

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: Maxey 24P-232

Surface Location: Maxey 24Q-HZ Pad Sec.24-T5N-R65W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

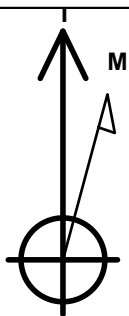
Ground Elevation: 4635.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1381915.29	3247715.20	40.378350	-104.610840	

RKB - 15' WELL @ 4650.0ft (RKB - 15')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape Point
BHL 1098'FSL, 2140'FWL, SEC.19	6726.0	732.7	4624.8	Point



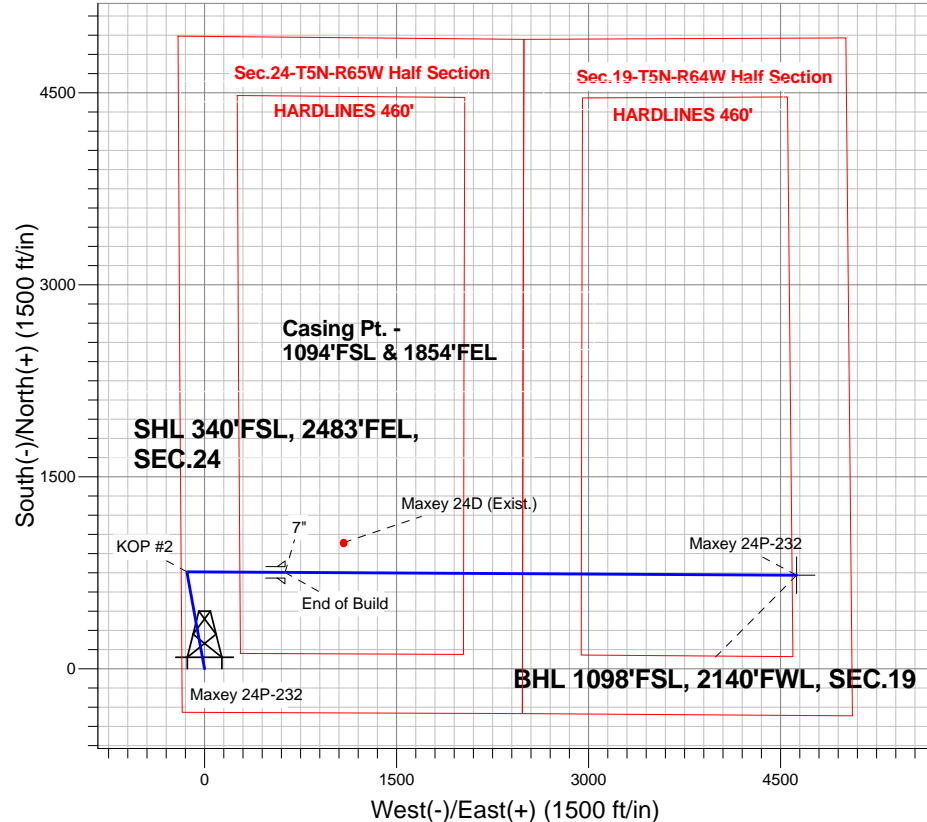
Azimuths to True North
Magnetic North: 8.54°

Magnetic Field
Strength: 52952.7nT
Dip Angle: 67.00°
Date: 3/18/2013
Model: IGRF2010

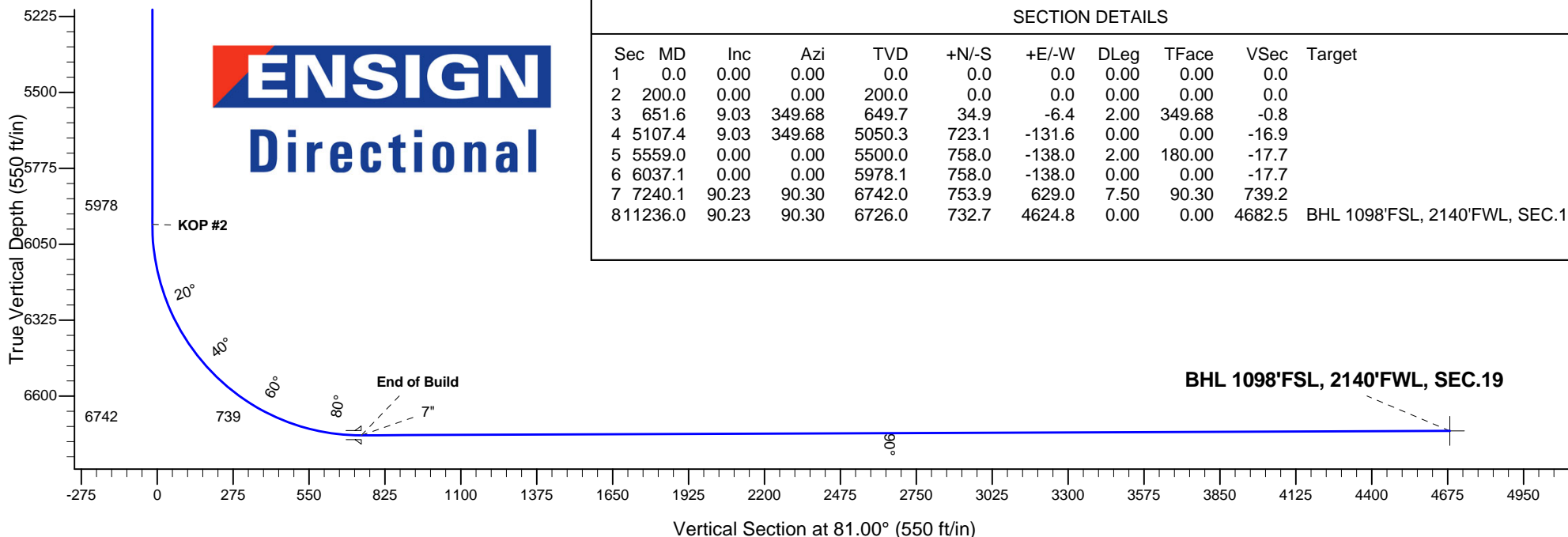
ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP #1
5978.1	6037.1	KOP #2
6742.0	7240.1	End of Build

Maxey 24Q-HZ Pad Sec.24-T5N-R65W
Maxey 24P-232
Plan #1 (3-07-13)



ENSIGN
Directional



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	651.6	9.03	349.68	649.7	34.9	-6.4	2.00	349.68	-0.8	
4	5107.4	9.03	349.68	5050.3	723.1	-131.6	0.00	0.00	-16.9	
5	5559.0	0.00	0.00	5500.0	758.0	-138.0	2.00	180.00	-17.7	
6	6037.1	0.00	0.00	5978.1	758.0	-138.0	0.00	0.00	-17.7	
7	7240.1	90.23	90.30	6742.0	753.9	629.0	7.50	90.30	739.2	
8	11236.0	90.23	90.30	6726.0	732.7	4624.8	0.00	0.00	4682.5	BHL 1098'FSL, 2140'FWL, SEC.19



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.24-T5N-R65W

Maxey 24Q-HZ Pad Sec.24-T5N-R65W

Maxey 24P-232

Wellbore #1

Plan: Plan #1 (3-07-13)

Standard Planning Report

18 March, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well Maxey 24P-232
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

Project	SEC.24-T5N-R65W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site						Maxey 24Q-HZ Pad Sec.24-T5N-R65W											
Site Position:						Northing:			1,381,915.64 ft			Latitude:			40.378350		
From:			Lat/Long			Easting:			3,247,745.85 ft			Longitude:			-104.610730		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.57 °		

Well	Maxey 24P-232					
Well Position	+N-S	0.0 ft	Northing:	1,381,915.29 ft	Latitude:	40.378350
	+E-W	-30.6 ft	Easting:	3,247,715.20 ft	Longitude:	-104.610840
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,635.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/18/2013	8.54	67.00	52,953

Design	Plan #1 (3-07-13)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	81.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
651.6	9.03	349.68	649.7	34.9	-6.4	2.00	2.00	0.00	349.68	
5,107.4	9.03	349.68	5,050.3	723.1	-131.6	0.00	0.00	0.00	0.00	
5,559.0	0.00	0.00	5,500.0	758.0	-138.0	2.00	-2.00	0.00	180.00	
6,037.1	0.00	0.00	5,978.1	758.0	-138.0	0.00	0.00	0.00	0.00	
7,240.1	90.23	90.30	6,742.0	753.9	629.0	7.50	7.50	0.00	90.30	
11,236.0	90.23	90.30	6,726.0	732.7	4,624.8	0.00	0.00	0.00	0.00	BHL 1098'FSL, 214

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Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
240.0	0.80	349.68	240.0	0.3	-0.1	0.0	2.00	2.00	0.00
280.0	1.60	349.68	280.0	1.1	-0.2	0.0	2.00	2.00	0.00
320.0	2.40	349.68	320.0	2.5	-0.5	-0.1	2.00	2.00	0.00
360.0	3.20	349.68	359.9	4.4	-0.8	-0.1	2.00	2.00	0.00
400.0	4.00	349.68	399.8	6.9	-1.2	-0.2	2.00	2.00	0.00
440.0	4.80	349.68	439.7	9.9	-1.8	-0.2	2.00	2.00	0.00
480.0	5.60	349.68	479.6	13.4	-2.4	-0.3	2.00	2.00	0.00
520.0	6.40	349.68	519.3	17.6	-3.2	-0.4	2.00	2.00	0.00
560.0	7.20	349.68	559.1	22.2	-4.0	-0.5	2.00	2.00	0.00
600.0	8.00	349.68	598.7	27.4	-5.0	-0.6	2.00	2.00	0.00
640.0	8.80	349.68	638.3	33.2	-6.0	-0.8	2.00	2.00	0.00
651.6	9.03	349.68	649.7	34.9	-6.4	-0.8	2.00	2.00	0.00
680.0	9.03	349.68	677.8	39.3	-7.2	-0.9	0.00	0.00	0.00
720.0	9.03	349.68	717.3	45.5	-8.3	-1.1	0.00	0.00	0.00
760.0	9.03	349.68	756.8	51.7	-9.4	-1.2	0.00	0.00	0.00
800.0	9.03	349.68	796.3	57.9	-10.5	-1.3	0.00	0.00	0.00
840.0	9.03	349.68	835.8	64.0	-11.7	-1.5	0.00	0.00	0.00
880.0	9.03	349.68	875.3	70.2	-12.8	-1.6	0.00	0.00	0.00
920.0	9.03	349.68	914.8	76.4	-13.9	-1.8	0.00	0.00	0.00
960.0	9.03	349.68	954.3	82.6	-15.0	-1.9	0.00	0.00	0.00
1,000.0	9.03	349.68	993.8	88.7	-16.2	-2.1	0.00	0.00	0.00
1,040.0	9.03	349.68	1,033.3	94.9	-17.3	-2.2	0.00	0.00	0.00
1,080.0	9.03	349.68	1,072.8	101.1	-18.4	-2.4	0.00	0.00	0.00
1,120.0	9.03	349.68	1,112.3	107.3	-19.5	-2.5	0.00	0.00	0.00
1,160.0	9.03	349.68	1,151.8	113.5	-20.7	-2.6	0.00	0.00	0.00
1,200.0	9.03	349.68	1,191.3	119.6	-21.8	-2.8	0.00	0.00	0.00
1,240.0	9.03	349.68	1,230.8	125.8	-22.9	-2.9	0.00	0.00	0.00
1,280.0	9.03	349.68	1,270.3	132.0	-24.0	-3.1	0.00	0.00	0.00
1,320.0	9.03	349.68	1,309.8	138.2	-25.2	-3.2	0.00	0.00	0.00
1,360.0	9.03	349.68	1,349.4	144.3	-26.3	-3.4	0.00	0.00	0.00
1,400.0	9.03	349.68	1,388.9	150.5	-27.4	-3.5	0.00	0.00	0.00
1,440.0	9.03	349.68	1,428.4	156.7	-28.5	-3.7	0.00	0.00	0.00
1,480.0	9.03	349.68	1,467.9	162.9	-29.7	-3.8	0.00	0.00	0.00
1,520.0	9.03	349.68	1,507.4	169.0	-30.8	-3.9	0.00	0.00	0.00
1,560.0	9.03	349.68	1,546.9	175.2	-31.9	-4.1	0.00	0.00	0.00
1,600.0	9.03	349.68	1,586.4	181.4	-33.0	-4.2	0.00	0.00	0.00
1,640.0	9.03	349.68	1,625.9	187.6	-34.2	-4.4	0.00	0.00	0.00
1,680.0	9.03	349.68	1,665.4	193.8	-35.3	-4.5	0.00	0.00	0.00
1,720.0	9.03	349.68	1,704.9	199.9	-36.4	-4.7	0.00	0.00	0.00
1,760.0	9.03	349.68	1,744.4	206.1	-37.5	-4.8	0.00	0.00	0.00
1,800.0	9.03	349.68	1,783.9	212.3	-38.6	-5.0	0.00	0.00	0.00
1,840.0	9.03	349.68	1,823.4	218.5	-39.8	-5.1	0.00	0.00	0.00
1,880.0	9.03	349.68	1,862.9	224.6	-40.9	-5.2	0.00	0.00	0.00
1,920.0	9.03	349.68	1,902.4	230.8	-42.0	-5.4	0.00	0.00	0.00
1,960.0	9.03	349.68	1,941.9	237.0	-43.1	-5.5	0.00	0.00	0.00
2,000.0	9.03	349.68	1,981.4	243.2	-44.3	-5.7	0.00	0.00	0.00

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Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,040.0	9.03	349.68	2,020.9	249.4	-45.4	-5.8	0.00	0.00	0.00
2,080.0	9.03	349.68	2,060.4	255.5	-46.5	-6.0	0.00	0.00	0.00
2,120.0	9.03	349.68	2,099.9	261.7	-47.6	-6.1	0.00	0.00	0.00
2,160.0	9.03	349.68	2,139.4	267.9	-48.8	-6.2	0.00	0.00	0.00
2,200.0	9.03	349.68	2,178.9	274.1	-49.9	-6.4	0.00	0.00	0.00
2,240.0	9.03	349.68	2,218.4	280.2	-51.0	-6.5	0.00	0.00	0.00
2,280.0	9.03	349.68	2,257.9	286.4	-52.1	-6.7	0.00	0.00	0.00
2,320.0	9.03	349.68	2,297.4	292.6	-53.3	-6.8	0.00	0.00	0.00
2,360.0	9.03	349.68	2,337.0	298.8	-54.4	-7.0	0.00	0.00	0.00
2,400.0	9.03	349.68	2,376.5	304.9	-55.5	-7.1	0.00	0.00	0.00
2,440.0	9.03	349.68	2,416.0	311.1	-56.6	-7.3	0.00	0.00	0.00
2,480.0	9.03	349.68	2,455.5	317.3	-57.8	-7.4	0.00	0.00	0.00
2,520.0	9.03	349.68	2,495.0	323.5	-58.9	-7.5	0.00	0.00	0.00
2,560.0	9.03	349.68	2,534.5	329.7	-60.0	-7.7	0.00	0.00	0.00
2,600.0	9.03	349.68	2,574.0	335.8	-61.1	-7.8	0.00	0.00	0.00
2,640.0	9.03	349.68	2,613.5	342.0	-62.3	-8.0	0.00	0.00	0.00
2,680.0	9.03	349.68	2,653.0	348.2	-63.4	-8.1	0.00	0.00	0.00
2,720.0	9.03	349.68	2,692.5	354.4	-64.5	-8.3	0.00	0.00	0.00
2,760.0	9.03	349.68	2,732.0	360.5	-65.6	-8.4	0.00	0.00	0.00
2,800.0	9.03	349.68	2,771.5	366.7	-66.8	-8.6	0.00	0.00	0.00
2,840.0	9.03	349.68	2,811.0	372.9	-67.9	-8.7	0.00	0.00	0.00
2,880.0	9.03	349.68	2,850.5	379.1	-69.0	-8.8	0.00	0.00	0.00
2,920.0	9.03	349.68	2,890.0	385.3	-70.1	-9.0	0.00	0.00	0.00
2,960.0	9.03	349.68	2,929.5	391.4	-71.3	-9.1	0.00	0.00	0.00
3,000.0	9.03	349.68	2,969.0	397.6	-72.4	-9.3	0.00	0.00	0.00
3,040.0	9.03	349.68	3,008.5	403.8	-73.5	-9.4	0.00	0.00	0.00
3,080.0	9.03	349.68	3,048.0	410.0	-74.6	-9.6	0.00	0.00	0.00
3,120.0	9.03	349.68	3,087.5	416.1	-75.8	-9.7	0.00	0.00	0.00
3,160.0	9.03	349.68	3,127.0	422.3	-76.9	-9.9	0.00	0.00	0.00
3,200.0	9.03	349.68	3,166.5	428.5	-78.0	-10.0	0.00	0.00	0.00
3,240.0	9.03	349.68	3,206.0	434.7	-79.1	-10.1	0.00	0.00	0.00
3,280.0	9.03	349.68	3,245.5	440.8	-80.3	-10.3	0.00	0.00	0.00
3,320.0	9.03	349.68	3,285.1	447.0	-81.4	-10.4	0.00	0.00	0.00
3,360.0	9.03	349.68	3,324.6	453.2	-82.5	-10.6	0.00	0.00	0.00
3,400.0	9.03	349.68	3,364.1	459.4	-83.6	-10.7	0.00	0.00	0.00
3,440.0	9.03	349.68	3,403.6	465.6	-84.8	-10.9	0.00	0.00	0.00
3,480.0	9.03	349.68	3,443.1	471.7	-85.9	-11.0	0.00	0.00	0.00
3,520.0	9.03	349.68	3,482.6	477.9	-87.0	-11.1	0.00	0.00	0.00
3,560.0	9.03	349.68	3,522.1	484.1	-88.1	-11.3	0.00	0.00	0.00
3,600.0	9.03	349.68	3,561.6	490.3	-89.3	-11.4	0.00	0.00	0.00
3,640.0	9.03	349.68	3,601.1	496.4	-90.4	-11.6	0.00	0.00	0.00
3,680.0	9.03	349.68	3,640.6	502.6	-91.5	-11.7	0.00	0.00	0.00
3,720.0	9.03	349.68	3,680.1	508.8	-92.6	-11.9	0.00	0.00	0.00
3,760.0	9.03	349.68	3,719.6	515.0	-93.8	-12.0	0.00	0.00	0.00
3,800.0	9.03	349.68	3,759.1	521.2	-94.9	-12.2	0.00	0.00	0.00
3,840.0	9.03	349.68	3,798.6	527.3	-96.0	-12.3	0.00	0.00	0.00
3,880.0	9.03	349.68	3,838.1	533.5	-97.1	-12.4	0.00	0.00	0.00
3,920.0	9.03	349.68	3,877.6	539.7	-98.3	-12.6	0.00	0.00	0.00
3,960.0	9.03	349.68	3,917.1	545.9	-99.4	-12.7	0.00	0.00	0.00
4,000.0	9.03	349.68	3,956.6	552.0	-100.5	-12.9	0.00	0.00	0.00
4,040.0	9.03	349.68	3,996.1	558.2	-101.6	-13.0	0.00	0.00	0.00
4,080.0	9.03	349.68	4,035.6	564.4	-102.8	-13.2	0.00	0.00	0.00
4,120.0	9.03	349.68	4,075.1	570.6	-103.9	-13.3	0.00	0.00	0.00

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Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,160.0	9.03	349.68	4,114.6	576.7	-105.0	-13.5	0.00	0.00	0.00
4,200.0	9.03	349.68	4,154.1	582.9	-106.1	-13.6	0.00	0.00	0.00
4,240.0	9.03	349.68	4,193.6	589.1	-107.3	-13.7	0.00	0.00	0.00
4,280.0	9.03	349.68	4,233.2	595.3	-108.4	-13.9	0.00	0.00	0.00
4,320.0	9.03	349.68	4,272.7	601.5	-109.5	-14.0	0.00	0.00	0.00
4,360.0	9.03	349.68	4,312.2	607.6	-110.6	-14.2	0.00	0.00	0.00
4,400.0	9.03	349.68	4,351.7	613.8	-111.7	-14.3	0.00	0.00	0.00
4,440.0	9.03	349.68	4,391.2	620.0	-112.9	-14.5	0.00	0.00	0.00
4,480.0	9.03	349.68	4,430.7	626.2	-114.0	-14.6	0.00	0.00	0.00
4,520.0	9.03	349.68	4,470.2	632.3	-115.1	-14.8	0.00	0.00	0.00
4,560.0	9.03	349.68	4,509.7	638.5	-116.2	-14.9	0.00	0.00	0.00
4,600.0	9.03	349.68	4,549.2	644.7	-117.4	-15.0	0.00	0.00	0.00
4,640.0	9.03	349.68	4,588.7	650.9	-118.5	-15.2	0.00	0.00	0.00
4,680.0	9.03	349.68	4,628.2	657.1	-119.6	-15.3	0.00	0.00	0.00
4,720.0	9.03	349.68	4,667.7	663.2	-120.7	-15.5	0.00	0.00	0.00
4,760.0	9.03	349.68	4,707.2	669.4	-121.9	-15.6	0.00	0.00	0.00
4,800.0	9.03	349.68	4,746.7	675.6	-123.0	-15.8	0.00	0.00	0.00
4,840.0	9.03	349.68	4,786.2	681.8	-124.1	-15.9	0.00	0.00	0.00
4,880.0	9.03	349.68	4,825.7	687.9	-125.2	-16.0	0.00	0.00	0.00
4,920.0	9.03	349.68	4,865.2	694.1	-126.4	-16.2	0.00	0.00	0.00
4,960.0	9.03	349.68	4,904.7	700.3	-127.5	-16.3	0.00	0.00	0.00
5,000.0	9.03	349.68	4,944.2	706.5	-128.6	-16.5	0.00	0.00	0.00
5,040.0	9.03	349.68	4,983.7	712.6	-129.7	-16.6	0.00	0.00	0.00
5,080.0	9.03	349.68	5,023.2	718.8	-130.9	-16.8	0.00	0.00	0.00
5,107.4	9.03	349.68	5,050.3	723.1	-131.6	-16.9	0.00	0.00	0.00
5,120.0	8.78	349.68	5,062.7	725.0	-132.0	-16.9	2.00	-2.00	0.00
5,160.0	7.98	349.68	5,102.3	730.7	-133.0	-17.0	2.00	-2.00	0.00
5,200.0	7.18	349.68	5,142.0	735.9	-134.0	-17.2	2.00	-2.00	0.00
5,240.0	6.38	349.68	5,181.7	740.5	-134.8	-17.3	2.00	-2.00	0.00
5,280.0	5.58	349.68	5,221.5	744.6	-135.6	-17.4	2.00	-2.00	0.00
5,320.0	4.78	349.68	5,261.3	748.2	-136.2	-17.5	2.00	-2.00	0.00
5,360.0	3.98	349.68	5,301.2	751.2	-136.8	-17.5	2.00	-2.00	0.00
5,400.0	3.18	349.68	5,341.1	753.7	-137.2	-17.6	2.00	-2.00	0.00
5,440.0	2.38	349.68	5,381.1	755.6	-137.6	-17.6	2.00	-2.00	0.00
5,480.0	1.58	349.68	5,421.0	756.9	-137.8	-17.7	2.00	-2.00	0.00
5,520.0	0.78	349.68	5,461.0	757.7	-138.0	-17.7	2.00	-2.00	0.00
5,559.0	0.00	0.00	5,500.0	758.0	-138.0	-17.7	2.00	-2.00	0.00
5,560.0	0.00	0.00	5,501.0	758.0	-138.0	-17.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,541.0	758.0	-138.0	-17.7	0.00	0.00	0.00
5,640.0	0.00	0.00	5,581.0	758.0	-138.0	-17.7	0.00	0.00	0.00
5,680.0	0.00	0.00	5,621.0	758.0	-138.0	-17.7	0.00	0.00	0.00
5,720.0	0.00	0.00	5,661.0	758.0	-138.0	-17.7	0.00	0.00	0.00
5,760.0	0.00	0.00	5,701.0	758.0	-138.0	-17.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,741.0	758.0	-138.0	-17.7	0.00	0.00	0.00
5,840.0	0.00	0.00	5,781.0	758.0	-138.0	-17.7	0.00	0.00	0.00
5,880.0	0.00	0.00	5,821.0	758.0	-138.0	-17.7	0.00	0.00	0.00
5,920.0	0.00	0.00	5,861.0	758.0	-138.0	-17.7	0.00	0.00	0.00
5,960.0	0.00	0.00	5,901.0	758.0	-138.0	-17.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,941.0	758.0	-138.0	-17.7	0.00	0.00	0.00
6,037.1	0.00	0.00	5,978.1	758.0	-138.0	-17.7	0.00	0.00	0.00
KOP #2									
6,040.0	0.22	90.30	5,981.0	758.0	-138.0	-17.7	7.57	7.57	0.00
6,080.0	3.22	90.30	6,021.0	758.0	-136.8	-16.5	7.50	7.50	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Maxey 24P-232
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,120.0	6.22	90.30	6,060.9	758.0	-133.5	-13.2	7.50	7.50	0.00
6,160.0	9.22	90.30	6,100.5	757.9	-128.1	-7.9	7.50	7.50	0.00
6,200.0	12.22	90.30	6,139.8	757.9	-120.7	-0.6	7.50	7.50	0.00
6,240.0	15.22	90.30	6,178.7	757.9	-111.2	8.8	7.50	7.50	0.00
6,280.0	18.22	90.30	6,217.0	757.8	-99.7	20.1	7.50	7.50	0.00
6,320.0	21.22	90.30	6,254.6	757.7	-86.2	33.4	7.50	7.50	0.00
6,360.0	24.22	90.30	6,291.5	757.6	-70.8	48.7	7.50	7.50	0.00
6,400.0	27.22	90.30	6,327.5	757.5	-53.4	65.8	7.50	7.50	0.00
6,440.0	30.22	90.30	6,362.6	757.4	-34.2	84.8	7.50	7.50	0.00
6,480.0	33.22	90.30	6,396.6	757.3	-13.2	105.5	7.50	7.50	0.00
6,520.0	36.22	90.30	6,429.5	757.2	9.6	128.0	7.50	7.50	0.00
6,560.0	39.22	90.30	6,461.1	757.1	34.1	152.1	7.50	7.50	0.00
6,600.0	42.22	90.30	6,491.5	756.9	60.2	177.9	7.50	7.50	0.00
6,640.0	45.22	90.30	6,520.4	756.8	87.8	205.2	7.50	7.50	0.00
6,680.0	48.22	90.30	6,547.8	756.6	116.9	233.9	7.50	7.50	0.00
6,720.0	51.22	90.30	6,573.6	756.5	147.5	264.0	7.50	7.50	0.00
6,760.0	54.22	90.30	6,597.9	756.3	179.3	295.4	7.50	7.50	0.00
6,800.0	57.22	90.30	6,620.4	756.1	212.3	328.0	7.50	7.50	0.00
6,840.0	60.22	90.30	6,641.2	756.0	246.5	361.8	7.50	7.50	0.00
6,880.0	63.22	90.30	6,660.1	755.8	281.7	396.5	7.50	7.50	0.00
6,920.0	66.22	90.30	6,677.2	755.6	317.9	432.2	7.50	7.50	0.00
6,960.0	69.22	90.30	6,692.3	755.4	354.9	468.7	7.50	7.50	0.00
7,000.0	72.22	90.30	6,705.6	755.2	392.6	506.0	7.50	7.50	0.00
7,040.0	75.22	90.30	6,716.8	755.0	431.0	543.9	7.50	7.50	0.00
7,080.0	78.22	90.30	6,726.0	754.8	470.0	582.3	7.50	7.50	0.00
7,120.0	81.22	90.30	6,733.1	754.6	509.3	621.1	7.50	7.50	0.00
7,160.0	84.22	90.30	6,738.2	754.4	549.0	660.3	7.50	7.50	0.00
7,200.0	87.22	90.30	6,741.1	754.1	588.9	699.6	7.50	7.50	0.00
7,240.0	90.22	90.30	6,742.0	753.9	628.9	739.1	7.50	7.50	0.00
7,240.1	90.23	90.30	6,742.0	753.9	629.0	739.2	7.50	7.50	0.00
End of Build - 7"									
7,280.0	90.23	90.30	6,741.9	753.7	668.9	778.6	0.01	0.01	0.00
7,320.0	90.23	90.30	6,741.7	753.5	708.9	818.0	0.00	0.00	0.00
7,360.0	90.23	90.30	6,741.6	753.3	748.9	857.5	0.00	0.00	0.00
7,400.0	90.23	90.30	6,741.4	753.1	788.9	897.0	0.00	0.00	0.00
7,440.0	90.23	90.30	6,741.2	752.9	828.9	936.5	0.00	0.00	0.00
7,480.0	90.23	90.30	6,741.1	752.7	868.9	975.9	0.00	0.00	0.00
7,520.0	90.23	90.30	6,740.9	752.4	908.9	1,015.4	0.00	0.00	0.00
7,560.0	90.23	90.30	6,740.8	752.2	948.9	1,054.9	0.00	0.00	0.00
7,600.0	90.23	90.30	6,740.6	752.0	988.9	1,094.3	0.00	0.00	0.00
7,640.0	90.23	90.30	6,740.4	751.8	1,028.8	1,133.8	0.00	0.00	0.00
7,680.0	90.23	90.30	6,740.3	751.6	1,068.8	1,173.3	0.00	0.00	0.00
7,720.0	90.23	90.30	6,740.1	751.4	1,108.8	1,212.8	0.00	0.00	0.00
7,760.0	90.23	90.30	6,740.0	751.2	1,148.8	1,252.2	0.00	0.00	0.00
7,800.0	90.23	90.30	6,739.8	751.0	1,188.8	1,291.7	0.00	0.00	0.00
7,840.0	90.23	90.30	6,739.6	750.7	1,228.8	1,331.2	0.00	0.00	0.00
7,880.0	90.23	90.30	6,739.5	750.5	1,268.8	1,370.7	0.00	0.00	0.00
7,920.0	90.23	90.30	6,739.3	750.3	1,308.8	1,410.1	0.00	0.00	0.00
7,960.0	90.23	90.30	6,739.2	750.1	1,348.8	1,449.6	0.00	0.00	0.00
8,000.0	90.23	90.30	6,739.0	749.9	1,388.8	1,489.1	0.00	0.00	0.00
8,040.0	90.23	90.30	6,738.8	749.7	1,428.8	1,528.6	0.00	0.00	0.00
8,080.0	90.23	90.30	6,738.7	749.5	1,468.8	1,568.0	0.00	0.00	0.00
8,120.0	90.23	90.30	6,738.5	749.3	1,508.8	1,607.5	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Maxey 24P-232
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,160.0	90.23	90.30	6,738.3	749.1	1,548.8	1,647.0	0.00	0.00	0.00
8,200.0	90.23	90.30	6,738.2	748.8	1,588.8	1,686.4	0.00	0.00	0.00
8,240.0	90.23	90.30	6,738.0	748.6	1,628.8	1,725.9	0.00	0.00	0.00
8,280.0	90.23	90.30	6,737.9	748.4	1,668.8	1,765.4	0.00	0.00	0.00
8,320.0	90.23	90.30	6,737.7	748.2	1,708.8	1,804.9	0.00	0.00	0.00
8,360.0	90.23	90.30	6,737.5	748.0	1,748.8	1,844.3	0.00	0.00	0.00
8,400.0	90.23	90.30	6,737.4	747.8	1,788.8	1,883.8	0.00	0.00	0.00
8,440.0	90.23	90.30	6,737.2	747.6	1,828.8	1,923.3	0.00	0.00	0.00
8,480.0	90.23	90.30	6,737.1	747.4	1,868.8	1,962.8	0.00	0.00	0.00
8,520.0	90.23	90.30	6,736.9	747.1	1,908.8	2,002.2	0.00	0.00	0.00
8,560.0	90.23	90.30	6,736.7	746.9	1,948.8	2,041.7	0.00	0.00	0.00
8,600.0	90.23	90.30	6,736.6	746.7	1,988.8	2,081.2	0.00	0.00	0.00
8,640.0	90.23	90.30	6,736.4	746.5	2,028.8	2,120.7	0.00	0.00	0.00
8,680.0	90.23	90.30	6,736.3	746.3	2,068.8	2,160.1	0.00	0.00	0.00
8,720.0	90.23	90.30	6,736.1	746.1	2,108.8	2,199.6	0.00	0.00	0.00
8,760.0	90.23	90.30	6,735.9	745.9	2,148.8	2,239.1	0.00	0.00	0.00
8,800.0	90.23	90.30	6,735.8	745.7	2,188.8	2,278.5	0.00	0.00	0.00
8,840.0	90.23	90.30	6,735.6	745.4	2,228.8	2,318.0	0.00	0.00	0.00
8,880.0	90.23	90.30	6,735.5	745.2	2,268.8	2,357.5	0.00	0.00	0.00
8,920.0	90.23	90.30	6,735.3	745.0	2,308.8	2,397.0	0.00	0.00	0.00
8,960.0	90.23	90.30	6,735.1	744.8	2,348.8	2,436.4	0.00	0.00	0.00
9,000.0	90.23	90.30	6,735.0	744.6	2,388.8	2,475.9	0.00	0.00	0.00
9,040.0	90.23	90.30	6,734.8	744.4	2,428.8	2,515.4	0.00	0.00	0.00
9,080.0	90.23	90.30	6,734.7	744.2	2,468.8	2,554.9	0.00	0.00	0.00
9,120.0	90.23	90.30	6,734.5	744.0	2,508.8	2,594.3	0.00	0.00	0.00
9,160.0	90.23	90.30	6,734.3	743.7	2,548.8	2,633.8	0.00	0.00	0.00
9,200.0	90.23	90.30	6,734.2	743.5	2,588.8	2,673.3	0.00	0.00	0.00
9,240.0	90.23	90.30	6,734.0	743.3	2,628.8	2,712.7	0.00	0.00	0.00
9,280.0	90.23	90.30	6,733.9	743.1	2,668.8	2,752.2	0.00	0.00	0.00
9,320.0	90.23	90.30	6,733.7	742.9	2,708.8	2,791.7	0.00	0.00	0.00
9,360.0	90.23	90.30	6,733.5	742.7	2,748.8	2,831.2	0.00	0.00	0.00
9,400.0	90.23	90.30	6,733.4	742.5	2,788.8	2,870.6	0.00	0.00	0.00
9,440.0	90.23	90.30	6,733.2	742.3	2,828.8	2,910.1	0.00	0.00	0.00
9,480.0	90.23	90.30	6,733.0	742.1	2,868.8	2,949.6	0.00	0.00	0.00
9,520.0	90.23	90.30	6,732.9	741.8	2,908.8	2,989.1	0.00	0.00	0.00
9,560.0	90.23	90.30	6,732.7	741.6	2,948.8	3,028.5	0.00	0.00	0.00
9,600.0	90.23	90.30	6,732.6	741.4	2,988.8	3,068.0	0.00	0.00	0.00
9,640.0	90.23	90.30	6,732.4	741.2	3,028.8	3,107.5	0.00	0.00	0.00
9,680.0	90.23	90.30	6,732.2	741.0	3,068.8	3,147.0	0.00	0.00	0.00
9,720.0	90.23	90.30	6,732.1	740.8	3,108.8	3,186.4	0.00	0.00	0.00
9,760.0	90.23	90.30	6,731.9	740.6	3,148.8	3,225.9	0.00	0.00	0.00
9,800.0	90.23	90.30	6,731.8	740.4	3,188.8	3,265.4	0.00	0.00	0.00
9,840.0	90.23	90.30	6,731.6	740.1	3,228.8	3,304.8	0.00	0.00	0.00
9,880.0	90.23	90.30	6,731.4	739.9	3,268.8	3,344.3	0.00	0.00	0.00
9,920.0	90.23	90.30	6,731.3	739.7	3,308.8	3,383.8	0.00	0.00	0.00
9,960.0	90.23	90.30	6,731.1	739.5	3,348.8	3,423.3	0.00	0.00	0.00
10,000.0	90.23	90.30	6,731.0	739.3	3,388.8	3,462.7	0.00	0.00	0.00
10,040.0	90.23	90.30	6,730.8	739.1	3,428.8	3,502.2	0.00	0.00	0.00
10,080.0	90.23	90.30	6,730.6	738.9	3,468.8	3,541.7	0.00	0.00	0.00
10,120.0	90.23	90.30	6,730.5	738.7	3,508.8	3,581.2	0.00	0.00	0.00
10,160.0	90.23	90.30	6,730.3	738.4	3,548.8	3,620.6	0.00	0.00	0.00
10,200.0	90.23	90.30	6,730.2	738.2	3,588.8	3,660.1	0.00	0.00	0.00
10,240.0	90.23	90.30	6,730.0	738.0	3,628.8	3,699.6	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Maxey 24P-232
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Project:	SEC.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	North Reference:	True
Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-07-13)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,280.0	90.23	90.30	6,729.8	737.8	3,668.8	3,739.0	0.00	0.00	0.00
10,320.0	90.23	90.30	6,729.7	737.6	3,708.8	3,778.5	0.00	0.00	0.00
10,360.0	90.23	90.30	6,729.5	737.4	3,748.8	3,818.0	0.00	0.00	0.00
10,400.0	90.23	90.30	6,729.4	737.2	3,788.8	3,857.5	0.00	0.00	0.00
10,440.0	90.23	90.30	6,729.2	737.0	3,828.8	3,896.9	0.00	0.00	0.00
10,480.0	90.23	90.30	6,729.0	736.7	3,868.8	3,936.4	0.00	0.00	0.00
10,520.0	90.23	90.30	6,728.9	736.5	3,908.8	3,975.9	0.00	0.00	0.00
10,560.0	90.23	90.30	6,728.7	736.3	3,948.8	4,015.4	0.00	0.00	0.00
10,600.0	90.23	90.30	6,728.6	736.1	3,988.8	4,054.8	0.00	0.00	0.00
10,640.0	90.23	90.30	6,728.4	735.9	4,028.8	4,094.3	0.00	0.00	0.00
10,680.0	90.23	90.30	6,728.2	735.7	4,068.8	4,133.8	0.00	0.00	0.00
10,720.0	90.23	90.30	6,728.1	735.5	4,108.8	4,173.3	0.00	0.00	0.00
10,760.0	90.23	90.30	6,727.9	735.3	4,148.8	4,212.7	0.00	0.00	0.00
10,800.0	90.23	90.30	6,727.8	735.1	4,188.8	4,252.2	0.00	0.00	0.00
10,840.0	90.23	90.30	6,727.6	734.8	4,228.8	4,291.7	0.00	0.00	0.00
10,880.0	90.23	90.30	6,727.4	734.6	4,268.8	4,331.1	0.00	0.00	0.00
10,920.0	90.23	90.30	6,727.3	734.4	4,308.8	4,370.6	0.00	0.00	0.00
10,960.0	90.23	90.30	6,727.1	734.2	4,348.8	4,410.1	0.00	0.00	0.00
11,000.0	90.23	90.30	6,726.9	734.0	4,388.8	4,449.6	0.00	0.00	0.00
11,040.0	90.23	90.30	6,726.8	733.8	4,428.8	4,489.0	0.00	0.00	0.00
11,080.0	90.23	90.30	6,726.6	733.6	4,468.8	4,528.5	0.00	0.00	0.00
11,120.0	90.23	90.30	6,726.5	733.4	4,508.8	4,568.0	0.00	0.00	0.00
11,160.0	90.23	90.30	6,726.3	733.1	4,548.8	4,607.5	0.00	0.00	0.00
11,200.0	90.23	90.30	6,726.1	732.9	4,588.8	4,646.9	0.00	0.00	0.00
11,236.0	90.23	90.30	6,726.0	732.7	4,624.8	4,682.5	0.00	0.00	0.00

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,240.1	6,742.0	7"	7	7-1/2

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		
		+N/-S (ft)	+E/-W (ft)	Comment
200.0	200.0	0.0	0.0	KOP #1
6,037.1	5,978.1	758.0	-138.0	KOP #2
7,240.1	6,742.0	753.9	629.0	End of Build



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.24-T5N-R65W

Maxey 24Q-HZ Pad Sec.24-T5N-R65W

Maxey 24P-232

Wellbore #1

Plan #1 (3-07-13)

Anticollision Report

18 March, 2013



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (3-07-13)
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.0ft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 1,000.0ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic

Survey Tool Program		Date	3/18/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,236.0	Plan #1 (3-07-13) (Wellbore #1)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Maxey 24O-HZ Pad Sec.24-T5N-R65W						
Maxey 24P-402 - Wellbore #1 - Plan #1 (3-5-13)	6,117.6	6,137.7	331.4	302.1	11.317	CC
Maxey 24P-402 - Wellbore #1 - Plan #1 (3-5-13)	11,236.0	11,408.1	379.2	148.0	1.641	ES, SF
Maxey 24Q-HZ Pad Sec.24-T5N-R65W						
Maxey 24D (Exist.) - Wellbore #1 - Wellbore #1	7,696.4	6,740.2	235.8	194.0	5.633	CC
Maxey 24D (Exist.) - Wellbore #1 - Wellbore #1	7,700.0	6,740.2	235.9	193.9	5.622	ES, SF
Maxey 24P-332 - Wellbore #1 - Plan #1 (03-07-13)	200.0	200.0	30.6	30.0	45.451	CC
Maxey 24P-332 - Wellbore #1 - Plan #1 (03-07-13)	300.0	300.0	31.0	29.9	27.592	ES
Maxey 24P-332 - Wellbore #1 - Plan #1 (03-07-13)	11,236.0	11,282.3	363.3	104.1	1.401	Level 3, SF
Maxey 24Q-112 - Wellbore #1 - Plan #1 (3-07-13)	200.0	200.0	61.3	60.6	90.901	CC
Maxey 24Q-112 - Wellbore #1 - Plan #1 (3-07-13)	300.0	300.0	61.6	60.5	54.848	ES
Maxey 24Q-112 - Wellbore #1 - Plan #1 (3-07-13)	11,236.0	11,062.8	700.0	444.0	2.735	SF
Maxey 24Q-302 - Wellbore #1 - Plan #1 (3-07-13)	200.0	200.0	91.9	91.3	136.352	CC
Maxey 24Q-302 - Wellbore #1 - Plan #1 (3-07-13)	300.0	300.0	92.3	91.1	82.117	ES
Maxey 24Q-302 - Wellbore #1 - Plan #1 (3-07-13)	1,400.0	1,388.9	192.1	185.7	29.910	SF

Offset Design Maxey 24O-HZ Pad Sec.24-T5N-R65W - Maxey 24P-402 - Wellbore #1 - Plan #1 (3-5-13)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
3,500.0	3,462.8	3,681.0	3,634.4	11.8	13.4	10.23	1,455.9	-94.9	995.7	978.4	17.25	57.710	
3,600.0	3,561.6	3,775.8	3,727.7	12.1	13.8	10.28	1,439.8	-96.5	963.6	945.9	17.74	54.315	
3,700.0	3,660.3	3,870.5	3,821.1	12.5	14.1	10.34	1,423.6	-98.1	931.6	913.3	18.23	51.101	
3,800.0	3,759.1	3,965.2	3,914.4	12.9	14.5	10.41	1,407.5	-99.8	899.5	880.8	18.72	48.055	
3,900.0	3,857.9	4,059.9	4,007.7	13.2	14.9	10.48	1,391.3	-101.4	867.4	848.2	19.21	45.163	
4,000.0	3,956.6	4,154.6	4,101.0	13.6	15.3	10.55	1,375.2	-103.0	835.4	815.7	19.70	42.414	
4,100.0	4,055.4	4,249.3	4,194.3	13.9	15.6	10.64	1,359.0	-104.7	803.3	783.1	20.19	39.797	
4,200.0	4,154.1	4,344.1	4,287.6	14.3	16.0	10.72	1,342.9	-106.3	771.3	750.6	20.67	37.304	
4,300.0	4,252.9	4,438.8	4,381.0	14.7	16.4	10.82	1,326.7	-108.0	739.2	718.0	21.16	34.926	
4,400.0	4,351.7	4,533.5	4,474.3	15.0	16.8	10.92	1,310.6	-109.6	707.2	685.5	21.66	32.655	
4,500.0	4,450.4	4,628.2	4,567.6	15.4	17.2	11.04	1,294.5	-111.2	675.1	653.0	22.15	30.484	
4,600.0	4,549.2	4,722.9	4,660.9	15.8	17.5	11.16	1,278.3	-112.9	643.1	620.4	22.64	28.407	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24O-HZ Pad Sec.24-T5N-R65W - Maxey 24P-402 - Wellbore #1 - Plan #1 (3-5-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,700.0	4,647.9	4,817.6	4,754.2	16.1	17.9	11.30	1,262.2	-114.5	611.0	587.9	23.13	26.417		
4,800.0	4,746.7	4,912.4	4,847.5	16.5	18.3	11.46	1,246.0	-116.1	579.0	555.4	23.62	24.510		
4,900.0	4,845.5	5,007.1	4,940.8	16.9	18.7	11.63	1,229.9	-117.8	546.9	522.8	24.12	22.680		
5,000.0	4,944.2	5,101.8	5,034.2	17.2	19.1	11.82	1,213.7	-119.4	514.9	490.3	24.61	20.922		
5,100.0	5,043.0	5,196.5	5,127.5	17.6	19.4	12.04	1,197.6	-121.0	482.9	457.8	25.11	19.234		
5,200.0	5,142.0	5,291.7	5,221.2	17.9	19.8	12.12	1,181.4	-122.7	452.3	426.6	25.67	17.617		
5,300.0	5,241.4	5,387.8	5,316.0	18.2	20.2	12.14	1,165.0	-124.3	424.9	398.7	26.18	16.227		
5,400.0	5,341.1	5,484.9	5,411.6	18.3	20.6	12.07	1,148.4	-126.0	400.8	374.1	26.66	15.032		
5,500.0	5,441.0	5,582.7	5,508.0	18.5	21.0	11.92	1,131.7	-127.7	380.1	353.0	27.11	14.020		
5,600.0	5,541.0	5,670.2	5,594.4	18.6	21.2	1.42	1,118.1	-129.1	363.9	324.3	27.60	12.988		
5,700.0	5,641.0	5,758.4	5,681.9	18.8	21.4	1.28	1,107.0	-130.2	351.3	311.3	28.94	11.794		
5,800.0	5,741.0	5,847.3	5,770.3	18.9	21.6	1.17	1,098.6	-131.1	341.7	301.5	29.26	10.847		
5,900.0	5,841.0	5,936.6	5,859.4	19.1	21.7	1.09	1,092.8	-131.7	335.3	294.7	29.56	10.067		
6,000.0	5,941.0	6,026.1	5,948.9	19.2	21.9	1.04	1,089.8	-132.0	332.0	291.1	29.83	9.310		
6,100.0	6,041.0	6,120.1	6,043.0	19.3	22.0	-89.72	1,089.4	-132.0	331.4	302.2	29.23	11.337		
6,117.6	6,058.5	6,137.7	6,060.5	19.4	22.0	-90.00	1,089.4	-132.0	331.4	302.1	29.28	11.317	CC	
6,200.0	6,139.8	6,219.1	6,141.9	19.5	22.1	-92.21	1,089.4	-132.0	331.7	302.1	29.54	11.227		
6,300.0	6,235.9	6,320.0	6,242.5	19.5	22.2	-95.67	1,089.4	-124.8	333.1	303.2	29.93	11.130		
6,400.0	6,327.5	6,423.9	6,344.1	19.6	22.3	-99.06	1,089.2	-103.5	335.8	305.4	30.34	11.066		
6,500.0	6,413.2	6,530.9	6,444.8	19.7	22.4	-102.28	1,089.0	-67.5	339.5	308.7	30.75	11.039		
6,600.0	6,491.5	6,641.1	6,542.2	19.8	22.5	-105.27	1,088.8	-16.1	343.9	312.8	31.17	11.035		
6,700.0	6,560.9	6,754.6	6,633.6	19.9	22.6	-107.97	1,088.4	51.0	348.9	317.2	31.69	11.008		
6,800.0	6,620.4	6,817.3	6,716.2	20.2	22.9	-110.31	1,088.0	133.2	353.8	321.3	32.50	10.887		
6,900.0	6,668.9	6,909.9	6,786.9	20.6	23.2	-112.26	1,087.5	229.5	358.4	324.6	33.82	10.600		
7,000.0	6,705.6	7,113.1	6,842.7	21.4	23.8	-113.76	1,086.9	338.1	362.3	326.5	35.86	10.104		
7,100.0	6,729.8	7,237.3	6,881.0	22.7	24.7	-114.79	1,086.3	456.0	365.2	326.4	38.74	9.427		
7,200.0	6,741.1	7,357.0	6,899.6	24.3	26.1	-115.36	1,085.7	574.2	366.9	324.6	42.29	8.676		
7,300.0	6,741.8	7,464.6	6,909.5	26.2	27.8	-116.56	1,085.1	681.3	370.7	324.9	45.79	8.095		
7,400.0	6,741.4	7,573.9	6,911.3	28.3	29.8	-116.87	1,084.5	790.6	371.6	321.8	49.80	7.462		
7,500.0	6,741.0	7,673.9	6,911.3	30.5	31.9	-116.93	1,084.0	890.6	371.7	317.9	53.89	6.898		
7,600.0	6,740.6	7,773.9	6,911.4	32.8	34.0	-116.98	1,083.5	990.6	371.9	313.8	58.13	6.398		
7,700.0	6,740.2	7,873.9	6,911.4	35.2	36.3	-117.04	1,082.9	1,090.6	372.1	309.7	62.48	5.956		
7,800.0	6,739.8	7,973.9	6,911.4	37.6	38.7	-117.10	1,082.4	1,190.6	372.3	305.4	66.92	5.564		
7,900.0	6,739.4	8,073.9	6,911.4	40.1	41.1	-117.16	1,081.9	1,290.6	372.5	301.1	71.43	5.215		
8,000.0	6,739.0	8,173.9	6,911.4	42.7	43.6	-117.21	1,081.3	1,390.6	372.7	296.7	76.00	4.904		
8,100.0	6,738.6	8,273.9	6,911.5	45.2	46.1	-117.27	1,080.8	1,490.6	372.9	292.3	80.62	4.625		
8,200.0	6,738.2	8,373.9	6,911.5	47.8	48.6	-117.33	1,080.3	1,590.6	373.1	287.8	85.28	4.375		
8,300.0	6,737.8	8,473.9	6,911.5	50.4	51.2	-117.38	1,079.8	1,690.6	373.3	283.3	89.97	4.149		
8,400.0	6,737.4	8,573.9	6,911.5	53.1	53.8	-117.44	1,079.2	1,790.6	373.5	278.8	94.68	3.945		
8,500.0	6,737.0	8,673.9	6,911.5	55.7	56.4	-117.50	1,078.7	1,890.6	373.7	274.3	99.42	3.759		
8,600.0	6,736.6	8,773.9	6,911.5	58.4	59.1	-117.56	1,078.2	1,990.5	373.9	269.7	104.17	3.589		
8,700.0	6,736.2	8,873.9	6,911.6	61.1	61.8	-117.61	1,077.7	2,090.5	374.1	265.1	108.94	3.434		
8,800.0	6,735.8	8,973.9	6,911.6	63.8	64.4	-117.67	1,077.1	2,190.5	374.3	260.5	113.73	3.291		
8,900.0	6,735.4	9,073.9	6,911.6	66.5	67.1	-117.73	1,076.6	2,290.5	374.5	255.9	118.52	3.160		
9,000.0	6,735.0	9,173.9	6,911.6	69.2	69.8	-117.78	1,076.1	2,390.5	374.7	251.3	123.32	3.038		
9,100.0	6,734.6	9,273.9	6,911.6	71.9	72.5	-117.84	1,075.5	2,490.5	374.9	246.7	128.13	2.926		
9,200.0	6,734.2	9,373.9	6,911.6	74.6	75.2	-117.89	1,075.0	2,590.5	375.1	242.1	132.95	2.821		
9,300.0	6,733.8	9,473.9	6,911.7	77.3	77.9	-117.95	1,074.5	2,690.5	375.3	237.5	137.77	2.724		
9,400.0	6,733.4	9,573.9	6,911.7	80.1	80.7	-118.01	1,074.0	2,790.5	375.5	232.9	142.59	2.633		
9,500.0	6,733.0	9,673.8	6,911.7	82.8	83.4	-118.06	1,073.4	2,890.5	375.7	228.2	147.42	2.548		
9,600.0	6,732.6	9,773.8	6,911.7	85.6	86.1	-118.12	1,072.9	2,990.5	375.9	223.6	152.25	2.469		

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

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Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24O-HZ Pad Sec.24-T5N-R65W - Maxey 24P-402 - Wellbore #1 - Plan #1 (3-5-13)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)					
9,700.0	6,732.2	9,873.8	6,911.7	88.3	88.9	-118.18	1,072.4	3,090.5	376.1	219.0	157.08	2.394	
9,800.0	6,731.8	9,973.8	6,911.7	91.1	91.6	-118.23	1,071.8	3,190.5	376.3	214.3	161.91	2.324	
9,900.0	6,731.4	10,073.8	6,911.8	93.8	94.3	-118.29	1,071.3	3,290.5	376.5	209.7	166.74	2.258	
10,000.0	6,731.0	10,173.8	6,911.8	96.6	97.1	-118.34	1,070.8	3,390.5	376.7	205.1	171.57	2.195	
10,100.0	6,730.6	10,273.8	6,911.8	99.3	99.9	-118.40	1,070.3	3,490.5	376.9	200.5	176.40	2.136	
10,200.0	6,730.2	10,373.8	6,911.8	102.1	102.6	-118.46	1,069.7	3,590.5	377.1	195.8	181.23	2.081	
10,300.0	6,729.8	10,473.8	6,911.8	104.9	105.4	-118.51	1,069.2	3,690.5	377.3	191.2	186.06	2.028	
10,400.0	6,729.4	10,573.8	6,911.9	107.6	108.1	-118.57	1,068.7	3,790.5	377.5	186.6	190.89	1.977	
10,500.0	6,729.0	10,673.8	6,911.9	110.4	110.9	-118.62	1,068.1	3,890.5	377.7	181.9	195.72	1.930	
10,600.0	6,728.6	10,773.8	6,911.9	113.2	113.7	-118.68	1,067.6	3,990.5	377.9	177.3	200.54	1.884	
10,700.0	6,728.2	10,873.8	6,911.9	115.9	116.4	-118.73	1,067.1	4,090.5	378.1	172.7	205.36	1.841	
10,800.0	6,727.8	10,973.8	6,911.9	118.7	119.2	-118.79	1,066.6	4,190.5	378.3	168.1	210.18	1.800	
10,900.0	6,727.3	11,073.8	6,911.9	121.5	122.0	-118.84	1,066.0	4,290.5	378.5	163.5	215.00	1.760	
11,000.0	6,726.9	11,173.8	6,912.0	124.3	124.8	-118.90	1,065.5	4,390.5	378.7	158.9	219.81	1.723	
11,100.0	6,726.5	11,273.8	6,912.0	127.1	127.5	-118.96	1,065.0	4,490.5	378.9	154.3	224.62	1.687	
11,200.0	6,726.1	11,373.8	6,912.0	129.8	130.3	-119.01	1,064.4	4,590.5	379.1	149.7	229.43	1.652	
11,236.0	6,726.0	11,408.1	6,912.0	130.8	131.3	-119.03	1,064.3	4,624.7	379.2	148.0	231.12	1.641 ES, SF	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 7300-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)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
6,700.0	6,560.9	6,560.9	6,560.9	19.9	7.4	-20.94	987.3	1,086.5	982.0	960.1	21.95	44.736		
6,800.0	6,620.4	6,620.4	6,620.4	20.2	7.4	-26.52	987.3	1,086.5	904.3	883.0	21.31	42.437		
6,900.0	6,668.9	6,668.9	6,668.9	20.6	7.5	-35.11	987.3	1,086.5	820.2	798.5	21.74	37.723		
7,000.0	6,705.6	6,705.6	6,705.6	21.4	7.5	-48.11	987.3	1,086.5	731.7	707.7	24.03	30.450		
7,100.0	6,729.8	6,729.8	6,729.8	22.7	7.6	-65.73	987.3	1,086.5	640.7	613.0	27.72	23.115		
7,200.0	6,741.1	6,741.1	6,741.1	24.3	7.6	-84.17	987.3	1,086.5	549.6	518.9	30.68	17.916		
7,300.0	6,741.8	6,741.8	6,741.8	26.2	7.6	-90.39	987.3	1,086.5	461.3	428.7	32.63	14.138		
7,400.0	6,741.4	6,741.4	6,741.4	28.3	7.6	-90.29	987.3	1,086.5	378.8	344.0	34.82	10.878		
7,500.0	6,741.0	6,741.0	6,741.0	30.5	7.6	-90.19	987.3	1,086.5	306.9	269.8	37.13	8.267		
7,600.0	6,740.6	6,740.6	6,740.6	32.8	7.6	-90.09	987.3	1,086.5	254.8	215.3	39.51	6.449		
7,696.4	6,740.2	6,740.2	6,740.2	35.1	7.6	-90.00	987.3	1,086.5	235.8	194.0	41.87	5.633 CC		
7,700.0	6,740.2	6,740.2	6,740.2	35.2	7.6	-90.00	987.3	1,086.5	235.9	193.9	41.96	5.622 ES, SF		
7,800.0	6,739.8	6,739.8	6,739.8	37.6	7.6	-89.90	987.3	1,086.5	257.6	213.1	44.46	5.794		
7,900.0	6,739.4	6,739.4	6,739.4	40.1	7.6	-89.80	987.3	1,086.5	311.5	264.5	47.00	6.629		
8,000.0	6,739.0	6,739.0	6,739.0	42.7	7.6	-89.70	987.3	1,086.5	384.4	334.8	49.57	7.754		
8,100.0	6,738.6	6,738.6	6,738.6	45.2	7.6	-89.61	987.3	1,086.5	467.4	415.2	52.18	8.958		
8,200.0	6,738.2	6,738.2	6,738.2	47.8	7.6	-89.51	987.3	1,086.5	556.0	501.2	54.81	10.146		
8,300.0	6,737.8	6,737.8	6,737.8	50.4	7.6	-89.41	987.3	1,086.5	648.0	590.5	57.45	11.279		
8,400.0	6,737.4	6,737.4	6,737.4	53.1	7.6	-89.31	987.3	1,086.5	742.0	681.9	60.12	12.343		
8,500.0	6,737.0	6,737.0	6,737.0	55.7	7.6	-89.22	987.3	1,086.5	837.4	774.6	62.80	13.336		
8,600.0	6,736.6	6,736.6	6,736.6	58.4	7.6	-89.12	987.3	1,086.5	933.8	868.3	65.49	14.260		

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24P-332 - Wellbore #1 - Plan #1 (03-07-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	89.95	89.95	0.0	30.6	30.6				
100.0	100.0	100.0	100.0	0.1	0.1	89.95	89.95	0.0	30.6	30.6	30.4	0.22	136.352	
200.0	200.0	200.0	200.0	0.3	0.3	89.95	89.95	0.0	30.6	30.6	30.0	0.67	45.451 CC	
300.0	300.0	300.0	300.0	0.6	0.6	103.43	103.43	0.0	30.6	31.0	29.9	1.12	27.592 ES	
400.0	399.8	399.8	399.8	0.8	0.8	112.37	112.37	0.0	30.6	32.6	31.0	1.58	20.643	
500.0	499.5	499.5	499.5	1.0	1.0	124.90	124.90	0.0	30.6	36.8	34.8	2.05	17.953	
600.0	598.7	598.7	598.7	1.3	1.2	137.59	137.59	0.0	30.6	45.0	42.4	2.53	17.753	
700.0	697.5	697.5	697.5	1.6	1.5	147.85	147.85	0.0	30.6	57.2	54.2	3.01	19.022	
800.0	796.3	796.3	796.3	2.0	1.7	154.59	154.59	0.0	30.6	71.0	67.5	3.47	20.469	
900.0	895.1	895.1	895.1	2.3	1.9	159.10	159.10	0.0	30.6	85.5	81.5	3.93	21.755	
1,000.0	993.8	993.8	993.8	2.7	2.1	162.30	162.30	0.0	30.6	100.3	95.9	4.39	22.854	
1,100.0	1,092.6	1,096.4	1,096.4	3.0	2.4	164.70	164.70	1.5	30.0	113.8	109.0	4.85	23.453	
1,200.0	1,191.3	1,200.1	1,200.0	3.4	2.6	166.55	166.55	6.5	28.0	123.9	118.6	5.32	23.296	
1,300.0	1,290.1	1,303.9	1,303.4	3.8	2.8	168.11	168.11	14.9	24.6	130.5	124.7	5.79	22.543	
1,400.0	1,388.9	1,403.7	1,402.6	4.1	3.1	169.47	169.47	24.3	20.8	135.8	129.5	6.26	21.694	
1,500.0	1,487.6	1,503.5	1,501.9	4.5	3.3	170.73	170.73	33.7	16.9	141.1	134.4	6.73	20.969	
1,600.0	1,586.4	1,603.3	1,601.2	4.8	3.6	171.90	171.90	43.1	13.1	146.6	139.4	7.20	20.343	
1,700.0	1,685.1	1,703.2	1,700.5	5.2	3.8	172.98	172.98	52.5	9.3	152.0	144.4	7.68	19.797	
1,800.0	1,783.9	1,803.0	1,799.8	5.6	4.1	173.99	173.99	61.9	5.5	157.6	149.4	8.16	19.317	
1,900.0	1,882.7	1,902.8	1,899.1	5.9	4.4	174.93	174.93	71.3	1.7	163.1	154.5	8.63	18.892	
2,000.0	1,981.4	2,002.6	1,998.4	6.3	4.6	175.81	175.81	80.7	-2.2	168.7	159.6	9.11	18.513	
2,100.0	2,080.2	2,102.4	2,097.7	6.7	4.9	176.63	176.63	90.0	-6.0	174.4	164.8	9.60	18.173	
2,200.0	2,178.9	2,202.2	2,197.0	7.0	5.2	177.40	177.40	99.4	-9.8	180.1	170.0	10.08	17.865	
2,300.0	2,277.7	2,302.0	2,296.3	7.4	5.5	178.12	178.12	108.8	-13.6	185.8	175.2	10.56	17.586	
2,400.0	2,376.5	2,401.8	2,395.6	7.7	5.7	178.80	178.80	118.2	-17.5	191.5	180.5	11.05	17.332	
2,500.0	2,475.2	2,501.6	2,494.9	8.1	6.0	179.44	179.44	127.6	-21.3	197.3	185.8	11.54	17.100	
2,600.0	2,574.0	2,601.5	2,594.2	8.5	6.3	-179.95	-179.95	137.0	-25.1	203.1	191.1	12.03	16.886	
2,700.0	2,672.7	2,701.3	2,693.5	8.8	6.6	-179.38	-179.38	146.4	-28.9	208.9	196.4	12.52	16.689	
2,800.0	2,771.5	2,801.1	2,792.8	9.2	6.9	-178.85	-178.85	155.8	-32.8	214.7	201.7	13.01	16.507	
2,900.0	2,870.3	2,900.9	2,892.1	9.6	7.1	-178.34	-178.34	165.2	-36.6	220.6	207.1	13.50	16.338	
3,000.0	2,969.0	3,000.7	2,991.3	9.9	7.4	-177.85	-177.85	174.6	-40.4	226.4	212.4	13.99	16.180	
3,100.0	3,067.8	3,100.5	3,090.6	10.3	7.7	-177.39	-177.39	184.0	-44.2	232.3	217.8	14.49	16.033	
3,200.0	3,166.5	3,200.3	3,189.9	10.7	8.0	-176.95	-176.95	193.3	-48.0	238.2	223.2	14.98	15.896	
3,300.0	3,265.3	3,300.1	3,289.2	11.0	8.3	-176.54	-176.54	202.7	-51.9	244.1	228.6	15.48	15.768	
3,400.0	3,364.1	3,399.9	3,388.5	11.4	8.6	-176.14	-176.14	212.1	-55.7	250.0	234.0	15.98	15.647	
3,500.0	3,462.8	3,499.7	3,487.8	11.8	8.8	-175.77	-175.77	221.5	-59.5	256.0	239.5	16.48	15.533	
3,600.0	3,561.6	3,599.6	3,587.1	12.1	9.1	-175.40	-175.40	230.9	-63.3	261.9	244.9	16.98	15.426	
3,700.0	3,660.3	3,699.4	3,686.4	12.5	9.4	-175.06	-175.06	240.3	-67.2	267.8	250.4	17.48	15.325	
3,800.0	3,759.1	3,799.2	3,785.7	12.9	9.7	-174.73	-174.73	249.7	-71.0	273.8	255.8	17.98	15.229	
3,900.0	3,857.9	3,899.0	3,885.0	13.2	10.0	-174.41	-174.41	259.1	-74.8	279.8	261.3	18.48	15.139	
4,000.0	3,956.6	3,998.8	3,984.3	13.6	10.3	-174.11	-174.11	268.5	-78.6	285.8	266.8	18.98	15.053	
4,100.0	4,055.4	4,098.6	4,083.6	13.9	10.6	-173.82	-173.82	277.9	-82.4	291.7	272.2	19.49	14.971	
4,200.0	4,154.1	4,198.4	4,182.9	14.3	10.9	-173.54	-173.54	287.3	-86.3	297.7	277.7	19.99	14.894	
4,300.0	4,252.9	4,298.2	4,282.2	14.7	11.1	-173.28	-173.28	296.6	-90.1	303.7	283.2	20.49	14.820	
4,400.0	4,351.7	4,398.0	4,381.5	15.0	11.4	-173.02	-173.02	306.0	-93.9	309.7	288.7	21.00	14.750	
4,500.0	4,450.4	4,497.8	4,480.8	15.4	11.7	-172.77	-172.77	315.4	-97.7	315.7	294.2	21.50	14.682	
4,600.0	4,549.2	4,597.7	4,580.0	15.8	12.0	-172.53	-172.53	324.8	-101.6	321.8	299.7	22.01	14.618	
4,700.0	4,647.9	4,697.5	4,679.3	16.1	12.3	-172.30	-172.30	334.2	-105.4	327.8	305.3	22.52	14.557	
4,800.0	4,746.7	4,797.3	4,778.6	16.5	12.6	-172.08	-172.08	343.6	-109.2	333.8	310.8	23.02	14.498	
4,900.0	4,845.5	4,897.1	4,877.9	16.9	12.9	-171.87	-171.87	353.0	-113.0	339.8	316.3	23.53	14.442	
5,000.0	4,944.2	4,996.9	4,977.2	17.2	13.2	-171.66	-171.66	362.4	-116.8	345.9	321.8	24.04	14.388	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24P-332 - Wellbore #1 - Plan #1 (03-07-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,043.0	5,096.7	5,076.5	17.6	13.4	-171.47		371.8	-120.7	351.9	327.4	24.55	14.336	
5,200.0	5,142.0	5,196.6	5,175.9	17.9	13.7	-171.25		381.2	-124.5	356.5	331.4	25.05	14.232	
5,300.0	5,241.4	5,289.6	5,268.5	18.2	14.0	-171.00		389.3	-127.8	358.3	332.8	25.45	14.076	
5,400.0	5,341.1	5,379.1	5,357.8	18.3	14.2	-170.84		394.8	-130.0	359.4	333.6	25.77	13.946	
5,500.0	5,441.0	5,468.6	5,447.2	18.5	14.3	-170.75		397.6	-131.2	359.9	333.9	26.04	13.825	
5,600.0	5,541.0	5,562.4	5,541.0	18.6	14.5	-178.94		398.0	-131.4	360.0	327.3	32.70	11.010	
5,700.0	5,641.0	5,662.4	5,641.0	18.8	14.6	-178.94		398.0	-131.4	360.0	327.0	33.02	10.902	
5,800.0	5,741.0	5,762.4	5,741.0	18.9	14.8	-178.94		398.0	-131.4	360.0	326.7	33.36	10.793	
5,900.0	5,841.0	5,862.4	5,841.0	19.1	15.0	-178.94		398.0	-131.4	360.0	326.3	33.69	10.686	
6,000.0	5,941.0	5,962.4	5,941.0	19.2	15.2	-178.94		398.0	-131.4	360.0	326.0	34.03	10.580	
6,100.0	6,041.0	6,062.3	6,041.0	19.3	15.4	-89.05		398.0	-131.4	360.0	331.6	28.38	12.682	
6,154.3	6,094.8	6,116.2	6,094.8	19.4	15.5	90.00		398.0	-130.9	359.9	331.3	28.63	12.572	
6,200.0	6,139.8	6,161.8	6,140.3	19.5	15.6	90.87		398.0	-128.1	360.0	331.1	28.83	12.485	
6,300.0	6,235.9	6,262.6	6,239.7	19.5	15.7	92.75		397.9	-112.1	360.4	331.1	29.23	12.327	
6,400.0	6,327.5	6,365.0	6,337.8	19.6	15.8	94.61		397.8	-82.7	361.1	331.5	29.60	12.201	
6,500.0	6,413.2	6,469.1	6,432.5	19.7	15.9	96.38		397.5	-39.6	362.2	332.2	29.99	12.079	
6,600.0	6,491.5	6,574.9	6,521.7	19.8	15.9	98.05		397.2	17.0	363.6	333.1	30.51	11.916	
6,700.0	6,569.9	6,682.3	6,603.6	19.9	16.0	99.58		396.8	86.5	365.1	333.8	31.34	11.650	
6,800.0	6,620.4	6,791.3	6,675.8	20.2	16.3	100.94		396.4	167.9	366.7	334.0	32.65	11.231	
6,900.0	6,668.9	6,901.6	6,736.3	20.6	17.2	102.09		395.9	260.1	368.2	333.6	34.62	10.637	
7,000.0	6,705.6	7,013.2	6,783.4	21.4	18.6	103.02		395.3	361.1	369.5	332.2	37.34	9.896	
7,100.0	6,729.8	7,125.7	6,815.6	22.7	20.4	103.70		394.7	468.8	370.6	329.8	40.78	9.086	
7,200.0	6,741.1	7,238.9	6,831.6	24.3	22.5	104.13		394.1	580.8	371.3	326.4	44.83	8.283	
7,300.0	6,741.8	7,346.5	6,832.5	26.2	24.7	104.14		393.6	688.3	371.3	322.2	49.07	7.567	
7,400.0	6,741.4	7,446.5	6,830.9	28.3	26.9	103.97		393.0	788.3	371.0	317.7	53.34	6.956	
7,500.0	6,741.0	7,546.5	6,829.4	30.5	29.2	103.79		392.5	888.3	370.8	312.9	57.83	6.411	
7,600.0	6,740.6	7,646.5	6,827.8	32.8	31.6	103.61		391.9	988.3	370.5	308.0	62.48	5.930	
7,700.0	6,740.2	7,746.5	6,826.2	35.2	34.0	103.43		391.4	1,088.2	370.2	303.0	67.27	5.504	
7,800.0	6,739.8	7,846.5	6,824.6	37.6	36.5	103.25		390.8	1,188.2	370.0	297.8	72.17	5.127	
7,900.0	6,739.4	7,946.5	6,823.0	40.1	39.0	103.07		390.3	1,288.2	369.7	292.6	77.15	4.792	
8,000.0	6,739.0	8,046.5	6,821.4	42.7	41.6	102.89		389.7	1,388.2	369.5	287.3	82.22	4.494	
8,100.0	6,738.6	8,146.5	6,819.8	45.2	44.2	102.71		389.2	1,488.2	369.2	281.9	87.34	4.228	
8,200.0	6,738.2	8,246.4	6,818.2	47.8	46.8	102.53		388.6	1,588.1	369.0	276.5	92.52	3.988	
8,300.0	6,737.8	8,346.4	6,816.6	50.4	49.5	102.35		388.1	1,688.1	368.7	271.0	97.74	3.773	
8,400.0	6,737.4	8,446.4	6,815.1	53.1	52.1	102.17		387.5	1,788.1	368.5	265.5	103.00	3.578	
8,500.0	6,737.0	8,546.4	6,813.5	55.7	54.8	101.99		387.0	1,888.1	368.3	260.0	108.30	3.401	
8,600.0	6,736.6	8,646.4	6,811.9	58.4	57.5	101.81		386.5	1,988.1	368.0	254.4	113.63	3.239	
8,700.0	6,736.2	8,746.4	6,810.3	61.1	60.2	101.63		385.9	2,088.0	367.8	248.8	118.98	3.091	
8,800.0	6,735.8	8,846.4	6,808.7	63.8	62.9	101.44		385.4	2,188.0	367.6	243.2	124.36	2.956	
8,900.0	6,735.4	8,946.4	6,807.1	66.5	65.6	101.26		384.8	2,288.0	367.4	237.6	129.76	2.831	
9,000.0	6,735.0	9,046.4	6,805.5	69.2	68.3	101.08		384.3	2,388.0	367.2	232.0	135.18	2.716	
9,100.0	6,734.6	9,146.4	6,803.9	71.9	71.0	100.90		383.7	2,488.0	367.0	226.3	140.62	2.610	
9,200.0	6,734.2	9,246.4	6,802.4	74.6	73.8	100.71		383.2	2,587.9	366.7	220.7	146.08	2.511	
9,300.0	6,733.8	9,346.4	6,800.8	77.3	76.5	100.53		382.6	2,687.9	366.5	215.0	151.55	2.419	
9,400.0	6,733.4	9,446.4	6,799.2	80.1	79.3	100.35		382.1	2,787.9	366.3	209.3	157.03	2.333	
9,500.0	6,733.0	9,546.4	6,797.6	82.8	82.0	100.17		381.5	2,887.9	366.1	203.6	162.53	2.253	
9,600.0	6,732.6	9,646.4	6,796.0	85.6	84.8	99.98		381.0	2,987.8	366.0	197.9	168.04	2.178	
9,700.0	6,732.2	9,746.3	6,794.4	88.3	87.5	99.80		380.5	3,087.8	365.8	192.2	173.56	2.107	
9,800.0	6,731.8	9,846.3	6,792.8	91.1	90.3	99.62		379.9	3,187.8	365.6	186.5	179.09	2.041	
9,900.0	6,731.4	9,946.3	6,791.2	93.8	93.1	99.43		379.4	3,287.8	365.4	180.8	184.62	1.979	
10,000.0	6,731.0	10,046.3	6,789.7	96.6	95.8	99.25		378.8	3,387.8	365.2	175.1	190.17	1.920	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24P-332 - Wellbore #1 - Plan #1 (03-07-13)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,100.0	6,730.6	10,146.3	6,788.1	99.3	98.6	99.06	378.3	3,487.7	365.1	169.3	195.73	1.865	
10,200.0	6,730.2	10,246.3	6,786.5	102.1	101.4	98.88	377.7	3,587.7	364.9	163.6	201.29	1.813	
10,300.0	6,729.8	10,346.3	6,784.9	104.9	104.1	98.69	377.2	3,687.7	364.7	157.8	206.87	1.763	
10,400.0	6,729.4	10,446.3	6,783.3	107.6	106.9	98.51	376.6	3,787.7	364.6	152.1	212.44	1.716	
10,500.0	6,729.0	10,546.3	6,781.7	110.4	109.7	98.32	376.1	3,887.7	364.4	146.4	218.03	1.671	
10,600.0	6,728.6	10,646.3	6,780.1	113.2	112.5	98.14	375.5	3,987.6	364.2	140.6	223.62	1.629	
10,700.0	6,728.2	10,746.3	6,778.5	115.9	115.2	97.95	375.0	4,087.6	364.1	134.9	229.22	1.588	
10,800.0	6,727.8	10,846.3	6,776.9	118.7	118.0	97.77	374.5	4,187.6	363.9	129.1	234.82	1.550	
10,900.0	6,727.3	10,946.3	6,775.4	121.5	120.8	97.58	373.9	4,287.6	363.8	123.4	240.42	1.513	
11,000.0	6,726.9	11,046.3	6,773.8	124.3	123.6	97.40	373.4	4,387.6	363.7	117.6	246.03	1.478	Level 3
11,100.0	6,726.5	11,146.2	6,772.2	127.1	126.4	97.21	372.8	4,487.5	363.5	111.9	251.65	1.445	Level 3
11,200.0	6,726.1	11,246.2	6,770.6	129.8	129.1	97.03	372.3	4,587.5	363.4	106.1	257.27	1.413	Level 3
11,236.0	6,726.0	11,282.3	6,770.0	130.8	130.2	96.96	372.1	4,623.5	363.3	104.1	259.29	1.401	Level 3, SF

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24Q-112 - Wellbore #1 - Plan #1 (3-07-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	89.98	89.98	0.0	61.3	61.3				
100.0	100.0	100.0	100.0	0.1	0.1	89.98	89.98	0.0	61.3	61.3	61.1	0.22	272.703	
200.0	200.0	200.0	200.0	0.3	0.3	89.98	89.98	0.0	61.3	61.3	60.6	0.67	90.901 CC	
300.0	300.0	300.0	300.0	0.6	0.6	101.89	101.89	0.0	61.3	61.6	60.5	1.12	54.848 ES	
400.0	399.8	399.8	399.8	0.8	0.8	106.53	106.53	0.0	61.3	62.9	61.3	1.58	39.833	
500.0	499.5	499.5	499.5	1.0	1.0	113.73	113.73	0.0	61.3	65.9	63.9	2.05	32.132	
600.0	598.7	598.7	598.7	1.3	1.2	122.53	122.53	0.0	61.3	71.7	69.2	2.54	28.203	
700.0	697.5	697.5	697.5	1.6	1.5	131.53	131.53	0.0	61.3	81.0	78.0	3.04	26.634	
800.0	796.3	796.3	796.3	2.0	1.7	138.81	138.81	0.0	61.3	92.2	88.7	3.53	26.151	
900.0	895.1	895.1	895.1	2.3	1.9	144.46	144.46	0.0	61.3	104.6	100.6	4.00	26.140	
1,000.0	993.8	993.8	993.8	2.7	2.1	148.89	148.89	0.0	61.3	117.8	113.3	4.47	26.348	
1,100.0	1,092.6	1,092.6	1,092.6	3.0	2.3	152.41	152.41	0.0	61.3	131.5	126.6	4.93	26.648	
1,200.0	1,191.3	1,191.3	1,191.3	3.4	2.6	155.27	155.27	0.0	61.3	145.6	140.2	5.40	26.980	
1,300.0	1,290.1	1,290.1	1,290.1	3.8	2.8	157.61	157.61	0.0	61.3	160.1	154.2	5.86	27.312	
1,400.0	1,388.9	1,388.9	1,388.9	4.1	3.0	159.57	159.57	0.0	61.3	174.7	168.4	6.32	27.631	
1,500.0	1,487.6	1,487.6	1,487.6	4.5	3.2	161.23	161.23	0.0	61.3	189.5	182.7	6.78	27.931	
1,600.0	1,586.4	1,591.1	1,591.1	4.8	3.5	162.98	162.98	0.5	59.9	203.4	196.2	7.24	28.083	
1,700.0	1,685.1	1,695.7	1,695.5	5.2	3.7	165.22	165.22	2.3	55.0	215.0	207.3	7.69	27.951	
1,800.0	1,783.9	1,800.3	1,799.8	5.6	3.9	167.93	167.93	5.4	46.5	224.3	216.2	8.14	27.553	
1,900.0	1,882.7	1,900.3	1,899.1	5.9	4.1	170.76	170.76	9.2	36.1	232.5	223.9	8.59	27.056	
2,000.0	1,981.4	1,999.3	1,997.6	6.3	4.4	173.38	173.38	12.9	25.8	241.2	232.2	9.06	26.624	
2,100.0	2,080.2	2,098.4	2,096.0	6.7	4.6	175.81	175.81	16.7	15.5	250.4	240.9	9.54	26.246	
2,200.0	2,178.9	2,197.4	2,194.4	7.0	4.9	178.07	178.07	20.4	5.1	260.0	250.0	10.03	25.913	
2,300.0	2,277.7	2,296.4	2,292.8	7.4	5.2	-179.83	-179.83	24.2	-5.2	270.0	259.4	10.54	25.617	
2,400.0	2,376.5	2,395.5	2,391.2	7.7	5.4	-177.89	-177.89	28.0	-15.5	280.3	269.2	11.05	25.353	
2,500.0	2,475.2	2,494.5	2,489.6	8.1	5.7	-176.08	-176.08	31.7	-25.9	290.9	279.3	11.58	25.115	
2,600.0	2,574.0	2,593.5	2,588.1	8.5	6.0	-174.40	-174.40	35.5	-36.2	301.7	289.6	12.12	24.902	
2,700.0	2,672.7	2,692.5	2,686.5	8.8	6.2	-172.84	-172.84	39.2	-46.5	312.8	300.2	12.66	24.710	
2,800.0	2,771.5	2,791.6	2,784.9	9.2	6.5	-171.38	-171.38	43.0	-56.9	324.2	311.0	13.21	24.535	
2,900.0	2,870.3	2,890.6	2,883.3	9.6	6.8	-170.03	-170.03	46.7	-67.2	335.7	321.9	13.77	24.378	
3,000.0	2,969.0	2,989.6	2,981.7	9.9	7.1	-168.76	-168.76	50.5	-77.5	347.4	333.0	14.33	24.235	
3,100.0	3,067.8	3,088.7	3,080.1	10.3	7.4	-167.58	-167.58	54.3	-87.9	359.2	344.3	14.90	24.105	
3,200.0	3,166.5	3,187.7	3,178.6	10.7	7.6	-166.47	-166.47	58.0	-98.2	371.2	355.7	15.48	23.986	
3,300.0	3,265.3	3,286.7	3,277.0	11.0	7.9	-165.43	-165.43	61.8	-108.5	383.3	367.3	16.05	23.879	
3,400.0	3,364.1	3,382.5	3,372.3	11.4	8.1	-164.69	-164.69	64.9	-117.2	396.0	379.4	16.55	23.925	
3,500.0	3,462.8	3,478.1	3,467.7	11.8	8.3	-164.43	-164.43	67.0	-122.8	409.5	392.5	17.01	24.074	
3,600.0	3,561.6	3,573.4	3,563.0	12.1	8.5	-164.61	-164.61	67.9	-125.5	423.9	406.4	17.44	24.310	
3,700.0	3,660.3	3,670.8	3,660.3	12.5	8.7	-165.11	-165.11	68.0	-125.7	439.0	421.1	17.85	24.592	
3,800.0	3,759.1	3,769.5	3,759.1	12.9	8.9	-165.62	-165.62	68.0	-125.7	454.2	435.9	18.28	24.844	
3,900.0	3,857.9	3,868.3	3,857.9	13.2	9.1	-166.09	-166.09	68.0	-125.7	469.4	450.7	18.72	25.077	
4,000.0	3,956.6	3,967.0	3,956.6	13.6	9.3	-166.54	-166.54	68.0	-125.7	484.7	465.5	19.16	25.298	
4,100.0	4,055.4	4,065.8	4,055.4	13.9	9.5	-166.96	-166.96	68.0	-125.7	500.0	480.4	19.60	25.508	
4,200.0	4,154.1	4,164.6	4,154.1	14.3	9.7	-167.35	-167.35	68.0	-125.7	515.3	495.2	20.04	25.709	
4,300.0	4,252.9	4,263.3	4,252.9	14.7	9.9	-167.72	-167.72	68.0	-125.7	530.6	510.1	20.49	25.900	
4,400.0	4,351.7	4,362.1	4,351.7	15.0	10.1	-168.07	-168.07	68.0	-125.7	546.0	525.0	20.93	26.083	
4,500.0	4,450.4	4,460.8	4,450.4	15.4	10.3	-168.40	-168.40	68.0	-125.7	561.3	540.0	21.38	26.257	
4,600.0	4,549.2	4,559.6	4,549.2	15.8	10.5	-168.72	-168.72	68.0	-125.7	576.7	554.9	21.83	26.424	
4,700.0	4,647.9	4,658.4	4,647.9	16.1	10.7	-169.01	-169.01	68.0	-125.7	592.1	569.9	22.28	26.583	
4,800.0	4,746.7	4,757.1	4,746.7	16.5	10.9	-169.30	-169.30	68.0	-125.7	607.6	584.8	22.73	26.736	
4,900.0	4,845.5	4,855.9	4,845.5	16.9	11.1	-169.56	-169.56	68.0	-125.7	623.0	599.8	23.18	26.882	
5,000.0	4,944.2	4,954.7	4,944.2	17.2	11.3	-169.82	-169.82	68.0	-125.7	638.5	614.8	23.63	27.022	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24Q-112 - Wellbore #1 - Plan #1 (3-07-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,100.0	5,043.0	5,053.4	5,043.0	17.6	11.5	-170.06	68.0	-125.7	653.9	629.8	24.08	27.156		
5,200.0	5,142.0	5,152.4	5,142.0	17.9	11.7	-170.32	68.0	-125.7	667.9	643.4	24.54	27.220		
5,300.0	5,241.4	5,251.8	5,241.4	18.2	11.9	-170.51	68.0	-125.7	678.5	653.6	24.94	27.206		
5,400.0	5,341.1	5,351.5	5,341.1	18.3	12.2	-170.63	68.0	-125.7	685.7	660.4	25.31	27.088		
5,500.0	5,441.0	5,451.5	5,441.0	18.5	12.4	-170.69	68.0	-125.7	689.5	663.8	25.66	26.874		
5,600.0	5,541.0	5,551.5	5,541.0	18.6	12.6	178.98	68.0	-125.7	690.1	659.5	30.60	22.553		
5,700.0	5,641.0	5,651.5	5,641.0	18.8	12.8	178.98	68.0	-125.7	690.1	659.1	30.96	22.290		
5,800.0	5,741.0	5,751.5	5,741.0	18.9	13.0	178.98	68.0	-125.7	690.1	658.8	31.32	22.031		
5,900.0	5,841.0	5,851.5	5,841.0	19.1	13.2	178.98	68.0	-125.7	690.1	658.4	31.69	21.777		
6,000.0	5,941.0	5,950.0	5,939.5	19.2	13.4	178.72	68.0	-122.5	690.2	658.1	32.04	21.540		
6,100.0	6,041.0	6,045.9	6,034.1	19.3	13.5	87.37	67.9	-107.9	690.6	662.7	27.90	24.752		
6,200.0	6,139.8	6,140.3	6,124.9	19.5	13.7	86.30	67.8	-82.0	691.4	663.2	28.12	24.582		
6,300.0	6,235.9	6,233.3	6,210.5	19.5	13.8	85.30	67.6	-45.7	692.2	663.9	28.36	24.411		
6,400.0	6,327.5	6,325.2	6,290.1	19.6	13.9	84.37	67.4	0.1	693.2	664.6	28.67	24.181		
6,500.0	6,413.2	6,415.9	6,362.7	19.7	14.2	83.54	67.1	54.4	694.3	665.1	29.15	23.820		
6,600.0	6,491.5	6,505.8	6,427.9	19.8	14.6	82.82	66.8	116.2	695.3	665.4	29.90	23.257		
6,700.0	6,560.9	6,594.9	6,484.8	19.9	15.2	82.20	66.5	184.7	696.3	665.2	31.03	22.439		
6,800.0	6,620.4	6,683.4	6,533.1	20.2	16.1	81.71	66.1	258.8	697.1	664.5	32.64	21.356		
6,900.0	6,668.9	6,771.5	6,572.4	20.6	17.2	81.35	65.7	337.5	697.7	663.0	34.77	20.066		
7,000.0	6,705.6	6,859.2	6,602.2	21.4	18.6	81.11	65.3	420.0	698.1	660.7	37.42	18.659		
7,100.0	6,729.8	6,946.7	6,622.4	22.7	20.1	81.01	64.8	505.1	698.3	657.8	40.53	17.231		
7,200.0	6,741.1	7,034.3	6,632.6	24.3	21.8	81.04	64.4	592.0	698.2	654.2	44.02	15.862		
7,290.0	6,743.4	7,116.7	6,633.8	26.0	23.6	80.97	64.0	674.4	698.3	650.8	47.51	14.698		
7,300.0	6,741.8	7,126.8	6,633.7	26.2	23.8	81.09	63.9	684.5	698.1	650.2	47.95	14.560		
7,400.0	6,741.4	7,226.8	6,632.8	28.3	26.0	81.05	63.4	784.5	698.1	645.8	52.30	13.348		
7,500.0	6,741.0	7,326.8	6,632.0	30.5	28.3	81.02	62.9	884.5	698.2	641.3	56.86	12.278		
7,600.0	6,740.6	7,426.8	6,631.1	32.8	30.7	80.98	62.4	984.5	698.2	636.6	61.59	11.337		
7,700.0	6,740.2	7,526.8	6,630.3	35.2	33.2	80.94	61.9	1,084.4	698.3	631.8	66.44	10.510		
7,800.0	6,739.8	7,626.8	6,629.4	37.6	35.7	80.90	61.4	1,184.4	698.3	626.9	71.39	9.782		
7,900.0	6,739.4	7,726.8	6,628.5	40.1	38.3	80.87	60.9	1,284.4	698.4	621.9	76.42	9.138		
8,000.0	6,739.0	7,826.8	6,627.7	42.7	40.9	80.83	60.4	1,384.4	698.4	616.9	81.52	8.568		
8,100.0	6,738.6	7,926.8	6,626.8	45.2	43.5	80.79	59.9	1,484.4	698.4	611.8	86.67	8.059		
8,200.0	6,738.2	8,026.8	6,626.0	47.8	46.1	80.76	59.4	1,584.4	698.5	606.6	91.86	7.604		
8,300.0	6,737.8	8,126.8	6,625.1	50.4	48.8	80.72	58.9	1,684.4	698.5	601.4	97.09	7.195		
8,400.0	6,737.4	8,226.8	6,624.3	53.1	51.5	80.68	58.4	1,784.4	698.6	596.2	102.35	6.825		
8,500.0	6,737.0	8,326.8	6,623.4	55.7	54.1	80.64	57.9	1,884.4	698.6	591.0	107.64	6.490		
8,600.0	6,736.6	8,426.8	6,622.6	58.4	56.9	80.61	57.4	1,984.4	698.7	585.7	112.96	6.185		
8,700.0	6,736.2	8,526.8	6,621.7	61.1	59.6	80.57	56.9	2,084.4	698.7	580.4	118.29	5.907		
8,800.0	6,735.8	8,626.8	6,620.8	63.8	62.3	80.53	56.4	2,184.4	698.8	575.1	123.63	5.652		
8,900.0	6,735.4	8,726.8	6,620.0	66.5	65.0	80.50	55.9	2,284.4	698.8	569.8	129.00	5.417		
9,000.0	6,735.0	8,826.7	6,619.1	69.2	67.7	80.46	55.4	2,384.4	698.9	564.5	134.37	5.201		
9,100.0	6,734.6	8,926.7	6,618.3	71.9	70.5	80.42	54.9	2,484.4	698.9	559.2	139.76	5.001		
9,200.0	6,734.2	9,026.7	6,617.4	74.6	73.2	80.38	54.4	2,584.4	699.0	553.8	145.15	4.815		
9,300.0	6,733.8	9,126.7	6,616.6	77.3	76.0	80.35	53.9	2,684.4	699.0	548.5	150.55	4.643		
9,400.0	6,733.4	9,226.7	6,615.7	80.1	78.7	80.31	53.4	2,784.3	699.1	543.1	155.97	4.482		
9,500.0	6,733.0	9,326.7	6,614.9	82.8	81.5	80.27	52.9	2,884.3	699.1	537.7	161.38	4.332		
9,600.0	6,732.6	9,426.7	6,614.0	85.6	84.2	80.24	52.4	2,984.3	699.2	532.3	166.81	4.191		
9,700.0	6,732.2	9,526.7	6,613.2	88.3	87.0	80.20	51.9	3,084.3	699.2	527.0	172.24	4.060		
9,800.0	6,731.8	9,626.7	6,612.3	91.1	89.8	80.16	51.4	3,184.3	699.3	521.6	177.67	3.936		
9,900.0	6,731.4	9,726.7	6,611.4	93.8	92.5	80.13	50.9	3,284.3	699.3	516.2	183.10	3.819		
10,000.0	6,731.0	9,826.7	6,610.6	96.6	95.3	80.09	50.4	3,384.3	699.4	510.8	188.55	3.709		

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24Q-112 - Wellbore #1 - Plan #1 (3-07-13)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)					
10,100.0	6,730.6	9,926.7	6,609.7	99.3	98.1	80.05	49.9	3,484.3	699.4	505.4	193.99	3.605	
10,200.0	6,730.2	10,026.7	6,608.9	102.1	100.9	80.01	49.4	3,584.3	699.5	500.0	199.44	3.507	
10,300.0	6,729.8	10,126.7	6,608.0	104.9	103.6	79.98	48.9	3,684.3	699.5	494.6	204.88	3.414	
10,400.0	6,729.4	10,226.7	6,607.2	107.6	106.4	79.94	48.4	3,784.3	699.6	489.2	210.34	3.326	
10,500.0	6,729.0	10,326.7	6,606.3	110.4	109.2	79.90	47.9	3,884.3	699.6	483.8	215.79	3.242	
10,600.0	6,728.6	10,426.7	6,605.5	113.2	112.0	79.87	47.4	3,984.3	699.7	478.4	221.24	3.162	
10,700.0	6,728.2	10,526.7	6,604.6	115.9	114.8	79.83	46.9	4,084.3	699.7	473.0	226.70	3.087	
10,800.0	6,727.8	10,626.7	6,603.7	118.7	117.6	79.79	46.4	4,184.3	699.8	467.6	232.16	3.014	
10,900.0	6,727.3	10,726.7	6,602.9	121.5	120.3	79.76	45.9	4,284.3	699.8	462.2	237.61	2.945	
11,000.0	6,726.9	10,826.7	6,602.0	124.3	123.1	79.72	45.4	4,384.3	699.9	456.8	243.07	2.879	
11,100.0	6,726.5	10,926.7	6,601.2	127.1	125.9	79.68	44.9	4,484.2	699.9	451.4	248.53	2.816	
11,200.0	6,726.1	11,026.7	6,600.3	129.8	128.7	79.64	44.4	4,584.2	700.0	446.0	253.99	2.756	
11,236.0	6,726.0	11,062.8	6,600.0	130.8	129.7	79.63	44.2	4,620.3	700.0	444.0	255.96	2.735 SF	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24Q-302 - Wellbore #1 - Plan #1 (3-07-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	89.99	89.99	0.0	91.9	91.9				
100.0	100.0	100.0	100.0	0.1	0.1	89.99	89.99	0.0	91.9	91.9	91.7	0.22	409.055	
200.0	200.0	200.0	200.0	0.3	0.3	89.99	89.99	0.0	91.9	91.9	91.3	0.67	136.352 CC	
300.0	300.0	300.0	300.0	0.6	0.6	101.37	101.37	0.0	91.9	92.3	91.1	1.12	82.117 ES	
400.0	399.8	399.8	399.8	0.8	0.8	104.49	104.49	0.0	91.9	93.4	91.9	1.58	59.166	
500.0	499.5	499.5	499.5	1.0	1.0	109.47	109.47	0.0	91.9	96.0	93.9	2.05	46.781	
600.0	598.7	598.7	598.7	1.3	1.2	115.89	115.89	0.0	91.9	100.7	98.2	2.55	39.539	
700.0	697.5	697.5	697.5	1.6	1.5	123.04	123.04	0.0	91.9	108.3	105.3	3.06	35.402	
800.0	796.3	796.3	796.3	2.0	1.7	129.42	129.42	0.0	91.9	117.7	114.1	3.56	33.015	
900.0	895.1	895.1	895.1	2.3	1.9	134.81	134.81	0.0	91.9	128.3	124.2	4.06	31.611	
1,000.0	993.8	993.8	993.8	2.7	2.1	139.35	139.35	0.0	91.9	139.9	135.3	4.54	30.789	
1,100.0	1,092.6	1,092.6	1,092.6	3.0	2.3	143.18	143.18	0.0	91.9	152.2	147.2	5.02	30.319	
1,200.0	1,191.3	1,191.3	1,191.3	3.4	2.6	146.44	146.44	0.0	91.9	165.1	159.6	5.49	30.065	
1,300.0	1,290.1	1,290.1	1,290.1	3.8	2.8	149.22	149.22	0.0	91.9	178.4	172.4	5.96	29.946	
1,400.0	1,388.9	1,388.9	1,388.9	4.1	3.0	151.61	151.61	0.0	91.9	192.1	185.7	6.42	29.910 SF	
1,500.0	1,487.6	1,487.6	1,487.6	4.5	3.2	153.68	153.68	0.0	91.9	206.1	199.2	6.89	29.927	
1,600.0	1,586.4	1,586.4	1,586.4	4.8	3.5	155.49	155.49	0.0	91.9	220.3	212.9	7.35	29.976	
1,700.0	1,685.1	1,685.1	1,685.1	5.2	3.7	157.07	157.07	0.0	91.9	234.7	226.9	7.81	30.046	
1,800.0	1,783.9	1,781.6	1,781.6	5.6	3.9	158.70	158.70	-0.9	91.2	249.6	241.4	8.24	30.279	
1,900.0	1,882.7	1,876.9	1,876.7	5.9	4.0	160.77	160.77	-4.2	88.5	265.9	257.3	8.65	30.752	
2,000.0	1,981.4	1,971.1	1,970.7	6.3	4.2	163.18	163.18	-9.9	83.8	283.8	274.8	9.04	31.382	
2,100.0	2,080.2	2,065.9	2,064.9	6.7	4.4	165.82	165.82	-17.8	77.2	303.4	294.0	9.45	32.119	
2,200.0	2,178.9	2,162.8	2,161.2	7.0	4.6	168.28	168.28	-26.2	70.2	323.9	314.0	9.87	32.830	
2,300.0	2,277.7	2,259.8	2,257.6	7.4	4.8	170.45	170.45	-34.7	63.2	344.9	334.6	10.30	33.492	
2,400.0	2,376.5	2,356.8	2,353.9	7.7	5.1	172.37	172.37	-43.2	56.1	366.3	355.6	10.74	34.106	
2,500.0	2,475.2	2,453.7	2,450.3	8.1	5.3	174.08	174.08	-51.7	49.1	388.1	376.9	11.19	34.675	
2,600.0	2,574.0	2,550.7	2,546.6	8.5	5.5	175.61	175.61	-60.2	42.1	410.2	398.5	11.65	35.201	
2,700.0	2,672.7	2,647.7	2,643.0	8.8	5.8	176.98	176.98	-68.7	35.0	432.5	420.4	12.12	35.691	
2,800.0	2,771.5	2,744.7	2,739.3	9.2	6.0	178.22	178.22	-77.2	28.0	455.0	442.5	12.59	36.146	
2,900.0	2,870.3	2,841.6	2,835.6	9.6	6.3	179.35	179.35	-85.7	21.0	477.8	464.7	13.06	36.569	
3,000.0	2,969.0	2,938.6	2,932.0	9.9	6.5	-179.63	-179.63	-94.2	13.9	500.7	487.1	13.54	36.964	
3,100.0	3,067.8	3,035.6	3,028.3	10.3	6.8	-178.70	-178.70	-102.7	6.9	523.7	509.7	14.03	37.333	
3,200.0	3,166.5	3,132.6	3,124.7	10.7	7.1	-177.84	-177.84	-111.1	-0.1	546.8	532.3	14.51	37.678	
3,300.0	3,265.3	3,229.5	3,221.0	11.0	7.4	-177.06	-177.06	-119.6	-7.1	570.1	555.1	15.00	38.001	
3,400.0	3,364.1	3,326.5	3,317.4	11.4	7.6	-176.33	-176.33	-128.1	-14.2	593.4	577.9	15.49	38.305	
3,500.0	3,462.8	3,423.5	3,413.7	11.8	7.9	-175.66	-175.66	-136.6	-21.2	616.9	600.9	15.98	38.590	
3,600.0	3,561.6	3,520.4	3,510.0	12.1	8.2	-175.04	-175.04	-145.1	-28.2	640.4	623.9	16.48	38.859	
3,700.0	3,660.3	3,617.4	3,606.4	12.5	8.5	-174.47	-174.47	-153.6	-35.3	663.9	647.0	16.97	39.113	
3,800.0	3,759.1	3,714.4	3,702.7	12.9	8.7	-173.93	-173.93	-162.1	-42.3	687.6	670.1	17.47	39.352	
3,900.0	3,857.9	3,811.4	3,799.1	13.2	9.0	-173.43	-173.43	-170.6	-49.3	711.2	693.3	17.97	39.579	
4,000.0	3,956.6	3,908.3	3,895.4	13.6	9.3	-172.96	-172.96	-179.1	-56.4	735.0	716.5	18.47	39.794	
4,100.0	4,055.4	4,005.3	3,991.8	13.9	9.6	-172.52	-172.52	-187.5	-63.4	758.8	739.8	18.97	39.998	
4,200.0	4,154.1	4,102.3	4,088.1	14.3	9.9	-172.10	-172.10	-196.0	-70.4	782.6	763.1	19.47	40.191	
4,300.0	4,252.9	4,199.2	4,184.5	14.7	10.2	-171.72	-171.72	-204.5	-77.5	806.4	786.4	19.97	40.375	
4,400.0	4,351.7	4,296.2	4,280.8	15.0	10.5	-171.35	-171.35	-213.0	-84.5	830.3	809.8	20.48	40.550	
4,500.0	4,450.4	4,393.2	4,377.1	15.4	10.8	-171.00	-171.00	-221.5	-91.5	854.2	833.2	20.98	40.717	
4,600.0	4,549.2	4,490.2	4,473.5	15.8	11.1	-170.67	-170.67	-230.0	-98.6	878.2	856.7	21.48	40.875	
4,700.0	4,647.9	4,587.1	4,569.8	16.1	11.3	-170.36	-170.36	-238.5	-105.6	902.1	880.1	21.99	41.027	
4,800.0	4,746.7	4,684.1	4,666.2	16.5	11.6	-170.07	-170.07	-247.0	-112.6	926.1	903.6	22.49	41.172	
4,900.0	4,845.5	4,811.3	4,792.8	16.9	11.9	-169.80	-169.80	-256.2	-120.3	948.7	925.7	23.02	41.205	
5,000.0	4,944.2	4,943.4	4,924.7	17.2	12.2	-169.77	-169.77	-261.2	-124.4	967.9	944.4	23.54	41.121	

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

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Offset Design Maxey 24Q-HZ Pad Sec.24-T5N-R65W - Maxey 24Q-302 - Wellbore #1 - Plan #1 (3-07-13)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,043.0	5,061.7	5,043.0	17.6	12.4	-169.93	-262.0	-125.1	983.9	959.9	24.01	40.976	
5,200.0	5,142.0	5,160.7	5,142.0	17.9	12.6	-170.12	-262.0	-125.1	997.9	973.5	24.48	40.768	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4650.0ft (RKB - 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Maxey 24P-232
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Maxey 24P-232
Project:	SEC.24-T5N-R65W	TVD Reference:	WELL @ 4650.0ft (RKB - 15')
Reference Site:	Maxey 24Q-HZ Pad Sec.24-T5N-R65W	MD Reference:	WELL @ 4650.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Maxey 24P-232	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-07-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4650.0ft (RKB - 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Maxey 24P-232
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°

