

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: Diana 6T-221

Surface Location: Diana 6T-HZ Pad Sec.6-T6N-R65W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

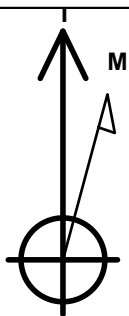
Ground Elevation: 4795.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1429836.30	3221518.76	40.510570	-104.703320	

RKB -15' WELL @ 4810.0ft (RKB -15')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape Point
BHL 500'FNL, 1096'FEL	7020.0	4517.6	703.4	



Azimuths to True North
Magnetic North: 8.62°

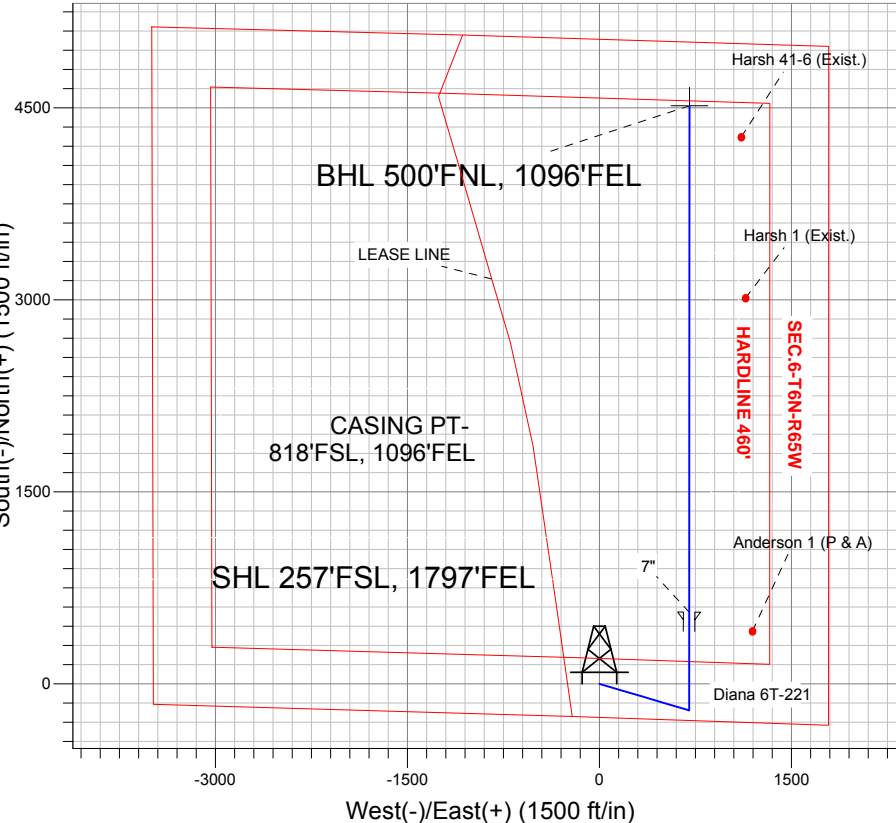
Magnetic Field
Strength: 53025.8nT
Dip Angle: 67.09°
Date: 1/25/2013
Model: IGRF2010

ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP #1
6276.1	6329.0	KOP #2
7040.0	7532.9	End of Build

Diana 6T-HZ Pad Sec.6-T6N-R65W
Diana 6T-221
Plan #1 (1-25-13)
13:56, January 25 2013

South(-)/North(+) (1500 ft/in)



West(-)/East(+) (1500 ft/in)

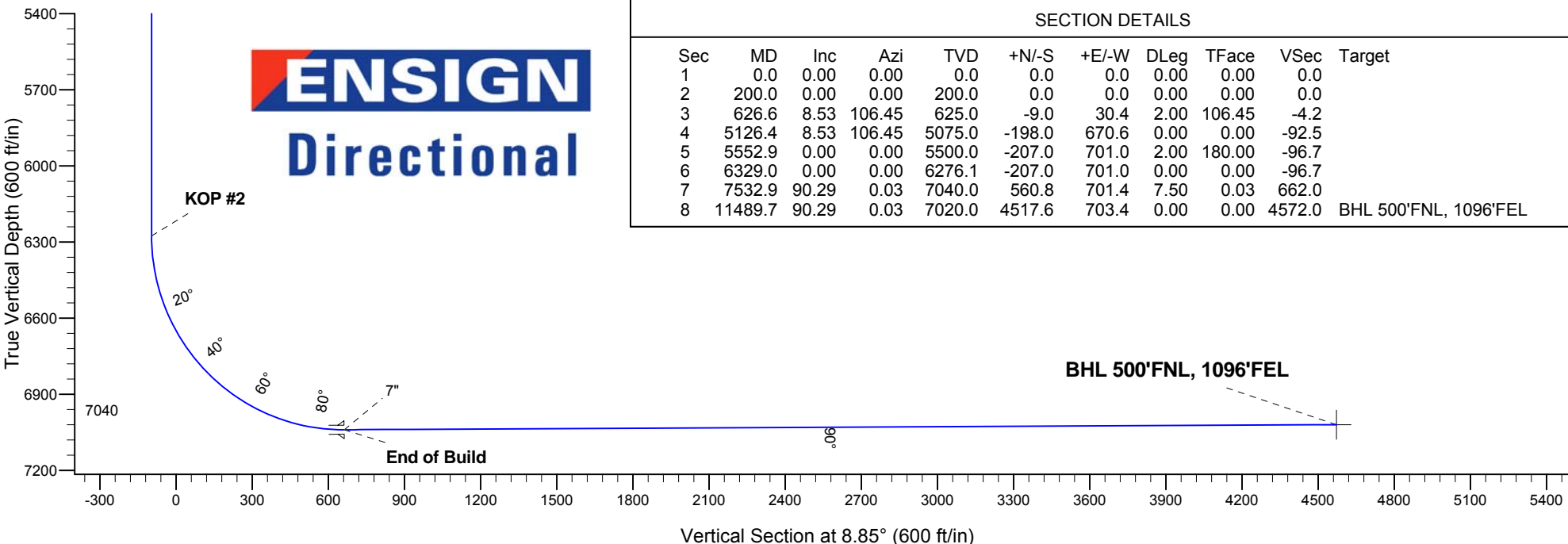
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	626.6	8.53	106.45	625.0	-9.0	30.4	2.00	106.45	-4.2	
4	5126.4	8.53	106.45	5075.0	-198.0	670.6	0.00	0.00	-92.5	
5	5552.9	0.00	0.00	5500.0	-207.0	701.0	2.00	180.00	-96.7	
6	6329.0	0.00	0.00	6276.1	-207.0	701.0	0.00	0.00	-96.7	
7	7532.9	90.29	0.03	7040.0	560.8	701.4	7.50	0.03	662.0	
8	11489.7	90.29	0.03	7020.0	4517.6	703.4	0.00	0.00	4572.0	BHL 500'FNL, 1096'FEL

BHL 500'FNL, 1096'FEL

ENSIGN
Directional

KOP #2





PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.6-T6N-R65W

Diana 6T-HZ Pad Sec.6-T6N-R65W

Diana 6T-221

Wellbore #1

Plan: Plan #1 (1-25-13)

Standard Planning Report

25 January, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well Diana 6T-221
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	Diana 6T-221	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-25-13)		

Project	SEC.6-T6N-R65W, 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

Diana 6T-HZ Pad Sec.6-T6N-R65W					
Site Position:		Northing:	1,429,839.15 ft	Latitude:	40.510580
From:	Lat/Long	Easting:	3,221,429.75 ft	Longitude:	-104.703640
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.51 °

Well	Diana 6T-221					
Well Position	+N/-S	-3.7 ft	Northing:	1,429,836.30 ft	Latitude:	40.510570
	+E/-W	89.0 ft	Easting:	3,221,518.76 ft	Longitude:	-104.703320
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,795.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/25/2013	8.62	67.09	53,026

Design	Plan #1 (1-25-13)			
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	8.85

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
626.6	8.53	106.45	625.0	-9.0	30.4	2.00	2.00	0.00	106.45	
5,126.4	8.53	106.45	5,075.0	-198.0	670.6	0.00	0.00	0.00	0.00	
5,552.9	0.00	0.00	5,500.0	-207.0	701.0	2.00	-2.00	0.00	180.00	
6,329.0	0.00	0.00	6,276.1	-207.0	701.0	0.00	0.00	0.00	0.00	
7,532.9	90.29	0.03	7,040.0	560.8	701.4	7.50	7.50	0.00	0.03	
11,489.7	90.29	0.03	7,020.0	4,517.6	703.4	0.00	0.00	0.00	0.00	BHL 500'FNL, 1096

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Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	Diana 6T-221	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-25-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.80	106.45	240.0	-0.1	0.3	0.0	2.00	2.00	0.00
280.0	1.60	106.45	280.0	-0.3	1.1	-0.1	2.00	2.00	0.00
320.0	2.40	106.45	320.0	-0.7	2.4	-0.3	2.00	2.00	0.00
360.0	3.20	106.45	359.9	-1.3	4.3	-0.6	2.00	2.00	0.00
400.0	4.00	106.45	399.8	-2.0	6.7	-0.9	2.00	2.00	0.00
440.0	4.80	106.45	439.7	-2.8	9.6	-1.3	2.00	2.00	0.00
480.0	5.60	106.45	479.6	-3.9	13.1	-1.8	2.00	2.00	0.00
520.0	6.40	106.45	519.3	-5.1	17.1	-2.4	2.00	2.00	0.00
560.0	7.20	106.45	559.1	-6.4	21.7	-3.0	2.00	2.00	0.00
600.0	8.00	106.45	598.7	-7.9	26.7	-3.7	2.00	2.00	0.00
626.6	8.53	106.45	625.0	-9.0	30.4	-4.2	2.00	2.00	0.00
640.0	8.53	106.45	638.3	-9.5	32.3	-4.5	0.00	0.00	0.00
680.0	8.53	106.45	677.8	-11.2	38.0	-5.2	0.00	0.00	0.00
720.0	8.53	106.45	717.4	-12.9	43.7	-6.0	0.00	0.00	0.00
760.0	8.53	106.45	756.9	-14.6	49.4	-6.8	0.00	0.00	0.00
800.0	8.53	106.45	796.5	-16.3	55.1	-7.6	0.00	0.00	0.00
840.0	8.53	106.45	836.1	-17.9	60.8	-8.4	0.00	0.00	0.00
880.0	8.53	106.45	875.6	-19.6	66.5	-9.2	0.00	0.00	0.00
920.0	8.53	106.45	915.2	-21.3	72.1	-10.0	0.00	0.00	0.00
960.0	8.53	106.45	954.7	-23.0	77.8	-10.7	0.00	0.00	0.00
1,000.0	8.53	106.45	994.3	-24.7	83.5	-11.5	0.00	0.00	0.00
1,040.0	8.53	106.45	1,033.9	-26.3	89.2	-12.3	0.00	0.00	0.00
1,080.0	8.53	106.45	1,073.4	-28.0	94.9	-13.1	0.00	0.00	0.00
1,120.0	8.53	106.45	1,113.0	-29.7	100.6	-13.9	0.00	0.00	0.00
1,160.0	8.53	106.45	1,152.5	-31.4	106.3	-14.7	0.00	0.00	0.00
1,200.0	8.53	106.45	1,192.1	-33.1	112.0	-15.4	0.00	0.00	0.00
1,240.0	8.53	106.45	1,231.6	-34.7	117.7	-16.2	0.00	0.00	0.00
1,280.0	8.53	106.45	1,271.2	-36.4	123.4	-17.0	0.00	0.00	0.00
1,320.0	8.53	106.45	1,310.8	-38.1	129.1	-17.8	0.00	0.00	0.00
1,360.0	8.53	106.45	1,350.3	-39.8	134.7	-18.6	0.00	0.00	0.00
1,400.0	8.53	106.45	1,389.9	-41.5	140.4	-19.4	0.00	0.00	0.00
1,440.0	8.53	106.45	1,429.4	-43.2	146.1	-20.2	0.00	0.00	0.00
1,480.0	8.53	106.45	1,469.0	-44.8	151.8	-20.9	0.00	0.00	0.00
1,520.0	8.53	106.45	1,508.5	-46.5	157.5	-21.7	0.00	0.00	0.00
1,560.0	8.53	106.45	1,548.1	-48.2	163.2	-22.5	0.00	0.00	0.00
1,600.0	8.53	106.45	1,587.7	-49.9	168.9	-23.3	0.00	0.00	0.00
1,640.0	8.53	106.45	1,627.2	-51.6	174.6	-24.1	0.00	0.00	0.00
1,680.0	8.53	106.45	1,666.8	-53.2	180.3	-24.9	0.00	0.00	0.00
1,720.0	8.53	106.45	1,706.3	-54.9	186.0	-25.7	0.00	0.00	0.00
1,760.0	8.53	106.45	1,745.9	-56.6	191.7	-26.4	0.00	0.00	0.00
1,800.0	8.53	106.45	1,785.4	-58.3	197.3	-27.2	0.00	0.00	0.00
1,840.0	8.53	106.45	1,825.0	-60.0	203.0	-28.0	0.00	0.00	0.00
1,880.0	8.53	106.45	1,864.6	-61.6	208.7	-28.8	0.00	0.00	0.00
1,920.0	8.53	106.45	1,904.1	-63.3	214.4	-29.6	0.00	0.00	0.00
1,960.0	8.53	106.45	1,943.7	-65.0	220.1	-30.4	0.00	0.00	0.00
2,000.0	8.53	106.45	1,983.2	-66.7	225.8	-31.2	0.00	0.00	0.00
2,040.0	8.53	106.45	2,022.8	-68.4	231.5	-31.9	0.00	0.00	0.00

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Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	Diana 6T-221	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-25-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,080.0	8.53	106.45	2,062.3	-70.0	237.2	-32.7	0.00	0.00	0.00
2,120.0	8.53	106.45	2,101.9	-71.7	242.9	-33.5	0.00	0.00	0.00
2,160.0	8.53	106.45	2,141.5	-73.4	248.6	-34.3	0.00	0.00	0.00
2,200.0	8.53	106.45	2,181.0	-75.1	254.3	-35.1	0.00	0.00	0.00
2,240.0	8.53	106.45	2,220.6	-76.8	259.9	-35.9	0.00	0.00	0.00
2,280.0	8.53	106.45	2,260.1	-78.4	265.6	-36.6	0.00	0.00	0.00
2,320.0	8.53	106.45	2,299.7	-80.1	271.3	-37.4	0.00	0.00	0.00
2,360.0	8.53	106.45	2,339.2	-81.8	277.0	-38.2	0.00	0.00	0.00
2,400.0	8.53	106.45	2,378.8	-83.5	282.7	-39.0	0.00	0.00	0.00
2,440.0	8.53	106.45	2,418.4	-85.2	288.4	-39.8	0.00	0.00	0.00
2,480.0	8.53	106.45	2,457.9	-86.8	294.1	-40.6	0.00	0.00	0.00
2,520.0	8.53	106.45	2,497.5	-88.5	299.8	-41.4	0.00	0.00	0.00
2,560.0	8.53	106.45	2,537.0	-90.2	305.5	-42.1	0.00	0.00	0.00
2,600.0	8.53	106.45	2,576.6	-91.9	311.2	-42.9	0.00	0.00	0.00
2,640.0	8.53	106.45	2,616.1	-93.6	316.9	-43.7	0.00	0.00	0.00
2,680.0	8.53	106.45	2,655.7	-95.2	322.5	-44.5	0.00	0.00	0.00
2,720.0	8.53	106.45	2,695.3	-96.9	328.2	-45.3	0.00	0.00	0.00
2,760.0	8.53	106.45	2,734.8	-98.6	333.9	-46.1	0.00	0.00	0.00
2,800.0	8.53	106.45	2,774.4	-100.3	339.6	-46.9	0.00	0.00	0.00
2,840.0	8.53	106.45	2,813.9	-102.0	345.3	-47.6	0.00	0.00	0.00
2,880.0	8.53	106.45	2,853.5	-103.6	351.0	-48.4	0.00	0.00	0.00
2,920.0	8.53	106.45	2,893.1	-105.3	356.7	-49.2	0.00	0.00	0.00
2,960.0	8.53	106.45	2,932.6	-107.0	362.4	-50.0	0.00	0.00	0.00
3,000.0	8.53	106.45	2,972.2	-108.7	368.1	-50.8	0.00	0.00	0.00
3,040.0	8.53	106.45	3,011.7	-110.4	373.8	-51.6	0.00	0.00	0.00
3,080.0	8.53	106.45	3,051.3	-112.1	379.5	-52.3	0.00	0.00	0.00
3,120.0	8.53	106.45	3,090.8	-113.7	385.1	-53.1	0.00	0.00	0.00
3,160.0	8.53	106.45	3,130.4	-115.4	390.8	-53.9	0.00	0.00	0.00
3,200.0	8.53	106.45	3,170.0	-117.1	396.5	-54.7	0.00	0.00	0.00
3,240.0	8.53	106.45	3,209.5	-118.8	402.2	-55.5	0.00	0.00	0.00
3,280.0	8.53	106.45	3,249.1	-120.5	407.9	-56.3	0.00	0.00	0.00
3,320.0	8.53	106.45	3,288.6	-122.1	413.6	-57.1	0.00	0.00	0.00
3,360.0	8.53	106.45	3,328.2	-123.8	419.3	-57.8	0.00	0.00	0.00
3,400.0	8.53	106.45	3,367.7	-125.5	425.0	-58.6	0.00	0.00	0.00
3,440.0	8.53	106.45	3,407.3	-127.2	430.7	-59.4	0.00	0.00	0.00
3,480.0	8.53	106.45	3,446.9	-128.9	436.4	-60.2	0.00	0.00	0.00
3,520.0	8.53	106.45	3,486.4	-130.5	442.1	-61.0	0.00	0.00	0.00
3,560.0	8.53	106.45	3,526.0	-132.2	447.7	-61.8	0.00	0.00	0.00
3,600.0	8.53	106.45	3,565.5	-133.9	453.4	-62.6	0.00	0.00	0.00
3,640.0	8.53	106.45	3,605.1	-135.6	459.1	-63.3	0.00	0.00	0.00
3,680.0	8.53	106.45	3,644.6	-137.3	464.8	-64.1	0.00	0.00	0.00
3,720.0	8.53	106.45	3,684.2	-138.9	470.5	-64.9	0.00	0.00	0.00
3,760.0	8.53	106.45	3,723.8	-140.6	476.2	-65.7	0.00	0.00	0.00
3,800.0	8.53	106.45	3,763.3	-142.3	481.9	-66.5	0.00	0.00	0.00
3,840.0	8.53	106.45	3,802.9	-144.0	487.6	-67.3	0.00	0.00	0.00
3,880.0	8.53	106.45	3,842.4	-145.7	493.3	-68.1	0.00	0.00	0.00
3,920.0	8.53	106.45	3,882.0	-147.3	499.0	-68.8	0.00	0.00	0.00
3,960.0	8.53	106.45	3,921.5	-149.0	504.7	-69.6	0.00	0.00	0.00
4,000.0	8.53	106.45	3,961.1	-150.7	510.3	-70.4	0.00	0.00	0.00
4,040.0	8.53	106.45	4,000.7	-152.4	516.0	-71.2	0.00	0.00	0.00
4,080.0	8.53	106.45	4,040.2	-154.1	521.7	-72.0	0.00	0.00	0.00
4,120.0	8.53	106.45	4,079.8	-155.7	527.4	-72.8	0.00	0.00	0.00
4,160.0	8.53	106.45	4,119.3	-157.4	533.1	-73.5	0.00	0.00	0.00

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Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	Diana 6T-221	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-25-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,200.0	8.53	106.45	4,158.9	-159.1	538.8	-74.3	0.00	0.00	0.00
4,240.0	8.53	106.45	4,198.4	-160.8	544.5	-75.1	0.00	0.00	0.00
4,280.0	8.53	106.45	4,238.0	-162.5	550.2	-75.9	0.00	0.00	0.00
4,320.0	8.53	106.45	4,277.6	-164.1	555.9	-76.7	0.00	0.00	0.00
4,360.0	8.53	106.45	4,317.1	-165.8	561.6	-77.5	0.00	0.00	0.00
4,400.0	8.53	106.45	4,356.7	-167.5	567.3	-78.3	0.00	0.00	0.00
4,440.0	8.53	106.45	4,396.2	-169.2	572.9	-79.0	0.00	0.00	0.00
4,480.0	8.53	106.45	4,435.8	-170.9	578.6	-79.8	0.00	0.00	0.00
4,520.0	8.53	106.45	4,475.3	-172.5	584.3	-80.6	0.00	0.00	0.00
4,560.0	8.53	106.45	4,514.9	-174.2	590.0	-81.4	0.00	0.00	0.00
4,600.0	8.53	106.45	4,554.5	-175.9	595.7	-82.2	0.00	0.00	0.00
4,640.0	8.53	106.45	4,594.0	-177.6	601.4	-83.0	0.00	0.00	0.00
4,680.0	8.53	106.45	4,633.6	-179.3	607.1	-83.8	0.00	0.00	0.00
4,720.0	8.53	106.45	4,673.1	-181.0	612.8	-84.5	0.00	0.00	0.00
4,760.0	8.53	106.45	4,712.7	-182.6	618.5	-85.3	0.00	0.00	0.00
4,800.0	8.53	106.45	4,752.2	-184.3	624.2	-86.1	0.00	0.00	0.00
4,840.0	8.53	106.45	4,791.8	-186.0	629.9	-86.9	0.00	0.00	0.00
4,880.0	8.53	106.45	4,831.4	-187.7	635.5	-87.7	0.00	0.00	0.00
4,920.0	8.53	106.45	4,870.9	-189.4	641.2	-88.5	0.00	0.00	0.00
4,960.0	8.53	106.45	4,910.5	-191.0	646.9	-89.2	0.00	0.00	0.00
5,000.0	8.53	106.45	4,950.0	-192.7	652.6	-90.0	0.00	0.00	0.00
5,040.0	8.53	106.45	4,989.6	-194.4	658.3	-90.8	0.00	0.00	0.00
5,080.0	8.53	106.45	5,029.2	-196.1	664.0	-91.6	0.00	0.00	0.00
5,120.0	8.53	106.45	5,068.7	-197.8	669.7	-92.4	0.00	0.00	0.00
5,126.4	8.53	106.45	5,075.0	-198.0	670.6	-92.5	0.00	0.00	0.00
5,160.0	7.86	106.45	5,108.3	-199.4	675.2	-93.1	2.00	-2.00	0.00
5,200.0	7.06	106.45	5,148.0	-200.9	680.2	-93.8	2.00	-2.00	0.00
5,240.0	6.26	106.45	5,187.7	-202.2	684.6	-94.4	2.00	-2.00	0.00
5,280.0	5.46	106.45	5,227.5	-203.3	688.5	-95.0	2.00	-2.00	0.00
5,320.0	4.66	106.45	5,267.3	-204.3	691.9	-95.5	2.00	-2.00	0.00
5,360.0	3.86	106.45	5,307.2	-205.2	694.8	-95.8	2.00	-2.00	0.00
5,400.0	3.06	106.45	5,347.1	-205.8	697.1	-96.2	2.00	-2.00	0.00
5,440.0	2.26	106.45	5,387.1	-206.4	698.9	-96.4	2.00	-2.00	0.00
5,480.0	1.46	106.45	5,427.1	-206.7	700.1	-96.6	2.00	-2.00	0.00
5,520.0	0.66	106.45	5,467.1	-206.9	700.8	-96.7	2.00	-2.00	0.00
5,552.9	0.00	0.00	5,500.0	-207.0	701.0	-96.7	2.00	-2.00	0.00
5,560.0	0.00	0.00	5,507.1	-207.0	701.0	-96.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,547.1	-207.0	701.0	-96.7	0.00	0.00	0.00
5,640.0	0.00	0.00	5,587.1	-207.0	701.0	-96.7	0.00	0.00	0.00
5,680.0	0.00	0.00	5,627.1	-207.0	701.0	-96.7	0.00	0.00	0.00
5,720.0	0.00	0.00	5,667.1	-207.0	701.0	-96.7	0.00	0.00	0.00
5,760.0	0.00	0.00	5,707.1	-207.0	701.0	-96.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,747.1	-207.0	701.0	-96.7	0.00	0.00	0.00
5,840.0	0.00	0.00	5,787.1	-207.0	701.0	-96.7	0.00	0.00	0.00
5,880.0	0.00	0.00	5,827.1	-207.0	701.0	-96.7	0.00	0.00	0.00
5,920.0	0.00	0.00	5,867.1	-207.0	701.0	-96.7	0.00	0.00	0.00
5,960.0	0.00	0.00	5,907.1	-207.0	701.0	-96.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,947.1	-207.0	701.0	-96.7	0.00	0.00	0.00
6,040.0	0.00	0.00	5,987.1	-207.0	701.0	-96.7	0.00	0.00	0.00
6,080.0	0.00	0.00	6,027.1	-207.0	701.0	-96.7	0.00	0.00	0.00
6,120.0	0.00	0.00	6,067.1	-207.0	701.0	-96.7	0.00	0.00	0.00
6,160.0	0.00	0.00	6,107.1	-207.0	701.0	-96.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,147.1	-207.0	701.0	-96.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Diana 6T-221
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	Diana 6T-221	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-25-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,240.0	0.00	0.00	6,187.1	-207.0	701.0	-96.7	0.00	0.00	0.00
6,280.0	0.00	0.00	6,227.1	-207.0	701.0	-96.7	0.00	0.00	0.00
6,320.0	0.00	0.00	6,267.1	-207.0	701.0	-96.7	0.00	0.00	0.00
6,329.0	0.00	0.00	6,276.1	-207.0	701.0	-96.7	0.00	0.00	0.00
6,360.0	2.32	0.03	6,307.1	-206.4	701.0	-96.1	7.50	7.50	0.00
6,400.0	5.32	0.03	6,347.0	-203.7	701.0	-93.5	7.50	7.50	0.00
6,440.0	8.32	0.03	6,386.7	-199.0	701.0	-88.8	7.50	7.50	0.00
6,480.0	11.32	0.03	6,426.1	-192.1	701.0	-82.0	7.50	7.50	0.00
6,520.0	14.32	0.03	6,465.1	-183.3	701.0	-73.2	7.50	7.50	0.00
6,560.0	17.32	0.03	6,503.6	-172.3	701.0	-62.5	7.50	7.50	0.00
6,600.0	20.32	0.03	6,541.4	-159.4	701.0	-49.7	7.50	7.50	0.00
6,640.0	23.32	0.03	6,578.5	-144.6	701.0	-35.0	7.50	7.50	0.00
6,680.0	26.32	0.03	6,614.8	-127.8	701.0	-18.4	7.50	7.50	0.00
6,720.0	29.32	0.03	6,650.2	-109.1	701.0	0.0	7.50	7.50	0.00
6,760.0	32.32	0.03	6,684.6	-88.6	701.1	20.3	7.50	7.50	0.00
6,800.0	35.32	0.03	6,717.8	-66.4	701.1	42.3	7.50	7.50	0.00
6,840.0	38.32	0.03	6,749.8	-42.4	701.1	66.0	7.50	7.50	0.00
6,880.0	41.32	0.03	6,780.5	-16.8	701.1	91.3	7.50	7.50	0.00
6,920.0	44.32	0.03	6,809.9	10.4	701.1	118.1	7.50	7.50	0.00
6,960.0	47.32	0.03	6,837.7	39.1	701.1	146.5	7.50	7.50	0.00
7,000.0	50.32	0.03	6,864.1	69.2	701.1	176.2	7.50	7.50	0.00
7,040.0	53.32	0.03	6,888.8	100.6	701.2	207.3	7.50	7.50	0.00
7,080.0	56.32	0.03	6,911.8	133.3	701.2	239.6	7.50	7.50	0.00
7,120.0	59.32	0.03	6,933.1	167.2	701.2	273.0	7.50	7.50	0.00
7,160.0	62.32	0.03	6,952.6	202.1	701.2	307.6	7.50	7.50	0.00
7,200.0	65.32	0.03	6,970.3	238.0	701.2	343.0	7.50	7.50	0.00
7,240.0	68.32	0.03	6,986.0	274.8	701.2	379.4	7.50	7.50	0.00
7,280.0	71.32	0.03	6,999.8	312.3	701.3	416.5	7.50	7.50	0.00
7,320.0	74.32	0.03	7,011.6	350.5	701.3	454.2	7.50	7.50	0.00
7,360.0	77.32	0.03	7,021.4	389.3	701.3	492.5	7.50	7.50	0.00
7,400.0	80.32	0.03	7,029.2	428.5	701.3	531.3	7.50	7.50	0.00
7,440.0	83.32	0.03	7,034.9	468.1	701.3	570.4	7.50	7.50	0.00
7,480.0	86.32	0.03	7,038.5	507.9	701.4	609.8	7.50	7.50	0.00
7,520.0	89.32	0.03	7,040.0	547.9	701.4	649.3	7.50	7.50	0.00
7,532.9	90.29	0.03	7,040.0	560.8	701.4	662.0	7.50	7.50	0.00
7,560.0	90.29	0.03	7,039.9	587.9	701.4	688.8	0.00	0.00	0.00
7,600.0	90.29	0.03	7,039.7	627.9	701.4	728.3	0.00	0.00	0.00
7,640.0	90.29	0.03	7,039.5	667.9	701.4	767.9	0.00	0.00	0.00
7,680.0	90.29	0.03	7,039.3	707.9	701.5	807.4	0.00	0.00	0.00
7,720.0	90.29	0.03	7,039.1	747.9	701.5	846.9	0.00	0.00	0.00
7,760.0	90.29	0.03	7,038.9	787.9	701.5	886.4	0.00	0.00	0.00
7,800.0	90.29	0.03	7,038.7	827.9	701.5	926.0	0.00	0.00	0.00
7,840.0	90.29	0.03	7,038.5	867.9	701.5	965.5	0.00	0.00	0.00
7,880.0	90.29	0.03	7,038.3	907.9	701.6	1,005.0	0.00	0.00	0.00
7,920.0	90.29	0.03	7,038.1	947.9	701.6	1,044.5	0.00	0.00	0.00
7,960.0	90.29	0.03	7,037.9	987.9	701.6	1,084.1	0.00	0.00	0.00
8,000.0	90.29	0.03	7,037.7	1,027.9	701.6	1,123.6	0.00	0.00	0.00
8,040.0	90.29	0.03	7,037.5	1,067.9	701.6	1,163.1	0.00	0.00	0.00
8,080.0	90.29	0.03	7,037.3	1,107.9	701.7	1,202.7	0.00	0.00	0.00
8,120.0	90.29	0.03	7,037.1	1,147.9	701.7	1,242.2	0.00	0.00	0.00
8,160.0	90.29	0.03	7,036.9	1,187.9	701.7	1,281.7	0.00	0.00	0.00
8,200.0	90.29	0.03	7,036.7	1,227.9	701.7	1,321.2	0.00	0.00	0.00
8,240.0	90.29	0.03	7,036.4	1,267.9	701.7	1,360.8	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Diana 6T-221
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	Diana 6T-221	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-25-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,280.0	90.29	0.03	7,036.2	1,307.9	701.8	1,400.3	0.00	0.00	0.00
8,320.0	90.29	0.03	7,036.0	1,347.9	701.8	1,439.8	0.00	0.00	0.00
8,360.0	90.29	0.03	7,035.8	1,387.9	701.8	1,479.3	0.00	0.00	0.00
8,400.0	90.29	0.03	7,035.6	1,427.9	701.8	1,518.9	0.00	0.00	0.00
8,440.0	90.29	0.03	7,035.4	1,467.9	701.8	1,558.4	0.00	0.00	0.00
8,480.0	90.29	0.03	7,035.2	1,507.9	701.9	1,597.9	0.00	0.00	0.00
8,520.0	90.29	0.03	7,035.0	1,547.9	701.9	1,637.4	0.00	0.00	0.00
8,560.0	90.29	0.03	7,034.8	1,587.9	701.9	1,677.0	0.00	0.00	0.00
8,600.0	90.29	0.03	7,034.6	1,627.9	701.9	1,716.5	0.00	0.00	0.00
8,640.0	90.29	0.03	7,034.4	1,667.9	701.9	1,756.0	0.00	0.00	0.00
8,680.0	90.29	0.03	7,034.2	1,707.9	702.0	1,795.6	0.00	0.00	0.00
8,720.0	90.29	0.03	7,034.0	1,747.9	702.0	1,835.1	0.00	0.00	0.00
8,760.0	90.29	0.03	7,033.8	1,787.9	702.0	1,874.6	0.00	0.00	0.00
8,800.0	90.29	0.03	7,033.6	1,827.9	702.0	1,914.1	0.00	0.00	0.00
8,840.0	90.29	0.03	7,033.4	1,867.9	702.0	1,953.7	0.00	0.00	0.00
8,880.0	90.29	0.03	7,033.2	1,907.9	702.1	1,993.2	0.00	0.00	0.00
8,920.0	90.29	0.03	7,033.0	1,947.9	702.1	2,032.7	0.00	0.00	0.00
8,960.0	90.29	0.03	7,032.8	1,987.9	702.1	2,072.2	0.00	0.00	0.00
9,000.0	90.29	0.03	7,032.6	2,027.9	702.1	2,111.8	0.00	0.00	0.00
9,040.0	90.29	0.03	7,032.4	2,067.9	702.1	2,151.3	0.00	0.00	0.00
9,080.0	90.29	0.03	7,032.2	2,107.9	702.2	2,190.8	0.00	0.00	0.00
9,120.0	90.29	0.03	7,032.0	2,147.9	702.2	2,230.3	0.00	0.00	0.00
9,160.0	90.29	0.03	7,031.8	2,187.9	702.2	2,269.9	0.00	0.00	0.00
9,200.0	90.29	0.03	7,031.6	2,227.9	702.2	2,309.4	0.00	0.00	0.00
9,240.0	90.29	0.03	7,031.4	2,267.9	702.2	2,348.9	0.00	0.00	0.00
9,280.0	90.29	0.03	7,031.2	2,307.9	702.3	2,388.4	0.00	0.00	0.00
9,320.0	90.29	0.03	7,031.0	2,347.9	702.3	2,428.0	0.00	0.00	0.00
9,360.0	90.29	0.03	7,030.8	2,387.9	702.3	2,467.5	0.00	0.00	0.00
9,400.0	90.29	0.03	7,030.6	2,427.9	702.3	2,507.0	0.00	0.00	0.00
9,440.0	90.29	0.03	7,030.4	2,467.9	702.3	2,546.6	0.00	0.00	0.00
9,480.0	90.29	0.03	7,030.2	2,507.9	702.4	2,586.1	0.00	0.00	0.00
9,520.0	90.29	0.03	7,030.0	2,547.9	702.4	2,625.6	0.00	0.00	0.00
9,560.0	90.29	0.03	7,029.8	2,587.9	702.4	2,665.1	0.00	0.00	0.00
9,600.0	90.29	0.03	7,029.6	2,627.9	702.4	2,704.7	0.00	0.00	0.00
9,640.0	90.29	0.03	7,029.4	2,667.9	702.4	2,744.2	0.00	0.00	0.00
9,680.0	90.29	0.03	7,029.2	2,707.9	702.5	2,783.7	0.00	0.00	0.00
9,720.0	90.29	0.03	7,029.0	2,747.9	702.5	2,823.2	0.00	0.00	0.00
9,760.0	90.29	0.03	7,028.8	2,787.9	702.5	2,862.8	0.00	0.00	0.00
9,800.0	90.29	0.03	7,028.6	2,827.9	702.5	2,902.3	0.00	0.00	0.00
9,840.0	90.29	0.03	7,028.3	2,867.9	702.5	2,941.8	0.00	0.00	0.00
9,880.0	90.29	0.03	7,028.1	2,907.9	702.6	2,981.3	0.00	0.00	0.00
9,920.0	90.29	0.03	7,027.9	2,947.9	702.6	3,020.9	0.00	0.00	0.00
9,960.0	90.29	0.03	7,027.7	2,987.9	702.6	3,060.4	0.00	0.00	0.00
10,000.0	90.29	0.03	7,027.5	3,027.9	702.6	3,099.9	0.00	0.00	0.00
10,040.0	90.29	0.03	7,027.3	3,067.9	702.6	3,139.5	0.00	0.00	0.00
10,080.0	90.29	0.03	7,027.1	3,107.9	702.7	3,179.0	0.00	0.00	0.00
10,120.0	90.29	0.03	7,026.9	3,147.9	702.7	3,218.5	0.00	0.00	0.00
10,160.0	90.29	0.03	7,026.7	3,187.9	702.7	3,258.0	0.00	0.00	0.00
10,200.0	90.29	0.03	7,026.5	3,227.9	702.7	3,297.6	0.00	0.00	0.00
10,240.0	90.29	0.03	7,026.3	3,267.9	702.7	3,337.1	0.00	0.00	0.00
10,280.0	90.29	0.03	7,026.1	3,307.9	702.8	3,376.6	0.00	0.00	0.00
10,320.0	90.29	0.03	7,025.9	3,347.9	702.8	3,416.1	0.00	0.00	0.00
10,360.0	90.29	0.03	7,025.7	3,387.9	702.8	3,455.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Diana 6T-221
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Project:	SEC.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	North Reference:	True
Well:	Diana 6T-221	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (1-25-13)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,400.0	90.29	0.03	7,025.5	3,427.9	702.8	3,495.2	0.00	0.00	0.00
10,440.0	90.29	0.03	7,025.3	3,467.9	702.8	3,534.7	0.00	0.00	0.00
10,480.0	90.29	0.03	7,025.1	3,507.9	702.9	3,574.2	0.00	0.00	0.00
10,520.0	90.29	0.03	7,024.9	3,547.9	702.9	3,613.8	0.00	0.00	0.00
10,560.0	90.29	0.03	7,024.7	3,587.9	702.9	3,653.3	0.00	0.00	0.00
10,600.0	90.29	0.03	7,024.5	3,627.9	702.9	3,692.8	0.00	0.00	0.00
10,640.0	90.29	0.03	7,024.3	3,667.9	702.9	3,732.4	0.00	0.00	0.00
10,680.0	90.29	0.03	7,024.1	3,707.9	703.0	3,771.9	0.00	0.00	0.00
10,720.0	90.29	0.03	7,023.9	3,747.9	703.0	3,811.4	0.00	0.00	0.00
10,760.0	90.29	0.03	7,023.7	3,787.9	703.0	3,850.9	0.00	0.00	0.00
10,800.0	90.29	0.03	7,023.5	3,827.9	703.0	3,890.5	0.00	0.00	0.00
10,840.0	90.29	0.03	7,023.3	3,867.9	703.1	3,930.0	0.00	0.00	0.00
10,880.0	90.29	0.03	7,023.1	3,907.9	703.1	3,969.5	0.00	0.00	0.00
10,920.0	90.29	0.03	7,022.9	3,947.9	703.1	4,009.0	0.00	0.00	0.00
10,960.0	90.29	0.03	7,022.7	3,987.9	703.1	4,048.6	0.00	0.00	0.00
11,000.0	90.29	0.03	7,022.5	4,027.9	703.1	4,088.1	0.00	0.00	0.00
11,040.0	90.29	0.03	7,022.3	4,067.9	703.2	4,127.6	0.00	0.00	0.00
11,080.0	90.29	0.03	7,022.1	4,107.9	703.2	4,167.1	0.00	0.00	0.00
11,120.0	90.29	0.03	7,021.9	4,147.9	703.2	4,206.7	0.00	0.00	0.00
11,160.0	90.29	0.03	7,021.7	4,187.9	703.2	4,246.2	0.00	0.00	0.00
11,200.0	90.29	0.03	7,021.5	4,227.9	703.2	4,285.7	0.00	0.00	0.00
11,240.0	90.29	0.03	7,021.3	4,267.9	703.3	4,325.2	0.00	0.00	0.00
11,280.0	90.29	0.03	7,021.1	4,307.9	703.3	4,364.8	0.00	0.00	0.00
11,320.0	90.29	0.03	7,020.9	4,347.9	703.3	4,404.3	0.00	0.00	0.00
11,360.0	90.29	0.03	7,020.7	4,387.9	703.3	4,443.8	0.00	0.00	0.00
11,400.0	90.29	0.03	7,020.5	4,427.9	703.3	4,483.4	0.00	0.00	0.00
11,440.0	90.29	0.03	7,020.3	4,467.9	703.4	4,522.9	0.00	0.00	0.00
11,480.0	90.29	0.03	7,020.0	4,507.9	703.4	4,562.4	0.00	0.00	0.00
11,489.7	90.29	0.03	7,020.0	4,517.6	703.4	4,572.0	0.00	0.00	0.00

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,532.9	7,040.0	7"	7	8-3/4

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP #1
6,329.0	6,276.1	-207.0	701.0	KOP #2
7,532.9	7,040.0	560.8	701.4	End of Build



PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.6-T6N-R65W

Diana 6T-HZ Pad Sec.6-T6N-R65W

Diana 6T-221

Wellbore #1

Plan #1 (1-25-13)

Anticollision Report

25 January, 2013

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (1-25-13)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 1/25/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,489.7	Plan #1 (1-25-13) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Diana 6T-HZ Pad Sec.6-T6N-R65W						
Anderson 1 (P & A) - Wellbore #1 - Wellbore #1	7,386.9	7,014.8	494.3	335.7	3.117	CC, ES
Anderson 1 (P & A) - Wellbore #1 - Wellbore #1	7,400.0	7,017.2	494.5	335.7	3.115	SF
Diana 6T-401 - Wellbore #1 - Plan #1 (1-25-13)	200.0	200.0	30.6	29.9	45.362	CC, ES
Diana 6T-401 - Wellbore #1 - Plan #1 (1-25-13)	11,490.4	11,632.4	381.0	220.9	2.379	SF
Harsh 1 (Exist.) - Wellbore #1 - Wellbore #1	9,988.9	7,040.6	440.1	238.3	2.181	CC
Harsh 1 (Exist.) - Wellbore #1 - Wellbore #1	10,000.0	7,040.5	440.2	238.3	2.180	ES, SF
Harsh 41-6 (Exist.) - Wellbore #1 - Wellbore #1	11,245.8	7,048.2	406.0	180.6	1.801	CC, ES, SF

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Anderson 1 (P & A) - Wellbore #1 - Wellbore #1											
Survey Program: 7300-UNKNOWN											
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)
0.0	0.0	0.0	0.0	0.0	0.0	70.84	415.4	1,195.7	1,265.8		
100.0	100.0	88.0	88.0	0.1	1.8	70.84	415.4	1,195.7	1,265.8	1,263.9	1.87
200.0	200.0	188.0	188.0	0.3	3.8	70.84	415.4	1,195.7	1,265.8	1,261.7	4.10
300.0	300.0	288.0	288.0	0.5	5.8	-35.67	415.4	1,195.7	1,264.3	1,258.0	6.31
400.0	399.8	387.8	387.8	0.8	7.8	-35.86	415.4	1,195.7	1,260.1	1,251.6	8.51
500.0	499.5	487.5	487.5	1.0	9.7	-36.18	415.4	1,195.7	1,253.0	1,242.3	10.71
600.0	598.7	586.7	586.7	1.3	11.7	-36.62	415.4	1,195.7	1,243.2	1,230.3	12.91
626.6	625.0	613.0	613.0	1.4	12.3	-36.77	415.4	1,195.7	1,240.1	1,226.6	13.49
700.0	697.6	685.6	685.6	1.6	13.7	-37.07	415.4	1,195.7	1,231.4	1,216.2	15.14
800.0	796.5	784.5	784.5	2.0	15.7	-37.49	415.4	1,195.7	1,219.5	1,202.1	17.39
900.0	895.4	883.4	883.4	2.3	17.7	-37.91	415.4	1,195.7	1,207.7	1,188.1	19.64
1,000.0	994.3	982.3	982.3	2.7	19.6	-38.35	415.4	1,195.7	1,196.0	1,174.1	21.90
1,100.0	1,093.2	1,081.2	1,081.2	3.0	21.6	-38.79	415.4	1,195.7	1,184.4	1,160.2	24.17
1,200.0	1,192.1	1,180.1	1,180.1	3.4	23.6	-39.24	415.4	1,195.7	1,172.8	1,146.4	26.44
1,300.0	1,291.0	1,279.0	1,279.0	3.7	25.6	-39.70	415.4	1,195.7	1,161.3	1,132.6	28.71
1,400.0	1,389.9	1,377.9	1,377.9	4.1	27.6	-40.17	415.4	1,195.7	1,149.9	1,118.9	30.99
1,500.0	1,488.8	1,476.8	1,476.8	4.5	29.5	-40.65	415.4	1,195.7	1,138.5	1,105.3	33.26
1,600.0	1,587.7	1,575.7	1,575.7	4.8	31.5	-41.14	415.4	1,195.7	1,127.2	1,091.7	35.55
1,700.0	1,686.5	1,674.5	1,674.5	5.2	33.5	-41.64	415.4	1,195.7	1,116.1	1,078.2	37.83
1,800.0	1,785.4	1,773.4	1,773.4	5.5	35.5	-42.15	415.4	1,195.7	1,105.0	1,064.8	40.12

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Anderson 1 (P & A) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 7300-UNKNOWN													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
1,900.0	1,884.3	1,872.3	1,872.3	5.9	37.4	-42.67	415.4	1,195.7	1,094.0	1,051.5	42.41	25.795		
2,000.0	1,983.2	1,971.2	1,971.2	6.3	39.4	-43.20	415.4	1,195.7	1,083.0	1,038.3	44.70	24.227		
2,100.0	2,082.1	2,070.1	2,070.1	6.6	41.4	-43.74	415.4	1,195.7	1,072.2	1,025.2	47.00	22.813		
2,200.0	2,181.0	2,169.0	2,169.0	7.0	43.4	-44.29	415.4	1,195.7	1,061.5	1,012.2	49.30	21.531		
2,300.0	2,279.9	2,267.9	2,267.9	7.4	45.4	-44.85	415.4	1,195.7	1,050.9	999.3	51.60	20.364		
2,400.0	2,378.8	2,366.8	2,366.8	7.7	47.3	-45.42	415.4	1,195.7	1,040.3	986.4	53.91	19.297		
2,500.0	2,477.7	2,465.7	2,465.7	8.1	49.3	-46.01	415.4	1,195.7	1,029.9	973.7	56.22	18.319		
2,600.0	2,576.6	2,564.6	2,564.6	8.4	51.3	-46.60	415.4	1,195.7	1,019.6	961.1	58.53	17.419		
2,700.0	2,675.5	2,663.5	2,663.5	8.8	53.3	-47.21	415.4	1,195.7	1,009.4	948.6	60.85	16.589		
2,800.0	2,774.4	2,762.4	2,762.4	9.2	55.2	-47.83	415.4	1,195.7	999.3	936.2	63.17	15.820		
2,900.0	2,873.3	2,861.3	2,861.3	9.5	57.2	-48.46	415.4	1,195.7	989.4	923.9	65.49	15.107		
3,000.0	2,972.2	2,960.2	2,960.2	9.9	59.2	-49.11	415.4	1,195.7	979.6	911.7	67.82	14.444		
3,100.0	3,071.1	3,059.1	3,059.1	10.3	61.2	-49.77	415.4	1,195.7	969.8	899.7	70.15	13.826		
3,200.0	3,170.0	3,158.0	3,158.0	10.6	63.2	-50.44	415.4	1,195.7	960.3	887.8	72.48	13.249		
3,300.0	3,268.8	3,256.8	3,256.8	11.0	65.1	-51.12	415.4	1,195.7	950.8	876.0	74.82	12.709		
3,400.0	3,367.7	3,355.7	3,355.7	11.3	67.1	-51.82	415.4	1,195.7	941.5	864.4	77.16	12.203		
3,500.0	3,466.6	3,454.6	3,454.6	11.7	69.1	-52.53	415.4	1,195.7	932.4	852.9	79.50	11.728		
3,600.0	3,565.5	3,553.5	3,553.5	12.1	71.1	-53.26	415.4	1,195.7	923.3	841.5	81.85	11.281		
3,700.0	3,664.4	3,652.4	3,652.4	12.4	73.0	-54.00	415.4	1,195.7	914.5	830.3	84.20	10.861		
3,800.0	3,763.3	3,751.3	3,751.3	12.8	75.0	-54.75	415.4	1,195.7	905.8	819.2	86.55	10.465		
3,900.0	3,862.2	3,850.2	3,850.2	13.2	77.0	-55.52	415.4	1,195.7	897.2	808.3	88.91	10.092		
4,000.0	3,961.1	3,949.1	3,949.1	13.5	79.0	-56.30	415.4	1,195.7	888.9	797.6	91.27	9.739		
4,100.0	4,060.0	4,048.0	4,048.0	13.9	81.0	-57.10	415.4	1,195.7	880.7	787.0	93.63	9.405		
4,200.0	4,158.9	4,146.9	4,146.9	14.2	82.9	-57.91	415.4	1,195.7	872.6	776.6	96.00	9.090		
4,300.0	4,257.8	4,245.8	4,245.8	14.6	84.9	-58.74	415.4	1,195.7	864.8	766.4	98.37	8.791		
4,400.0	4,356.7	4,344.7	4,344.7	15.0	86.9	-59.58	415.4	1,195.7	857.1	756.4	100.75	8.508		
4,500.0	4,455.6	4,443.6	4,443.6	15.3	88.9	-60.43	415.4	1,195.7	849.6	746.5	103.12	8.239		
4,600.0	4,554.5	4,542.5	4,542.5	15.7	90.8	-61.30	415.4	1,195.7	842.3	736.8	105.50	7.984		
4,700.0	4,653.4	4,641.4	4,641.4	16.1	92.8	-62.19	415.4	1,195.7	835.3	727.4	107.88	7.742		
4,800.0	4,752.2	4,740.2	4,740.2	16.4	94.8	-63.09	415.4	1,195.7	828.4	718.1	110.27	7.513		
4,900.0	4,851.1	4,839.1	4,839.1	16.8	96.8	-64.00	415.4	1,195.7	821.7	709.1	112.65	7.294		
5,000.0	4,950.0	4,938.0	4,938.0	17.2	98.8	-64.93	415.4	1,195.7	815.3	700.2	115.04	7.087		
5,100.0	5,048.9	5,036.9	5,036.9	17.5	100.7	-65.87	415.4	1,195.7	809.0	691.6	117.43	6.889		
5,126.4	5,075.0	5,063.0	5,063.0	17.6	101.3	-66.12	415.4	1,195.7	807.4	689.4	118.06	6.839		
5,200.0	5,148.0	5,136.0	5,136.0	17.8	102.7	-66.70	415.4	1,195.7	803.4	683.6	119.82	6.705		
5,300.0	5,247.4	5,235.4	5,235.4	18.1	104.7	-67.31	415.4	1,195.7	799.2	677.1	122.12	6.545		
5,400.0	5,347.1	5,335.1	5,335.1	18.2	106.7	-67.73	415.4	1,195.7	796.5	672.2	124.35	6.406		
5,500.0	5,447.1	5,435.1	5,435.1	18.4	108.7	-67.94	415.4	1,195.7	795.2	668.7	126.52	6.285		
5,552.9	5,500.0	5,488.0	5,488.0	18.5	109.8	38.48	415.4	1,195.7	795.0	667.3	127.65	6.228		
5,600.0	5,547.1	5,535.1	5,535.1	18.5	110.7	38.48	415.4	1,195.7	795.0	666.3	128.66	6.179		
5,700.0	5,647.1	5,635.1	5,635.1	18.6	112.7	38.48	415.4	1,195.7	795.0	664.2	130.79	6.078		
5,800.0	5,747.1	5,735.1	5,735.1	18.8	114.7	38.48	415.4	1,195.7	795.0	662.1	132.93	5.981		
5,900.0	5,847.1	5,835.1	5,835.1	18.9	116.7	38.48	415.4	1,195.7	795.0	659.9	135.06	5.886		
6,000.0	5,947.1	5,935.1	5,935.1	19.1	118.7	38.48	415.4	1,195.7	795.0	657.8	137.20	5.794		
6,100.0	6,047.1	6,035.1	6,035.1	19.2	120.7	38.48	415.4	1,195.7	795.0	655.6	139.35	5.705		
6,200.0	6,147.1	6,135.1	6,135.1	19.3	122.7	38.48	415.4	1,195.7	795.0	653.5	141.49	5.619		
6,300.0	6,247.1	6,235.1	6,235.1	19.5	124.7	38.48	415.4	1,195.7	795.0	651.4	143.63	5.535		
6,329.0	6,276.1	6,264.1	6,264.1	19.5	125.3	38.48	415.4	1,195.7	795.0	650.7	144.26	5.511		
6,350.0	6,297.1	6,285.1	6,285.1	19.5	125.7	38.47	415.4	1,195.7	794.8	650.1	144.68	5.493		
6,400.0	6,347.0	6,335.0	6,335.0	19.6	126.7	38.72	415.4	1,195.7	792.4	647.0	145.40	5.450		
6,450.0	6,396.6	6,384.6	6,384.6	19.7	127.7	39.24	415.4	1,195.7	787.5	641.8	145.71	5.405		

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

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Anderson 1 (P & A) - Wellbore #1 - Wellbore #1											Offset Site Error: 0.0 ft		
Survey Program: 7300-UNKNOWN											Offset Well Error: 0.0 ft		
Reference		Offset		Semi Major Axis			Distance				Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)		Minimum Separation (ft)	Separation Factor
6,500.0	6,445.6	6,433.6	6,433.6	19.7	128.7	40.03	415.4	1,195.7	780.2	634.5	145.64	5.357	
6,550.0	6,494.0	6,482.0	6,482.0	19.7	129.6	41.12	415.4	1,195.7	770.4	625.1	145.25	5.304	
6,600.0	6,541.4	6,529.4	6,529.4	19.8	130.6	42.51	415.4	1,195.7	758.3	613.7	144.61	5.244	
6,650.0	6,587.7	6,575.7	6,575.7	19.8	131.5	44.23	415.4	1,195.7	744.1	600.3	143.83	5.173	
6,700.0	6,632.7	6,620.7	6,620.7	19.8	132.4	46.29	415.4	1,195.7	727.9	584.9	143.05	5.088	
6,750.0	6,676.1	6,664.1	6,664.1	19.8	133.3	48.71	415.4	1,195.7	709.9	567.5	142.42	4.985	
6,800.0	6,717.8	6,705.8	6,705.8	19.8	134.1	51.50	415.4	1,195.7	690.4	548.3	142.12	4.858	
6,850.0	6,757.6	6,745.6	6,745.6	19.9	134.9	54.65	415.4	1,195.7	669.7	527.4	142.29	4.706	
6,900.0	6,795.4	6,783.4	6,783.4	19.9	135.7	58.13	415.4	1,195.7	648.0	505.0	143.05	4.530	
6,950.0	6,830.9	6,818.9	6,818.9	19.9	136.4	61.91	415.4	1,195.7	625.9	481.4	144.41	4.334	
7,000.0	6,864.1	6,852.1	6,852.1	19.9	137.0	65.90	415.4	1,195.7	603.6	457.3	146.29	4.126	
7,050.0	6,894.7	6,882.7	6,882.7	20.0	137.7	69.98	415.4	1,195.7	581.9	433.4	148.51	3.918	
7,100.0	6,922.7	6,910.7	6,910.7	20.0	138.2	74.04	415.4	1,195.7	561.1	410.3	150.83	3.720	
7,150.0	6,947.9	6,935.9	6,935.9	20.1	138.7	77.92	415.4	1,195.7	542.0	389.1	152.99	3.543	
7,200.0	6,970.3	6,958.3	6,958.3	20.2	139.2	81.47	415.4	1,195.7	525.3	370.5	154.83	3.393	
7,250.0	6,989.6	6,977.6	6,977.6	20.3	139.6	84.57	415.4	1,195.7	511.5	355.3	156.27	3.273	
7,300.0	7,006.0	6,994.0	6,994.0	20.5	139.9	87.12	415.4	1,195.7	501.5	344.1	157.34	3.187	
7,350.0	7,019.2	7,007.2	7,007.2	20.7	140.1	89.03	415.4	1,195.7	495.7	337.5	158.13	3.134	
7,386.9	7,026.8	7,014.8	7,014.8	20.9	140.3	90.00	415.4	1,195.7	494.3	335.7	158.62	3.117 CC, ES	
7,400.0	7,029.2	7,017.2	7,017.2	21.0	140.3	90.25	415.4	1,195.7	494.5	335.7	158.78	3.115 SF	
7,450.0	7,036.0	7,024.0	7,024.0	21.4	140.5	90.75	415.4	1,195.7	498.3	338.9	159.38	3.126	
7,500.0	7,039.5	7,027.5	7,027.5	21.8	140.5	90.49	415.4	1,195.7	506.9	347.0	159.99	3.169	
7,532.9	7,040.0	7,028.0	7,028.0	22.0	140.6	89.91	415.4	1,195.7	515.2	354.8	160.39	3.212	
7,600.0	7,039.7	7,027.7	7,027.7	22.7	140.6	89.88	415.4	1,195.7	538.0	376.9	161.16	3.338	
7,700.0	7,039.2	7,027.2	7,027.2	23.8	140.5	89.82	415.4	1,195.7	584.7	422.3	162.40	3.601	
7,800.0	7,038.7	7,026.7	7,026.7	25.0	140.5	89.76	415.4	1,195.7	643.7	480.0	163.73	3.932	
7,900.0	7,038.2	7,026.2	7,026.2	26.3	140.5	89.70	415.4	1,195.7	711.9	546.8	165.14	4.311	
8,000.0	7,037.7	7,025.7	7,025.7	27.7	140.5	89.64	415.4	1,195.7	787.0	620.3	166.61	4.723	
8,100.0	7,037.2	7,025.2	7,025.2	29.2	140.5	89.58	415.4	1,195.7	867.0	698.9	168.14	5.157	
8,200.0	7,036.7	7,024.7	7,024.7	30.7	140.5	89.52	415.4	1,195.7	950.9	781.2	169.71	5.603	
8,300.0	7,036.1	7,024.1	7,024.1	32.2	140.5	89.46	415.4	1,195.7	1,037.6	866.3	171.33	6.056	
8,400.0	7,035.6	7,023.6	7,023.6	33.8	140.5	89.41	415.4	1,195.7	1,126.6	953.6	172.97	6.513	
8,500.0	7,035.1	7,023.1	7,023.1	35.5	140.5	89.35	415.4	1,195.7	1,217.2	1,042.6	174.64	6.970	
8,600.0	7,034.6	7,022.6	7,022.6	37.1	140.5	89.29	415.4	1,195.7	1,309.2	1,132.9	176.34	7.424	
8,700.0	7,034.1	7,022.1	7,022.1	38.8	140.4	89.23	415.4	1,195.7	1,402.3	1,224.3	178.06	7.876	
8,800.0	7,033.6	7,021.6	7,021.6	40.5	140.4	89.17	415.4	1,195.7	1,496.3	1,316.5	179.79	8.322	
8,900.0	7,033.1	7,021.1	7,021.1	42.2	140.4	89.11	415.4	1,195.7	1,591.0	1,409.5	181.55	8.764	
9,000.0	7,032.6	7,020.6	7,020.6	44.0	140.4	89.05	415.4	1,195.7	1,686.4	1,503.1	183.31	9.200	
9,100.0	7,032.1	7,020.1	7,020.1	45.7	140.4	89.00	415.4	1,195.7	1,782.2	1,597.1	185.09	9.629	
9,200.0	7,031.6	7,019.6	7,019.6	47.5	140.4	88.94	415.4	1,195.7	1,878.5	1,691.6	186.87	10.052	
9,300.0	7,031.1	7,019.1	7,019.1	49.2	140.4	88.88	415.4	1,195.7	1,975.2	1,786.5	188.67	10.469	
9,400.0	7,030.6	7,018.6	7,018.6	51.0	140.4	88.82	415.4	1,195.7	2,072.1	1,881.6	190.48	10.879	
9,500.0	7,030.1	7,018.1	7,018.1	52.8	140.4	88.76	415.4	1,195.7	2,169.4	1,977.1	192.29	11.282	
9,600.0	7,029.6	7,017.6	7,017.6	54.6	140.4	88.70	415.4	1,195.7	2,266.8	2,072.7	194.11	11.678	
9,700.0	7,029.1	7,017.1	7,017.1	56.4	140.3	88.64	415.4	1,195.7	2,364.5	2,168.6	195.93	12.068	
9,800.0	7,028.6	7,016.6	7,016.6	58.3	140.3	88.59	415.4	1,195.7	2,462.4	2,264.7	197.76	12.451	
9,900.0	7,028.0	7,016.0	7,016.0	60.1	140.3	88.53	415.4	1,195.7	2,560.5	2,360.9	199.60	12.828	
10,000.0	7,027.5	7,015.5	7,015.5	61.9	140.3	88.47	415.4	1,195.7	2,658.6	2,457.2	201.44	13.198	
10,100.0	7,027.0	7,015.0	7,015.0	63.8	140.3	88.41	415.4	1,195.7	2,757.0	2,553.7	203.28	13.562	
10,200.0	7,026.5	7,014.5	7,014.5	65.6	140.3	88.35	415.4	1,195.7	2,855.4	2,650.3	205.13	13.920	
10,300.0	7,026.0	7,014.0	7,014.0	67.4	140.3	88.29	415.4	1,195.7	2,953.9	2,747.0	206.98	14.272	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Anderson 1 (P & A) - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 ft	
Survey Program: 7300-UNKNOWN											Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
10,400.0	7,025.5	7,013.5	7,013.5	69.3	140.3	88.23	415.4	1,195.7	3,052.6	2,843.7	208.83	14.617		
10,500.0	7,025.0	7,013.0	7,013.0	71.1	140.3	88.17	415.4	1,195.7	3,151.3	2,940.6	210.69	14.957		
10,600.0	7,024.5	7,012.5	7,012.5	73.0	140.3	88.12	415.4	1,195.7	3,250.1	3,037.5	212.54	15.291		
10,700.0	7,024.0	7,012.0	7,012.0	74.9	140.2	88.06	415.4	1,195.7	3,349.0	3,134.6	214.41	15.620		
10,800.0	7,023.5	7,011.5	7,011.5	76.7	140.2	88.00	415.4	1,195.7	3,447.9	3,231.6	216.27	15.943		
10,900.0	7,023.0	7,011.0	7,011.0	78.6	140.2	87.94	415.4	1,195.7	3,546.9	3,328.8	218.13	16.260		
11,000.0	7,022.5	7,010.5	7,010.5	80.5	140.2	87.88	415.4	1,195.7	3,645.9	3,425.9	220.00	16.573		
11,100.0	7,022.0	7,010.0	7,010.0	82.3	140.2	87.82	415.4	1,195.7	3,745.0	3,523.2	221.87	16.880		
11,200.0	7,021.5	7,009.5	7,009.5	84.2	140.2	87.76	415.4	1,195.7	3,844.2	3,620.4	223.73	17.182		
11,300.0	7,021.0	7,009.0	7,009.0	86.1	140.2	87.71	415.4	1,195.7	3,943.4	3,717.8	225.61	17.479		
11,400.0	7,020.5	7,008.5	7,008.5	88.0	140.2	87.65	415.4	1,195.7	4,042.6	3,815.1	227.48	17.771		
11,489.7	7,020.0	7,008.0	7,008.0	89.6	140.2	87.60	415.4	1,195.7	4,131.7	3,902.5	229.16	18.030		
11,490.4	7,020.0	7,008.0	7,008.0	89.7	140.2	87.59	415.4	1,195.7	4,132.4	3,903.2	229.17	18.032		

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Diana 6T-401 - Wellbore #1 - Plan #1 (1-25-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-30.6	30.6					
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-30.6	30.6	30.4	0.22	136.085		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-30.6	30.6	29.9	0.67	45.362 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.6	164.42	0.0	-30.6	32.3	31.1	1.12	28.910		
400.0	399.8	399.8	399.8	0.8	0.8	166.55	0.0	-30.6	37.3	35.8	1.56	23.921		
500.0	499.5	499.5	499.5	1.0	1.0	169.05	0.0	-30.6	45.9	43.8	2.01	22.766		
600.0	598.7	598.7	598.7	1.3	1.2	171.31	0.0	-30.6	57.9	55.4	2.47	23.408		
626.6	625.0	625.0	625.0	1.4	1.3	171.83	0.0	-30.6	61.6	59.0	2.59	23.764		
700.0	697.6	697.6	697.6	1.6	1.5	173.06	0.0	-30.6	72.4	69.5	2.92	24.775		
800.0	796.5	796.5	796.5	2.0	1.7	174.24	0.0	-30.6	87.2	83.8	3.38	25.811		
900.0	895.4	895.4	895.4	2.3	1.9	175.07	0.0	-30.6	102.0	98.1	3.84	26.585		
1,000.0	994.3	994.3	994.3	2.7	2.1	175.70	0.0	-30.6	116.8	112.5	4.29	27.184		
1,100.0	1,093.2	1,097.5	1,097.5	3.0	2.3	176.02	-0.8	-29.1	130.0	125.3	4.74	27.419		
1,200.0	1,192.1	1,201.8	1,201.6	3.4	2.5	175.89	-3.3	-24.3	139.8	134.6	5.18	27.012		
1,300.0	1,291.0	1,306.6	1,306.0	3.7	2.8	175.38	-7.5	-16.0	146.1	140.5	5.62	25.973		
1,400.0	1,389.9	1,406.5	1,405.4	4.1	3.0	174.75	-12.4	-6.5	150.6	144.5	6.08	24.784		
1,500.0	1,488.8	1,506.4	1,504.7	4.5	3.2	174.16	-17.3	3.0	155.1	148.6	6.54	23.730		
1,600.0	1,587.7	1,606.3	1,604.0	4.8	3.5	173.60	-22.2	12.5	159.7	152.7	7.00	22.796		
1,700.0	1,686.5	1,706.2	1,703.3	5.2	3.7	173.07	-27.1	22.0	164.2	156.8	7.48	21.964		
1,800.0	1,785.4	1,806.1	1,802.6	5.5	4.0	172.57	-32.0	31.5	168.8	160.9	7.96	21.221		
1,900.0	1,884.3	1,905.9	1,901.9	5.9	4.3	172.09	-36.9	41.0	173.4	165.0	8.44	20.552		
2,000.0	1,983.2	2,005.8	2,001.2	6.3	4.6	171.64	-41.8	50.5	178.0	169.1	8.92	19.948		
2,100.0	2,082.1	2,105.7	2,100.5	6.6	4.8	171.22	-46.7	60.0	182.6	173.2	9.41	19.401		
2,200.0	2,181.0	2,205.6	2,199.8	7.0	5.1	170.81	-51.7	69.5	187.2	177.3	9.90	18.903		
2,300.0	2,279.9	2,305.5	2,299.2	7.4	5.4	170.43	-56.6	79.0	191.8	181.4	10.40	18.448		
2,400.0	2,378.8	2,405.4	2,398.5	7.7	5.7	170.06	-61.5	88.5	196.5	185.6	10.90	18.032		
2,500.0	2,477.7	2,505.2	2,497.8	8.1	6.0	169.71	-66.4	98.0	201.1	189.7	11.40	17.648		
2,600.0	2,576.6	2,605.1	2,597.1	8.4	6.3	169.37	-71.3	107.5	205.8	193.9	11.90	17.295		
2,700.0	2,675.5	2,705.0	2,696.4	8.8	6.6	169.05	-76.2	117.0	210.4	198.0	12.40	16.968		
2,800.0	2,774.4	2,804.9	2,795.7	9.2	6.8	168.74	-81.1	126.5	215.1	202.2	12.91	16.664		
2,900.0	2,873.3	2,904.8	2,895.0	9.5	7.1	168.45	-86.0	136.0	219.8	206.3	13.41	16.382		
3,000.0	2,972.2	3,004.7	2,994.3	9.9	7.4	168.17	-90.9	145.5	224.4	210.5	13.92	16.120		
3,100.0	3,071.1	3,104.6	3,093.6	10.3	7.7	167.90	-95.8	155.0	229.1	214.7	14.43	15.874		
3,200.0	3,170.0	3,204.4	3,193.0	10.6	8.0	167.64	-100.7	164.5	233.8	218.8	14.94	15.644		
3,300.0	3,268.8	3,304.3	3,292.3	11.0	8.3	167.39	-105.6	174.0	238.5	223.0	15.46	15.429		
3,400.0	3,367.7	3,404.2	3,391.6	11.3	8.6	167.15	-110.5	183.5	243.2	227.2	15.97	15.226		
3,500.0	3,466.6	3,504.1	3,490.9	11.7	8.9	166.92	-115.4	193.0	247.9	231.4	16.49	15.036		
3,600.0	3,565.5	3,604.0	3,590.2	12.1	9.2	166.70	-120.3	202.5	252.6	235.6	17.00	14.856		
3,700.0	3,664.4	3,703.9	3,689.5	12.4	9.5	166.49	-125.2	212.0	257.3	239.7	17.52	14.686		
3,800.0	3,763.3	3,803.8	3,788.8	12.8	9.8	166.28	-130.1	221.4	262.0	243.9	18.04	14.525		
3,900.0	3,862.2	3,903.6	3,888.1	13.2	10.1	166.08	-135.0	230.9	266.7	248.1	18.55	14.373		
4,000.0	3,961.1	4,003.5	3,987.4	13.5	10.4	165.89	-139.9	240.4	271.4	252.3	19.07	14.229		
4,100.0	4,060.0	4,103.4	4,086.8	13.9	10.7	165.71	-144.8	249.9	276.1	256.5	19.59	14.092		
4,200.0	4,158.9	4,203.3	4,186.1	14.2	11.0	165.53	-149.7	259.4	280.8	260.7	20.11	13.962		
4,300.0	4,257.8	4,303.2	4,285.4	14.6	11.3	165.35	-154.6	268.9	285.6	264.9	20.64	13.838		
4,400.0	4,356.7	4,403.1	4,384.7	15.0	11.6	165.19	-159.5	278.4	290.3	269.1	21.16	13.720		
4,500.0	4,455.6	4,502.9	4,484.0	15.3	11.9	165.02	-164.4	287.9	295.0	273.3	21.68	13.607		
4,600.0	4,554.5	4,602.8	4,583.3	15.7	12.2	164.87	-169.3	297.4	299.7	277.5	22.20	13.499		
4,700.0	4,653.4	4,702.7	4,682.6	16.1	12.5	164.71	-174.2	306.9	304.5	281.7	22.73	13.396		
4,800.0	4,752.2	4,802.6	4,781.9	16.4	12.8	164.57	-179.1	316.4	309.2	285.9	23.25	13.297		
4,900.0	4,851.1	4,902.5	4,881.2	16.8	13.1	164.42	-184.0	325.9	313.9	290.2	23.78	13.203		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Diana 6T-401 - Wellbore #1 - Plan #1 (1-25-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.0	4,950.0	5,002.4	4,980.6	17.2	13.4	164.29		-188.9	335.4	318.7	294.4	24.30	13.112	
5,100.0	5,048.9	5,102.3	5,079.9	17.5	13.7	164.15		-193.8	344.9	323.4	298.6	24.83	13.026	
5,126.4	5,075.0	5,128.6	5,106.1	17.6	13.8	164.12		-195.1	347.4	324.7	299.7	24.97	13.003	
5,200.0	5,148.0	5,202.2	5,179.2	17.8	14.0	163.99		-198.8	354.4	327.2	301.9	25.34	12.912	
5,300.0	5,247.4	5,294.2	5,270.8	18.1	14.3	163.77		-202.8	362.3	328.9	303.1	25.75	12.770	
5,400.0	5,347.1	5,384.9	5,361.3	18.2	14.5	163.63		-205.5	367.4	330.0	303.9	26.08	12.650	
5,500.0	5,447.1	5,475.6	5,452.0	18.4	14.6	163.56		-206.8	370.1	330.5	304.2	26.36	12.537	
5,552.9	5,500.0	5,523.6	5,500.0	18.5	14.7	-90.00		-207.0	370.4	330.6	304.1	26.50	12.473	
5,568.6	5,515.7	5,539.3	5,515.7	18.5	14.7	-90.00		-207.0	370.4	330.6	304.0	26.56	12.447	
5,600.0	5,547.1	5,570.7	5,547.1	18.5	14.8	-90.00		-207.0	370.4	330.6	303.9	26.67	12.394	
5,700.0	5,647.1	5,670.7	5,647.1	18.6	14.9	-90.00		-207.0	370.4	330.6	303.6	27.03	12.233	
5,800.0	5,747.1	5,770.7	5,747.1	18.8	15.1	-90.00		-207.0	370.4	330.6	303.2	27.38	12.075	
5,900.0	5,847.1	5,870.7	5,847.1	18.9	15.3	-90.00		-207.0	370.4	330.6	302.9	27.73	11.920	
6,000.0	5,947.1	5,970.7	5,947.1	19.1	15.4	-90.00		-207.0	370.4	330.6	302.5	28.09	11.767	
6,100.0	6,047.1	6,070.7	6,047.1	19.2	15.6	-90.00		-207.0	370.4	330.6	302.1	28.45	11.618	
6,200.0	6,147.1	6,170.7	6,147.1	19.3	15.8	-90.00		-207.0	370.4	330.6	301.8	28.82	11.471	
6,300.0	6,247.1	6,270.7	6,247.1	19.5	15.9	-90.00		-207.0	370.4	330.6	301.4	29.19	11.327	
6,329.0	6,276.1	6,299.7	6,276.1	19.5	16.0	-90.00		-207.0	370.4	330.6	301.3	29.29	11.286	
6,350.0	6,297.1	6,320.7	6,297.1	19.5	16.0	-90.08		-207.0	370.4	330.6	301.2	29.37	11.256	
6,400.0	6,347.0	6,370.6	6,347.0	19.6	16.1	-90.60		-207.0	370.4	330.6	301.0	29.59	11.172	
6,450.0	6,396.6	6,420.2	6,396.6	19.7	16.2	-91.66		-207.0	370.4	330.7	300.9	29.86	11.077	
6,500.0	6,445.6	6,469.3	6,445.6	19.7	16.3	-93.24		-207.0	370.4	331.1	301.0	30.16	10.978	
6,550.0	6,494.0	6,519.6	6,496.0	19.7	16.4	-95.11		-205.4	370.4	332.0	301.5	30.48	10.892	
6,600.0	6,541.4	6,570.8	6,546.9	19.8	16.4	-96.97		-200.3	370.4	333.2	302.4	30.76	10.831	
6,650.0	6,587.7	6,622.8	6,598.1	19.8	16.5	-98.79		-191.8	370.4	334.7	303.7	31.00	10.797	
6,700.0	6,632.7	6,675.6	6,649.5	19.8	16.6	-100.58		-179.5	370.4	336.6	305.4	31.19	10.791	
6,750.0	6,676.1	6,729.3	6,700.7	19.8	16.6	-102.32		-163.4	370.4	338.7	307.4	31.33	10.811	
6,800.0	6,717.8	6,783.8	6,751.4	19.8	16.6	-104.00		-143.4	370.4	341.1	309.7	31.42	10.856	
6,850.0	6,757.6	6,839.3	6,801.4	19.9	16.7	-105.62		-119.4	370.5	343.8	312.3	31.47	10.922	
6,900.0	6,795.4	6,895.7	6,850.3	19.9	16.7	-107.15		-91.4	370.5	346.5	315.0	31.49	11.003	
6,950.0	6,830.9	6,952.9	6,897.8	19.9	16.7	-108.61		-59.3	370.5	349.4	317.9	31.49	11.094	
7,000.0	6,864.1	7,011.1	6,943.4	19.9	16.7	-109.97		-23.2	370.5	352.3	320.8	31.50	11.185	
7,050.0	6,894.7	7,070.2	6,986.7	20.0	16.8	-111.23		17.0	370.5	355.2	323.7	31.53	11.266	
7,100.0	6,922.7	7,130.1	7,027.3	20.0	16.8	-112.38		61.0	370.6	358.1	326.4	31.61	11.326	
7,150.0	6,947.9	7,190.9	7,064.9	20.1	16.8	-113.42		108.7	370.6	360.8	329.0	31.77	11.354	
7,200.0	6,970.3	7,252.4	7,098.9	20.2	16.9	-114.35		159.9	370.6	363.3	331.2	32.04	11.339	
7,250.0	6,989.6	7,314.6	7,129.1	20.3	17.1	-115.15		214.3	370.6	365.5	333.1	32.43	11.270	
7,300.0	7,006.0	7,377.4	7,154.9	20.5	17.4	-115.83		271.5	370.7	367.5	334.5	32.97	11.145	
7,350.0	7,019.2	7,440.7	7,176.1	20.7	17.8	-116.38		331.2	370.7	369.1	335.5	33.67	10.962	
7,400.0	7,029.2	7,504.5	7,192.4	21.0	18.3	-116.79		392.8	370.7	370.4	335.9	34.54	10.723	
7,450.0	7,036.0	7,568.5	7,203.5	21.4	18.9	-117.07		455.9	370.8	371.3	335.7	35.58	10.434	
7,500.0	7,039.5	7,623.2	7,209.5	21.8	19.5	-117.30		510.2	370.8	372.2	335.5	36.68	10.147	
7,532.9	7,040.0	7,656.0	7,212.9	22.0	19.9	-117.60		542.8	370.8	373.5	336.1	37.39	9.990	
7,600.0	7,039.7	7,733.6	7,218.9	22.7	20.8	-118.46		620.2	370.8	376.1	337.4	38.76	9.705	
7,700.0	7,039.2	7,842.0	7,219.9	23.8	22.1	-118.66		728.6	370.9	376.7	335.7	41.08	9.171	
7,800.0	7,038.7	7,942.0	7,219.6	25.0	23.5	-118.69		828.6	370.9	376.9	333.4	43.50	8.664	
7,900.0	7,038.2	8,042.0	7,219.3	26.3	24.9	-118.72		928.6	371.0	377.0	330.9	46.04	8.187	
8,000.0	7,037.7	8,142.0	7,219.0	27.7	26.4	-118.75		1,028.6	371.0	377.1	328.4	48.70	7.743	
8,100.0	7,037.2	8,242.0	7,218.7	29.2	27.9	-118.78		1,128.6	371.1	377.2	325.7	51.45	7.331	
8,200.0	7,036.7	8,342.0	7,218.5	30.7	29.5	-118.81		1,228.6	371.1	377.3	323.0	54.27	6.952	
8,300.0	7,036.1	8,442.0	7,218.2	32.2	31.1	-118.83		1,328.6	371.2	377.4	320.2	57.17	6.602	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Diana 6T-401 - Wellbore #1 - Plan #1 (1-25-13)												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)		
8,400.0	7,035.6	8,542.0	7,217.9	33.8	32.8	-118.86	1,428.6	371.2	377.5	317.4	60.11	6.280	
8,500.0	7,035.1	8,642.0	7,217.6	35.5	34.4	-118.89	1,528.6	371.2	377.6	314.5	63.11	5.984	
8,600.0	7,034.6	8,742.0	7,217.3	37.1	36.1	-118.92	1,628.6	371.3	377.8	311.6	66.15	5.711	
8,700.0	7,034.1	8,842.0	7,217.0	38.8	37.8	-118.95	1,728.6	371.3	377.9	308.6	69.22	5.459	
8,800.0	7,033.6	8,942.0	7,216.7	40.5	39.6	-118.98	1,828.6	371.4	378.0	305.7	72.32	5.226	
8,900.0	7,033.1	9,042.0	7,216.4	42.2	41.3	-119.01	1,928.6	371.4	378.1	302.6	75.45	5.011	
9,000.0	7,032.6	9,142.0	7,216.2	44.0	43.1	-119.04	2,028.6	371.5	378.2	299.6	78.60	4.811	
9,100.0	7,032.1	9,242.0	7,215.9	45.7	44.9	-119.06	2,128.6	371.5	378.3	296.5	81.78	4.626	
9,200.0	7,031.6	9,342.0	7,215.6	47.5	46.7	-119.09	2,228.6	371.5	378.4	293.5	84.97	4.454	
9,300.0	7,031.1	9,442.0	7,215.3	49.2	48.5	-119.12	2,328.6	371.6	378.5	290.4	88.18	4.293	
9,400.0	7,030.6	9,542.0	7,215.0	51.0	50.3	-119.15	2,428.6	371.6	378.7	287.3	91.40	4.143	
9,500.0	7,030.1	9,642.0	7,214.7	52.8	52.1	-119.18	2,528.6	371.7	378.8	284.1	94.63	4.003	
9,600.0	7,029.6	9,742.0	7,214.4	54.6	53.9	-119.21	2,628.6	371.7	378.9	281.0	97.88	3.871	
9,700.0	7,029.1	9,842.0	7,214.2	56.4	55.8	-119.23	2,728.6	371.8	379.0	277.9	101.13	3.748	
9,800.0	7,028.6	9,942.0	7,213.9	58.3	57.6	-119.26	2,828.6	371.8	379.1	274.7	104.39	3.631	
9,900.0	7,028.0	10,042.0	7,213.6	60.1	59.5	-119.29	2,928.6	371.8	379.2	271.6	107.67	3.522	
10,000.0	7,027.5	10,142.0	7,213.3	61.9	61.3	-119.32	3,028.6	371.9	379.3	268.4	110.94	3.419	
10,100.0	7,027.0	10,242.0	7,213.0	63.8	63.2	-119.35	3,128.6	371.9	379.5	265.2	114.23	3.322	
10,200.0	7,026.5	10,342.0	7,212.7	65.6	65.0	-119.38	3,228.6	372.0	379.6	262.0	117.52	3.230	
10,300.0	7,026.0	10,442.0	7,212.4	67.4	66.9	-119.41	3,328.6	372.0	379.7	258.9	120.81	3.143	
10,400.0	7,025.5	10,542.0	7,212.2	69.3	68.7	-119.43	3,428.6	372.1	379.8	255.7	124.11	3.060	
10,500.0	7,025.0	10,642.0	7,211.9	71.1	70.6	-119.46	3,528.6	372.1	379.9	252.5	127.41	2.982	
10,600.0	7,024.5	10,742.0	7,211.6	73.0	72.5	-119.49	3,628.6	372.1	380.0	249.3	130.72	2.907	
10,700.0	7,024.0	10,842.0	7,211.3	74.9	74.4	-119.52	3,728.6	372.2	380.1	246.1	134.03	2.836	
10,800.0	7,023.5	10,942.0	7,211.0	76.7	76.2	-119.55	3,828.6	372.2	380.2	242.9	137.34	2.769	
10,900.0	7,023.0	11,042.0	7,210.7	78.6	78.1	-119.58	3,928.6	372.3	380.4	239.7	140.66	2.704	
11,000.0	7,022.5	11,142.0	7,210.4	80.5	80.0	-119.60	4,028.6	372.3	380.5	236.5	143.98	2.643	
11,100.0	7,022.0	11,242.0	7,210.1	82.3	81.9	-119.63	4,128.6	372.4	380.6	233.3	147.30	2.584	
11,200.0	7,021.5	11,342.0	7,209.9	84.2	83.8	-119.66	4,228.5	372.4	380.7	230.1	150.62	2.528	
11,300.0	7,021.0	11,442.0	7,209.6	86.1	85.6	-119.69	4,328.5	372.4	380.8	226.9	153.94	2.474	
11,400.0	7,020.5	11,542.0	7,209.3	88.0	87.5	-119.72	4,428.5	372.5	380.9	223.7	157.26	2.422	
11,489.7	7,020.0	11,631.7	7,209.0	89.6	89.1	-119.74	4,518.3	372.5	381.0	220.9	160.13	2.380	
11,490.4	7,020.0	11,632.4	7,209.0	89.7	89.1	-119.74	4,519.0	372.5	381.0	220.9	160.15	2.379 SF	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Harsh 1 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 7300-UNKNOWN													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	13.0	13.0	0.0	0.3	20.75	20.75	3,016.6	1,142.7	3,225.8	3,225.5	0.26	N/A	
100.0	100.0	113.0	113.0	0.1	2.3	20.75	20.75	3,016.6	1,142.7	3,225.8	3,223.4	2.37	1,359.606	
200.0	200.0	213.0	213.0	0.3	4.3	20.75	20.75	3,016.6	1,142.7	3,225.8	3,221.2	4.60	701.660	
300.0	300.0	313.0	313.0	0.5	6.3	-85.74	-85.74	3,016.6	1,142.7	3,225.6	3,218.8	6.81	473.791	
400.0	399.8	412.8	412.8	0.8	8.3	-85.84	-85.84	3,016.6	1,142.7	3,225.3	3,216.2	9.02	357.393	
500.0	499.5	512.5	512.5	1.0	10.2	-86.00	-86.00	3,016.6	1,142.7	3,224.6	3,213.4	11.27	286.212	
600.0	598.7	611.7	611.7	1.3	12.2	-86.24	-86.24	3,016.6	1,142.7	3,223.8	3,210.3	13.54	238.094	
626.6	625.0	638.0	638.0	1.4	12.8	-86.31	-86.31	3,016.6	1,142.7	3,223.6	3,209.4	14.15	227.817	
700.0	697.6	710.6	710.6	1.6	14.2	-86.50	-86.50	3,016.6	1,142.7	3,222.9	3,207.0	15.84	203.403	
800.0	796.5	809.5	809.5	2.0	16.2	-86.76	-86.76	3,016.6	1,142.7	3,222.0	3,203.8	18.16	177.394	
900.0	895.4	908.4	908.4	2.3	18.2	-87.02	-87.02	3,016.6	1,142.7	3,221.2	3,200.7	20.49	157.222	
1,000.0	994.3	1,007.3	1,007.3	2.7	20.1	-87.28	-87.28	3,016.6	1,142.7	3,220.4	3,197.6	22.82	141.137	
1,100.0	1,093.2	1,106.2	1,106.2	3.0	22.1	-87.54	-87.54	3,016.6	1,142.7	3,219.7	3,194.6	25.15	128.021	
1,200.0	1,192.1	1,205.1	1,205.1	3.4	24.1	-87.80	-87.80	3,016.6	1,142.7	3,219.1	3,191.6	27.48	117.125	
1,300.0	1,291.0	1,304.0	1,304.0	3.7	26.1	-88.06	-88.06	3,016.6	1,142.7	3,218.6	3,188.8	29.82	107.933	
1,400.0	1,389.9	1,402.9	1,402.9	4.1	28.1	-88.32	-88.32	3,016.6	1,142.7	3,218.1	3,186.0	32.16	100.075	
1,500.0	1,488.8	1,501.8	1,501.8	4.5	30.0	-88.58	-88.58	3,016.6	1,142.7	3,217.7	3,183.2	34.49	93.282	
1,600.0	1,587.7	1,600.7	1,600.7	4.8	32.0	-88.85	-88.85	3,016.6	1,142.7	3,217.4	3,180.5	36.83	87.352	
1,700.0	1,686.5	1,699.5	1,699.5	5.2	34.0	-89.11	-89.11	3,016.6	1,142.7	3,217.1	3,177.9	39.17	82.130	
1,800.0	1,785.4	1,798.4	1,798.4	5.5	36.0	-89.37	-89.37	3,016.6	1,142.7	3,216.9	3,175.4	41.51	77.498	
1,900.0	1,884.3	1,897.3	1,897.3	5.9	37.9	-89.63	-89.63	3,016.6	1,142.7	3,216.8	3,172.9	43.85	73.361	
2,000.0	1,983.2	1,996.2	1,996.2	6.3	39.9	-89.89	-89.89	3,016.6	1,142.7	3,216.7	3,170.5	46.19	69.645	
2,041.6	2,024.4	2,037.4	2,037.4	6.4	40.7	-90.00	-90.00	3,016.6	1,142.7	3,216.7	3,169.5	47.16	68.206	
2,100.0	2,082.1	2,095.1	2,095.1	6.6	41.9	-90.15	-90.15	3,016.6	1,142.7	3,216.7	3,168.2	48.53	66.288	
2,200.0	2,181.0	2,194.0	2,194.0	7.0	43.9	-90.41	-90.41	3,016.6	1,142.7	3,216.8	3,165.9	50.87	63.241	
2,300.0	2,279.9	2,292.9	2,292.9	7.4	45.9	-90.68	-90.68	3,016.6	1,142.7	3,216.9	3,163.7	53.21	60.463	
2,400.0	2,378.8	2,391.8	2,391.8	7.7	47.8	-90.94	-90.94	3,016.6	1,142.7	3,217.2	3,161.6	55.54	57.921	
2,500.0	2,477.7	2,490.7	2,490.7	8.1	49.8	-91.20	-91.20	3,016.6	1,142.7	3,217.4	3,159.5	57.88	55.585	
2,600.0	2,576.6	2,589.6	2,589.6	8.4	51.8	-91.46	-91.46	3,016.6	1,142.7	3,217.8	3,157.6	60.22	53.432	
2,700.0	2,675.5	2,688.5	2,688.5	8.8	53.8	-91.72	-91.72	3,016.6	1,142.7	3,218.2	3,155.6	62.56	51.441	
2,800.0	2,774.4	2,787.4	2,787.4	9.2	55.7	-91.98	-91.98	3,016.6	1,142.7	3,218.7	3,153.8	64.90	49.595	
2,900.0	2,873.3	2,886.3	2,886.3	9.5	57.7	-92.24	-92.24	3,016.6	1,142.7	3,219.2	3,152.0	67.24	47.878	
3,000.0	2,972.2	2,985.2	2,985.2	9.9	59.7	-92.50	-92.50	3,016.6	1,142.7	3,219.9	3,150.3	69.58	46.278	
3,100.0	3,071.1	3,084.1	3,084.1	10.3	61.7	-92.76	-92.76	3,016.6	1,142.7	3,220.5	3,148.6	71.91	44.783	
3,200.0	3,170.0	3,183.0	3,183.0	10.6	63.7	-93.02	-93.02	3,016.6	1,142.7	3,221.3	3,147.0	74.25	43.383	
3,300.0	3,268.8	3,281.8	3,281.8	11.0	65.6	-93.28	-93.28	3,016.6	1,142.7	3,222.1	3,145.5	76.59	42.070	
3,400.0	3,367.7	3,380.7	3,380.7	11.3	67.6	-93.54	-93.54	3,016.6	1,142.7	3,223.0	3,144.1	78.93	40.836	
3,500.0	3,466.6	3,479.6	3,479.6	11.7	69.6	-93.81	-93.81	3,016.6	1,142.7	3,224.0	3,142.7	81.26	39.673	
3,600.0	3,565.5	3,578.5	3,578.5	12.1	71.6	-94.07	-94.07	3,016.6	1,142.7	3,225.0	3,141.4	83.60	38.577	
3,700.0	3,664.4	3,677.4	3,677.4	12.4	73.5	-94.33	-94.33	3,016.6	1,142.7	3,226.1	3,140.2	85.94	37.541	
3,800.0	3,763.3	3,776.3	3,776.3	12.8	75.5	-94.58	-94.58	3,016.6	1,142.7	3,227.3	3,139.0	88.27	36.560	
3,900.0	3,862.2	3,875.2	3,875.2	13.2	77.5	-94.84	-94.84	3,016.6	1,142.7	3,228.5	3,137.9	90.61	35.632	
4,000.0	3,961.1	3,974.1	3,974.1	13.5	79.5	-95.10	-95.10	3,016.6	1,142.7	3,229.8	3,136.9	92.94	34.750	
4,100.0	4,060.0	4,073.0	4,073.0	13.9	81.5	-95.36	-95.36	3,016.6	1,142.7	3,231.2	3,135.9	95.28	33.913	
4,200.0	4,158.9	4,171.9	4,171.9	14.2	83.4	-95.62	-95.62	3,016.6	1,142.7	3,232.6	3,135.0	97.61	33.117	
4,300.0	4,257.8	4,270.8	4,270.8	14.6	85.4	-95.88	-95.88	3,016.6	1,142.7	3,234.1	3,134.2	99.95	32.359	
4,400.0	4,356.7	4,369.7	4,369.7	15.0	87.4	-96.14	-96.14	3,016.6	1,142.7	3,235.7	3,133.4	102.28	31.636	
4,500.0	4,455.6	4,468.6	4,468.6	15.3	89.4	-96.40	-96.40	3,016.6	1,142.7	3,237.3	3,132.7	104.61	30.946	
4,600.0	4,554.5	4,567.5	4,567.5	15.7	91.3	-96.66	-96.66	3,016.6	1,142.7	3,239.0	3,132.1	106.95	30.287	
4,700.0	4,653.4	4,666.4	4,666.4	16.1	93.3	-96.91	-96.91	3,016.6	1,142.7	3,240.8	3,131.5	109.28	29.657	
4,800.0	4,752.2	4,765.2	4,765.2	16.4	95.3	-97.17	-97.17	3,016.6	1,142.7	3,242.6	3,131.0	111.61	29.054	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Harsh 1 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)						
4,900.0	4,851.1	4,864.1	4,864.1	16.8	97.3	-97.43	3,016.6	1,142.7	3,244.5	3,130.6	113.94	28.476		
5,000.0	4,950.0	4,963.0	4,963.0	17.2	99.3	-97.68	3,016.6	1,142.7	3,246.5	3,130.2	116.27	27.922		
5,100.0	5,048.9	5,061.9	5,061.9	17.5	101.2	-97.94	3,016.6	1,142.7	3,248.5	3,129.9	118.60	27.391		
5,126.4	5,075.0	5,088.0	5,088.0	17.6	101.8	-98.01	3,016.6	1,142.7	3,249.1	3,129.9	119.22	27.254		
5,200.0	5,148.0	5,161.0	5,161.0	17.8	103.2	-98.21	3,016.6	1,142.7	3,250.5	3,129.6	120.90	26.887		
5,300.0	5,247.4	5,260.4	5,260.4	18.1	105.2	-98.42	3,016.6	1,142.7	3,252.1	3,128.9	123.11	26.416		
5,400.0	5,347.1	5,360.1	5,360.1	18.2	107.2	-98.57	3,016.6	1,142.7	3,253.1	3,127.8	125.29	25.965		
5,500.0	5,447.1	5,460.1	5,460.1	18.4	109.2	-98.64	3,016.6	1,142.7	3,253.6	3,126.2	127.44	25.531		
5,552.9	5,500.0	5,513.0	5,513.0	18.5	110.3	7.80	3,016.6	1,142.7	3,253.7	3,125.1	128.57	25.308		
5,600.0	5,547.1	5,560.1	5,560.1	18.5	111.2	7.80	3,016.6	1,142.7	3,253.7	3,124.1	129.57	25.112		
5,700.0	5,647.1	5,660.1	5,660.1	18.6	113.2	7.80	3,016.6	1,142.7	3,253.7	3,122.0	131.70	24.705		
5,800.0	5,747.1	5,760.1	5,760.1	18.8	115.2	7.80	3,016.6	1,142.7	3,253.7	3,119.9	133.84	24.311		
5,900.0	5,847.1	5,860.1	5,860.1	18.9	117.2	7.80	3,016.6	1,142.7	3,253.7	3,117.7	135.97	23.929		
6,000.0	5,947.1	5,960.1	5,960.1	19.1	119.2	7.80	3,016.6	1,142.7	3,253.7	3,115.6	138.11	23.558		
6,100.0	6,047.1	6,060.1	6,060.1	19.2	121.2	7.80	3,016.6	1,142.7	3,253.7	3,113.5	140.25	23.199		
6,200.0	6,147.1	6,160.1	6,160.1	19.3	123.2	7.80	3,016.6	1,142.7	3,253.7	3,111.3	142.40	22.850		
6,300.0	6,247.1	6,260.1	6,260.1	19.5	125.2	7.80	3,016.6	1,142.7	3,253.7	3,109.2	144.54	22.511		
6,329.0	6,276.1	6,289.1	6,289.1	19.5	125.8	7.80	3,016.6	1,142.7	3,253.7	3,108.6	145.16	22.414		
6,350.0	6,297.1	6,310.1	6,310.1	19.5	126.2	7.78	3,016.6	1,142.7	3,253.4	3,107.9	145.56	22.352		
6,400.0	6,347.0	6,360.0	6,360.0	19.6	127.2	7.81	3,016.6	1,142.7	3,250.4	3,104.4	146.06	22.254		
6,450.0	6,396.6	6,409.6	6,409.6	19.7	128.2	7.89	3,016.6	1,142.7	3,244.2	3,098.3	145.94	22.231		
6,500.0	6,445.6	6,458.6	6,458.6	19.7	129.2	8.02	3,016.6	1,142.7	3,234.8	3,089.7	145.18	22.281		
6,550.0	6,494.0	6,507.0	6,507.0	19.7	130.1	8.19	3,016.6	1,142.7	3,222.3	3,078.5	143.79	22.410		
6,600.0	6,541.4	6,554.4	6,554.4	19.8	131.1	8.40	3,016.6	1,142.7	3,206.6	3,064.8	141.76	22.621		
6,650.0	6,587.7	6,600.7	6,600.7	19.8	132.0	8.68	3,016.6	1,142.7	3,187.9	3,048.8	139.09	22.919		
6,700.0	6,632.7	6,645.7	6,645.7	19.8	132.9	9.02	3,016.6	1,142.7	3,166.2	3,030.4	135.81	23.313		
6,750.0	6,676.1	6,689.1	6,689.1	19.8	133.8	9.43	3,016.6	1,142.7	3,141.7	3,009.8	131.94	23.812		
6,800.0	6,717.8	6,730.8	6,730.8	19.8	134.6	9.92	3,016.6	1,142.7	3,114.4	2,986.9	127.51	24.426		
6,850.0	6,757.6	6,770.6	6,770.6	19.9	135.4	10.52	3,016.6	1,142.7	3,084.5	2,962.0	122.56	25.168		
6,900.0	6,795.4	6,808.4	6,808.4	19.9	136.2	11.24	3,016.6	1,142.7	3,052.1	2,934.9	117.17	26.049		
6,950.0	6,830.9	6,843.9	6,843.9	19.9	136.9	12.10	3,016.6	1,142.7	3,017.3	2,905.9	111.43	27.077		
7,000.0	6,864.1	6,877.1	6,877.1	19.9	137.5	13.16	3,016.6	1,142.7	2,980.3	2,874.8	105.50	28.249		
7,050.0	6,894.7	6,907.7	6,907.7	20.0	138.2	14.46	3,016.6	1,142.7	2,941.2	2,841.6	99.58	29.536		
7,100.0	6,922.7	6,935.7	6,935.7	20.0	138.7	16.08	3,016.6	1,142.7	2,900.3	2,806.3	94.01	30.851		
7,150.0	6,947.9	6,960.9	6,960.9	20.1	139.2	18.13	3,016.6	1,142.7	2,857.6	2,768.3	89.31	31.998		
7,200.0	6,970.3	6,983.3	6,983.3	20.2	139.7	20.77	3,016.6	1,142.7	2,813.5	2,727.2	86.27	32.612		
7,250.0	6,989.6	7,002.6	7,002.6	20.3	140.1	24.27	3,016.6	1,142.7	2,767.9	2,681.9	86.06	32.162		
7,300.0	7,006.0	7,019.0	7,019.0	20.5	140.4	29.03	3,016.6	1,142.7	2,721.3	2,631.1	90.20	30.169		
7,350.0	7,019.2	7,032.2	7,032.2	20.7	140.6	35.70	3,016.6	1,142.7	2,673.7	2,573.5	100.28	26.663		
7,400.0	7,029.2	7,042.2	7,042.2	21.0	140.8	45.33	3,016.6	1,142.7	2,625.4	2,508.2	117.22	22.398		
7,450.0	7,036.0	7,049.0	7,049.0	21.4	141.0	59.22	3,016.6	1,142.7	2,576.6	2,437.4	139.19	18.511		
7,500.0	7,039.5	7,052.5	7,052.5	21.8	141.0	77.87	3,016.6	1,142.7	2,527.5	2,370.0	157.48	16.049		
7,532.9	7,040.0	7,053.0	7,053.0	22.0	141.1	91.62	3,016.6	1,142.7	2,495.1	2,334.4	160.75	15.521		
7,600.0	7,039.7	7,052.7	7,052.7	22.7	141.1	91.57	3,016.6	1,142.7	2,429.1	2,267.6	161.53	15.038		
7,700.0	7,039.2	7,052.2	7,052.2	23.8	141.0	91.51	3,016.6	1,142.7	2,330.8	2,168.1	162.77	14.320		
7,800.0	7,038.7	7,051.7	7,051.7	25.0	141.0	91.44	3,016.6	1,142.7	2,232.7	2,068.6	164.11	13.605		
7,900.0	7,038.2	7,051.2	7,051.2	26.3	141.0	91.38	3,016.6	1,142.7	2,134.8	1,969.2	165.52	12.897		
8,000.0	7,037.7	7,050.7	7,050.7	27.7	141.0	91.31	3,016.6	1,142.7	2,037.0	1,870.0	167.00	12.198		
8,100.0	7,037.2	7,050.2	7,050.2	29.2	141.0	91.24	3,016.6	1,142.7	1,939.5	1,771.0	168.53	11.508		
8,200.0	7,036.7	7,049.7	7,049.7	30.7	141.0	91.18	3,016.6	1,142.7	1,842.2	1,672.1	170.11	10.830		
8,300.0	7,036.1	7,049.1	7,049.1	32.2	141.0	91.11	3,016.6	1,142.7	1,745.3	1,573.6	171.73	10.163		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Harsh 1 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 7300-UNKNOWN												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
8,400.0	7,035.6	7,048.6	7,048.6	33.8	141.0	91.05	3,016.6	1,142.7	1,648.7	1,475.4	173.38	9.509	
8,500.0	7,035.1	7,048.1	7,048.1	35.5	141.0	90.98	3,016.6	1,142.7	1,552.6	1,377.5	175.06	8.869	
8,600.0	7,034.6	7,047.6	7,047.6	37.1	141.0	90.92	3,016.6	1,142.7	1,457.0	1,280.2	176.76	8.243	
8,700.0	7,034.1	7,047.1	7,047.1	38.8	140.9	90.85	3,016.6	1,142.7	1,362.0	1,183.5	178.49	7.631	
8,800.0	7,033.6	7,046.6	7,046.6	40.5	140.9	90.78	3,016.6	1,142.7	1,267.8	1,087.5	180.23	7.034	
8,900.0	7,033.1	7,046.1	7,046.1	42.2	140.9	90.72	3,016.6	1,142.7	1,174.5	992.5	181.98	6.454	
9,000.0	7,032.6	7,045.6	7,045.6	44.0	140.9	90.65	3,016.6	1,142.7	1,082.4	898.7	183.75	5.891	
9,100.0	7,032.1	7,045.1	7,045.1	45.7	140.9	90.59	3,016.6	1,142.7	991.9	806.4	185.54	5.346	
9,200.0	7,031.6	7,044.6	7,044.6	47.5	140.9	90.52	3,016.6	1,142.7	903.4	716.0	187.33	4.822	
9,300.0	7,031.1	7,044.1	7,044.1	49.2	140.9	90.45	3,016.6	1,142.7	817.5	628.4	189.13	4.322	
9,400.0	7,030.6	7,043.6	7,043.6	51.0	140.9	90.39	3,016.6	1,142.7	735.2	544.2	190.94	3.850	
9,500.0	7,030.1	7,043.1	7,043.1	52.8	140.9	90.32	3,016.6	1,142.7	657.8	465.1	192.76	3.413	
9,600.0	7,029.6	7,042.6	7,042.6	54.6	140.9	90.26	3,016.6	1,142.7	587.3	392.7	194.59	3.018	
9,700.0	7,029.1	7,042.1	7,042.1	56.4	140.8	90.19	3,016.6	1,142.7	526.5	330.0	196.42	2.680	
9,800.0	7,028.6	7,041.6	7,041.6	58.3	140.8	90.12	3,016.6	1,142.7	478.9	280.7	198.26	2.416	
9,900.0	7,028.0	7,041.0	7,041.0	60.1	140.8	90.06	3,016.6	1,142.7	449.0	248.9	200.10	2.244	
9,988.9	7,027.6	7,040.6	7,040.6	61.7	140.8	90.00	3,016.6	1,142.7	440.1	238.3	201.74	2.181 CC	
10,000.0	7,027.5	7,040.5	7,040.5	61.9	140.8	89.99	3,016.6	1,142.7	440.2	238.3	201.94	2.180 ES, SF	
10,100.0	7,027.0	7,040.0	7,040.0	63.8	140.8	89.93	3,016.6	1,142.7	453.9	250.1	203.79	2.227	
10,200.0	7,026.5	7,039.5	7,039.5	65.6	140.8	89.86	3,016.6	1,142.7	488.1	282.4	205.65	2.373	
10,300.0	7,026.0	7,039.0	7,039.0	67.4	140.8	89.80	3,016.6	1,142.7	538.9	331.4	207.50	2.597	
10,400.0	7,025.5	7,038.5	7,038.5	69.3	140.8	89.73	3,016.6	1,142.7	602.2	392.8	209.36	2.876	
10,500.0	7,025.0	7,038.0	7,038.0	71.1	140.8	89.66	3,016.6	1,142.7	674.4	463.2	211.22	3.193	
10,600.0	7,024.5	7,037.5	7,037.5	73.0	140.8	89.60	3,016.6	1,142.7	753.0	540.0	213.09	3.534	
10,700.0	7,024.0	7,037.0	7,037.0	74.9	140.7	89.53	3,016.6	1,142.7	836.2	621.3	214.96	3.890	
10,800.0	7,023.5	7,036.5	7,036.5	76.7	140.7	89.47	3,016.6	1,142.7	922.8	705.9	216.82	4.256	
10,900.0	7,023.0	7,036.0	7,036.0	78.6	140.7	89.40	3,016.6	1,142.7	1,011.8	793.1	218.70	4.626	
11,000.0	7,022.5	7,035.5	7,035.5	80.5	140.7	89.33	3,016.6	1,142.7	1,102.7	882.1	220.57	4.999	
11,100.0	7,022.0	7,035.0	7,035.0	82.3	140.7	89.27	3,016.6	1,142.7	1,195.0	972.6	222.44	5.372	
11,200.0	7,021.5	7,034.5	7,034.5	84.2	140.7	89.20	3,016.6	1,142.7	1,288.5	1,064.2	224.32	5.744	
11,300.0	7,021.0	7,034.0	7,034.0	86.1	140.7	89.14	3,016.6	1,142.7	1,382.9	1,156.8	226.19	6.114	
11,400.0	7,020.5	7,033.5	7,033.5	88.0	140.7	89.07	3,016.6	1,142.7	1,478.1	1,250.0	228.07	6.481	
11,489.7	7,020.0	7,033.0	7,033.0	89.6	140.7	89.01	3,016.6	1,142.7	1,564.0	1,334.2	229.76	6.807	
11,490.4	7,020.0	7,033.0	7,033.0	89.7	140.7	89.01	3,016.6	1,142.7	1,564.6	1,334.9	229.77	6.810	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Harsh 41-6 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 7300-UNKNOWN													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	27.0	27.0	0.0	0.5	14.55	4,273.5	1,109.3	4,415.1	4,414.6	0.54	8,173.131		
100.0	100.0	127.0	127.0	0.1	2.5	14.55	4,273.5	1,109.3	4,415.1	4,412.5	2.65	1,664.463		
200.0	200.0	227.0	227.0	0.3	4.5	14.55	4,273.5	1,109.3	4,415.1	4,410.2	4.88	905.230		
300.0	300.0	327.0	327.0	0.5	6.5	-91.92	4,273.5	1,109.3	4,415.2	4,408.1	7.09	622.893		
400.0	399.8	426.8	426.8	0.8	8.5	-91.99	4,273.5	1,109.3	4,415.4	4,406.1	9.30	474.544		
500.0	499.5	526.5	526.5	1.0	10.5	-92.09	4,273.5	1,109.3	4,415.7	4,404.1	11.55	382.426		
600.0	598.7	625.7	625.7	1.3	12.5	-92.24	4,273.5	1,109.3	4,416.1	4,402.3	13.82	319.555		
626.6	625.0	652.0	652.0	1.4	13.0	-92.29	4,273.5	1,109.3	4,416.3	4,401.9	14.43	306.064		
700.0	697.6	724.6	724.6	1.6	14.5	-92.43	4,273.5	1,109.3	4,416.7	4,400.6	16.12	273.927		
800.0	796.5	823.5	823.5	2.0	16.5	-92.62	4,273.5	1,109.3	4,417.4	4,399.0	18.44	239.542		
900.0	895.4	922.4	922.4	2.3	18.4	-92.81	4,273.5	1,109.3	4,418.1	4,397.3	20.77	212.764		
1,000.0	994.3	1,021.3	1,021.3	2.7	20.4	-93.00	4,273.5	1,109.3	4,418.9	4,395.8	23.09	191.344		
1,100.0	1,093.2	1,120.2	1,120.2	3.0	22.4	-93.19	4,273.5	1,109.3	4,419.7	4,394.2	25.42	173.832		
1,200.0	1,192.1	1,219.1	1,219.1	3.4	24.4	-93.38	4,273.5	1,109.3	4,420.5	4,392.8	27.76	159.253		
1,300.0	1,291.0	1,318.0	1,318.0	3.7	26.4	-93.56	4,273.5	1,109.3	4,421.4	4,391.3	30.09	146.931		
1,400.0	1,389.9	1,416.9	1,416.9	4.1	28.3	-93.75	4,273.5	1,109.3	4,422.4	4,390.0	32.43	136.380		
1,500.0	1,488.8	1,515.8	1,515.8	4.5	30.3	-93.94	4,273.5	1,109.3	4,423.4	4,388.6	34.76	127.246		
1,600.0	1,587.7	1,614.7	1,614.7	4.8	32.3	-94.13	4,273.5	1,109.3	4,424.5	4,387.4	37.10	119.262		
1,700.0	1,686.5	1,713.5	1,713.5	5.2	34.3	-94.32	4,273.5	1,109.3	4,425.6	4,386.1	39.44	112.224		
1,800.0	1,785.4	1,812.4	1,812.4	5.5	36.2	-94.51	4,273.5	1,109.3	4,426.7	4,385.0	41.77	105.974		
1,900.0	1,884.3	1,911.3	1,911.3	5.9	38.2	-94.70	4,273.5	1,109.3	4,427.9	4,383.8	44.11	100.388		
2,000.0	1,983.2	2,010.2	2,010.2	6.3	40.2	-94.89	4,273.5	1,109.3	4,429.2	4,382.7	46.44	95.364		
2,100.0	2,082.1	2,109.1	2,109.1	6.6	42.2	-95.08	4,273.5	1,109.3	4,430.5	4,381.7	48.78	90.823		
2,200.0	2,181.0	2,208.0	2,208.0	7.0	44.2	-95.27	4,273.5	1,109.3	4,431.8	4,380.7	51.12	86.698		
2,300.0	2,279.9	2,306.9	2,306.9	7.4	46.1	-95.46	4,273.5	1,109.3	4,433.2	4,379.8	53.45	82.934		
2,400.0	2,378.8	2,405.8	2,405.8	7.7	48.1	-95.65	4,273.5	1,109.3	4,434.7	4,378.9	55.79	79.487		
2,500.0	2,477.7	2,504.7	2,504.7	8.1	50.1	-95.84	4,273.5	1,109.3	4,436.2	4,378.1	58.13	76.318		
2,600.0	2,576.6	2,603.6	2,603.6	8.4	52.1	-96.02	4,273.5	1,109.3	4,437.7	4,377.3	60.46	73.395		
2,700.0	2,675.5	2,702.5	2,702.5	8.8	54.0	-96.21	4,273.5	1,109.3	4,439.3	4,376.5	62.80	70.690		
2,800.0	2,774.4	2,801.4	2,801.4	9.2	56.0	-96.40	4,273.5	1,109.3	4,441.0	4,375.9	65.14	68.181		
2,900.0	2,873.3	2,900.3	2,900.3	9.5	58.0	-96.59	4,273.5	1,109.3	4,442.7	4,375.2	67.47	65.846		
3,000.0	2,972.2	2,999.2	2,999.2	9.9	60.0	-96.78	4,273.5	1,109.3	4,444.4	4,374.6	69.81	63.668		
3,100.0	3,071.1	3,098.1	3,098.1	10.3	62.0	-96.96	4,273.5	1,109.3	4,446.2	4,374.1	72.14	61.632		
3,200.0	3,170.0	3,197.0	3,197.0	10.6	63.9	-97.15	4,273.5	1,109.3	4,448.1	4,373.6	74.48	59.724		
3,300.0	3,268.8	3,295.8	3,295.8	11.0	65.9	-97.34	4,273.5	1,109.3	4,450.0	4,373.1	76.81	57.934		
3,400.0	3,367.7	3,394.7	3,394.7	11.3	67.9	-97.53	4,273.5	1,109.3	4,451.9	4,372.8	79.15	56.249		
3,500.0	3,466.6	3,493.6	3,493.6	11.7	69.9	-97.71	4,273.5	1,109.3	4,453.9	4,372.4	81.48	54.662		
3,600.0	3,565.5	3,592.5	3,592.5	12.1	71.9	-97.90	4,273.5	1,109.3	4,455.9	4,372.1	83.81	53.165		
3,700.0	3,664.4	3,691.4	3,691.4	12.4	73.8	-98.09	4,273.5	1,109.3	4,458.0	4,371.9	86.15	51.749		
3,800.0	3,763.3	3,790.3	3,790.3	12.8	75.8	-98.27	4,273.5	1,109.3	4,460.1	4,371.7	88.48	50.408		
3,900.0	3,862.2	3,889.2	3,889.2	13.2	77.8	-98.46	4,273.5	1,109.3	4,462.3	4,371.5	90.81	49.137		
4,000.0	3,961.1	3,988.1	3,988.1	13.5	79.8	-98.65	4,273.5	1,109.3	4,464.6	4,371.4	93.15	47.931		
4,100.0	4,060.0	4,087.0	4,087.0	13.9	81.7	-98.83	4,273.5	1,109.3	4,466.8	4,371.4	95.48	46.784		
4,200.0	4,158.9	4,185.9	4,185.9	14.2	83.7	-99.02	4,273.5	1,109.3	4,469.2	4,371.3	97.81	45.692		
4,300.0	4,257.8	4,284.8	4,284.8	14.6	85.7	-99.20	4,273.5	1,109.3	4,471.5	4,371.4	100.14	44.652		
4,400.0	4,356.7	4,383.7	4,383.7	15.0	87.7	-99.39	4,273.5	1,109.3	4,474.0	4,371.5	102.47	43.660		
4,500.0	4,455.6	4,482.6	4,482.6	15.3	89.7	-99.57	4,273.5	1,109.3	4,476.4	4,371.6	104.80	42.713		
4,600.0	4,554.5	4,581.5	4,581.5	15.7	91.6	-99.76	4,273.5	1,109.3	4,478.9	4,371.8	107.13	41.807		
4,700.0	4,653.4	4,680.4	4,680.4	16.1	93.6	-99.94	4,273.5	1,109.3	4,481.5	4,372.0	109.46	40.940		
4,800.0	4,752.2	4,779.2	4,779.2	16.4	95.6	-100.13	4,273.5	1,109.3	4,484.1	4,372.3	111.79	40.111		
4,900.0	4,851.1	4,878.1	4,878.1	16.8	97.6	-100.31	4,273.5	1,109.3	4,486.8	4,372.7	114.12	39.315		

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

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Harsh 41-6 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 ft	
Survey Program: 7300-UNKNOWN													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,000.0	4,950.0	4,977.0	4,977.0	17.2	99.5	-100.50	4,273.5	1,109.3	4,489.5	4,373.0	116.45	38.552		
5,100.0	5,048.9	5,075.9	5,075.9	17.5	101.5	-100.68	4,273.5	1,109.3	4,492.3	4,373.5	118.78	37.820		
5,126.4	5,075.0	5,102.0	5,102.0	17.6	102.0	-100.73	4,273.5	1,109.3	4,493.0	4,373.6	119.39	37.631		
5,200.0	5,148.0	5,175.0	5,175.0	17.8	103.5	-100.89	4,273.5	1,109.3	4,494.9	4,373.8	121.08	37.123		
5,300.0	5,247.4	5,274.4	5,274.4	18.1	105.5	-101.06	4,273.5	1,109.3	4,496.9	4,373.6	123.30	36.472		
5,400.0	5,347.1	5,374.1	5,374.1	18.2	107.5	-101.18	4,273.5	1,109.3	4,498.3	4,372.8	125.48	35.848		
5,500.0	5,447.1	5,474.1	5,474.1	18.4	109.5	-101.24	4,273.5	1,109.3	4,499.0	4,371.3	127.63	35.249		
5,552.9	5,500.0	5,527.0	5,527.0	18.5	110.5	5.21	4,273.5	1,109.3	4,499.1	4,370.3	128.76	34.941		
5,600.0	5,547.1	5,574.1	5,574.1	18.5	111.5	5.21	4,273.5	1,109.3	4,499.1	4,369.3	129.77	34.671		
5,700.0	5,647.1	5,674.1	5,674.1	18.6	113.5	5.21	4,273.5	1,109.3	4,499.1	4,367.2	131.90	34.110		
5,800.0	5,747.1	5,774.1	5,774.1	18.8	115.5	5.21	4,273.5	1,109.3	4,499.1	4,365.0	134.04	33.566		
5,900.0	5,847.1	5,874.1	5,874.1	18.9	117.5	5.21	4,273.5	1,109.3	4,499.1	4,362.9	136.17	33.039		
6,000.0	5,947.1	5,974.1	5,974.1	19.1	119.5	5.21	4,273.5	1,109.3	4,499.1	4,360.7	138.31	32.528		
6,100.0	6,047.1	6,074.1	6,074.1	19.2	121.5	5.21	4,273.5	1,109.3	4,499.1	4,358.6	140.45	32.032		
6,200.0	6,147.1	6,174.1	6,174.1	19.3	123.5	5.21	4,273.5	1,109.3	4,499.1	4,356.5	142.60	31.551		
6,300.0	6,247.1	6,274.1	6,274.1	19.5	125.5	5.21	4,273.5	1,109.3	4,499.1	4,354.3	144.74	31.084		
6,329.0	6,276.1	6,303.1	6,303.1	19.5	126.1	5.21	4,273.5	1,109.3	4,499.1	4,353.7	145.36	30.950		
6,350.0	6,297.1	6,324.1	6,324.1	19.5	126.5	5.18	4,273.5	1,109.3	4,498.8	4,353.0	145.76	30.865		
6,400.0	6,347.0	6,374.0	6,374.0	19.6	127.5	5.20	4,273.5	1,109.3	4,495.8	4,349.5	146.25	30.741		
6,450.0	6,396.6	6,423.6	6,423.6	19.7	128.5	5.25	4,273.5	1,109.3	4,489.5	4,343.4	146.11	30.727		
6,500.0	6,445.6	6,472.6	6,472.6	19.7	129.5	5.33	4,273.5	1,109.3	4,480.1	4,334.8	145.33	30.827		
6,550.0	6,494.0	6,521.0	6,521.0	19.7	130.4	5.44	4,273.5	1,109.3	4,467.5	4,323.5	143.90	31.045		
6,600.0	6,541.4	6,568.4	6,568.4	19.8	131.4	5.58	4,273.5	1,109.3	4,451.7	4,309.9	141.83	31.388		
6,650.0	6,587.7	6,614.7	6,614.7	19.8	132.3	5.75	4,273.5	1,109.3	4,432.9	4,293.8	139.10	31.868		
6,700.0	6,632.7	6,659.7	6,659.7	19.8	133.2	5.97	4,273.5	1,109.3	4,411.1	4,275.4	135.74	32.497		
6,750.0	6,676.1	6,703.1	6,703.1	19.8	134.1	6.23	4,273.5	1,109.3	4,386.4	4,254.7	131.75	33.293		
6,800.0	6,717.8	6,744.8	6,744.8	19.8	134.9	6.54	4,273.5	1,109.3	4,359.0	4,231.8	127.17	34.278		
6,850.0	6,757.6	6,784.6	6,784.6	19.9	135.7	6.92	4,273.5	1,109.3	4,328.9	4,206.9	122.01	35.479		
6,900.0	6,795.4	6,822.4	6,822.4	19.9	136.4	7.37	4,273.5	1,109.3	4,296.3	4,180.0	116.33	36.932		
6,950.0	6,830.9	6,857.9	6,857.9	19.9	137.2	7.93	4,273.5	1,109.3	4,261.3	4,151.1	110.18	38.674		
7,000.0	6,864.1	6,891.1	6,891.1	19.9	137.8	8.60	4,273.5	1,109.3	4,224.1	4,120.4	103.66	40.750		
7,050.0	6,894.7	6,921.7	6,921.7	20.0	138.4	9.43	4,273.5	1,109.3	4,184.7	4,087.9	96.87	43.199		
7,100.0	6,922.7	6,949.7	6,949.7	20.0	139.0	10.48	4,273.5	1,109.3	4,143.5	4,053.5	90.02	46.029		
7,150.0	6,947.9	6,974.9	6,974.9	20.1	139.5	11.81	4,273.5	1,109.3	4,100.6	4,017.2	83.41	49.165		
7,200.0	6,970.3	6,997.3	6,997.3	20.2	139.9	13.55	4,273.5	1,109.3	4,056.1	3,978.5	77.55	52.302		
7,250.0	6,989.6	7,016.6	7,016.6	20.3	140.3	15.90	4,273.5	1,109.3	4,010.2	3,936.9	73.37	54.654		
7,300.0	7,006.0	7,033.0	7,033.0	20.5	140.7	19.23	4,273.5	1,109.3	3,963.2	3,890.8	72.45	54.702		
7,350.0	7,019.2	7,046.2	7,046.2	20.7	140.9	24.18	4,273.5	1,109.3	3,915.3	3,838.0	77.29	50.659		
7,400.0	7,029.2	7,056.2	7,056.2	21.0	141.1	32.14	4,273.5	1,109.3	3,866.6	3,775.2	91.36	42.323		
7,450.0	7,036.0	7,063.0	7,063.0	21.4	141.3	46.01	4,273.5	1,109.3	3,817.3	3,699.0	118.33	32.261		
7,500.0	7,039.5	7,066.5	7,066.5	21.8	141.3	70.69	4,273.5	1,109.3	3,767.7	3,615.0	152.70	24.674		
7,532.9	7,040.0	7,067.0	7,067.0	22.0	141.3	92.65	4,273.5	1,109.3	3,735.0	3,574.1	160.88	23.216		
7,600.0	7,039.7	7,066.7	7,066.7	22.7	141.3	92.60	4,273.5	1,109.3	3,668.3	3,506.7	161.66	22.692		
7,700.0	7,039.2	7,066.2	7,066.2	23.8	141.3	92.53	4,273.5	1,109.3	3,569.0	3,406.1	162.91	21.908		
7,800.0	7,038.7	7,065.7	7,065.7	25.0	141.3	92.46	4,273.5	1,109.3	3,469.6	3,305.4	164.25	21.125		
7,900.0	7,038.2	7,065.2	7,065.2	26.3	141.3	92.39	4,273.5	1,109.3	3,370.3	3,204.7	165.66	20.345		
8,000.0	7,037.7	7,064.7	7,064.7	27.7	141.3	92.32	4,273.5	1,109.3	3,271.1	3,103.9	167.14	19.570		
8,100.0	7,037.2	7,064.2	7,064.2	29.2	141.3	92.25	4,273.5	1,109.3	3,171.9	3,003.2	168.68	18.804		
8,200.0	7,036.7	7,063.7	7,063.7	30.7	141.3	92.17	4,273.5	1,109.3	3,072.7	2,902.5	170.26	18.047		
8,300.0	7,036.1	7,063.1	7,063.1	32.2	141.3	92.10	4,273.5	1,109.3	2,973.6	2,801.8	171.89	17.300		
8,400.0	7,035.6	7,062.6	7,062.6	33.8	141.3	92.03	4,273.5	1,109.3	2,874.6	2,701.1	173.54	16.565		

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Offset Design Diana 6T-HZ Pad Sec.6-T6N-R65W - Harsh 41-6 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 7300-UNKNOWN													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
8,500.0	7,035.1	7,062.1	7,062.1	35.5	141.2	91.96	91.96	4,273.5	1,109.3	2,775.7	2,600.4	175.22	15.841	
8,600.0	7,034.6	7,061.6	7,061.6	37.1	141.2	91.89	91.89	4,273.5	1,109.3	2,676.8	2,499.8	176.93	15.129	
8,700.0	7,034.1	7,061.1	7,061.1	38.8	141.2	91.82	91.82	4,273.5	1,109.3	2,578.0	2,399.3	178.66	14.430	
8,800.0	7,033.6	7,060.6	7,060.6	40.5	141.2	91.75	91.75	4,273.5	1,109.3	2,479.3	2,298.9	180.40	13.743	
8,900.0	7,033.1	7,060.1	7,060.1	42.2	141.2	91.67	91.67	4,273.5	1,109.3	2,380.7	2,198.5	182.16	13.069	
9,000.0	7,032.6	7,059.6	7,059.6	44.0	141.2	91.60	91.60	4,273.5	1,109.3	2,282.2	2,098.3	183.94	12.408	
9,100.0	7,032.1	7,059.1	7,059.1	45.7	141.2	91.53	91.53	4,273.5	1,109.3	2,183.9	1,998.2	185.72	11.759	
9,200.0	7,031.6	7,058.6	7,058.6	47.5	141.2	91.46	91.46	4,273.5	1,109.3	2,085.7	1,898.2	187.52	11.123	
9,300.0	7,031.1	7,058.1	7,058.1	49.2	141.2	91.39	91.39	4,273.5	1,109.3	1,987.7	1,798.4	189.33	10.499	
9,400.0	7,030.6	7,057.6	7,057.6	51.0	141.2	91.32	91.32	4,273.5	1,109.3	1,889.9	1,698.8	191.14	9.888	
9,500.0	7,030.1	7,057.1	7,057.1	52.8	141.1	91.25	91.25	4,273.5	1,109.3	1,792.4	1,599.4	192.96	9.289	
9,600.0	7,029.6	7,056.6	7,056.6	54.6	141.1	91.18	91.18	4,273.5	1,109.3	1,695.2	1,500.4	194.79	8.702	
9,700.0	7,029.1	7,056.1	7,056.1	56.4	141.1	91.10	91.10	4,273.5	1,109.3	1,598.2	1,401.6	196.63	8.128	
9,800.0	7,028.6	7,055.6	7,055.6	58.3	141.1	91.03	91.03	4,273.5	1,109.3	1,501.7	1,303.3	198.47	7.567	
9,900.0	7,028.0	7,055.0	7,055.0	60.1	141.1	90.96	90.96	4,273.5	1,109.3	1,405.7	1,205.4	200.31	7.018	
10,000.0	7,027.5	7,054.5	7,054.5	61.9	141.1	90.89	90.89	4,273.5	1,109.3	1,310.3	1,108.2	202.16	6.481	
10,100.0	7,027.0	7,054.0	7,054.0	63.8	141.1	90.82	90.82	4,273.5	1,109.3	1,215.6	1,011.6	204.02	5.959	
10,200.0	7,026.5	7,053.5	7,053.5	65.6	141.1	90.75	90.75	4,273.5	1,109.3	1,121.9	916.0	205.87	5.449	
10,300.0	7,026.0	7,053.0	7,053.0	67.4	141.1	90.68	90.68	4,273.5	1,109.3	1,029.3	821.6	207.73	4.955	
10,400.0	7,025.5	7,052.5	7,052.5	69.3	141.1	90.60	90.60	4,273.5	1,109.3	938.2	728.6	209.60	4.476	
10,500.0	7,025.0	7,052.0	7,052.0	71.1	141.0	90.53	90.53	4,273.5	1,109.3	849.2	637.7	211.46	4.016	
10,600.0	7,024.5	7,051.5	7,051.5	73.0	141.0	90.46	90.46	4,273.5	1,109.3	762.9	549.5	213.33	3.576	
10,700.0	7,024.0	7,051.0	7,051.0	74.9	141.0	90.39	90.39	4,273.5	1,109.3	680.3	465.1	215.20	3.161	
10,800.0	7,023.5	7,050.5	7,050.5	76.7	141.0	90.32	90.32	4,273.5	1,109.3	603.0	385.9	217.08	2.778	
10,900.0	7,023.0	7,050.0	7,050.0	78.6	141.0	90.25	90.25	4,273.5	1,109.3	533.3	314.4	218.95	2.436	
11,000.0	7,022.5	7,049.5	7,049.5	80.5	141.0	90.18	90.18	4,273.5	1,109.3	474.7	253.8	220.83	2.149	
11,100.0	7,022.0	7,049.0	7,049.0	82.3	141.0	90.10	90.10	4,273.5	1,109.3	431.4	208.7	222.70	1.937	
11,200.0	7,021.5	7,048.5	7,048.5	84.2	141.0	90.03	90.03	4,273.5	1,109.3	408.6	184.0	224.58	1.819	
11,245.8	7,021.2	7,048.2	7,048.2	85.1	141.0	90.00	90.00	4,273.5	1,109.3	406.0	180.6	225.45	1.801	CC, ES, SF
11,300.0	7,021.0	7,048.0	7,048.0	86.1	141.0	89.96	89.96	4,273.5	1,109.3	409.6	183.2	226.47	1.809	
11,400.0	7,020.5	7,047.5	7,047.5	88.0	140.9	89.89	89.89	4,273.5	1,109.3	434.3	206.0	228.35	1.902	
11,489.7	7,020.0	7,047.0	7,047.0	89.6	140.9	89.83	89.83	4,273.5	1,109.3	473.6	243.6	230.04	2.059	
11,490.4	7,020.0	7,047.0	7,047.0	89.7	140.9	89.83	89.83	4,273.5	1,109.3	474.0	244.0	230.05	2.060	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4810.0ft (RKB -15')
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Diana 6T-221
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.51°



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Diana 6T-221
Project:	SEC.6-T6N-R65W	TVD Reference:	WELL @ 4810.0ft (RKB -15')
Reference Site:	Diana 6T-HZ Pad Sec.6-T6N-R65W	MD Reference:	WELL @ 4810.0ft (RKB -15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Diana 6T-221	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 #1 (1-25-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4810.0ft (RKB -15')
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Coordinates are relative to: Diana 6T-221
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