

Synergy Resources

Well Name: **SRC Union 12-5NHZ**

Surface Location: SRC Union Pad Sec.5-T2N-R68W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

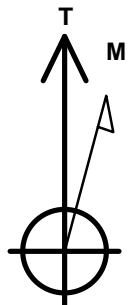
Ground Elevation: 4964.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1305184.17	3129926.16	40.170191	-105.035070	

Ensign 131 RKB - 13.5' WELL @ 4977.5ft (Ensign 131 RKB - 13.5')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 1669'FNL & 388'FWL	1.0	0.0	0.0	Point
BHL 2122'FNL & 460'FEL	7083.0	-420.4	4474.3	Point



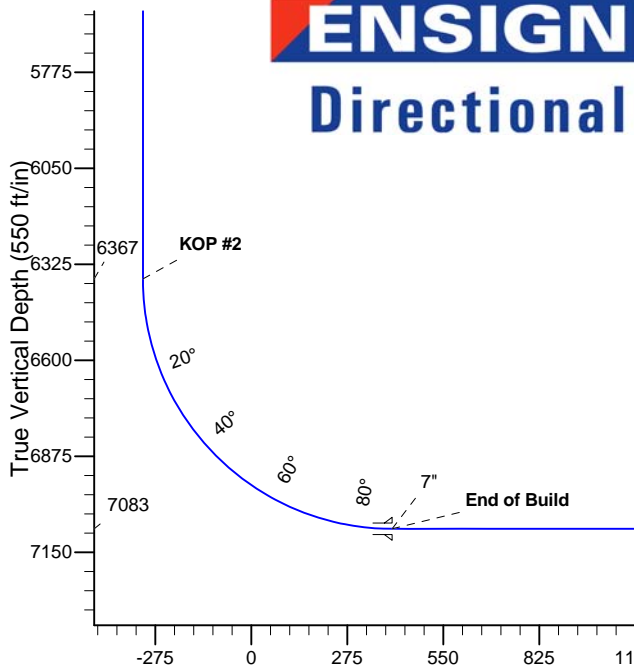
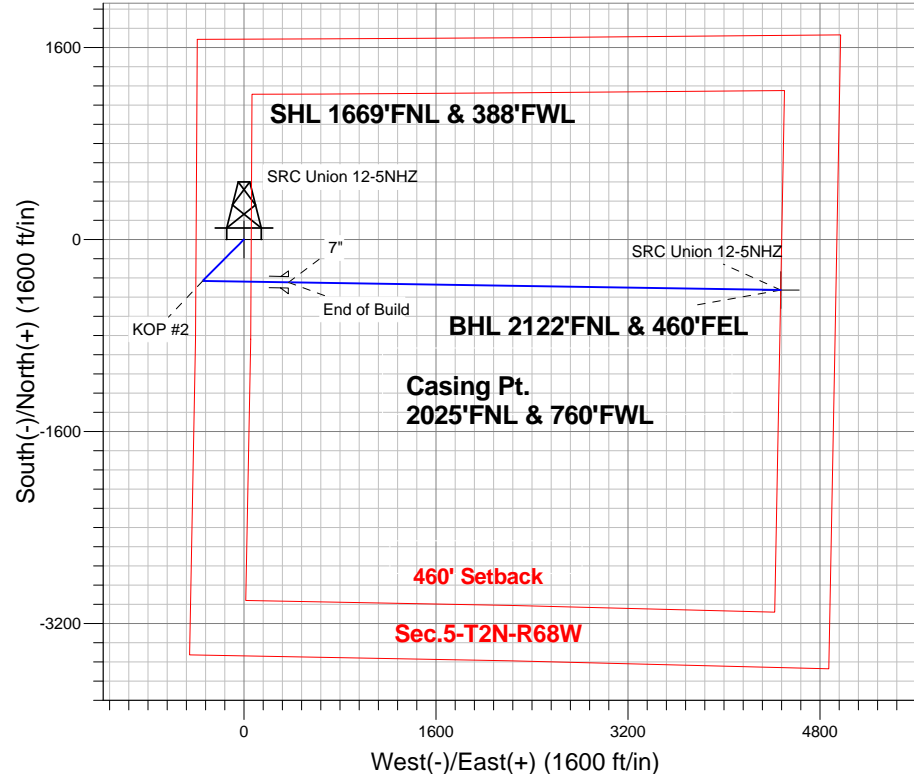
Azimuths to True North
Magnetic North: 8.64°

Magnetic Field
Strength: 52712.0snT
Dip Angle: 66.73°
Date: 1/2/2014
Model: IGRF2010

SRC Union Pad Sec.5-T2N-R68W
SRC Union 12-5NHZ
Plan #3 (1-2-14)
12:25, January 03 2014

ANNOTATIONS

TVD	MD	Annotation
1300.0	1300.0	KOP #1
6366.8	6399.6	KOP #2
7083.0	7524.6	End of Build



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	1300.0	0.00	0.00	1300.0	0.0	0.0	0.00	0.00	0.0	
3	2119.1	8.19	224.92	2116.3	-41.4	-41.3	1.00	224.92	-37.2	
4	4923.2	8.19	224.92	4891.8	-324.3	-323.4	0.00	0.00	-291.6	
5	5332.8	0.00	0.00	5300.0	-345.0	-344.0	2.00	180.00	-310.2	
6	6399.6	0.00	0.00	6366.8	-345.0	-344.0	0.00	0.00	-310.2	
7	7524.6	90.00	90.90	7083.0	-356.2	372.1	8.00	90.90	403.8	
8	11627.3	90.00	90.90	7083.0	-420.4	4474.3	0.00	0.00	4494.0	BHL 2122'FNL & 460'FEL

Vertical Section at 95.37° (550 ft/in)



Synergy Resources

SEC.5-T2N-R68W

SRC Union Pad Sec.5-T2N-R68W

SRC Union 12-5NHZ

Wellbore #1

Plan: Plan #3 (1-2-14)

Standard Planning Report

03 January, 2014

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Project:	SEC.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site:	SRC Union Pad Sec.5-T2N-R68W	North Reference:	True
Well:	SRC Union 12-5NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (1-2-14)		

Project	SEC.5-T2N-R68W, Weld County, CO		
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						SRC Union Pad Sec.5-T2N-R68W											
Site Position:						Northing:			1,305,169.78 ft			Latitude:			40.170152		
From:			Lat/Long			Easting:			3,129,889.07 ft			Longitude:			-105.035203		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.30 °		

Well	SRC Union 12-5NHZ					
Well Position	+N/-S	14.2 ft	Northing:	1,305,184.17 ft	Latitude:	40.170191
	+E/-W	37.2 ft	Easting:	3,129,926.16 ft	Longitude:	-105.035070
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,964.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/2/2014	8.65	66.73	52,712

Design	Plan #3 (1-2-14)			
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	95.37

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,119.1	8.19	224.92	2,116.3	-41.4	-41.3	1.00	1.00	0.00	224.92	
4,923.2	8.19	224.92	4,891.8	-324.3	-323.4	0.00	0.00	0.00	0.00	
5,332.8	0.00	0.00	5,300.0	-345.0	-344.0	2.00	-2.00	0.00	180.00	
6,399.6	0.00	0.00	6,366.8	-345.0	-344.0	0.00	0.00	0.00	0.00	
7,524.6	90.00	90.90	7,083.0	-356.2	372.1	8.00	8.00	0.00	90.90	
11,627.3	90.00	90.90	7,083.0	-420.4	4,474.3	0.00	0.00	0.00	0.00	BHL 2122'FNL & 46

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
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Project:	SEC.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site:	SRC Union Pad Sec.5-T2N-R68W	North Reference:	True
Well:	SRC Union 12-5NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (1-2-14)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 1669'FNL & 388'FWL									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
1,400.0	1.00	224.92	1,400.0	-0.6	-0.6	-0.6	1.00	1.00	0.00
1,500.0	2.00	224.92	1,500.0	-2.5	-2.5	-2.2	1.00	1.00	0.00
1,600.0	3.00	224.92	1,599.9	-5.6	-5.5	-5.0	1.00	1.00	0.00
1,700.0	4.00	224.92	1,699.7	-9.9	-9.9	-8.9	1.00	1.00	0.00
1,800.0	5.00	224.92	1,799.4	-15.4	-15.4	-13.9	1.00	1.00	0.00
1,900.0	6.00	224.92	1,898.9	-22.2	-22.2	-20.0	1.00	1.00	0.00
2,000.0	7.00	224.92	1,998.3	-30.2	-30.2	-27.2	1.00	1.00	0.00
2,100.0	8.00	224.92	2,097.4	-39.5	-39.4	-35.5	1.00	1.00	0.00
2,119.1	8.19	224.92	2,116.3	-41.4	-41.3	-37.2	1.00	1.00	0.00
2,200.0	8.19	224.92	2,196.4	-49.6	-49.4	-44.6	0.00	0.00	0.00
2,300.0	8.19	224.92	2,295.4	-59.6	-59.5	-53.6	0.00	0.00	0.00
2,400.0	8.19	224.92	2,394.3	-69.7	-69.5	-62.7	0.00	0.00	0.00
2,500.0	8.19	224.92	2,493.3	-79.8	-79.6	-71.8	0.00	0.00	0.00
2,600.0	8.19	224.92	2,592.3	-89.9	-89.6	-80.8	0.00	0.00	0.00
2,700.0	8.19	224.92	2,691.3	-100.0	-99.7	-89.9	0.00	0.00	0.00
2,800.0	8.19	224.92	2,790.3	-110.1	-109.8	-99.0	0.00	0.00	0.00
2,900.0	8.19	224.92	2,889.2	-120.2	-119.8	-108.1	0.00	0.00	0.00
3,000.0	8.19	224.92	2,988.2	-130.3	-129.9	-117.1	0.00	0.00	0.00
3,100.0	8.19	224.92	3,087.2	-140.4	-139.9	-126.2	0.00	0.00	0.00
3,200.0	8.19	224.92	3,186.2	-150.4	-150.0	-135.3	0.00	0.00	0.00
3,300.0	8.19	224.92	3,285.2	-160.5	-160.1	-144.4	0.00	0.00	0.00
3,400.0	8.19	224.92	3,384.1	-170.6	-170.1	-153.4	0.00	0.00	0.00
3,500.0	8.19	224.92	3,483.1	-180.7	-180.2	-162.5	0.00	0.00	0.00
3,600.0	8.19	224.92	3,582.1	-190.8	-190.2	-171.6	0.00	0.00	0.00
3,700.0	8.19	224.92	3,681.1	-200.9	-200.3	-180.6	0.00	0.00	0.00
3,800.0	8.19	224.92	3,780.1	-211.0	-210.4	-189.7	0.00	0.00	0.00
3,900.0	8.19	224.92	3,879.0	-221.1	-220.4	-198.8	0.00	0.00	0.00
4,000.0	8.19	224.92	3,978.0	-231.2	-230.5	-207.9	0.00	0.00	0.00
4,100.0	8.19	224.92	4,077.0	-241.2	-240.5	-216.9	0.00	0.00	0.00
4,200.0	8.19	224.92	4,176.0	-251.3	-250.6	-226.0	0.00	0.00	0.00
4,300.0	8.19	224.92	4,275.0	-261.4	-260.7	-235.1	0.00	0.00	0.00
4,400.0	8.19	224.92	4,373.9	-271.5	-270.7	-244.1	0.00	0.00	0.00
4,500.0	8.19	224.92	4,472.9	-281.6	-280.8	-253.2	0.00	0.00	0.00
4,600.0	8.19	224.92	4,571.9	-291.7	-290.8	-262.3	0.00	0.00	0.00
4,700.0	8.19	224.92	4,670.9	-301.8	-300.9	-271.4	0.00	0.00	0.00
4,800.0	8.19	224.92	4,769.9	-311.9	-311.0	-280.4	0.00	0.00	0.00
4,900.0	8.19	224.92	4,868.8	-322.0	-321.0	-289.5	0.00	0.00	0.00

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Project:	SEC.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site:	SRC Union Pad Sec.5-T2N-R68W	North Reference:	True
Well:	SRC Union 12-5NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (1-2-14)		

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)
4,923.2	8.19	224.92	4,891.8	-324.3	-323.4	-291.6	0.00	0.00	0.00
5,000.0	6.66	224.92	4,968.0	-331.3	-330.4	-297.9	2.00	-2.00	0.00
5,100.0	4.66	224.92	5,067.5	-338.3	-337.3	-304.2	2.00	-2.00	0.00
5,200.0	2.66	224.92	5,167.3	-342.8	-341.8	-308.3	2.00	-2.00	0.00
5,300.0	0.66	224.92	5,267.2	-344.9	-343.9	-310.1	2.00	-2.00	0.00
5,332.8	0.00	0.00	5,300.0	-345.0	-344.0	-310.2	2.00	-2.00	0.00
5,400.0	0.00	0.00	5,367.2	-345.0	-344.0	-310.2	0.00	0.00	0.00
5,500.0	0.00	0.00	5,467.2	-345.0	-344.0	-310.2	0.00	0.00	0.00
5,600.0	0.00	0.00	5,567.2	-345.0	-344.0	-310.2	0.00	0.00	0.00
5,700.0	0.00	0.00	5,667.2	-345.0	-344.0	-310.2	0.00	0.00	0.00
5,800.0	0.00	0.00	5,767.2	-345.0	-344.0	-310.2	0.00	0.00	0.00
5,900.0	0.00	0.00	5,867.2	-345.0	-344.0	-310.2	0.00	0.00	0.00
6,000.0	0.00	0.00	5,967.2	-345.0	-344.0	-310.2	0.00	0.00	0.00
6,100.0	0.00	0.00	6,067.2	-345.0	-344.0	-310.2	0.00	0.00	0.00
6,200.0	0.00	0.00	6,167.2	-345.0	-344.0	-310.2	0.00	0.00	0.00
6,300.0	0.00	0.00	6,267.2	-345.0	-344.0	-310.2	0.00	0.00	0.00
6,399.6	0.00	0.00	6,366.8	-345.0	-344.0	-310.2	0.00	0.00	0.00
KOP #2									
6,400.0	0.03	90.90	6,367.2	-345.0	-344.0	-310.2	8.21	8.21	0.00
6,500.0	8.03	90.90	6,466.9	-345.1	-337.0	-303.2	8.00	8.00	0.00
6,600.0	16.03	90.90	6,564.6	-345.4	-316.1	-282.4	8.00	8.00	0.00
6,700.0	24.03	90.90	6,658.5	-346.0	-281.9	-248.3	8.00	8.00	0.00
6,800.0	32.03	90.90	6,746.7	-346.7	-235.0	-201.5	8.00	8.00	0.00
6,900.0	40.03	90.90	6,827.5	-347.6	-176.2	-142.9	8.00	8.00	0.00
7,000.0	48.03	90.90	6,899.3	-348.7	-106.8	-73.7	8.00	8.00	0.00
7,100.0	56.03	90.90	6,960.8	-349.9	-28.0	4.9	8.00	8.00	0.00
7,200.0	64.03	90.90	7,010.7	-351.3	58.6	91.2	8.00	8.00	0.00
7,300.0	72.03	90.90	7,048.1	-352.7	151.2	183.5	8.00	8.00	0.00
7,400.0	80.03	90.90	7,072.2	-354.3	248.2	280.2	8.00	8.00	0.00
7,500.0	88.03	90.90	7,082.6	-355.8	347.5	379.3	8.00	8.00	0.00
7,524.6	90.00	90.90	7,083.0	-356.2	372.1	403.8	8.00	8.00	0.00
End of Build - 7"									
7,600.0	90.00	90.90	7,083.0	-357.4	447.5	479.0	0.00	0.00	0.00
7,700.0	90.00	90.90	7,083.0	-358.9	547.5	578.7	0.00	0.00	0.00
7,800.0	90.00	90.90	7,083.0	-360.5	647.5	678.4	0.00	0.00	0.00
7,900.0	90.00	90.90	7,083.0	-362.1	747.5	778.1	0.00	0.00	0.00
8,000.0	90.00	90.90	7,083.0	-363.6	847.5	877.8	0.00	0.00	0.00
8,100.0	90.00	90.90	7,083.0	-365.2	947.4	977.5	0.00	0.00	0.00
8,200.0	90.00	90.90	7,083.0	-366.8	1,047.4	1,077.1	0.00	0.00	0.00
8,300.0	90.00	90.90	7,083.0	-368.3	1,147.4	1,176.8	0.00	0.00	0.00
8,400.0	90.00	90.90	7,083.0	-369.9	1,247.4	1,276.5	0.00	0.00	0.00
8,500.0	90.00	90.90	7,083.0	-371.5	1,347.4	1,376.2	0.00	0.00	0.00
8,600.0	90.00	90.90	7,083.0	-373.0	1,447.4	1,475.9	0.00	0.00	0.00
8,700.0	90.00	90.90	7,083.0	-374.6	1,547.4	1,575.6	0.00	0.00	0.00
8,800.0	90.00	90.90	7,083.0	-376.1	1,647.4	1,675.3	0.00	0.00	0.00
8,900.0	90.00	90.90	7,083.0	-377.7	1,747.4	1,775.0	0.00	0.00	0.00
9,000.0	90.00	90.90	7,083.0	-379.3	1,847.3	1,874.7	0.00	0.00	0.00
9,100.0	90.00	90.90	7,083.0	-380.8	1,947.3	1,974.4	0.00	0.00	0.00
9,200.0	90.00	90.90	7,083.0	-382.4	2,047.3	2,074.1	0.00	0.00	0.00
9,300.0	90.00	90.90	7,083.0	-384.0	2,147.3	2,173.8	0.00	0.00	0.00
9,400.0	90.00	90.90	7,083.0	-385.5	2,247.3	2,273.5	0.00	0.00	0.00
9,500.0	90.00	90.90	7,083.0	-387.1	2,347.3	2,373.2	0.00	0.00	0.00
9,600.0	90.00	90.90	7,083.0	-388.7	2,447.3	2,472.9	0.00	0.00	0.00
9,700.0	90.00	90.90	7,083.0	-390.2	2,547.3	2,572.6	0.00	0.00	0.00

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Site:	SRC Union Pad Sec.5-T2N-R68W	North Reference:	True
Well:	SRC Union 12-5NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (1-2-14)		

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)	
9,800.0	90.00	90.90	7,083.0	-391.8	2,647.2	2,672.3	0.00	0.00	0.00	
9,900.0	90.00	90.90	7,083.0	-393.3	2,747.2	2,772.0	0.00	0.00	0.00	
10,000.0	90.00	90.90	7,083.0	-394.9	2,847.2	2,871.7	0.00	0.00	0.00	
10,100.0	90.00	90.90	7,083.0	-396.5	2,947.2	2,971.4	0.00	0.00	0.00	
10,200.0	90.00	90.90	7,083.0	-398.0	3,047.2	3,071.1	0.00	0.00	0.00	
10,300.0	90.00	90.90	7,083.0	-399.6	3,147.2	3,170.8	0.00	0.00	0.00	
10,400.0	90.00	90.90	7,083.0	-401.2	3,247.2	3,270.5	0.00	0.00	0.00	
10,500.0	90.00	90.90	7,083.0	-402.7	3,347.2	3,370.2	0.00	0.00	0.00	
10,600.0	90.00	90.90	7,083.0	-404.3	3,447.1	3,469.8	0.00	0.00	0.00	
10,700.0	90.00	90.90	7,083.0	-405.9	3,547.1	3,569.5	0.00	0.00	0.00	
10,800.0	90.00	90.90	7,083.0	-407.4	3,647.1	3,669.2	0.00	0.00	0.00	
10,900.0	90.00	90.90	7,083.0	-409.0	3,747.1	3,768.9	0.00	0.00	0.00	
11,000.0	90.00	90.90	7,083.0	-410.5	3,847.1	3,868.6	0.00	0.00	0.00	
11,100.0	90.00	90.90	7,083.0	-412.1	3,947.1	3,968.3	0.00	0.00	0.00	
11,200.0	90.00	90.90	7,083.0	-413.7	4,047.1	4,068.0	0.00	0.00	0.00	
11,300.0	90.00	90.90	7,083.0	-415.2	4,147.1	4,167.7	0.00	0.00	0.00	
11,400.0	90.00	90.90	7,083.0	-416.8	4,247.0	4,267.4	0.00	0.00	0.00	
11,500.0	90.00	90.90	7,083.0	-418.4	4,347.0	4,367.1	0.00	0.00	0.00	
11,600.0	90.00	90.90	7,083.0	-419.9	4,447.0	4,466.8	0.00	0.00	0.00	
11,627.3	90.00	90.90	7,083.0	-420.4	4,474.3	4,494.0	0.00	0.00	0.00	
BHL 2122'FNL & 460'FEL										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,524.6	7,083.0	7"	7	8-3/4	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,300.0	1,300.0	0.0	0.0	KOP #1	
6,399.6	6,366.8	-345.0	-344.0	KOP #2	
7,524.6	7,083.0	-356.2	372.1	End of Build	



Synergy Resources

SEC.5-T2N-R68W

SRC Union Pad Sec.5-T2N-R68W

SRC Union 12-5NHZ

Wellbore #1

Plan #3 (1-2-14)

Anticollision Report

03 January, 2014

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Project:	SEC.5-T2N-R68W	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Reference Site:	SRC Union Pad Sec.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Union 12-5NHZ	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 #3 (1-2-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
1,600.0	1,599.9	1,602.1	1,602.0	3.4	3.5	-158.62	21.2	55.3	66.5	59.6	6.84	9.723		
1,700.0	1,699.7	1,703.2	1,703.1	3.6	3.7	-160.60	20.2	52.8	69.6	62.3	7.22	9.641		
1,800.0	1,799.4	1,804.3	1,804.2	3.8	3.9	-163.00	18.7	48.6	72.6	65.0	7.60	9.557		
1,900.0	1,898.9	1,905.5	1,905.2	4.0	4.1	-165.77	16.5	42.7	75.7	67.8	7.99	9.482		
2,000.0	1,998.3	2,006.7	2,006.0	4.2	4.3	-168.87	13.7	35.2	79.0	70.6	8.38	9.426		
2,100.0	2,097.4	2,107.9	2,106.8	4.5	4.5	-172.25	10.3	26.0	82.6	73.8	8.79	9.396		
2,200.0	2,196.4	2,209.1	2,207.3	4.8	4.8	-175.80	6.2	15.1	85.9	76.6	9.21	9.322		
2,300.0	2,295.4	2,310.3	2,307.6	5.0	5.0	-179.55	1.6	2.6	87.9	78.2	9.65	9.106		
2,400.0	2,394.3	2,410.1	2,406.4	5.3	5.3	176.71	-3.3	-10.5	89.6	79.5	10.10	8.867		
2,500.0	2,493.3	2,509.9	2,505.2	5.6	5.6	173.13	-8.1	-23.6	91.7	81.1	10.57	8.668		
2,600.0	2,592.3	2,609.7	2,604.1	5.9	5.8	169.72	-13.0	-36.6	94.1	83.0	11.06	8.504		
2,700.0	2,691.3	2,709.5	2,702.9	6.2	6.1	166.49	-17.8	-49.7	96.8	85.2	11.57	8.367		
2,800.0	2,790.3	2,809.3	2,801.8	6.6	6.4	163.45	-22.7	-62.7	99.8	87.7	12.10	8.253		
2,900.0	2,889.2	2,909.2	2,900.6	6.9	6.7	160.59	-27.5	-75.8	103.1	90.5	12.64	8.157		
3,000.0	2,988.2	3,009.0	2,999.4	7.2	7.0	157.91	-32.3	-88.9	106.7	93.5	13.21	8.077		
3,100.0	3,087.2	3,108.8	3,098.3	7.5	7.4	155.41	-37.2	-101.9	110.4	96.6	13.79	8.009		
3,200.0	3,186.2	3,208.6	3,197.1	7.9	7.7	153.08	-42.0	-115.0	114.4	100.0	14.38	7.953		
3,300.0	3,285.2	3,308.4	3,296.0	8.2	8.0	150.91	-46.9	-128.0	118.5	103.5	14.99	7.905		
3,400.0	3,384.1	3,408.3	3,394.8	8.5	8.3	148.89	-51.7	-141.1	122.8	107.2	15.61	7.866		
3,500.0	3,483.1	3,508.1	3,493.7	8.9	8.6	147.00	-56.6	-154.1	127.2	111.0	16.24	7.834		
3,600.0	3,582.1	3,607.9	3,592.5	9.2	9.0	145.24	-61.4	-167.2	131.7	114.9	16.88	7.807		
3,700.0	3,681.1	3,707.7	3,691.3	9.5	9.3	143.60	-66.3	-180.3	136.4	118.9	17.52	7.785		
3,800.0	3,780.1	3,807.5	3,790.2	9.9	9.6	142.08	-71.1	-193.3	141.2	123.0	18.18	7.768		
3,900.0	3,879.0	3,907.3	3,889.0	10.2	10.0	140.65	-76.0	-206.4	146.1	127.2	18.84	7.754		
4,000.0	3,978.0	4,007.2	3,987.9	10.5	10.3	139.31	-80.8	-219.4	151.0	131.5	19.50	7.744		
4,100.0	4,077.0	4,107.0	4,086.7	10.9	10.6	138.06	-85.7	-232.5	156.0	135.9	20.17	7.736		
4,200.0	4,176.0	4,206.8	4,185.5	11.2	11.0	136.89	-90.5	-245.6	161.1	140.3	20.84	7.731		
4,300.0	4,275.0	4,306.6	4,284.4	11.6	11.3	135.79	-95.4	-258.6	166.3	144.8	21.52	7.728		
4,400.0	4,373.9	4,406.4	4,383.2	11.9	11.6	134.76	-100.2	-271.7	171.5	149.3	22.20	7.726		
4,500.0	4,472.9	4,506.2	4,482.1	12.3	12.0	133.78	-105.1	-284.7	176.8	153.9	22.88	7.726		
4,600.0	4,571.9	4,606.1	4,580.9	12.6	12.3	132.87	-109.9	-297.8	182.1	158.5	23.56	7.728		
4,700.0	4,670.9	4,705.9	4,679.7	13.0	12.6	132.01	-114.8	-310.8	187.5	163.2	24.25	7.730		
4,800.0	4,769.9	4,804.2	4,777.2	13.3	12.9	131.50	-119.2	-322.7	193.2	168.3	24.87	7.767		
4,900.0	4,868.8	4,902.0	4,874.5	13.7	13.1	131.93	-122.4	-331.5	199.9	174.5	25.36	7.880		
5,000.0	4,968.0	5,000.0	4,972.4	14.0	13.3	133.09	-124.5	-337.2	206.9	181.2	25.76	8.032		
5,100.0	5,067.5	5,096.9	5,069.2	14.2	13.5	134.37	-125.5	-339.7	212.9	186.8	26.07	8.166		
5,200.0	5,167.3	5,195.9	5,168.3	14.4	13.7	135.58	-125.5	-339.8	217.3	191.0	26.34	8.252		
5,300.0	5,267.2	5,295.9	5,268.2	14.6	13.8	136.14	-125.5	-339.8	219.4	192.8	26.64	8.237		
5,400.0	5,367.2	5,395.9	5,368.2	14.7	14.0	1.09	-125.5	-339.8	219.5	194.1	25.44	8.629		
5,500.0	5,467.2	5,495.9	5,468.2	14.9	14.2	1.09	-125.5	-339.8	219.5	193.7	25.80	8.508		
5,600.0	5,567.2	5,595.9	5,568.2	15.0	14.4	1.09	-125.5	-339.8	219.5	193.4	26.17	8.389		
5,700.0	5,667.2	5,695.9	5,668.2	15.2	14.5	1.09	-125.5	-339.8	219.5	193.0	26.54	8.273		
5,800.0	5,767.2	5,795.9	5,768.2	15.3	14.7	1.09	-125.5	-339.8	219.5	192.6	26.91	8.159		
5,900.0	5,867.2	5,895.9	5,868.2	15.5	14.9	1.09	-125.5	-339.8	219.5	192.2	27.28	8.047		
6,000.0	5,967.2	5,995.9	5,968.2	15.7	15.1	1.09	-125.5	-339.8	219.5	191.9	27.65	7.938		
6,100.0	6,067.2	6,095.9	6,068.2	15.8	15.3	1.09	-125.5	-339.8	219.5	191.5	28.03	7.831		
6,200.0	6,167.2	6,195.9	6,168.2	16.0	15.4	1.09	-125.5	-339.8	219.5	191.1	28.41	7.727		
6,300.0	6,267.2	6,295.9	6,268.2	16.2	15.6	1.09	-125.5	-339.8	219.5	190.7	28.79	7.625		
6,400.0	6,367.2	6,395.9	6,368.2	16.3	15.8	-89.81	-125.5	-339.8	219.5	188.9	30.60	7.174		
6,440.2	6,407.4	6,436.0	6,408.4	16.4	15.9	-90.00	-125.5	-339.4	219.5	188.8	30.74	7.142		
6,500.0	6,466.9	6,495.9	6,468.0	16.5	15.9	-90.35	-125.6	-334.9	219.5	188.6	30.91	7.102		
6,600.0	6,564.6	6,596.2	6,566.5	16.5	16.0	-90.92	-125.9	-316.1	219.6	188.5	31.06	7.069		

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Project:	SEC.5-T2N-R68W	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Reference Site:	SRC Union Pad Sec.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Union 12-5NHZ	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 #3 (1-2-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
6,700.0	6,658.5	6,696.8	6,661.7	16.5	16.0	-91.48	-126.4	-283.7	219.6	188.5	31.09	7.063	
6,800.0	6,746.7	6,797.7	6,751.6	16.5	16.0	-92.01	-127.1	-238.2	219.7	188.6	31.10	7.062	
6,900.0	6,827.5	6,899.0	6,834.5	16.4	16.0	-92.51	-128.0	-180.2	219.7	188.5	31.22	7.038	
7,000.0	6,899.3	7,000.4	6,908.6	16.4	16.1	-92.95	-129.1	-111.0	219.8	188.2	31.62	6.953	
7,100.0	6,960.8	7,102.1	6,972.3	16.5	16.5	-93.33	-130.3	-31.9	219.9	187.4	32.48	6.771	
7,200.0	7,010.7	7,204.0	7,024.2	16.9	17.1	-93.65	-131.7	55.7	220.0	186.0	33.97	6.476	
7,300.0	7,048.1	7,306.1	7,063.3	18.0	18.2	-93.90	-133.2	149.9	220.1	183.9	36.16	6.085	
7,400.0	7,072.2	7,408.3	7,088.6	19.4	19.6	-94.07	-134.7	248.8	220.1	181.1	39.02	5.641	
7,500.0	7,082.6	7,510.5	7,099.5	21.2	21.3	-94.16	-136.3	350.4	220.1	177.7	42.42	5.189	
7,600.0	7,083.0	7,611.1	7,100.0	23.1	23.2	-94.17	-137.8	450.9	220.1	173.9	46.20	4.765	
7,700.0	7,083.0	7,711.1	7,100.0	25.2	25.2	-94.17	-139.4	550.9	220.1	169.8	50.30	4.377	
7,800.0	7,083.0	7,811.1	7,100.0	27.4	27.4	-94.17	-141.0	650.9	220.1	165.5	54.66	4.027	
7,900.0	7,083.0	7,911.1	7,100.0	29.7	29.7	-94.17	-142.5	750.9	220.1	160.9	59.24	3.716	
8,000.0	7,083.0	8,011.1	7,100.0	32.1	32.0	-94.17	-144.1	850.9	220.2	156.2	63.97	3.441	
8,100.0	7,083.0	8,111.1	7,100.0	34.6	34.5	-94.17	-145.6	950.9	220.2	151.3	68.84	3.198	
8,200.0	7,083.0	8,211.1	7,100.0	37.1	36.9	-94.17	-147.2	1,050.9	220.2	146.3	73.81	2.983	
8,300.0	7,083.0	8,311.1	7,100.0	39.6	39.5	-94.17	-148.8	1,150.9	220.2	141.3	78.87	2.791	
8,400.0	7,083.0	8,411.1	7,100.0	42.2	42.0	-94.17	-150.3	1,250.8	220.2	136.2	84.00	2.621	
8,500.0	7,083.0	8,511.1	7,100.0	44.8	44.6	-94.17	-151.9	1,350.8	220.2	131.0	89.18	2.469	
8,600.0	7,083.0	8,611.1	7,100.0	47.4	47.2	-94.17	-153.4	1,450.8	220.2	125.8	94.41	2.332	
8,700.0	7,083.0	8,711.1	7,100.0	50.1	49.9	-94.17	-155.0	1,550.8	220.2	120.5	99.68	2.209	
8,800.0	7,083.0	8,811.1	7,100.0	52.7	52.5	-94.17	-156.6	1,650.8	220.2	115.2	104.99	2.097	
8,900.0	7,083.0	8,911.1	7,100.0	55.4	55.2	-94.17	-158.1	1,750.8	220.2	109.9	110.32	1.996	
9,000.0	7,083.0	9,011.1	7,100.0	58.1	57.9	-94.17	-159.7	1,850.8	220.2	104.5	115.68	1.903	
9,100.0	7,083.0	9,111.1	7,100.0	60.8	60.6	-94.17	-161.2	1,950.8	220.2	99.1	121.06	1.819	
9,200.0	7,083.0	9,211.1	7,100.0	63.5	63.3	-94.17	-162.8	2,050.7	220.2	93.7	126.46	1.741	
9,300.0	7,083.0	9,311.1	7,100.0	66.2	66.0	-94.17	-164.4	2,150.7	220.2	88.3	131.88	1.670	
9,400.0	7,083.0	9,411.1	7,100.0	68.9	68.7	-94.17	-165.9	2,250.7	220.2	82.9	137.31	1.604	
9,500.0	7,083.0	9,511.1	7,100.0	71.7	71.4	-94.17	-167.5	2,350.7	220.2	77.4	142.76	1.543	
9,600.0	7,083.0	9,611.1	7,100.0	74.4	74.2	-94.17	-169.1	2,450.7	220.2	72.0	148.22	1.486 Level 3	
9,700.0	7,083.0	9,711.1	7,100.0	77.2	76.9	-94.17	-170.6	2,550.7	220.2	66.5	153.68	1.433 Level 3	
9,800.0	7,083.0	9,811.1	7,100.0	79.9	79.7	-94.17	-172.2	2,650.7	220.2	61.1	159.16	1.384 Level 3	
9,900.0	7,083.0	9,911.1	7,100.0	82.7	82.4	-94.17	-173.7	2,750.7	220.2	55.6	164.65	1.338 Level 3	
10,000.0	7,083.0	10,011.1	7,100.0	85.4	85.2	-94.17	-175.3	2,850.6	220.2	50.1	170.14	1.294 Level 3	
10,100.0	7,083.0	10,111.1	7,100.0	88.2	87.9	-94.17	-176.9	2,950.6	220.2	44.6	175.64	1.254 Level 3	
10,200.0	7,083.0	10,211.1	7,100.0	90.9	90.7	-94.17	-178.4	3,050.6	220.2	39.1	181.14	1.216 Level 2	
10,300.0	7,083.0	10,311.1	7,100.0	93.7	93.4	-94.17	-180.0	3,150.6	220.2	33.6	186.66	1.180 Level 2	
10,400.0	7,083.0	10,411.1	7,100.0	96.5	96.2	-94.17	-181.5	3,250.6	220.2	28.1	192.17	1.146 Level 2	
10,500.0	7,083.0	10,511.1	7,100.0	99.2	99.0	-94.17	-183.1	3,350.6	220.2	22.5	197.69	1.114 Level 2	
10,600.0	7,083.0	10,611.1	7,100.0	102.0	101.7	-94.17	-184.7	3,450.6	220.2	17.0	203.22	1.084 Level 2	
10,700.0	7,083.0	10,711.1	7,100.0	104.8	104.5	-94.17	-186.2	3,550.6	220.2	11.5	208.75	1.055 Level 2	
10,800.0	7,083.0	10,811.1	7,100.0	107.5	107.3	-94.17	-187.8	3,650.5	220.3	6.0	214.28	1.028 Level 2	
10,900.0	7,083.0	10,911.1	7,100.0	110.3	110.0	-94.17	-189.3	3,750.5	220.3	0.4	219.82	1.002 Level 2	
11,000.0	7,083.0	11,011.1	7,100.0	113.1	112.8	-94.17	-190.9	3,850.5	220.3	-5.1	225.36	0.977 Level 1	
11,100.0	7,083.0	11,111.1	7,100.0	115.9	115.6	-94.17	-192.5	3,950.5	220.3	-10.6	230.91	0.954 Level 1	
11,200.0	7,083.0	11,211.1	7,100.0	118.7	118.4	-94.17	-194.0	4,050.5	220.3	-16.2	236.45	0.932 Level 1	
11,300.0	7,083.0	11,311.1	7,100.0	121.4	121.2	-94.17	-195.6	4,150.5	220.3	-21.7	242.00	0.910 Level 1	
11,400.0	7,083.0	11,411.1	7,100.0	124.2	123.9	-94.17	-197.1	4,250.5	220.3	-27.3	247.55	0.890 Level 1	
11,500.0	7,083.0	11,511.1	7,100.0	127.0	126.7	-94.17	-198.7	4,350.5	220.3	-32.8	253.10	0.870 Level 1	
11,600.0	7,083.0	11,611.1	7,100.0	129.8	129.5	-94.17	-200.3	4,450.4	220.3	-38.4	258.66	0.852 Level 1	
11,627.3	7,083.0	11,638.4	7,100.0	130.6	130.3	-94.17	-200.7	4,477.8	220.3	-39.9	260.18	0.847 Level 1, ES, SF	

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Project:	SEC.5-T2N-R68W	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Reference Site:	SRC Union Pad Sec.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Union 12-5NHZ	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 #3 (1-2-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-110.92	-14.2	-37.2	39.8					
100.0	100.0	99.0	99.0	0.1	0.1	-110.92	-14.2	-37.2	39.8	39.6	0.22	177.925		
200.0	200.0	199.0	199.0	0.3	0.3	-110.92	-14.2	-37.2	39.8	39.1	0.67	59.210		
300.0	300.0	299.0	299.0	0.6	0.6	-110.92	-14.2	-37.2	39.8	38.7	1.12	35.478		
400.0	400.0	399.0	399.0	0.8	0.8	-110.92	-14.2	-37.2	39.8	38.2	1.57	25.327		
500.0	500.0	499.0	499.0	1.0	1.0	-110.92	-14.2	-37.2	39.8	37.8	2.02	19.693		
600.0	600.0	599.0	599.0	1.2	1.2	-110.92	-14.2	-37.2	39.8	37.3	2.47	16.109		
693.0	693.0	692.0	692.0	1.4	1.4	-109.86	-13.5	-37.4	39.8	36.9	2.89	13.778 CC		
700.0	700.0	699.0	699.0	1.5	1.5	-109.69	-13.4	-37.5	39.8	36.9	2.92	13.629		
800.0	800.0	798.9	798.9	1.7	1.7	-105.95	-11.0	-38.3	39.9	36.5	3.37	11.839 ES		
900.0	900.0	898.8	898.8	1.9	1.9	-99.81	-6.9	-39.8	40.4	36.6	3.82	10.580		
1,000.0	1,000.0	998.4	998.1	2.1	2.1	-91.62	-1.2	-41.9	41.9	37.6	4.27	9.804		
1,100.0	1,100.0	1,097.8	1,097.2	2.4	2.4	-82.17	6.1	-44.5	45.0	40.2	4.74	9.496		
1,200.0	1,200.0	1,196.9	1,195.8	2.6	2.6	-72.54	15.0	-47.7	50.1	44.9	5.21	9.626		
1,300.0	1,300.0	1,295.7	1,293.9	2.8	2.9	-63.69	25.5	-51.5	57.7	52.0	5.69	10.133		
1,400.0	1,400.0	1,393.9	1,391.4	3.0	3.2	79.56	37.4	-55.8	67.5	61.4	6.08	11.092		
1,500.0	1,500.0	1,491.6	1,488.0	3.2	3.5	87.32	50.9	-60.7	79.7	73.2	6.50	12.276		
1,600.0	1,599.9	1,588.5	1,583.6	3.4	3.8	94.29	65.8	-66.1	94.8	87.9	6.91	13.716		
1,700.0	1,699.7	1,685.5	1,679.1	3.6	4.1	100.33	82.0	-71.9	112.6	105.2	7.33	15.349		
1,800.0	1,799.4	1,783.0	1,775.0	3.8	4.4	105.42	98.4	-77.8	131.9	124.2	7.77	16.990		
1,900.0	1,898.9	1,880.2	1,870.6	4.0	4.8	109.75	114.8	-83.8	152.7	144.5	8.21	18.603		
2,000.0	1,998.3	1,977.1	1,965.9	4.2	5.1	113.51	131.1	-89.7	174.8	166.2	8.66	20.179		
2,100.0	2,097.4	2,073.6	2,060.9	4.5	5.5	116.83	147.4	-95.5	198.3	189.2	9.13	21.716		
2,200.0	2,196.4	2,169.9	2,155.7	4.8	5.9	119.83	163.6	-101.4	223.0	213.4	9.62	23.179		
2,300.0	2,295.4	2,266.2	2,250.4	5.0	6.2	122.28	179.8	-107.2	248.1	238.0	10.12	24.520		
2,400.0	2,394.3	2,362.5	2,345.1	5.3	6.6	124.28	196.1	-113.1	273.6	263.0	10.63	25.748		
2,500.0	2,493.3	2,458.8	2,439.9	5.6	7.0	125.94	212.3	-119.0	299.4	288.3	11.14	26.870		
2,600.0	2,592.3	2,555.1	2,534.6	5.9	7.3	127.34	228.5	-124.8	325.4	313.7	11.66	27.896		
2,700.0	2,691.3	2,651.4	2,629.3	6.2	7.7	128.53	244.8	-130.7	351.5	339.3	12.19	28.836		
2,800.0	2,790.3	2,747.7	2,724.1	6.6	8.1	129.56	261.0	-136.5	377.7	365.0	12.72	29.698		
2,900.0	2,889.2	2,844.0	2,818.8	6.9	8.4	130.45	277.2	-142.4	404.0	390.8	13.25	30.491		
3,000.0	2,988.2	2,940.3	2,913.5	7.2	8.8	131.24	293.4	-148.3	430.5	416.7	13.79	31.221		
3,100.0	3,087.2	3,036.5	3,008.2	7.5	9.2	131.93	309.7	-154.1	456.9	442.6	14.33	31.896		
3,200.0	3,186.2	3,132.8	3,103.0	7.9	9.6	132.55	325.9	-160.0	483.5	468.6	14.87	32.520		
3,300.0	3,285.2	3,229.1	3,197.7	8.2	9.9	133.10	342.1	-165.8	510.1	494.6	15.41	33.099		
3,400.0	3,384.1	3,325.4	3,292.4	8.5	10.3	133.60	358.3	-171.7	536.7	520.7	15.96	33.637		
3,500.0	3,483.1	3,421.7	3,387.2	8.9	10.7	134.05	374.6	-177.6	563.3	546.8	16.50	34.138		
3,600.0	3,582.1	3,518.0	3,481.9	9.2	11.1	134.46	390.8	-183.4	590.0	573.0	17.05	34.606		
3,700.0	3,681.1	3,614.3	3,576.6	9.5	11.5	134.84	407.0	-189.3	616.7	599.1	17.60	35.044		
3,800.0	3,780.1	3,710.6	3,671.4	9.9	11.8	135.18	423.2	-195.1	643.5	625.3	18.15	35.454		
3,900.0	3,879.0	3,806.9	3,766.1	10.2	12.2	135.50	439.5	-201.0	670.2	651.5	18.70	35.838		
4,000.0	3,978.0	3,903.2	3,860.8	10.5	12.6	135.79	455.7	-206.9	697.0	677.8	19.25	36.200		
4,100.0	4,077.0	3,999.4	3,955.6	10.9	13.0	136.06	471.9	-212.7	723.8	704.0	19.81	36.541		
4,200.0	4,176.0	4,095.7	4,050.3	11.2	13.4	136.32	488.2	-218.6	750.6	730.2	20.36	36.862		
4,300.0	4,275.0	4,192.0	4,145.0	11.6	13.7	136.55	504.4	-224.4	777.4	756.5	20.92	37.165		
4,400.0	4,373.9	4,288.3	4,239.8	11.9	14.1	136.77	520.6	-230.3	804.3	782.8	21.47	37.452		
4,500.0	4,472.9	4,384.6	4,334.5	12.3	14.5	136.97	536.8	-236.2	831.1	809.1	22.03	37.724		
4,600.0	4,571.9	4,480.9	4,429.2	12.6	14.9	137.17	553.1	-242.0	857.9	835.3	22.59	37.982		
4,700.0	4,670.9	4,577.2	4,524.0	13.0	15.3	137.35	569.3	-247.9	884.8	861.6	23.15	38.226		
4,800.0	4,769.9	4,673.5	4,618.7	13.3	15.7	137.51	585.5	-253.7	911.7	888.0	23.70	38.459		
4,900.0	4,868.8	4,769.8	4,713.4	13.7	16.0	137.67	601.7	-259.6	938.5	914.3	24.26	38.680		
5,000.0	4,968.0	4,866.3	4,808.4	14.0	16.4	138.06	618.0	-265.5	964.7	939.8	24.86	38.809		

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Project:	SEC.5-T2N-R68W	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Reference Site:	SRC Union Pad Sec.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Union 12-5NHZ	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 #3 (1-2-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Union Pad Sec.5-T2N-R68W - SRC Union A-5CHZ - Wellbore #1 - Plan #3 (1-2-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,067.5	4,963.4	4,903.9	14.2	16.8	138.35	634.4	-271.4	988.4	963.0	25.41	38.900		
5,200.0	5,167.3	5,061.1	5,000.0	14.4	17.2	138.47	650.8	-277.3	1,009.5	983.6	25.93	38.936		
5,300.0	5,267.2	5,159.2	5,096.6	14.6	17.6	138.43	667.4	-283.3	1,028.1	1,001.7	26.41	38.925		
5,400.0	5,367.2	5,257.6	5,193.4	14.7	18.0	3.04	683.9	-289.3	1,044.8	1,014.0	30.75	33.976		
5,500.0	5,467.2	5,356.0	5,290.1	14.9	18.4	2.67	700.5	-295.3	1,061.4	1,030.1	31.29	33.915		
5,600.0	5,567.2	5,454.4	5,386.9	15.0	18.8	2.30	717.1	-301.3	1,078.0	1,046.1	31.84	33.855		
5,700.0	5,667.2	5,552.7	5,483.7	15.2	19.2	1.95	733.7	-307.2	1,094.6	1,062.2	32.39	33.794		
5,800.0	5,767.2	5,705.0	5,634.2	15.3	19.6	1.50	755.7	-315.2	1,109.0	1,076.0	33.01	33.593		
5,900.0	5,867.2	5,861.2	5,789.5	15.5	20.0	1.20	770.5	-320.5	1,118.4	1,084.9	33.54	33.346		
6,000.0	5,967.2	6,018.5	5,946.7	15.7	20.2	1.07	777.3	-323.0	1,122.7	1,088.7	33.98	33.036		
6,100.0	6,067.2	6,138.1	6,066.2	15.8	20.4	1.06	777.8	-323.2	1,123.0	1,088.7	34.32	32.717		
6,200.0	6,167.2	6,238.1	6,166.2	16.0	20.5	1.06	777.8	-323.2	1,123.0	1,088.3	34.65	32.412		
6,300.0	6,267.2	6,338.1	6,266.2	16.2	20.7	1.06	777.8	-323.2	1,123.0	1,088.0	34.97	32.111		
6,400.0	6,367.2	6,438.1	6,366.2	16.3	20.8	-89.83	777.8	-323.2	1,123.0	1,091.9	31.09	36.125		
6,488.5	6,455.5	6,526.3	6,454.4	16.4	20.9	-89.94	777.7	-319.7	1,123.0	1,091.6	31.34	35.833		
6,500.0	6,466.9	6,537.8	6,465.7	16.5	20.9	-89.95	777.7	-318.5	1,123.0	1,091.6	31.37	35.800		
6,600.0	6,564.6	6,637.7	6,563.9	16.5	21.0	-90.08	777.4	-300.2	1,123.0	1,091.5	31.50	35.645		
6,700.0	6,658.5	6,738.1	6,658.9	16.5	21.0	-90.21	776.9	-268.2	1,123.0	1,091.4	31.56	35.588		
6,800.0	6,746.7	6,838.7	6,748.9	16.5	21.0	-90.33	776.3	-223.1	1,123.0	1,091.4	31.60	35.533		
6,900.0	6,827.5	6,939.8	6,831.9	16.4	21.0	-90.45	775.4	-165.7	1,123.1	1,091.3	31.78	35.339		
7,000.0	6,899.3	7,041.1	6,906.2	16.4	20.9	-90.56	774.3	-96.9	1,123.1	1,090.9	32.25	34.830		
7,100.0	6,960.8	7,142.8	6,970.3	16.5	20.9	-90.66	773.1	-18.1	1,123.1	1,090.0	33.18	33.850		
7,200.0	7,010.7	7,244.7	7,022.6	16.9	20.9	-90.75	771.8	69.2	1,123.2	1,088.5	34.73	32.341		
7,300.0	7,048.1	7,346.9	7,062.2	18.0	21.1	-90.82	770.3	163.3	1,123.2	1,086.3	36.96	30.388		
7,400.0	7,072.2	7,449.2	7,088.0	19.4	21.7	-90.87	768.8	262.3	1,123.3	1,083.4	39.85	28.188		
7,500.0	7,082.6	7,551.7	7,099.4	21.2	23.0	-90.91	767.3	364.0	1,123.3	1,080.1	43.27	25.963		
7,600.0	7,083.0	7,652.5	7,100.0	23.1	24.8	-90.92	765.7	464.7	1,123.4	1,076.3	47.07	23.867		
7,700.0	7,083.0	7,752.5	7,100.0	25.2	26.8	-90.92	764.2	564.7	1,123.4	1,072.2	51.17	21.956		
7,800.0	7,083.0	7,852.5	7,100.0	27.4	28.9	-90.92	762.6	664.7	1,123.4	1,067.9	55.53	20.230		
7,900.0	7,083.0	7,952.5	7,100.0	29.7	31.1	-90.92	761.1	764.7	1,123.5	1,063.3	60.11	18.691		
8,000.0	7,083.0	8,052.5	7,100.0	32.1	33.5	-90.92	759.6	864.7	1,123.5	1,058.6	64.84	17.326		
8,100.0	7,083.0	8,152.5	7,100.0	34.6	35.9	-90.92	758.0	964.7	1,123.5	1,053.8	69.71	16.116		
8,200.0	7,083.0	8,252.5	7,100.0	37.1	38.3	-90.92	756.5	1,064.7	1,123.5	1,048.9	74.69	15.044		
8,300.0	7,083.0	8,352.5	7,100.0	39.6	40.8	-90.92	755.0	1,164.7	1,123.6	1,043.8	79.74	14.090		
8,400.0	7,083.0	8,452.5	7,100.0	42.2	43.3	-90.92	753.4	1,264.6	1,123.6	1,038.7	84.87	13.239		
8,500.0	7,083.0	8,552.5	7,100.0	44.8	45.9	-90.92	751.9	1,364.6	1,123.6	1,033.6	90.06	12.476		
8,600.0	7,083.0	8,652.5	7,100.0	47.4	48.5	-90.92	750.4	1,464.6	1,123.7	1,028.4	95.30	11.791		
8,700.0	7,083.0	8,752.5	7,100.0	50.1	51.1	-90.92	748.8	1,564.6	1,123.7	1,023.1	100.57	11.173		
8,800.0	7,083.0	8,852.5	7,100.0	52.7	53.7	-90.92	747.3	1,664.6	1,123.7	1,017.8	105.88	10.613		
8,900.0	7,083.0	8,952.5	7,100.0	55.4	56.3	-90.92	745.8	1,764.6	1,123.8	1,012.5	111.23	10.103		
9,000.0	7,083.0	9,052.5	7,100.0	58.1	59.0	-90.92	744.2	1,864.6	1,123.8	1,007.2	116.59	9.639		
9,100.0	7,083.0	9,152.5	7,100.0	60.8	61.7	-90.92	742.7	1,964.6	1,123.8	1,001.8	121.98	9.213		
9,200.0	7,083.0	9,252.5	7,100.0	63.5	64.4	-90.92	741.2	2,064.5	1,123.8	996.4	127.39	8.822		
9,300.0	7,083.0	9,352.5	7,100.0	66.2	67.1	-90.92	739.6	2,164.5	1,123.9	991.1	132.82	8.462		
9,400.0	7,083.0	9,452.5	7,100.0	68.9	69.8	-90.92	738.1	2,264.5	1,123.9	985.6	138.26	8.129		
9,500.0	7,083.0	9,552.5	7,100.0	71.7	72.5	-90.92	736.6	2,364.5	1,123.9	980.2	143.71	7.821		
9,600.0	7,083.0	9,652.5	7,100.0	74.4	75.2	-90.92	735.0	2,464.5	1,124.0	974.8	149.18	7.534		
9,700.0	7,083.0	9,752.5	7,100.0	77.2	77.9	-90.92	733.5	2,564.5	1,124.0	969.3	154.66	7.268		
9,800.0	7,083.0	9,852.5	7,100.0	79.9	80.6	-90.92	732.0	2,664.5	1,124.0	963.9	160.14	7.019		
9,900.0	7,083.0	9,952.5	7,100.0	82.7	83.4	-90.92	730.4	2,764.5	1,124.1	958.4	165.64	6.786		
10,000.0	7,083.0	10,052.5	7,100.0	85.4	86.1	-90.92	728.9	2,864.5	1,124.1	952.9	171.14	6.568		
10,100.0	7,083.0	10,152.5	7,100.0	88.2	88.9	-90.92	727.4	2,964.4	1,124.1	947.5	176.65	6.363		

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

SRC Union Pad Sec.5-T2N-R68W - SRC Union A-5CHZ - Wellbore #1 - Plan #3 (1-2-14)													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	
10,200.0	7,083.0	10,252.5	7,100.0	90.9	91.6	-90.92	725.8	3,064.4	1,124.1	942.0	182.17	6.171		
10,300.0	7,083.0	10,352.5	7,100.0	93.7	94.4	-90.92	724.3	3,164.4	1,124.2	936.5	187.69	5.989		
10,400.0	7,083.0	10,452.5	7,100.0	96.5	97.1	-90.92	722.8	3,264.4	1,124.2	931.0	193.22	5.818		
10,500.0	7,083.0	10,552.5	7,100.0	99.2	99.9	-90.92	721.2	3,364.4	1,124.2	925.5	198.75	5.656		
10,600.0	7,083.0	10,652.5	7,100.0	102.0	102.6	-90.92	719.7	3,464.4	1,124.3	920.0	204.29	5.503		
10,700.0	7,083.0	10,752.5	7,100.0	104.8	105.4	-90.92	718.2	3,564.4	1,124.3	914.5	209.83	5.358		
10,800.0	7,083.0	10,852.5	7,100.0	107.5	108.2	-90.92	716.6	3,664.4	1,124.3	908.9	215.38	5.220		
10,900.0	7,083.0	10,952.5	7,100.0	110.3	110.9	-90.92	715.1	3,764.3	1,124.3	903.4	220.93	5.089		
11,000.0	7,083.0	11,052.5	7,100.0	113.1	113.7	-90.92	713.6	3,864.3	1,124.4	897.9	226.48	4.965		
11,100.0	7,083.0	11,152.5	7,100.0	115.9	116.5	-90.92	712.0	3,964.3	1,124.4	892.4	232.03	4.846		
11,200.0	7,083.0	11,252.5	7,100.0	118.7	119.2	-90.92	710.5	4,064.3	1,124.4	886.8	237.59	4.733		
11,300.0	7,083.0	11,352.5	7,100.0	121.4	122.0	-90.92	709.0	4,164.3	1,124.5	881.3	243.15	4.625		
11,400.0	7,083.0	11,452.5	7,100.0	124.2	124.8	-90.92	707.4	4,264.3	1,124.5	875.8	248.71	4.521		
11,500.0	7,083.0	11,552.5	7,100.0	127.0	127.6	-90.92	705.9	4,364.3	1,124.5	870.2	254.28	4.422		
11,600.0	7,083.0	11,652.5	7,100.0	129.8	130.4	-90.92	704.4	4,464.3	1,124.6	864.7	259.85	4.328		
11,627.3	7,083.0	11,679.8	7,100.0	130.6	131.1	-90.92	703.9	4,491.6	1,124.6	863.2	261.37	4.303 SF		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Project:	SEC.5-T2N-R68W	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Reference Site:	SRC Union Pad Sec.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Union 12-5NHZ	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 #3 (1-2-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Union Pad Sec.5-T2N-R68W - SRC Union A-5NHZ - Wellbore #1 - Plan #3 (1-2-14)													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-111.55	-7.3	-18.4	19.9	19.9	0.00	N/A		
100.0	100.0	99.0	99.0	0.1	0.1	-111.55	-7.3	-18.4	19.8	19.6	0.22	88.675		
200.0	200.0	199.0	199.0	0.3	0.3	-111.55	-7.3	-18.4	19.8	19.2	0.67	29.509		
300.0	300.0	299.0	299.0	0.6	0.6	-111.55	-7.3	-18.4	19.8	18.7	1.12	17.682		
400.0	400.0	399.0	399.0	0.8	0.8	-111.55	-7.3	-18.4	19.8	18.3	1.57	12.623		
500.0	500.0	499.0	499.0	1.0	1.0	-111.55	-7.3	-18.4	19.8	17.8	2.02	9.815		
600.0	600.0	599.0	599.0	1.2	1.2	-111.55	-7.3	-18.4	19.8	17.4	2.47	8.028		
700.0	700.0	699.0	699.0	1.5	1.5	-111.55	-7.3	-18.4	19.8	16.9	2.92	6.792		
800.0	800.0	799.0	799.0	1.7	1.7	-111.55	-7.3	-18.4	19.8	16.5	3.37	5.886		
900.0	900.0	899.0	899.0	1.9	1.9	-111.55	-7.3	-18.4	19.8	16.0	3.82	5.193		
1,000.0	1,000.0	999.0	999.0	2.1	2.1	-111.55	-7.3	-18.4	19.8	15.6	4.27	4.646 CC		
1,100.0	1,100.0	1,098.9	1,098.9	2.4	2.4	-109.13	-6.5	-18.9	20.0	15.3	4.72	4.235 ES		
1,200.0	1,200.0	1,198.8	1,198.8	2.6	2.6	-102.02	-4.3	-20.2	20.6	15.4	5.16	3.992		
1,300.0	1,300.0	1,298.6	1,298.4	2.8	2.8	-91.37	-0.5	-22.3	22.3	16.7	5.61	3.978		
1,400.0	1,400.0	1,398.1	1,397.8	3.0	3.0	57.24	4.7	-25.3	25.3	19.3	6.03	4.194		
1,500.0	1,500.0	1,497.4	1,496.8	3.2	3.3	72.49	11.4	-29.2	30.2	23.7	6.43	4.690		
1,600.0	1,599.9	1,596.2	1,595.1	3.4	3.5	86.46	19.6	-33.8	38.1	31.2	6.85	5.556		
1,700.0	1,699.7	1,694.5	1,692.8	3.6	3.8	97.58	29.2	-39.3	49.3	42.0	7.27	6.779		
1,800.0	1,799.4	1,792.1	1,789.6	3.8	4.0	105.86	40.2	-45.6	63.9	56.2	7.71	8.289		
1,900.0	1,898.9	1,889.5	1,885.9	4.0	4.3	111.96	52.4	-52.6	81.5	73.4	8.15	9.997		
2,000.0	1,998.3	1,987.3	1,982.6	4.2	4.6	116.70	65.0	-59.8	100.9	92.2	8.61	11.712		
2,100.0	2,097.4	2,084.8	2,079.1	4.5	4.9	120.56	77.6	-67.0	121.5	112.5	9.08	13.384		
2,200.0	2,196.4	2,182.1	2,175.3	4.8	5.2	123.79	90.2	-74.2	143.3	133.7	9.57	14.975		
2,300.0	2,295.4	2,279.5	2,271.6	5.0	5.5	126.20	102.7	-81.4	165.4	155.3	10.07	16.429		
2,400.0	2,394.3	2,376.8	2,367.8	5.3	5.8	128.05	115.2	-88.5	187.7	177.1	10.57	17.754		
2,500.0	2,493.3	2,474.1	2,464.1	5.6	6.1	129.50	127.8	-95.7	210.1	199.1	11.08	18.959		
2,600.0	2,592.3	2,571.4	2,560.3	5.9	6.4	130.67	140.3	-102.9	232.7	221.1	11.60	20.057		
2,700.0	2,691.3	2,668.7	2,656.6	6.2	6.7	131.63	152.9	-110.0	255.3	243.2	12.12	21.058		
2,800.0	2,790.3	2,766.1	2,752.8	6.6	7.1	132.44	165.4	-117.2	278.0	265.4	12.65	21.975		
2,900.0	2,889.2	2,863.4	2,849.0	6.9	7.4	133.12	178.0	-124.4	300.7	287.6	13.18	22.814		
3,000.0	2,988.2	2,960.7	2,945.3	7.2	7.7	133.71	190.5	-131.6	323.5	309.8	13.72	23.586		
3,100.0	3,087.2	3,058.0	3,041.5	7.5	8.1	134.22	203.1	-138.7	346.3	332.1	14.25	24.296		
3,200.0	3,186.2	3,155.4	3,137.8	7.9	8.4	134.67	215.6	-145.9	369.1	354.3	14.79	24.952		
3,300.0	3,285.2	3,252.7	3,234.0	8.2	8.7	135.07	228.1	-153.1	392.0	376.6	15.34	25.560		
3,400.0	3,384.1	3,350.0	3,330.3	8.5	9.0	135.42	240.7	-160.3	414.8	398.9	15.88	26.123		
3,500.0	3,483.1	3,447.3	3,426.5	8.9	9.4	135.74	253.2	-167.4	437.7	421.3	16.43	26.647		
3,600.0	3,582.1	3,544.7	3,522.8	9.2	9.7	136.02	265.8	-174.6	460.6	443.6	16.97	27.135		
3,700.0	3,681.1	3,642.0	3,619.0	9.5	10.0	136.28	278.3	-181.8	483.4	465.9	17.52	27.590		
3,800.0	3,780.1	3,739.3	3,715.2	9.9	10.4	136.51	290.9	-189.0	506.3	488.3	18.07	28.017		
3,900.0	3,879.0	3,836.6	3,811.5	10.2	10.7	136.73	303.4	-196.1	529.2	510.6	18.62	28.416		
4,000.0	3,978.0	3,934.0	3,907.7	10.5	11.1	136.92	316.0	-203.3	552.2	533.0	19.18	28.791		
4,100.0	4,077.0	4,031.3	4,004.0	10.9	11.4	137.10	328.5	-210.5	575.1	555.3	19.73	29.144		
4,200.0	4,176.0	4,128.6	4,100.2	11.2	11.7	137.27	341.0	-217.7	598.0	577.7	20.29	29.476		
4,300.0	4,275.0	4,225.9	4,196.5	11.6	12.1	137.43	353.6	-224.8	620.9	600.1	20.84	29.789		
4,400.0	4,373.9	4,323.3	4,292.7	11.9	12.4	137.57	366.1	-232.0	643.8	622.4	21.40	30.085		
4,500.0	4,472.9	4,420.6	4,389.0	12.3	12.8	137.70	378.7	-239.2	666.8	644.8	21.96	30.365		
4,600.0	4,571.9	4,517.9	4,485.2	12.6	13.1	137.83	391.2	-246.4	689.7	667.2	22.52	30.630		
4,700.0	4,670.9	4,615.2	4,581.5	13.0	13.4	137.94	403.8	-253.5	712.6	689.6	23.08	30.882		
4,800.0	4,769.9	4,712.5	4,677.7	13.3	13.8	138.05	416.3	-260.7	735.6	711.9	23.64	31.121		
4,900.0	4,868.8	4,809.9	4,773.9	13.7	14.1	138.16	428.9	-267.9	758.5	734.3	24.20	31.348		
5,000.0	4,968.0	4,907.4	4,870.4	14.0	14.5	138.43	441.4	-275.1	780.7	755.9	24.78	31.509		
5,100.0	5,067.5	5,005.4	4,967.3	14.2	14.8	138.58	454.1	-282.3	800.4	775.1	25.31	31.620		

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

SRC Union Pad Sec.5-T2N-R68W - SRC Union A-5NHZ - Wellbore #1 - Plan #3 (1-2-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.0	5,167.3	5,103.8	5,064.6	14.4	15.1	138.53	466.7	-289.6	817.6	791.8	25.82	31.663		
5,300.0	5,267.2	5,202.6	5,162.3	14.6	15.5	138.29	479.5	-296.8	832.2	805.9	26.30	31.647		
5,400.0	5,367.2	5,301.4	5,260.1	14.7	15.8	2.73	492.2	-304.1	844.9	816.5	28.32	29.831		
5,500.0	5,467.2	5,400.3	5,357.9	14.9	16.2	2.19	505.0	-311.4	857.5	828.7	28.81	29.763		
5,600.0	5,567.2	5,527.9	5,484.3	15.0	16.6	1.60	519.6	-319.8	868.8	839.4	29.33	29.620		
5,700.0	5,667.2	5,662.7	5,618.6	15.2	16.8	1.21	529.7	-325.6	876.2	846.4	29.79	29.415		
5,800.0	5,767.2	5,798.3	5,754.1	15.3	17.1	1.03	534.4	-328.3	879.6	849.4	30.20	29.129		
5,900.0	5,867.2	5,910.5	5,866.2	15.5	17.2	1.01	534.7	-328.4	879.9	849.3	30.54	28.807		
6,000.0	5,967.2	6,010.5	5,966.2	15.7	17.4	1.01	534.7	-328.4	879.9	849.0	30.89	28.484		
6,100.0	6,067.2	6,110.5	6,066.2	15.8	17.6	1.01	534.7	-328.4	879.9	848.6	31.24	28.167		
6,200.0	6,167.2	6,210.5	6,166.2	16.0	17.7	1.01	534.7	-328.4	879.9	848.3	31.59	27.854		
6,300.0	6,267.2	6,310.5	6,266.2	16.2	17.9	1.01	534.7	-328.4	879.9	847.9	31.94	27.546		
6,400.0	6,367.2	6,410.5	6,366.2	16.3	18.1	-89.88	534.7	-328.4	879.9	849.1	30.75	28.615		
6,500.0	6,466.9	6,510.2	6,465.7	16.5	18.2	-89.89	534.6	-321.6	879.9	848.8	31.02	28.365		
6,600.0	6,564.6	6,610.0	6,563.2	16.5	18.3	-89.91	534.3	-301.0	879.8	848.7	31.15	28.249		
6,700.0	6,658.5	6,709.8	6,657.0	16.5	18.3	-89.92	533.7	-267.0	879.8	848.7	31.19	28.210		
6,800.0	6,746.7	6,809.7	6,745.2	16.5	18.2	-89.94	533.0	-220.4	879.8	848.6	31.23	28.169		
6,900.0	6,827.5	6,909.6	6,826.0	16.4	18.2	-89.95	532.1	-161.9	879.8	848.4	31.41	28.011		
7,000.0	6,899.3	7,009.5	6,898.0	16.4	18.1	-89.97	531.0	-92.7	879.8	847.9	31.89	27.591		
7,100.0	6,960.8	7,109.4	6,959.7	16.5	18.1	-89.99	529.8	-14.1	879.8	847.0	32.84	26.791		
7,200.0	7,010.7	7,209.4	7,009.8	16.9	18.0	-90.01	528.4	72.3	879.8	845.4	34.41	25.570		
7,300.0	7,048.1	7,309.5	7,047.5	18.0	18.8	-90.03	527.0	164.9	879.8	843.2	36.65	24.003		
7,400.0	7,072.2	7,409.6	7,071.9	19.4	20.3	-90.04	525.4	261.9	879.8	840.3	39.54	22.252		
7,500.0	7,082.6	7,509.7	7,082.5	21.2	22.0	-90.06	523.9	361.3	879.8	836.9	42.94	20.489		
7,600.0	7,083.0	7,609.7	7,083.0	23.1	23.9	-90.07	522.3	461.3	879.8	833.1	46.73	18.828		
7,700.0	7,083.0	7,709.7	7,083.0	25.2	26.0	-90.07	520.7	561.3	879.8	829.0	50.85	17.303		
7,800.0	7,083.0	7,809.7	7,083.0	27.4	28.1	-90.07	519.2	661.3	879.8	824.6	55.23	15.929		
7,900.0	7,083.0	7,909.7	7,083.0	29.7	30.4	-90.07	517.6	761.3	879.8	820.0	59.82	14.707		
8,000.0	7,083.0	8,009.7	7,083.0	32.1	32.8	-90.07	516.0	861.3	879.8	815.2	64.57	13.625		
8,100.0	7,083.0	8,109.7	7,083.0	34.6	35.2	-90.07	514.5	961.3	879.8	810.3	69.45	12.667		
8,200.0	7,083.0	8,209.7	7,083.0	37.1	37.7	-90.07	512.9	1,061.2	879.8	805.3	74.44	11.818		
8,300.0	7,083.0	8,309.7	7,083.0	39.6	40.2	-90.07	511.3	1,161.2	879.8	800.3	79.51	11.065		
8,400.0	7,083.0	8,409.7	7,083.0	42.2	42.8	-90.07	509.8	1,261.2	879.8	795.1	84.65	10.393		
8,500.0	7,083.0	8,509.7	7,083.0	44.8	45.3	-90.07	508.2	1,361.2	879.8	789.9	89.84	9.792		
8,600.0	7,083.0	8,609.7	7,083.0	47.4	47.9	-90.07	506.6	1,461.2	879.7	784.7	95.09	9.252		
8,700.0	7,083.0	8,709.7	7,083.0	50.1	50.6	-90.07	505.1	1,561.2	879.7	779.4	100.37	8.765		
8,800.0	7,083.0	8,809.7	7,083.0	52.7	53.2	-90.07	503.5	1,661.2	879.7	774.0	105.69	8.324		
8,900.0	7,083.0	8,909.7	7,083.0	55.4	55.9	-90.07	501.9	1,761.2	879.7	768.7	111.04	7.923		
9,000.0	7,083.0	9,009.7	7,083.0	58.1	58.6	-90.07	500.3	1,861.1	879.7	763.3	116.41	7.557		
9,100.0	7,083.0	9,109.7	7,083.0	60.8	61.2	-90.07	498.8	1,961.1	879.7	757.9	121.81	7.222		
9,200.0	7,083.0	9,209.7	7,083.0	63.5	63.9	-90.07	497.2	2,061.1	879.7	752.5	127.22	6.915		
9,300.0	7,083.0	9,309.7	7,083.0	66.2	66.6	-90.07	495.6	2,161.1	879.7	747.1	132.65	6.632		
9,400.0	7,083.0	9,409.7	7,083.0	68.9	69.4	-90.07	494.1	2,261.1	879.7	741.6	138.10	6.370		
9,500.0	7,083.0	9,509.7	7,083.0	71.7	72.1	-90.07	492.5	2,361.1	879.7	736.1	143.55	6.128		
9,600.0	7,083.0	9,609.7	7,083.0	74.4	74.8	-90.07	490.9	2,461.1	879.7	730.7	149.02	5.903		
9,700.0	7,083.0	9,709.7	7,083.0	77.2	77.5	-90.07	489.4	2,561.1	879.7	725.2	154.51	5.694		
9,800.0	7,083.0	9,809.7	7,083.0	79.9	80.3	-90.07	487.8	2,661.0	879.7	719.7	160.00	5.498		
9,900.0	7,083.0	9,909.7	7,083.0	82.7	83.0	-90.07	486.2	2,761.0	879.7	714.2	165.50	5.315		
10,000.0	7,083.0	10,009.7	7,083.0	85.4	85.8	-90.07	484.6	2,861.0	879.7	708.7	171.00	5.144		
10,100.0	7,083.0	10,109.7	7,083.0	88.2	88.5	-90.07	483.1	2,961.0	879.7	703.1	176.51	4.983		
10,200.0	7,083.0	10,209.7	7,083.0	90.9	91.3	-90.07	481.5	3,061.0	879.7	697.6	182.03	4.832		
10,300.0	7,083.0	10,309.7	7,083.0	93.7	94.0	-90.07	479.9	3,161.0	879.6	692.1	187.56	4.690		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Project:	SEC.5-T2N-R68W	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Reference Site:	SRC Union Pad Sec.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Union 12-5NHZ	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 #3 (1-2-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Union Pad Sec.5-T2N-R68W - SRC Union A-5NHZ - Wellbore #1 - Plan #3 (1-2-14)												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
10,400.0	7,083.0	10,409.7	7,083.0	96.5	96.8	-90.07	478.4	3,261.0	879.6	686.6	193.09	4.556	
10,500.0	7,083.0	10,509.7	7,083.0	99.2	99.6	-90.07	476.8	3,361.0	879.6	681.0	198.63	4.429	
10,600.0	7,083.0	10,609.7	7,083.0	102.0	102.3	-90.07	475.2	3,460.9	879.6	675.5	204.17	4.308	
10,700.0	7,083.0	10,709.7	7,083.0	104.8	105.1	-90.07	473.7	3,560.9	879.6	669.9	209.71	4.194	
10,800.0	7,083.0	10,809.7	7,083.0	107.5	107.9	-90.07	472.1	3,660.9	879.6	664.4	215.26	4.086	
10,900.0	7,083.0	10,909.7	7,083.0	110.3	110.6	-90.07	470.5	3,760.9	879.6	658.8	220.81	3.984	
11,000.0	7,083.0	11,009.7	7,083.0	113.1	113.4	-90.07	469.0	3,860.9	879.6	653.2	226.36	3.886	
11,100.0	7,083.0	11,109.7	7,083.0	115.9	116.2	-90.07	467.4	3,960.9	879.6	647.7	231.92	3.793	
11,200.0	7,083.0	11,209.7	7,083.0	118.7	119.0	-90.07	465.8	4,060.9	879.6	642.1	237.48	3.704	
11,300.0	7,083.0	11,309.7	7,083.0	121.4	121.7	-90.07	464.2	4,160.9	879.6	636.5	243.04	3.619	
11,400.0	7,083.0	11,409.7	7,083.0	124.2	124.5	-90.07	462.7	4,260.9	879.6	631.0	248.61	3.538	
11,500.0	7,083.0	11,509.7	7,083.0	127.0	127.3	-90.07	461.1	4,360.8	879.6	625.4	254.18	3.461	
11,600.0	7,083.0	11,609.7	7,083.0	129.8	130.1	-90.07	459.5	4,460.8	879.6	619.8	259.75	3.386	
11,627.3	7,083.0	11,637.0	7,083.0	130.6	130.8	-90.07	459.1	4,488.1	879.6	618.3	261.27	3.367 SF	

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Project:	SEC.5-T2N-R68W	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Reference Site:	SRC Union Pad Sec.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Union 12-5NHZ	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 #3 (1-2-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.0	0.0	1.0	1.0	0.0	0.0	68.98	28.8	74.9	80.2	80.2	0.00	N/A	
100.0	100.0	101.0	101.0	0.1	0.1	68.98	28.8	74.9	80.2	80.0	0.23	353.442	
200.0	200.0	201.0	201.0	0.3	0.3	68.98	28.8	74.9	80.2	79.6	0.68	118.597	
300.0	300.0	301.0	301.0	0.6	0.6	68.98	28.8	74.9	80.2	79.1	1.13	71.253	
400.0	400.0	401.0	401.0	0.8	0.8	68.98	28.8	74.9	80.2	78.7	1.58	50.924	
500.0	500.0	501.0	501.0	1.0	1.0	68.98	28.8	74.9	80.2	78.2	2.03	39.620	
600.0	600.0	601.0	601.0	1.2	1.2	68.98	28.8	74.9	80.2	77.8	2.47	32.423	
700.0	700.0	701.0	701.0	1.5	1.5	68.98	28.8	74.9	80.2	77.3	2.92	27.439	
800.0	800.0	801.0	801.0	1.7	1.7	68.98	28.8	74.9	80.2	76.9	3.37	23.783	
900.0	900.0	901.0	901.0	1.9	1.9	68.98	28.8	74.9	80.2	76.4	3.82	20.986	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	68.98	28.8	74.9	80.2	76.0	4.27	18.778	
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	68.98	28.8	74.9	80.2	75.5	4.72	16.991	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	68.98	28.8	74.9	80.2	75.1	5.17	15.514	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	68.98	28.8	74.9	80.2	74.6	5.62	14.273 CC, ES	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-156.18	28.8	74.9	81.0	75.0	6.05	13.403	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	3.3	-156.90	28.8	74.9	83.4	77.0	6.45	12.937	
1,600.0	1,599.9	1,600.9	1,600.9	3.4	3.5	-158.01	28.8	74.9	87.5	80.6	6.86	12.757	
1,700.0	1,699.7	1,700.7	1,700.7	3.6	3.7	-159.39	28.8	74.9	93.2	85.9	7.27	12.819	
1,800.0	1,799.4	1,800.4	1,800.4	3.8	3.9	-160.94	28.8	74.9	100.5	92.9	7.68	13.092	
1,900.0	1,898.9	1,900.8	1,900.8	4.0	4.2	-162.98	29.3	74.2	109.2	101.2	8.09	13.505	
2,000.0	1,998.3	2,001.0	2,001.0	4.2	4.4	-165.70	30.8	72.0	119.0	110.5	8.49	14.012	
2,100.0	2,097.4	2,101.0	2,100.9	4.5	4.6	-168.87	33.3	68.4	130.1	121.2	8.90	14.614	
2,200.0	2,196.4	2,200.7	2,200.4	4.8	4.8	-172.29	36.8	63.4	142.1	132.8	9.33	15.239	
2,300.0	2,295.4	2,300.3	2,299.7	5.0	5.0	-175.80	41.3	57.0	154.2	144.4	9.76	15.792	
2,400.0	2,394.3	2,399.6	2,398.5	5.3	5.3	-179.36	46.8	49.2	166.4	156.2	10.21	16.294	
2,500.0	2,493.3	2,498.7	2,497.0	5.6	5.5	177.03	53.2	40.0	178.9	168.2	10.67	16.762	
2,600.0	2,592.3	2,597.5	2,594.9	5.9	5.8	173.40	60.6	29.5	191.9	180.8	11.16	17.205	
2,700.0	2,691.3	2,695.8	2,692.3	6.2	6.0	169.96	68.5	18.2	205.6	194.0	11.66	17.642	
2,800.0	2,790.3	2,794.2	2,789.6	6.6	6.3	166.95	76.4	6.8	220.0	207.8	12.17	18.075	
2,900.0	2,889.2	2,892.5	2,887.0	6.9	6.6	164.31	84.4	-4.5	234.9	222.2	12.70	18.496	
3,000.0	2,988.2	2,990.8	2,984.3	7.2	6.9	161.98	92.3	-15.9	250.2	236.9	13.23	18.901	
3,100.0	3,087.2	3,089.2	3,081.7	7.5	7.1	159.93	100.3	-27.2	265.8	252.0	13.78	19.289	
3,200.0	3,186.2	3,187.5	3,179.1	7.9	7.4	158.10	108.2	-38.6	281.8	267.4	14.33	19.658	
3,300.0	3,285.2	3,285.9	3,276.4	8.2	7.7	156.47	116.2	-49.9	298.0	283.1	14.89	20.008	
3,400.0	3,384.1	3,384.2	3,373.8	8.5	8.0	155.00	124.1	-61.3	314.4	299.0	15.46	20.338	
3,500.0	3,483.1	3,482.5	3,471.1	8.9	8.3	153.69	132.1	-72.6	331.0	315.0	16.03	20.651	
3,600.0	3,582.1	3,580.9	3,568.5	9.2	8.6	152.49	140.0	-84.0	347.8	331.2	16.60	20.946	
3,700.0	3,681.1	3,679.2	3,665.8	9.5	9.0	151.41	148.0	-95.3	364.7	347.5	17.18	21.224	
3,800.0	3,780.1	3,777.5	3,763.2	9.9	9.3	150.43	155.9	-106.7	381.7	363.9	17.76	21.488	
3,900.0	3,879.0	3,875.9	3,860.6	10.2	9.6	149.52	163.9	-118.0	398.8	380.5	18.35	21.736	
4,000.0	3,978.0	3,974.2	3,957.9	10.5	9.9	148.69	171.8	-129.4	416.0	397.1	18.93	21.971	
4,100.0	4,077.0	4,072.6	4,055.3	10.9	10.2	147.93	179.8	-140.7	433.3	413.8	19.52	22.193	
4,200.0	4,176.0	4,170.9	4,152.6	11.2	10.5	147.23	187.7	-152.1	450.6	430.5	20.11	22.404	
4,300.0	4,275.0	4,269.2	4,250.0	11.6	10.8	146.58	195.7	-163.4	468.0	447.3	20.71	22.603	
4,400.0	4,373.9	4,367.6	4,347.3	11.9	11.2	145.97	203.6	-174.8	485.5	464.2	21.30	22.792	
4,500.0	4,472.9	4,465.9	4,444.7	12.3	11.5	145.41	211.5	-186.1	503.0	481.1	21.90	22.972	
4,600.0	4,571.9	4,564.3	4,542.1	12.6	11.8	144.88	219.5	-197.5	520.6	498.1	22.49	23.142	
4,700.0	4,670.9	4,662.6	4,639.4	13.0	12.1	144.39	227.4	-208.8	538.2	515.1	23.09	23.304	
4,800.0	4,769.9	4,760.9	4,736.8	13.3	12.5	143.93	235.4	-220.2	555.8	532.1	23.69	23.459	
4,900.0	4,868.8	4,859.3	4,834.1	13.7	12.8	143.50	243.3	-231.5	573.5	549.2	24.29	23.606	
5,000.0	4,968.0	4,957.7	4,931.6	14.0	13.1	143.19	251.3	-242.9	590.3	565.4	24.91	23.702	
5,100.0	5,067.5	5,056.5	5,029.4	14.2	13.4	142.72	259.3	-254.3	604.6	579.1	25.48	23.728	

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Project:	SEC.5-T2N-R68W	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Reference Site:	SRC Union Pad Sec.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Union 12-5NHZ	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 #3 (1-2-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (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
5,200.0	5,167.3	5,155.4	5,127.3	14.4	13.8	142.06	267.3	-265.7	616.2	590.2	26.03	23.675	
5,300.0	5,267.2	5,254.4	5,225.4	14.6	14.1	141.20	275.3	-277.1	625.2	598.6	26.55	23.552	
5,400.0	5,367.2	5,353.5	5,323.4	14.7	14.4	5.05	283.3	-288.5	632.3	606.1	26.22	24.118	
5,500.0	5,467.2	5,452.5	5,421.4	14.9	14.8	3.96	291.3	-300.0	639.5	612.9	26.63	24.014	
5,600.0	5,567.2	5,554.7	5,522.6	15.0	15.1	2.87	299.5	-311.7	646.9	619.8	27.05	23.912	
5,700.0	5,667.2	5,667.9	5,635.2	15.2	15.4	1.93	306.7	-322.1	652.9	625.5	27.46	23.777	
5,800.0	5,767.2	5,782.1	5,749.0	15.3	15.6	1.32	311.5	-328.8	657.0	629.1	27.85	23.588	
5,900.0	5,867.2	5,896.7	5,863.5	15.5	15.8	1.05	313.6	-331.9	658.8	630.5	28.23	23.338	
6,000.0	5,967.2	6,001.4	5,968.2	15.7	16.0	1.03	313.8	-332.1	658.9	630.3	28.59	23.048	
6,100.0	6,067.2	6,101.4	6,068.2	15.8	16.2	1.03	313.8	-332.1	658.9	629.9	28.96	22.750	
6,200.0	6,167.2	6,201.4	6,168.2	16.0	16.3	1.03	313.8	-332.1	658.9	629.5	29.34	22.458	
6,300.0	6,267.2	6,301.4	6,268.2	16.2	16.5	1.03	313.8	-332.1	658.9	629.2	29.72	22.172	
6,400.0	6,367.2	6,401.4	6,368.2	16.3	16.7	-89.86	313.8	-332.1	658.9	627.7	31.14	21.157	
6,470.1	6,437.2	6,471.4	6,438.2	16.4	16.8	-89.98	313.7	-330.0	658.9	627.5	31.34	21.022	
6,500.0	6,466.9	6,501.3	6,467.9	16.5	16.8	-90.04	313.7	-327.1	658.9	627.5	31.42	20.973	
6,600.0	6,564.6	6,601.4	6,566.3	16.5	16.9	-90.24	313.4	-308.5	658.9	627.4	31.53	20.900	
6,700.0	6,658.5	6,701.9	6,661.3	16.5	16.9	-90.43	312.9	-276.2	658.9	627.4	31.53	20.897	
6,800.0	6,746.7	6,802.7	6,751.2	16.5	16.8	-90.61	312.2	-230.7	658.9	627.4	31.52	20.906	
6,900.0	6,827.5	6,903.8	6,834.0	16.4	16.8	-90.78	311.3	-172.9	659.0	627.4	31.62	20.841	
7,000.0	6,899.3	7,005.2	6,908.1	16.4	16.8	-90.93	310.3	-103.8	659.0	627.0	32.00	20.592	
7,100.0	6,960.8	7,106.8	6,971.8	16.5	17.0	-91.07	309.0	-24.8	659.1	626.2	32.86	20.059	
7,200.0	7,010.7	7,208.6	7,023.8	16.9	17.6	-91.19	307.7	62.6	659.1	624.8	34.33	19.201	
7,300.0	7,048.1	7,310.6	7,063.0	18.0	18.6	-91.28	306.2	156.7	659.1	622.7	36.49	18.063	
7,400.0	7,072.2	7,412.8	7,088.4	19.4	19.9	-91.34	304.7	255.6	659.2	619.9	39.32	16.766	
7,500.0	7,082.6	7,515.0	7,099.5	21.2	21.6	-91.38	303.1	357.1	659.2	616.5	42.68	15.446	
7,600.0	7,083.0	7,615.6	7,100.0	23.1	23.4	-91.39	301.6	457.7	659.2	612.8	46.42	14.201	
7,700.0	7,083.0	7,715.6	7,100.0	25.2	25.4	-91.39	300.0	557.7	659.3	608.8	50.49	13.057	
7,800.0	7,083.0	7,815.6	7,100.0	27.4	27.6	-91.39	298.5	657.7	659.3	604.4	54.83	12.023	
7,900.0	7,083.0	7,915.6	7,100.0	29.7	29.8	-91.39	297.0	757.6	659.3	599.9	59.39	11.101	
8,000.0	7,083.0	8,015.6	7,100.0	32.1	32.1	-91.39	295.4	857.6	659.3	595.2	64.11	10.284	
8,100.0	7,083.0	8,115.6	7,100.0	34.6	34.5	-91.39	293.9	957.6	659.3	590.4	68.97	9.560	
8,200.0	7,083.0	8,215.6	7,100.0	37.1	37.0	-91.39	292.3	1,057.6	659.4	585.4	73.94	8.918	
8,300.0	7,083.0	8,315.6	7,100.0	39.6	39.5	-91.39	290.8	1,157.6	659.4	580.4	78.99	8.348	
8,400.0	7,083.0	8,415.6	7,100.0	42.2	42.1	-91.39	289.2	1,257.6	659.4	575.3	84.11	7.839	
8,500.0	7,083.0	8,515.6	7,100.0	44.8	44.6	-91.39	287.7	1,357.6	659.4	570.1	89.30	7.385	
8,600.0	7,083.0	8,615.6	7,100.0	47.4	47.3	-91.39	286.1	1,457.6	659.4	564.9	94.53	6.976	
8,700.0	7,083.0	8,715.6	7,100.0	50.1	49.9	-91.39	284.6	1,557.6	659.5	559.7	99.80	6.608	
8,800.0	7,083.0	8,815.6	7,100.0	52.7	52.5	-91.39	283.1	1,657.5	659.5	554.4	105.11	6.274	
8,900.0	7,083.0	8,915.6	7,100.0	55.4	55.2	-91.39	281.5	1,757.5	659.5	549.0	110.45	5.971	
9,000.0	7,083.0	9,015.6	7,100.0	58.1	57.9	-91.39	280.0	1,857.5	659.5	543.7	115.82	5.695	
9,100.0	7,083.0	9,115.6	7,100.0	60.8	60.5	-91.39	278.4	1,957.5	659.5	538.3	121.20	5.442	
9,200.0	7,083.0	9,215.6	7,100.0	63.5	63.2	-91.39	276.9	2,057.5	659.6	532.9	126.61	5.209	
9,300.0	7,083.0	9,315.6	7,100.0	66.2	65.9	-91.39	275.3	2,157.5	659.6	527.5	132.04	4.995	
9,400.0	7,083.0	9,415.6	7,100.0	68.9	68.7	-91.39	273.8	2,257.5	659.6	522.1	137.48	4.798	
9,500.0	7,083.0	9,515.6	7,100.0	71.7	71.4	-91.39	272.3	2,357.5	659.6	516.7	142.93	4.615	
9,600.0	7,083.0	9,615.6	7,100.0	74.4	74.1	-91.39	270.7	2,457.4	659.6	511.2	148.39	4.445	
9,700.0	7,083.0	9,715.6	7,100.0	77.2	76.8	-91.39	269.2	2,557.4	659.7	505.8	153.87	4.287	
9,800.0	7,083.0	9,815.6	7,100.0	79.9	79.6	-91.39	267.6	2,657.4	659.7	500.3	159.36	4.140	
9,900.0	7,083.0	9,915.6	7,100.0	82.7	82.3	-91.39	266.1	2,757.4	659.7	494.8	164.85	4.002	
10,000.0	7,083.0	10,015.6	7,100.0	85.4	85.1	-91.39	264.5	2,857.4	659.7	489.4	170.35	3.873	
10,100.0	7,083.0	10,115.6	7,100.0	88.2	87.8	-91.39	263.0	2,957.4	659.7	483.9	175.86	3.751	
10,200.0	7,083.0	10,215.6	7,100.0	90.9	90.6	-91.39	261.4	3,057.4	659.8	478.4	181.38	3.637	

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Project:	SEC.5-T2N-R68W	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Reference Site:	SRC Union Pad Sec.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Union 12-5NHZ	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 #3 (1-2-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Union Pad Sec.5-T2N-R68W - SRC Union C-5CHZ - Wellbore #1 - Plan #3 (1-2-14)												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
10,300.0	7,083.0	10,315.6	7,100.0	93.7	93.3	-91.39	259.9	3,157.4	659.8	472.9	186.90	3.530	
10,400.0	7,083.0	10,415.6	7,100.0	96.5	96.1	-91.39	258.4	3,257.4	659.8	467.4	192.43	3.429	
10,500.0	7,083.0	10,515.6	7,100.0	99.2	98.9	-91.39	256.8	3,357.3	659.8	461.9	197.96	3.333	
10,600.0	7,083.0	10,615.6	7,100.0	102.0	101.6	-91.39	255.3	3,457.3	659.8	456.3	203.50	3.242	
10,700.0	7,083.0	10,715.6	7,100.0	104.8	104.4	-91.39	253.7	3,557.3	659.9	450.8	209.04	3.157	
10,800.0	7,083.0	10,815.6	7,100.0	107.5	107.2	-91.39	252.2	3,657.3	659.9	445.3	214.58	3.075	
10,900.0	7,083.0	10,915.6	7,100.0	110.3	109.9	-91.39	250.6	3,757.3	659.9	439.8	220.13	2.998	
11,000.0	7,083.0	11,015.6	7,100.0	113.1	112.7	-91.39	249.1	3,857.3	659.9	434.2	225.68	2.924	
11,100.0	7,083.0	11,115.6	7,100.0	115.9	115.5	-91.39	247.6	3,957.3	659.9	428.7	231.24	2.854	
11,200.0	7,083.0	11,215.6	7,100.0	118.7	118.3	-91.39	246.0	4,057.3	660.0	423.2	236.79	2.787	
11,300.0	7,083.0	11,315.6	7,100.0	121.4	121.1	-91.39	244.5	4,157.2	660.0	417.6	242.35	2.723	
11,400.0	7,083.0	11,415.6	7,100.0	124.2	123.8	-91.39	242.9	4,257.2	660.0	412.1	247.92	2.662	
11,500.0	7,083.0	11,515.6	7,100.0	127.0	126.6	-91.39	241.4	4,357.2	660.0	406.5	253.48	2.604	
11,600.0	7,083.0	11,615.6	7,100.0	129.8	129.2	-91.39	239.8	4,457.2	660.0	401.1	258.89	2.549	
11,627.3	7,083.0	11,643.0	7,100.0	130.6	129.7	-91.39	239.4	4,484.5	660.0	399.9	260.14	2.537 SF	

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Project:	SEC.5-T2N-R68W	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Reference Site:	SRC Union Pad Sec.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Union 12-5NHZ	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 #3 (1-2-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0ft
Survey Program: 0-MWD												Offset Well Error:	0.0ft
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	1.0	1.0	0.0	0.0	68.85	43.4	112.1	120.2	120.2	0.00	N/A	
100.0	100.0	101.0	101.0	0.1	0.1	68.85	43.4	112.1	120.2	119.9	0.23	529.302	
200.0	200.0	201.0	201.0	0.3	0.3	68.85	43.4	112.1	120.2	119.5	0.68	177.606	
300.0	300.0	301.0	301.0	0.6	0.6	68.85	43.4	112.1	120.2	119.0	1.13	106.706	
400.0	400.0	401.0	401.0	0.8	0.8	68.85	43.4	112.1	120.2	118.6	1.58	76.262	
500.0	500.0	501.0	501.0	1.0	1.0	68.85	43.4	112.1	120.2	118.1	2.03	59.334	
600.0	600.0	601.0	601.0	1.2	1.2	68.85	43.4	112.1	120.2	117.7	2.47	48.555	
700.0	700.0	701.0	701.0	1.5	1.5	68.85	43.4	112.1	120.2	117.2	2.92	41.091	
800.0	800.0	801.0	801.0	1.7	1.7	68.85	43.4	112.1	120.2	116.8	3.37	35.616	
900.0	900.0	901.0	901.0	1.9	1.9	68.85	43.4	112.1	120.2	116.3	3.82	31.428	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	68.85	43.4	112.1	120.2	115.9	4.27	28.122	
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	68.85	43.4	112.1	120.2	115.4	4.72	25.445	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	68.85	43.4	112.1	120.2	115.0	5.17	23.233	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	68.85	43.4	112.1	120.2	114.5	5.62	21.375 CC, ES	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-156.23	43.4	112.1	121.0	114.9	6.05	20.007	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	3.3	-156.71	43.4	112.1	123.4	116.9	6.45	19.128	
1,600.0	1,599.9	1,600.9	1,600.9	3.4	3.5	-157.47	43.4	112.1	127.4	120.5	6.86	18.578	
1,700.0	1,699.7	1,700.7	1,700.7	3.6	3.7	-158.46	43.4	112.1	133.0	125.8	7.27	18.308	
1,800.0	1,799.4	1,800.4	1,800.4	3.8	3.9	-159.61	43.4	112.1	140.4	132.7	7.68	18.277	
1,900.0	1,898.9	1,899.9	1,899.9	4.0	4.2	-160.86	43.4	112.1	149.4	141.3	8.10	18.455	
2,000.0	1,998.3	1,999.3	1,999.3	4.2	4.4	-162.15	43.4	112.1	160.1	151.6	8.51	18.813	
2,100.0	2,097.4	2,098.4	2,098.4	4.5	4.6	-163.44	43.4	112.1	172.6	163.7	8.93	19.329	
2,200.0	2,196.4	2,197.4	2,197.4	4.8	4.8	-164.68	43.4	112.1	186.3	176.9	9.36	19.899	
2,300.0	2,295.4	2,296.4	2,296.4	5.0	5.0	-165.94	43.4	111.2	199.4	189.6	9.79	20.365	
2,400.0	2,394.3	2,401.2	2,401.1	5.3	5.2	-167.35	43.8	108.6	211.2	201.0	10.21	20.684	
2,500.0	2,493.3	2,503.4	2,503.3	5.6	5.5	-168.91	44.3	104.1	221.8	211.2	10.64	20.850	
2,600.0	2,592.3	2,605.8	2,605.4	5.9	5.7	-170.63	45.0	97.8	231.2	220.2	11.07	20.888	
2,700.0	2,691.3	2,708.2	2,707.6	6.2	5.9	-172.52	45.9	89.7	239.6	228.1	11.51	20.816	
2,800.0	2,790.3	2,810.7	2,809.5	6.6	6.1	-174.58	47.0	79.8	246.9	234.9	11.95	20.653	
2,900.0	2,889.2	2,913.1	2,911.2	6.9	6.4	-176.82	48.4	68.0	253.3	240.8	12.41	20.411	
3,000.0	2,988.2	3,014.9	3,012.2	7.2	6.6	-179.24	49.9	54.6	258.9	246.0	12.87	20.108	
3,100.0	3,087.2	3,114.2	3,110.5	7.5	6.9	178.39	51.5	40.8	264.5	251.2	13.35	19.814	
3,200.0	3,186.2	3,213.4	3,208.8	7.9	7.2	176.12	53.0	27.0	270.6	256.7	13.84	19.552	
3,300.0	3,285.2	3,312.7	3,307.0	8.2	7.4	173.95	54.6	13.3	277.1	262.7	14.34	19.319	
3,400.0	3,384.1	3,411.9	3,405.3	8.5	7.7	171.88	56.2	-0.5	283.9	269.1	14.86	19.111	
3,500.0	3,483.1	3,511.2	3,503.6	8.9	8.0	169.91	57.7	-14.3	291.1	275.8	15.39	18.924	
3,600.0	3,582.1	3,610.4	3,601.8	9.2	8.3	168.04	59.3	-28.0	298.7	282.8	15.93	18.755	
3,700.0	3,681.1	3,709.7	3,700.1	9.5	8.6	166.26	60.9	-41.8	306.5	290.1	16.48	18.604	
3,800.0	3,780.1	3,808.9	3,798.4	9.9	8.9	164.57	62.4	-55.6	314.7	297.6	17.04	18.467	
3,900.0	3,879.0	3,908.2	3,896.7	10.2	9.2	162.96	64.0	-69.4	323.1	305.4	17.61	18.343	
4,000.0	3,978.0	4,007.4	3,994.9	10.5	9.5	161.44	65.6	-83.1	331.7	313.5	18.19	18.231	
4,100.0	4,077.0	4,106.7	4,093.2	10.9	9.8	160.00	67.1	-96.9	340.5	321.8	18.78	18.130	
4,200.0	4,176.0	4,205.9	4,191.5	11.2	10.1	158.63	68.7	-110.7	349.6	330.2	19.38	18.039	
4,300.0	4,275.0	4,305.1	4,289.8	11.6	10.4	157.32	70.3	-124.4	358.9	338.9	19.99	17.956	
4,400.0	4,373.9	4,404.4	4,388.0	11.9	10.7	156.09	71.8	-138.2	368.3	347.7	20.60	17.881	
4,500.0	4,472.9	4,503.6	4,486.3	12.3	11.0	154.91	73.4	-152.0	377.9	356.6	21.21	17.813	
4,600.0	4,571.9	4,602.9	4,584.6	12.6	11.3	153.80	75.0	-165.8	387.6	365.8	21.83	17.752	
4,700.0	4,670.9	4,702.1	4,682.9	13.0	11.7	152.74	76.5	-179.5	397.5	375.0	22.46	17.697	
4,800.0	4,769.9	4,801.4	4,781.1	13.3	12.0	151.73	78.1	-193.3	407.5	384.4	23.09	17.647	
4,900.0	4,868.8	4,900.6	4,879.4	13.7	12.3	150.77	79.7	-207.1	417.6	393.9	23.72	17.602	
5,000.0	4,968.0	4,999.9	4,977.7	14.0	12.6	149.85	81.3	-220.8	427.0	402.6	24.37	17.517	
5,100.0	5,067.5	5,099.3	5,076.1	14.2	12.9	148.75	82.8	-234.6	433.5	408.5	24.99	17.346	

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

SRC Union Pad Sec.5-T2N-R68W - SRC Union C-5NHZ - Wellbore #1 - Plan #3 (1-2-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.0	5,167.3	5,198.7	5,174.5	14.4	13.3	147.41	84.4	-248.4	437.3	411.7	25.60	17.086		
5,300.0	5,267.2	5,297.9	5,272.8	14.6	13.6	145.82	86.0	-262.2	438.5	412.3	26.19	16.747		
5,400.0	5,367.2	5,396.9	5,370.8	14.7	13.9	8.94	87.5	-275.9	437.9	412.2	25.69	17.041		
5,500.0	5,467.2	5,496.0	5,468.9	14.9	14.2	7.13	89.1	-289.7	437.5	411.5	26.00	16.827		
5,535.2	5,502.4	5,530.8	5,503.4	14.9	14.4	6.49	89.6	-294.5	437.4	411.3	26.11	16.756		
5,600.0	5,567.2	5,595.0	5,566.9	15.0	14.6	5.32	90.7	-303.4	437.5	411.2	26.31	16.631		
5,700.0	5,667.2	5,694.5	5,665.6	15.2	14.9	3.60	92.1	-316.5	438.0	411.4	26.62	16.455		
5,800.0	5,767.2	5,795.0	5,765.6	15.3	15.1	2.30	93.3	-326.4	438.6	411.7	26.93	16.290		
5,900.0	5,867.2	5,896.0	5,866.4	15.5	15.3	1.46	94.0	-332.8	439.1	411.9	27.26	16.112		
6,000.0	5,967.2	5,997.4	5,967.7	15.7	15.5	1.08	94.3	-335.8	439.4	411.8	27.60	15.920		
6,100.0	6,067.2	6,097.9	6,068.2	15.8	15.6	1.05	94.4	-335.9	439.4	411.5	27.97	15.711		
6,200.0	6,167.2	6,197.9	6,168.2	16.0	15.8	1.05	94.4	-335.9	439.4	411.1	28.35	15.497		
6,300.0	6,267.2	6,297.9	6,268.2	16.2	16.0	1.05	94.4	-335.9	439.4	410.7	28.74	15.288		
6,371.2	6,338.4	6,369.1	6,339.4	16.3	16.1	-89.85	94.4	-335.9	439.4	408.3	31.15	14.106		
6,400.0	6,367.2	6,397.9	6,368.2	16.3	16.2	-89.84	94.4	-335.9	439.4	408.2	31.26	14.058		
6,500.0	6,466.9	6,497.7	6,467.7	16.5	16.3	-89.84	94.2	-328.9	439.4	407.9	31.50	13.950		
6,600.0	6,564.6	6,597.5	6,565.2	16.5	16.3	-89.83	93.9	-308.0	439.4	407.8	31.59	13.912		
6,700.0	6,658.5	6,697.3	6,658.9	16.5	16.3	-89.83	93.4	-273.9	439.4	407.9	31.57	13.920		
6,800.0	6,746.7	6,797.2	6,747.0	16.5	16.3	-89.83	92.7	-227.0	439.4	407.9	31.54	13.932		
6,900.0	6,827.5	6,897.0	6,827.7	16.4	16.3	-89.84	91.7	-168.4	439.4	407.8	31.63	13.891		
7,000.0	6,899.3	6,996.8	6,899.4	16.4	16.5	-89.85	90.7	-99.1	439.4	407.4	32.02	13.724		
7,100.0	6,960.8	7,096.6	6,960.9	16.5	16.8	-89.86	89.4	-20.5	439.4	406.6	32.87	13.368		
7,200.0	7,010.7	7,196.5	7,010.8	16.9	17.5	-89.87	88.1	65.8	439.5	405.1	34.34	12.797		
7,300.0	7,048.1	7,296.4	7,048.3	18.0	18.5	-89.89	86.7	158.3	439.5	403.0	36.49	12.044		
7,400.0	7,072.2	7,396.3	7,072.5	19.4	19.9	-89.91	85.2	255.1	439.5	400.2	39.28	11.188		
7,500.0	7,082.6	7,496.2	7,083.0	21.2	21.5	-89.93	83.6	354.4	439.5	396.9	42.59	10.318		
7,600.0	7,083.0	7,596.2	7,083.5	23.1	23.3	-89.93	82.0	454.4	439.5	393.2	46.30	9.491		
7,700.0	7,083.0	7,696.2	7,083.5	25.2	25.2	-89.93	80.5	554.3	439.5	389.1	50.36	8.727		
7,800.0	7,083.0	7,796.2	7,083.5	27.4	27.4	-89.93	78.9	654.3	439.5	384.8	54.70	8.035		
7,900.0	7,083.0	7,896.2	7,083.5	29.7	29.6	-89.93	77.4	754.3	439.5	380.3	59.25	7.418		
8,000.0	7,083.0	7,996.2	7,083.5	32.1	31.9	-89.93	75.8	854.3	439.5	375.5	63.97	6.871		
8,100.0	7,083.0	8,096.2	7,083.5	34.6	34.3	-89.93	74.3	954.3	439.5	370.7	68.82	6.386		
8,200.0	7,083.0	8,196.2	7,083.5	37.1	36.8	-89.93	72.7	1,054.3	439.5	365.7	73.79	5.957		
8,300.0	7,083.0	8,296.2	7,083.5	39.6	39.3	-89.93	71.2	1,154.3	439.5	360.7	78.84	5.575		
8,400.0	7,083.0	8,396.2	7,083.5	42.2	41.9	-89.93	69.6	1,254.3	439.5	355.6	83.96	5.235		
8,500.0	7,083.0	8,496.2	7,083.5	44.8	44.4	-89.93	68.0	1,354.2	439.5	350.4	89.14	4.931		
8,600.0	7,083.0	8,596.2	7,083.5	47.4	47.0	-89.93	66.5	1,454.2	439.6	345.2	94.37	4.658		
8,700.0	7,083.0	8,696.2	7,083.5	50.1	49.7	-89.93	64.9	1,554.2	439.6	339.9	99.65	4.411		
8,800.0	7,083.0	8,796.2	7,083.5	52.7	52.3	-89.93	63.4	1,654.2	439.6	334.6	104.96	4.188		
8,900.0	7,083.0	8,896.2	7,083.5	55.4	55.0	-89.93	61.8	1,754.2	439.6	329.3	110.30	3.985		
9,000.0	7,083.0	8,996.2	7,083.5	58.1	57.6	-89.93	60.3	1,854.2	439.6	323.9	115.66	3.801		
9,100.0	7,083.0	9,096.2	7,083.5	60.8	60.3	-89.93	58.7	1,954.2	439.6	318.5	121.05	3.631		
9,200.0	7,083.0	9,196.2	7,083.5	63.5	63.0	-89.93	57.1	2,054.2	439.6	313.1	126.46	3.476		
9,300.0	7,083.0	9,296.2	7,083.5	66.2	65.7	-89.93	55.6	2,154.1	439.6	307.7	131.88	3.333		
9,400.0	7,083.0	9,396.2	7,083.5	68.9	68.4	-89.93	54.0	2,254.1	439.6	302.3	137.33	3.201		
9,500.0	7,083.0	9,496.2	7,083.5	71.7	71.2	-89.93	52.5	2,354.1	439.6	296.8	142.78	3.079		
9,600.0	7,083.0	9,596.2	7,083.5	74.4	73.9	-89.93	50.9	2,454.1	439.6	291.4	148.25	2.965		
9,700.0	7,083.0	9,696.2	7,083.5	77.2	76.6	-89.93	49.4	2,554.1	439.6	285.9	153.72	2.860		
9,800.0	7,083.0	9,796.2	7,083.5	79.9	79.4	-89.93	47.8	2,654.1	439.6	280.4	159.21	2.761		
9,900.0	7,083.0	9,896.2	7,083.5	82.7	82.1	-89.93	46.2	2,754.1	439.6	274.9	164.71	2.669		
10,000.0	7,083.0	9,996.2	7,083.5	85.4	84.9	-89.93	44.7	2,854.1	439.7	269.4	170.21	2.583		
10,100.0	7,083.0	10,096.2	7,083.5	88.2	87.6	-89.93	43.1	2,954.0	439.7	263.9	175.72	2.502		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Project:	SEC.5-T2N-R68W	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Reference Site:	SRC Union Pad Sec.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Union 12-5NHZ	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 #3 (1-2-14)	Offset TVD Reference:	Offset Datum

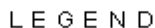
Offset Design SRC Union Pad Sec.5-T2N-R68W - SRC Union C-5NHZ - Wellbore #1 - Plan #3 (1-2-14)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	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
10,200.0	7,083.0	10,196.2	7,083.5	90.9	90.4	-89.93	41.6	3,054.0	439.7	258.4	181.24	2.426	
10,300.0	7,083.0	10,296.2	7,083.5	93.7	93.1	-89.93	40.0	3,154.0	439.7	252.9	186.76	2.354	
10,400.0	7,083.0	10,396.2	7,083.5	96.5	95.9	-89.93	38.5	3,254.0	439.7	247.4	192.29	2.287	
10,500.0	7,083.0	10,496.2	7,083.5	99.2	98.6	-89.93	36.9	3,354.0	439.7	241.9	197.82	2.223	
10,600.0	7,083.0	10,596.2	7,083.5	102.0	101.4	-89.93	35.4	3,454.0	439.7	236.3	203.36	2.162	
10,700.0	7,083.0	10,696.2	7,083.5	104.8	104.2	-89.93	33.8	3,554.0	439.7	230.8	208.91	2.105	
10,800.0	7,083.0	10,796.2	7,083.5	107.5	107.0	-89.93	32.2	3,654.0	439.7	225.3	214.45	2.050	
10,900.0	7,083.0	10,896.2	7,083.5	110.3	109.7	-89.93	30.7	3,754.0	439.7	219.7	220.00	1.999	
11,000.0	7,083.0	10,996.2	7,083.5	113.1	112.5	-89.93	29.1	3,853.9	439.7	214.2	225.55	1.950	
11,100.0	7,083.0	11,096.2	7,083.5	115.9	115.3	-89.93	27.6	3,953.9	439.7	208.6	231.11	1.903	
11,200.0	7,083.0	11,196.2	7,083.5	118.7	118.1	-89.93	26.0	4,053.9	439.7	203.1	236.67	1.858	
11,300.0	7,083.0	11,296.2	7,083.5	121.4	120.8	-89.93	24.5	4,153.9	439.7	197.5	242.23	1.815	
11,400.0	7,083.0	11,396.2	7,083.5	124.2	123.6	-89.93	22.9	4,253.9	439.7	192.0	247.79	1.775	
11,500.0	7,083.0	11,496.2	7,083.5	127.0	126.4	-89.93	21.3	4,353.9	439.8	186.4	253.36	1.736	
11,600.0	7,083.0	11,596.2	7,083.5	129.8	129.2	-89.93	19.8	4,453.9	439.8	180.8	258.93	1.698	
11,627.3	7,083.0	11,623.5	7,083.5	130.6	129.9	-89.93	19.4	4,481.2	439.8	179.3	260.45	1.688 SF	

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Union 12-5NHZ
Project:	SEC.5-T2N-R68W	TVD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Reference Site:	SRC Union Pad Sec.5-T2N-R68W	MD Reference:	WELL @ 4977.5ft (Ensign 131 RKB - 13.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Union 12-5NHZ	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 #3 (1-2-14)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4977.5ft (Ensign 131 RKB - Coordinates are relative to: SRC Union 12-5NHZ
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.30°



Reference Depths are relative to WELL @ 4977.5ft (Ensign 131 RKB - Coordinates are relative to: SRC Union 12-5NHZ
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.30°



nien 12-5CHZ, Wellbore #1, Plan #3 (1-2-14) V0 SRC Union C-5CHZ, Wellbore #1, Plan #3 (1-2-14) V0 SRC Union A-5CHZ, Wellbore #1, Plan #3 (1-2-14) V0