-147.9	62.6	160.8	152.7	8.19	19.643	SF
2,000.0	1,999.9	1,982.6	1,977.8	4.3	4.5	-57.62	-154.2	76.9	171.1	162.5	8.59	19.906	
2,100.0	2,099.7	2,079.0	2,072.7	4.5	4.8	-62.52	-161.2	92.6	182.4	173.4	9.00	20.268	
2,200.0	2,199.3	2,176.8	2,168.8	4.7	5.1	-67.61	-168.4	108.9	194.4	185.0	9.41	20.660	
2,300.0	2,298.6	2,274.2	2,264.6	4.9	5.5	-72.71	-175.6	125.1	207.1	197.3	9.83	21.079	
2,400.0	2,397.5	2,371.2	2,360.0	5.1	5.8	-77.81	-182.7	141.2	220.9	210.6	10.26	21.538	
2,500.0	2,496.4	2,468.1	2,455.3	5.4	6.2	-82.62	-189.9	157.4	236.2	225.5	10.70	22.072	
2,600.0	2,595.3	2,565.1	2,550.6	5.6	6.6	-86.84	-197.0	173.5	253.0	241.8	11.17	22.659	
2,700.0	2,694.1	2,662.0	2,645.9	5.9	6.9	-90.54	-204.2	189.7	271.0	259.4	11.65	23.268	
2,800.0	2,793.0	2,758.9	2,741.2	6.2	7.3	-93.77	-211.3	205.8	290.0	277.8	12.15	23.876	
2,900.0	2,891.8	2,855.8	2,836.4	6.4	7.7	-96.61	-218.5	222.0	309.8	297.1	12.66	24.472	
3,000.0	2,990.7	2,952.7	2,931.7	6.7	8.1	-99.11	-225.6	238.1	330.2	317.0	13.18	25.045	
3,100.0	3,089.5	3,049.6	3,027.0	7.0	8.4	-101.32	-232.8	254.3	351.2	337.5	13.72	25.593	
3,200.0	3,188.4	3,146.5	3,122.3	7.4	8.8	-103.28	-239.9	270.4	372.6	358.4	14.27	26.112	
3,300.0	3,287.3	3,243.4	3,217.6	7.7	9.2	-105.03	-247.0	286.5	394.4	379.6	14.83	26.603	
3,400.0	3,386.1	3,340.4	3,312.9	8.0	9.6	-106.60	-254.2	302.7	416.6	401.2	15.39	27.065	
3,500.0	3,485.0	3,437.3	3,408.2	8.3	10.0	-108.01	-261.3	318.8	439.0	423.0	15.96	27.500	
3,600.0	3,583.8	3,534.2	3,503.5	8.6	10.4	-109.28	-268.5	335.0	461.6	445.1	16.54	27.910	
3,700.0	3,682.7	3,631.1	3,598.8	9.0	10.8	-110.44	-275.6	351.1	484.4	467.3	17.12	28.295	
3,800.0	3,781.6	3,728.0	3,694.1	9.3	11.2	-111.49	-282.8	367.3	507.4	489.7	17.71	28.657	
3,900.0	3,880.4	3,824.9	3,789.3	9.6	11.6	-112.45	-289.9	383.4	530.6	512.3	18.30	28.997	
4,000.0	3,979.3	3,921.8	3,884.6	10.0	12.0	-113.33	-297.1	399.6	553.9	535.0	18.89	29.318	
4,100.0	4,078.1	4,018.7	3,979.9	10.3	12.4	-114.14	-304.2	415.7	577.2	557.8	19.49	29.621	
4,200.0	4,177.0	4,115.6	4,075.2	10.7	12.8	-114.89	-311.4	431.8	600.7	580.7	20.09	29.906	
4,300.0	4,275.8	4,212.6	4,170.5	11.0	13.2	-115.58	-318.5	448.0	624.3	603.6	20.69	30.175	
4,400.0	4,374.7	4,309.5	4,265.8	11.3	13.6	-116.22	-325.6	464.1	648.0	626.7	21.29	30.430	
4,500.0	4,473.6	4,406.4	4,361.1	11.7	14.0	-116.82	-332.8	480.3	671.7	649.8	21.90	30.671	
4,600.0	4,572.4	4,503.3	4,456.4	12.0	14.4	-117.37	-339.9	496.4	695.5	673.0	22.51	30.900	
4,700.0	4,671.3	4,600.2	4,551.7	12.4	14.8	-117.89	-347.1	512.6	719.4	696.3	23.12	31.116	
4,800.0	4,770.1	4,697.1	4,647.0	12.7	15.2	-118.38	-354.2	528.7	743.3	719.6	23.73	31.322	
4,900.0	4,869.0	4,794.0	4,742.2	13.1	15.6	-118.83	-361.4	544.9	767.2	742.9	24.34	31.517	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Offset Design Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W - Trimar Farms 29T-401 - Wellbore #1 - Plan #2 (2-2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

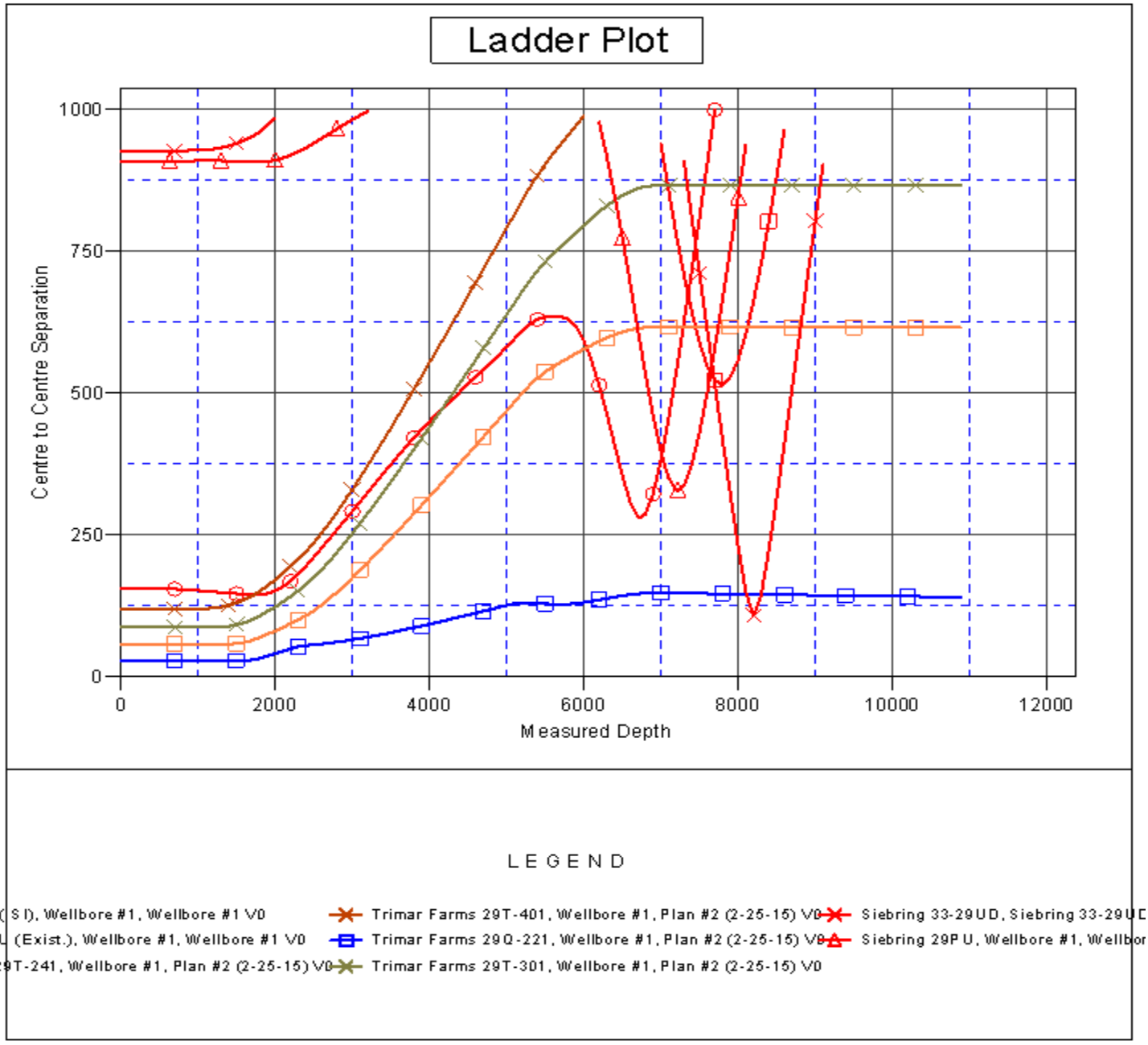
Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.0	4,967.8	4,890.9	4,837.5	13.4	16.0	-119.26	-368.5	561.0	791.3	766.3	24.96	31.703	
5,100.0	5,066.7	4,987.9	4,932.8	13.8	16.4	-119.66	-375.7	577.1	815.3	789.7	25.57	31.880	
5,200.0	5,165.6	5,084.8	5,028.1	14.2	16.8	-120.04	-382.8	593.3	839.4	813.2	26.19	32.049	
5,300.0	5,264.6	5,181.9	5,123.7	14.5	17.2	-120.71	-390.0	609.5	862.7	835.8	26.82	32.168	
5,400.0	5,364.1	5,279.6	5,219.7	14.7	17.6	-121.14	-397.2	625.7	884.2	856.8	27.38	32.296	
5,500.0	5,463.9	5,377.6	5,316.0	14.9	18.0	-121.34	-404.4	642.1	904.0	876.1	27.90	32.397	
5,600.0	5,563.9	5,475.8	5,412.6	15.1	18.4	-121.32	-411.6	658.4	922.1	893.7	28.39	32.477	
5,700.0	5,663.9	5,574.1	5,509.3	15.2	18.8	89.00	-418.9	674.8	938.7	909.9	28.84	32.551	
5,800.0	5,763.8	5,672.1	5,605.6	15.4	19.2	88.77	-426.1	691.1	955.3	926.0	29.27	32.632	
5,900.0	5,862.5	5,768.0	5,699.9	15.4	19.6	88.83	-433.2	707.1	971.9	942.3	29.60	32.840	
6,000.0	5,958.3	5,866.2	5,796.6	15.4	19.9	89.28	-434.8	723.5	988.9	959.1	29.74	33.248	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4585.0ft (RKB - 13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Trimar Farms 29Q-321
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.67°



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	**Local Co-ordinate Reference:**	Well Trimar Farms 29Q-321
Project:	SEC.29-T5N-R63W	**TVD Reference:**	WELL @ 4585.0ft (RKB - 13')
Reference Site:	Trimar Farms 5N63W29T Pad Sec.29-T5N-R63W	**MD Reference:**	WELL @ 4585.0ft (RKB - 13')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Trimar Farms 29Q-321	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #2 (2-25-15)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4585.0ft (RKB - 13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Trimar Farms 29Q-321
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.67°