

PETROLEUM DEVELOPMENT CORP Weld County CO

Well Name: LaSalle 25E-202

Surface Location: LaSalle 25F-HZ Pad Sec.25-T5N-R65W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

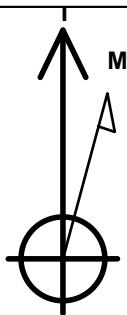
Ground Elevation: 4640.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1380261.08	3245132.16	40.373880	-104.620170	

RKB - 15' WELL @ 4655.0ft (RKB - 15')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape Point
BHL 150'FNL, 50'FEL	6705.0	1126.4	5022.1	



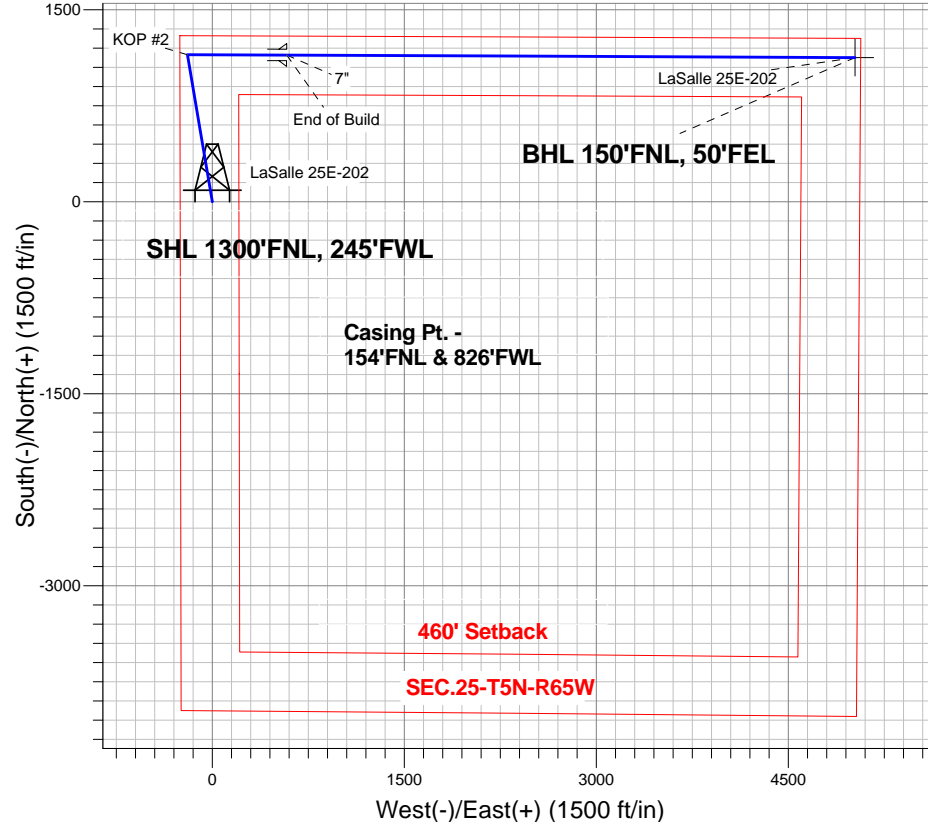
Azimuths to True North
Magnetic North: 8.54°

Magnetic Field
Strength: 52940.4nT
Dip Angle: 66.99°
Date: 4/18/2013
Model: IGRF2010

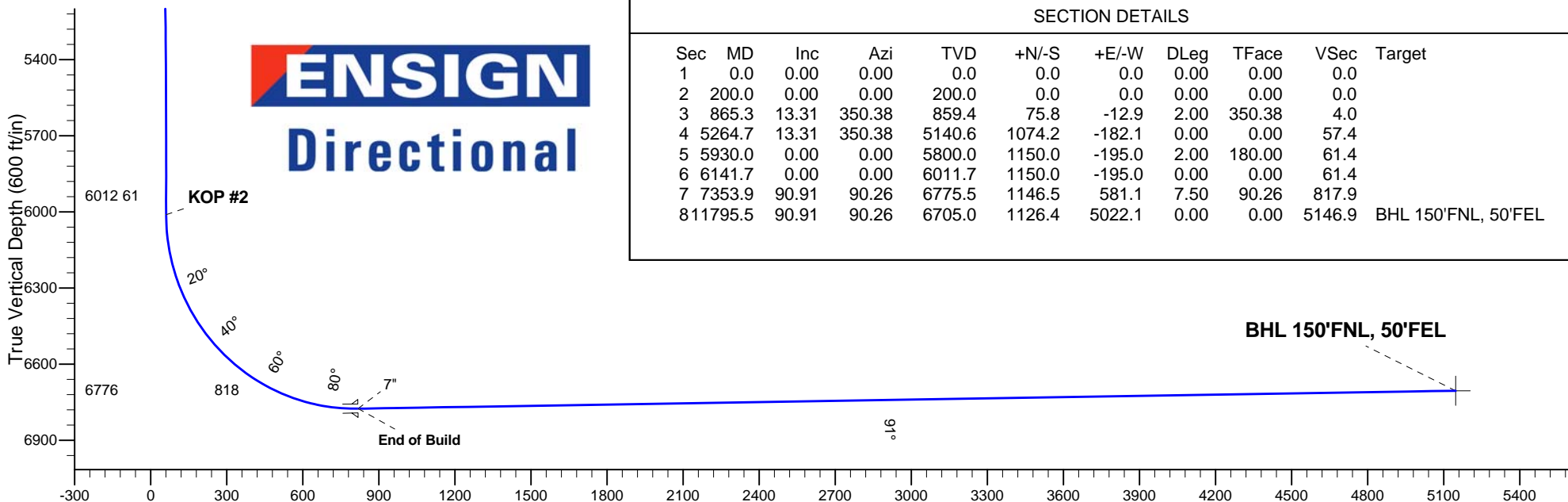
ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP #1
6011.7	6141.7	KOP #2
6775.5	7353.9	End of Build

LaSalle 25F-HZ Pad Sec.25-T5N-R65W
LaSalle 25E-202
Plan #2 (4-18-13)



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	865.3	13.31	350.38	859.4	75.8	-12.9	2.00	350.38	4.0	
4	5264.7	13.31	350.38	5140.6	1074.2	-182.1	0.00	0.00	57.4	
5	5930.0	0.00	0.00	5800.0	1150.0	-195.0	2.00	180.00	61.4	
6	6141.7	0.00	0.00	6011.7	1150.0	-195.0	0.00	0.00	61.4	
7	7353.9	90.91	90.26	6775.5	1146.5	581.1	7.50	90.26	817.9	
8	11795.5	90.91	90.26	6705.0	1126.4	5022.1	0.00	0.00	5146.9	BHL 150'FNL, 50'FEL

Vertical Section at 77.36° (600 ft/in)



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.25-T5N-R65W

LaSalle 25F-HZ Pad Sec.25-T5N-R65W

LaSalle 25E-202

Wellbore #1

Plan: Plan #2 (4-18-13)

Standard Planning Report

18 April, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well LaSalle 25E-202
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Project:	SEC.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-18-13)		

Project	SEC.25-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	LaSalle 25F-HZ Pad Sec.25-T5N-R65W		
Site Position:		Northing:	1,380,231.95 ft
From:	Lat/Long	Easting:	3,245,132.45 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.373800
		Longitude:	-104.620170
		Grid Convergence:	0.57 °

Well	LaSalle 25E-202		
Well Position	+N/-S	29.1 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty		0.0 ft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/18/2013	8.54	66.99	52,940

Design	Plan #2 (4-18-13)			
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	77.36

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	
865.3	13.31	350.38	859.4	75.8	-12.9	2.00	2.00	0.00	350.38	
5,264.7	13.31	350.38	5,140.6	1,074.2	-182.1	0.00	0.00	0.00	0.00	
5,930.0	0.00	0.00	5,800.0	1,150.0	-195.0	2.00	-2.00	0.00	180.00	
6,141.7	0.00	0.00	6,011.7	1,150.0	-195.0	0.00	0.00	0.00	0.00	
7,353.9	90.91	90.26	6,775.5	1,146.5	581.1	7.50	7.50	0.00	90.26	
11,795.5	90.91	90.26	6,705.0	1,126.4	5,022.1	0.00	0.00	0.00	0.00	BHL 150'FNL, 50'FI

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Project:	SEC.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-18-13)		

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	350.38	240.0	0.3	0.0	0.0	2.00	2.00	0.00
280.0	1.60	350.38	280.0	1.1	-0.2	0.1	2.00	2.00	0.00
320.0	2.40	350.38	320.0	2.5	-0.4	0.1	2.00	2.00	0.00
360.0	3.20	350.38	359.9	4.4	-0.7	0.2	2.00	2.00	0.00
400.0	4.00	350.38	399.8	6.9	-1.2	0.4	2.00	2.00	0.00
440.0	4.80	350.38	439.7	9.9	-1.7	0.5	2.00	2.00	0.00
480.0	5.60	350.38	479.6	13.5	-2.3	0.7	2.00	2.00	0.00
520.0	6.40	350.38	519.3	17.6	-3.0	0.9	2.00	2.00	0.00
560.0	7.20	350.38	559.1	22.3	-3.8	1.2	2.00	2.00	0.00
600.0	8.00	350.38	598.7	27.5	-4.7	1.5	2.00	2.00	0.00
640.0	8.80	350.38	638.3	33.2	-5.6	1.8	2.00	2.00	0.00
680.0	9.60	350.38	677.8	39.6	-6.7	2.1	2.00	2.00	0.00
720.0	10.40	350.38	717.1	46.4	-7.9	2.5	2.00	2.00	0.00
760.0	11.20	350.38	756.4	53.8	-9.1	2.9	2.00	2.00	0.00
800.0	12.00	350.38	795.6	61.7	-10.5	3.3	2.00	2.00	0.00
840.0	12.80	350.38	834.7	70.2	-11.9	3.7	2.00	2.00	0.00
865.3	13.31	350.38	859.4	75.8	-12.9	4.0	2.00	2.00	0.00
880.0	13.31	350.38	873.6	79.2	-13.4	4.2	0.00	0.00	0.00
920.0	13.31	350.38	912.6	88.2	-15.0	4.7	0.00	0.00	0.00
960.0	13.31	350.38	951.5	97.3	-16.5	5.2	0.00	0.00	0.00
1,000.0	13.31	350.38	990.4	106.4	-18.0	5.7	0.00	0.00	0.00
1,040.0	13.31	350.38	1,029.3	115.5	-19.6	6.2	0.00	0.00	0.00
1,080.0	13.31	350.38	1,068.3	124.5	-21.1	6.7	0.00	0.00	0.00
1,120.0	13.31	350.38	1,107.2	133.6	-22.7	7.1	0.00	0.00	0.00
1,160.0	13.31	350.38	1,146.1	142.7	-24.2	7.6	0.00	0.00	0.00
1,200.0	13.31	350.38	1,185.0	151.8	-25.7	8.1	0.00	0.00	0.00
1,240.0	13.31	350.38	1,224.0	160.9	-27.3	8.6	0.00	0.00	0.00
1,280.0	13.31	350.38	1,262.9	169.9	-28.8	9.1	0.00	0.00	0.00
1,320.0	13.31	350.38	1,301.8	179.0	-30.4	9.6	0.00	0.00	0.00
1,360.0	13.31	350.38	1,340.8	188.1	-31.9	10.0	0.00	0.00	0.00
1,400.0	13.31	350.38	1,379.7	197.2	-33.4	10.5	0.00	0.00	0.00
1,440.0	13.31	350.38	1,418.6	206.2	-35.0	11.0	0.00	0.00	0.00
1,480.0	13.31	350.38	1,457.5	215.3	-36.5	11.5	0.00	0.00	0.00
1,520.0	13.31	350.38	1,496.5	224.4	-38.0	12.0	0.00	0.00	0.00
1,560.0	13.31	350.38	1,535.4	233.5	-39.6	12.5	0.00	0.00	0.00
1,600.0	13.31	350.38	1,574.3	242.5	-41.1	13.0	0.00	0.00	0.00
1,640.0	13.31	350.38	1,613.2	251.6	-42.7	13.4	0.00	0.00	0.00
1,680.0	13.31	350.38	1,652.2	260.7	-44.2	13.9	0.00	0.00	0.00
1,720.0	13.31	350.38	1,691.1	269.8	-45.7	14.4	0.00	0.00	0.00
1,760.0	13.31	350.38	1,730.0	278.9	-47.3	14.9	0.00	0.00	0.00
1,800.0	13.31	350.38	1,768.9	287.9	-48.8	15.4	0.00	0.00	0.00
1,840.0	13.31	350.38	1,807.9	297.0	-50.4	15.9	0.00	0.00	0.00
1,880.0	13.31	350.38	1,846.8	306.1	-51.9	16.3	0.00	0.00	0.00
1,920.0	13.31	350.38	1,885.7	315.2	-53.4	16.8	0.00	0.00	0.00
1,960.0	13.31	350.38	1,924.6	324.2	-55.0	17.3	0.00	0.00	0.00
2,000.0	13.31	350.38	1,963.6	333.3	-56.5	17.8	0.00	0.00	0.00

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Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-18-13)		

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	13.31	350.38	2,002.5	342.4	-58.1	18.3	0.00	0.00	0.00
2,080.0	13.31	350.38	2,041.4	351.5	-59.6	18.8	0.00	0.00	0.00
2,120.0	13.31	350.38	2,080.3	360.5	-61.1	19.3	0.00	0.00	0.00
2,160.0	13.31	350.38	2,119.3	369.6	-62.7	19.7	0.00	0.00	0.00
2,200.0	13.31	350.38	2,158.2	378.7	-64.2	20.2	0.00	0.00	0.00
2,240.0	13.31	350.38	2,197.1	387.8	-65.8	20.7	0.00	0.00	0.00
2,280.0	13.31	350.38	2,236.1	396.9	-67.3	21.2	0.00	0.00	0.00
2,320.0	13.31	350.38	2,275.0	405.9	-68.8	21.7	0.00	0.00	0.00
2,360.0	13.31	350.38	2,313.9	415.0	-70.4	22.2	0.00	0.00	0.00
2,400.0	13.31	350.38	2,352.8	424.1	-71.9	22.6	0.00	0.00	0.00
2,440.0	13.31	350.38	2,391.8	433.2	-73.4	23.1	0.00	0.00	0.00
2,480.0	13.31	350.38	2,430.7	442.2	-75.0	23.6	0.00	0.00	0.00
2,520.0	13.31	350.38	2,469.6	451.3	-76.5	24.1	0.00	0.00	0.00
2,560.0	13.31	350.38	2,508.5	460.4	-78.1	24.6	0.00	0.00	0.00
2,600.0	13.31	350.38	2,547.5	469.5	-79.6	25.1	0.00	0.00	0.00
2,640.0	13.31	350.38	2,586.4	478.6	-81.1	25.6	0.00	0.00	0.00
2,680.0	13.31	350.38	2,625.3	487.6	-82.7	26.0	0.00	0.00	0.00
2,720.0	13.31	350.38	2,664.2	496.7	-84.2	26.5	0.00	0.00	0.00
2,760.0	13.31	350.38	2,703.2	505.8	-85.8	27.0	0.00	0.00	0.00
2,800.0	13.31	350.38	2,742.1	514.9	-87.3	27.5	0.00	0.00	0.00
2,840.0	13.31	350.38	2,781.0	523.9	-88.8	28.0	0.00	0.00	0.00
2,880.0	13.31	350.38	2,819.9	533.0	-90.4	28.5	0.00	0.00	0.00
2,920.0	13.31	350.38	2,858.9	542.1	-91.9	28.9	0.00	0.00	0.00
2,960.0	13.31	350.38	2,897.8	551.2	-93.5	29.4	0.00	0.00	0.00
3,000.0	13.31	350.38	2,936.7	560.2	-95.0	29.9	0.00	0.00	0.00
3,040.0	13.31	350.38	2,975.6	569.3	-96.5	30.4	0.00	0.00	0.00
3,080.0	13.31	350.38	3,014.6	578.4	-98.1	30.9	0.00	0.00	0.00
3,120.0	13.31	350.38	3,053.5	587.5	-99.6	31.4	0.00	0.00	0.00
3,160.0	13.31	350.38	3,092.4	596.6	-101.2	31.9	0.00	0.00	0.00
3,200.0	13.31	350.38	3,131.4	605.6	-102.7	32.3	0.00	0.00	0.00
3,240.0	13.31	350.38	3,170.3	614.7	-104.2	32.8	0.00	0.00	0.00
3,280.0	13.31	350.38	3,209.2	623.8	-105.8	33.3	0.00	0.00	0.00
3,320.0	13.31	350.38	3,248.1	632.9	-107.3	33.8	0.00	0.00	0.00
3,360.0	13.31	350.38	3,287.1	641.9	-108.9	34.3	0.00	0.00	0.00
3,400.0	13.31	350.38	3,326.0	651.0	-110.4	34.8	0.00	0.00	0.00
3,440.0	13.31	350.38	3,364.9	660.1	-111.9	35.2	0.00	0.00	0.00
3,480.0	13.31	350.38	3,403.8	669.2	-113.5	35.7	0.00	0.00	0.00
3,520.0	13.31	350.38	3,442.8	678.2	-115.0	36.2	0.00	0.00	0.00
3,560.0	13.31	350.38	3,481.7	687.3	-116.5	36.7	0.00	0.00	0.00
3,600.0	13.31	350.38	3,520.6	696.4	-118.1	37.2	0.00	0.00	0.00
3,640.0	13.31	350.38	3,559.5	705.5	-119.6	37.7	0.00	0.00	0.00
3,680.0	13.31	350.38	3,598.5	714.6	-121.2	38.2	0.00	0.00	0.00
3,720.0	13.31	350.38	3,637.4	723.6	-122.7	38.6	0.00	0.00	0.00
3,760.0	13.31	350.38	3,676.3	732.7	-124.2	39.1	0.00	0.00	0.00
3,800.0	13.31	350.38	3,715.2	741.8	-125.8	39.6	0.00	0.00	0.00
3,840.0	13.31	350.38	3,754.2	750.9	-127.3	40.1	0.00	0.00	0.00
3,880.0	13.31	350.38	3,793.1	759.9	-128.9	40.6	0.00	0.00	0.00
3,920.0	13.31	350.38	3,832.0	769.0	-130.4	41.1	0.00	0.00	0.00
3,960.0	13.31	350.38	3,870.9	778.1	-131.9	41.6	0.00	0.00	0.00
4,000.0	13.31	350.38	3,909.9	787.2	-133.5	42.0	0.00	0.00	0.00
4,040.0	13.31	350.38	3,948.8	796.2	-135.0	42.5	0.00	0.00	0.00
4,080.0	13.31	350.38	3,987.7	805.3	-136.6	43.0	0.00	0.00	0.00
4,120.0	13.31	350.38	4,026.7	814.4	-138.1	43.5	0.00	0.00	0.00

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Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-18-13)		

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	13.31	350.38	4,065.6	823.5	-139.6	44.0	0.00	0.00	0.00
4,200.0	13.31	350.38	4,104.5	832.6	-141.2	44.5	0.00	0.00	0.00
4,240.0	13.31	350.38	4,143.4	841.6	-142.7	44.9	0.00	0.00	0.00
4,280.0	13.31	350.38	4,182.4	850.7	-144.3	45.4	0.00	0.00	0.00
4,320.0	13.31	350.38	4,221.3	859.8	-145.8	45.9	0.00	0.00	0.00
4,360.0	13.31	350.38	4,260.2	868.9	-147.3	46.4	0.00	0.00	0.00
4,400.0	13.31	350.38	4,299.1	877.9	-148.9	46.9	0.00	0.00	0.00
4,440.0	13.31	350.38	4,338.1	887.0	-150.4	47.4	0.00	0.00	0.00
4,480.0	13.31	350.38	4,377.0	896.1	-151.9	47.9	0.00	0.00	0.00
4,520.0	13.31	350.38	4,415.9	905.2	-153.5	48.3	0.00	0.00	0.00
4,560.0	13.31	350.38	4,454.8	914.3	-155.0	48.8	0.00	0.00	0.00
4,600.0	13.31	350.38	4,493.8	923.3	-156.6	49.3	0.00	0.00	0.00
4,640.0	13.31	350.38	4,532.7	932.4	-158.1	49.8	0.00	0.00	0.00
4,680.0	13.31	350.38	4,571.6	941.5	-159.6	50.3	0.00	0.00	0.00
4,720.0	13.31	350.38	4,610.5	950.6	-161.2	50.8	0.00	0.00	0.00
4,760.0	13.31	350.38	4,649.5	959.6	-162.7	51.2	0.00	0.00	0.00
4,800.0	13.31	350.38	4,688.4	968.7	-164.3	51.7	0.00	0.00	0.00
4,840.0	13.31	350.38	4,727.3	977.8	-165.8	52.2	0.00	0.00	0.00
4,880.0	13.31	350.38	4,766.2	986.9	-167.3	52.7	0.00	0.00	0.00
4,920.0	13.31	350.38	4,805.2	995.9	-168.9	53.2	0.00	0.00	0.00
4,960.0	13.31	350.38	4,844.1	1,005.0	-170.4	53.7	0.00	0.00	0.00
5,000.0	13.31	350.38	4,883.0	1,014.1	-172.0	54.2	0.00	0.00	0.00
5,040.0	13.31	350.38	4,922.0	1,023.2	-173.5	54.6	0.00	0.00	0.00
5,080.0	13.31	350.38	4,960.9	1,032.3	-175.0	55.1	0.00	0.00	0.00
5,120.0	13.31	350.38	4,999.8	1,041.3	-176.6	55.6	0.00	0.00	0.00
5,160.0	13.31	350.38	5,038.7	1,050.4	-178.1	56.1	0.00	0.00	0.00
5,200.0	13.31	350.38	5,077.7	1,059.5	-179.7	56.6	0.00	0.00	0.00
5,240.0	13.31	350.38	5,116.6	1,068.6	-181.2	57.1	0.00	0.00	0.00
5,264.7	13.31	350.38	5,140.6	1,074.2	-182.1	57.4	0.00	0.00	0.00
5,280.0	13.00	350.38	5,155.5	1,077.6	-182.7	57.5	2.00	-2.00	0.00
5,320.0	12.20	350.38	5,194.6	1,086.2	-184.2	58.0	2.00	-2.00	0.00
5,360.0	11.40	350.38	5,233.7	1,094.3	-185.5	58.4	2.00	-2.00	0.00
5,400.0	10.60	350.38	5,273.0	1,101.8	-186.8	58.8	2.00	-2.00	0.00
5,440.0	9.80	350.38	5,312.3	1,108.8	-188.0	59.2	2.00	-2.00	0.00
5,480.0	9.00	350.38	5,351.8	1,115.2	-189.1	59.6	2.00	-2.00	0.00
5,520.0	8.20	350.38	5,391.4	1,121.1	-190.1	59.9	2.00	-2.00	0.00
5,560.0	7.40	350.38	5,431.0	1,126.5	-191.0	60.2	2.00	-2.00	0.00
5,600.0	6.60	350.38	5,470.7	1,131.3	-191.8	60.4	2.00	-2.00	0.00
5,640.0	5.80	350.38	5,510.4	1,135.5	-192.5	60.6	2.00	-2.00	0.00
5,680.0	5.00	350.38	5,550.3	1,139.2	-193.2	60.8	2.00	-2.00	0.00
5,720.0	4.20	350.38	5,590.1	1,142.4	-193.7	61.0	2.00	-2.00	0.00
5,760.0	3.40	350.38	5,630.1	1,145.0	-194.2	61.1	2.00	-2.00	0.00
5,800.0	2.60	350.38	5,670.0	1,147.1	-194.5	61.3	2.00	-2.00	0.00
5,840.0	1.80	350.38	5,710.0	1,148.6	-194.8	61.3	2.00	-2.00	0.00
5,880.0	1.00	350.38	5,750.0	1,149.6	-194.9	61.4	2.00	-2.00	0.00
5,920.0	0.20	350.38	5,790.0	1,150.0	-195.0	61.4	2.00	-2.00	0.00
5,930.0	0.00	0.00	5,800.0	1,150.0	-195.0	61.4	2.00	-2.00	0.00
5,960.0	0.00	0.00	5,830.0	1,150.0	-195.0	61.4	0.00	0.00	0.00
6,000.0	0.00	0.00	5,870.0	1,150.0	-195.0	61.4	0.00	0.00	0.00
6,040.0	0.00	0.00	5,910.0	1,150.0	-195.0	61.4	0.00	0.00	0.00
6,080.0	0.00	0.00	5,950.0	1,150.0	-195.0	61.4	0.00	0.00	0.00
6,120.0	0.00	0.00	5,990.0	1,150.0	-195.0	61.4	0.00	0.00	0.00
6,130.1	0.00	0.00	6,000.1	1,150.0	-195.0	61.4	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well LaSalle 25E-202
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Project:	SEC.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-18-13)		

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)
KOP #2									
6,141.7	0.00	0.00	6,011.7	1,150.0	-195.0	61.4	0.00	0.00	0.00
6,160.0	1.37	90.26	6,030.0	1,150.0	-194.8	61.6	7.50	7.50	0.00
6,200.0	4.37	90.26	6,069.9	1,150.0	-192.8	63.6	7.50	7.50	0.00
6,240.0	7.37	90.26	6,109.7	1,150.0	-188.7	67.6	7.50	7.50	0.00
6,280.0	10.37	90.26	6,149.2	1,149.9	-182.5	73.6	7.50	7.50	0.00
6,320.0	13.37	90.26	6,188.3	1,149.9	-174.3	81.6	7.50	7.50	0.00
6,360.0	16.37	90.26	6,227.0	1,149.9	-164.0	91.6	7.50	7.50	0.00
6,400.0	19.37	90.26	6,265.1	1,149.8	-151.8	103.6	7.50	7.50	0.00
6,440.0	22.37	90.26	6,302.4	1,149.7	-137.5	117.4	7.50	7.50	0.00
6,480.0	25.37	90.26	6,339.0	1,149.7	-121.3	133.2	7.50	7.50	0.00
6,520.0	28.37	90.26	6,374.7	1,149.6	-103.3	150.8	7.50	7.50	0.00
6,560.0	31.37	90.26	6,409.4	1,149.5	-83.3	170.3	7.50	7.50	0.00
6,600.0	34.37	90.26	6,443.0	1,149.4	-61.6	191.4	7.50	7.50	0.00
6,640.0	37.37	90.26	6,475.4	1,149.3	-38.2	214.3	7.50	7.50	0.00
6,680.0	40.37	90.26	6,506.5	1,149.2	-13.1	238.7	7.50	7.50	0.00
6,720.0	43.37	90.26	6,536.3	1,149.1	13.6	264.7	7.50	7.50	0.00
6,760.0	46.37	90.26	6,564.6	1,148.9	41.8	292.3	7.50	7.50	0.00
6,800.0	49.37	90.26	6,591.5	1,148.8	71.5	321.2	7.50	7.50	0.00
6,840.0	52.37	90.26	6,616.7	1,148.7	102.5	351.4	7.50	7.50	0.00
6,880.0	55.37	90.26	6,640.3	1,148.5	134.8	382.9	7.50	7.50	0.00
6,920.0	58.37	90.26	6,662.2	1,148.4	168.3	415.5	7.50	7.50	0.00
6,960.0	61.37	90.26	6,682.2	1,148.2	202.9	449.3	7.50	7.50	0.00
7,000.0	64.37	90.26	6,700.5	1,148.0	238.5	484.0	7.50	7.50	0.00
7,040.0	67.37	90.26	6,716.8	1,147.9	275.0	519.5	7.50	7.50	0.00
7,080.0	70.37	90.26	6,731.2	1,147.7	312.3	555.9	7.50	7.50	0.00
7,120.0	73.37	90.26	6,743.7	1,147.5	350.3	593.0	7.50	7.50	0.00
7,160.0	76.37	90.26	6,754.1	1,147.4	388.9	630.6	7.50	7.50	0.00
7,200.0	79.37	90.26	6,762.5	1,147.2	428.0	668.7	7.50	7.50	0.00
7,240.0	82.37	90.26	6,768.9	1,147.0	467.5	707.2	7.50	7.50	0.00
7,280.0	85.37	90.26	6,773.1	1,146.8	507.3	746.0	7.50	7.50	0.00
7,320.0	88.37	90.26	6,775.3	1,146.6	547.2	784.9	7.50	7.50	0.00
7,340.2	89.88	90.26	6,775.6	1,146.6	567.4	804.6	7.50	7.50	0.00
End of Build									
7,351.4	90.72	90.26	6,775.6	1,146.5	578.6	815.5	7.50	7.50	0.00
7"									
7,353.9	90.91	90.26	6,775.5	1,146.5	581.1	817.9	7.50	7.50	0.00
7,360.0	90.91	90.26	6,775.4	1,146.5	587.2	823.9	0.00	0.00	0.00
7,400.0	90.91	90.26	6,774.8	1,146.3	627.2	862.9	0.00	0.00	0.00
7,440.0	90.91	90.26	6,774.2	1,146.1	667.2	901.8	0.00	0.00	0.00
7,480.0	90.91	90.26	6,773.5	1,145.9	707.2	940.8	0.00	0.00	0.00
7,520.0	90.91	90.26	6,772.9	1,145.7	747.2	979.8	0.00	0.00	0.00
7,560.0	90.91	90.26	6,772.3	1,145.6	787.2	1,018.8	0.00	0.00	0.00
7,600.0	90.91	90.26	6,771.6	1,145.4	827.2	1,057.8	0.00	0.00	0.00
7,640.0	90.91	90.26	6,771.0	1,145.2	867.2	1,096.8	0.00	0.00	0.00
7,680.0	90.91	90.26	6,770.4	1,145.0	907.2	1,135.8	0.00	0.00	0.00
7,720.0	90.91	90.26	6,769.7	1,144.8	947.1	1,174.7	0.00	0.00	0.00
7,760.0	90.91	90.26	6,769.1	1,144.7	987.1	1,213.7	0.00	0.00	0.00
7,800.0	90.91	90.26	6,768.5	1,144.5	1,027.1	1,252.7	0.00	0.00	0.00
7,840.0	90.91	90.26	6,767.8	1,144.3	1,067.1	1,291.7	0.00	0.00	0.00
7,880.0	90.91	90.26	6,767.2	1,144.1	1,107.1	1,330.7	0.00	0.00	0.00
7,920.0	90.91	90.26	6,766.6	1,143.9	1,147.1	1,369.7	0.00	0.00	0.00
7,960.0	90.91	90.26	6,765.9	1,143.8	1,187.1	1,408.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well LaSalle 25E-202
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Project:	SEC.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-18-13)		

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)
8,000.0	90.91	90.26	6,765.3	1,143.6	1,227.1	1,447.6	0.00	0.00	0.00
8,040.0	90.91	90.26	6,764.6	1,143.4	1,267.1	1,486.6	0.00	0.00	0.00
8,080.0	90.91	90.26	6,764.0	1,143.2	1,307.1	1,525.6	0.00	0.00	0.00
8,120.0	90.91	90.26	6,763.4	1,143.0	1,347.1	1,564.6	0.00	0.00	0.00
8,160.0	90.91	90.26	6,762.7	1,142.9	1,387.1	1,603.6	0.00	0.00	0.00
8,200.0	90.91	90.26	6,762.1	1,142.7	1,427.1	1,642.6	0.00	0.00	0.00
8,240.0	90.91	90.26	6,761.5	1,142.5	1,467.1	1,681.5	0.00	0.00	0.00
8,280.0	90.91	90.26	6,760.8	1,142.3	1,507.1	1,720.5	0.00	0.00	0.00
8,320.0	90.91	90.26	6,760.2	1,142.1	1,547.1	1,759.5	0.00	0.00	0.00
8,360.0	90.91	90.26	6,759.6	1,141.9	1,587.1	1,798.5	0.00	0.00	0.00
8,400.0	90.91	90.26	6,758.9	1,141.8	1,627.1	1,837.5	0.00	0.00	0.00
8,440.0	90.91	90.26	6,758.3	1,141.6	1,667.0	1,876.5	0.00	0.00	0.00
8,480.0	90.91	90.26	6,757.7	1,141.4	1,707.0	1,915.5	0.00	0.00	0.00
8,520.0	90.91	90.26	6,757.0	1,141.2	1,747.0	1,954.4	0.00	0.00	0.00
8,560.0	90.91	90.26	6,756.4	1,141.0	1,787.0	1,993.4	0.00	0.00	0.00
8,600.0	90.91	90.26	6,755.8	1,140.9	1,827.0	2,032.4	0.00	0.00	0.00
8,640.0	90.91	90.26	6,755.1	1,140.7	1,867.0	2,071.4	0.00	0.00	0.00
8,680.0	90.91	90.26	6,754.5	1,140.5	1,907.0	2,110.4	0.00	0.00	0.00
8,720.0	90.91	90.26	6,753.8	1,140.3	1,947.0	2,149.4	0.00	0.00	0.00
8,760.0	90.91	90.26	6,753.2	1,140.1	1,987.0	2,188.4	0.00	0.00	0.00
8,800.0	90.91	90.26	6,752.6	1,140.0	2,027.0	2,227.3	0.00	0.00	0.00
8,840.0	90.91	90.26	6,751.9	1,139.8	2,067.0	2,266.3	0.00	0.00	0.00
8,880.0	90.91	90.26	6,751.3	1,139.6	2,107.0	2,305.3	0.00	0.00	0.00
8,920.0	90.91	90.26	6,750.7	1,139.4	2,147.0	2,344.3	0.00	0.00	0.00
8,960.0	90.91	90.26	6,750.0	1,139.2	2,187.0	2,383.3	0.00	0.00	0.00
9,000.0	90.91	90.26	6,749.4	1,139.1	2,227.0	2,422.3	0.00	0.00	0.00
9,040.0	90.91	90.26	6,748.8	1,138.9	2,267.0	2,461.3	0.00	0.00	0.00
9,080.0	90.91	90.26	6,748.1	1,138.7	2,307.0	2,500.2	0.00	0.00	0.00
9,120.0	90.91	90.26	6,747.5	1,138.5	2,347.0	2,539.2	0.00	0.00	0.00
9,160.0	90.91	90.26	6,746.9	1,138.3	2,386.9	2,578.2	0.00	0.00	0.00
9,200.0	90.91	90.26	6,746.2	1,138.2	2,426.9	2,617.2	0.00	0.00	0.00
9,240.0	90.91	90.26	6,745.6	1,138.0	2,466.9	2,656.2	0.00	0.00	0.00
9,280.0	90.91	90.26	6,745.0	1,137.8	2,506.9	2,695.2	0.00	0.00	0.00
9,320.0	90.91	90.26	6,744.3	1,137.6	2,546.9	2,734.2	0.00	0.00	0.00
9,360.0	90.91	90.26	6,743.7	1,137.4	2,586.9	2,773.1	0.00	0.00	0.00
9,400.0	90.91	90.26	6,743.0	1,137.2	2,626.9	2,812.1	0.00	0.00	0.00
9,440.0	90.91	90.26	6,742.4	1,137.1	2,666.9	2,851.1	0.00	0.00	0.00
9,480.0	90.91	90.26	6,741.8	1,136.9	2,706.9	2,890.1	0.00	0.00	0.00
9,520.0	90.91	90.26	6,741.1	1,136.7	2,746.9	2,929.1	0.00	0.00	0.00
9,560.0	90.91	90.26	6,740.5	1,136.5	2,786.9	2,968.1	0.00	0.00	0.00
9,600.0	90.91	90.26	6,739.9	1,136.3	2,826.9	3,007.1	0.00	0.00	0.00
9,640.0	90.91	90.26	6,739.2	1,136.2	2,866.9	3,046.0	0.00	0.00	0.00
9,680.0	90.91	90.26	6,738.6	1,136.0	2,906.9	3,085.0	0.00	0.00	0.00
9,720.0	90.91	90.26	6,738.0	1,135.8	2,946.9	3,124.0	0.00	0.00	0.00
9,760.0	90.91	90.26	6,737.3	1,135.6	2,986.9	3,163.0	0.00	0.00	0.00
9,800.0	90.91	90.26	6,736.7	1,135.4	3,026.9	3,202.0	0.00	0.00	0.00
9,840.0	90.91	90.26	6,736.1	1,135.3	3,066.9	3,241.0	0.00	0.00	0.00
9,880.0	90.91	90.26	6,735.4	1,135.1	3,106.9	3,280.0	0.00	0.00	0.00
9,920.0	90.91	90.26	6,734.8	1,134.9	3,146.8	3,318.9	0.00	0.00	0.00
9,960.0	90.91	90.26	6,734.2	1,134.7	3,186.8	3,357.9	0.00	0.00	0.00
10,000.0	90.91	90.26	6,733.5	1,134.5	3,226.8	3,396.9	0.00	0.00	0.00
10,040.0	90.91	90.26	6,732.9	1,134.4	3,266.8	3,435.9	0.00	0.00	0.00
10,080.0	90.91	90.26	6,732.2	1,134.2	3,306.8	3,474.9	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well LaSalle 25E-202
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Project:	SEC.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-18-13)		

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)
10,120.0	90.91	90.26	6,731.6	1,134.0	3,346.8	3,513.9	0.00	0.00	0.00
10,160.0	90.91	90.26	6,731.0	1,133.8	3,386.8	3,552.8	0.00	0.00	0.00
10,200.0	90.91	90.26	6,730.3	1,133.6	3,426.8	3,591.8	0.00	0.00	0.00
10,240.0	90.91	90.26	6,729.7	1,133.5	3,466.8	3,630.8	0.00	0.00	0.00
10,280.0	90.91	90.26	6,729.1	1,133.3	3,506.8	3,669.8	0.00	0.00	0.00
10,320.0	90.91	90.26	6,728.4	1,133.1	3,546.8	3,708.8	0.00	0.00	0.00
10,360.0	90.91	90.26	6,727.8	1,132.9	3,586.8	3,747.8	0.00	0.00	0.00
10,400.0	90.91	90.26	6,727.2	1,132.7	3,626.8	3,786.8	0.00	0.00	0.00
10,440.0	90.91	90.26	6,726.5	1,132.5	3,666.8	3,825.7	0.00	0.00	0.00
10,480.0	90.91	90.26	6,725.9	1,132.4	3,706.8	3,864.7	0.00	0.00	0.00
10,520.0	90.91	90.26	6,725.3	1,132.2	3,746.8	3,903.7	0.00	0.00	0.00
10,560.0	90.91	90.26	6,724.6	1,132.0	3,786.8	3,942.7	0.00	0.00	0.00
10,600.0	90.91	90.26	6,724.0	1,131.8	3,826.8	3,981.7	0.00	0.00	0.00
10,640.0	90.91	90.26	6,723.4	1,131.6	3,866.7	4,020.7	0.00	0.00	0.00
10,680.0	90.91	90.26	6,722.7	1,131.5	3,906.7	4,059.7	0.00	0.00	0.00
10,720.0	90.91	90.26	6,722.1	1,131.3	3,946.7	4,098.6	0.00	0.00	0.00
10,760.0	90.91	90.26	6,721.4	1,131.1	3,986.7	4,137.6	0.00	0.00	0.00
10,800.0	90.91	90.26	6,720.8	1,130.9	4,026.7	4,176.6	0.00	0.00	0.00
10,840.0	90.91	90.26	6,720.2	1,130.7	4,066.7	4,215.6	0.00	0.00	0.00
10,880.0	90.91	90.26	6,719.5	1,130.6	4,106.7	4,254.6	0.00	0.00	0.00
10,920.0	90.91	90.26	6,718.9	1,130.4	4,146.7	4,293.6	0.00	0.00	0.00
10,960.0	90.91	90.26	6,718.3	1,130.2	4,186.7	4,332.6	0.00	0.00	0.00
11,000.0	90.91	90.26	6,717.6	1,130.0	4,226.7	4,371.5	0.00	0.00	0.00
11,040.0	90.91	90.26	6,717.0	1,129.8	4,266.7	4,410.5	0.00	0.00	0.00
11,080.0	90.91	90.26	6,716.4	1,129.7	4,306.7	4,449.5	0.00	0.00	0.00
11,120.0	90.91	90.26	6,715.7	1,129.5	4,346.7	4,488.5	0.00	0.00	0.00
11,160.0	90.91	90.26	6,715.1	1,129.3	4,386.7	4,527.5	0.00	0.00	0.00
11,200.0	90.91	90.26	6,714.5	1,129.1	4,426.7	4,566.5	0.00	0.00	0.00
11,240.0	90.91	90.26	6,713.8	1,128.9	4,466.7	4,605.5	0.00	0.00	0.00
11,280.0	90.91	90.26	6,713.2	1,128.8	4,506.7	4,644.4	0.00	0.00	0.00
11,320.0	90.91	90.26	6,712.6	1,128.6	4,546.7	4,683.4	0.00	0.00	0.00
11,360.0	90.91	90.26	6,711.9	1,128.4	4,586.6	4,722.4	0.00	0.00	0.00
11,400.0	90.91	90.26	6,711.3	1,128.2	4,626.6	4,761.4	0.00	0.00	0.00
11,440.0	90.91	90.26	6,710.6	1,128.0	4,666.6	4,800.4	0.00	0.00	0.00
11,480.0	90.91	90.26	6,710.0	1,127.8	4,706.6	4,839.4	0.00	0.00	0.00
11,520.0	90.91	90.26	6,709.4	1,127.7	4,746.6	4,878.4	0.00	0.00	0.00
11,560.0	90.91	90.26	6,708.7	1,127.5	4,786.6	4,917.3	0.00	0.00	0.00
11,600.0	90.91	90.26	6,708.1	1,127.3	4,826.6	4,956.3	0.00	0.00	0.00
11,640.0	90.91	90.26	6,707.5	1,127.1	4,866.6	4,995.3	0.00	0.00	0.00
11,680.0	90.91	90.26	6,706.8	1,126.9	4,906.6	5,034.3	0.00	0.00	0.00
11,720.0	90.91	90.26	6,706.2	1,126.8	4,946.6	5,073.3	0.00	0.00	0.00
11,760.0	90.91	90.26	6,705.6	1,126.6	4,986.6	5,112.3	0.00	0.00	0.00
11,795.5	90.91	90.26	6,705.0	1,126.4	5,022.1	5,146.9	0.00	0.00	0.00
BHL 150'FNL, 50'FEL									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,351.4	6,775.6	7"	7	8-3/4	

Database:	Landmark	Local Co-ordinate Reference:	Well LaSalle 25E-202
Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Project:	SEC.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	North Reference:	True
Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-18-13)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP #1
6,130.1	6,000.1	1,150.0	-195.0	KOP #2
7,340.2	6,775.6	1,146.6	567.4	End of Build



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.25-T5N-R65W

LaSalle 25F-HZ Pad Sec.25-T5N-R65W

LaSalle 25E-202

Wellbore #1

Plan #2 (4-18-13)

Anticollision Report

18 April, 2013



Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well LaSalle 25E-202
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-18-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #2 (4-18-13)
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 10,000.0ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic

Survey Tool Program		Date	4/18/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,795.5	Plan #2 (4-18-13) (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						
LaSalle 25F-HZ Pad Sec.25-T5N-R65W						
LaSalle 25F-332 - Wellbore #1 - Plan #1 (2-25-13)	200.0	200.0	58.3	57.6	86.445	CC, ES
LaSalle 25F-332 - Wellbore #1 - Plan #1 (2-25-13)	11,600.0	11,319.4	1,417.1	1,150.2	5.309	SF
LaSalle 25F-412 - Wellbore #1 - Plan #2 (4-18-13)	200.0	200.0	29.1	28.5	43.216	CC, ES
LaSalle 25F-412 - Wellbore #1 - Plan #2 (4-18-13)	11,795.5	11,845.1	948.7	668.0	3.380	SF

Offset Design		LaSalle 25F-HZ Pad Sec.25-T5N-R65W - LaSalle 25F-332 - Wellbore #1 - Plan #1 (2-25-13)										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		
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-58.3	0.0	58.3						
100.0	100.0	100.0	100.0	0.1	0.1	-180.00	-58.3	0.0	58.3	58.1	0.22	259.335			
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-58.3	0.0	58.3	57.6	0.67	86.445	CC, ES		
300.0	300.0	300.0	300.0	0.6	0.6	-170.65	-58.3	0.0	60.0	58.9	1.13	53.035			
400.0	399.8	399.8	399.8	0.8	0.8	-171.38	-58.3	0.0	65.2	63.6	1.59	40.910			
500.0	499.5	499.5	499.5	1.0	1.0	-172.37	-58.3	0.0	73.8	71.8	2.06	35.914			
600.0	598.7	598.7	598.7	1.3	1.2	-173.42	-58.3	0.0	85.9	83.4	2.52	34.121			
700.0	697.5	697.5	697.5	1.6	1.5	-174.40	-58.3	0.0	101.5	98.5	2.98	34.037			
800.0	795.6	795.6	795.6	2.0	1.7	-175.26	-58.3	0.0	120.5	117.0	3.45	34.965			
900.0	893.1	893.1	893.1	2.4	1.9	-175.98	-58.3	0.0	142.7	138.8	3.91	36.488			
1,000.0	990.4	990.4	990.4	2.9	2.1	-176.53	-58.3	0.0	165.7	161.3	4.38	37.826			
1,100.0	1,087.7	1,087.7	1,087.7	3.4	2.3	-176.96	-58.3	0.0	188.6	183.8	4.85	38.872			
1,200.0	1,185.0	1,185.0	1,185.0	3.8	2.6	-177.29	-58.3	0.0	211.6	206.3	5.33	39.709			
1,300.0	1,282.4	1,282.4	1,282.4	4.3	2.8	-177.55	-58.3	0.0	234.6	228.8	5.81	40.392			
1,400.0	1,379.7	1,379.7	1,379.7	4.8	3.0	-177.77	-58.3	0.0	257.6	251.3	6.29	40.960			
1,500.0	1,477.0	1,477.0	1,477.0	5.2	3.2	-177.96	-58.3	0.0	280.6	273.9	6.77	41.438			
1,600.0	1,574.3	1,574.3	1,574.3	5.7	3.4	-178.11	-58.3	0.0	303.6	296.4	7.26	41.845			
1,700.0	1,671.6	1,671.6	1,671.6	6.2	3.6	-178.24	-58.3	0.0	326.6	318.9	7.74	42.197			
1,800.0	1,768.9	1,768.9	1,768.9	6.7	3.9	-178.36	-58.3	0.0	349.6	341.4	8.23	42.503			
1,900.0	1,866.3	1,866.3	1,866.3	7.1	4.1	-178.46	-58.3	0.0	372.7	363.9	8.71	42.772			
2,000.0	1,963.6	1,963.6	1,963.6	7.6	4.3	-178.55	-58.3	0.0	395.7	386.5	9.20	43.010			
2,100.0	2,060.9	2,060.9	2,060.9	8.1	4.5	-178.63	-58.3	0.0	418.7	409.0	9.69	43.222			

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 LaSalle 25E-202
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-18-13)	Offset TVD Reference:	Offset Datum

Offset Design LaSalle 25F-HZ Pad Sec.25-T5N-R65W - LaSalle 25F-332 - Wellbore #1 - Plan #1 (2-25-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,200.0	2,158.2	2,158.2	2,158.2	8.6	4.7	-178.70	-178.70	-58.3	0.0	441.7	431.5	10.17	43.412	
2,300.0	2,255.5	2,255.5	2,255.5	9.1	5.0	-178.77	-178.77	-58.3	0.0	464.7	454.0	10.66	43.583	
2,400.0	2,352.8	2,352.8	2,352.8	9.5	5.2	-178.82	-178.82	-58.3	0.0	487.7	476.6	11.15	43.737	
2,500.0	2,450.1	2,450.1	2,450.1	10.0	5.4	-178.88	-178.88	-58.3	0.0	510.7	499.1	11.64	43.878	
2,600.0	2,547.5	2,547.5	2,547.5	10.5	5.6	-178.92	-178.92	-58.3	0.0	533.7	521.6	12.13	44.007	
2,700.0	2,644.8	2,644.8	2,644.8	11.0	5.8	-178.97	-178.97	-58.3	0.0	556.7	544.1	12.62	44.124	
2,800.0	2,742.1	2,742.1	2,742.1	11.5	6.1	-179.01	-179.01	-58.3	0.0	579.8	566.7	13.11	44.232	
2,900.0	2,839.4	2,839.4	2,839.4	11.9	6.3	-179.05	-179.05	-58.3	0.0	602.8	589.2	13.60	44.332	
3,000.0	2,936.7	2,936.7	2,936.7	12.4	6.5	-179.08	-179.08	-58.3	0.0	625.8	611.7	14.09	44.424	
3,100.0	3,034.0	3,034.0	3,034.0	12.9	6.7	-179.10	-179.10	-58.4	-0.1	648.9	634.3	14.56	44.564	
3,200.0	3,131.4	3,115.8	3,115.8	13.4	6.9	-178.97	-178.97	-59.9	-1.7	673.3	658.3	15.01	44.873	
3,300.0	3,228.7	3,200.0	3,199.8	13.9	7.0	-178.68	-178.68	-63.1	-5.1	699.4	684.0	15.44	45.314	
3,400.0	3,326.0	3,284.4	3,283.9	14.3	7.2	-178.24	-178.24	-68.0	-10.2	727.2	711.3	15.87	45.817	
3,500.0	3,423.3	3,374.0	3,373.0	14.8	7.3	-177.65	-177.65	-74.8	-17.4	756.4	740.1	16.32	46.334	
3,600.0	3,520.6	3,469.3	3,467.6	15.3	7.5	-177.06	-177.06	-82.1	-25.1	785.8	769.0	16.79	46.796	
3,700.0	3,617.9	3,564.5	3,562.3	15.8	7.7	-176.51	-176.51	-89.5	-32.9	815.4	798.1	17.27	47.222	
3,800.0	3,715.2	3,659.8	3,657.0	16.3	7.9	-176.00	-176.00	-96.9	-40.6	845.0	827.2	17.75	47.612	
3,900.0	3,812.6	3,755.0	3,751.6	16.8	8.1	-175.53	-175.53	-104.2	-48.4	874.6	856.4	18.23	47.973	
4,000.0	3,909.9	3,850.3	3,846.3	17.2	8.4	-175.08	-175.08	-111.6	-56.2	904.3	885.6	18.72	48.306	
4,100.0	4,007.2	3,945.5	3,940.9	17.7	8.6	-174.66	-174.66	-119.0	-63.9	934.1	914.9	19.21	48.614	
4,200.0	4,104.5	4,040.8	4,035.6	18.2	8.8	-174.27	-174.27	-126.3	-71.7	963.9	944.1	19.71	48.899	
4,300.0	4,201.8	4,136.1	4,130.2	18.7	9.0	-173.90	-173.90	-133.7	-79.5	993.7	973.5	20.21	49.164	
4,400.0	4,299.1	4,231.3	4,224.9	19.2	9.3	-173.56	-173.56	-141.1	-87.2	1,023.6	1,002.8	20.72	49.410	
4,500.0	4,396.4	4,326.6	4,319.5	19.7	9.5	-173.23	-173.23	-148.4	-95.0	1,053.5	1,032.2	21.22	49.639	
4,600.0	4,493.8	4,421.8	4,414.2	20.1	9.7	-172.92	-172.92	-155.8	-102.8	1,083.4	1,061.6	21.73	49.852	
4,700.0	4,591.1	4,517.1	4,508.8	20.6	10.0	-172.63	-172.63	-163.2	-110.5	1,113.3	1,091.1	22.24	50.052	
4,800.0	4,688.4	4,612.4	4,603.5	21.1	10.2	-172.35	-172.35	-170.5	-118.3	1,143.3	1,120.6	22.76	50.238	
4,900.0	4,785.7	4,707.6	4,698.2	21.6	10.5	-172.09	-172.09	-177.9	-126.1	1,173.3	1,150.0	23.27	50.413	
5,000.0	4,883.0	4,802.9	4,792.8	22.1	10.7	-171.84	-171.84	-185.3	-133.8	1,203.3	1,179.6	23.79	50.576	
5,100.0	4,980.3	4,898.1	4,887.5	22.5	11.0	-171.60	-171.60	-192.6	-141.6	1,233.4	1,209.1	24.31	50.730	
5,200.0	5,077.7	4,993.4	4,982.1	23.0	11.2	-171.38	-171.38	-200.0	-149.4	1,263.5	1,238.6	24.83	50.875	
5,300.0	5,175.0	5,088.7	5,076.8	23.5	11.5	-171.19	-171.19	-207.4	-157.1	1,293.3	1,268.0	25.38	50.968	
5,400.0	5,273.0	5,184.8	5,172.3	23.8	11.8	-171.05	-171.05	-214.8	-165.0	1,320.6	1,294.7	25.90	50.986	
5,500.0	5,371.6	5,281.7	5,268.6	24.1	12.0	-170.89	-170.89	-222.3	-172.9	1,344.6	1,318.2	26.40	50.937	
5,600.0	5,470.7	5,379.4	5,365.7	24.4	12.3	-170.70	-170.70	-229.8	-180.8	1,365.2	1,338.3	26.86	50.829	
5,700.0	5,570.2	5,520.2	5,505.9	24.6	12.6	-170.44	-170.44	-238.8	-190.2	1,381.2	1,353.8	27.36	50.481	
5,800.0	5,670.0	5,669.4	5,654.9	24.8	12.9	-170.35	-170.35	-243.0	-194.7	1,390.2	1,362.4	27.81	49.995	
5,900.0	5,770.0	5,784.4	5,770.0	24.9	13.2	-170.37	-170.37	-243.3	-195.0	1,393.1	1,365.0	28.12	49.534	
6,000.0	5,870.0	5,884.4	5,870.0	25.0	13.4	180.00	180.00	-243.3	-195.0	1,393.3	1,355.6	37.65	37.003	
6,100.0	5,970.0	5,984.4	5,970.0	25.1	13.6	180.00	180.00	-243.3	-195.0	1,393.3	1,355.3	37.97	36.696	
6,200.0	6,069.9	6,084.4	6,069.9	25.2	13.8	89.83	89.83	-243.3	-195.0	1,393.3	1,364.1	29.23	47.674	
6,239.9	6,109.6	6,124.0	6,109.6	25.3	13.8	90.00	90.00	-243.3	-195.0	1,393.3	1,363.9	29.37	47.446	
6,300.0	6,168.8	6,184.0	6,169.5	25.3	13.9	90.31	90.31	-243.3	-192.6	1,393.3	1,363.7	29.56	47.130	
6,400.0	6,265.1	6,285.2	6,269.5	25.4	14.1	90.83	90.83	-243.4	-178.0	1,393.4	1,363.6	29.83	46.713	
6,500.0	6,357.0	6,388.1	6,368.4	25.4	14.2	91.35	91.35	-243.5	-149.7	1,393.6	1,363.6	30.07	46.352	
6,600.0	6,443.0	6,492.9	6,464.2	25.4	14.3	91.84	91.84	-243.6	-107.6	1,393.9	1,363.6	30.35	45.929	
6,700.0	6,521.6	6,599.4	6,554.8	25.5	14.4	92.30	92.30	-243.8	-51.6	1,394.3	1,363.5	30.80	45.265	
6,800.0	6,591.5	6,707.7	6,638.0	25.5	14.6	92.73	92.73	-244.1	17.5	1,394.7	1,363.1	31.60	44.139	
6,900.0	6,651.4	6,817.6	6,711.6	25.6	15.1	93.11	93.11	-244.4	99.0	1,395.2	1,362.2	32.92	42.384	
7,000.0	6,700.5	6,929.0	6,773.5	25.8	16.2	93.43	93.43	-244.8	191.5	1,395.5	1,360.6	34.91	39.980	
7,100.0	6,737.7	7,041.7	6,821.7	26.1	17.6	93.69	93.69	-245.2	293.3	1,395.9	1,358.2	37.63	37.093	

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 LaSalle 25E-202
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-18-13)	Offset TVD Reference:	Offset Datum

Offset Design LaSalle 25F-HZ Pad Sec.25-T5N-R65W - LaSalle 25F-332 - Wellbore #1 - Plan #1 (2-25-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,200.0	6,762.5	7,155.4	6,854.7	26.6	19.5	93.87	93.87	-245.6	401.9	1,396.1	1,355.0	41.06	33.998	
7,300.0	6,774.5	7,269.7	6,871.3	27.4	21.6	93.98	93.98	-246.1	514.9	1,396.2	1,351.1	45.07	30.981	
7,400.0	6,774.8	7,378.2	6,872.4	28.6	23.9	94.01	94.01	-246.5	623.4	1,396.2	1,346.9	49.30	28.318	
7,500.0	6,773.2	7,478.2	6,870.7	30.2	26.1	94.00	94.00	-246.9	723.4	1,396.1	1,342.5	53.62	26.039	
7,600.0	6,771.6	7,578.2	6,869.0	32.1	28.4	94.00	94.00	-247.3	823.4	1,396.1	1,337.9	58.15	24.010	
7,700.0	6,770.0	7,678.2	6,867.3	34.1	30.8	94.00	94.00	-247.7	923.4	1,396.0	1,333.1	62.85	22.212	
7,800.0	6,768.5	7,778.2	6,865.6	36.3	33.3	93.99	93.99	-248.0	1,023.4	1,395.9	1,328.2	67.69	20.623	
7,900.0	6,766.9	7,878.2	6,863.9	38.5	35.8	93.99	93.99	-248.4	1,123.3	1,395.8	1,323.2	72.64	19.217	
8,000.0	6,765.3	7,978.2	6,862.1	40.9	38.4	93.98	93.98	-248.8	1,223.3	1,395.8	1,318.1	77.68	17.969	
8,100.0	6,763.7	8,078.2	6,860.4	43.3	41.0	93.98	93.98	-249.2	1,323.3	1,395.7	1,312.9	82.79	16.859	
8,200.0	6,762.1	8,178.2	6,858.7	45.8	43.6	93.97	93.97	-249.6	1,423.3	1,395.6	1,307.7	87.96	15.867	
8,300.0	6,760.5	8,278.2	6,857.0	48.3	46.2	93.97	93.97	-250.0	1,523.3	1,395.6	1,302.4	93.18	14.977	
8,400.0	6,758.9	8,378.2	6,855.3	50.9	48.9	93.96	93.96	-250.4	1,623.3	1,395.5	1,297.0	98.45	14.175	
8,500.0	6,757.3	8,478.2	6,853.6	53.4	51.6	93.96	93.96	-250.8	1,723.2	1,395.4	1,291.7	103.74	13.451	
8,600.0	6,755.8	8,578.2	6,851.9	56.0	54.2	93.95	93.95	-251.2	1,823.2	1,395.4	1,286.3	109.07	12.793	
8,700.0	6,754.2	8,678.2	6,850.2	58.6	56.9	93.95	93.95	-251.6	1,923.2	1,395.3	1,280.9	114.43	12.193	
8,800.0	6,752.6	8,778.2	6,848.5	61.3	59.6	93.94	93.94	-252.0	2,023.2	1,395.2	1,275.4	119.81	11.645	
8,900.0	6,751.0	8,878.2	6,846.8	63.9	62.4	93.94	93.94	-252.3	2,123.2	1,395.1	1,269.9	125.21	11.142	
9,000.0	6,749.4	8,978.2	6,845.0	66.6	65.1	93.93	93.93	-252.7	2,223.2	1,395.1	1,264.4	130.63	10.680	
9,100.0	6,747.8	9,078.2	6,843.3	69.3	67.8	93.93	93.93	-253.1	2,323.2	1,395.0	1,258.9	136.06	10.253	
9,200.0	6,746.2	9,178.2	6,841.6	72.0	70.6	93.92	93.92	-253.5	2,423.1	1,394.9	1,253.4	141.50	9.858	
9,300.0	6,744.6	9,278.2	6,839.9	74.6	73.3	93.92	93.92	-253.9	2,523.1	1,394.9	1,247.9	146.96	9.491	
9,400.0	6,743.0	9,378.2	6,838.2	77.3	76.0	93.91	93.91	-254.3	2,623.1	1,394.8	1,242.4	152.43	9.150	
9,500.0	6,741.5	9,478.2	6,836.5	80.1	78.8	93.91	93.91	-254.7	2,723.1	1,394.7	1,236.8	157.91	8.833	
9,600.0	6,739.9	9,578.2	6,834.8	82.8	81.6	93.90	93.90	-255.1	2,823.1	1,394.7	1,231.3	163.39	8.536	
9,700.0	6,738.3	9,678.2	6,833.1	85.5	84.3	93.90	93.90	-255.5	2,923.1	1,394.6	1,225.7	168.89	8.257	
9,800.0	6,736.7	9,778.2	6,831.4	88.2	87.1	93.89	93.89	-255.9	3,023.0	1,394.5	1,220.1	174.39	7.997	
9,900.0	6,735.1	9,878.2	6,829.6	91.0	89.8	93.89	93.89	-256.2	3,123.0	1,394.4	1,214.6	179.90	7.751	
10,000.0	6,733.5	9,978.2	6,827.9	93.7	92.6	93.88	93.88	-256.6	3,223.0	1,394.4	1,209.0	185.41	7.520	
10,100.0	6,731.9	10,078.2	6,826.2	96.4	95.4	93.88	93.88	-257.0	3,323.0	1,394.3	1,203.4	190.93	7.303	
10,200.0	6,730.3	10,178.2	6,824.5	99.2	98.2	93.87	93.87	-257.4	3,423.0	1,394.2	1,197.8	196.46	7.097	
10,300.0	6,728.8	10,278.2	6,822.8	101.9	100.9	93.87	93.87	-257.8	3,523.0	1,394.2	1,192.2	201.98	6.902	
10,400.0	6,727.2	10,378.2	6,821.1	104.7	103.7	93.86	93.86	-258.2	3,623.0	1,394.1	1,186.6	207.52	6.718	
10,500.0	6,725.6	10,478.2	6,819.4	107.4	106.5	93.86	93.86	-258.6	3,722.9	1,394.0	1,181.0	213.05	6.543	
10,600.0	6,724.0	10,578.2	6,817.7	110.2	109.3	93.85	93.85	-259.0	3,822.9	1,394.0	1,175.4	218.59	6.377	
10,700.0	6,722.4	10,678.2	6,816.0	113.0	112.0	93.85	93.85	-259.4	3,922.9	1,393.9	1,169.8	224.14	6.219	
10,800.0	6,720.8	10,778.2	6,814.3	115.7	114.8	93.85	93.85	-259.8	4,022.9	1,393.8	1,164.1	229.68	6.068	
10,900.0	6,719.2	10,878.2	6,812.5	118.5	117.6	93.84	93.84	-260.2	4,122.9	1,393.8	1,158.5	235.23	5.925	
11,000.0	6,717.6	10,978.2	6,810.8	121.2	120.4	93.84	93.84	-260.5	4,222.9	1,393.7	1,152.9	240.79	5.788	
11,100.0	6,716.0	11,078.2	6,809.1	124.0	123.2	93.83	93.83	-260.9	4,322.8	1,393.6	1,147.3	246.34	5.657	
11,200.0	6,714.5	11,178.2	6,807.4	126.8	126.0	93.83	93.83	-261.3	4,422.8	1,393.5	1,141.6	251.90	5.532	
11,300.0	6,712.9	11,278.2	6,805.7	129.6	128.7	93.82	93.82	-261.7	4,522.8	1,393.5	1,136.0	257.46	5.412	
11,329.5	6,712.4	11,307.7	6,805.2	130.4	129.6	93.82	93.82	-261.8	4,552.3	1,393.5	1,134.4	259.10	5.378	
11,400.0	6,711.3	11,319.4	6,805.0	132.3	129.9	93.82	93.82	-261.9	4,564.0	1,394.6	1,133.3	261.38	5.336	
11,500.0	6,709.7	11,319.4	6,805.0	135.1	129.9	93.82	93.82	-261.9	4,564.0	1,402.4	1,138.2	264.16	5.309	
11,600.0	6,708.1	11,319.4	6,805.0	137.9	129.9	93.82	93.82	-261.9	4,564.0	1,417.1	1,150.2	266.94	5.309 SF	
11,700.0	6,706.5	11,319.4	6,805.0	140.7	129.9	93.82	93.82	-261.9	4,564.0	1,438.7	1,168.9	269.72	5.334	
11,795.5	6,705.0	11,319.4	6,805.0	143.3	129.9	93.82	93.82	-261.9	4,564.0	1,465.3	1,193.0	272.38	5.380	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well LaSalle 25E-202
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-18-13)	Offset TVD Reference:	Offset Datum

Offset Design LaSalle 25F-HZ Pad Sec.25-T5N-R65W - LaSalle 25F-412 - Wellbore #1 - Plan #2 (4-18-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	180.00	180.00	-29.1	0.0	29.1				
100.0	100.0	100.0	100.0	0.1	0.1	180.00	180.00	-29.1	0.0	29.1	28.9	0.22	129.649	
200.0	200.0	200.0	200.0	0.3	0.3	180.00	180.00	-29.1	0.0	29.1	28.5	0.67	43.216 CC, ES	
300.0	300.0	300.0	300.0	0.6	0.6	-170.91	-170.91	-29.1	0.0	30.9	29.7	1.13	27.275	
400.0	399.8	399.8	399.8	0.8	0.8	-172.21	-172.21	-29.1	0.0	36.0	34.4	1.59	22.620	
500.0	499.5	499.5	499.5	1.0	1.0	-173.71	-173.71	-29.1	0.0	44.7	42.6	2.06	21.747	
600.0	598.7	598.7	598.7	1.3	1.2	-175.03	-175.03	-29.1	0.0	56.8	54.3	2.52	22.573	
700.0	697.5	697.5	697.5	1.6	1.5	-176.08	-176.08	-29.1	0.0	72.4	69.4	2.98	24.302	
800.0	795.6	795.6	795.6	2.0	1.7	-176.88	-176.88	-29.1	0.0	91.5	88.0	3.44	26.558	
900.0	893.1	893.1	893.1	2.4	1.9	-177.48	-177.48	-29.1	0.0	113.7	109.8	3.91	29.096	
1,000.0	990.4	990.4	990.4	2.9	2.1	-177.90	-177.90	-29.1	0.0	136.7	132.3	4.38	31.235	
1,100.0	1,087.7	1,092.1	1,092.1	3.4	2.3	-177.94	-177.94	-28.0	-0.9	158.5	153.7	4.85	32.664	
1,200.0	1,185.0	1,195.6	1,195.4	3.8	2.6	-177.36	-177.36	-23.9	-4.1	177.3	172.0	5.33	33.249	
1,300.0	1,282.4	1,300.0	1,299.5	4.3	2.8	-176.29	-176.29	-16.8	-9.7	193.1	187.2	5.83	33.122	
1,400.0	1,379.7	1,401.2	1,400.0	4.8	3.1	-174.97	-174.97	-7.6	-16.9	206.4	200.1	6.34	32.583	
1,500.0	1,477.0	1,500.3	1,498.3	5.2	3.3	-173.80	-173.80	1.6	-24.1	219.7	212.9	6.86	32.052	
1,600.0	1,574.3	1,599.3	1,596.7	5.7	3.6	-172.77	-172.77	10.8	-31.3	233.1	225.7	7.38	31.570	
1,700.0	1,671.6	1,698.3	1,695.0	6.2	3.9	-171.85	-171.85	19.9	-38.5	246.5	238.6	7.92	31.130	
1,800.0	1,768.9	1,797.3	1,793.3	6.7	4.1	-171.02	-171.02	29.1	-45.7	260.0	251.5	8.46	30.729	
1,900.0	1,866.3	1,896.3	1,891.7	7.1	4.4	-170.27	-170.27	38.3	-52.9	273.5	264.5	9.01	30.361	
2,000.0	1,963.6	1,995.4	1,990.0	7.6	4.7	-169.60	-169.60	47.5	-60.1	287.1	277.5	9.56	30.023	
2,100.0	2,060.9	2,094.4	2,088.3	8.1	5.0	-168.99	-168.99	56.7	-67.3	300.7	290.6	10.12	29.712	
2,200.0	2,158.2	2,193.4	2,186.7	8.6	5.3	-168.42	-168.42	65.8	-74.5	314.3	303.6	10.68	29.426	
2,300.0	2,255.5	2,292.4	2,285.0	9.1	5.6	-167.91	-167.91	75.0	-81.7	328.0	316.7	11.25	29.161	
2,400.0	2,352.8	2,391.4	2,383.3	9.5	5.9	-167.44	-167.44	84.2	-89.0	341.7	329.8	11.82	28.916	
2,500.0	2,450.1	2,490.5	2,481.7	10.0	6.2	-167.00	-167.00	93.4	-96.2	355.4	343.0	12.39	28.688	
2,600.0	2,547.5	2,589.5	2,580.0	10.5	6.4	-166.60	-166.60	102.6	-103.4	369.1	356.1	12.96	28.476	
2,700.0	2,644.8	2,688.5	2,678.3	11.0	6.7	-166.22	-166.22	111.8	-110.6	382.8	369.3	13.54	28.279	
2,800.0	2,742.1	2,787.5	2,776.6	11.5	7.0	-165.87	-165.87	120.9	-117.8	396.6	382.5	14.12	28.094	
2,900.0	2,839.4	2,886.6	2,875.0	11.9	7.3	-165.54	-165.54	130.1	-125.0	410.4	395.7	14.70	27.922	
3,000.0	2,936.7	2,985.6	2,973.3	12.4	7.6	-165.24	-165.24	139.3	-132.2	424.2	408.9	15.28	27.760	
3,100.0	3,034.0	3,084.6	3,071.6	12.9	8.0	-164.95	-164.95	148.5	-139.4	438.0	422.1	15.86	27.608	
3,200.0	3,131.4	3,183.6	3,170.0	13.4	8.3	-164.69	-164.69	157.7	-146.6	451.8	435.3	16.45	27.465	
3,300.0	3,228.7	3,282.6	3,268.3	13.9	8.6	-164.43	-164.43	166.9	-153.8	465.6	448.5	17.03	27.330	
3,400.0	3,326.0	3,381.7	3,366.6	14.3	8.9	-164.20	-164.20	176.0	-161.0	479.4	461.8	17.62	27.203	
3,500.0	3,423.3	3,480.7	3,465.0	14.8	9.2	-163.97	-163.97	185.2	-168.2	493.2	475.0	18.21	27.083	
3,600.0	3,520.6	3,579.7	3,563.3	15.3	9.5	-163.76	-163.76	194.4	-175.4	507.1	488.3	18.80	26.970	
3,700.0	3,617.9	3,678.7	3,661.6	15.8	9.8	-163.56	-163.56	203.6	-182.6	520.9	501.5	19.39	26.862	
3,800.0	3,715.2	3,766.2	3,748.7	16.3	10.0	-163.49	-163.49	210.7	-188.2	535.8	515.9	19.88	26.953	
3,900.0	3,812.6	3,853.0	3,835.2	16.8	10.2	-163.62	-163.62	215.6	-192.1	552.9	532.5	20.33	27.195	
4,000.0	3,909.9	3,939.0	3,921.2	17.2	10.3	-163.93	-163.93	218.5	-194.3	572.0	551.3	20.75	27.571	
4,100.0	4,007.2	4,025.1	4,007.2	17.7	10.5	-164.40	-164.40	219.4	-195.0	593.3	572.2	21.14	28.067	
4,200.0	4,104.5	4,122.4	4,104.5	18.2	10.6	-164.97	-164.97	219.4	-195.0	615.6	594.0	21.55	28.563	
4,300.0	4,201.8	4,219.7	4,201.8	18.7	10.8	-165.51	-165.51	219.4	-195.0	637.9	615.9	21.98	29.018	
4,400.0	4,299.1	4,317.0	4,299.1	19.2	11.0	-166.01	-166.01	219.4	-195.0	660.2	637.8	22.42	29.452	
4,500.0	4,396.4	4,414.3	4,396.4	19.7	11.2	-166.47	-166.47	219.4	-195.0	682.6	659.7	22.85	29.867	
4,600.0	4,493.8	4,511.7	4,493.8	20.1	11.4	-166.91	-166.91	219.4	-195.0	705.0	681.7	23.30	30.264	
4,700.0	4,591.1	4,609.0	4,591.1	20.6	11.5	-167.32	-167.32	219.4	-195.0	727.5	703.7	23.74	30.643	
4,800.0	4,688.4	4,706.3	4,688.4	21.1	11.7	-167.71	-167.71	219.4	-195.0	750.0	725.8	24.19	31.006	
4,900.0	4,785.7	4,803.6	4,785.7	21.6	11.9	-168.07	-168.07	219.4	-195.0	772.5	747.9	24.64	31.354	
5,000.0	4,883.0	4,900.9	4,883.0	22.1	12.1	-168.41	-168.41	219.4	-195.0	795.1	770.0	25.09	31.688	

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 LaSalle 25E-202
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-18-13)	Offset TVD Reference:	Offset Datum

Offset Design LaSalle 25F-HZ Pad Sec.25-T5N-R65W - LaSalle 25F-412 - Wellbore #1 - Plan #2 (4-18-13)													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	4,980.3	4,998.2	4,980.3	22.5	12.3	-168.74		219.4	-195.0	817.7	792.1	25.55	32.008	
5,200.0	5,077.7	5,095.5	5,077.7	23.0	12.5	-169.04		219.4	-195.0	840.3	814.3	26.00	32.315	
5,300.0	5,175.0	5,192.9	5,175.0	23.5	12.7	-169.36		219.4	-195.0	862.7	836.2	26.47	32.591	
5,400.0	5,273.0	5,290.9	5,273.0	23.8	12.9	-169.67		219.4	-195.0	882.5	855.6	26.91	32.793	
5,500.0	5,371.6	5,389.5	5,371.6	24.1	13.1	-169.92		219.4	-195.0	898.9	871.6	27.32	32.901	
5,600.0	5,470.7	5,488.6	5,470.7	24.4	13.3	-170.11		219.4	-195.0	911.9	884.2	27.70	32.922	
5,700.0	5,570.2	5,588.1	5,570.2	24.6	13.5	-170.25		219.4	-195.0	921.5	893.5	28.05	32.859	
5,800.0	5,670.0	5,687.9	5,670.0	24.8	13.7	-170.34		219.4	-195.0	927.7	899.4	28.36	32.717	
5,900.0	5,770.0	5,787.8	5,770.0	24.9	13.9	-170.37		219.4	-195.0	930.5	901.9	28.63	32.499	
6,000.0	5,870.0	5,887.8	5,870.0	25.0	14.1	180.00		219.4	-195.0	930.6	892.3	38.38	24.246	
6,100.0	5,970.0	5,987.8	5,970.0	25.1	14.3	180.00		219.4	-195.0	930.6	891.9	38.70	24.047	
6,200.0	6,069.9	6,087.8	6,069.9	25.2	14.5	89.88		219.4	-195.0	930.6	900.9	29.75	31.280	
6,221.9	6,091.7	6,109.6	6,091.7	25.2	14.5	90.00		219.4	-195.0	930.6	900.8	29.84	31.191	
6,300.0	6,168.8	6,186.7	6,168.8	25.3	14.7	90.73		219.4	-195.0	930.7	900.5	30.17	30.851	
6,400.0	6,265.1	6,287.1	6,269.0	25.4	14.8	92.05		219.3	-189.9	931.3	900.7	30.57	30.461	
6,500.0	6,357.0	6,390.9	6,371.0	25.4	15.0	93.37		219.3	-171.1	932.3	901.4	30.91	30.160	
6,600.0	6,443.0	6,498.0	6,472.6	25.4	15.1	94.65		219.1	-137.3	933.8	902.6	31.24	29.890	
6,700.0	6,521.6	6,608.7	6,571.5	25.5	15.1	95.87		218.9	-87.8	935.7	904.0	31.66	29.558	
6,800.0	6,591.5	6,723.0	6,665.0	25.5	15.2	96.99		218.6	-22.3	937.8	905.5	32.32	29.018	
6,900.0	6,651.4	6,840.9	6,750.1	25.6	15.5	98.00		218.3	59.0	939.9	906.5	33.43	28.117	
7,000.0	6,700.5	6,962.1	6,823.6	25.8	16.4	98.87		217.9	155.3	941.9	906.7	35.22	26.747	
7,100.0	6,737.7	7,086.2	6,882.0	26.1	17.8	99.55		217.4	264.7	943.7	905.8	37.83	24.945	
7,200.0	6,762.5	7,212.6	6,922.6	26.6	19.8	100.03		216.9	384.2	944.9	903.6	41.29	22.886	
7,300.0	6,774.5	7,335.8	6,942.8	27.4	22.0	100.29		216.4	505.6	945.7	900.3	45.38	20.838	
7,400.0	6,774.8	7,443.0	6,952.9	28.6	24.2	100.83		216.0	612.4	947.3	897.8	49.52	19.130	
7,500.0	6,773.2	7,556.4	6,954.6	30.2	26.7	101.03		215.5	725.7	947.8	893.9	53.98	17.558	
7,600.0	6,771.6	7,656.4	6,953.2	32.1	29.0	101.05		215.1	825.7	947.9	889.5	58.41	16.228	
7,700.0	6,770.0	7,756.4	6,951.9	34.1	31.3	101.06		214.7	925.7	947.9	884.9	63.00	15.046	
7,800.0	6,768.5	7,856.4	6,950.6	36.3	33.8	101.08		214.2	1,025.7	947.9	880.2	67.73	13.996	
7,900.0	6,766.9	7,956.4	6,949.2	38.5	36.3	101.09		213.8	1,125.6	947.9	875.3	72.57	13.062	
8,000.0	6,765.3	8,056.4	6,947.9	40.9	38.8	101.11		213.4	1,225.6	947.9	870.4	77.50	12.232	
8,100.0	6,763.7	8,156.4	6,946.5	43.3	41.4	101.12		213.0	1,325.6	948.0	865.4	82.50	11.490	
8,200.0	6,762.1	8,256.4	6,945.2	45.8	44.0	101.14		212.6	1,425.6	948.0	860.4	87.57	10.825	
8,300.0	6,760.5	8,356.4	6,943.8	48.3	46.6	101.15		212.1	1,525.6	948.0	855.3	92.69	10.228	
8,400.0	6,758.9	8,456.4	6,942.5	50.9	49.2	101.17		211.7	1,625.6	948.0	850.2	97.85	9.689	
8,500.0	6,757.3	8,556.4	6,941.2	53.4	51.9	101.18		211.3	1,725.6	948.0	845.0	103.04	9.200	
8,600.0	6,755.8	8,656.4	6,939.8	56.0	54.6	101.20		210.9	1,825.6	948.0	839.8	108.27	8.756	
8,700.0	6,754.2	8,756.4	6,938.5	58.6	57.2	101.21		210.4	1,925.6	948.1	834.5	113.53	8.351	
8,800.0	6,752.6	8,856.4	6,937.1	61.3	59.9	101.23		210.0	2,025.6	948.1	829.3	118.80	7.980	
8,900.0	6,751.0	8,956.4	6,935.8	63.9	62.6	101.24		209.6	2,125.5	948.1	824.0	124.10	7.640	
9,000.0	6,749.4	9,056.4	6,934.4	66.6	65.4	101.26		209.2	2,225.5	948.1	818.7	129.42	7.326	
9,100.0	6,747.8	9,156.4	6,933.1	69.3	68.1	101.27		208.8	2,325.5	948.1	813.4	134.75	7.036	
9,200.0	6,746.2	9,256.4	6,931.8	72.0	70.8	101.29		208.3	2,425.5	948.1	808.1	140.09	6.768	
9,300.0	6,744.6	9,356.4	6,930.4	74.6	73.6	101.30		207.9	2,525.5	948.2	802.7	145.45	6.519	
9,400.0	6,743.0	9,456.4	6,929.1	77.3	76.3	101.32		207.5	2,625.5	948.2	797.4	150.81	6.287	
9,500.0	6,741.5	9,556.4	6,927.7	80.1	79.0	101.33		207.1	2,725.5	948.2	792.0	156.19	6.071	
9,600.0	6,739.9	9,656.4	6,926.4	82.8	81.8	101.35		206.7	2,825.5	948.2	786.6	161.57	5.869	
9,700.0	6,738.3	9,756.4	6,925.0	85.5	84.5	101.36		206.2	2,925.5	948.2	781.3	166.97	5.679	
9,800.0	6,736.7	9,856.4	6,923.7	88.2	87.3	101.38		205.8	3,025.5	948.3	775.9	172.37	5.501	
9,900.0	6,735.1	9,956.4	6,922.4	91.0	90.1	101.39		205.4	3,125.4	948.3	770.5	177.77	5.334	
10,000.0	6,733.5	10,056.4	6,921.0	93.7	92.8	101.41		205.0	3,225.4	948.3	765.1	183.18	5.177	

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 LaSalle 25E-202
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-18-13)	Offset TVD Reference:	Offset Datum

Offset Design LaSalle 25F-HZ Pad Sec.25-T5N-R65W - LaSalle 25F-412 - Wellbore #1 - Plan #2 (4-18-13)												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	6,731.9	10,156.4	6,919.7	96.4	95.6	101.42	204.5	3,325.4	948.3	759.7	188.60	5.028	
10,200.0	6,730.3	10,256.4	6,918.3	99.2	98.4	101.44	204.1	3,425.4	948.3	754.3	194.02	4.888	
10,300.0	6,728.8	10,356.4	6,917.0	101.9	101.1	101.45	203.7	3,525.4	948.3	748.9	199.45	4.755	
10,400.0	6,727.2	10,456.4	6,915.6	104.7	103.9	101.46	203.3	3,625.4	948.4	743.5	204.87	4.629	
10,500.0	6,725.6	10,556.4	6,914.3	107.4	106.7	101.48	202.9	3,725.4	948.4	738.1	210.31	4.510	
10,600.0	6,724.0	10,656.4	6,913.0	110.2	109.5	101.49	202.4	3,825.4	948.4	732.7	215.74	4.396	
10,700.0	6,722.4	10,756.4	6,911.6	113.0	112.2	101.51	202.0	3,925.4	948.4	727.2	221.18	4.288	
10,800.0	6,720.8	10,856.4	6,910.3	115.7	115.0	101.52	201.6	4,025.4	948.4	721.8	226.62	4.185	
10,900.0	6,719.2	10,956.4	6,908.9	118.5	117.8	101.54	201.2	4,125.3	948.5	716.4	232.06	4.087	
11,000.0	6,717.6	11,056.4	6,907.6	121.2	120.6	101.55	200.8	4,225.3	948.5	711.0	237.51	3.993	
11,100.0	6,716.0	11,156.4	6,906.2	124.0	123.4	101.57	200.3	4,325.3	948.5	705.5	242.96	3.904	
11,200.0	6,714.5	11,256.4	6,904.9	126.8	126.1	101.58	199.9	4,425.3	948.5	700.1	248.41	3.818	
11,300.0	6,712.9	11,356.4	6,903.6	129.6	128.9	101.60	199.5	4,525.3	948.5	694.7	253.86	3.737	
11,400.0	6,711.3	11,456.4	6,902.2	132.3	131.7	101.61	199.1	4,625.3	948.6	689.3	259.31	3.658	
11,500.0	6,709.7	11,556.4	6,900.9	135.1	134.5	101.63	198.6	4,725.3	948.6	683.8	264.76	3.583	
11,600.0	6,708.1	11,656.4	6,899.5	137.9	137.3	101.64	198.2	4,825.3	948.6	678.4	270.22	3.510	
11,700.0	6,706.5	11,756.4	6,898.2	140.7	140.1	101.66	197.8	4,925.3	948.6	672.9	275.68	3.441	
11,754.2	6,705.7	11,810.6	6,897.5	142.2	141.6	101.67	197.6	4,979.4	948.6	670.0	278.63	3.405	
11,795.5	6,705.0	11,845.1	6,897.0	143.3	142.6	101.67	197.4	5,014.0	948.7	668.0	280.70	3.380 SF	

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well LaSalle 25E-202
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-18-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4655.0ft (RKB - 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: LaSalle 25E-202
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 LaSalle 25E-202
Project:	SEC.25-T5N-R65W	TVD Reference:	WELL @ 4655.0ft (RKB - 15')
Reference Site:	LaSalle 25F-HZ Pad Sec.25-T5N-R65W	MD Reference:	WELL @ 4655.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	LaSalle 25E-202	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-18-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4655.0ft (RKB - 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: LaSalle 25E-202
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°

