

PETROLEUM DEVELOPMENT CORP DJ Basin

Well Name: **Nelson Family LLC 33V-234**

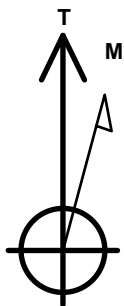
Surface Location: Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
Ground Elevation: 4835.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1374628.86	3170131.96	40.360150	-104.889490	

Original Well Elev WELL @ 4848.0ft (Original Well Elev)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 1189'FNL, 335'FEL	1.0	0.0	0.0	Point
BHL 1615'FNL, 500'FWL	6790.0	-418.5	-4562.2	Point



Azimuths to True North
Magnetic North: 8.29°

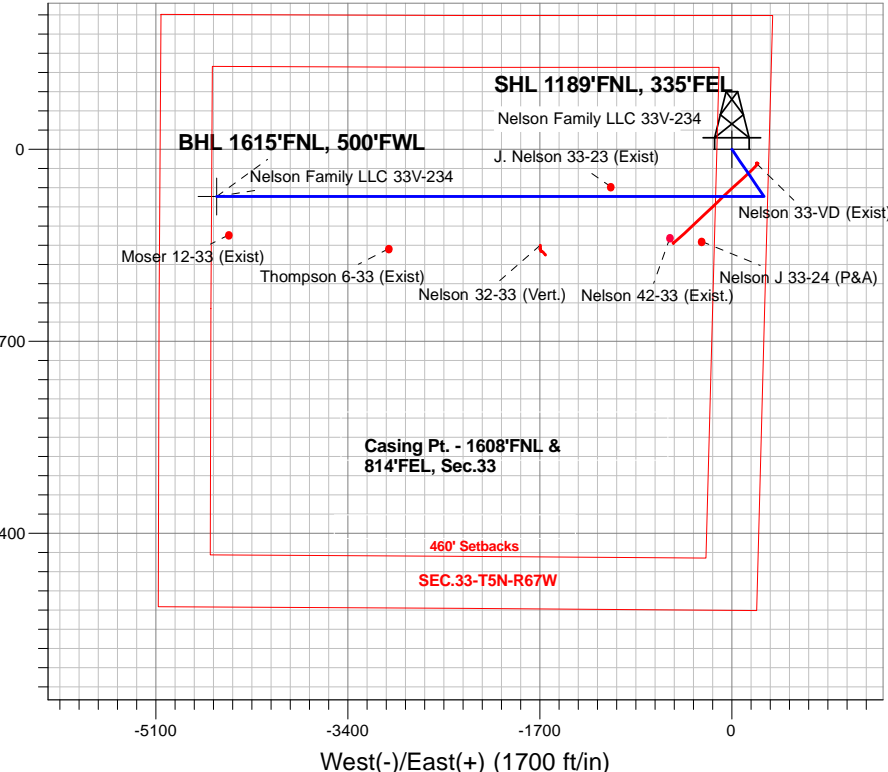
Magnetic Field
Strength: 52599.3snT
Dip Angle: 66.83°
Date: 3/8/2016
Model: IGRF2010

Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W
Nelson Family LLC 33V-234
Plan #1 (3-02-16)
11:44, March 09 2016

ANNOTATIONS

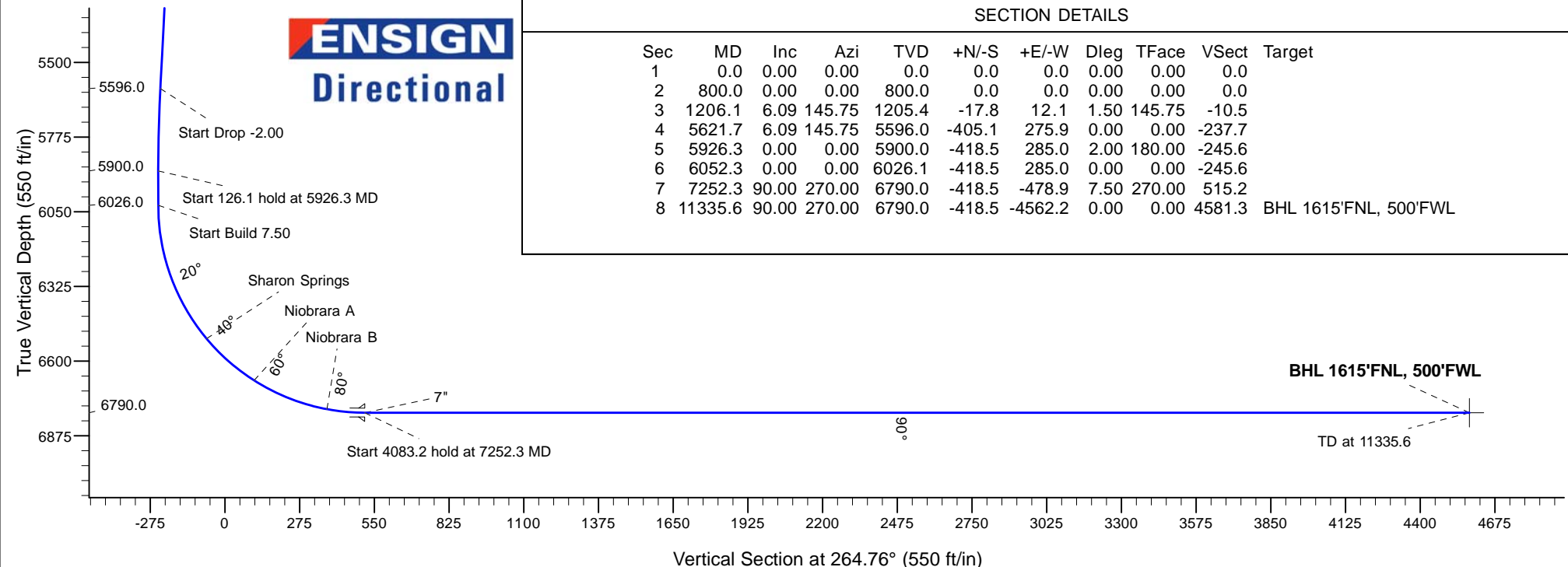
TVD	MD	Annotation
800.0	800.0	KOP - Start Build 1.50
5596.0	5621.7	Start Drop -2.00
5900.0	5926.3	Start 126.1 hold at 5926.3 MD
6026.0	6052.3	Start Build 7.50
6790.0	7252.3	Start 4083.2 hold at 7252.3 MD
6790.0	11335.6	TD at 11335.6

South(-)/North(+) (1700 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	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1206.1	6.09	145.75	1205.4	-17.8	12.1	1.50	145.75	-10.5	
4	5621.7	6.09	145.75	5596.0	-405.1	275.9	0.00	0.00	-237.7	
5	5926.3	0.00	0.00	5900.0	-418.5	285.0	2.00	180.00	-245.6	
6	6052.3	0.00	0.00	6026.1	-418.5	285.0	0.00	0.00	-245.6	
7	7252.3	90.00	270.00	6790.0	-418.5	-478.9	7.50	270.00	515.2	
8	11335.6	90.00	270.00	6790.0	-418.5	-4562.2	0.00	0.00	4581.3	BHL 1615'FNL, 500'FWL





PETROLEUM DEVELOPMENT CORP DJ Basin

SEC.33-T5N-R67W

Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W

Nelson Family LLC 33V-234

Wellbore #1

Plan: Plan #1 (3-02-16)

Standard Planning Report

09 March, 2016

Database:	US_EDM	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Project:	SEC.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	North Reference:	True
Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-02-16)		

Project	SEC.33-T5N-R67W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W				
Site Position:		Northing:	1,375,346.55 usft	Latitude:	40.362120
From:	Lat/Long	Easting:	3,170,129.81 usft	Longitude:	-104.889480
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39

Well	Nelson Family LLC 33V-234					
Well Position	+N/-S	-717.7 ft	Northing:	1,374,628.86 usft	Latitude:	40.360150
	+E/-W	-2.8 ft	Easting:	3,170,131.96 usft	Longitude:	-104.889490
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,835.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/8/2016	8.29	66.83	52,599

Design	Plan #1 (3-02-16)			
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	264.76

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,206.1	6.09	145.75	1,205.4	-17.8	12.1	1.50	1.50	0.00	145.75	
5,621.7	6.09	145.75	5,596.0	-405.1	275.9	0.00	0.00	0.00	0.00	
5,926.3	0.00	0.00	5,900.0	-418.5	285.0	2.00	-2.00	0.00	180.00	
6,052.3	0.00	0.00	6,026.1	-418.5	285.0	0.00	0.00	0.00	0.00	
7,252.3	90.00	270.00	6,790.0	-418.5	-478.9	7.50	7.50	0.00	270.00	
11,335.6	90.00	270.00	6,790.0	-418.5	-4,562.2	0.00	0.00	0.00	0.00	BHL 1615'FNL, 500'F'

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Project:	SEC.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	North Reference:	True
Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-02-16)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.50									
900.0	1.50	145.75	900.0	-1.1	0.7	-0.6	1.50	1.50	0.00
1,000.0	3.00	145.75	999.9	-4.3	2.9	-2.5	1.50	1.50	0.00
1,100.0	4.50	145.75	1,099.7	-9.7	6.6	-5.7	1.50	1.50	0.00
1,200.0	6.00	145.75	1,199.3	-17.3	11.8	-10.1	1.50	1.50	0.00
1,206.1	6.09	145.75	1,205.4	-17.8	12.1	-10.5	1.50	1.50	0.00
1,300.0	6.09	145.75	1,298.7	-26.1	17.7	-15.3	0.00	0.00	0.00
1,400.0	6.09	145.75	1,398.1	-34.8	23.7	-20.4	0.00	0.00	0.00
1,500.0	6.09	145.75	1,497.6	-43.6	29.7	-25.6	0.00	0.00	0.00
1,600.0	6.09	145.75	1,597.0	-52.4	35.7	-30.7	0.00	0.00	0.00
1,700.0	6.09	145.75	1,696.4	-61.1	41.6	-35.9	0.00	0.00	0.00
1,800.0	6.09	145.75	1,795.9	-69.9	47.6	-41.0	0.00	0.00	0.00
1,900.0	6.09	145.75	1,895.3	-78.7	53.6	-46.2	0.00	0.00	0.00
2,000.0	6.09	145.75	1,994.8	-87.5	59.6	-51.3	0.00	0.00	0.00
2,100.0	6.09	145.75	2,094.2	-96.2	65.5	-56.5	0.00	0.00	0.00
2,200.0	6.09	145.75	2,193.6	-105.0	71.5	-61.6	0.00	0.00	0.00
2,300.0	6.09	145.75	2,293.1	-113.8	77.5	-66.8	0.00	0.00	0.00
2,400.0	6.09	145.75	2,392.5	-122.5	83.5	-71.9	0.00	0.00	0.00
2,500.0	6.09	145.75	2,491.9	-131.3	89.4	-77.1	0.00	0.00	0.00
2,600.0	6.09	145.75	2,591.4	-140.1	95.4	-82.2	0.00	0.00	0.00
2,700.0	6.09	145.75	2,690.8	-148.9	101.4	-87.4	0.00	0.00	0.00
2,800.0	6.09	145.75	2,790.2	-157.6	107.3	-92.5	0.00	0.00	0.00
2,900.0	6.09	145.75	2,889.7	-166.4	113.3	-97.6	0.00	0.00	0.00
3,000.0	6.09	145.75	2,989.1	-175.2	119.3	-102.8	0.00	0.00	0.00
3,100.0	6.09	145.75	3,088.5	-183.9	125.3	-107.9	0.00	0.00	0.00
3,200.0	6.09	145.75	3,188.0	-192.7	131.2	-113.1	0.00	0.00	0.00
3,300.0	6.09	145.75	3,287.4	-201.5	137.2	-118.2	0.00	0.00	0.00
3,400.0	6.09	145.75	3,386.8	-210.3	143.2	-123.4	0.00	0.00	0.00
3,500.0	6.09	145.75	3,486.3	-219.0	149.2	-128.5	0.00	0.00	0.00
3,600.0	6.09	145.75	3,585.7	-227.8	155.1	-133.7	0.00	0.00	0.00
3,700.0	6.09	145.75	3,685.2	-236.6	161.1	-138.8	0.00	0.00	0.00
3,800.0	6.09	145.75	3,784.6	-245.3	167.1	-144.0	0.00	0.00	0.00
3,900.0	6.09	145.75	3,884.0	-254.1	173.1	-149.1	0.00	0.00	0.00
4,000.0	6.09	145.75	3,983.5	-262.9	179.0	-154.3	0.00	0.00	0.00
4,100.0	6.09	145.75	4,082.9	-271.7	185.0	-159.4	0.00	0.00	0.00
4,200.0	6.09	145.75	4,182.3	-280.4	191.0	-164.6	0.00	0.00	0.00
4,300.0	6.09	145.75	4,281.8	-289.2	196.9	-169.7	0.00	0.00	0.00
4,400.0	6.09	145.75	4,381.2	-298.0	202.9	-174.9	0.00	0.00	0.00
4,500.0	6.09	145.75	4,480.6	-306.7	208.9	-180.0	0.00	0.00	0.00
4,600.0	6.09	145.75	4,580.1	-315.5	214.9	-185.1	0.00	0.00	0.00
4,700.0	6.09	145.75	4,679.5	-324.3	220.8	-190.3	0.00	0.00	0.00
4,800.0	6.09	145.75	4,778.9	-333.1	226.8	-195.4	0.00	0.00	0.00
4,900.0	6.09	145.75	4,878.4	-341.8	232.8	-200.6	0.00	0.00	0.00

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Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-02-16)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.0	6.09	145.75	4,977.8	-350.6	238.8	-205.7	0.00	0.00	0.00
5,100.0	6.09	145.75	5,077.2	-359.4	244.7	-210.9	0.00	0.00	0.00
5,200.0	6.09	145.75	5,176.7	-368.1	250.7	-216.0	0.00	0.00	0.00
5,300.0	6.09	145.75	5,276.1	-376.9	256.7	-221.2	0.00	0.00	0.00
5,400.0	6.09	145.75	5,375.6	-385.7	262.7	-226.3	0.00	0.00	0.00
5,500.0	6.09	145.75	5,475.0	-394.5	268.6	-231.5	0.00	0.00	0.00
5,600.0	6.09	145.75	5,574.4	-403.2	274.6	-236.6	0.00	0.00	0.00
5,621.7	6.09	145.75	5,596.0	-405.1	275.9	-237.7	0.00	0.00	0.00
Start Drop -2.00									
5,700.0	4.53	145.75	5,674.0	-411.1	280.0	-241.2	2.00	-2.00	0.00
5,800.0	2.53	145.75	5,773.8	-416.2	283.4	-244.2	2.00	-2.00	0.00
5,900.0	0.53	145.75	5,873.7	-418.4	284.9	-245.5	2.00	-2.00	0.00
5,926.3	0.00	0.00	5,900.0	-418.5	285.0	-245.6	2.00	-2.00	0.00
Start 126.1 hold at 5926.3 MD									
6,000.0	0.00	0.00	5,973.7	-418.5	285.0	-245.6	0.00	0.00	0.00
6,052.3	0.00	0.00	6,026.0	-418.5	285.0	-245.6	0.00	0.00	0.00
Start Build 7.50									
6,100.0	3.58	270.00	6,073.7	-418.5	283.5	-244.1	7.50	7.50	0.00
6,200.0	11.08	270.00	6,172.8	-418.5	270.8	-231.4	7.50	7.50	0.00
6,300.0	18.58	270.00	6,269.4	-418.5	245.2	-205.9	7.50	7.50	0.00
6,400.0	26.08	270.00	6,361.9	-418.5	207.2	-168.1	7.50	7.50	0.00
6,500.0	33.58	270.00	6,448.5	-418.5	157.5	-118.7	7.50	7.50	0.00
6,600.0	41.08	270.00	6,528.0	-418.5	97.0	-58.3	7.50	7.50	0.00
6,700.0	48.58	270.00	6,598.9	-418.5	26.5	11.8	7.50	7.50	0.00
6,800.0	56.08	270.00	6,660.0	-418.5	-52.6	90.6	7.50	7.50	0.00
6,900.0	63.58	270.00	6,710.2	-418.5	-139.0	176.6	7.50	7.50	0.00
7,000.0	71.08	270.00	6,748.7	-418.5	-231.2	268.4	7.50	7.50	0.00
7,100.0	78.58	270.00	6,774.9	-418.5	-327.6	364.5	7.50	7.50	0.00
7,200.0	86.08	270.00	6,788.2	-418.5	-426.7	463.1	7.50	7.50	0.00
7,252.3	90.00	270.00	6,790.0	-418.5	-478.9	515.1	7.50	7.50	0.00
Start 4083.2 hold at 7252.3 MD									
7,300.0	90.00	270.00	6,790.0	-418.5	-526.6	562.6	0.00	0.00	0.00
7,400.0	90.00	270.00	6,790.0	-418.5	-626.6	662.2	0.00	0.00	0.00
7,500.0	90.00	270.00	6,790.0	-418.5	-726.6	761.8	0.00	0.00	0.00
7,600.0	90.00	270.00	6,790.0	-418.5	-826.6	861.4	0.00	0.00	0.00
7,700.0	90.00	270.00	6,790.0	-418.5	-926.6	961.0	0.00	0.00	0.00
7,800.0	90.00	270.00	6,790.0	-418.5	-1,026.6	1,060.6	0.00	0.00	0.00
7,900.0	90.00	270.00	6,790.0	-418.5	-1,126.6	1,160.1	0.00	0.00	0.00
8,000.0	90.00	270.00	6,790.0	-418.5	-1,226.6	1,259.7	0.00	0.00	0.00
8,100.0	90.00	270.00	6,790.0	-418.5	-1,326.6	1,359.3	0.00	0.00	0.00
8,200.0	90.00	270.00	6,790.0	-418.5	-1,426.6	1,458.9	0.00	0.00	0.00
8,300.0	90.00	270.00	6,790.0	-418.5	-1,526.6	1,558.5	0.00	0.00	0.00
8,400.0	90.00	270.00	6,790.0	-418.5	-1,626.6	1,658.0	0.00	0.00	0.00
8,500.0	90.00	270.00	6,790.0	-418.5	-1,726.6	1,757.6	0.00	0.00	0.00
8,600.0	90.00	270.00	6,790.0	-418.5	-1,826.6	1,857.2	0.00	0.00	0.00
8,700.0	90.00	270.00	6,790.0	-418.5	-1,926.6	1,956.8	0.00	0.00	0.00
8,800.0	90.00	270.00	6,790.0	-418.5	-2,026.6	2,056.4	0.00	0.00	0.00
8,900.0	90.00	270.00	6,790.0	-418.5	-2,126.6	2,156.0	0.00	0.00	0.00
9,000.0	90.00	270.00	6,790.0	-418.5	-2,226.6	2,255.5	0.00	0.00	0.00
9,100.0	90.00	270.00	6,790.0	-418.5	-2,326.6	2,355.1	0.00	0.00	0.00
9,200.0	90.00	270.00	6,790.0	-418.5	-2,426.6	2,454.7	0.00	0.00	0.00
9,300.0	90.00	270.00	6,790.0	-418.5	-2,526.6	2,554.3	0.00	0.00	0.00

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Wellbore:	Wellbore #1		
Design:	Plan #1 (3-02-16)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,400.0	90.00	270.00	6,790.0	-418.5	-2,626.6	2,653.9	0.00	0.00	0.00	
9,500.0	90.00	270.00	6,790.0	-418.5	-2,726.6	2,753.4	0.00	0.00	0.00	
9,600.0	90.00	270.00	6,790.0	-418.5	-2,826.6	2,853.0	0.00	0.00	0.00	
9,700.0	90.00	270.00	6,790.0	-418.5	-2,926.6	2,952.6	0.00	0.00	0.00	
9,800.0	90.00	270.00	6,790.0	-418.5	-3,026.6	3,052.2	0.00	0.00	0.00	
9,900.0	90.00	270.00	6,790.0	-418.5	-3,126.6	3,151.8	0.00	0.00	0.00	
10,000.0	90.00	270.00	6,790.0	-418.5	-3,226.6	3,251.4	0.00	0.00	0.00	
10,100.0	90.00	270.00	6,790.0	-418.5	-3,326.6	3,350.9	0.00	0.00	0.00	
10,200.0	90.00	270.00	6,790.0	-418.5	-3,426.6	3,450.5	0.00	0.00	0.00	
10,300.0	90.00	270.00	6,790.0	-418.5	-3,526.6	3,550.1	0.00	0.00	0.00	
10,400.0	90.00	270.00	6,790.0	-418.5	-3,626.6	3,649.7	0.00	0.00	0.00	
10,500.0	90.00	270.00	6,790.0	-418.5	-3,726.6	3,749.3	0.00	0.00	0.00	
10,600.0	90.00	270.00	6,790.0	-418.5	-3,826.6	3,848.8	0.00	0.00	0.00	
10,700.0	90.00	270.00	6,790.0	-418.5	-3,926.6	3,948.4	0.00	0.00	0.00	
10,800.0	90.00	270.00	6,790.0	-418.5	-4,026.6	4,048.0	0.00	0.00	0.00	
10,900.0	90.00	270.00	6,790.0	-418.5	-4,126.6	4,147.6	0.00	0.00	0.00	
11,000.0	90.00	270.00	6,790.0	-418.5	-4,226.6	4,247.2	0.00	0.00	0.00	
11,100.0	90.00	270.00	6,790.0	-418.5	-4,326.6	4,346.8	0.00	0.00	0.00	
11,200.0	90.00	270.00	6,790.0	-418.5	-4,426.6	4,446.3	0.00	0.00	0.00	
11,300.0	90.00	270.00	6,790.0	-418.5	-4,526.6	4,545.9	0.00	0.00	0.00	
11,335.6	90.00	270.00	6,790.0	-418.5	-4,562.2	4,581.3	0.00	0.00	0.00	
TD at 11335.6										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
SHL 1189'FNL, 335'FEL - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,374,628.89	3,170,131.96	40.360150	-104.889490	
BHL 1615'FNL, 500'FWL - plan hits target center - Point	0.00	0.00	6,790.0	-418.5	-4,562.2	1,374,178.97	3,165,572.98	40.359000	-104.905860	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,252.3	6,790.0	7"	7	8-3/4	

Database:	US_EDM	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Project:	SEC.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	North Reference:	True
Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-02-16)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,354.9	3,342.0	Parkman		0.00		
3,876.8	3,861.0	Sussex		0.00		
4,414.9	4,396.0	Shannon		0.00		
6,585.5	6,517.0	Sharon Springs		0.00		
6,820.2	6,671.0	Niobrara A		0.00		
7,111.2	6,777.0	Niobrara B		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
800.0	800.0	0.0	0.0	KOP - Start Build 1.50	
5,621.7	5,596.0	-405.1	275.9	Start Drop -2.00	
5,926.3	5,900.0	-418.5	285.0	Start 126.1 hold at 5926.3 MD	
6,052.3	6,026.0	-418.5	285.0	Start Build 7.50	
7,252.3	6,790.0	-418.5	-478.9	Start 4083.2 hold at 7252.3 MD	
11,335.6	6,790.0	-418.5	-4,562.2	TD at 11335.6	



PETROLEUM DEVELOPMENT CORP DJ Basin

SEC.33-T5N-R67W

Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W

Nelson Family LLC 33V-234

Wellbore #1

Plan #1 (3-02-16)

Anticollision Report

09 March, 2016



Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (3-02-16)
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 800.0 ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic
Casing Method:	Not applied

Survey Tool Program		Date	3/9/2016		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,335.0	Plan #1 (3-02-16) (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						
Existing Wells Sec.33-T5N-R67W						
J. Nelson 33-23 (Exist) - Wellbore #1 - Wellbore #1	7,846.3	6,741.0	87.0	-83.8	0.509	Level 1, CC, ES, SF
Moser 12-33 (Exist) - Wellbore #1 - Wellbore #1	11,226.9	6,715.0	338.8	76.2	1.290	Level 3, CC, ES, SF
Nelson J 33-24 (P&A) - Wellbore #1 - Wellbore #1	4,687.6	4,606.0	693.5	588.8	6.626	CC, ES
Nelson J 33-24 (P&A) - Wellbore #1 - Wellbore #1	4,700.0	4,606.0	693.6	588.9	6.625	SF
Thompson 6-33 (Exist) - Wellbore #1 - Wellbore #1	9,811.2	6,711.0	459.3	236.0	2.057	CC, ES, SF
Nelson 33-SD Pad Sec.33-T5N-R67W						
Nelson 32-33 (Vert.) - Wellbore #1 - Wellbore #1	8,468.5	6,739.2	438.1	199.4	1.835	CC, ES
Nelson 32-33 (Vert.) - Wellbore #1 - Wellbore #1	8,500.0	6,739.3	439.2	199.7	1.834	SF
Nelson 33-VD Pad Sec.33-T5N-R67W						
Nelson 33-VD (Exist) - Wellbore #1 - Wellbore #1	4,461.3	4,540.1	110.9	83.4	4.027	CC, ES
Nelson 33-VD (Exist) - Wellbore #1 - Wellbore #1	4,500.0	4,576.0	111.7	83.8	3.999	SF
Nelson 42-33 (Exist.) - Wellbore #1 - Wellbore #1	7,322.4	6,755.0	364.7	206.0	2.298	CC, ES, SF

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

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						
Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W						
Nelson Family LLC 33U-234 - Wellbore #1 - Plan #1 (3-0	800.0	825.0	717.8	714.4	209.412	CC, ES
Nelson Family LLC 33U-234 - Wellbore #1 - Plan #1 (3-0	1,700.0	1,683.9	794.9	787.6	109.557	SF
Nelson Family LLC 33U-304 - Wellbore #1 - Plan #1 (3-0	800.0	824.0	718.2	714.8	209.679	CC, ES
Nelson Family LLC 33U-304 - Wellbore #1 - Plan #1 (3-0	1,800.0	1,777.1	799.8	792.1	104.100	SF
Nelson Family LLC 33U-334 - Wellbore #1 - Plan #1 (3-0	800.0	825.0	717.7	714.3	209.389	CC, ES
Nelson Family LLC 33U-334 - Wellbore #1 - Plan #1 (3-0	2,300.0	2,343.2	799.8	789.3	75.737	SF
Nelson Family LLC 33V-214 - Wellbore #1 - Plan #1 (3-0	4,612.1	4,697.7	684.9	661.6	29.484	CC
Nelson Family LLC 33V-214 - Wellbore #1 - Plan #1 (3-0	11,335.6	11,401.0	765.1	502.2	2.911	ES, SF
Nelson Family LLC 33V-304 - Wellbore #1 - Plan #1 (3-0	800.0	800.0	13.9	10.6	4.133	CC, ES
Nelson Family LLC 33V-304 - Wellbore #1 - Plan #1 (3-0	11,335.6	11,419.8	270.8	19.1	1.076	Level 2, SF
Nelson Family LLC 33V-334 - Wellbore #1 - Plan #1 (3-0	600.0	600.0	13.9	11.5	5.636	CC, ES
Nelson Family LLC 33V-334 - Wellbore #1 - Plan #1 (3-0	11,335.6	11,447.8	285.6	30.9	1.121	Level 2, SF
Nelson Family LLC 33V-404 - Wellbore #1 - Plan #1 (3-0	5,292.7	5,378.9	475.7	448.8	17.716	CC
Nelson Family LLC 33V-404 - Wellbore #1 - Plan #1 (3-0	11,335.6	11,618.8	552.5	310.7	2.285	ES, SF
Nelson Family LLC 33W-214 - Wellbore #1 - Plan #1 (3-0	366.3	367.3	30.7	29.2	21.524	CC
Nelson Family LLC 33W-214 - Wellbore #1 - Plan #1 (3-0	500.0	500.8	31.0	29.0	15.524	ES
Nelson Family LLC 33W-214 - Wellbore #1 - Plan #1 (3-0	11,335.6	11,397.5	546.9	284.1	2.082	SF
Nelson Family LLC 33W-414 - Wellbore #1 - Plan #1 (3-0	166.3	167.3	44.6	44.1	84.903	CC
Nelson Family LLC 33W-414 - Wellbore #1 - Plan #1 (3-0	300.0	300.7	44.9	43.8	40.711	ES
Nelson Family LLC 33W-414 - Wellbore #1 - Plan #1 (3-0	6,052.3	6,136.7	774.7	733.0	18.571	SF

Offset Design												
Existing Wells Sec.33-T5N-R67W - J. Nelson 33-23 (Exist) - Wellbore #1 - Wellbore #1												
Survey Program: 7552-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)	Separation Factor
7,050.0	6,763.4	6,714.4	6,714.4	18.6	134.3	22.72	-331.5	-1,073.0	798.7	729.4	69.38	11.512
7,100.0	6,774.9	6,725.9	6,725.9	19.4	134.5	30.52	-331.5	-1,073.0	750.4	668.3	82.14	9.136
7,150.0	6,783.2	6,734.2	6,734.2	20.3	134.7	43.11	-331.5	-1,073.0	701.5	594.9	106.55	6.583
7,200.0	6,788.2	6,739.2	6,739.2	21.3	134.8	63.06	-331.5	-1,073.0	652.1	513.4	138.71	4.701
7,252.3	6,790.0	6,741.0	6,741.0	22.3	134.8	90.00	-331.5	-1,073.0	600.4	443.4	156.99	3.824
7,300.0	6,790.0	6,741.0	6,741.0	23.3	134.8	90.00	-331.5	-1,073.0	553.2	395.3	157.96	3.502
7,400.0	6,790.0	6,741.0	6,741.0	25.4	134.8	90.00	-331.5	-1,073.0	454.7	294.6	160.10	2.840
7,500.0	6,790.0	6,741.0	6,741.0	27.7	134.8	90.00	-331.5	-1,073.0	357.1	194.7	162.37	2.199
7,600.0	6,790.0	6,741.0	6,741.0	30.1	134.8	90.00	-331.5	-1,073.0	261.3	96.5	164.73	1.586
7,700.0	6,790.0	6,741.0	6,741.0	32.5	134.8	90.00	-331.5	-1,073.0	170.3	3.1	167.16	1.019 Level 2
7,800.0	6,790.0	6,741.0	6,741.0	35.0	134.8	90.00	-331.5	-1,073.0	98.6	-71.0	169.64	0.581 Level 1
7,846.3	6,790.0	6,741.0	6,741.0	36.1	134.8	90.00	-331.5	-1,073.0	87.0	-83.8	170.82	0.509 Level 1, CC, ES, SF
7,900.0	6,790.0	6,741.0	6,741.0	37.5	134.8	90.00	-331.5	-1,073.0	102.2	-69.9	172.17	0.594 Level 1
8,000.0	6,790.0	6,741.0	6,741.0	40.1	134.8	90.00	-331.5	-1,073.0	176.6	1.8	174.74	1.011 Level 2
8,100.0	6,790.0	6,741.0	6,741.0	42.7	134.8	90.00	-331.5	-1,073.0	268.2	90.8	177.34	1.512
8,200.0	6,790.0	6,741.0	6,741.0	45.3	134.8	90.00	-331.5	-1,073.0	364.2	184.2	179.97	2.024
8,300.0	6,790.0	6,741.0	6,741.0	47.9	134.8	90.00	-331.5	-1,073.0	461.9	279.3	182.61	2.530
8,400.0	6,790.0	6,741.0	6,741.0	50.6	134.8	90.00	-331.5	-1,073.0	560.5	375.2	185.28	3.025
8,500.0	6,790.0	6,741.0	6,741.0	53.3	134.8	90.00	-331.5	-1,073.0	659.4	471.5	187.96	3.508
8,600.0	6,790.0	6,741.0	6,741.0	55.9	134.8	90.00	-331.5	-1,073.0	758.7	568.0	190.65	3.979

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

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design Existing Wells Sec.33-T5N-R67W - Moser 12-33 (Exist) - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 ft
Survey Program: 7103-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)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,600.0	6,790.0	6,715.0	6,715.0	111.0	134.3	-90.00	-757.3	-4,453.5	712.6	467.4	245.18	2.907	
10,700.0	6,790.0	6,715.0	6,715.0	113.7	134.3	-90.00	-757.3	-4,453.5	626.5	378.5	247.97	2.526	
10,800.0	6,790.0	6,715.0	6,715.0	116.5	134.3	-90.00	-757.3	-4,453.5	545.0	294.3	250.75	2.174	
10,900.0	6,790.0	6,715.0	6,715.0	119.3	134.3	-90.00	-757.3	-4,453.5	470.8	217.3	253.53	1.857	
11,000.0	6,790.0	6,715.0	6,715.0	122.1	134.3	-90.00	-757.3	-4,453.5	407.8	151.5	256.32	1.591	
11,100.0	6,790.0	6,715.0	6,715.0	124.9	134.3	-90.00	-757.3	-4,453.5	361.8	102.7	259.10	1.396	Level 3
11,200.0	6,790.0	6,715.0	6,715.0	127.7	134.3	-90.00	-757.3	-4,453.5	339.9	78.0	261.89	1.298	Level 3
11,226.9	6,790.0	6,715.0	6,715.0	128.4	134.3	-90.00	-757.3	-4,453.5	338.8	76.2	262.64	1.290	Level 3, CC, ES, SF
11,300.0	6,790.0	6,715.0	6,715.0	130.4	134.3	-90.00	-757.3	-4,453.5	346.6	81.9	264.68	1.310	Level 3
11,335.6	6,790.0	6,715.0	6,715.0	131.1	134.3	-90.00	-757.3	-4,453.5	355.8	90.5	265.32	1.341	Level 3

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design Existing Wells Sec.33-T5N-R67W - Nelson J 33-24 (P&A) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 4606-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)			
2,000.0	1,994.8	1,947.8	1,947.8	4.6	39.0	58.58	-816.0	-267.5	798.6	755.2	43.39	18.406		
2,100.0	2,094.2	2,047.2	2,047.2	4.9	40.9	59.23	-816.0	-267.5	793.1	747.5	45.65	17.373		
2,200.0	2,193.6	2,146.6	2,146.6	5.2	42.9	59.89	-816.0	-267.5	787.7	739.8	47.92	16.439		
2,300.0	2,293.1	2,246.1	2,246.1	5.5	44.9	60.56	-816.0	-267.5	782.4	732.2	50.19	15.590		
2,400.0	2,392.5	2,345.5	2,345.5	5.8	46.9	61.24	-816.0	-267.5	777.3	724.8	52.46	14.816		
2,500.0	2,491.9	2,444.9	2,444.9	6.1	48.9	61.93	-816.0	-267.5	772.2	717.4	54.74	14.108		
2,600.0	2,591.4	2,544.4	2,544.4	6.4	50.9	62.62	-816.0	-267.5	767.2	710.2	57.01	13.457		
2,700.0	2,690.8	2,643.8	2,643.8	6.7	52.9	63.33	-816.0	-267.5	762.4	703.1	59.29	12.858		
2,800.0	2,790.2	2,743.2	2,743.2	6.9	54.9	64.04	-816.0	-267.5	757.7	696.1	61.57	12.305		
2,900.0	2,889.7	2,842.7	2,842.7	7.2	56.9	64.76	-816.0	-267.5	753.0	689.2	63.86	11.792		
3,000.0	2,989.1	2,942.1	2,942.1	7.5	58.8	65.49	-816.0	-267.5	748.6	682.4	66.15	11.317		
3,100.0	3,088.5	3,041.5	3,041.5	7.8	60.8	66.23	-816.0	-267.5	744.2	675.8	68.43	10.875		
3,200.0	3,188.0	3,141.0	3,141.0	8.1	62.8	66.98	-816.0	-267.5	740.0	669.2	70.72	10.463		
3,300.0	3,287.4	3,240.4	3,240.4	8.4	64.8	67.74	-816.0	-267.5	735.9	662.8	73.02	10.078		
3,400.0	3,386.8	3,339.8	3,339.8	8.7	66.8	68.50	-816.0	-267.5	731.9	656.6	75.31	9.719		
3,500.0	3,486.3	3,439.3	3,439.3	9.0	68.8	69.28	-816.0	-267.5	728.0	650.4	77.60	9.382		
3,600.0	3,585.7	3,538.7	3,538.7	9.3	70.8	70.06	-816.0	-267.5	724.3	644.4	79.90	9.066		
3,700.0	3,685.2	3,638.2	3,638.2	9.7	72.8	70.85	-816.0	-267.5	720.8	638.6	82.20	8.769		
3,800.0	3,784.6	3,737.6	3,737.6	10.0	74.8	71.64	-816.0	-267.5	717.3	632.8	84.50	8.490		
3,900.0	3,884.0	3,837.0	3,837.0	10.3	76.7	72.45	-816.0	-267.5	714.1	627.3	86.80	8.227		
4,000.0	3,983.5	3,936.5	3,936.5	10.6	78.7	73.26	-816.0	-267.5	710.9	621.8	89.10	7.979		
4,100.0	4,082.9	4,035.9	4,035.9	10.9	80.7	74.08	-816.0	-267.5	707.9	616.5	91.40	7.745		
4,200.0	4,182.3	4,135.3	4,135.3	11.2	82.7	74.90	-816.0	-267.5	705.1	611.4	93.70	7.525		
4,300.0	4,281.8	4,234.8	4,234.8	11.5	84.7	75.73	-816.0	-267.5	702.4	606.4	96.00	7.316		
4,400.0	4,381.2	4,334.2	4,334.2	11.8	86.7	76.57	-816.0	-267.5	699.8	601.5	98.31	7.119		
4,500.0	4,480.6	4,433.6	4,433.6	12.1	88.7	77.42	-816.0	-267.5	697.4	596.8	100.61	6.932		
4,600.0	4,580.1	4,533.1	4,533.1	12.4	90.7	78.26	-816.0	-267.5	695.2	592.2	102.92	6.755		
4,687.6	4,667.2	4,606.0	4,606.0	12.6	92.1	78.89	-816.0	-267.5	693.5	588.8	104.65	6.626 CC, ES		
4,700.0	4,679.5	4,606.0	4,606.0	12.7	92.1	78.89	-816.0	-267.5	693.6	588.9	104.69	6.625 SF		
4,800.0	4,778.9	4,606.0	4,606.0	13.0	92.1	78.89	-816.0	-267.5	702.5	597.5	104.99	6.691		
4,900.0	4,878.4	4,606.0	4,606.0	13.3	92.1	78.89	-816.0	-267.5	725.3	620.0	105.29	6.888		
5,000.0	4,977.8	4,606.0	4,606.0	13.6	92.1	78.89	-816.0	-267.5	760.6	655.0	105.59	7.203		

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design Existing Wells Sec.33-T5N-R67W - Thompson 6-33 (Exist) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 7131-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)			
9,200.0	6,790.0	6,711.0	6,711.0	72.3	134.2	-90.00	-877.8	-3,037.8	764.5	558.1	206.38	3.704		
9,300.0	6,790.0	6,711.0	6,711.0	75.0	134.2	-90.00	-877.8	-3,037.8	687.2	478.1	209.13	3.286		
9,400.0	6,790.0	6,711.0	6,711.0	77.8	134.2	-90.00	-877.8	-3,037.8	616.4	404.6	211.88	2.909		
9,500.0	6,790.0	6,711.0	6,711.0	80.5	134.2	-90.00	-877.8	-3,037.8	554.8	340.1	214.63	2.585		
9,600.0	6,790.0	6,711.0	6,711.0	83.3	134.2	-90.00	-877.8	-3,037.8	505.5	288.1	217.39	2.325		
9,700.0	6,790.0	6,711.0	6,711.0	86.0	134.2	-90.00	-877.8	-3,037.8	472.5	252.4	220.15	2.146		
9,800.0	6,790.0	6,711.0	6,711.0	88.8	134.2	-90.00	-877.8	-3,037.8	459.4	236.5	222.91	2.061		
9,811.2	6,790.0	6,711.0	6,711.0	89.1	134.2	-90.00	-877.8	-3,037.8	459.3	236.0	223.22	2.057	CC, ES, SF	
9,900.0	6,790.0	6,711.0	6,711.0	91.5	134.2	-90.00	-877.8	-3,037.8	467.8	242.1	225.68	2.073		
10,000.0	6,790.0	6,711.0	6,711.0	94.3	134.2	-90.00	-877.8	-3,037.8	496.6	268.1	228.45	2.174		
10,100.0	6,790.0	6,711.0	6,711.0	97.1	134.2	-90.00	-877.8	-3,037.8	542.5	311.3	231.22	2.346		
10,200.0	6,790.0	6,711.0	6,711.0	99.8	134.2	-90.00	-877.8	-3,037.8	601.8	367.8	233.99	2.572		
10,300.0	6,790.0	6,711.0	6,711.0	102.6	134.2	-90.00	-877.8	-3,037.8	670.7	434.0	236.77	2.833		
10,400.0	6,790.0	6,711.0	6,711.0	105.4	134.2	-90.00	-877.8	-3,037.8	746.8	507.2	239.55	3.117		

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design Nelson 33-SD Pad Sec.33-T5N-R67W - Nelson 32-33 (Vert.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 700-UNKNOWN													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
7,800.0	6,790.0	6,737.3	6,736.1	35.0	186.6	-91.45	-856.5	-1,695.1	799.2	578.0	221.19	3.613		
7,900.0	6,790.0	6,737.6	6,736.4	37.5	186.6	-91.48	-856.5	-1,695.1	717.7	494.0	223.73	3.208		
8,000.0	6,790.0	6,737.9	6,736.6	40.1	186.6	-91.52	-856.5	-1,695.1	641.4	415.1	226.31	2.834		
8,100.0	6,790.0	6,738.2	6,736.9	42.7	186.6	-91.56	-856.4	-1,695.1	572.5	343.5	228.92	2.501		
8,200.0	6,790.0	6,738.5	6,737.2	45.3	186.6	-91.59	-856.4	-1,695.1	513.8	282.3	231.55	2.219		
8,300.0	6,790.0	6,738.7	6,737.5	47.9	186.6	-91.63	-856.4	-1,695.1	469.4	235.2	234.20	2.004		
8,400.0	6,790.0	6,739.0	6,737.7	50.6	186.6	-91.67	-856.4	-1,695.1	443.4	206.5	236.87	1.872		
8,468.5	6,790.0	6,739.2	6,737.9	52.4	186.7	-91.69	-856.4	-1,695.1	438.1	199.4	238.71	1.835 CC, ES		
8,500.0	6,790.0	6,739.3	6,738.0	53.3	186.7	-91.70	-856.4	-1,695.1	439.2	199.7	239.56	1.834 SF		
8,600.0	6,790.0	6,739.6	6,738.3	55.9	186.7	-91.74	-856.4	-1,695.1	457.4	215.2	242.26	1.888		
8,700.0	6,790.0	6,739.9	6,738.6	58.6	186.7	-91.78	-856.4	-1,695.1	495.5	250.6	244.97	2.023		
8,800.0	6,790.0	6,740.1	6,738.9	61.4	186.7	-91.81	-856.4	-1,695.1	549.4	301.7	247.69	2.218		
8,900.0	6,790.0	6,740.4	6,739.2	64.1	186.7	-91.85	-856.4	-1,695.1	614.9	364.5	250.41	2.456		
9,000.0	6,790.0	6,740.7	6,739.4	66.8	186.7	-91.89	-856.4	-1,695.1	688.8	435.7	253.15	2.721		
9,100.0	6,790.0	6,741.0	6,739.7	69.5	186.7	-91.93	-856.4	-1,695.1	768.6	512.7	255.89	3.004		

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design Nelson 33-VD Pad Sec.33-T5N-R67W - Nelson 33-VD (Exist) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 673-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)			
2,100.0	2,094.2	2,333.8	2,308.5	4.9	5.8	72.17	-687.3	-361.2	770.5	761.1	9.43	81.700		
2,200.0	2,193.6	2,429.7	2,398.9	5.2	6.4	72.52	-665.4	-338.0	734.5	724.5	9.97	73.661		
2,300.0	2,293.1	2,513.7	2,478.2	5.5	6.8	72.82	-646.9	-317.5	699.1	688.6	10.47	66.763		
2,400.0	2,392.5	2,594.6	2,555.1	5.8	7.2	73.18	-630.0	-299.1	665.5	654.6	10.95	60.755		
2,500.0	2,491.9	2,689.6	2,645.8	6.1	7.8	73.68	-610.3	-278.1	632.6	621.1	11.48	55.094		
2,600.0	2,591.4	2,772.0	2,724.5	6.4	8.2	74.16	-593.7	-260.3	600.5	588.5	11.98	50.114		
2,700.0	2,690.8	2,861.1	2,810.0	6.7	8.6	74.81	-576.2	-242.5	569.8	557.3	12.49	45.634		
2,800.0	2,790.2	2,961.9	2,906.9	6.9	9.1	75.71	-556.4	-223.0	539.5	526.5	13.03	41.398		
2,900.0	2,889.7	3,056.0	2,997.0	7.2	9.7	76.54	-537.8	-203.6	508.5	494.9	13.58	37.442		
3,000.0	2,989.1	3,146.9	3,084.3	7.5	10.1	77.33	-520.7	-184.5	478.1	464.0	14.11	33.876		
3,100.0	3,088.5	3,244.7	3,178.2	7.8	10.6	78.32	-502.6	-164.4	448.3	433.7	14.66	30.580		
3,200.0	3,188.0	3,336.3	3,266.4	8.1	11.1	79.46	-485.3	-146.0	418.8	403.6	15.20	27.557		
3,300.0	3,287.4	3,434.0	3,360.3	8.4	11.6	80.89	-466.9	-126.7	389.5	373.8	15.75	24.724		
3,400.0	3,386.8	3,536.8	3,458.8	8.7	12.2	82.64	-446.5	-105.3	359.2	342.8	16.35	21.963		
3,500.0	3,486.3	3,634.4	3,551.8	9.0	12.8	84.60	-426.2	-83.8	327.6	310.6	16.96	19.316		
3,600.0	3,585.7	3,727.2	3,640.1	9.3	13.3	86.90	-406.7	-63.4	296.2	278.7	17.57	16.863		
3,700.0	3,685.2	3,822.7	3,731.1	9.7	13.8	89.79	-386.6	-42.2	265.3	247.1	18.23	14.552		
3,800.0	3,784.6	3,913.0	3,817.4	10.0	14.3	93.27	-368.0	-23.3	236.4	217.5	18.94	12.482		
3,900.0	3,884.0	4,007.4	3,907.8	10.3	14.8	97.88	-348.9	-4.4	209.5	189.8	19.79	10.589		
4,000.0	3,983.5	4,103.8	3,999.9	10.6	15.4	103.88	-328.9	16.1	183.2	162.3	20.84	8.788		
4,100.0	4,082.9	4,197.2	4,089.2	10.9	15.9	111.10	-310.3	36.4	159.1	137.0	22.08	7.205		
4,200.0	4,182.3	4,290.5	4,178.7	11.2	16.4	120.12	-292.7	56.1	139.0	115.5	23.52	5.911		
4,300.0	4,281.8	4,388.5	4,272.6	11.5	17.0	131.94	-274.8	77.3	123.3	98.1	25.20	4.892		
4,400.0	4,381.2	4,483.0	4,363.2	11.8	17.5	145.64	-257.9	98.7	112.9	86.1	26.77	4.218		
4,461.3	4,442.2	4,540.1	4,417.8	12.0	17.8	154.75	-247.5	111.3	110.9	83.4	27.55	4.027 CC, ES		
4,500.0	4,480.6	4,576.0	4,452.3	12.1	18.0	160.55	-240.8	119.0	111.7	83.8	27.94	3.999 SF		
4,600.0	4,580.1	4,669.5	4,541.8	12.4	18.5	174.93	-222.3	138.6	120.5	91.9	28.62	4.211		
4,700.0	4,679.5	4,764.4	4,632.6	12.7	19.0	-173.02	-203.1	158.1	137.0	108.1	28.92	4.737		
4,800.0	4,778.9	4,860.4	4,725.3	13.0	19.5	-164.46	-184.9	175.8	157.8	128.7	29.09	5.423		
4,900.0	4,878.4	4,957.1	4,819.1	13.3	19.9	-158.70	-167.9	191.5	180.4	151.1	29.30	6.158		
5,000.0	4,977.8	5,062.2	4,922.0	13.6	20.4	-154.62	-152.2	206.4	202.1	172.5	29.57	6.833		
5,100.0	5,077.2	5,165.2	5,023.7	13.9	20.7	-152.30	-140.9	218.2	220.9	191.0	29.91	7.385		
5,200.0	5,176.7	5,269.6	5,127.3	14.2	21.0	-151.19	-132.4	226.9	237.4	207.1	30.31	7.831		
5,300.0	5,276.1	5,373.8	5,231.3	14.5	21.2	-151.26	-126.7	231.4	251.7	220.9	30.76	8.183		
5,400.0	5,375.6	5,479.4	5,336.8	14.8	21.3	-152.45	-123.9	231.1	263.7	232.5	31.25	8.439		
5,500.0	5,475.0	5,581.7	5,439.1	15.1	21.4	-153.83	-123.6	229.5	273.7	242.0	31.73	8.627		
5,600.0	5,574.4	5,680.6	5,538.0	15.4	21.5	-154.96	-123.2	228.5	283.8	251.6	32.17	8.820		
5,621.7	5,596.0	5,702.2	5,559.6	15.5	21.6	-155.22	-123.2	228.2	286.0	253.7	32.27	8.862		
5,700.0	5,674.0	5,780.6	5,638.0	15.7	21.6	-156.11	-123.1	226.9	292.9	260.2	32.66	8.968		
5,800.0	5,773.8	5,880.6	5,738.0	15.9	21.7	-156.87	-123.0	225.7	298.8	265.7	33.07	9.035		
5,900.0	5,873.7	5,978.7	5,836.1	16.0	21.8	-157.28	-122.8	224.6	301.7	268.3	33.41	9.031		
5,926.3	5,900.0	6,004.3	5,861.7	16.1	21.8	-11.57	-122.6	224.4	302.1	270.2	31.94	9.457		
6,000.0	5,973.7	6,077.4	5,934.7	16.2	21.9	-11.61	-121.7	224.0	303.0	270.8	32.18	9.417		
6,052.3	6,026.1	6,129.8	5,987.1	16.3	22.0	-11.62	-121.0	223.8	303.7	271.4	32.34	9.392		
6,100.0	6,073.7	6,178.0	6,035.3	16.3	22.1	78.60	-120.5	223.5	304.0	270.0	33.99	8.944		
6,150.0	6,123.5	6,228.5	6,085.8	16.4	22.1	79.45	-120.1	223.1	303.6	269.5	34.03	8.920		
6,200.0	6,172.8	6,278.7	6,136.1	16.4	22.2	80.94	-119.8	222.6	302.6	268.6	34.01	8.896		
6,250.0	6,221.5	6,328.1	6,185.5	16.5	22.2	83.02	-119.7	222.0	301.2	267.3	33.92	8.879		
6,300.0	6,269.4	6,376.6	6,233.9	16.5	22.3	85.66	-119.6	221.4	299.8	266.1	33.78	8.877		
6,350.0	6,316.3	6,424.4	6,281.7	16.5	22.3	88.84	-119.6	221.0	299.0	265.4	33.57	8.905		
6,372.9	6,337.3	6,445.9	6,303.3	16.5	22.3	90.44	-119.7	220.8	298.9	265.4	33.46	8.931		

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

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design Nelson 33-VD Pad Sec.33-T5N-R67W - Nelson 33-VD (Exist) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 673-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
6,400.0	6,361.9	6,471.0	6,328.3	16.5	22.4	92.44	-119.8	220.7	299.0	265.7	33.31	8.977		
6,450.0	6,406.0	6,516.1	6,373.4	16.5	22.4	96.32	-120.0	220.5	300.7	267.7	32.99	9.115		
6,500.0	6,448.5	6,559.4	6,416.8	16.5	22.5	100.30	-120.4	220.4	304.6	272.0	32.61	9.341		
6,550.0	6,489.3	6,600.6	6,457.9	16.5	22.5	104.19	-120.9	220.4	311.5	279.3	32.19	9.676		
6,600.0	6,528.0	6,639.3	6,496.6	16.4	22.6	107.81	-121.4	220.5	321.8	290.0	31.75	10.135		
6,650.0	6,564.6	6,675.7	6,533.0	16.4	22.6	111.06	-121.9	220.6	335.9	304.6	31.31	10.729		
6,700.0	6,598.9	6,709.5	6,566.8	16.4	22.6	113.81	-122.3	220.7	354.2	323.2	30.93	11.452		
6,750.0	6,630.7	6,740.9	6,598.2	16.4	22.7	116.00	-122.7	220.8	376.5	345.8	30.65	12.285		
6,800.0	6,660.0	6,769.7	6,627.0	16.4	22.7	117.58	-123.0	220.9	402.7	372.1	30.52	13.193		
6,850.0	6,686.5	6,796.8	6,654.1	16.4	22.7	118.61	-123.3	221.0	432.4	401.8	30.59	14.137		
6,900.0	6,710.2	6,821.5	6,678.8	16.5	22.8	118.97	-123.5	220.9	465.4	434.5	30.92	15.052		
6,950.0	6,731.0	6,843.4	6,700.7	17.1	22.8	118.58	-123.6	220.8	501.2	469.6	31.58	15.871		
7,000.0	6,748.7	6,862.5	6,719.8	17.8	22.8	117.33	-123.7	220.7	539.5	506.9	32.61	16.543		
7,050.0	6,763.4	6,877.6	6,734.9	18.6	22.8	114.94	-123.8	220.5	580.0	545.9	34.08	17.017		
7,100.0	6,774.9	6,888.6	6,745.9	19.4	22.8	111.24	-123.9	220.4	622.2	586.3	35.95	17.307		
7,150.0	6,783.2	6,896.6	6,753.9	20.3	22.8	106.18	-123.9	220.3	666.0	627.9	38.05	17.502		
7,200.0	6,788.2	6,901.5	6,758.8	21.3	22.8	99.61	-124.0	220.3	710.9	670.8	40.11	17.722		
7,252.3	6,790.0	6,903.4	6,760.7	22.3	22.8	91.11	-124.0	220.3	758.8	717.0	41.75	18.173		

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design Nelson 33-VD Pad Sec.33-T5N-R67W - Nelson 42-33 (Exist.) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 7578-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)			
6,500.0	6,448.5	6,413.5	6,413.5	16.5	128.3	-31.78	-783.2	-549.0	795.2	667.4	127.77	6.223		
6,550.0	6,489.3	6,454.3	6,454.3	16.5	129.1	-34.09	-783.2	-549.0	769.5	643.6	125.88	6.113		
6,600.0	6,528.0	6,493.0	6,493.0	16.4	129.9	-36.83	-783.2	-549.0	741.8	617.4	124.45	5.961		
6,650.0	6,564.6	6,529.6	6,529.6	16.4	130.6	-40.04	-783.2	-549.0	712.4	588.6	123.77	5.756		
6,700.0	6,598.9	6,563.9	6,563.9	16.4	131.3	-43.77	-783.2	-549.0	681.4	557.2	124.16	5.488		
6,750.0	6,630.7	6,595.7	6,595.7	16.4	131.9	-48.02	-783.2	-549.0	649.1	523.3	125.86	5.158		
6,800.0	6,660.0	6,625.0	6,625.0	16.4	132.5	-52.78	-783.2	-549.0	616.0	487.1	128.91	4.779		
6,850.0	6,686.5	6,651.5	6,651.5	16.4	133.0	-57.96	-783.2	-549.0	582.4	449.3	133.10	4.376		
6,900.0	6,710.2	6,675.2	6,675.2	16.5	133.5	-63.42	-783.2	-549.0	548.8	410.8	137.95	3.978		
6,950.0	6,731.0	6,696.0	6,696.0	17.1	133.9	-68.93	-783.2	-549.0	515.7	372.9	142.84	3.610		
7,000.0	6,748.7	6,713.7	6,713.7	17.8	134.3	-74.22	-783.2	-549.0	483.8	336.6	147.20	3.287		
7,050.0	6,763.4	6,728.4	6,728.4	18.6	134.6	-79.03	-783.2	-549.0	453.8	303.2	150.67	3.012		
7,100.0	6,774.9	6,739.9	6,739.9	19.4	134.8	-83.14	-783.2	-549.0	426.7	273.5	153.19	2.785		
7,150.0	6,783.2	6,748.2	6,748.2	20.3	135.0	-86.39	-783.2	-549.0	403.3	248.4	154.93	2.603		
7,200.0	6,788.2	6,753.2	6,753.2	21.3	135.1	-88.68	-783.2	-549.0	384.7	228.5	156.19	2.463		
7,252.3	6,790.0	6,755.0	6,755.0	22.3	135.1	-90.00	-783.2	-549.0	371.4	214.1	157.27	2.362		
7,300.0	6,790.0	6,755.0	6,755.0	23.3	135.1	-90.00	-783.2	-549.0	365.4	207.2	158.24	2.309		
7,322.4	6,790.0	6,755.0	6,755.0	23.8	135.1	-90.00	-783.2	-549.0	364.7	206.0	158.72	2.298	CC, ES, SF	
7,400.0	6,790.0	6,755.0	6,755.0	25.4	135.1	-90.00	-783.2	-549.0	372.9	212.5	160.38	2.325		
7,500.0	6,790.0	6,755.0	6,755.0	27.7	135.1	-90.00	-783.2	-549.0	405.7	243.0	162.65	2.494		
7,600.0	6,790.0	6,755.0	6,755.0	30.1	135.1	-90.00	-783.2	-549.0	458.3	293.3	165.01	2.778		
7,700.0	6,790.0	6,755.0	6,755.0	32.5	135.1	-90.00	-783.2	-549.0	525.0	357.5	167.44	3.135		
7,800.0	6,790.0	6,755.0	6,755.0	35.0	135.1	-90.00	-783.2	-549.0	600.9	431.0	169.92	3.537		
7,900.0	6,790.0	6,755.0	6,755.0	37.5	135.1	-90.00	-783.2	-549.0	683.1	510.7	172.45	3.961		
8,000.0	6,790.0	6,755.0	6,755.0	40.1	135.1	-90.00	-783.2	-549.0	769.5	594.5	175.02	4.397		

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 ft
Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33U-234 - Wellbore #1 - P														Offset Well Error:	0.0 ft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.0	0.0	25.0	25.0	0.0	0.0	-0.89	717.7	-11.1	717.8	717.8	0.03	N/A			
100.0	100.0	125.0	125.0	0.1	0.2	-0.89	717.7	-11.1	717.8	717.5	0.28	2,554.824			
200.0	200.0	225.0	225.0	0.3	0.4	-0.89	717.7	-11.1	717.8	717.1	0.73	982.625			
300.0	300.0	325.0	325.0	0.6	0.6	-0.89	717.7	-11.1	717.8	716.6	1.18	608.291			
400.0	400.0	425.0	425.0	0.8	0.8	-0.89	717.7	-11.1	717.8	716.2	1.63	440.487			
500.0	500.0	525.0	525.0	1.0	1.1	-0.89	717.7	-11.1	717.8	715.7	2.08	345.246			
600.0	600.0	625.0	625.0	1.2	1.3	-0.89	717.7	-11.1	717.8	715.3	2.53	283.869			
700.0	700.0	725.0	725.0	1.5	1.5	-0.89	717.7	-11.1	717.8	714.8	2.98	241.021			
800.0	800.0	825.0	825.0	1.7	1.7	-0.89	717.7	-11.1	717.8	714.4	3.43	209.412 CC, ES			
900.0	900.0	925.0	925.0	1.9	2.0	-146.68	717.7	-11.1	718.9	715.0	3.85	186.581			
1,000.0	999.9	1,024.9	1,024.9	2.1	2.2	-146.83	717.7	-11.1	722.2	717.9	4.26	169.454			
1,100.0	1,099.7	1,124.7	1,124.7	2.3	2.4	-147.06	717.7	-11.1	727.7	723.0	4.68	155.485			
1,206.1	1,205.4	1,227.9	1,227.9	2.5	2.6	-147.39	717.8	-11.1	736.0	730.8	5.13	143.582			
1,300.0	1,298.7	1,313.5	1,313.5	2.7	2.8	-147.66	718.5	-9.7	745.2	739.7	5.51	135.199			
1,400.0	1,398.1	1,404.7	1,404.6	3.0	3.0	-147.80	720.4	-6.4	756.1	750.1	5.93	127.553			
1,500.0	1,497.6	1,495.7	1,495.4	3.2	3.2	-147.79	723.3	-1.2	768.0	761.7	6.35	120.888			
1,600.0	1,597.0	1,586.4	1,585.7	3.5	3.4	-147.64	727.3	5.9	781.1	774.3	6.79	115.021			
1,700.0	1,696.4	1,683.9	1,682.7	3.8	3.7	-147.38	732.3	14.7	794.9	787.6	7.26	109.557 SF			

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 ft
Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33U-304 - Wellbore #1 - P														Offset Well Error:	0.0 ft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.0	0.0	24.0	24.0	0.0	0.0	-2.22	717.7	-27.9	718.2	718.2	0.03	N/A			
100.0	100.0	124.0	124.0	0.1	0.2	-2.22	717.7	-27.9	718.2	718.0	0.28	2,577.028			
200.0	200.0	224.0	224.0	0.3	0.4	-2.22	717.7	-27.9	718.2	717.5	0.73	986.270			
300.0	300.0	324.0	324.0	0.6	0.6	-2.22	717.7	-27.9	718.2	717.1	1.18	609.831			
400.0	400.0	424.0	424.0	0.8	0.8	-2.22	717.7	-27.9	718.2	716.6	1.63	441.369			
500.0	500.0	524.0	524.0	1.0	1.1	-2.22	717.7	-27.9	718.2	716.2	2.08	345.835			
600.0	600.0	624.0	624.0	1.2	1.3	-2.22	717.7	-27.9	718.2	715.7	2.53	284.298			
700.0	700.0	724.0	724.0	1.5	1.5	-2.22	717.7	-27.9	718.2	715.3	2.98	241.353			
800.0	800.0	824.0	824.0	1.7	1.7	-2.22	717.7	-27.9	718.2	714.8	3.43	209.679	CC, ES		
900.0	900.0	924.0	924.0	1.9	2.0	-148.02	717.7	-27.9	719.4	715.5	3.85	186.809			
1,000.0	999.9	1,023.9	1,023.9	2.1	2.2	-148.15	717.7	-27.9	722.7	718.4	4.26	169.663			
1,100.0	1,099.7	1,123.7	1,123.7	2.3	2.4	-148.38	717.7	-27.9	728.3	723.6	4.68	155.690			
1,206.1	1,205.4	1,229.4	1,229.4	2.5	2.7	-148.71	717.7	-27.9	736.6	731.5	5.13	143.586			
1,300.0	1,298.7	1,322.7	1,322.7	2.7	2.9	-149.11	717.7	-27.9	745.2	739.6	5.54	134.568			
1,400.0	1,398.1	1,422.1	1,422.1	3.0	3.1	-149.53	717.7	-27.9	754.3	748.3	5.98	126.187			
1,500.0	1,497.6	1,518.8	1,518.8	3.2	3.3	-149.92	717.7	-27.8	763.5	757.1	6.42	118.998			
1,600.0	1,597.0	1,600.0	1,600.0	3.5	3.5	-150.17	718.7	-27.1	774.0	767.1	6.82	113.414			
1,700.0	1,696.4	1,691.3	1,691.2	3.8	3.7	-150.36	721.5	-25.0	786.0	778.8	7.26	108.310			
1,800.0	1,795.9	1,777.1	1,776.9	4.0	3.9	-150.43	725.7	-21.8	799.8	792.1	7.68	104.100	SF		

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 ft
Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33U-334 - Wellbore #1 - P														Offset Well Error:	0.0 ft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.0	0.0	25.0	25.0	0.0	0.0	0.22	717.7	2.8	717.7	717.7	0.03	N/A			
100.0	100.0	125.0	125.0	0.1	0.2	0.22	717.7	2.8	717.7	717.4	0.28	2,554.550			
200.0	200.0	225.0	225.0	0.3	0.4	0.22	717.7	2.8	717.7	717.0	0.73	982.519			
300.0	300.0	325.0	325.0	0.6	0.6	0.22	717.7	2.8	717.7	716.5	1.18	608.226			
400.0	400.0	425.0	425.0	0.8	0.8	0.22	717.7	2.8	717.7	716.1	1.63	440.440			
500.0	500.0	525.0	525.0	1.0	1.1	0.22	717.7	2.8	717.7	715.6	2.08	345.209			
600.0	600.0	625.0	625.0	1.2	1.3	0.22	717.7	2.8	717.7	715.2	2.53	283.839			
700.0	700.0	725.0	725.0	1.5	1.5	0.22	717.7	2.8	717.7	714.7	2.98	240.995			
800.0	800.0	825.0	825.0	1.7	1.7	0.22	717.7	2.8	717.7	714.3	3.43	209.389	CC, ES		
900.0	900.0	925.0	925.0	1.9	2.0	-145.57	717.7	2.8	718.8	714.9	3.85	186.559			
1,000.0	999.9	1,026.2	1,026.2	2.1	2.2	-145.72	717.7	2.9	722.0	717.8	4.26	169.478			
1,100.0	1,099.7	1,131.4	1,131.4	2.3	2.4	-145.82	717.1	5.0	726.9	722.2	4.67	155.684			
1,206.1	1,205.4	1,243.1	1,242.9	2.5	2.6	-145.80	715.7	10.2	733.6	728.5	5.11	143.602			
1,300.0	1,298.7	1,341.8	1,341.4	2.7	2.8	-145.69	713.6	17.5	739.9	734.4	5.52	134.079			
1,400.0	1,398.1	1,445.7	1,444.7	3.0	3.1	-145.38	710.8	27.7	746.0	740.0	5.98	124.850			
1,500.0	1,497.6	1,545.4	1,543.8	3.2	3.3	-145.03	707.9	38.3	751.9	745.4	6.44	116.666			
1,600.0	1,597.0	1,645.1	1,642.9	3.5	3.6	-144.69	705.0	48.9	757.8	750.8	6.93	109.376			
1,700.0	1,696.4	1,744.8	1,742.0	3.8	3.8	-144.35	702.1	59.5	763.7	756.3	7.42	102.874			
1,800.0	1,795.9	1,844.6	1,841.1	4.0	4.1	-144.02	699.2	70.0	769.7	761.7	7.93	97.066			
1,900.0	1,895.3	1,944.3	1,940.3	4.3	4.4	-143.69	696.2	80.6	775.7	767.2	8.44	91.866			
2,000.0	1,994.8	2,044.0	2,039.4	4.6	4.7	-143.36	693.3	91.2	781.7	772.7	8.96	87.199			
2,100.0	2,094.2	2,143.7	2,138.5	4.9	4.9	-143.04	690.4	101.8	787.7	778.2	9.49	82.992			
2,200.0	2,193.6	2,243.4	2,237.6	5.2	5.2	-142.73	687.5	112.3	793.8	783.7	10.02	79.188			
2,300.0	2,293.1	2,343.2	2,336.7	5.5	5.5	-142.42	684.6	122.9	799.8	789.3	10.56	75.737	SF		

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 ft
Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33V-214 - Wellbore #1 - P														Offset Well Error:	0.0 ft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis			Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.0	0.0	25.0	25.0	0.0	0.0	1.56	717.7	19.5	718.0	717.9	0.03	N/A			
100.0	100.0	125.0	125.0	0.1	0.2	1.56	717.7	19.5	718.0	717.7	0.28	2,555.445			
200.0	200.0	225.0	225.0	0.3	0.4	1.56	717.7	19.5	718.0	717.2	0.73	982.863			
300.0	300.0	325.0	325.0	0.6	0.6	1.56	717.7	19.5	718.0	716.8	1.18	608.439			
400.0	400.0	425.0	425.0	0.8	0.8	1.56	717.7	19.5	718.0	716.3	1.63	440.594			
500.0	500.0	529.3	529.3	1.0	1.1	1.56	717.6	19.6	717.9	715.8	2.08	344.863			
600.0	600.0	646.2	646.2	1.2	1.3	1.70	715.5	21.2	716.1	713.6	2.54	282.319			
700.0	700.0	762.9	762.7	1.5	1.5	2.02	710.6	25.0	712.0	709.0	2.99	237.773			
800.0	800.0	879.1	878.5	1.7	1.8	2.53	702.8	31.0	705.5	702.1	3.48	202.736			
900.0	900.0	986.2	984.9	1.9	2.1	-142.73	693.5	38.2	698.2	694.3	3.92	178.316			
1,000.0	999.9	1,085.9	1,084.0	2.1	2.3	-142.36	684.6	45.1	692.8	688.4	4.34	159.740			
1,100.0	1,099.7	1,185.8	1,183.3	2.3	2.6	-142.11	675.7	52.0	689.4	684.6	4.78	144.322			
1,206.1	1,205.4	1,291.9	1,288.7	2.5	2.9	-141.96	666.2	59.3	688.1	682.9	5.26	130.769			
1,300.0	1,298.7	1,385.8	1,382.0	2.7	3.2	-141.88	657.8	65.8	688.0	682.3	5.71	120.579			
1,400.0	1,398.1	1,485.8	1,481.3	3.0	3.5	-141.80	648.8	72.8	687.9	681.7	6.19	111.155			
1,500.0	1,497.6	1,585.8	1,580.7	3.2	3.8	-141.72	639.9	79.7	687.8	681.1	6.68	102.953			
1,600.0	1,597.0	1,685.8	1,680.0	3.5	4.1	-141.64	630.9	86.6	687.7	680.5	7.18	95.786			
1,700.0	1,696.4	1,785.8	1,779.4	3.8	4.4	-141.56	622.0	93.5	687.6	679.9	7.68	89.484			
1,800.0	1,795.9	1,885.8	1,878.7	4.0	4.7	-141.48	613.0	100.4	687.4	679.3	8.19	83.910			
1,900.0	1,895.3	1,985.8	1,978.1	4.3	5.0	-141.40	604.1	107.4	687.3	678.6	8.71	78.953			
2,000.0	1,994.8	2,085.8	2,077.4	4.6	5.3	-141.32	595.1	114.3	687.2	678.0	9.22	74.520			
2,100.0	2,094.2	2,185.7	2,176.8	4.9	5.6	-141.24	586.2	121.2	687.1	677.4	9.74	70.536			
2,200.0	2,193.6	2,285.7	2,276.1	5.2	5.9	-141.16	577.3	128.1	687.0	676.7	10.26	66.940			
2,300.0	2,293.1	2,385.7	2,375.5	5.5	6.2	-141.08	568.3	135.0	686.9	676.1	10.79	63.679			
2,400.0	2,392.5	2,485.7	2,474.8	5.8	6.6	-141.00	559.4	142.0	686.8	675.5	11.31	60.709			
2,500.0	2,491.9	2,585.7	2,574.2	6.1	6.9	-140.92	550.4	148.9	686.7	674.9	11.84	57.995			
2,600.0	2,591.4	2,685.7	2,673.5	6.4	7.2	-140.84	541.5	155.8	686.6	674.2	12.37	55.505			
2,700.0	2,690.8	2,785.7	2,772.9	6.7	7.5	-140.76	532.5	162.7	686.5	673.6	12.90	53.214			
2,800.0	2,790.2	2,885.7	2,872.3	6.9	7.8	-140.68	523.6	169.6	686.4	673.0	13.43	51.099			
2,900.0	2,889.7	2,985.7	2,971.6	7.2	8.1	-140.60	514.6	176.6	686.3	672.3	13.97	49.141			
3,000.0	2,989.1	3,085.7	3,071.0	7.5	8.4	-140.52	505.7	183.5	686.2	671.7	14.50	47.324			
3,100.0	3,088.5	3,185.7	3,170.3	7.8	8.7	-140.44	496.7	190.4	686.1	671.1	15.04	45.632			
3,200.0	3,188.0	3,285.7	3,269.7	8.1	9.1	-140.36	487.8	197.3	686.0	670.5	15.57	44.055			
3,300.0	3,287.4	3,385.7	3,369.0	8.4	9.4	-140.28	478.8	204.2	685.9	669.8	16.11	42.580			
3,400.0	3,386.8	3,485.7	3,468.4	8.7	9.7	-140.20	469.9	211.2	685.8	669.2	16.65	41.198			
3,500.0	3,486.3	3,585.7	3,567.7	9.0	10.0	-140.12	460.9	218.1	685.8	668.6	17.19	39.900			
3,600.0	3,585.7	3,685.7	3,667.1	9.3	10.3	-140.04	452.0	225.0	685.7	667.9	17.73	38.680			
3,700.0	3,685.2	3,785.7	3,766.4	9.7	10.6	-139.96	443.0	231.9	685.6	667.3	18.27	37.531			
3,800.0	3,784.6	3,885.7	3,865.8	10.0	10.9	-139.88	434.1	238.8	685.5	666.7	18.81	36.446			
3,900.0	3,884.0	3,985.7	3,965.1	10.3	11.3	-139.80	425.1	245.8	685.4	666.1	19.35	35.421			
4,000.0	3,983.5	4,085.7	4,064.5	10.6	11.6	-139.72	416.2	252.7	685.3	665.4	19.89	34.451			
4,100.0	4,082.9	4,185.7	4,163.8	10.9	11.9	-139.64	407.2	259.6	685.3	664.8	20.44	33.531			
4,200.0	4,182.3	4,285.6	4,263.2	11.2	12.2	-139.56	398.3	266.5	685.2	664.2	20.98	32.658			
4,300.0	4,281.8	4,385.6	4,362.6	11.5	12.5	-139.48	389.3	273.4	685.1	663.6	21.53	31.828			
4,400.0	4,381.2	4,485.6	4,461.9	11.8	12.8	-139.40	380.4	280.4	685.0	663.0	22.07	31.038			
4,500.0	4,480.6	4,585.6	4,561.3	12.1	13.1	-139.32	371.4	287.3	684.9	662.3	22.62	30.286			
4,600.0	4,580.1	4,685.6	4,660.6	12.4	13.5	-139.24	362.5	294.2	684.9	661.7	23.16	29.568			
4,612.1	4,592.1	4,697.7	4,672.6	12.4	13.5	-139.23	361.4	295.0	684.9	661.6	23.23	29.484 CC			
4,700.0	4,679.5	4,773.2	4,747.8	12.7	13.7	-139.22	355.4	299.7	685.6	661.9	23.64	29.000			
4,800.0	4,778.9	4,858.5	4,832.8	13.0	13.9	-139.35	350.4	303.5	688.4	664.3	24.06	28.605			
4,900.0	4,878.4	4,943.6	4,917.8	13.3	14.0	-139.62	347.5	305.8	693.3	668.9	24.45	28.351			

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

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
5,000.0	4,977.8	5,028.6	5,002.8	13.6	14.1	-140.04	346.6	306.5	700.4	675.6	24.82	28.216			
5,100.0	5,077.2	5,128.1	5,102.2	13.9	14.3	-140.58	346.6	306.5	708.6	683.4	25.21	28.114			
5,200.0	5,176.7	5,227.5	5,201.7	14.2	14.4	-141.12	346.6	306.5	716.9	691.3	25.58	28.024			
5,300.0	5,276.1	5,326.9	5,301.1	14.5	14.6	-141.65	346.6	306.5	725.2	699.2	25.96	27.937			
5,400.0	5,375.6	5,426.4	5,400.6	14.8	14.7	-142.16	346.6	306.5	733.5	707.2	26.34	27.852			
5,500.0	5,475.0	5,525.8	5,500.0	15.1	14.9	-142.66	346.6	306.5	742.0	715.3	26.72	27.769			
5,600.0	5,574.4	5,625.2	5,599.4	15.4	15.0	-143.15	346.6	306.5	750.5	723.4	27.10	27.688			
5,621.7	5,596.0	5,646.8	5,621.0	15.5	15.1	-143.26	346.6	306.5	752.3	725.1	27.19	27.671			
5,700.0	5,674.0	5,724.8	5,699.0	15.7	15.2	-143.65	346.6	306.5	758.1	730.7	27.47	27.602			
5,800.0	5,773.8	5,824.6	5,798.8	15.9	15.3	-143.99	346.6	306.5	763.1	735.3	27.79	27.464			
5,900.0	5,873.7	5,924.5	5,898.7	16.0	15.5	-144.13	346.6	306.5	765.3	737.2	28.09	27.242			
5,926.3	5,900.0	5,950.8	5,925.0	16.1	15.5	1.61	346.6	306.5	765.4	735.6	29.78	25.703			
6,000.0	5,973.7	6,024.5	5,998.7	16.2	15.6	1.61	346.6	306.5	765.4	735.3	30.02	25.491			
6,052.3	6,026.1	6,076.9	6,051.1	16.3	15.7	1.61	346.6	306.5	765.4	735.2	30.19	25.349			
6,100.0	6,073.7	6,125.2	6,099.4	16.3	15.8	91.69	346.6	306.2	765.4	736.6	28.78	26.591			
6,150.0	6,123.5	6,176.8	6,150.8	16.4	15.9	91.81	346.6	302.8	765.4	736.5	28.92	26.465			
6,200.0	6,172.8	6,228.4	6,202.0	16.4	15.9	91.92	346.6	296.1	765.5	736.5	29.02	26.375			
6,250.0	6,221.5	6,280.2	6,252.8	16.5	15.9	92.02	346.6	285.8	765.5	736.4	29.09	26.315			
6,300.0	6,269.4	6,332.0	6,302.8	16.5	16.0	92.11	346.6	272.1	765.6	736.4	29.13	26.280			
6,350.0	6,316.3	6,384.0	6,351.8	16.5	16.0	92.19	346.6	255.0	765.6	736.5	29.15	26.261			
6,400.0	6,361.9	6,436.0	6,399.6	16.5	16.0	92.26	346.6	234.6	765.6	736.5	29.17	26.247			
6,450.0	6,406.0	6,488.1	6,446.0	16.5	16.0	92.32	346.6	211.0	765.7	736.5	29.20	26.226			
6,500.0	6,448.5	6,540.2	6,490.8	16.5	16.0	92.37	346.6	184.2	765.7	736.5	29.25	26.182			
6,550.0	6,489.3	6,592.4	6,533.6	16.5	16.0	92.41	346.6	154.4	765.7	736.4	29.34	26.097			
6,600.0	6,528.0	6,644.6	6,574.3	16.4	16.0	92.44	346.6	121.7	765.7	736.2	29.51	25.952			
6,650.0	6,564.6	6,696.9	6,612.7	16.4	16.0	92.46	346.6	86.3	765.8	736.0	29.76	25.728			
6,700.0	6,598.9	6,749.1	6,648.6	16.4	16.0	92.47	346.6	48.3	765.8	735.6	30.14	25.410			
6,750.0	6,630.7	6,801.4	6,681.8	16.4	16.0	92.47	346.6	8.0	765.8	735.1	30.65	24.984			
6,800.0	6,660.0	6,853.6	6,712.2	16.4	16.0	92.45	346.6	-34.4	765.8	734.4	31.32	24.448			
6,850.0	6,686.5	6,905.8	6,739.6	16.4	16.1	92.43	346.6	-78.9	765.7	733.6	32.17	23.806			
6,900.0	6,710.2	6,958.0	6,763.9	16.5	16.6	92.39	346.6	-125.1	765.7	732.5	33.19	23.072			
6,950.0	6,731.0	7,010.2	6,785.0	17.1	17.2	92.34	346.6	-172.8	765.7	731.3	34.39	22.264			
7,000.0	6,748.7	7,062.3	6,802.8	17.8	18.0	92.29	346.6	-221.8	765.7	729.9	35.77	21.405			
7,050.0	6,763.4	7,114.3	6,817.1	18.6	18.8	92.22	346.6	-271.8	765.6	728.3	37.31	20.519			
7,100.0	6,774.9	7,166.3	6,828.0	19.4	19.7	92.14	346.6	-322.6	765.6	726.6	39.00	19.629			
7,150.0	6,783.2	7,218.2	6,835.4	20.3	20.6	92.05	346.6	-373.9	765.5	724.7	40.82	18.753			
7,200.0	6,788.2	7,270.0	6,839.4	21.3	21.6	91.96	346.6	-425.6	765.5	722.8	42.75	17.907			
7,252.3	6,790.0	7,323.5	6,839.9	22.3	22.7	91.87	346.6	-479.1	765.5	720.6	44.85	17.068			
7,300.0	6,790.0	7,371.2	6,839.7	23.3	23.7	91.85	346.6	-526.7	765.5	718.6	46.81	16.353			
7,400.0	6,790.0	7,471.2	6,839.2	25.4	25.9	91.81	346.6	-626.7	765.4	714.3	51.12	14.972			
7,500.0	6,790.0	7,571.2	6,838.7	27.7	28.2	91.78	346.6	-726.7	765.4	709.7	55.67	13.749			
7,600.0	6,790.0	7,671.2	6,838.2	30.1	30.6	91.74	346.5	-826.7	765.4	705.0	60.40	12.673			
7,700.0	6,790.0	7,771.2	6,837.7	32.5	33.0	91.70	346.5	-926.7	765.4	700.1	65.27	11.727			
7,800.0	6,790.0	7,871.2	6,837.2	35.0	35.5	91.67	346.5	-1,026.7	765.4	695.1	70.25	10.895			
7,900.0	6,790.0	7,971.2	6,836.8	37.5	38.0	91.63	346.5	-1,126.7	765.4	690.0	75.32	10.162			
8,000.0	6,790.0	8,071.2	6,836.3	40.1	40.6	91.59	346.5	-1,226.7	765.3	684.9	80.46	9.512			
8,100.0	6,790.0	8,171.2	6,835.8	42.7	43.2	91.56	346.5	-1,326.7	765.3	679.7	85.66	8.934			
8,200.0	6,790.0	8,271.2	6,835.3	45.3	45.8	91.52	346.5	-1,426.7	765.3	674.4	90.92	8.418			
8,300.0	6,790.0	8,371.2	6,834.8	47.9	48.5	91.48	346.5	-1,526.7	765.3	669.1	96.21	7.955			
8,400.0	6,790.0	8,471.2	6,834.3	50.6	51.2	91.45	346.5	-1,626.7	765.3	663.8	101.54	7.537			

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

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33V-214 - Wellbore #1 - P													Offset Site Error:	0.0 ft
Survey Program: 0-MWVD													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)			
8,500.0	6,790.0	8,571.2	6,833.8	53.3	53.8	91.41	346.5	-1,726.7	765.3	658.4	106.89	7.159		
8,600.0	6,790.0	8,671.2	6,833.3	55.9	56.5	91.37	346.5	-1,826.7	765.3	653.0	112.28	6.816		
8,700.0	6,790.0	8,771.2	6,832.9	58.6	59.2	91.34	346.5	-1,926.7	765.3	647.6	117.68	6.503		
8,800.0	6,790.0	8,871.2	6,832.4	61.4	61.9	91.30	346.5	-2,026.7	765.2	642.1	123.11	6.216		
8,900.0	6,790.0	8,971.2	6,831.9	64.1	64.7	91.26	346.5	-2,126.7	765.2	636.7	128.55	5.953		
9,000.0	6,790.0	9,071.2	6,831.4	66.8	67.4	91.23	346.5	-2,226.7	765.2	631.2	134.00	5.711		
9,100.0	6,790.0	9,171.2	6,830.9	69.5	70.1	91.19	346.5	-2,326.7	765.2	625.7	139.47	5.487		
9,200.0	6,790.0	9,271.2	6,830.4	72.3	72.9	91.15	346.5	-2,426.7	765.2	620.3	144.95	5.279		
9,300.0	6,790.0	9,371.2	6,829.9	75.0	75.6	91.12	346.5	-2,526.7	765.2	614.8	150.44	5.086		
9,400.0	6,790.0	9,471.2	6,829.4	77.8	78.4	91.08	346.5	-2,626.7	765.2	609.2	155.94	4.907		
9,500.0	6,790.0	9,571.2	6,828.9	80.5	81.1	91.04	346.5	-2,726.7	765.2	603.7	161.45	4.739		
9,600.0	6,790.0	9,671.2	6,828.5	83.3	83.9	91.01	346.5	-2,826.7	765.2	598.2	166.96	4.583		
9,700.0	6,790.0	9,771.2	6,828.0	86.0	86.6	90.97	346.5	-2,926.7	765.2	592.7	172.49	4.436		
9,800.0	6,790.0	9,871.2	6,827.5	88.8	89.4	90.93	346.5	-3,026.7	765.2	587.1	178.01	4.298		
9,900.0	6,790.0	9,971.2	6,827.0	91.5	92.1	90.90	346.5	-3,126.7	765.1	581.6	183.55	4.169		
10,000.0	6,790.0	10,071.2	6,826.5	94.3	94.9	90.86	346.5	-3,226.7	765.1	576.1	189.08	4.047		
10,100.0	6,790.0	10,171.2	6,826.0	97.1	97.7	90.82	346.5	-3,326.7	765.1	570.5	194.63	3.931		
10,200.0	6,790.0	10,271.2	6,825.5	99.8	100.5	90.79	346.5	-3,426.7	765.1	564.9	200.17	3.822		
10,300.0	6,790.0	10,371.2	6,825.0	102.6	103.2	90.75	346.5	-3,526.7	765.1	559.4	205.73	3.719		
10,400.0	6,790.0	10,471.2	6,824.5	105.4	106.0	90.71	346.5	-3,626.7	765.1	553.8	211.28	3.621		
10,500.0	6,790.0	10,571.2	6,824.1	108.2	108.8	90.68	346.5	-3,726.7	765.1	548.3	216.84	3.528		
10,600.0	6,790.0	10,671.2	6,823.6	111.0	111.6	90.64	346.5	-3,826.7	765.1	542.7	222.40	3.440		
10,700.0	6,790.0	10,771.2	6,823.1	113.7	114.3	90.60	346.5	-3,926.7	765.1	537.1	227.96	3.356		
10,800.0	6,790.0	10,871.1	6,822.6	116.5	117.1	90.57	346.5	-4,026.7	765.1	531.6	233.53	3.276		
10,900.0	6,790.0	10,971.1	6,822.1	119.3	119.9	90.53	346.5	-4,126.7	765.1	526.0	239.10	3.200		
11,000.0	6,790.0	11,071.1	6,821.6	122.1	122.7	90.50	346.5	-4,226.6	765.1	520.4	244.67	3.127		
11,100.0	6,790.0	11,171.1	6,821.1	124.9	125.5	90.46	346.5	-4,326.6	765.1	514.8	250.24	3.057		
11,200.0	6,790.0	11,271.1	6,820.6	127.7	128.3	90.42	346.5	-4,426.6	765.1	509.3	255.82	2.991		
11,300.0	6,790.0	11,371.1	6,820.1	130.4	131.1	90.39	346.5	-4,526.6	765.1	503.7	261.39	2.927		
11,326.6	6,790.0	11,397.7	6,820.0	130.9	131.8	90.38	346.5	-4,553.2	765.1	502.5	262.61	2.913		
11,335.6	6,790.0	11,401.0	6,820.0	131.1	131.9	90.37	346.5	-4,556.5	765.1	502.2	262.86	2.911 ES, SF		

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design													Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33V-304 - Wellbore #1 - P		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 Depth (ft)	Vertical Depth Depth (ft)	Measured Depth Depth (ft)	Vertical Depth Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
0.0	0.0	0.0	0.0	0.0	0.0	-89.90	0.0	-13.9	13.9	13.9	0.00	N/A				
100.0	100.0	100.0	100.0	0.1	0.1	-89.90	0.0	-13.9	13.9	13.7	0.22	61.995				
200.0	200.0	200.0	200.0	0.3	0.3	-89.90	0.0	-13.9	13.9	13.3	0.67	20.665				
300.0	300.0	300.0	300.0	0.6	0.6	-89.90	0.0	-13.9	13.9	12.8	1.12	12.399				
400.0	400.0	400.0	400.0	0.8	0.8	-89.90	0.0	-13.9	13.9	12.4	1.57	8.856				
500.0	500.0	500.0	500.0	1.0	1.0	-89.90	0.0	-13.9	13.9	11.9	2.02	6.888				
600.0	600.0	600.0	600.0	1.2	1.2	-89.90	0.0	-13.9	13.9	11.5	2.47	5.636				
700.0	700.0	700.0	700.0	1.5	1.5	-89.90	0.0	-13.9	13.9	11.0	2.92	4.769				
800.0	800.0	800.0	800.0	1.7	1.7	-89.90	0.0	-13.9	13.9	10.6	3.37	4.133 CC, ES				
900.0	900.0	900.0	900.0	1.9	1.9	128.56	0.0	-13.9	14.7	10.9	3.80	3.876				
1,000.0	999.9	999.9	999.9	2.1	2.1	138.67	0.0	-13.9	17.4	13.2	4.20	4.148				
1,100.0	1,099.7	1,099.7	1,099.7	2.3	2.4	149.56	0.0	-13.9	22.8	18.1	4.62	4.927				
1,206.1	1,205.4	1,205.4	1,205.4	2.5	2.6	158.54	0.0	-13.9	31.6	26.5	5.07	6.236				
1,300.0	1,298.7	1,298.7	1,298.7	2.7	2.8	163.63	0.0	-13.9	41.0	35.6	5.47	7.507				
1,400.0	1,398.1	1,398.1	1,398.1	3.0	3.0	166.97	0.0	-13.9	51.3	45.4	5.90	8.702				
1,500.0	1,497.6	1,497.6	1,497.6	3.2	3.3	169.20	0.0	-13.9	61.7	55.4	6.33	9.746				
1,600.0	1,597.0	1,598.8	1,598.7	3.5	3.5	171.13	-0.6	-12.8	71.0	64.2	6.75	10.513				
1,700.0	1,696.4	1,700.3	1,700.3	3.8	3.7	173.30	-2.4	-9.3	77.8	70.7	7.15	10.877				
1,800.0	1,795.9	1,802.2	1,801.8	4.0	3.9	175.85	-5.6	-3.4	82.3	74.7	7.57	10.877				
1,900.0	1,895.3	1,903.7	1,902.9	4.3	4.1	178.90	-10.0	4.8	84.6	76.6	7.99	10.587				
2,000.0	1,994.8	2,003.6	2,002.3	4.6	4.3	-177.98	-14.7	13.7	86.3	77.9	8.42	10.253				
2,100.0	2,094.2	2,103.4	2,101.7	4.9	4.5	-174.99	-19.4	22.6	88.3	79.5	8.86	9.966				
2,200.0	2,193.6	2,203.3	2,201.0	5.2	4.8	-172.14	-24.1	31.4	90.6	81.2	9.32	9.720				
2,300.0	2,293.1	2,303.2	2,300.4	5.5	5.0	-169.43	-28.9	40.3	93.0	83.2	9.78	9.507				
2,400.0	2,392.5	2,403.1	2,399.8	5.8	5.2	-166.87	-33.6	49.2	95.6	85.4	10.26	9.323				
2,500.0	2,491.9	2,502.9	2,499.2	6.1	5.5	-164.44	-38.3	58.0	98.4	87.7	10.74	9.162				
2,600.0	2,591.4	2,602.8	2,598.5	6.4	5.8	-162.16	-43.0	66.9	101.4	90.2	11.24	9.021				
2,700.0	2,690.8	2,702.7	2,697.9	6.7	6.0	-160.01	-47.8	75.7	104.5	92.8	11.75	8.898				
2,800.0	2,790.2	2,802.6	2,797.3	6.9	6.3	-157.98	-52.5	84.6	107.8	95.5	12.26	8.791				
2,900.0	2,889.7	2,902.4	2,896.6	7.2	6.6	-156.08	-57.2	93.5	111.2	98.4	12.79	8.696				
3,000.0	2,989.1	3,002.3	2,996.0	7.5	6.8	-154.29	-61.9	102.3	114.7	101.4	13.32	8.612				
3,100.0	3,088.5	3,102.2	3,095.4	7.8	7.1	-152.61	-66.7	111.2	118.3	104.5	13.86	8.538				
3,200.0	3,188.0	3,202.1	3,194.7	8.1	7.4	-151.03	-71.4	120.1	122.0	107.6	14.40	8.472				
3,300.0	3,287.4	3,301.9	3,294.1	8.4	7.6	-149.55	-76.1	128.9	125.8	110.9	14.95	8.415				
3,400.0	3,386.8	3,401.8	3,393.5	8.7	7.9	-148.15	-80.8	137.8	129.7	114.2	15.51	8.363				
3,500.0	3,486.3	3,501.7	3,492.9	9.0	8.2	-146.83	-85.6	146.7	133.7	117.6	16.07	8.318				
3,600.0	3,585.7	3,601.6	3,592.2	9.3	8.5	-145.59	-90.3	155.5	137.7	121.0	16.63	8.278				
3,700.0	3,685.2	3,701.5	3,691.6	9.7	8.8	-144.42	-95.0	164.4	141.8	124.6	17.20	8.242				
3,800.0	3,784.6	3,801.3	3,791.0	10.0	9.0	-143.32	-99.7	173.3	145.9	128.1	17.77	8.210				
3,900.0	3,884.0	3,901.2	3,890.3	10.3	9.3	-142.28	-104.5	182.1	150.1	131.7	18.34	8.182				
4,000.0	3,983.5	4,001.1	3,989.7	10.6	9.6	-141.29	-109.2	191.0	154.3	135.4	18.92	8.157				
4,100.0	4,082.9	4,101.0	4,089.1	10.9	9.9	-140.36	-113.9	199.8	158.6	139.1	19.49	8.135				
4,200.0	4,182.3	4,200.8	4,188.4	11.2	10.2	-139.48	-118.6	208.7	162.9	142.8	20.07	8.115				
4,300.0	4,281.8	4,300.7	4,287.8	11.5	10.5	-138.64	-123.3	217.6	167.2	146.6	20.65	8.098				
4,400.0	4,381.2	4,400.6	4,387.2	11.8	10.8	-137.84	-128.1	226.4	171.6	150.4	21.23	8.083				
4,500.0	4,480.6	4,500.5	4,486.5	12.1	11.0	-137.09	-132.8	235.3	176.0	154.2	21.82	8.069				
4,600.0	4,580.1	4,600.3	4,585.9	12.4	11.3	-136.37	-137.5	244.2	180.5	158.1	22.40	8.057				
4,700.0	4,679.5	4,700.2	4,685.3	12.7	11.6	-135.69	-142.2	253.0	185.0	162.0	22.99	8.046				
4,800.0	4,778.9	4,800.1	4,784.7	13.0	11.9	-135.04	-147.0	261.9	189.5	165.9	23.57	8.037				
4,900.0	4,878.4	4,900.0	4,884.0	13.3	12.2	-134.42	-151.7	270.8	194.0	169.8	24.16	8.029				
5,000.0	4,977.8	4,998.5	4,982.1	13.6	12.4	-134.07	-155.9	278.7	198.8	174.1	24.70	8.046				

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

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 ft
Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33V-304 - Wellbore #1 - P														Offset Well Error:	0.0 ft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
5,100.0	5,077.2	5,096.3	5,079.8	13.9	12.6	-134.61	-158.7	283.8	204.5	179.4	25.14	8.135			
5,200.0	5,176.7	5,193.8	5,177.2	14.2	12.8	-135.98	-159.8	286.0	211.3	185.8	25.50	8.286			
5,300.0	5,276.1	5,292.7	5,276.1	14.5	13.0	-137.87	-159.8	286.1	219.0	193.2	25.83	8.482			
5,400.0	5,375.6	5,392.1	5,375.6	14.8	13.2	-139.67	-159.8	286.1	227.1	200.9	26.16	8.681			
5,500.0	5,475.0	5,491.6	5,475.0	15.1	13.3	-141.34	-159.8	286.1	235.3	208.8	26.49	8.880			
5,600.0	5,574.4	5,591.0	5,574.4	15.4	13.5	-142.89	-159.8	286.1	243.7	216.8	26.83	9.080			
5,621.7	5,596.0	5,612.6	5,596.0	15.5	13.6	-143.22	-159.8	286.1	245.5	218.6	26.91	9.124			
5,700.0	5,674.0	5,690.5	5,674.0	15.7	13.7	-144.27	-159.8	286.1	251.3	224.2	27.17	9.249			
5,800.0	5,773.8	5,790.3	5,773.8	15.9	13.9	-145.13	-159.8	286.1	256.4	228.9	27.49	9.324			
5,900.0	5,873.7	5,890.3	5,873.7	16.0	14.1	-145.49	-159.8	286.1	258.6	230.7	27.82	9.295			
5,926.3	5,900.0	5,916.6	5,900.0	16.1	14.1	0.24	-159.8	286.1	258.7	230.4	28.29	9.142			
6,000.0	5,973.7	5,990.3	5,973.7	16.2	14.3	0.24	-159.8	286.1	258.7	230.1	28.57	9.055			
6,052.3	6,026.1	6,042.6	6,026.1	16.3	14.4	0.24	-159.8	286.1	258.7	229.9	28.75	8.997			
6,100.0	6,073.7	6,090.3	6,073.7	16.3	14.5	90.56	-159.8	286.1	258.7	230.1	28.56	9.058			
6,150.0	6,123.5	6,140.0	6,123.5	16.4	14.6	91.60	-159.8	286.1	258.8	230.0	28.78	8.990			
6,200.0	6,172.8	6,190.3	6,173.7	16.4	14.6	92.98	-159.8	284.3	259.0	230.0	28.99	8.934			
6,250.0	6,221.5	6,241.1	6,224.2	16.5	14.7	94.34	-159.8	279.2	259.4	230.2	29.16	8.896			
6,300.0	6,269.4	6,292.2	6,274.6	16.5	14.7	95.68	-159.8	270.6	260.0	230.7	29.29	8.874			
6,350.0	6,316.3	6,343.8	6,324.8	16.5	14.8	97.00	-159.8	258.6	260.6	231.2	29.39	8.869			
6,400.0	6,361.9	6,395.8	6,374.4	16.5	14.8	98.29	-159.8	243.1	261.4	232.0	29.45	8.877			
6,450.0	6,406.0	6,448.3	6,423.3	16.5	14.8	99.54	-159.8	224.0	262.3	232.8	29.49	8.897			
6,500.0	6,448.5	6,501.2	6,471.1	16.5	14.8	100.75	-159.8	201.5	263.3	233.8	29.51	8.923			
6,550.0	6,489.3	6,554.5	6,517.7	16.5	14.8	101.90	-159.8	175.4	264.4	234.9	29.54	8.950			
6,600.0	6,528.0	6,608.3	6,562.7	16.4	14.9	103.00	-159.8	146.0	265.5	235.9	29.59	8.972			
6,650.0	6,564.6	6,662.5	6,605.8	16.4	14.9	104.04	-159.8	113.2	266.7	237.0	29.70	8.981			
6,700.0	6,598.9	6,717.1	6,646.7	16.4	15.0	105.01	-159.8	77.1	267.9	238.0	29.87	8.968			
6,750.0	6,630.7	6,772.1	6,685.3	16.4	15.2	105.90	-159.8	37.9	269.0	238.9	30.15	8.924			
6,800.0	6,660.0	6,827.4	6,721.1	16.4	15.4	106.73	-159.8	-4.3	270.2	239.6	30.55	8.843			
6,850.0	6,686.5	6,883.1	6,754.0	16.4	15.7	107.47	-159.8	-49.2	271.2	240.1	31.11	8.718			
6,900.0	6,710.2	6,939.1	6,873.7	16.5	16.2	108.13	-159.8	-96.6	272.2	240.4	31.85	8.548			
6,950.0	6,731.0	6,995.4	6,810.0	17.1	16.7	108.71	-159.8	-146.4	273.1	240.4	32.77	8.334			
7,000.0	6,748.7	7,051.9	6,832.6	17.8	17.4	109.20	-159.8	-198.2	273.9	240.0	33.90	8.080			
7,050.0	6,763.4	7,108.6	6,851.4	18.6	18.2	109.60	-159.8	-251.7	274.6	239.4	35.24	7.793			
7,100.0	6,774.9	7,165.5	6,866.2	19.4	19.1	109.91	-159.8	-306.6	275.1	238.4	36.76	7.484			
7,150.0	6,783.2	7,222.6	6,876.9	20.3	20.1	110.14	-159.8	-362.6	275.5	237.0	38.46	7.163			
7,200.0	6,788.2	7,279.7	6,883.4	21.3	21.2	110.26	-159.8	-419.3	275.7	235.4	40.32	6.838			
7,252.3	6,790.0	7,339.5	6,885.7	22.3	22.3	110.30	-159.8	-479.1	275.8	233.4	42.41	6.503			
7,300.0	6,790.0	7,387.4	6,885.5	23.3	23.3	110.26	-159.8	-527.0	275.7	231.5	44.25	6.231			
7,400.0	6,790.0	7,487.4	6,885.1	25.4	25.4	110.19	-159.8	-627.0	275.6	227.3	48.31	5.705			
7,500.0	6,790.0	7,587.4	6,884.7	27.7	27.7	110.11	-159.8	-727.0	275.5	222.9	52.59	5.238			
7,600.0	6,790.0	7,687.4	6,884.3	30.1	30.0	110.04	-159.8	-827.0	275.3	218.3	57.04	4.826			
7,700.0	6,790.0	7,787.4	6,883.9	32.5	32.5	109.96	-159.8	-927.0	275.2	213.5	61.64	4.464			
7,800.0	6,790.0	7,887.4	6,883.6	35.0	34.9	109.89	-159.8	-1,027.0	275.1	208.7	66.35	4.145			
7,900.0	6,790.0	7,987.4	6,883.2	37.5	37.5	109.81	-159.8	-1,127.0	274.9	203.8	71.15	3.864			
8,000.0	6,790.0	8,087.4	6,882.8	40.1	40.0	109.74	-159.8	-1,227.0	274.8	198.8	76.03	3.614			
8,100.0	6,790.0	8,187.4	6,882.4	42.7	42.6	109.66	-159.8	-1,327.0	274.7	193.7	80.97	3.392			
8,200.0	6,790.0	8,287.4	6,882.0	45.3	45.3	109.59	-159.8	-1,427.0	274.5	188.6	85.96	3.194			
8,300.0	6,790.0	8,387.4	6,881.6	47.9	47.9	109.51	-159.8	-1,527.0	274.4	183.4	90.99	3.016			
8,400.0	6,790.0	8,487.4	6,881.3	50.6	50.6	109.43	-159.8	-1,627.0	274.3	178.2	96.07	2.855			
8,500.0	6,790.0	8,587.4	6,880.9	53.3	53.2	109.36	-159.8	-1,727.0	274.2	173.0	101.17	2.710			

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

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.0 ft
Survey Program: 0-MWDD Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33V-304 - Wellbore #1 - P													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)				
8,600.0	6,790.0	8,687.4	6,880.5	55.9	55.9	109.28	-159.8	-1,827.0	274.0	167.7	106.31	2.578			
8,700.0	6,790.0	8,787.4	6,880.1	58.6	58.6	109.21	-159.8	-1,927.0	273.9	162.4	111.47	2.457			
8,800.0	6,790.0	8,887.4	6,879.7	61.4	61.3	109.13	-159.8	-2,027.0	273.8	157.1	116.65	2.347			
8,900.0	6,790.0	8,987.4	6,879.3	64.1	64.1	109.05	-159.8	-2,127.0	273.7	151.8	121.85	2.246			
9,000.0	6,790.0	9,087.4	6,879.0	66.8	66.8	108.98	-159.8	-2,227.0	273.5	146.5	127.08	2.152			
9,100.0	6,790.0	9,187.4	6,878.6	69.5	69.5	108.90	-159.8	-2,327.0	273.4	141.1	132.31	2.066			
9,200.0	6,790.0	9,287.4	6,878.2	72.3	72.2	108.83	-159.8	-2,427.0	273.3	135.7	137.57	1.986			
9,300.0	6,790.0	9,387.4	6,877.8	75.0	75.0	108.75	-159.8	-2,527.0	273.2	130.3	142.84	1.912			
9,400.0	6,790.0	9,487.4	6,877.4	77.8	77.7	108.67	-159.8	-2,627.0	273.0	124.9	148.12	1.843			
9,500.0	6,790.0	9,587.4	6,877.0	80.5	80.5	108.60	-159.8	-2,727.0	272.9	119.5	153.41	1.779			
9,600.0	6,790.0	9,687.4	6,876.7	83.3	83.2	108.52	-159.8	-2,826.9	272.8	114.1	158.72	1.719			
9,700.0	6,790.0	9,787.4	6,876.3	86.0	86.0	108.44	-159.8	-2,926.9	272.7	108.6	164.03	1.662			
9,800.0	6,790.0	9,887.4	6,875.9	88.8	88.8	108.37	-159.8	-3,026.9	272.5	103.2	169.36	1.609			
9,900.0	6,790.0	9,987.4	6,875.5	91.5	91.5	108.29	-159.8	-3,126.9	272.4	97.7	174.69	1.559			
10,000.0	6,790.0	10,087.4	6,875.1	94.3	94.3	108.21	-159.8	-3,226.9	272.3	92.3	180.04	1.512			
10,100.0	6,790.0	10,187.4	6,874.7	97.1	97.1	108.14	-159.8	-3,326.9	272.2	86.8	185.39	1.468	Level 3		
10,200.0	6,790.0	10,287.4	6,874.3	99.8	99.8	108.06	-159.8	-3,426.9	272.1	81.3	190.75	1.426	Level 3		
10,300.0	6,790.0	10,387.4	6,874.0	102.6	102.6	107.98	-159.8	-3,526.9	271.9	75.8	196.12	1.387	Level 3		
10,400.0	6,790.0	10,487.4	6,873.6	105.4	105.4	107.91	-159.8	-3,626.9	271.8	70.3	201.50	1.349	Level 3		
10,500.0	6,790.0	10,587.4	6,873.2	108.2	108.2	107.83	-159.8	-3,726.9	271.7	64.8	206.88	1.313	Level 3		
10,600.0	6,790.0	10,687.4	6,872.8	111.0	111.0	107.75	-159.8	-3,826.9	271.6	59.3	212.27	1.279	Level 3		
10,700.0	6,790.0	10,787.4	6,872.4	113.7	113.7	107.68	-159.8	-3,926.9	271.5	53.8	217.67	1.247	Level 2		
10,800.0	6,790.0	10,887.4	6,872.0	116.5	116.5	107.60	-159.8	-4,026.9	271.4	48.3	223.07	1.216	Level 2		
10,900.0	6,790.0	10,987.4	6,871.7	119.3	119.3	107.52	-159.8	-4,126.9	271.2	42.8	228.48	1.187	Level 2		
11,000.0	6,790.0	11,087.4	6,871.3	122.1	122.1	107.44	-159.8	-4,226.9	271.1	37.2	233.90	1.159	Level 2		
11,100.0	6,790.0	11,187.4	6,870.9	124.9	124.9	107.37	-159.8	-4,326.9	271.0	31.7	239.32	1.132	Level 2		
11,200.0	6,790.0	11,287.4	6,870.5	127.7	127.7	107.29	-159.8	-4,426.9	270.9	26.1	244.75	1.107	Level 2		
11,300.0	6,790.0	11,387.4	6,870.1	130.4	130.4	107.21	-159.8	-4,526.9	270.8	20.6	250.18	1.082	Level 2		
11,329.4	6,790.0	11,416.8	6,870.0	131.0	131.3	107.19	-159.8	-4,556.4	270.8	19.2	251.50	1.077	Level 2		
11,335.6	6,790.0	11,419.8	6,870.0	131.1	131.3	107.19	-159.8	-4,559.3	270.8	19.1	251.69	1.076	Level 2, SF		

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design													Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33V-334 - Wellbore #1 - P		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 Depth (ft)	Vertical Depth Depth (ft)	Measured Depth Depth (ft)	Vertical Depth Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
0.0	0.0	0.0	0.0	0.0	0.0	89.98	0.0	13.9	13.9	13.9	0.00	N/A				
100.0	100.0	100.0	100.0	0.1	0.1	89.98	0.0	13.9	13.9	13.7	0.22	61.995				
200.0	200.0	200.0	200.0	0.3	0.3	89.98	0.0	13.9	13.9	13.3	0.67	20.665				
300.0	300.0	300.0	300.0	0.6	0.6	89.98	0.0	13.9	13.9	12.8	1.12	12.399				
400.0	400.0	400.0	400.0	0.8	0.8	89.98	0.0	13.9	13.9	12.4	1.57	8.856				
500.0	500.0	500.0	500.0	1.0	1.0	89.98	0.0	13.9	13.9	11.9	2.02	6.888				
600.0	600.0	600.0	600.0	1.2	1.2	89.98	0.0	13.9	13.9	11.5	2.47	5.636 CC, ES				
700.0	700.0	699.8	699.8	1.5	1.4	94.81	-1.2	14.4	14.5	11.6	2.90	4.994				
800.0	800.0	799.6	799.5	1.7	1.6	107.06	-4.9	15.8	16.6	13.3	3.30	5.012				
900.0	900.0	899.1	898.8	1.9	1.8	-26.31	-10.9	18.2	20.0	16.4	3.70	5.423				
1,000.0	999.9	998.5	997.7	2.1	2.0	-16.61	-19.4	21.4	23.9	19.9	4.08	5.862				
1,100.0	1,099.7	1,097.7	1,096.3	2.3	2.3	-8.63	-30.2	25.7	28.1	23.7	4.48	6.275				
1,206.1	1,205.4	1,203.0	1,200.6	2.5	2.6	-1.44	-44.2	31.1	32.8	27.9	4.92	6.672				
1,300.0	1,298.7	1,296.8	1,293.2	2.7	2.9	3.69	-57.4	36.2	36.8	31.4	5.32	6.911				
1,400.0	1,398.1	1,396.7	1,392.0	3.0	3.2	8.04	-71.4	41.7	41.2	35.4	5.75	7.162				
1,500.0	1,497.6	1,496.5	1,490.7	3.2	3.5	11.53	-85.4	47.1	45.8	39.6	6.20	7.395				
1,600.0	1,597.0	1,596.4	1,589.4	3.5	3.9	14.37	-99.5	52.6	50.6	43.9	6.65	7.607				
1,700.0	1,696.4	1,696.2	1,688.1	3.8	4.2	16.72	-113.5	58.0	55.5	48.4	7.11	7.796				
1,800.0	1,795.9	1,796.1	1,786.8	4.0	4.5	18.69	-127.5	63.4	60.4	52.8	7.59	7.963				
1,900.0	1,895.3	1,895.9	1,885.5	4.3	4.9	20.35	-141.5	68.9	65.4	57.4	8.07	8.110				
2,000.0	1,994.8	1,995.8	1,984.3	4.6	5.2	21.78	-155.6	74.3	70.5	61.9	8.55	8.241				
2,100.0	2,094.2	2,095.7	2,083.0	4.9	5.6	23.02	-169.6	79.8	75.6	66.5	9.04	8.356				
2,200.0	2,193.6	2,195.5	2,181.7	5.2	6.0	24.10	-183.6	85.2	80.7	71.2	9.54	8.459				
2,300.0	2,293.1	2,295.4	2,280.4	5.5	6.3	25.05	-197.7	90.7	85.8	75.8	10.04	8.550				
2,400.0	2,392.5	2,395.2	2,379.1	5.8	6.7	25.90	-211.7	96.1	91.0	80.5	10.55	8.631				
2,500.0	2,491.9	2,495.1	2,477.8	6.1	7.0	26.65	-225.7	101.6	96.2	85.2	11.05	8.704				
2,600.0	2,591.4	2,594.9	2,576.6	6.4	7.4	27.32	-239.7	107.0	101.4	89.8	11.56	8.770				
2,700.0	2,690.8	2,694.8	2,675.3	6.7	7.7	27.93	-253.8	112.5	106.6	94.6	12.08	8.830				
2,800.0	2,790.2	2,794.7	2,774.0	6.9	8.1	28.49	-267.8	117.9	111.9	99.3	12.59	8.884				
2,900.0	2,889.7	2,894.5	2,872.7	7.2	8.5	28.99	-281.8	123.4	117.1	104.0	13.11	8.933				
3,000.0	2,989.1	2,994.4	2,971.4	7.5	8.8	29.45	-295.9	128.8	122.3	108.7	13.63	8.977				
3,100.0	3,088.5	3,094.2	3,070.1	7.8	9.2	29.87	-309.9	134.3	127.6	113.4	14.15	9.018				
3,200.0	3,188.0	3,194.1	3,168.9	8.1	9.6	30.26	-323.9	139.7	132.8	118.2	14.67	9.056				
3,300.0	3,287.4	3,294.0	3,267.6	8.4	9.9	30.62	-337.9	145.1	138.1	122.9	15.19	9.091				
3,400.0	3,386.8	3,393.8	3,366.3	8.7	10.3	30.95	-352.0	150.6	143.4	127.7	15.72	9.123				
3,500.0	3,486.3	3,493.7	3,465.0	9.0	10.7	31.26	-366.0	156.0	148.7	132.4	16.24	9.152				
3,600.0	3,585.7	3,593.5	3,563.7	9.3	11.0	31.55	-380.0	161.5	153.9	137.2	16.77	9.180				
3,700.0	3,685.2	3,693.4	3,662.5	9.7	11.4	31.82	-394.1	166.9	159.2	141.9	17.30	9.205				
3,800.0	3,784.6	3,793.2	3,761.2	10.0	11.8	32.07	-408.1	172.4	164.5	146.7	17.82	9.229				
3,900.0	3,884.0	3,893.1	3,859.9	10.3	12.1	32.31	-422.1	177.8	169.8	151.4	18.35	9.251				
4,000.0	3,983.5	3,993.0	3,958.6	10.6	12.5	32.53	-436.1	183.3	175.1	156.2	18.88	9.272				
4,100.0	4,082.9	4,092.8	4,057.3	10.9	12.9	32.74	-450.2	188.7	180.4	161.0	19.41	9.292				
4,200.0	4,182.3	4,192.7	4,156.0	11.2	13.2	32.93	-464.2	194.2	185.7	165.7	19.94	9.310				
4,300.0	4,281.8	4,292.5	4,254.8	11.5	13.6	33.12	-478.2	199.6	191.0	170.5	20.47	9.327				
4,400.0	4,381.2	4,392.4	4,353.5	11.8	14.0	33.29	-492.2	205.1	196.3	175.3	21.00	9.343				
4,500.0	4,480.6	4,492.2	4,452.2	12.1	14.3	33.46	-506.3	210.5	201.6	180.0	21.54	9.359				
4,600.0	4,580.1	4,592.1	4,550.9	12.4	14.7	33.62	-520.3	216.0	206.9	184.8	22.07	9.373				
4,700.0	4,679.5	4,692.0	4,649.6	12.7	15.1	33.77	-534.3	221.4	212.2	189.6	22.60	9.387				
4,800.0	4,778.9	4,791.8	4,748.3	13.0	15.4	33.91	-548.4	226.9	217.5	194.3	23.13	9.400				
4,900.0	4,878.4	4,891.7	4,847.1	13.3	15.8	34.05	-562.4	232.3	222.8	199.1	23.67	9.412				
5,000.0	4,977.8	4,991.5	4,945.8	13.6	16.2	34.18	-576.4	237.7	228.1	203.9	24.20	9.424				

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

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,100.0	5,077.2	5,091.4	5,044.5	13.9	16.5	34.30	-590.4	243.2	233.4	208.7	24.74	9.435			
5,200.0	5,176.7	5,191.2	5,143.2	14.2	16.9	34.42	-604.5	248.6	238.7	213.4	25.27	9.446			
5,300.0	5,276.1	5,291.1	5,241.9	14.5	17.3	34.53	-618.5	254.1	244.0	218.2	25.80	9.456			
5,400.0	5,375.6	5,391.0	5,340.6	14.8	17.6	34.64	-632.5	259.5	249.3	223.0	26.34	9.466			
5,500.0	5,475.0	5,490.8	5,439.4	15.1	18.0	34.74	-646.6	265.0	254.6	227.8	26.87	9.475			
5,600.0	5,574.4	5,590.7	5,538.1	15.4	18.4	34.84	-660.6	270.4	259.9	232.5	27.41	9.484			
5,621.7	5,596.0	5,612.3	5,559.5	15.5	18.5	34.87	-663.6	271.6	261.1	233.6	27.53	9.486			
5,700.0	5,674.0	5,697.0	5,643.3	15.7	18.7	34.93	-674.6	275.9	265.3	237.4	27.90	9.509			
5,800.0	5,773.8	5,806.4	5,752.1	15.9	19.0	34.89	-685.4	280.0	270.1	241.8	28.26	9.554			
5,900.0	5,873.7	5,915.9	5,861.4	16.0	19.1	34.71	-692.3	282.7	274.1	245.6	28.56	9.597			
5,926.3	5,900.0	5,944.8	5,890.2	16.1	19.2	-179.62	-693.4	283.2	275.1	241.3	33.83	8.132			
6,000.0	5,973.7	6,025.7	5,971.1	16.2	19.3	-179.77	-695.2	283.9	276.8	242.7	34.09	8.118			
6,052.3	6,026.1	6,080.7	6,026.1	16.3	19.4	-179.78	-695.4	283.9	276.9	242.6	34.25	8.084			
6,092.7	6,066.4	6,121.0	6,066.4	16.3	19.4	-90.00	-695.4	283.9	276.9	247.7	29.18	9.489			
6,100.0	6,073.7	6,128.3	6,073.7	16.3	19.4	-90.09	-695.4	283.9	276.9	247.7	29.19	9.485			
6,150.0	6,123.5	6,178.1	6,123.5	16.4	19.5	-91.04	-695.4	283.8	276.9	247.7	29.22	9.479			
6,200.0	6,172.8	6,228.4	6,173.7	16.4	19.6	-92.18	-695.4	281.4	277.1	247.9	29.19	9.492			
6,250.0	6,221.5	6,278.9	6,223.9	16.5	19.6	-93.32	-695.4	275.5	277.3	248.2	29.15	9.516			
6,300.0	6,269.4	6,329.9	6,274.0	16.5	19.6	-94.44	-695.4	266.3	277.7	248.6	29.08	9.549			
6,350.0	6,316.3	6,381.2	6,323.8	16.5	19.7	-95.55	-695.4	253.7	278.2	249.2	29.01	9.589			
6,400.0	6,361.9	6,433.0	6,372.9	16.5	19.7	-96.63	-695.4	237.6	278.8	249.8	28.94	9.632			
6,450.0	6,406.0	6,485.1	6,421.2	16.5	19.7	-97.68	-695.4	218.1	279.4	250.5	28.88	9.675			
6,500.0	6,448.5	6,537.6	6,468.5	16.5	19.7	-98.70	-695.4	195.2	280.1	251.3	28.85	9.711			
6,550.0	6,489.3	6,590.5	6,514.3	16.5	19.7	-99.67	-695.4	168.8	280.9	252.1	28.85	9.737			
6,600.0	6,528.0	6,643.7	6,558.5	16.4	19.7	-100.61	-695.4	139.2	281.7	252.8	28.91	9.745			
6,650.0	6,564.6	6,697.3	6,600.8	16.4	19.7	-101.49	-695.4	106.2	282.6	253.5	29.05	9.728			
6,700.0	6,598.9	6,751.3	6,641.0	16.4	19.7	-102.32	-695.4	70.2	283.4	254.2	29.28	9.679			
6,750.0	6,630.7	6,805.6	6,678.7	16.4	19.6	-103.10	-695.4	31.2	284.3	254.7	29.64	9.592			
6,800.0	6,660.0	6,860.2	6,713.8	16.4	19.7	-103.81	-695.4	-10.7	285.2	255.0	30.13	9.463			
6,850.0	6,686.5	6,915.1	6,745.9	16.4	19.7	-104.46	-695.4	-55.2	286.0	255.2	30.79	9.288			
6,900.0	6,710.2	6,970.3	6,774.9	16.5	19.7	-105.04	-695.4	-102.1	286.7	255.1	31.58	9.079			
6,950.0	6,731.0	7,025.7	6,800.6	17.1	19.7	-105.55	-695.4	-151.2	287.4	254.8	32.58	8.822			
7,000.0	6,748.7	7,081.4	6,822.7	17.8	19.9	-105.99	-695.4	-202.3	288.0	254.3	33.74	8.537			
7,050.0	6,763.4	7,137.2	6,841.1	18.6	20.1	-106.36	-695.4	-255.0	288.6	253.5	35.07	8.228			
7,100.0	6,774.9	7,193.2	6,855.6	19.4	20.6	-106.65	-695.4	-309.1	289.0	252.4	36.56	7.904			
7,150.0	6,783.2	7,249.4	6,866.1	20.3	21.3	-106.86	-695.4	-364.2	289.3	251.1	38.20	7.573			
7,200.0	6,788.2	7,305.5	6,872.6	21.3	22.2	-107.00	-695.4	-420.0	289.5	249.6	39.97	7.243			
7,252.3	6,790.0	7,364.4	6,875.0	22.3	23.3	-107.06	-695.4	-478.8	289.6	247.7	41.94	6.905			
7,300.0	6,790.0	7,412.5	6,874.8	23.3	24.2	-107.03	-695.4	-526.9	289.6	245.7	43.83	6.607			
7,400.0	6,790.0	7,512.5	6,874.4	25.4	26.3	-106.96	-695.4	-626.9	289.5	241.5	47.97	6.035			
7,500.0	6,790.0	7,612.5	6,874.1	27.7	28.5	-106.89	-695.4	-726.9	289.4	237.0	52.34	5.529			
7,600.0	6,790.0	7,712.5	6,873.7	30.1	30.8	-106.82	-695.4	-826.9	289.2	232.4	56.89	5.084			
7,700.0	6,790.0	7,812.5	6,873.3	32.5	33.2	-106.75	-695.4	-926.9	289.1	227.6	61.59	4.695			
7,800.0	6,790.0	7,912.5	6,873.0	35.0	35.7	-106.68	-695.4	-1,026.9	289.0	222.6	66.40	4.353			
7,900.0	6,790.0	8,012.5	6,872.6	37.5	38.2	-106.61	-695.4	-1,126.9	288.9	217.6	71.30	4.052			
8,000.0	6,790.0	8,112.5	6,872.2	40.1	40.7	-106.54	-695.4	-1,226.9	288.8	212.6	76.28	3.787			
8,100.0	6,790.0	8,212.5	6,871.9	42.7	43.3	-106.47	-695.4	-1,326.9	288.7	207.4	81.31	3.551			
8,200.0	6,790.0	8,312.5	6,871.5	45.3	45.9	-106.40	-695.4	-1,426.9	288.6	202.2	86.40	3.340			
8,300.0	6,790.0	8,412.5	6,871.1	47.9	48.5	-106.33	-695.4	-1,526.9	288.5	197.0	91.53	3.152			
8,400.0	6,790.0	8,512.5	6,870.8	50.6	51.1	-106.26	-695.4	-1,626.9	288.4	191.7	96.70	2.983			

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

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 ft
Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33V-334 - Wellbore #1 - P														Offset Well Error:	0.0 ft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
8,500.0	6,790.0	8,612.5	6,870.4	53.3	53.8	-106.19	-695.4	-1,726.9	288.3	186.4	101.90	2.829			
8,600.0	6,790.0	8,712.5	6,870.0	55.9	56.4	-106.12	-695.4	-1,826.9	288.2	181.1	107.13	2.690			
8,700.0	6,790.0	8,812.5	6,869.7	58.6	59.1	-106.05	-695.4	-1,926.9	288.1	175.7	112.38	2.564			
8,800.0	6,790.0	8,912.5	6,869.3	61.4	61.8	-105.98	-695.4	-2,026.9	288.0	170.4	117.65	2.448			
8,900.0	6,790.0	9,012.5	6,868.9	64.1	64.5	-105.91	-695.4	-2,126.9	287.9	165.0	122.95	2.342			
9,000.0	6,790.0	9,112.5	6,868.6	66.8	67.2	-105.84	-695.4	-2,226.9	287.8	159.5	128.26	2.244			
9,100.0	6,790.0	9,212.5	6,868.2	69.5	69.9	-105.77	-695.4	-2,326.9	287.7	154.1	133.58	2.154			
9,200.0	6,790.0	9,312.5	6,867.8	72.3	72.7	-105.70	-695.4	-2,426.9	287.6	148.7	138.92	2.070			
9,300.0	6,790.0	9,412.5	6,867.5	75.0	75.4	-105.63	-695.4	-2,526.9	287.5	143.2	144.27	1.993			
9,400.0	6,790.0	9,512.5	6,867.1	77.8	78.1	-105.56	-695.4	-2,626.9	287.4	137.8	149.64	1.921			
9,500.0	6,790.0	9,612.5	6,866.7	80.5	80.9	-105.49	-695.4	-2,726.9	287.3	132.3	155.01	1.853			
9,600.0	6,790.0	9,712.5	6,866.4	83.3	83.6	-105.42	-695.4	-2,826.9	287.2	126.8	160.40	1.791			
9,700.0	6,790.0	9,812.5	6,866.0	86.0	86.4	-105.35	-695.4	-2,926.9	287.1	121.3	165.79	1.732			
9,800.0	6,790.0	9,912.5	6,865.6	88.8	89.1	-105.28	-695.4	-3,026.9	287.0	115.8	171.20	1.677			
9,900.0	6,790.0	10,012.5	6,865.3	91.5	91.9	-105.21	-695.4	-3,126.9	286.9	110.3	176.61	1.625			
10,000.0	6,790.0	10,112.5	6,864.9	94.3	94.7	-105.14	-695.4	-3,226.9	286.8	104.8	182.03	1.576			
10,100.0	6,790.0	10,212.5	6,864.5	97.1	97.4	-105.07	-695.4	-3,326.9	286.7	99.3	187.46	1.530			
10,200.0	6,790.0	10,312.5	6,864.2	99.8	100.2	-104.99	-695.4	-3,426.9	286.6	93.7	192.89	1.486 Level 3			
10,300.0	6,790.0	10,412.5	6,863.8	102.6	103.0	-104.92	-695.4	-3,526.9	286.5	88.2	198.33	1.445 Level 3			
10,400.0	6,790.0	10,512.5	6,863.4	105.4	105.7	-104.85	-695.4	-3,626.9	286.4	82.7	203.78	1.406 Level 3			
10,500.0	6,790.0	10,612.5	6,863.1	108.2	108.5	-104.78	-695.4	-3,726.9	286.4	77.1	209.24	1.369 Level 3			
10,600.0	6,790.0	10,712.5	6,862.7	111.0	111.3	-104.71	-695.4	-3,826.9	286.3	71.6	214.69	1.333 Level 3			
10,700.0	6,790.0	10,812.5	6,862.3	113.7	114.0	-104.64	-695.4	-3,926.9	286.2	66.0	220.16	1.300 Level 3			
10,800.0	6,790.0	10,912.5	6,862.0	116.5	116.8	-104.57	-695.4	-4,026.9	286.1	60.4	225.63	1.268 Level 3			
10,900.0	6,790.0	11,012.5	6,861.6	119.3	119.6	-104.50	-695.4	-4,126.9	286.0	54.9	231.11	1.237 Level 2			
11,000.0	6,790.0	11,112.5	6,861.2	122.1	122.4	-104.43	-695.4	-4,226.9	285.9	49.3	236.59	1.208 Level 2			
11,100.0	6,790.0	11,212.5	6,860.9	124.9	125.2	-104.36	-695.4	-4,326.9	285.8	43.7	242.07	1.181 Level 2			
11,200.0	6,790.0	11,312.5	6,860.5	127.7	127.9	-104.28	-695.4	-4,426.9	285.7	38.1	247.57	1.154 Level 2			
11,300.0	6,790.0	11,412.5	6,860.1	130.4	130.7	-104.21	-695.4	-4,526.9	285.6	32.6	253.06	1.129 Level 2			
11,335.6	6,790.0	11,447.8	6,860.0	131.1	131.7	-104.19	-695.4	-4,562.2	285.6	30.9	254.67	1.121 Level 2, SF			

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design		Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33V-404 - Wellbore #1 - P											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)				
0.0	0.0	25.0	25.0	0.0	0.0	2.67	717.7	33.4	718.5	718.5	0.03	N/A			
100.0	100.0	125.0	125.0	0.1	0.2	2.67	717.7	33.4	718.5	718.2	0.28	2,557.288			
200.0	200.0	230.1	230.1	0.3	0.4	2.67	717.6	33.5	718.4	717.7	0.74	977.066			
300.0	300.0	350.4	350.3	0.6	0.6	2.77	715.0	34.6	716.3	715.1	1.20	594.669			
400.0	400.0	470.4	470.1	0.8	0.9	3.01	708.9	37.2	711.3	709.6	1.69	420.870			
500.0	500.0	589.8	589.2	1.0	1.2	3.38	699.4	41.3	703.6	701.4	2.21	318.644			
600.0	600.0	708.5	707.0	1.2	1.5	3.90	686.7	46.8	693.1	690.4	2.76	251.112			
700.0	700.0	811.1	808.6	1.5	1.9	4.44	673.7	52.4	680.9	677.6	3.29	206.688			
800.0	800.0	910.1	906.7	1.7	2.2	4.99	661.1	57.8	668.6	664.8	3.83	174.736			
900.0	900.0	1,009.3	1,004.9	1.9	2.5	-140.36	648.5	63.2	657.4	653.3	4.12	159.534			
1,000.0	999.9	1,108.8	1,103.5	2.1	2.9	-140.09	635.8	68.6	648.3	643.7	4.57	141.990			
1,100.0	1,099.7	1,208.5	1,202.2	2.3	3.2	-139.93	623.2	74.0	641.2	636.1	5.03	127.591			
1,206.1	1,205.4	1,314.5	1,307.2	2.5	3.6	-139.91	609.7	79.8	635.8	630.3	5.53	115.033			
1,300.0	1,298.7	1,408.3	1,400.1	2.7	3.9	-139.91	597.8	84.9	632.1	626.1	5.98	105.654			
1,400.0	1,398.1	1,508.2	1,499.0	3.0	4.2	-139.92	585.1	90.4	628.1	621.6	6.48	96.990			
1,500.0	1,497.6	1,608.1	1,598.0	3.2	4.6	-139.93	572.4	95.9	624.1	617.1	6.98	89.464			
1,600.0	1,597.0	1,708.1	1,696.9	3.5	4.9	-139.94	559.7	101.3	620.1	612.6	7.48	82.885			
1,700.0	1,696.4	1,808.0	1,795.9	3.8	5.3	-139.95	546.9	106.8	616.1	608.1	7.99	77.097			
1,800.0	1,795.9	1,907.9	1,894.9	4.0	5.6	-139.96	534.2	112.2	612.1	603.6	8.50	71.973			
1,900.0	1,895.3	2,007.8	1,993.8	4.3	6.0	-139.97	521.5	117.7	608.1	599.1	9.02	67.411			
2,000.0	1,994.8	2,107.7	2,092.8	4.6	6.3	-139.98	508.8	123.1	604.1	594.6	9.54	63.326			
2,100.0	2,094.2	2,207.7	2,191.7	4.9	6.7	-139.99	496.1	128.6	600.1	590.1	10.06	59.652			
2,200.0	2,193.6	2,307.6	2,290.7	5.2	7.0	-140.00	483.4	134.0	596.1	585.5	10.58	56.329			
2,300.0	2,293.1	2,407.5	2,389.7	5.5	7.4	-140.01	470.7	139.5	592.1	581.0	11.11	53.313			
2,400.0	2,392.5	2,507.4	2,488.6	5.8	7.7	-140.02	458.0	144.9	588.1	576.5	11.63	50.563			
2,500.0	2,491.9	2,607.3	2,587.6	6.1	8.1	-140.03	445.3	150.4	584.2	572.0	12.16	48.047			
2,600.0	2,591.4	2,707.3	2,686.5	6.4	8.4	-140.04	432.6	155.8	580.2	567.5	12.69	45.736			
2,700.0	2,690.8	2,807.2	2,785.5	6.7	8.8	-140.05	419.9	161.3	576.2	563.0	13.21	43.606			
2,800.0	2,790.2	2,907.1	2,884.5	6.9	9.1	-140.06	407.2	166.8	572.2	558.4	13.74	41.639			
2,900.0	2,889.7	3,007.0	2,983.4	7.2	9.5	-140.07	394.5	172.2	568.2	553.9	14.27	39.815			
3,000.0	2,989.1	3,106.9	3,082.4	7.5	9.8	-140.08	381.8	177.7	564.2	549.4	14.80	38.121			
3,100.0	3,088.5	3,206.9	3,181.3	7.8	10.2	-140.09	369.1	183.1	560.2	544.9	15.33	36.542			
3,200.0	3,188.0	3,306.8	3,280.3	8.1	10.5	-140.10	356.4	188.6	556.2	540.4	15.86	35.069			
3,300.0	3,287.4	3,406.7	3,379.3	8.4	10.9	-140.11	343.7	194.0	552.2	535.8	16.39	33.689			
3,400.0	3,386.8	3,506.6	3,478.2	8.7	11.2	-140.12	331.0	199.5	548.2	531.3	16.92	32.396			
3,500.0	3,486.3	3,606.5	3,577.2	9.0	11.6	-140.14	318.3	204.9	544.2	526.8	17.45	31.181			
3,600.0	3,585.7	3,706.5	3,676.1	9.3	11.9	-140.15	305.6	210.4	540.3	522.3	17.99	30.038			
3,700.0	3,685.2	3,806.4	3,775.1	9.7	12.3	-140.16	292.9	215.8	536.3	517.7	18.52	28.959			
3,800.0	3,784.6	3,906.3	3,874.1	10.0	12.6	-140.17	280.2	221.3	532.3	513.2	19.05	27.941			
3,900.0	3,884.0	4,006.2	3,973.0	10.3	13.0	-140.18	267.5	226.7	528.3	508.7	19.58	26.978			
4,000.0	3,983.5	4,106.1	4,072.0	10.6	13.3	-140.20	254.8	232.2	524.3	504.2	20.11	26.066			
4,100.0	4,082.9	4,206.1	4,170.9	10.9	13.7	-140.21	242.1	237.7	520.3	499.6	20.65	25.200			
4,200.0	4,182.3	4,306.0	4,269.9	11.2	14.0	-140.22	229.4	243.1	516.3	495.1	21.18	24.378			
4,300.0	4,281.8	4,405.9	4,368.9	11.5	14.4	-140.24	216.7	248.6	512.3	490.6	21.71	23.596			
4,400.0	4,381.2	4,505.8	4,467.8	11.8	14.7	-140.25	204.0	254.0	508.3	486.1	22.24	22.852			
4,500.0	4,480.6	4,605.7	4,566.8	12.1	15.1	-140.26	191.3	259.5	504.3	481.6	22.78	22.142			
4,600.0	4,580.1	4,705.7	4,665.7	12.4	15.4	-140.28	178.6	264.9	500.3	477.0	23.31	21.465			
4,700.0	4,679.5	4,805.6	4,764.7	12.7	15.8	-140.29	165.9	270.4	496.3	472.5	23.84	20.818			
4,800.0	4,778.9	4,905.5	4,863.7	13.0	16.1	-140.30	153.2	275.8	492.4	468.0	24.38	20.199			
4,900.0	4,878.4	5,005.4	4,962.6	13.3	16.5	-140.32	140.5	281.3	488.4	463.5	24.91	19.607			
5,000.0	4,977.8	5,105.3	5,061.6	13.6	16.8	-140.33	127.8	286.7	484.4	458.9	25.44	19.039			

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

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance								
Measured Depth	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)				
5,100.0	5,077.2	5,205.3	5,160.5	13.9	17.2	-140.35	115.1	292.2	480.4	454.4	25.97	18.495			
5,200.0	5,176.7	5,300.0	5,254.4	14.2	17.5	-140.39	103.5	297.2	476.8	450.4	26.47	18.013			
5,292.7	5,268.8	5,378.9	5,332.8	14.5	17.7	-140.55	95.7	300.5	475.7	448.8	26.85	17.716	CC		
5,300.0	5,276.1	5,385.2	5,339.2	14.5	17.7	-140.56	95.2	300.7	475.7	448.8	26.88	17.696			
5,400.0	5,375.6	5,472.4	5,426.1	14.8	17.8	-140.89	89.1	303.4	477.2	450.0	27.26	17.505			
5,500.0	5,475.0	5,559.4	5,513.0	15.1	18.0	-141.36	85.5	304.9	481.5	453.9	27.61	17.436			
5,600.0	5,574.4	5,646.4	5,600.0	15.4	18.1	-141.97	84.2	305.4	488.5	460.5	27.95	17.477			
5,621.7	5,596.0	5,667.4	5,621.0	15.5	18.1	-142.13	84.2	305.4	490.3	462.2	28.02	17.497			
5,700.0	5,674.0	5,745.4	5,699.0	15.7	18.2	-142.72	84.2	305.4	496.0	467.8	28.24	17.563			
5,800.0	5,773.8	5,845.2	5,798.8	15.9	18.3	-143.20	84.2	305.4	500.9	472.4	28.50	17.578			
5,900.0	5,873.7	5,945.2	5,898.7	16.0	18.5	-143.41	84.2	305.4	503.1	474.3	28.76	17.494			
5,926.3	5,900.0	5,971.4	5,925.0	16.1	18.5	2.33	84.2	305.4	503.2	470.3	32.90	15.294			
6,000.0	5,973.7	6,045.2	5,998.7	16.2	18.6	2.33	84.2	305.4	503.2	470.0	33.12	15.193			
6,052.3	6,026.1	6,097.5	6,051.1	16.3	18.6	2.33	84.2	305.4	503.2	469.9	33.27	15.125			
6,100.0	6,073.7	6,145.1	6,098.7	16.3	18.7	92.49	84.2	305.4	503.2	473.8	29.43	17.102			
6,150.0	6,123.5	6,194.9	6,148.5	16.4	18.8	93.01	84.2	305.4	503.5	473.8	29.63	16.992			
6,200.0	6,172.8	6,244.2	6,197.8	16.4	18.8	93.87	84.2	305.4	503.9	474.1	29.85	16.881			
6,250.0	6,221.5	6,293.0	6,246.5	16.5	18.9	95.04	84.2	305.4	504.8	474.7	30.10	16.774			
6,300.0	6,269.4	6,342.5	6,296.1	16.5	19.0	96.51	84.2	305.1	506.3	476.0	30.35	16.681			
6,350.0	6,316.3	6,395.0	6,348.5	16.5	19.0	98.07	84.2	301.8	508.2	477.7	30.58	16.619			
6,400.0	6,361.9	6,448.7	6,401.6	16.5	19.1	99.61	84.2	294.8	510.5	479.8	30.76	16.598			
6,450.0	6,406.0	6,503.5	6,455.4	16.5	19.1	101.11	84.2	283.7	513.2	482.3	30.88	16.618			
6,500.0	6,448.5	6,559.7	6,509.4	16.5	19.1	102.58	84.2	268.4	516.1	485.1	30.95	16.673			
6,550.0	6,489.3	6,617.2	6,563.4	16.5	19.1	103.99	84.2	248.7	519.2	488.2	30.98	16.758			
6,600.0	6,528.0	6,676.0	6,616.9	16.4	19.1	105.35	84.2	224.3	522.6	491.6	30.99	16.863			
6,650.0	6,564.6	6,736.2	6,669.6	16.4	19.1	106.64	84.2	195.2	526.0	495.0	30.99	16.974			
6,700.0	6,598.9	6,797.8	6,721.0	16.4	19.1	107.86	84.2	161.3	529.5	498.5	31.01	17.075			
6,750.0	6,630.7	6,860.8	6,770.5	16.4	19.1	108.99	84.2	122.4	532.9	501.8	31.09	17.140			
6,800.0	6,660.0	6,925.2	6,817.6	16.4	19.1	110.03	84.2	78.6	536.2	505.0	31.27	17.147			
6,850.0	6,686.5	6,990.8	6,861.7	16.4	19.1	110.97	84.2	30.0	539.4	507.8	31.60	17.072			
6,900.0	6,710.2	7,057.6	6,902.1	16.5	19.1	111.79	84.2	-23.2	542.2	510.1	32.11	16.888			
6,950.0	6,731.0	7,125.5	6,938.3	17.1	19.1	112.50	84.2	-80.7	544.8	511.9	32.87	16.574			
7,000.0	6,748.7	7,194.4	6,969.6	17.8	19.2	113.08	84.2	-142.0	546.9	513.0	33.87	16.149			
7,050.0	6,763.4	7,264.1	6,995.6	18.6	19.5	113.53	84.2	-206.6	548.6	513.4	35.16	15.601			
7,100.0	6,774.9	7,334.3	7,015.6	19.4	20.1	113.84	84.2	-273.9	549.7	513.0	36.74	14.964			
7,150.0	6,783.2	7,404.9	7,029.5	20.3	21.2	114.00	84.2	-343.1	550.4	511.8	38.58	14.267			
7,200.0	6,788.2	7,475.7	7,036.9	21.3	22.4	114.03	84.2	-413.4	550.4	509.8	40.66	13.537			
7,251.3	6,790.0	7,539.8	7,038.3	22.3	23.6	113.95	84.2	-477.6	550.1	507.3	42.85	12.839			
7,252.3	6,790.0	7,540.9	7,038.3	22.3	23.7	113.95	84.2	-478.6	550.1	507.2	42.89	12.827			
7,300.0	6,790.0	7,588.6	7,038.4	23.3	24.6	113.96	84.2	-526.3	550.1	505.5	44.67	12.317			
7,400.0	6,790.0	7,688.6	7,038.5	25.4	26.7	113.97	84.2	-626.3	550.2	501.6	48.59	11.322			
7,500.0	6,790.0	7,788.6	7,038.7	27.7	29.0	113.98	84.2	-726.3	550.3	497.5	52.73	10.435			
7,600.0	6,790.0	7,888.6	7,038.8	30.1	31.3	114.00	84.2	-826.3	550.3	493.3	57.04	9.648			
7,700.0	6,790.0	7,988.6	7,038.9	32.5	33.7	114.01	84.2	-926.3	550.4	488.9	61.48	8.953			
7,800.0	6,790.0	8,088.6	7,039.1	35.0	36.2	114.02	84.2	-1,026.3	550.4	484.4	66.02	8.338			
7,900.0	6,790.0	8,188.6	7,039.2	37.5	38.7	114.04	84.2	-1,126.3	550.5	479.8	70.64	7.793			
8,000.0	6,790.0	8,288.6	7,039.4	40.1	41.2	114.05	84.2	-1,226.3	550.5	475.2	75.33	7.308			
8,100.0	6,790.0	8,388.6	7,039.5	42.7	43.8	114.06	84.2	-1,326.3	550.6	470.5	80.08	6.875			
8,200.0	6,790.0	8,488.6	7,039.6	45.3	46.4	114.08	84.2	-1,426.3	550.6	465.8	84.88	6.488			
8,300.0	6,790.0	8,588.6	7,039.8	47.9	49.0	114.09	84.2	-1,526.3	550.7	461.0	89.71	6.139			

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

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
8,400.0	6,790.0	8,688.6	7,039.9	50.6	51.6	114.10	84.2	-1,626.3	550.8	456.2	94.58	5.824			
8,500.0	6,790.0	8,788.6	7,040.0	53.3	54.3	114.12	84.2	-1,726.3	550.8	451.3	99.47	5.538			
8,600.0	6,790.0	8,888.6	7,040.2	55.9	57.0	114.13	84.2	-1,826.3	550.9	446.5	104.39	5.277			
8,700.0	6,790.0	8,988.6	7,040.3	58.6	59.7	114.14	84.2	-1,926.3	550.9	441.6	109.33	5.039			
8,800.0	6,790.0	9,088.6	7,040.5	61.4	62.4	114.15	84.2	-2,026.3	551.0	436.7	114.28	4.821			
8,900.0	6,790.0	9,188.6	7,040.6	64.1	65.1	114.17	84.2	-2,126.3	551.0	431.8	119.25	4.621			
9,000.0	6,790.0	9,288.6	7,040.7	66.8	67.8	114.18	84.2	-2,226.3	551.1	426.9	124.24	4.436			
9,100.0	6,790.0	9,388.6	7,040.9	69.5	70.5	114.19	84.2	-2,326.3	551.2	421.9	129.23	4.265			
9,200.0	6,790.0	9,488.6	7,041.0	72.3	73.2	114.21	84.2	-2,426.3	551.2	417.0	134.24	4.106			
9,300.0	6,790.0	9,588.6	7,041.2	75.0	76.0	114.22	84.2	-2,526.3	551.3	412.0	139.25	3.959			
9,400.0	6,790.0	9,688.6	7,041.3	77.8	78.7	114.23	84.2	-2,626.3	551.3	407.1	144.28	3.821			
9,500.0	6,790.0	9,788.6	7,041.4	80.5	81.4	114.25	84.2	-2,726.3	551.4	402.1	149.31	3.693			
9,600.0	6,790.0	9,888.6	7,041.6	83.3	84.2	114.26	84.2	-2,826.3	551.4	397.1	154.34	3.573			
9,700.0	6,790.0	9,988.6	7,041.7	86.0	86.9	114.27	84.2	-2,926.3	551.5	392.1	159.38	3.460			
9,800.0	6,790.0	10,088.6	7,041.9	88.8	89.7	114.29	84.2	-3,026.3	551.6	387.1	164.43	3.354			
9,900.0	6,790.0	10,188.6	7,042.0	91.5	92.4	114.30	84.2	-3,126.3	551.6	382.1	169.48	3.255			
10,000.0	6,790.0	10,288.6	7,042.1	94.3	95.2	114.31	84.2	-3,226.3	551.7	377.1	174.54	3.161			
10,100.0	6,790.0	10,388.6	7,042.3	97.1	98.0	114.33	84.2	-3,326.3	551.7	372.1	179.60	3.072			
10,200.0	6,790.0	10,488.6	7,042.4	99.8	100.7	114.34	84.2	-3,426.3	551.8	367.1	184.66	2.988			
10,300.0	6,790.0	10,588.6	7,042.6	102.6	103.5	114.35	84.2	-3,526.3	551.9	362.1	189.72	2.909			
10,400.0	6,790.0	10,688.6	7,042.7	105.4	106.3	114.37	84.2	-3,626.3	551.9	357.1	194.79	2.833			
10,500.0	6,790.0	10,788.6	7,042.8	108.2	109.1	114.38	84.2	-3,726.3	552.0	352.1	199.86	2.762			
10,600.0	6,790.0	10,888.6	7,043.0	111.0	111.8	114.39	84.2	-3,826.3	552.0	347.1	204.93	2.694			
10,700.0	6,790.0	10,988.6	7,043.1	113.7	114.6	114.41	84.2	-3,926.3	552.1	342.1	210.00	2.629			
10,800.0	6,790.0	11,088.6	7,043.3	116.5	117.4	114.42	84.2	-4,026.3	552.1	337.1	215.08	2.567			
10,900.0	6,790.0	11,188.6	7,043.4	119.3	120.2	114.43	84.2	-4,126.3	552.2	332.0	220.16	2.508			
11,000.0	6,790.0	11,288.6	7,043.5	122.1	122.9	114.45	84.2	-4,226.3	552.3	327.0	225.23	2.452			
11,100.0	6,790.0	11,388.6	7,043.7	124.9	125.7	114.46	84.2	-4,326.3	552.3	322.0	230.31	2.398			
11,200.0	6,790.0	11,488.6	7,043.8	127.7	128.5	114.47	84.2	-4,426.3	552.4	317.0	235.39	2.347			
11,300.0	6,790.0	11,588.6	7,044.0	130.4	131.3	114.49	84.2	-4,526.3	552.4	312.0	240.47	2.297			
11,314.6	6,790.0	11,603.1	7,044.0	130.7	131.7	114.49	84.2	-4,540.9	552.4	311.4	241.08	2.292			
11,335.6	6,790.0	11,618.8	7,044.0	131.1	132.1	114.49	84.2	-4,556.5	552.5	310.7	241.82	2.285 ES, SF			

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design													Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33W-214 - Wellbore #1 - P		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 Depth (ft)	Vertical Depth Depth (ft)	Measured Depth Depth (ft)	Vertical Depth Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface 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	1.0	1.0	0.0	0.0	89.97	0.0	30.7	30.7	30.7	0.00	N/A				
100.0	100.0	101.0	101.0	0.1	0.1	89.97	0.0	30.7	30.7	30.4	0.23	135.038				
200.0	200.0	201.0	201.0	0.3	0.3	89.97	0.0	30.7	30.7	30.0	0.68	45.312				
300.0	300.0	301.0	301.0	0.6	0.6	89.97	0.0	30.7	30.7	29.5	1.13	27.223				
366.3	366.3	367.3	367.3	0.7	0.7	89.97	0.0	30.7	30.7	29.2	1.42	21.524 CC				
400.0	400.0	401.0	401.0	0.8	0.8	89.97	0.0	30.7	30.7	29.1	1.58	19.460				
500.0	500.0	500.8	500.8	1.0	1.0	92.34	-1.3	31.0	31.0	29.0	2.00	15.524 ES				
600.0	600.0	600.4	600.3	1.2	1.2	99.00	-5.1	32.0	32.4	30.0	2.41	13.433				
700.0	700.0	700.0	699.7	1.5	1.4	108.66	-11.4	33.7	35.6	32.7	2.84	12.511				
800.0	800.0	798.7	798.0	1.7	1.6	119.18	-20.1	36.0	41.3	38.0	3.28	12.596				
900.0	900.0	897.3	895.9	1.9	1.9	-17.40	-31.2	38.9	48.9	45.2	3.72	13.159				
1,000.0	999.9	995.6	993.2	2.1	2.2	-10.04	-44.8	42.5	57.1	53.0	4.13	13.825				
1,100.0	1,099.7	1,093.6	1,089.8	2.3	2.5	-3.88	-60.7	46.7	65.7	61.2	4.55	14.439				
1,206.1	1,205.4	1,197.5	1,191.8	2.5	2.9	1.73	-80.2	51.8	75.3	70.3	5.01	15.030				
1,300.0	1,298.7	1,290.8	1,283.1	2.7	3.3	5.90	-98.5	56.7	83.9	78.4	5.43	15.457				
1,400.0	1,398.1	1,390.2	1,380.5	3.0	3.7	9.48	-118.0	61.8	93.4	87.5	5.87	15.894				
1,500.0	1,497.6	1,489.6	1,477.8	3.2	4.1	12.39	-137.5	67.0	103.1	96.8	6.33	16.295				
1,600.0	1,597.0	1,589.0	1,575.1	3.5	4.5	14.79	-157.0	72.1	113.1	106.3	6.80	16.648				
1,700.0	1,696.4	1,688.4	1,672.4	3.8	5.0	16.80	-176.5	77.3	123.3	116.0	7.27	16.961				
1,800.0	1,795.9	1,787.8	1,769.8	4.0	5.4	18.51	-196.0	82.5	133.6	125.8	7.75	17.235				
1,900.0	1,895.3	1,887.2	1,867.1	4.3	5.8	19.96	-215.5	87.6	144.0	135.7	8.24	17.474				
2,000.0	1,994.8	1,986.6	1,964.4	4.6	6.3	21.23	-235.0	92.8	154.5	145.7	8.73	17.683				
2,100.0	2,094.2	2,086.0	2,061.7	4.9	6.7	22.33	-254.5	97.9	165.0	155.8	9.24	17.867				
2,200.0	2,193.6	2,185.4	2,159.1	5.2	7.2	23.30	-274.0	103.1	175.6	165.9	9.74	18.028				
2,300.0	2,293.1	2,284.8	2,256.4	5.5	7.6	24.15	-293.5	108.2	186.2	176.0	10.25	18.170				
2,400.0	2,392.5	2,384.2	2,353.7	5.8	8.0	24.92	-313.1	113.4	196.9	186.1	10.76	18.296				
2,500.0	2,491.9	2,483.6	2,451.1	6.1	8.5	25.61	-332.6	118.5	207.6	196.3	11.28	18.408				
2,600.0	2,591.4	2,583.0	2,548.4	6.4	8.9	26.23	-352.1	123.7	218.3	206.5	11.80	18.508				
2,700.0	2,690.8	2,682.4	2,645.7	6.7	9.4	26.79	-371.6	128.9	229.1	216.8	12.32	18.598				
2,800.0	2,790.2	2,781.8	2,743.0	6.9	9.8	27.30	-391.1	134.0	239.9	227.0	12.84	18.678				
2,900.0	2,889.7	2,881.2	2,840.4	7.2	10.3	27.77	-410.6	139.2	250.7	237.3	13.37	18.751				
3,000.0	2,989.1	2,980.6	2,937.7	7.5	10.7	28.20	-430.1	144.3	261.5	247.6	13.90	18.816				
3,100.0	3,088.5	3,080.0	3,035.0	7.8	11.2	28.59	-449.6	149.5	272.3	257.9	14.42	18.876				
3,200.0	3,188.0	3,179.4	3,132.3	8.1	11.6	28.95	-469.1	154.6	283.1	268.2	14.96	18.930				
3,300.0	3,287.4	3,278.8	3,229.7	8.4	12.0	29.29	-488.6	159.8	294.0	278.5	15.49	18.980				
3,400.0	3,386.8	3,378.2	3,327.0	8.7	12.5	29.60	-508.1	164.9	304.8	288.8	16.02	19.026				
3,500.0	3,486.3	3,477.6	3,424.3	9.0	12.9	29.90	-527.6	170.1	315.7	299.1	16.55	19.067				
3,600.0	3,585.7	3,577.0	3,521.6	9.3	13.4	30.17	-547.1	175.2	326.5	309.4	17.09	19.106				
3,700.0	3,685.2	3,676.4	3,619.0	9.7	13.8	30.42	-566.7	180.4	337.4	319.8	17.63	19.142				
3,800.0	3,784.6	3,775.8	3,716.3	10.0	14.3	30.66	-586.2	185.6	348.3	330.1	18.16	19.175				
3,900.0	3,884.0	3,875.2	3,813.6	10.3	14.7	30.89	-605.7	190.7	359.2	340.5	18.70	19.205				
4,000.0	3,983.5	3,974.5	3,911.0	10.6	15.2	31.10	-625.2	195.9	370.1	350.8	19.24	19.234				
4,100.0	4,082.9	4,073.9	4,008.3	10.9	15.6	31.30	-644.7	201.0	381.0	361.2	19.78	19.260				
4,200.0	4,182.3	4,173.3	4,105.6	11.2	16.1	31.49	-664.2	206.2	391.8	371.5	20.32	19.285				
4,300.0	4,281.8	4,272.7	4,202.9	11.5	16.5	31.66	-683.7	211.3	402.8	381.9	20.86	19.308				
4,400.0	4,381.2	4,372.1	4,300.3	11.8	17.0	31.83	-703.2	216.5	413.7	392.3	21.40	19.330				
4,500.0	4,480.6	4,471.5	4,397.6	12.1	17.4	31.99	-722.7	221.6	424.6	402.6	21.94	19.350				
4,600.0	4,580.1	4,570.9	4,494.9	12.4	17.9	32.15	-742.2	226.8	435.5	413.0	22.48	19.369				
4,700.0	4,679.5	4,670.3	4,592.2	12.7	18.3	32.29	-761.7	232.0	446.4	423.4	23.03	19.387				
4,800.0	4,778.9	4,769.7	4,689.6	13.0	18.8	32.43	-781.2	237.1	457.3	433.8	23.57	19.404				
4,900.0	4,878.4	4,869.1	4,786.9	13.3	19.2	32.56	-800.7	242.3	468.2	444.1	24.11	19.420				

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

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
5,000.0	4,977.8	4,968.5	4,884.2	13.6	19.7	32.68	-820.3	247.4	479.2	454.5	24.65	19.435			
5,100.0	5,077.2	5,067.9	4,981.5	13.9	20.1	32.80	-839.8	252.6	490.1	464.9	25.20	19.450			
5,200.0	5,176.7	5,167.3	5,078.9	14.2	20.6	32.92	-859.3	257.7	501.0	475.3	25.74	19.463			
5,300.0	5,276.1	5,266.7	5,176.2	14.5	21.0	33.03	-878.8	262.9	511.9	485.7	26.29	19.476			
5,400.0	5,375.6	5,366.1	5,273.5	14.8	21.5	33.13	-898.3	268.0	522.9	496.0	26.83	19.488			
5,500.0	5,475.0	5,477.3	5,382.6	15.1	21.9	33.26	-919.4	273.6	533.2	505.8	27.39	19.466			
5,600.0	5,574.4	5,599.2	5,502.9	15.4	22.3	33.52	-938.2	278.6	539.9	512.0	27.95	19.319			
5,621.7	5,596.0	5,625.7	5,529.1	15.5	22.3	33.59	-941.7	279.5	540.8	512.7	28.07	19.270			
5,700.0	5,674.0	5,721.5	5,624.3	15.7	22.5	33.86	-952.1	282.3	543.4	514.9	28.43	19.111			
5,800.0	5,773.8	5,844.0	5,746.5	15.9	22.7	34.08	-961.0	284.6	545.5	516.7	28.81	18.934			
5,900.0	5,873.7	5,966.6	5,869.0	16.0	22.9	34.18	-964.8	285.6	546.4	517.3	29.13	18.757			
5,926.3	5,900.0	5,998.6	5,901.0	16.1	23.0	179.93	-965.0	285.7	546.5	508.7	37.80	14.458			
6,000.0	5,973.7	6,072.3	5,974.7	16.2	23.0	179.93	-965.0	285.7	546.5	508.5	37.99	14.383			
6,052.3	6,026.1	6,124.7	6,027.1	16.3	23.1	179.94	-965.0	285.6	546.5	508.3	38.12	14.333			
6,092.1	6,065.8	6,164.4	6,066.8	16.3	23.1	-90.00	-965.0	284.0	546.5	516.7	29.75	18.368			
6,100.0	6,073.7	6,172.3	6,074.7	16.3	23.1	-89.99	-965.0	283.4	546.5	516.7	29.77	18.354			
6,150.0	6,123.5	6,222.3	6,124.3	16.4	23.2	-89.91	-965.0	277.9	546.5	516.6	29.89	18.280			
6,200.0	6,172.8	6,272.2	6,173.5	16.4	23.2	-89.84	-965.0	269.3	546.5	516.5	29.98	18.226			
6,250.0	6,221.5	6,322.1	6,221.9	16.5	23.2	-89.76	-965.0	257.4	546.5	516.4	30.04	18.189			
6,300.0	6,269.4	6,371.9	6,269.4	16.5	23.2	-89.69	-965.0	242.4	546.5	516.4	30.08	18.164			
6,350.0	6,316.3	6,421.7	6,315.8	16.5	23.2	-89.62	-965.0	224.4	546.5	516.4	30.11	18.148			
6,400.0	6,361.9	6,471.4	6,360.9	16.5	23.2	-89.55	-965.0	203.4	546.5	516.3	30.14	18.132			
6,450.0	6,406.0	6,521.1	6,404.5	16.5	23.2	-89.48	-965.0	179.5	546.5	516.3	30.18	18.109			
6,500.0	6,448.5	6,570.8	6,446.4	16.5	23.2	-89.41	-965.0	152.9	546.5	516.2	30.24	18.070			
6,550.0	6,489.3	6,620.4	6,486.4	16.5	23.2	-89.35	-965.0	123.7	546.5	516.1	30.36	18.003			
6,600.0	6,528.0	6,670.0	6,524.5	16.4	23.2	-89.29	-965.0	91.9	546.5	516.0	30.54	17.897			
6,650.0	6,564.6	6,719.5	6,560.4	16.4	23.2	-89.23	-965.0	57.7	546.5	515.7	30.80	17.742			
6,700.0	6,598.9	6,769.0	6,593.9	16.4	23.2	-89.18	-965.0	21.4	546.5	515.3	31.18	17.528			
6,750.0	6,630.7	6,818.5	6,625.1	16.4	23.3	-89.12	-965.0	-17.1	546.5	514.8	31.68	17.249			
6,800.0	6,660.0	6,867.9	6,653.6	16.4	23.3	-89.08	-965.0	-57.4	546.5	514.2	32.33	16.902			
6,850.0	6,686.5	6,917.3	6,679.5	16.4	23.3	-89.03	-965.0	-99.5	546.5	513.4	33.14	16.490			
6,900.0	6,710.2	6,966.7	6,702.6	16.5	23.4	-88.99	-965.0	-143.2	546.5	512.4	34.12	16.019			
6,950.0	6,731.0	7,016.1	6,722.8	17.1	23.4	-88.96	-965.0	-188.2	546.5	511.3	35.26	15.500			
7,000.0	6,748.7	7,065.4	6,740.0	17.8	23.5	-88.93	-965.0	-234.4	546.6	510.0	36.57	14.945			
7,050.0	6,763.4	7,114.8	6,754.2	18.6	23.7	-88.90	-965.0	-281.7	546.6	508.5	38.04	14.370			
7,100.0	6,774.9	7,164.1	6,765.4	19.4	24.0	-88.88	-965.0	-329.7	546.6	506.9	39.64	13.787			
7,150.0	6,783.2	7,213.4	6,773.4	20.3	24.3	-88.86	-965.0	-378.3	546.6	505.2	41.38	13.209			
7,200.0	6,788.2	7,262.7	6,778.3	21.3	24.8	-88.85	-965.0	-427.4	546.6	503.3	43.22	12.645			
7,252.3	6,790.0	7,314.3	6,780.0	22.3	25.4	-88.85	-965.0	-478.9	546.6	501.3	45.24	12.081			
7,300.0	6,790.0	7,361.9	6,779.9	23.3	26.1	-88.83	-965.0	-526.6	546.6	499.4	47.18	11.585			
7,400.0	6,790.0	7,461.9	6,779.6	25.4	27.8	-88.81	-965.0	-626.6	546.6	495.1	51.44	10.626			
7,500.0	6,790.0	7,561.9	6,779.4	27.7	29.8	-88.78	-965.0	-726.6	546.6	490.6	55.93	9.772			
7,600.0	6,790.0	7,661.9	6,779.1	30.1	32.0	-88.76	-965.0	-826.6	546.6	486.0	60.62	9.017			
7,700.0	6,790.0	7,761.9	6,778.9	32.5	34.3	-88.73	-965.0	-926.6	546.6	481.1	65.45	8.352			
7,800.0	6,790.0	7,861.9	6,778.6	35.0	36.6	-88.70	-965.0	-1,026.6	546.6	476.2	70.39	7.765			
7,900.0	6,790.0	7,961.9	6,778.4	37.5	39.1	-88.68	-965.0	-1,126.6	546.6	471.2	75.43	7.246			
8,000.0	6,790.0	8,061.9	6,778.2	40.1	41.5	-88.65	-965.0	-1,226.6	546.6	466.1	80.55	6.786			
8,100.0	6,790.0	8,161.9	6,777.9	42.7	44.1	-88.63	-965.0	-1,326.6	546.6	460.9	85.73	6.376			
8,200.0	6,790.0	8,261.9	6,777.7	45.3	46.6	-88.60	-965.0	-1,426.6	546.6	455.7	90.96	6.009			
8,300.0	6,790.0	8,361.9	6,777.4	47.9	49.2	-88.58	-965.0	-1,526.6	546.6	450.4	96.23	5.680			

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

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.0 ft
Survey Program: 0-MWVD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
Depth (ft)	(ft)	Depth (ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
8,400.0	6,790.0	8,461.9	6,777.2	50.6	51.8	-88.55	-965.0	-1,626.6	546.6	445.1	101.55	5.383			
8,500.0	6,790.0	8,561.9	6,776.9	53.3	54.4	-88.53	-965.0	-1,726.6	546.6	439.8	106.89	5.114			
8,600.0	6,790.0	8,661.9	6,776.7	55.9	57.1	-88.50	-965.0	-1,826.6	546.6	434.4	112.26	4.870			
8,700.0	6,790.0	8,761.9	6,776.4	58.6	59.8	-88.47	-965.0	-1,926.6	546.7	429.0	117.65	4.647			
8,800.0	6,790.0	8,861.9	6,776.2	61.4	62.4	-88.45	-965.0	-2,026.6	546.7	423.6	123.06	4.442			
8,900.0	6,790.0	8,961.9	6,776.0	64.1	65.1	-88.42	-965.0	-2,126.6	546.7	418.2	128.49	4.255			
9,000.0	6,790.0	9,061.9	6,775.7	66.8	67.8	-88.40	-965.0	-2,226.6	546.7	412.7	133.93	4.082			
9,100.0	6,790.0	9,161.9	6,775.5	69.5	70.5	-88.37	-965.0	-2,326.6	546.7	407.3	139.39	3.922			
9,200.0	6,790.0	9,261.9	6,775.2	72.3	73.2	-88.35	-965.0	-2,426.6	546.7	401.8	144.86	3.774			
9,300.0	6,790.0	9,361.9	6,775.0	75.0	75.9	-88.32	-965.0	-2,526.6	546.7	396.4	150.34	3.636			
9,400.0	6,790.0	9,461.9	6,774.7	77.8	78.7	-88.30	-965.0	-2,626.6	546.7	390.9	155.83	3.508			
9,500.0	6,790.0	9,561.9	6,774.5	80.5	81.4	-88.27	-965.0	-2,726.6	546.7	385.4	161.32	3.389			
9,600.0	6,790.0	9,661.9	6,774.2	83.3	84.1	-88.24	-965.0	-2,826.6	546.7	379.9	166.83	3.277			
9,700.0	6,790.0	9,761.9	6,774.0	86.0	86.9	-88.22	-965.0	-2,926.6	546.7	374.4	172.34	3.172			
9,800.0	6,790.0	9,861.9	6,773.8	88.8	89.6	-88.19	-965.0	-3,026.6	546.7	368.9	177.86	3.074			
9,900.0	6,790.0	9,961.9	6,773.5	91.5	92.4	-88.17	-965.0	-3,126.6	546.7	363.4	183.38	2.981			
10,000.0	6,790.0	10,061.9	6,773.3	94.3	95.1	-88.14	-965.0	-3,226.6	546.7	357.8	188.91	2.894			
10,100.0	6,790.0	10,161.9	6,773.0	97.1	97.9	-88.12	-965.0	-3,326.6	546.8	352.3	194.45	2.812			
10,200.0	6,790.0	10,261.9	6,772.8	99.8	100.6	-88.09	-965.0	-3,426.6	546.8	346.8	199.98	2.734			
10,300.0	6,790.0	10,361.9	6,772.5	102.6	103.4	-88.06	-965.0	-3,526.6	546.8	341.2	205.53	2.660			
10,400.0	6,790.0	10,461.9	6,772.3	105.4	106.2	-88.04	-965.0	-3,626.6	546.8	335.7	211.07	2.591			
10,500.0	6,790.0	10,561.9	6,772.0	108.2	108.9	-88.01	-965.0	-3,726.6	546.8	330.2	216.62	2.524			
10,600.0	6,790.0	10,661.9	6,771.8	111.0	111.7	-87.99	-965.0	-3,826.6	546.8	324.6	222.17	2.461			
10,700.0	6,790.0	10,761.9	6,771.6	113.7	114.5	-87.96	-965.0	-3,926.6	546.8	319.1	227.73	2.401			
10,800.0	6,790.0	10,861.9	6,771.3	116.5	117.2	-87.94	-965.0	-4,026.6	546.8	313.5	233.28	2.344			
10,900.0	6,790.0	10,961.9	6,771.1	119.3	120.0	-87.91	-965.0	-4,126.6	546.8	308.0	238.84	2.290			
11,000.0	6,790.0	11,061.9	6,770.8	122.1	122.8	-87.89	-965.0	-4,226.6	546.8	302.4	244.40	2.237			
11,100.0	6,790.0	11,161.9	6,770.6	124.9	125.6	-87.86	-965.0	-4,326.6	546.8	296.9	249.97	2.188			
11,200.0	6,790.0	11,261.9	6,770.3	127.7	128.3	-87.83	-965.0	-4,426.6	546.9	291.3	255.53	2.140			
11,300.0	6,790.0	11,361.9	6,770.1	130.4	131.1	-87.81	-965.0	-4,526.6	546.9	285.8	261.10	2.094			
11,335.6	6,790.0	11,397.5	6,770.0	131.1	132.1	-87.80	-965.0	-4,562.1	546.9	284.1	262.72	2.082 SF			

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design													Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W - Nelson Family LLC 33W-414 - Wellbore #1 - P		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 Depth (ft)	Vertical Depth Depth (ft)	Measured Depth Depth (ft)	Vertical Depth Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
0.0	0.0	1.0	1.0	0.0	0.0	89.97	0.0	44.6	44.6	44.6	0.00	N/A				
100.0	100.0	101.0	101.0	0.1	0.1	89.97	0.0	44.6	44.6	44.4	0.23	196.419				
166.3	166.3	167.3	167.3	0.3	0.3	89.97	0.0	44.6	44.6	44.1	0.53	84.903 CC				
200.0	200.0	201.0	201.0	0.3	0.3	89.97	0.0	44.6	44.6	43.9	0.68	65.931				
300.0	300.0	300.7	300.7	0.6	0.5	91.63	-1.3	44.9	44.9	43.8	1.10	40.711 ES				
400.0	400.0	400.4	400.3	0.8	0.7	96.41	-5.1	45.6	45.9	44.4	1.53	30.013				
500.0	500.0	499.7	499.4	1.0	1.0	103.77	-11.5	46.9	48.3	46.3	1.98	24.459				
600.0	600.0	598.6	597.9	1.2	1.2	112.69	-20.3	48.7	52.9	50.4	2.43	21.764				
700.0	700.0	697.0	695.6	1.5	1.5	121.84	-31.6	51.0	60.2	57.3	2.88	20.887				
800.0	800.0	794.8	792.4	1.7	1.8	130.14	-45.3	53.7	70.8	67.4	3.34	21.201				
900.0	900.0	891.9	888.2	1.9	2.2	-8.74	-61.3	56.9	83.3	79.4	3.85	21.616				
1,000.0	999.9	988.7	983.1	2.1	2.6	-3.18	-79.5	60.6	96.4	92.1	4.28	22.508				
1,100.0	1,099.7	1,085.0	1,077.1	2.3	3.0	1.49	-100.0	64.7	109.9	105.2	4.72	23.293				
1,206.1	1,205.4	1,189.7	1,178.9	2.5	3.5	5.74	-123.8	69.5	123.6	118.4	5.19	23.800				
1,300.0	1,298.7	1,282.6	1,269.3	2.7	3.9	8.87	-144.9	73.7	134.8	129.2	5.62	24.005				
1,400.0	1,398.1	1,381.6	1,365.6	3.0	4.4	11.68	-167.4	78.2	147.2	141.1	6.07	24.240				
1,500.0	1,497.6	1,480.6	1,461.9	3.2	4.9	14.05	-189.9	82.8	159.9	153.3	6.54	24.446				
1,600.0	1,597.0	1,579.6	1,558.2	3.5	5.3	16.07	-212.4	87.3	172.8	165.8	7.01	24.632				
1,700.0	1,696.4	1,678.6	1,654.5	3.8	5.8	17.81	-234.9	91.8	185.8	178.4	7.50	24.794				
1,800.0	1,795.9	1,777.6	1,750.8	4.0	6.3	19.32	-257.4	96.3	199.1	191.1	7.98	24.932				
1,900.0	1,895.3	1,876.6	1,847.1	4.3	6.8	20.64	-279.9	100.8	212.4	203.9	8.48	25.049				
2,000.0	1,994.8	1,975.6	1,943.4	4.6	7.3	21.80	-302.3	105.3	225.9	216.9	8.98	25.147				
2,100.0	2,094.2	2,074.5	2,039.7	4.9	7.8	22.83	-324.8	109.9	239.4	229.9	9.49	25.229				
2,200.0	2,193.6	2,173.5	2,136.0	5.2	8.3	23.76	-347.3	114.4	253.0	243.0	10.00	25.298				
2,300.0	2,293.1	2,272.5	2,232.3	5.5	8.8	24.59	-369.8	118.9	266.6	256.1	10.52	25.355				
2,400.0	2,392.5	2,371.5	2,328.6	5.8	9.3	25.33	-392.3	123.4	280.3	269.3	11.03	25.402				
2,500.0	2,491.9	2,470.5	2,424.9	6.1	9.8	26.01	-414.8	127.9	294.1	282.5	11.56	25.442				
2,600.0	2,591.4	2,569.5	2,521.2	6.4	10.2	26.63	-437.3	132.5	307.8	295.7	12.08	25.474				
2,700.0	2,690.8	2,668.5	2,617.5	6.7	10.7	27.19	-459.8	137.0	321.6	309.0	12.61	25.501				
2,800.0	2,790.2	2,767.5	2,713.8	6.9	11.2	27.71	-482.3	141.5	335.5	322.3	13.14	25.523				
2,900.0	2,889.7	2,866.5	2,810.1	7.2	11.7	28.19	-504.8	146.0	349.3	335.7	13.68	25.541				
3,000.0	2,989.1	2,965.5	2,906.4	7.5	12.2	28.63	-527.2	150.5	363.2	349.0	14.21	25.556				
3,100.0	3,088.5	3,064.5	3,002.7	7.8	12.7	29.04	-549.7	155.0	377.1	362.4	14.75	25.567				
3,200.0	3,188.0	3,163.5	3,099.0	8.1	13.2	29.42	-572.2	159.6	391.0	375.8	15.29	25.577				
3,300.0	3,287.4	3,262.5	3,195.3	8.4	13.7	29.77	-594.7	164.1	405.0	389.2	15.83	25.584				
3,400.0	3,386.8	3,361.5	3,291.6	8.7	14.2	30.10	-617.2	168.6	418.9	402.6	16.37	25.590				
3,500.0	3,486.3	3,460.5	3,387.9	9.0	14.7	30.41	-639.7	173.1	432.9	416.0	16.91	25.594				
3,600.0	3,585.7	3,559.5	3,484.2	9.3	15.2	30.70	-662.2	177.6	446.9	429.4	17.46	25.596				
3,700.0	3,685.2	3,658.5	3,580.5	9.7	15.7	30.97	-684.7	182.2	460.9	442.9	18.00	25.598				
3,800.0	3,784.6	3,757.5	3,676.8	10.0	16.2	31.23	-707.2	186.7	474.9	456.3	18.55	25.599				
3,900.0	3,884.0	3,856.4	3,773.1	10.3	16.7	31.47	-729.6	191.2	488.9	469.8	19.10	25.599				
4,000.0	3,983.5	3,955.4	3,869.4	10.6	17.2	31.69	-752.1	195.7	502.9	483.2	19.64	25.598				
4,100.0	4,082.9	4,054.4	3,965.7	10.9	17.7	31.91	-774.6	200.2	516.9	496.7	20.19	25.597				
4,200.0	4,182.3	4,153.4	4,062.0	11.2	18.1	32.11	-797.1	204.8	530.9	510.2	20.74	25.596				
4,300.0	4,281.8	4,252.4	4,158.3	11.5	18.6	32.31	-819.6	209.3	544.9	523.7	21.29	25.594				
4,400.0	4,381.2	4,351.4	4,254.6	11.8	19.1	32.49	-842.1	213.8	559.0	537.1	21.84	25.591				
4,500.0	4,480.6	4,450.4	4,350.9	12.1	19.6	32.66	-864.6	218.3	573.0	550.6	22.39	25.589				
4,600.0	4,580.1	4,549.4	4,447.2	12.4	20.1	32.83	-887.1	222.8	587.1	564.1	22.95	25.586				
4,700.0	4,679.5	4,648.4	4,543.5	12.7	20.6	32.99	-909.6	227.3	601.1	577.6	23.50	25.583				
4,800.0	4,778.9	4,747.4	4,639.8	13.0	21.1	33.14	-932.1	231.9	615.2	591.1	24.05	25.580				
4,900.0	4,878.4	4,846.4	4,736.1	13.3	21.6	33.29	-954.5	236.4	629.2	604.6	24.60	25.576				

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

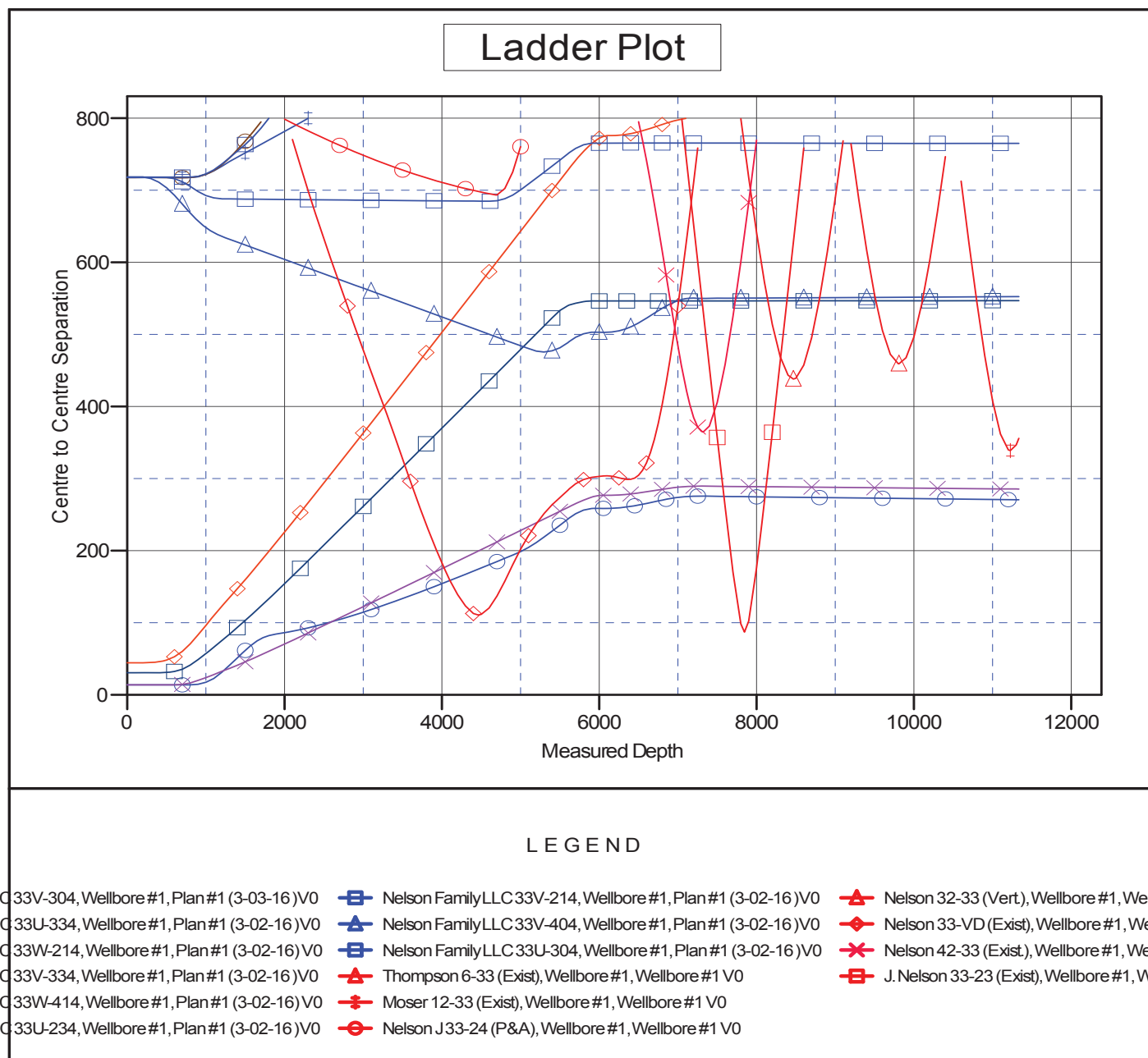
Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:		0.0 ft
Survey Program: 0-MWD														Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)					
5,000.0	4,977.8	4,945.4	4,832.4	13.6	22.1	33.42	-977.0	240.9	643.3	618.2	25.16	25.573				
5,100.0	5,077.2	5,044.4	4,928.7	13.9	22.6	33.56	-999.5	245.4	657.4	631.7	25.71	25.569				
5,200.0	5,176.7	5,143.4	5,025.0	14.2	23.1	33.68	-1,022.0	249.9	671.5	645.2	26.26	25.566				
5,300.0	5,276.1	5,242.4	5,121.3	14.5	23.6	33.80	-1,044.5	254.5	685.5	658.7	26.82	25.562				
5,400.0	5,375.6	5,341.4	5,217.6	14.8	24.1	33.92	-1,067.0	259.0	699.6	672.2	27.37	25.558				
5,500.0	5,475.0	5,440.4	5,313.9	15.1	24.6	34.03	-1,089.5	263.5	713.7	685.8	27.93	25.555				
5,600.0	5,574.4	5,539.3	5,410.2	15.4	25.1	34.14	-1,112.0	268.0	727.8	699.3	28.48	25.551				
5,621.7	5,596.0	5,560.8	5,431.1	15.5	25.2	34.16	-1,116.8	269.0	730.8	702.2	28.60	25.550				
5,700.0	5,674.0	5,662.7	5,530.6	15.7	25.5	34.35	-1,138.4	273.3	741.5	712.5	29.01	25.564				
5,800.0	5,773.8	5,796.1	5,661.9	15.9	25.9	34.49	-1,161.4	278.0	753.8	724.3	29.43	25.615				
5,900.0	5,873.7	5,930.4	5,795.0	16.0	26.2	34.49	-1,178.5	281.4	764.3	734.5	29.77	25.674				
5,926.3	5,900.0	5,965.8	5,830.3	16.1	26.3	-179.78	-1,182.0	282.1	766.8	725.5	41.23	18.598				
6,000.0	5,973.7	6,065.6	5,929.7	16.2	26.5	-179.90	-1,189.5	283.6	772.3	730.8	41.54	18.594				
6,052.3	6,026.1	6,136.7	6,000.7	16.3	26.6	-179.94	-1,192.8	284.3	774.7	733.0	41.72	18.571 SF				
6,100.0	6,073.7	6,201.5	6,065.5	16.3	26.7	-90.03	-1,194.3	284.6	775.8	745.3	30.50	25.437				
6,150.0	6,123.5	6,260.4	6,124.5	16.4	26.7	-90.43	-1,194.5	284.6	776.0	745.4	30.60	25.363				
6,200.0	6,172.8	6,309.8	6,173.8	16.4	26.8	-91.00	-1,194.5	284.6	776.1	745.5	30.63	25.338				
6,250.0	6,221.5	6,358.5	6,222.5	16.5	26.8	-91.79	-1,194.5	284.6	776.4	745.8	30.61	25.359				
6,300.0	6,269.4	6,408.7	6,272.7	16.5	26.8	-92.71	-1,194.5	283.2	776.9	746.3	30.57	25.412				
6,350.0	6,316.3	6,460.0	6,323.8	16.5	26.9	-93.63	-1,194.5	278.3	777.6	747.1	30.52	25.478				
6,400.0	6,361.9	6,512.2	6,375.3	16.5	26.9	-94.55	-1,194.5	269.9	778.6	748.1	30.47	25.555				
6,450.0	6,406.0	6,565.5	6,427.2	16.5	26.9	-95.45	-1,194.5	257.7	779.7	749.3	30.42	25.635				
6,500.0	6,448.5	6,619.8	6,479.0	16.5	27.0	-96.34	-1,194.5	241.5	781.1	750.7	30.38	25.706				
6,550.0	6,489.3	6,675.2	6,530.6	16.5	27.0	-97.21	-1,194.5	221.3	782.5	752.2	30.38	25.759				
6,600.0	6,528.0	6,731.7	6,581.5	16.4	27.0	-98.06	-1,194.5	196.9	784.1	753.7	30.42	25.779				
6,650.0	6,564.6	6,789.4	6,631.5	16.4	27.0	-98.87	-1,194.5	168.1	785.8	755.3	30.52	25.751				
6,700.0	6,598.9	6,848.2	6,680.1	16.4	27.0	-99.65	-1,194.5	135.0	787.6	756.9	30.69	25.660				
6,750.0	6,630.7	6,908.1	6,726.9	16.4	27.0	-100.39	-1,194.5	97.6	789.4	758.4	30.98	25.481				
6,800.0	6,660.0	6,969.2	6,771.3	16.4	27.0	-101.09	-1,194.5	55.7	791.2	759.8	31.40	25.201				
6,850.0	6,686.5	7,031.4	6,813.0	16.4	27.0	-101.73	-1,194.5	9.6	793.0	761.0	31.96	24.812				
6,900.0	6,710.2	7,094.6	6,851.4	16.5	27.0	-102.31	-1,194.5	-40.6	794.7	762.0	32.68	24.316				
6,950.0	6,731.0	7,158.8	6,886.1	17.1	27.1	-102.84	-1,194.5	-94.6	796.2	762.6	33.61	23.688				
7,000.0	6,748.7	7,223.9	6,916.4	17.8	27.2	-103.29	-1,194.5	-152.2	797.6	762.9	34.75	22.955				
7,050.0	6,763.4	7,289.8	6,942.0	18.6	27.3	-103.67	-1,194.5	-212.8	798.8	762.7	36.08	22.139				
7,100.0	6,774.9	7,356.3	6,962.5	19.4	27.4	-103.98	-1,194.5	-276.1	799.8	762.1	37.62	21.259				

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4848.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

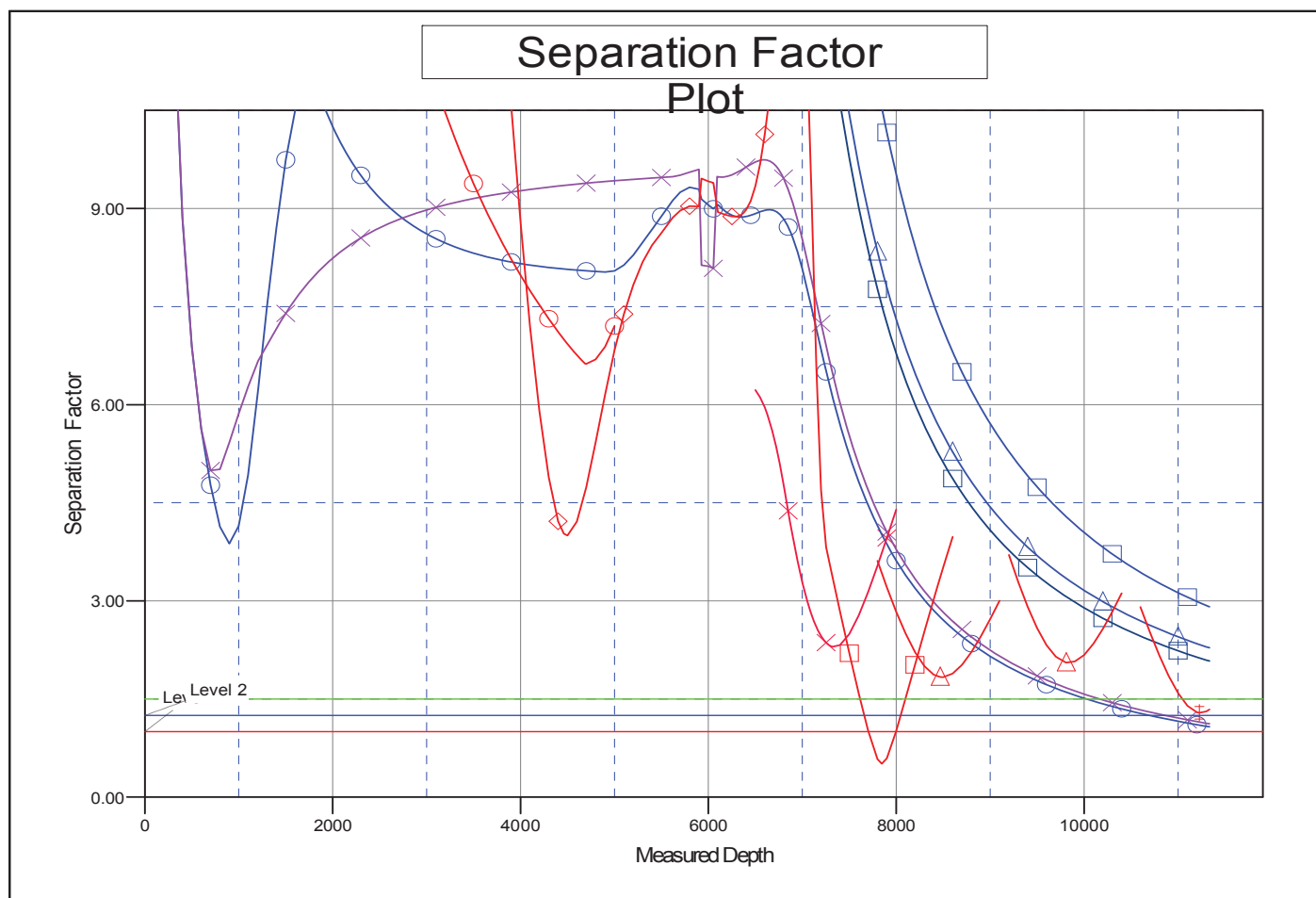
Coordinates are relative to: Nelson Family LLC 33V-234
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.39°



Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Nelson Family LLC 33V-234
Project:	SEC.33-T5N-R67W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Reference Site:	Nelson Family LLC 5N67W33U Pad Sec.33-T5N-R67W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Nelson Family LLC 33V-234	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #1 (3-02-16)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4848.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Nelson Family LLC 33V-234
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.39°



LEGEND

LC 33V-304, Wellbore #1, Plan #1 (3-03-16) V0	■ Nelson Family LLC 33V-214, Wellbore #1, Plan #1 (3-02-16) V0	▲ Nelson 32-33 (Vert), Wellbore #1, Wellbo
LC 33U-334, Wellbore #1, Plan #1 (3-02-16) V0	▲ Nelson Family LLC 33V-404, Wellbore #1, Plan #1 (3-02-16) V0	◆ Nelson 33-VD (Exist), Wellbore #1, Wellb
LC 33W-214, Wellbore #1, Plan #1 (3-02-16) V0	■ Nelson Family LLC 33U-304, Wellbore #1, Plan #1 (3-02-16) V0	✕ Nelson 42-33 (Exist), Wellbore #1, Wellb
LC 33V-334, Wellbore #1, Plan #1 (3-02-16) V0	▲ Thompson 6-33 (Exist), Wellbore #1, Wellbore #1 V0	■ J. Nelson 33-23 (Exist), Wellbore #1, Well
LC 33W-414, Wellbore #1, Plan #1 (3-02-16) V0	◆ Moser 12-33 (Exist), Wellbore #1, Wellbore #1 V0	
LC 33U-234, Wellbore #1, Plan #1 (3-02-16) V0	○ Nelson J 33-24 (P&A), Wellbore #1, Wellbore #1 V0	