

Synergy Resources

Well Name: **SRC Kiehn A-4NHZ**

Surface Location: SRC Kiehn Pad Sec.4-T4N-R68W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 5064.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1365555.87	3137709.24	40.335799	-105.006016	
RKB - 13' WELL @ 5077.0ft (RKB - 13')						

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 201'FSL & 1983'FEL	1.0	0.0	0.0	Point
BHL 470'FNL & 1264'FWL	7000.0	4431.9	-2250.2	Point



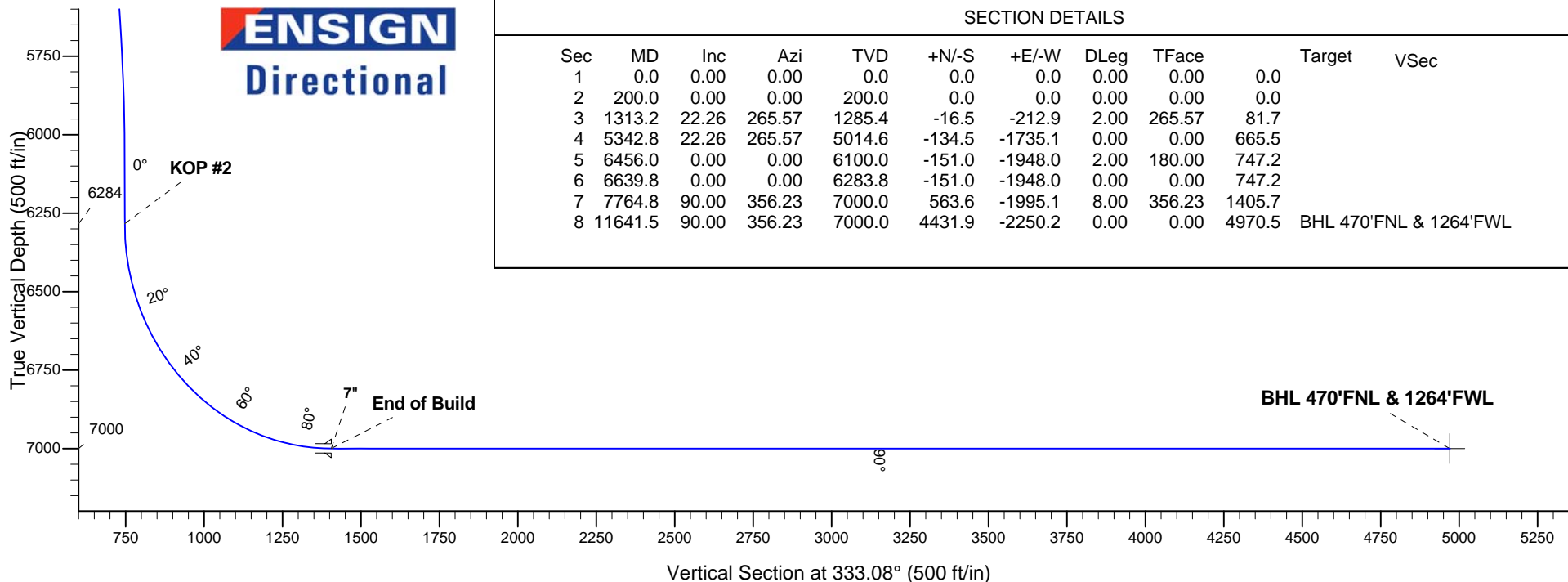
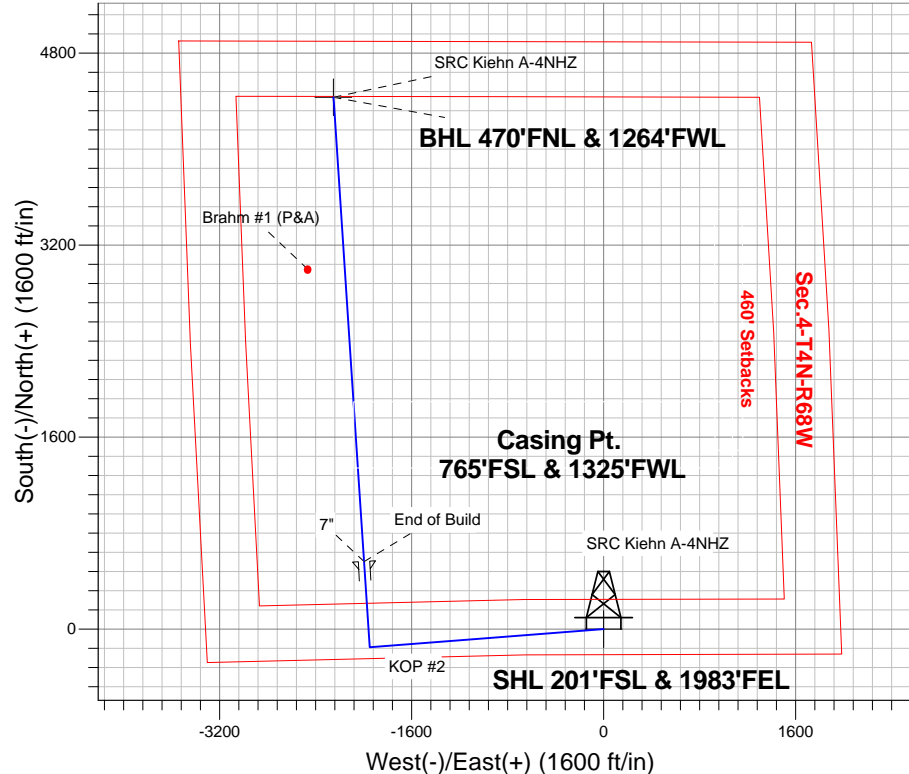
Azimuths to True North
 Magnetic North: 8.60°

Magnetic Field
 Strength: 52768.9snT
 Dip Angle: 66.86°
 Date: 4/25/2014
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP #1
6283.8	6639.8	KOP #2
7000.0	7764.8	End of Build

SRC Kiehn Pad Sec.4-T4N-R68W
 SRC Kiehn A-4NHZ
 Plan #2 (4-25-14)
 6:47, April 29 2014



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	Target	VSec
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	1313.2	22.26	265.57	1285.4	-16.5	-212.9	2.00	265.57	81.7	
4	5342.8	22.26	265.57	5014.6	-134.5	-1735.1	0.00	0.00	665.5	
5	6456.0	0.00	0.00	6100.0	-151.0	-1948.0	2.00	180.00	747.2	
6	6639.8	0.00	0.00	6283.8	-151.0	-1948.0	0.00	0.00	747.2	
7	7764.8	90.00	356.23	7000.0	563.6	-1995.1	8.00	356.23	1405.7	
8	11641.5	90.00	356.23	7000.0	4431.9	-2250.2	0.00	0.00	4970.5	BHL 470'FNL & 1264'FWL



Synergy Resources

SEC.4-T4N-R68W

SRC Kiehn Pad Sec.4-T4N-R68W

SRC Kiehn A-4NHZ

Wellbore #1

Plan: Plan #2 (4-25-14)

Standard Planning Report

29 April, 2014

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	
1,313.2	22.26	265.57	1,285.4	-16.5	-212.9	2.00	2.00	0.00	265.57	
5,342.8	22.26	265.57	5,014.6	-134.5	-1,735.1	0.00	0.00	0.00	0.00	
6,456.0	0.00	0.00	6,100.0	-151.0	-1,948.0	2.00	-2.00	0.00	180.00	
6,639.8	0.00	0.00	6,283.8	-151.0	-1,948.0	0.00	0.00	0.00	0.00	
7,764.8	90.00	356.23	7,000.0	563.6	-1,995.1	8.00	8.00	0.00	356.23	
11,641.5	90.00	356.23	7,000.0	4,431.9	-2,250.2	0.00	0.00	0.00	0.00	BHL 470°FNL & 126°

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn A-4NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Project:	SEC.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site:	SRC Kiehn Pad Sec.4-T4N-R68W	North Reference:	True
Well:	SRC Kiehn A-4NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-25-14)		

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 201'FSL & 1983'FEL									
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
KOP #1									
300.0	2.00	265.57	300.0	-0.1	-1.7	0.7	2.00	2.00	0.00
400.0	4.00	265.57	399.8	-0.5	-7.0	2.7	2.00	2.00	0.00
500.0	6.00	265.57	499.5	-1.2	-15.6	6.0	2.00	2.00	0.00
600.0	8.00	265.57	598.7	-2.2	-27.8	10.7	2.00	2.00	0.00
700.0	10.00	265.57	697.5	-3.4	-43.4	16.6	2.00	2.00	0.00
800.0	12.00	265.57	795.6	-4.8	-62.4	23.9	2.00	2.00	0.00
900.0	14.00	265.57	893.1	-6.6	-84.8	32.5	2.00	2.00	0.00
1,000.0	16.00	265.57	989.6	-8.6	-110.6	42.4	2.00	2.00	0.00
1,100.0	18.00	265.57	1,085.3	-10.8	-139.8	53.6	2.00	2.00	0.00
1,200.0	20.00	265.57	1,179.8	-13.4	-172.3	66.1	2.00	2.00	0.00
1,300.0	22.00	265.57	1,273.2	-16.1	-208.0	79.8	2.00	2.00	0.00
1,313.2	22.26	265.57	1,285.4	-16.5	-212.9	81.7	2.00	2.00	0.00
1,400.0	22.26	265.57	1,365.7	-19.0	-245.7	94.2	0.00	0.00	0.00
1,500.0	22.26	265.57	1,458.3	-22.0	-283.5	108.7	0.00	0.00	0.00
1,600.0	22.26	265.57	1,550.8	-24.9	-321.3	123.2	0.00	0.00	0.00
1,700.0	22.26	265.57	1,643.4	-27.8	-359.0	137.7	0.00	0.00	0.00
1,800.0	22.26	265.57	1,735.9	-30.8	-396.8	152.2	0.00	0.00	0.00
1,900.0	22.26	265.57	1,828.5	-33.7	-434.6	166.7	0.00	0.00	0.00
2,000.0	22.26	265.57	1,921.0	-36.6	-472.4	181.2	0.00	0.00	0.00
2,100.0	22.26	265.57	2,013.5	-39.5	-510.1	195.7	0.00	0.00	0.00
2,200.0	22.26	265.57	2,106.1	-42.5	-547.9	210.2	0.00	0.00	0.00
2,300.0	22.26	265.57	2,198.6	-45.4	-585.7	224.6	0.00	0.00	0.00
2,400.0	22.26	265.57	2,291.2	-48.3	-623.5	239.1	0.00	0.00	0.00
2,500.0	22.26	265.57	2,383.7	-51.3	-661.2	253.6	0.00	0.00	0.00
2,600.0	22.26	265.57	2,476.3	-54.2	-699.0	268.1	0.00	0.00	0.00
2,700.0	22.26	265.57	2,568.8	-57.1	-736.8	282.6	0.00	0.00	0.00
2,800.0	22.26	265.57	2,661.4	-60.0	-774.6	297.1	0.00	0.00	0.00
2,900.0	22.26	265.57	2,753.9	-63.0	-812.3	311.6	0.00	0.00	0.00
3,000.0	22.26	265.57	2,846.4	-65.9	-850.1	326.1	0.00	0.00	0.00
3,100.0	22.26	265.57	2,939.0	-68.8	-887.9	340.6	0.00	0.00	0.00
3,200.0	22.26	265.57	3,031.5	-71.8	-925.6	355.0	0.00	0.00	0.00
3,300.0	22.26	265.57	3,124.1	-74.7	-963.4	369.5	0.00	0.00	0.00
3,400.0	22.26	265.57	3,216.6	-77.6	-1,001.2	384.0	0.00	0.00	0.00
3,500.0	22.26	265.57	3,309.2	-80.5	-1,039.0	398.5	0.00	0.00	0.00
3,600.0	22.26	265.57	3,401.7	-83.5	-1,076.7	413.0	0.00	0.00	0.00
3,700.0	22.26	265.57	3,494.3	-86.4	-1,114.5	427.5	0.00	0.00	0.00
3,800.0	22.26	265.57	3,586.8	-89.3	-1,152.3	442.0	0.00	0.00	0.00
3,900.0	22.26	265.57	3,679.4	-92.2	-1,190.1	456.5	0.00	0.00	0.00
4,000.0	22.26	265.57	3,771.9	-95.2	-1,227.8	470.9	0.00	0.00	0.00
4,100.0	22.26	265.57	3,864.4	-98.1	-1,265.6	485.4	0.00	0.00	0.00
4,200.0	22.26	265.57	3,957.0	-101.0	-1,303.4	499.9	0.00	0.00	0.00
4,300.0	22.26	265.57	4,049.5	-104.0	-1,341.2	514.4	0.00	0.00	0.00
4,400.0	22.26	265.57	4,142.1	-106.9	-1,378.9	528.9	0.00	0.00	0.00
4,500.0	22.26	265.57	4,234.6	-109.8	-1,416.7	543.4	0.00	0.00	0.00
4,600.0	22.26	265.57	4,327.2	-112.7	-1,454.5	557.9	0.00	0.00	0.00
4,700.0	22.26	265.57	4,419.7	-115.7	-1,492.3	572.4	0.00	0.00	0.00
4,800.0	22.26	265.57	4,512.3	-118.6	-1,530.0	586.9	0.00	0.00	0.00
4,900.0	22.26	265.57	4,604.8	-121.5	-1,567.8	601.3	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn A-4NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Project:	SEC.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site:	SRC Kiehn Pad Sec.4-T4N-R68W	North Reference:	True
Well:	SRC Kiehn A-4NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-25-14)		

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)
5,000.0	22.26	265.57	4,697.3	-124.5	-1,605.6	615.8	0.00	0.00	0.00
5,100.0	22.26	265.57	4,789.9	-127.4	-1,643.3	630.3	0.00	0.00	0.00
5,200.0	22.26	265.57	4,882.4	-130.3	-1,681.1	644.8	0.00	0.00	0.00
5,300.0	22.26	265.57	4,975.0	-133.2	-1,718.9	659.3	0.00	0.00	0.00
5,342.8	22.26	265.57	5,014.6	-134.5	-1,735.1	665.5	0.00	0.00	0.00
5,400.0	21.12	265.57	5,067.7	-136.1	-1,756.1	673.6	2.00	-2.00	0.00
5,500.0	19.12	265.57	5,161.6	-138.8	-1,790.4	686.7	2.00	-2.00	0.00
5,600.0	17.12	265.57	5,256.7	-141.2	-1,821.4	698.6	2.00	-2.00	0.00
5,700.0	15.12	265.57	5,352.7	-143.3	-1,849.1	709.2	2.00	-2.00	0.00
5,800.0	13.12	265.57	5,449.7	-145.2	-1,873.4	718.6	2.00	-2.00	0.00
5,900.0	11.12	265.57	5,547.5	-146.8	-1,894.4	726.6	2.00	-2.00	0.00
6,000.0	9.12	265.57	5,645.9	-148.2	-1,911.9	733.3	2.00	-2.00	0.00
6,100.0	7.12	265.57	5,744.9	-149.3	-1,926.0	738.7	2.00	-2.00	0.00
6,200.0	5.12	265.57	5,844.3	-150.1	-1,936.6	742.8	2.00	-2.00	0.00
6,300.0	3.12	265.57	5,944.1	-150.7	-1,943.8	745.5	2.00	-2.00	0.00
6,400.0	1.12	265.57	6,044.0	-151.0	-1,947.5	747.0	2.00	-2.00	0.00
6,456.0	0.00	0.00	6,100.0	-151.0	-1,948.0	747.2	2.00	-2.00	0.00
6,500.0	0.00	0.00	6,144.0	-151.0	-1,948.0	747.2	0.00	0.00	0.00
6,600.0	0.00	0.00	6,244.0	-151.0	-1,948.0	747.2	0.00	0.00	0.00
6,639.8	0.00	0.00	6,283.8	-151.0	-1,948.0	747.2	0.00	0.00	0.00
KOP #2									
6,700.0	4.81	356.23	6,343.9	-148.5	-1,948.2	749.5	8.00	8.00	0.00
6,800.0	12.81	356.23	6,442.7	-133.2	-1,949.2	763.6	8.00	8.00	0.00
6,900.0	20.81	356.23	6,538.3	-104.4	-1,951.1	790.2	8.00	8.00	0.00
7,000.0	28.81	356.23	6,629.0	-62.5	-1,953.8	828.7	8.00	8.00	0.00
7,100.0	36.81	356.23	6,713.0	-8.5	-1,957.4	878.5	8.00	8.00	0.00
7,200.0	44.81	356.23	6,788.6	56.7	-1,961.7	938.6	8.00	8.00	0.00
7,300.0	52.81	356.23	6,854.4	131.7	-1,966.6	1,007.7	8.00	8.00	0.00
7,400.0	60.81	356.23	6,909.1	215.2	-1,972.1	1,084.6	8.00	8.00	0.00
7,500.0	68.81	356.23	6,951.6	305.4	-1,978.1	1,167.7	8.00	8.00	0.00
7,600.0	76.81	356.23	6,981.1	400.6	-1,984.4	1,255.5	8.00	8.00	0.00
7,700.0	84.81	356.23	6,997.1	499.1	-1,990.9	1,346.2	8.00	8.00	0.00
7,764.8	90.00	356.23	7,000.0	563.6	-1,995.1	1,405.7	8.00	8.00	0.00
End of Build - 7"									
7,800.0	90.00	356.23	7,000.0	598.8	-1,997.4	1,438.1	0.00	0.00	0.00
7,900.0	90.00	356.23	7,000.0	698.5	-2,004.0	1,530.0	0.00	0.00	0.00
8,000.0	90.00	356.23	7,000.0	798.3	-2,010.6	1,622.0	0.00	0.00	0.00
8,100.0	90.00	356.23	7,000.0	898.1	-2,017.2	1,713.9	0.00	0.00	0.00
8,200.0	90.00	356.23	7,000.0	997.9	-2,023.8	1,805.9	0.00	0.00	0.00
8,300.0	90.00	356.23	7,000.0	1,097.7	-2,030.3	1,897.9	0.00	0.00	0.00
8,400.0	90.00	356.23	7,000.0	1,197.5	-2,036.9	1,989.8	0.00	0.00	0.00
8,500.0	90.00	356.23	7,000.0	1,297.2	-2,043.5	2,081.8	0.00	0.00	0.00
8,600.0	90.00	356.23	7,000.0	1,397.0	-2,050.1	2,173.7	0.00	0.00	0.00
8,700.0	90.00	356.23	7,000.0	1,496.8	-2,056.7	2,265.7	0.00	0.00	0.00
8,800.0	90.00	356.23	7,000.0	1,596.6	-2,063.3	2,357.6	0.00	0.00	0.00
8,900.0	90.00	356.23	7,000.0	1,696.4	-2,069.8	2,449.6	0.00	0.00	0.00
9,000.0	90.00	356.23	7,000.0	1,796.2	-2,076.4	2,541.5	0.00	0.00	0.00
9,100.0	90.00	356.23	7,000.0	1,895.9	-2,083.0	2,633.5	0.00	0.00	0.00
9,200.0	90.00	356.23	7,000.0	1,995.7	-2,089.6	2,725.4	0.00	0.00	0.00
9,300.0	90.00	356.23	7,000.0	2,095.5	-2,096.2	2,817.4	0.00	0.00	0.00
9,400.0	90.00	356.23	7,000.0	2,195.3	-2,102.7	2,909.3	0.00	0.00	0.00
9,500.0	90.00	356.23	7,000.0	2,295.1	-2,109.3	3,001.3	0.00	0.00	0.00
9,600.0	90.00	356.23	7,000.0	2,394.9	-2,115.9	3,093.2	0.00	0.00	0.00
9,700.0	90.00	356.23	7,000.0	2,494.6	-2,122.5	3,185.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn A-4NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Project:	SEC.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site:	SRC Kiehn Pad Sec.4-T4N-R68W	North Reference:	True
Well:	SRC Kiehn A-4NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-25-14)		

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	356.23	7,000.0	2,594.4	-2,129.1	3,277.2	0.00	0.00	0.00	
9,900.0	90.00	356.23	7,000.0	2,694.2	-2,135.6	3,369.1	0.00	0.00	0.00	
10,000.0	90.00	356.23	7,000.0	2,794.0	-2,142.2	3,461.1	0.00	0.00	0.00	
10,100.0	90.00	356.23	7,000.0	2,893.8	-2,148.8	3,553.0	0.00	0.00	0.00	
10,200.0	90.00	356.23	7,000.0	2,993.6	-2,155.4	3,645.0	0.00	0.00	0.00	
10,300.0	90.00	356.23	7,000.0	3,093.3	-2,162.0	3,736.9	0.00	0.00	0.00	
10,400.0	90.00	356.23	7,000.0	3,193.1	-2,168.5	3,828.9	0.00	0.00	0.00	
10,500.0	90.00	356.23	7,000.0	3,292.9	-2,175.1	3,920.8	0.00	0.00	0.00	
10,600.0	90.00	356.23	7,000.0	3,392.7	-2,181.7	4,012.8	0.00	0.00	0.00	
10,700.0	90.00	356.23	7,000.0	3,492.5	-2,188.3	4,104.7	0.00	0.00	0.00	
10,800.0	90.00	356.23	7,000.0	3,592.3	-2,194.9	4,196.7	0.00	0.00	0.00	
10,900.0	90.00	356.23	7,000.0	3,692.0	-2,201.4	4,288.6	0.00	0.00	0.00	
11,000.0	90.00	356.23	7,000.0	3,791.8	-2,208.0	4,380.6	0.00	0.00	0.00	
11,100.0	90.00	356.23	7,000.0	3,891.6	-2,214.6	4,472.5	0.00	0.00	0.00	
11,200.0	90.00	356.23	7,000.0	3,991.4	-2,221.2	4,564.5	0.00	0.00	0.00	
11,300.0	90.00	356.23	7,000.0	4,091.2	-2,227.8	4,656.4	0.00	0.00	0.00	
11,400.0	90.00	356.23	7,000.0	4,191.0	-2,234.3	4,748.4	0.00	0.00	0.00	
11,500.0	90.00	356.23	7,000.0	4,290.7	-2,240.9	4,840.4	0.00	0.00	0.00	
11,600.0	90.00	356.23	7,000.0	4,390.5	-2,247.5	4,932.3	0.00	0.00	0.00	
11,641.5	90.00	356.23	7,000.0	4,431.9	-2,250.2	4,970.5	0.00	0.00	0.00	
BHL 470'FNL & 1264'FWL										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,764.8	7,000.0	7"	7	7-1/2	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.0	200.0	0.0	0.0	KOP #1	
6,639.8	6,283.8	-151.0	-1,948.0	KOP #2	
7,764.8	7,000.0	563.6	-1,995.1	End of Build	



Synergy Resources

SEC.4-T4N-R68W

SRC Kiehn Pad Sec.4-T4N-R68W

SRC Kiehn A-4NHZ

Wellbore #1

Plan #2 (4-25-14)

Anticollision Report

29 April, 2014

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn A-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn A-4NHZ	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 (4-25-14)	Offset TVD Reference:	Offset Datum

SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 21-4CHZ - Wellbore #1 - Plan #2 (4-25-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	89.35	0.7	65.0	65.0					
100.0	100.0	100.0	100.0	0.1	0.1	89.35	0.7	65.0	65.0	64.7	0.22	289.018		
200.0	200.0	200.0	200.0	0.3	0.3	89.35	0.7	65.0	65.0	64.3	0.67	96.339	CC, ES	
300.0	300.0	300.0	300.0	0.6	0.6	-176.32	0.7	65.0	66.7	65.6	1.12	59.611		
400.0	399.8	399.8	399.8	0.8	0.8	-176.58	0.7	65.0	71.9	70.4	1.57	45.924		
500.0	499.5	499.5	499.5	1.0	1.0	-176.94	0.7	65.0	80.6	78.6	2.02	39.915		
600.0	598.7	598.7	598.7	1.3	1.2	-177.33	0.7	65.0	92.8	90.3	2.48	37.459		
700.0	697.5	697.5	697.5	1.7	1.5	-177.70	0.7	65.0	108.4	105.5	2.94	36.914		
800.0	795.6	795.6	795.6	2.0	1.7	-178.03	0.7	65.0	127.5	124.1	3.40	37.501		
900.0	893.1	898.1	898.1	2.5	1.9	-178.29	0.6	63.3	148.4	144.5	3.85	38.524		
1,000.0	989.6	1,001.7	1,001.5	3.0	2.1	-178.43	0.0	57.9	169.2	164.9	4.29	39.420		
1,100.0	1,085.3	1,106.1	1,105.5	3.6	2.3	-178.51	-1.1	48.7	189.8	185.1	4.75	39.986		
1,200.0	1,179.8	1,211.3	1,209.9	4.2	2.6	-178.53	-2.5	35.7	210.4	205.1	5.22	40.291		
1,300.0	1,273.2	1,317.3	1,314.5	5.0	2.9	-178.51	-4.4	18.7	230.7	225.0	5.71	40.380		
1,400.0	1,365.7	1,424.5	1,419.6	5.7	3.3	-178.47	-6.8	-2.4	249.5	243.2	6.26	39.871		
1,500.0	1,458.3	1,533.1	1,525.1	6.5	3.7	-178.38	-9.6	-27.8	264.6	257.8	6.83	38.728		
1,600.0	1,550.8	1,642.8	1,630.7	7.3	4.2	-178.24	-12.9	-57.4	276.0	268.6	7.43	37.140		
1,700.0	1,643.4	1,743.2	1,726.7	8.1	4.8	-178.10	-16.2	-86.6	285.2	277.1	8.04	35.471		
1,800.0	1,735.9	1,842.8	1,821.9	8.9	5.3	-177.96	-19.4	-115.6	294.3	285.7	8.64	34.081		
1,900.0	1,828.5	1,942.4	1,917.1	9.7	5.9	-177.84	-22.6	-144.6	303.5	294.2	9.25	32.794		
2,000.0	1,921.0	2,042.0	2,012.4	10.6	6.4	-177.72	-25.9	-173.6	312.6	302.7	9.88	31.652		
2,100.0	2,013.5	2,141.6	2,107.6	11.4	7.0	-177.61	-29.1	-202.6	321.8	311.3	10.50	30.631		
2,200.0	2,106.1	2,241.1	2,202.8	12.2	7.6	-177.50	-32.4	-231.6	330.9	319.8	11.14	29.713		
2,300.0	2,198.6	2,340.7	2,298.0	13.0	8.2	-177.40	-35.6	-260.6	340.1	328.3	11.77	28.884		
2,400.0	2,291.2	2,440.3	2,393.2	13.8	8.8	-177.31	-38.8	-289.6	349.2	336.8	12.41	28.132		
2,500.0	2,383.7	2,539.9	2,488.4	14.6	9.4	-177.22	-42.1	-318.6	358.4	345.4	13.06	27.448		
2,600.0	2,476.3	2,639.4	2,583.6	15.4	10.0	-177.13	-45.3	-347.6	367.6	353.9	13.70	26.823		
2,700.0	2,568.8	2,739.0	2,678.8	16.2	10.6	-177.05	-48.5	-376.6	376.7	362.4	14.35	26.251		
2,800.0	2,661.4	2,838.6	2,774.0	17.1	11.2	-176.97	-51.8	-405.6	385.9	370.9	15.00	25.724		
2,900.0	2,753.9	2,938.2	2,869.2	17.9	11.9	-176.90	-55.0	-434.6	395.1	379.4	15.65	25.238		
3,000.0	2,846.4	3,037.8	2,964.4	18.7	12.5	-176.83	-58.3	-463.6	404.2	387.9	16.31	24.789		
3,100.0	2,939.0	3,137.3	3,059.6	19.5	13.1	-176.76	-61.5	-492.6	413.4	396.4	16.96	24.372		
3,200.0	3,031.5	3,236.9	3,154.8	20.3	13.7	-176.70	-64.7	-521.6	422.6	404.9	17.62	23.984		
3,300.0	3,124.1	3,336.5	3,250.1	21.1	14.3	-176.64	-68.0	-550.5	431.7	413.4	18.28	23.623		
3,400.0	3,216.6	3,436.1	3,345.3	22.0	14.9	-176.58	-71.2	-579.5	440.9	421.9	18.93	23.285		
3,500.0	3,309.2	3,535.6	3,440.5	22.8	15.6	-176.52	-74.4	-608.5	450.0	430.5	19.59	22.969		
3,600.0	3,401.7	3,635.2	3,535.7	23.6	16.2	-176.47	-77.7	-637.5	459.2	439.0	20.25	22.673		
3,700.0	3,494.3	3,734.8	3,630.9	24.4	16.8	-176.42	-80.9	-666.5	468.4	447.5	20.92	22.394		
3,800.0	3,586.8	3,834.4	3,726.1	25.2	17.4	-176.37	-84.1	-695.5	477.6	456.0	21.58	22.132		
3,900.0	3,679.4	3,934.0	3,821.3	26.0	18.0	-176.32	-87.4	-724.5	486.7	464.5	22.24	21.885		
4,000.0	3,771.9	4,033.5	3,916.5	26.9	18.7	-176.27	-90.6	-753.5	495.9	473.0	22.90	21.651		
4,100.0	3,864.4	4,133.1	4,011.7	27.7	19.3	-176.23	-93.9	-782.5	505.1	481.5	23.57	21.430		
4,200.0	3,957.0	4,232.7	4,106.9	28.5	19.9	-176.18	-97.1	-811.5	514.2	490.0	24.23	21.220		
4,300.0	4,049.5	4,332.3	4,202.1	29.3	20.5	-176.14	-100.3	-840.5	523.4	498.5	24.90	21.022		
4,400.0	4,142.1	4,431.8	4,297.3	30.1	21.2	-176.10	-103.6	-869.5	532.6	507.0	25.56	20.833		
4,500.0	4,234.6	4,531.4	4,392.5	31.0	21.8	-176.06	-106.8	-898.5	541.7	515.5	26.23	20.653		
4,600.0	4,327.2	4,631.0	4,487.8	31.8	22.4	-176.03	-110.0	-927.5	550.9	524.0	26.90	20.482		
4,700.0	4,419.7	4,730.6	4,583.0	32.6	23.0	-175.99	-113.3	-956.5	560.1	532.5	27.56	20.319		
4,800.0	4,512.3	4,830.2	4,678.2	33.4	23.7	-175.95	-116.5	-985.5	569.2	541.0	28.23	20.164		
4,900.0	4,604.8	4,929.7	4,773.4	34.2	24.3	-175.92	-119.7	-1,014.5	578.4	549.5	28.90	20.015		
5,000.0	4,697.3	5,029.3	4,868.6	35.0	24.9	-175.89	-123.0	-1,043.5	587.6	558.0	29.57	19.873		
5,100.0	4,789.9	5,128.9	4,963.8	35.9	25.5	-175.85	-126.2	-1,072.5	596.8	566.5	30.24	19.737		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn A-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn A-4NHZ	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 (4-25-14)	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	4,882.4	5,228.5	5,059.0	36.7	26.2	-175.82	-129.5	-1,101.5	605.9	575.0	30.91	19.606	
5,300.0	4,975.0	5,328.1	5,154.2	37.5	26.8	-175.79	-132.7	-1,130.5	615.1	583.5	31.57	19.481	
5,400.0	5,067.7	5,427.7	5,249.5	38.3	27.4	-175.77	-135.9	-1,159.5	623.7	591.4	32.27	19.328	
5,500.0	5,161.6	5,511.7	5,330.1	38.8	27.9	-175.74	-138.6	-1,183.1	630.3	597.4	32.85	19.185	
5,600.0	5,256.7	5,600.0	5,415.5	39.4	28.2	-175.72	-141.1	-1,205.4	636.2	602.8	33.37	19.067	
5,700.0	5,352.7	5,675.3	5,488.8	39.8	28.5	-175.70	-142.9	-1,222.3	641.4	607.6	33.79	18.985	
5,800.0	5,449.7	5,756.9	5,568.8	40.3	28.8	-175.68	-144.7	-1,238.5	646.0	611.9	34.16	18.914	
5,900.0	5,547.5	5,838.5	5,649.2	40.6	29.0	-175.67	-146.3	-1,252.4	650.0	615.5	34.46	18.860	
6,000.0	5,645.9	5,920.0	5,729.8	40.9	29.3	-175.66	-147.6	-1,264.0	653.3	618.6	34.71	18.823	
6,100.0	5,744.9	6,000.0	5,809.3	41.2	29.4	-175.65	-148.6	-1,273.1	656.0	621.1	34.89	18.804	
6,200.0	5,844.3	6,082.9	5,891.8	41.4	29.6	-175.64	-149.4	-1,280.3	658.0	623.0	35.00	18.799	
6,300.0	5,944.1	6,164.3	5,973.1	41.5	29.7	-175.63	-149.9	-1,285.0	659.4	624.3	35.05	18.812	
6,400.0	6,044.0	6,245.7	6,054.4	41.6	29.8	-175.63	-150.2	-1,287.5	660.1	625.0	35.04	18.838	
6,500.0	6,144.0	6,335.2	6,144.0	41.7	29.9	89.94	-150.3	-1,287.8	660.2	624.1	36.10	18.288	
6,600.0	6,244.0	6,435.2	6,244.0	41.8	30.0	89.94	-150.3	-1,287.8	660.2	623.8	36.39	18.143	
6,700.0	6,343.9	6,539.0	6,347.7	41.8	30.1	93.69	-147.4	-1,288.0	660.1	624.4	35.77	18.454	
6,800.0	6,442.7	6,645.2	6,452.4	41.9	30.2	93.61	-130.2	-1,289.2	660.1	624.0	36.06	18.306	
6,900.0	6,538.3	6,751.2	6,553.2	42.0	30.3	93.45	-97.8	-1,291.3	660.0	623.7	36.28	18.190	
7,000.0	6,629.0	6,856.9	6,647.8	42.1	30.4	93.22	-51.1	-1,294.4	659.8	623.3	36.51	18.072	
7,100.0	6,713.0	6,962.0	6,734.1	42.1	30.5	92.93	8.7	-1,298.3	659.7	622.8	36.84	17.907	
7,200.0	6,788.6	7,066.5	6,810.3	42.3	30.6	92.57	79.9	-1,303.0	659.5	622.1	37.35	17.655	
7,300.0	6,854.4	7,170.4	6,874.9	42.4	30.8	92.17	160.9	-1,308.3	659.3	621.2	38.15	17.281	
7,400.0	6,909.1	7,273.5	6,926.8	42.6	31.0	91.72	249.7	-1,314.1	659.1	619.9	39.27	16.783	
7,500.0	6,951.6	7,375.7	6,965.2	42.8	31.4	91.24	344.2	-1,320.4	659.0	618.3	40.73	16.180	
7,600.0	6,981.1	7,477.2	6,989.5	43.1	31.8	90.74	442.4	-1,326.8	658.9	616.5	42.48	15.511	
7,700.0	6,997.1	7,577.8	6,999.7	43.5	32.3	90.23	542.2	-1,333.4	658.9	614.4	44.47	14.818	
7,710.8	6,998.0	7,588.6	6,999.9	43.5	32.4	90.17	553.0	-1,334.1	658.9	614.2	44.69	14.743	
7,800.0	7,000.0	7,677.8	7,000.0	43.9	33.0	90.00	642.0	-1,339.9	658.9	612.2	46.68	14.116	
7,900.0	7,000.0	7,777.8	7,000.0	44.4	33.7	90.00	741.8	-1,346.5	658.9	609.8	49.12	13.414	
8,000.0	7,000.0	7,877.8	7,000.0	45.0	34.6	90.00	841.6	-1,353.1	659.0	607.2	51.75	12.734	
8,100.0	7,000.0	7,977.8	7,000.0	45.7	35.5	90.00	941.3	-1,359.6	659.0	604.5	54.52	12.086	
8,200.0	7,000.0	8,077.8	7,000.0	46.4	36.5	90.00	1,041.1	-1,366.2	659.0	601.6	57.43	11.475	
8,300.0	7,000.0	8,177.8	7,000.0	47.3	37.7	90.00	1,140.9	-1,372.7	659.0	598.6	60.45	10.903	
8,400.0	7,000.0	8,277.8	7,000.0	48.1	38.9	90.00	1,240.7	-1,379.3	659.0	595.5	63.56	10.369	
8,500.0	7,000.0	8,377.8	7,000.0	49.1	40.1	90.00	1,340.5	-1,385.9	659.1	592.3	66.75	9.873	
8,600.0	7,000.0	8,477.8	7,000.0	50.1	41.4	90.00	1,440.3	-1,392.4	659.1	589.1	70.02	9.413	
8,700.0	7,000.0	8,577.8	7,000.0	51.2	42.8	90.00	1,540.1	-1,399.0	659.1	585.7	73.35	8.986	
8,800.0	7,000.0	8,677.8	7,000.0	52.3	44.2	90.00	1,639.8	-1,405.6	659.1	582.4	76.73	8.590	
8,900.0	7,000.0	8,777.8	7,000.0	53.5	45.7	90.00	1,739.6	-1,412.1	659.1	579.0	80.16	8.223	
9,000.0	7,000.0	8,877.8	7,000.0	54.7	47.2	90.00	1,839.4	-1,418.7	659.2	575.5	83.62	7.882	
9,100.0	7,000.0	8,977.8	7,000.0	56.0	48.8	90.00	1,939.2	-1,425.2	659.2	572.0	87.13	7.565	
9,200.0	7,000.0	9,077.8	7,000.0	57.3	50.3	90.00	2,039.0	-1,431.8	659.2	568.5	90.67	7.271	
9,300.0	7,000.0	9,177.8	7,000.0	58.7	51.9	90.00	2,138.8	-1,438.4	659.2	565.0	94.23	6.996	
9,400.0	7,000.0	9,277.8	7,000.0	60.1	53.5	90.00	2,238.5	-1,444.9	659.2	561.4	97.82	6.739	
9,500.0	7,000.0	9,377.8	7,000.0	61.5	55.2	90.00	2,338.3	-1,451.5	659.2	557.8	101.43	6.499	
9,600.0	7,000.0	9,477.8	7,000.0	63.0	56.9	90.00	2,438.1	-1,458.1	659.3	554.2	105.07	6.275	
9,700.0	7,000.0	9,577.8	7,000.0	64.5	58.5	90.00	2,537.9	-1,464.6	659.3	550.6	108.72	6.064	
9,800.0	7,000.0	9,677.8	7,000.0	66.0	60.2	90.00	2,637.7	-1,471.2	659.3	546.9	112.39	5.866	
9,900.0	7,000.0	9,777.8	7,000.0	67.6	62.0	90.00	2,737.5	-1,477.7	659.3	543.3	116.07	5.680	
10,000.0	7,000.0	9,877.8	7,000.0	69.1	63.7	90.00	2,837.2	-1,484.3	659.3	539.6	119.77	5.505	
10,100.0	7,000.0	9,977.8	7,000.0	70.7	65.4	90.00	2,937.0	-1,490.9	659.4	535.9	123.47	5.340	
10,200.0	7,000.0	10,077.8	7,000.0	72.3	67.2	90.00	3,036.8	-1,497.4	659.4	532.2	127.19	5.184	

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 Kiehn A-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn A-4NHZ	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 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 21-4CHZ - Wellbore #1 - Plan #2 (4-25-14)												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	7,000.0	10,177.8	7,000.0	73.9	69.0	90.00	3,136.6	-1,504.0	659.4	528.5	130.92	5.036	
10,400.0	7,000.0	10,277.8	7,000.0	75.6	70.7	90.00	3,236.4	-1,510.5	659.4	524.8	134.66	4.897	
10,500.0	7,000.0	10,377.8	7,000.0	77.2	72.5	90.00	3,336.2	-1,517.1	659.4	521.0	138.41	4.764	
10,600.0	7,000.0	10,477.8	7,000.0	78.9	74.3	90.00	3,436.0	-1,523.7	659.5	517.3	142.17	4.639	
10,700.0	7,000.0	10,577.8	7,000.0	80.6	76.1	90.00	3,535.7	-1,530.2	659.5	513.5	145.93	4.519	
10,800.0	7,000.0	10,677.8	7,000.0	82.3	77.9	90.00	3,635.5	-1,536.8	659.5	509.8	149.70	4.405	
10,900.0	7,000.0	10,777.8	7,000.0	84.0	79.8	90.00	3,735.3	-1,543.4	659.5	506.0	153.48	4.297	
11,000.0	7,000.0	10,877.8	7,000.0	85.7	81.6	90.00	3,835.1	-1,549.9	659.5	502.3	157.26	4.194	
11,100.0	7,000.0	10,977.8	7,000.0	87.5	83.4	90.00	3,934.9	-1,556.5	659.5	498.5	161.05	4.095	
11,200.0	7,000.0	11,077.8	7,000.0	89.2	85.2	90.00	4,034.7	-1,563.0	659.6	494.7	164.84	4.001	
11,300.0	7,000.0	11,177.8	7,000.0	90.9	87.1	90.00	4,134.4	-1,569.6	659.6	490.9	168.64	3.911	
11,400.0	7,000.0	11,277.8	7,000.0	92.7	88.9	90.00	4,234.2	-1,576.2	659.6	487.2	172.44	3.825	
11,500.0	7,000.0	11,377.8	7,000.0	94.5	90.8	90.00	4,334.0	-1,582.7	659.6	483.4	176.25	3.743	
11,557.9	7,000.0	11,435.7	7,000.0	95.5	91.8	90.00	4,391.8	-1,586.5	659.6	481.2	178.46	3.696	
11,600.0	7,000.0	11,474.4	7,000.0	96.2	92.6	90.00	4,430.4	-1,589.1	659.7	479.7	179.99	3.665	
11,642.1	7,000.0	11,474.4	7,000.0	97.2	92.6	90.00	4,430.4	-1,589.1	661.2	480.4	180.79	3.657 SF	

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn A-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn A-4NHZ	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 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 21-4NHZ - Wellbore #1 - Plan #2 (4-25-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	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	89.49	0.4	42.4	42.4					
100.0	100.0	100.0	100.0	0.1	0.1	89.49	0.4	42.4	42.4	42.2	0.22	188.539		
200.0	200.0	200.0	200.0	0.3	0.3	89.49	0.4	42.4	42.4	41.7	0.67	62.846 CC, ES		
300.0	300.0	300.0	300.0	0.6	0.6	-176.23	0.4	42.4	44.1	43.0	1.12	39.428		
400.0	399.8	399.8	399.8	0.8	0.8	-176.62	0.4	42.4	49.3	47.8	1.57	31.504		
500.0	499.5	499.5	499.5	1.0	1.0	-177.12	0.4	42.4	58.0	56.0	2.02	28.735		
600.0	598.7	598.7	598.7	1.3	1.2	-177.61	0.4	42.4	70.2	67.7	2.48	28.345		
700.0	697.5	700.4	700.4	1.7	1.4	-177.98	0.2	40.6	84.1	81.2	2.92	28.817		
800.0	795.6	802.7	802.5	2.0	1.7	-178.20	-0.3	35.2	98.0	94.7	3.35	29.233		
900.0	893.1	905.5	904.9	2.5	1.9	-178.33	-1.2	26.2	111.8	108.0	3.80	29.413		
1,000.0	989.6	1,008.9	1,007.5	3.0	2.2	-178.40	-2.4	13.4	125.5	121.2	4.26	29.419		
1,100.0	1,085.3	1,112.7	1,110.0	3.6	2.5	-178.42	-4.1	-3.2	139.0	134.3	4.75	29.289		
1,200.0	1,179.8	1,217.1	1,212.4	4.2	2.9	-178.40	-6.0	-23.5	152.4	147.2	5.25	29.047		
1,300.0	1,273.2	1,322.1	1,314.4	5.0	3.3	-178.37	-8.4	-47.7	165.7	159.9	5.77	28.711		
1,400.0	1,365.7	1,427.7	1,416.2	5.7	3.8	-178.30	-11.1	-75.8	177.4	171.1	6.35	27.940		
1,500.0	1,458.3	1,534.1	1,517.6	6.5	4.4	-178.18	-14.3	-107.9	185.6	178.6	6.96	26.662		
1,600.0	1,550.8	1,634.7	1,612.8	7.3	5.0	-178.04	-17.4	-140.3	191.5	183.9	7.57	25.281		
1,700.0	1,643.4	1,734.5	1,707.2	8.1	5.6	-177.92	-20.6	-172.5	197.3	189.1	8.20	24.055		
1,800.0	1,735.9	1,834.3	1,801.7	8.9	6.3	-177.80	-23.7	-204.7	203.2	194.3	8.84	22.988		
1,900.0	1,828.5	1,934.2	1,896.1	9.7	6.9	-177.68	-26.8	-236.9	209.0	199.6	9.48	22.051		
2,000.0	1,921.0	2,034.0	1,990.5	10.6	7.6	-177.58	-30.0	-269.1	214.9	204.8	10.13	21.221		
2,100.0	2,013.5	2,133.8	2,085.0	11.4	8.3	-177.47	-33.1	-301.3	220.8	210.0	10.78	20.483		
2,200.0	2,106.1	2,233.6	2,179.4	12.2	8.9	-177.38	-36.2	-333.5	226.7	215.2	11.43	19.822		
2,300.0	2,198.6	2,333.5	2,273.8	13.0	9.6	-177.29	-39.4	-365.7	232.5	220.4	12.09	19.228		
2,400.0	2,291.2	2,433.3	2,368.3	13.8	10.3	-177.20	-42.5	-398.0	238.4	225.6	12.75	18.690		
2,500.0	2,383.7	2,533.1	2,462.7	14.6	11.0	-177.12	-45.6	-430.2	244.3	230.8	13.42	18.203		
2,600.0	2,476.3	2,632.9	2,557.2	15.4	11.7	-177.04	-48.8	-462.4	250.1	236.1	14.09	17.759		
2,700.0	2,568.8	2,732.8	2,651.6	16.2	12.3	-176.96	-51.9	-494.6	256.0	241.3	14.75	17.353		
2,800.0	2,661.4	2,832.6	2,746.0	17.1	13.0	-176.89	-55.1	-526.8	261.9	246.5	15.42	16.980		
2,900.0	2,753.9	2,932.4	2,840.5	17.9	13.7	-176.82	-58.2	-559.0	267.8	251.7	16.09	16.636		
3,000.0	2,846.4	3,032.3	2,934.9	18.7	14.4	-176.76	-61.3	-591.2	273.6	256.9	16.77	16.319		
3,100.0	2,939.0	3,132.1	3,029.3	19.5	15.1	-176.69	-64.5	-623.4	279.5	262.1	17.44	16.025		
3,200.0	3,031.5	3,231.9	3,123.8	20.3	15.8	-176.63	-67.6	-655.6	285.4	267.3	18.12	15.752		
3,300.0	3,124.1	3,331.7	3,218.2	21.1	16.5	-176.57	-70.7	-687.8	291.3	272.5	18.79	15.498		
3,400.0	3,216.6	3,431.6	3,312.6	22.0	17.2	-176.52	-73.9	-720.0	297.1	277.7	19.47	15.261		
3,500.0	3,309.2	3,531.4	3,407.1	22.8	17.9	-176.46	-77.0	-752.2	303.0	282.9	20.15	15.039		
3,600.0	3,401.7	3,631.2	3,501.5	23.6	18.5	-176.41	-80.2	-784.4	308.9	288.1	20.83	14.831		
3,700.0	3,494.3	3,731.0	3,596.0	24.4	19.2	-176.36	-83.3	-816.7	314.8	293.2	21.51	14.635		
3,800.0	3,586.8	3,830.9	3,690.4	25.2	19.9	-176.32	-86.4	-848.9	320.6	298.4	22.19	14.452		
3,900.0	3,679.4	3,930.7	3,784.8	26.0	20.6	-176.27	-89.6	-881.1	326.5	303.6	22.87	14.278		
4,000.0	3,771.9	4,030.5	3,879.3	26.9	21.3	-176.22	-92.7	-913.3	332.4	308.8	23.55	14.115		
4,100.0	3,864.4	4,130.4	3,973.7	27.7	22.0	-176.18	-95.8	-945.5	338.3	314.0	24.23	13.960		
4,200.0	3,957.0	4,230.2	4,068.1	28.5	22.7	-176.14	-99.0	-977.7	344.1	319.2	24.91	13.813		
4,300.0	4,049.5	4,330.0	4,162.6	29.3	23.4	-176.10	-102.1	-1,009.9	350.0	324.4	25.60	13.674		
4,400.0	4,142.1	4,429.8	4,257.0	30.1	24.1	-176.06	-105.3	-1,042.1	355.9	329.6	26.28	13.542		
4,500.0	4,234.6	4,529.7	4,351.4	31.0	24.8	-176.02	-108.4	-1,074.3	361.8	334.8	26.96	13.417		
4,600.0	4,327.2	4,629.5	4,445.9	31.8	25.5	-175.99	-111.5	-1,106.5	367.6	340.0	27.65	13.297		
4,700.0	4,419.7	4,729.3	4,540.3	32.6	26.2	-175.95	-114.7	-1,138.7	373.5	345.2	28.33	13.184		
4,800.0	4,512.3	4,829.1	4,634.7	33.4	26.8	-175.92	-117.8	-1,170.9	379.4	350.4	29.02	13.075		
4,900.0	4,604.8	4,929.0	4,729.2	34.2	27.5	-175.89	-120.9	-1,203.2	385.3	355.6	29.70	12.971		
5,000.0	4,697.3	5,028.8	4,823.6	35.0	28.2	-175.85	-124.1	-1,235.4	391.1	360.8	30.39	12.872		
5,100.0	4,789.9	5,128.6	4,918.1	35.9	28.9	-175.82	-127.2	-1,267.6	397.0	366.0	31.07	12.777		

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 Kiehn A-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn A-4NHZ	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 (4-25-14)	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	
5,200.0	4,882.4	5,228.4	5,012.5	36.7	29.6	-175.79	-130.4	-1,299.8	402.9	371.1	31.76	12.686	
5,300.0	4,975.0	5,328.3	5,106.9	37.5	30.3	-175.76	-133.5	-1,332.0	408.8	376.3	32.45	12.599	
5,400.0	5,067.7	5,424.1	5,197.7	38.3	30.9	-175.74	-136.5	-1,362.8	414.2	381.1	33.12	12.506	
5,500.0	5,161.6	5,511.4	5,280.9	38.8	31.4	-175.71	-139.0	-1,388.9	418.9	385.2	33.69	12.432	
5,600.0	5,256.7	5,600.0	5,366.2	39.4	31.8	-175.69	-141.4	-1,412.8	423.1	388.9	34.20	12.370	
5,700.0	5,352.7	5,685.6	5,449.2	39.8	32.1	-175.68	-143.4	-1,433.4	426.8	392.2	34.63	12.323	
5,800.0	5,449.7	5,772.6	5,534.3	40.3	32.4	-175.66	-145.2	-1,451.8	430.1	395.1	35.00	12.286	
5,900.0	5,547.5	5,859.5	5,619.7	40.6	32.7	-175.65	-146.7	-1,467.6	432.9	397.6	35.31	12.261	
6,000.0	5,645.9	5,946.4	5,705.6	40.9	33.0	-175.64	-148.0	-1,480.8	435.2	399.7	35.54	12.246	
6,100.0	5,744.9	6,033.2	5,791.7	41.2	33.2	-175.63	-149.0	-1,491.4	437.1	401.4	35.71	12.241	
6,200.0	5,844.3	6,120.0	5,878.1	41.4	33.3	-175.62	-149.8	-1,499.4	438.5	402.7	35.81	12.247	
6,300.0	5,944.1	6,206.8	5,964.7	41.5	33.5	-175.62	-150.3	-1,504.7	439.5	403.7	35.84	12.263	
6,400.0	6,044.0	6,300.0	6,057.9	41.6	33.6	-175.62	-150.6	-1,507.6	440.1	404.2	35.81	12.287	
6,432.4	6,076.3	6,321.6	6,079.5	41.7	33.6	-175.62	-150.6	-1,507.9	440.1	404.3	35.83	12.284	
6,500.0	6,144.0	6,386.1	6,144.0	41.7	33.6	89.95	-150.6	-1,507.9	440.1	403.2	36.91	11.924	
6,600.0	6,244.0	6,486.1	6,244.0	41.8	33.7	89.95	-150.6	-1,507.9	440.1	402.9	37.19	11.835	
6,700.0	6,343.9	6,588.6	6,346.4	41.8	33.8	93.71	-147.9	-1,508.1	440.1	403.6	36.50	12.055	
6,800.0	6,442.7	6,692.7	6,449.1	41.9	33.9	93.63	-131.3	-1,509.2	440.0	403.2	36.79	11.961	
6,900.0	6,538.3	6,796.6	6,548.1	42.0	34.0	93.47	-100.2	-1,511.2	440.0	403.0	37.01	11.888	
7,000.0	6,629.0	6,900.3	6,641.4	42.1	34.1	93.25	-55.2	-1,514.2	439.9	402.6	37.23	11.814	
7,100.0	6,713.0	7,003.8	6,727.0	42.1	34.2	92.95	2.6	-1,518.0	439.7	402.2	37.55	11.711	
7,200.0	6,788.6	7,106.8	6,803.1	42.3	34.3	92.60	71.8	-1,522.6	439.6	401.6	38.05	11.554	
7,300.0	6,854.4	7,209.4	6,868.2	42.4	34.4	92.20	150.8	-1,527.8	439.5	400.7	38.82	11.321	
7,400.0	6,909.1	7,311.5	6,921.1	42.6	34.7	91.76	237.9	-1,533.5	439.4	399.5	39.91	11.009	
7,500.0	6,951.6	7,413.1	6,960.9	42.8	35.0	91.28	331.0	-1,539.6	439.3	398.0	41.33	10.628	
7,600.0	6,981.1	7,514.1	6,987.0	43.1	35.3	90.78	428.4	-1,546.0	439.3	396.2	43.05	10.203	
7,700.0	6,997.1	7,614.6	6,999.1	43.5	35.8	90.26	527.8	-1,552.6	439.2	394.2	45.00	9.760	
7,722.4	6,998.9	7,637.1	6,999.9	43.6	35.9	90.13	550.2	-1,554.1	439.2	393.8	45.47	9.661	
7,800.0	7,000.0	7,714.6	7,000.0	43.9	36.4	90.00	627.6	-1,559.2	439.2	392.1	47.17	9.311	
7,900.0	7,000.0	7,814.6	7,000.0	44.4	37.0	90.00	727.4	-1,565.7	439.2	389.7	49.59	8.858	
8,000.0	7,000.0	7,914.6	7,000.0	45.0	37.8	90.00	827.2	-1,572.3	439.3	387.1	52.18	8.418	
8,100.0	7,000.0	8,014.6	7,000.0	45.7	38.6	90.00	927.0	-1,578.9	439.3	384.3	54.93	7.997	
8,200.0	7,000.0	8,114.6	7,000.0	46.4	39.6	90.00	1,026.7	-1,585.4	439.3	381.5	57.81	7.598	
8,300.0	7,000.0	8,214.6	7,000.0	47.3	40.6	90.00	1,126.5	-1,592.0	439.3	378.5	60.81	7.225	
8,400.0	7,000.0	8,314.6	7,000.0	48.1	41.6	90.00	1,226.3	-1,598.6	439.3	375.4	63.90	6.875	
8,500.0	7,000.0	8,414.6	7,000.0	49.1	42.8	90.00	1,326.1	-1,605.1	439.3	372.2	67.07	6.550	
8,600.0	7,000.0	8,514.6	7,000.0	50.1	44.0	90.00	1,425.9	-1,611.7	439.3	369.0	70.32	6.247	
8,700.0	7,000.0	8,614.6	7,000.0	51.2	45.3	90.00	1,525.7	-1,618.3	439.3	365.7	73.63	5.967	
8,800.0	7,000.0	8,714.6	7,000.0	52.3	46.6	90.00	1,625.4	-1,624.9	439.3	362.3	77.00	5.706	
8,900.0	7,000.0	8,814.6	7,000.0	53.5	48.0	90.00	1,725.2	-1,631.4	439.4	358.9	80.41	5.464	
9,000.0	7,000.0	8,914.6	7,000.0	54.7	49.4	90.00	1,825.0	-1,638.0	439.4	355.5	83.87	5.239	
9,100.0	7,000.0	9,014.6	7,000.0	56.0	50.9	90.00	1,924.8	-1,644.6	439.4	352.0	87.36	5.030	
9,200.0	7,000.0	9,114.6	7,000.0	57.3	52.4	90.00	2,024.6	-1,651.1	439.4	348.5	90.88	4.835	
9,300.0	7,000.0	9,214.6	7,000.0	58.7	53.9	90.00	2,124.4	-1,657.7	439.4	345.0	94.44	4.653	
9,400.0	7,000.0	9,314.6	7,000.0	60.1	55.4	90.00	2,224.2	-1,664.3	439.4	341.4	98.02	4.483	
9,500.0	7,000.0	9,414.6	7,000.0	61.5	57.0	90.00	2,323.9	-1,670.8	439.4	337.8	101.62	4.324	
9,600.0	7,000.0	9,514.6	7,000.0	63.0	58.6	90.00	2,423.7	-1,677.4	439.4	334.2	105.25	4.175	
9,700.0	7,000.0	9,614.6	7,000.0	64.5	60.3	90.00	2,523.5	-1,684.0	439.4	330.6	108.89	4.036	
9,800.0	7,000.0	9,714.6	7,000.0	66.0	61.9	90.00	2,623.3	-1,690.5	439.5	326.9	112.55	3.905	
9,900.0	7,000.0	9,814.6	7,000.0	67.6	63.6	90.00	2,723.1	-1,697.1	439.5	323.2	116.23	3.781	
10,000.0	7,000.0	9,914.6	7,000.0	69.1	65.3	90.00	2,822.9	-1,703.7	439.5	319.6	119.92	3.665	
10,100.0	7,000.0	10,014.6	7,000.0	70.7	67.0	90.00	2,922.6	-1,710.3	439.5	315.9	123.62	3.555	

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 Kiehn A-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn A-4NHZ	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 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 21-4NHZ - Wellbore #1 - Plan #2 (4-25-14)													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	7,000.0	10,114.6	7,000.0	72.3	68.7	90.00	3,022.4	-1,716.8	439.5	312.2	127.33	3.452		
10,300.0	7,000.0	10,214.6	7,000.0	73.9	70.4	90.00	3,122.2	-1,723.4	439.5	308.5	131.06	3.354		
10,400.0	7,000.0	10,314.6	7,000.0	75.6	72.1	90.00	3,222.0	-1,730.0	439.5	304.7	134.79	3.261		
10,500.0	7,000.0	10,414.6	7,000.0	77.2	73.9	90.00	3,321.8	-1,736.5	439.5	301.0	138.54	3.173		
10,600.0	7,000.0	10,514.6	7,000.0	78.9	75.6	90.00	3,421.6	-1,743.1	439.5	297.3	142.29	3.089		
10,700.0	7,000.0	10,614.6	7,000.0	80.6	77.4	90.00	3,521.3	-1,749.7	439.6	293.5	146.05	3.010		
10,800.0	7,000.0	10,714.6	7,000.0	82.3	79.2	90.00	3,621.1	-1,756.2	439.6	289.8	149.81	2.934		
10,900.0	7,000.0	10,814.6	7,000.0	84.0	81.0	90.00	3,720.9	-1,762.8	439.6	286.0	153.58	2.862		
11,000.0	7,000.0	10,914.6	7,000.0	85.7	82.8	90.00	3,820.7	-1,769.4	439.6	282.2	157.36	2.793		
11,100.0	7,000.0	11,014.6	7,000.0	87.5	84.6	90.00	3,920.5	-1,776.0	439.6	278.5	161.15	2.728		
11,200.0	7,000.0	11,114.6	7,000.0	89.2	86.4	90.00	4,020.3	-1,782.5	439.6	274.7	164.94	2.665		
11,300.0	7,000.0	11,214.6	7,000.0	90.9	88.2	90.00	4,120.0	-1,789.1	439.6	270.9	168.73	2.605		
11,400.0	7,000.0	11,314.6	7,000.0	92.7	90.0	90.00	4,219.8	-1,795.7	439.6	267.1	172.53	2.548		
11,500.0	7,000.0	11,414.6	7,000.0	94.5	91.8	90.00	4,319.6	-1,802.2	439.6	263.3	176.33	2.493		
11,600.0	7,000.0	11,514.6	7,000.0	96.2	93.7	90.00	4,419.4	-1,808.8	439.7	259.6	180.08	2.441		
11,642.1	7,000.0	11,526.1	7,000.0	97.2	93.9	90.00	4,430.8	-1,809.5	440.7	259.7	181.06	2.434 SF		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn A-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn A-4NHZ	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 (4-25-14)	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	89.96	0.0	20.1	20.1					
100.0	100.0	100.0	100.0	0.1	0.1	89.96	0.0	20.1	20.1	19.8	0.22	89.305		
200.0	200.0	200.0	200.0	0.3	0.3	89.96	0.0	20.1	20.1	19.4	0.67	29.768 CC, ES		
300.0	300.0	300.0	300.0	0.6	0.6	-175.95	0.0	20.1	21.8	20.7	1.12	19.494		
400.0	399.8	399.8	399.8	0.8	0.8	-176.73	0.0	20.1	27.0	25.5	1.57	17.262		
500.0	499.5	500.7	500.6	1.0	1.0	-177.37	-0.1	18.3	34.0	32.0	2.00	16.989		
600.0	598.7	601.7	601.6	1.3	1.2	-177.75	-0.6	13.0	40.9	38.5	2.43	16.845		
700.0	697.5	703.1	702.5	1.7	1.5	-177.98	-1.4	4.1	47.8	44.9	2.87	16.645		
800.0	795.6	804.7	803.3	2.0	1.7	-178.12	-2.4	-8.4	54.7	51.3	3.33	16.412		
900.0	893.1	906.5	903.9	2.5	2.1	-178.19	-3.8	-24.4	61.4	57.6	3.80	16.152		
1,000.0	989.6	1,008.6	1,004.0	3.0	2.4	-178.23	-5.5	-44.1	68.2	63.9	4.30	15.867		
1,100.0	1,085.3	1,110.9	1,103.6	3.6	2.9	-178.22	-7.5	-67.4	74.8	70.0	4.81	15.559		
1,200.0	1,179.8	1,213.5	1,202.6	4.2	3.4	-178.20	-9.9	-94.2	81.4	76.0	5.34	15.232		
1,300.0	1,273.2	1,316.3	1,300.8	5.0	4.0	-178.16	-12.5	-124.7	87.8	81.9	5.90	14.886		
1,400.0	1,365.7	1,419.4	1,398.1	5.7	4.6	-178.07	-15.4	-158.7	92.9	86.4	6.51	14.257		
1,500.0	1,458.3	1,519.8	1,492.0	6.5	5.3	-177.94	-18.5	-194.0	95.7	88.6	7.15	13.395		
1,600.0	1,550.8	1,619.8	1,585.5	7.3	6.1	-177.82	-21.5	-229.1	98.6	90.8	7.79	12.647		
1,700.0	1,643.4	1,719.7	1,679.1	8.1	6.8	-177.71	-24.5	-264.2	101.4	93.0	8.45	12.003		
1,800.0	1,735.9	1,819.7	1,772.6	8.9	7.5	-177.60	-27.6	-299.3	104.2	95.1	9.11	11.444		
1,900.0	1,828.5	1,919.6	1,866.2	9.7	8.2	-177.50	-30.6	-334.4	107.1	97.3	9.77	10.955		
2,000.0	1,921.0	2,019.6	1,959.7	10.6	9.0	-177.40	-33.6	-369.5	109.9	99.5	10.44	10.524		
2,100.0	2,013.5	2,119.6	2,053.2	11.4	9.7	-177.31	-36.7	-404.7	112.7	101.6	11.12	10.142		
2,200.0	2,106.1	2,219.5	2,146.8	12.2	10.5	-177.22	-39.7	-439.8	115.6	103.8	11.79	9.801		
2,300.0	2,198.6	2,319.5	2,240.3	13.0	11.2	-177.14	-42.7	-474.9	118.4	105.9	12.47	9.494		
2,400.0	2,291.2	2,419.4	2,333.8	13.8	12.0	-177.06	-45.8	-510.0	121.2	108.1	13.15	9.218		
2,500.0	2,383.7	2,519.4	2,427.4	14.6	12.7	-176.98	-48.8	-545.1	124.1	110.2	13.84	8.968		
2,600.0	2,476.3	2,619.4	2,520.9	15.4	13.5	-176.91	-51.8	-580.2	126.9	112.4	14.52	8.740		
2,700.0	2,568.8	2,719.3	2,614.5	16.2	14.2	-176.84	-54.9	-615.3	129.8	114.5	15.21	8.532		
2,800.0	2,661.4	2,819.3	2,708.0	17.1	15.0	-176.77	-57.9	-650.5	132.6	116.7	15.90	8.341		
2,900.0	2,753.9	2,919.2	2,801.5	17.9	15.7	-176.71	-60.9	-685.6	135.4	118.8	16.59	8.165		
3,000.0	2,846.4	3,019.2	2,895.1	18.7	16.5	-176.64	-64.0	-720.7	138.3	121.0	17.28	8.003		
3,100.0	2,939.0	3,119.2	2,988.6	19.5	17.2	-176.59	-67.0	-755.8	141.1	123.1	17.97	7.853		
3,200.0	3,031.5	3,219.1	3,082.2	20.3	18.0	-176.53	-70.0	-790.9	143.9	125.3	18.66	7.713		
3,300.0	3,124.1	3,319.1	3,175.7	21.1	18.7	-176.47	-73.1	-826.0	146.8	127.4	19.35	7.583		
3,400.0	3,216.6	3,419.0	3,269.2	22.0	19.5	-176.42	-76.1	-861.2	149.6	129.6	20.05	7.462		
3,500.0	3,309.2	3,519.0	3,362.8	22.8	20.3	-176.37	-79.1	-896.3	152.4	131.7	20.74	7.349		
3,600.0	3,401.7	3,619.0	3,456.3	23.6	21.0	-176.32	-82.2	-931.4	155.3	133.8	21.44	7.243		
3,700.0	3,494.3	3,718.9	3,549.9	24.4	21.8	-176.28	-85.2	-966.5	158.1	136.0	22.14	7.143		
3,800.0	3,586.8	3,818.9	3,643.4	25.2	22.5	-176.23	-88.2	-1,001.6	161.0	138.1	22.83	7.050		
3,900.0	3,679.4	3,918.8	3,736.9	26.0	23.3	-176.19	-91.3	-1,036.7	163.8	140.3	23.53	6.961		
4,000.0	3,771.9	4,018.8	3,830.5	26.9	24.0	-176.15	-94.3	-1,071.8	166.6	142.4	24.23	6.878		
4,100.0	3,864.4	4,118.8	3,924.0	27.7	24.8	-176.11	-97.3	-1,107.0	169.5	144.5	24.93	6.799		
4,200.0	3,957.0	4,218.7	4,017.6	28.5	25.6	-176.07	-100.4	-1,142.1	172.3	146.7	25.62	6.724		
4,300.0	4,049.5	4,318.7	4,111.1	29.3	26.3	-176.03	-103.4	-1,177.2	175.2	148.8	26.32	6.654		
4,400.0	4,142.1	4,418.6	4,204.6	30.1	27.1	-175.99	-106.4	-1,212.3	178.0	151.0	27.02	6.586		
4,500.0	4,234.6	4,518.6	4,298.2	31.0	27.8	-175.96	-109.5	-1,247.4	180.8	153.1	27.72	6.522		
4,600.0	4,327.2	4,618.6	4,391.7	31.8	28.6	-175.92	-112.5	-1,282.5	183.7	155.2	28.42	6.462		
4,700.0	4,419.7	4,718.5	4,485.3	32.6	29.3	-175.89	-115.5	-1,317.6	186.5	157.4	29.12	6.404		
4,800.0	4,512.3	4,818.5	4,578.8	33.4	30.1	-175.86	-118.6	-1,352.8	189.3	159.5	29.83	6.348		
4,900.0	4,604.8	4,918.4	4,672.3	34.2	30.9	-175.82	-121.6	-1,387.9	192.2	161.7	30.53	6.295		
5,000.0	4,697.3	5,018.4	4,765.9	35.0	31.6	-175.79	-124.6	-1,423.0	195.0	163.8	31.23	6.245		
5,100.0	4,789.9	5,118.4	4,859.4	35.9	32.4	-175.76	-127.7	-1,458.1	197.9	165.9	31.93	6.197		

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

SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn A-4CHZ - Wellbore #1 - Plan #2 (4-25-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.0	4,882.4	5,218.3	4,953.0	36.7	33.1	-175.73	-130.7	-1,493.2	200.7	168.1	32.63	6.150		
5,300.0	4,975.0	5,318.3	5,046.5	37.5	33.9	-175.71	-133.7	-1,528.3	203.5	170.2	33.34	6.106		
5,400.0	5,067.7	5,414.7	5,136.8	38.3	34.6	-175.68	-136.6	-1,561.8	206.3	172.3	34.02	6.064		
5,500.0	5,161.6	5,507.9	5,225.2	38.8	35.1	-175.66	-139.2	-1,591.6	208.7	174.1	34.60	6.034		
5,600.0	5,256.7	5,600.0	5,313.3	39.4	35.5	-175.64	-141.5	-1,618.2	211.0	175.9	35.11	6.010		
5,700.0	5,352.7	5,694.2	5,404.3	39.8	35.9	-175.63	-143.6	-1,642.5	213.0	177.4	35.55	5.991		
5,800.0	5,449.7	5,787.2	5,494.9	40.3	36.3	-175.61	-145.4	-1,663.5	214.7	178.8	35.92	5.978		
5,900.0	5,547.5	5,880.3	5,586.1	40.6	36.6	-175.60	-147.0	-1,681.6	216.2	180.0	36.22	5.970		
6,000.0	5,645.9	5,973.2	5,677.8	40.9	36.9	-175.59	-148.3	-1,696.8	217.5	181.0	36.44	5.967		
6,100.0	5,744.9	6,066.2	5,770.0	41.2	37.1	-175.58	-149.3	-1,708.9	218.5	181.9	36.60	5.970		
6,200.0	5,844.3	6,159.1	5,862.4	41.4	37.3	-175.58	-150.1	-1,718.1	219.3	182.6	36.68	5.977		
6,300.0	5,944.1	6,252.0	5,955.1	41.5	37.4	-175.57	-150.7	-1,724.3	219.8	183.1	36.70	5.989		
6,400.0	6,044.0	6,344.9	6,048.0	41.6	37.5	-175.57	-150.9	-1,727.5	220.0	183.4	36.64	6.005		
6,500.0	6,144.0	6,440.9	6,144.0	41.7	37.6	90.00	-151.0	-1,727.9	220.1	182.3	37.80	5.823		
6,600.0	6,244.0	6,540.9	6,244.0	41.8	37.7	90.00	-151.0	-1,727.9	220.1	182.0	38.07	5.781		
6,700.0	6,343.9	6,642.2	6,345.2	41.8	37.7	93.76	-148.4	-1,728.1	220.1	182.8	37.31	5.898		
6,800.0	6,442.7	6,744.2	6,445.8	41.9	37.8	93.67	-132.5	-1,729.1	220.0	182.5	37.59	5.853		
6,900.0	6,538.3	6,846.2	6,543.2	42.0	37.9	93.52	-102.5	-1,731.1	220.0	182.2	37.81	5.819		
7,000.0	6,629.0	6,948.0	6,635.2	42.1	38.0	93.30	-59.1	-1,734.0	220.0	181.9	38.03	5.784		
7,100.0	6,713.0	7,049.7	6,720.0	42.1	38.1	93.01	-3.2	-1,737.7	219.9	181.6	38.33	5.737		
7,200.0	6,788.6	7,151.3	6,795.9	42.3	38.2	92.66	64.0	-1,742.1	219.8	181.0	38.82	5.663		
7,300.0	6,854.4	7,252.6	6,861.4	42.4	38.3	92.26	141.1	-1,747.2	219.8	180.2	39.56	5.555		
7,400.0	6,909.1	7,353.7	6,915.2	42.6	38.5	91.81	226.3	-1,752.8	219.7	179.1	40.62	5.409		
7,500.0	6,951.6	7,454.5	6,956.4	42.8	38.8	91.33	318.1	-1,758.9	219.7	177.7	42.01	5.229		
7,600.0	6,981.1	7,555.1	6,984.2	43.1	39.1	90.82	414.4	-1,765.2	219.6	175.9	43.69	5.027		
7,700.0	6,997.1	7,655.4	6,998.2	43.5	39.5	90.30	513.4	-1,771.7	219.6	174.0	45.60	4.816		
7,745.9	7,000.3	7,701.3	7,000.0	43.7	39.8	89.93	559.2	-1,774.7	219.6	173.1	46.52	4.721		
7,800.0	7,000.0	7,755.4	7,000.0	43.9	40.0	90.00	613.2	-1,778.3	219.6	171.9	47.74	4.601		
7,900.0	7,000.0	7,855.4	7,000.0	44.4	40.6	90.00	713.0	-1,784.9	219.6	169.5	50.12	4.382		
8,000.0	7,000.0	7,955.4	7,000.0	45.0	41.3	90.00	812.8	-1,791.5	219.6	166.9	52.68	4.169		
8,100.0	7,000.0	8,055.4	7,000.0	45.7	42.0	90.00	912.6	-1,798.0	219.6	164.2	55.40	3.964		
8,200.0	7,000.0	8,155.4	7,000.0	46.4	42.9	90.00	1,012.3	-1,804.6	219.6	161.4	58.26	3.770		
8,300.0	7,000.0	8,255.4	7,000.0	47.3	43.8	90.00	1,112.1	-1,811.2	219.6	158.4	61.22	3.587		
8,400.0	7,000.0	8,355.4	7,000.0	48.1	44.8	90.00	1,211.9	-1,817.8	219.6	155.3	64.29	3.416		
8,500.0	7,000.0	8,455.4	7,000.0	49.1	45.8	90.00	1,311.7	-1,824.4	219.6	152.2	67.44	3.256		
8,600.0	7,000.0	8,555.4	7,000.0	50.1	46.9	90.00	1,411.5	-1,830.9	219.6	149.0	70.67	3.108		
8,700.0	7,000.0	8,655.4	7,000.0	51.2	48.1	90.00	1,511.3	-1,837.5	219.6	145.7	73.96	2.969		
8,800.0	7,000.0	8,755.4	7,000.0	52.3	49.3	90.00	1,611.0	-1,844.1	219.6	142.3	77.31	2.841		
8,900.0	7,000.0	8,855.4	7,000.0	53.5	50.6	90.00	1,710.8	-1,850.7	219.6	138.9	80.71	2.721		
9,000.0	7,000.0	8,955.4	7,000.0	54.7	51.9	90.00	1,810.6	-1,857.3	219.6	135.5	84.15	2.610		
9,100.0	7,000.0	9,055.4	7,000.0	56.0	53.3	90.00	1,910.4	-1,863.8	219.6	132.0	87.63	2.506		
9,200.0	7,000.0	9,155.4	7,000.0	57.3	54.7	90.00	2,010.2	-1,870.4	219.6	128.5	91.14	2.410		
9,300.0	7,000.0	9,255.4	7,000.0	58.7	56.1	90.00	2,110.0	-1,877.0	219.6	125.0	94.68	2.320		
9,400.0	7,000.0	9,355.4	7,000.0	60.1	57.6	90.00	2,209.7	-1,883.6	219.6	121.4	98.25	2.235		
9,500.0	7,000.0	9,455.4	7,000.0	61.5	59.1	90.00	2,309.5	-1,890.2	219.6	117.8	101.85	2.157		
9,600.0	7,000.0	9,555.4	7,000.0	63.0	60.7	90.00	2,409.3	-1,896.7	219.6	114.2	105.46	2.083		
9,700.0	7,000.0	9,655.4	7,000.0	64.5	62.2	90.00	2,509.1	-1,903.3	219.6	110.5	109.10	2.013		
9,800.0	7,000.0	9,755.4	7,000.0	66.0	63.8	90.00	2,608.9	-1,909.9	219.6	106.9	112.75	1.948		
9,900.0	7,000.0	9,855.4	7,000.0	67.6	65.4	90.00	2,708.7	-1,916.5	219.6	103.2	116.42	1.887		
10,000.0	7,000.0	9,955.4	7,000.0	69.1	67.1	90.00	2,808.4	-1,923.0	219.6	99.6	120.10	1.829		
10,100.0	7,000.0	10,055.4	7,000.0	70.7	68.7	90.00	2,908.2	-1,929.6	219.7	95.9	123.79	1.774		
10,200.0	7,000.0	10,155.4	7,000.0	72.3	70.4	90.00	3,008.0	-1,936.2	219.7	92.2	127.50	1.723		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn A-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn A-4NHZ	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 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn A-4CHZ - Wellbore #1 - Plan #2 (4-25-14)													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	7,000.0	10,255.4	7,000.0	73.9	72.0	90.00	3,107.8	-1,942.8	219.7	88.4	131.22	1.674		
10,400.0	7,000.0	10,355.4	7,000.0	75.6	73.7	90.00	3,207.6	-1,949.4	219.7	84.7	134.95	1.628		
10,500.0	7,000.0	10,455.4	7,000.0	77.2	75.4	90.00	3,307.4	-1,955.9	219.7	81.0	138.69	1.584		
10,600.0	7,000.0	10,555.4	7,000.0	78.9	77.2	90.00	3,407.1	-1,962.5	219.7	77.2	142.43	1.542		
10,700.0	7,000.0	10,655.4	7,000.0	80.6	78.9	90.00	3,506.9	-1,969.1	219.7	73.5	146.19	1.503		
10,800.0	7,000.0	10,755.4	7,000.0	82.3	80.6	90.00	3,606.7	-1,975.7	219.7	69.7	149.95	1.465	Level 3	
10,900.0	7,000.0	10,855.4	7,000.0	84.0	82.4	90.00	3,706.5	-1,982.3	219.7	66.0	153.72	1.429	Level 3	
11,000.0	7,000.0	10,955.4	7,000.0	85.7	84.1	90.00	3,806.3	-1,988.8	219.7	62.2	157.49	1.395	Level 3	
11,100.0	7,000.0	11,055.4	7,000.0	87.5	85.9	90.00	3,906.1	-1,995.4	219.7	58.4	161.27	1.362	Level 3	
11,200.0	7,000.0	11,155.4	7,000.0	89.2	87.7	90.00	4,005.8	-2,002.0	219.7	54.6	165.06	1.331	Level 3	
11,300.0	7,000.0	11,255.4	7,000.0	90.9	89.5	90.00	4,105.6	-2,008.6	219.7	50.8	168.85	1.301	Level 3	
11,400.0	7,000.0	11,355.4	7,000.0	92.7	91.3	90.00	4,205.4	-2,015.1	219.7	47.0	172.64	1.272	Level 3	
11,500.0	7,000.0	11,455.4	7,000.0	94.5	93.1	90.00	4,305.2	-2,021.7	219.7	43.2	176.44	1.245	Level 2	
11,600.0	7,000.0	11,555.4	7,000.0	96.2	94.9	90.00	4,405.0	-2,028.3	219.7	39.4	180.24	1.219	Level 2	
11,614.0	7,000.0	11,569.4	7,000.0	96.6	95.1	90.00	4,419.0	-2,029.2	219.7	38.9	180.78	1.215	Level 2	
11,642.1	7,000.0	11,581.7	7,000.0	97.2	95.3	90.00	4,431.2	-2,030.0	220.3	38.7	181.54	1.213	Level 2, SF	

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn A-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn A-4NHZ	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 (4-25-14)	Offset TVD Reference:	Offset Datum

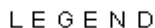
Reference Depths are relative to WELL @ 5077.0ft (RKB - 13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: SRC Kiehn A-4NHZ
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.32°



Reference Depths are relative to WELL @ 5077.0ft (RKB - 13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: SRC Kiehn A-4NHZ
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.32°



I (P&A), Wellbore #1, Wellbore #1 V/D SRC Kiehn A-4CHZ, Wellbore #1, Plan #2 (4-25-14) V/D
 hn 21-4NHZ, Wellbore #1, Plan #2 (4-25-14) V/D SRC Kiehn 21-4CHZ, Wellbore #1, Plan #2 (4-25-14) V/D