

Synergy Resources

Well Name: **SRC Kiehn 21-4CHZ**

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	1365556.98	3137774.19	40.335801	-105.005783	
RKB - 13' WELL @ 5077.0ft (RKB - 13')						

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 201'FSL & 1918'FEL	1.0	0.0	0.0	Point
BHL 470'FNL & 1925'FWL	7000.0	4429.7	-1654.0	Point



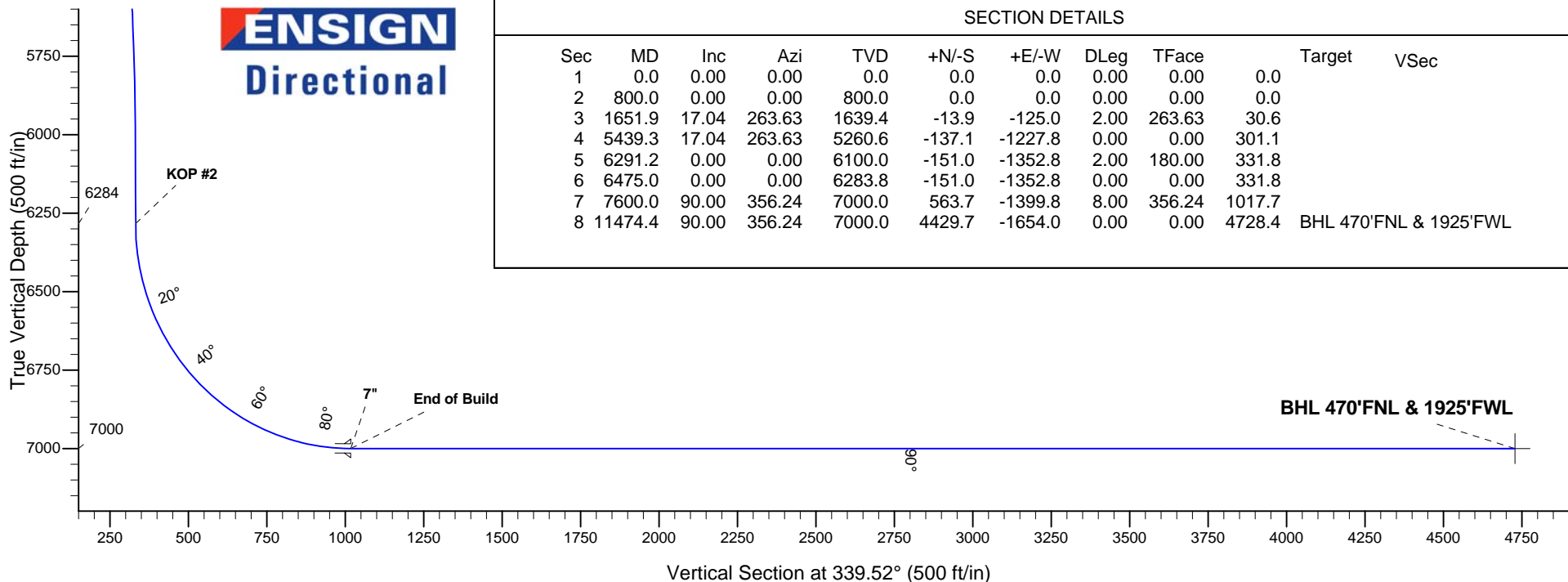
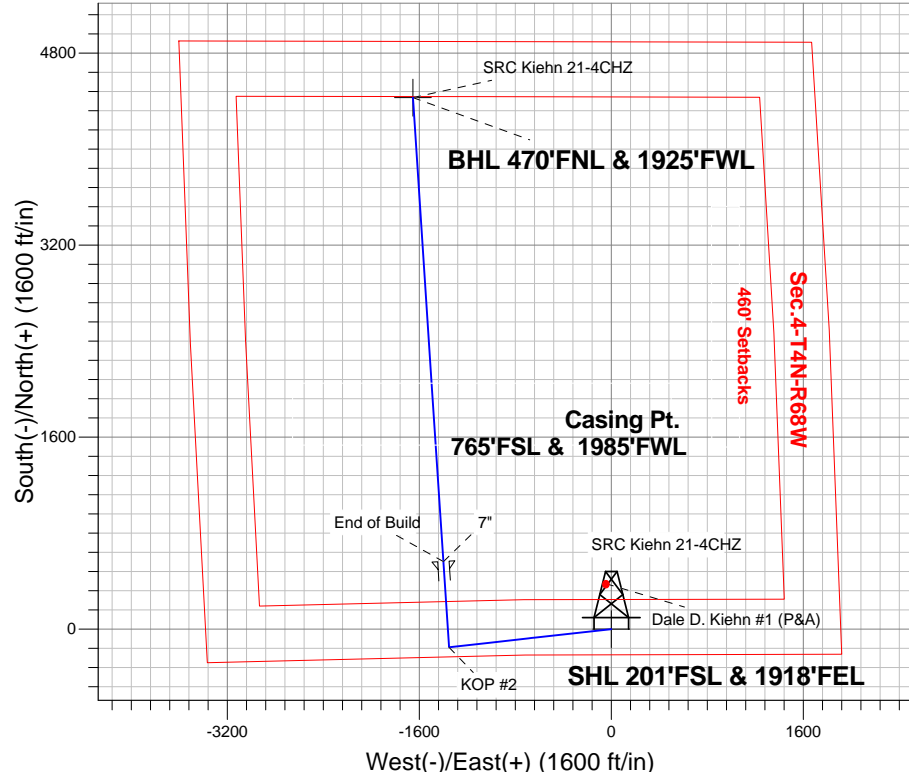
Azimuths to True North
 Magnetic North: 8.60°

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

ANNOTATIONS

TVD	MD	Annotation
800.0	800.0	KOP #1
6283.8	6475.0	KOP #2
7000.0	7600.0	End of Build

SRC Kiehn Pad Sec.4-T4N-R68W
 SRC Kiehn 21-4CHZ
 Plan #2 (4-25-14)
 8:25, 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	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1651.9	17.04	263.63	1639.4	-13.9	-125.0	2.00	263.63	30.6	
4	5439.3	17.04	263.63	5260.6	-137.1	-1227.8	0.00	0.00	301.1	
5	6291.2	0.00	0.00	6100.0	-151.0	-1352.8	2.00	180.00	331.8	
6	6475.0	0.00	0.00	6283.8	-151.0	-1352.8	0.00	0.00	331.8	
7	7600.0	90.00	356.24	7000.0	563.7	-1399.8	8.00	356.24	1017.7	
8	11474.4	90.00	356.24	7000.0	4429.7	-1654.0	0.00	0.00	4728.4	BHL 470'FNL & 1925'FWL



Synergy Resources

SEC.4-T4N-R68W

SRC Kiehn Pad Sec.4-T4N-R68W

SRC Kiehn 21-4CHZ

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	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,651.9	17.04	263.63	1,639.4	-13.9	-125.0	2.00	2.00	0.00	263.63	
5,439.3	17.04	263.63	5,260.6	-137.1	-1,227.8	0.00	0.00	0.00	0.00	
6,291.2	0.00	0.00	6,100.0	-151.0	-1,352.8	2.00	-2.00	0.00	180.00	
6,475.0	0.00	0.00	6,283.8	-151.0	-1,352.8	0.00	0.00	0.00	0.00	
7,600.0	90.00	356.24	7,000.0	563.7	-1,399.8	8.00	8.00	0.00	356.24	
11,474.4	90.00	356.24	7,000.0	4,429.7	-1,654.0	0.00	0.00	0.00	0.00	BHL 470'FNL & 192

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn 21-4CHZ
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 21-4CHZ	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 & 1918'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
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
900.0	2.00	263.63	900.0	-0.2	-1.7	0.4	2.00	2.00	0.00
1,000.0	4.00	263.63	999.8	-0.8	-6.9	1.7	2.00	2.00	0.00
1,100.0	6.00	263.63	1,099.5	-1.7	-15.6	3.8	2.00	2.00	0.00
1,200.0	8.00	263.63	1,198.7	-3.1	-27.7	6.8	2.00	2.00	0.00
1,300.0	10.00	263.63	1,297.5	-4.8	-43.3	10.6	2.00	2.00	0.00
1,400.0	12.00	263.63	1,395.6	-6.9	-62.2	15.3	2.00	2.00	0.00
1,500.0	14.00	263.63	1,493.1	-9.4	-84.6	20.7	2.00	2.00	0.00
1,600.0	16.00	263.63	1,589.6	-12.3	-110.3	27.0	2.00	2.00	0.00
1,651.9	17.04	263.63	1,639.4	-13.9	-125.0	30.6	2.00	2.00	0.00
1,700.0	17.04	263.63	1,685.4	-15.5	-139.0	34.1	0.00	0.00	0.00
1,800.0	17.04	263.63	1,781.0	-18.8	-168.1	41.2	0.00	0.00	0.00
1,900.0	17.04	263.63	1,876.6	-22.0	-197.2	48.4	0.00	0.00	0.00
2,000.0	17.04	263.63	1,972.2	-25.3	-226.3	55.5	0.00	0.00	0.00
2,100.0	17.04	263.63	2,067.8	-28.5	-255.4	62.6	0.00	0.00	0.00
2,200.0	17.04	263.63	2,163.4	-31.8	-284.6	69.8	0.00	0.00	0.00
2,300.0	17.04	263.63	2,259.1	-35.0	-313.7	76.9	0.00	0.00	0.00
2,400.0	17.04	263.63	2,354.7	-38.3	-342.8	84.1	0.00	0.00	0.00
2,500.0	17.04	263.63	2,450.3	-41.5	-371.9	91.2	0.00	0.00	0.00
2,600.0	17.04	263.63	2,545.9	-44.8	-401.0	98.3	0.00	0.00	0.00
2,700.0	17.04	263.63	2,641.5	-48.0	-430.2	105.5	0.00	0.00	0.00
2,800.0	17.04	263.63	2,737.1	-51.3	-459.3	112.6	0.00	0.00	0.00
2,900.0	17.04	263.63	2,832.7	-54.5	-488.4	119.8	0.00	0.00	0.00
3,000.0	17.04	263.63	2,928.3	-57.8	-517.5	126.9	0.00	0.00	0.00
3,100.0	17.04	263.63	3,023.9	-61.0	-546.6	134.1	0.00	0.00	0.00
3,200.0	17.04	263.63	3,119.6	-64.3	-575.8	141.2	0.00	0.00	0.00
3,300.0	17.04	263.63	3,215.2	-67.5	-604.9	148.3	0.00	0.00	0.00
3,400.0	17.04	263.63	3,310.8	-70.8	-634.0	155.5	0.00	0.00	0.00
3,500.0	17.04	263.63	3,406.4	-74.0	-663.1	162.6	0.00	0.00	0.00
3,600.0	17.04	263.63	3,502.0	-77.3	-692.2	169.8	0.00	0.00	0.00
3,700.0	17.04	263.63	3,597.6	-80.5	-721.4	176.9	0.00	0.00	0.00
3,800.0	17.04	263.63	3,693.2	-83.8	-750.5	184.0	0.00	0.00	0.00
3,900.0	17.04	263.63	3,788.8	-87.0	-779.6	191.2	0.00	0.00	0.00
4,000.0	17.04	263.63	3,884.4	-90.3	-808.7	198.3	0.00	0.00	0.00
4,100.0	17.04	263.63	3,980.1	-93.5	-837.8	205.5	0.00	0.00	0.00
4,200.0	17.04	263.63	4,075.7	-96.8	-867.0	212.6	0.00	0.00	0.00
4,300.0	17.04	263.63	4,171.3	-100.0	-896.1	219.7	0.00	0.00	0.00
4,400.0	17.04	263.63	4,266.9	-103.3	-925.2	226.9	0.00	0.00	0.00
4,500.0	17.04	263.63	4,362.5	-106.5	-954.3	234.0	0.00	0.00	0.00
4,600.0	17.04	263.63	4,458.1	-109.8	-983.4	241.2	0.00	0.00	0.00
4,700.0	17.04	263.63	4,553.7	-113.0	-1,012.6	248.3	0.00	0.00	0.00
4,800.0	17.04	263.63	4,649.3	-116.3	-1,041.7	255.5	0.00	0.00	0.00
4,900.0	17.04	263.63	4,744.9	-119.5	-1,070.8	262.6	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn 21-4CHZ
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 21-4CHZ	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	17.04	263.63	4,840.6	-122.8	-1,099.9	269.7	0.00	0.00	0.00	
5,100.0	17.04	263.63	4,936.2	-126.0	-1,129.0	276.9	0.00	0.00	0.00	
5,200.0	17.04	263.63	5,031.8	-129.3	-1,158.2	284.0	0.00	0.00	0.00	
5,300.0	17.04	263.63	5,127.4	-132.5	-1,187.3	291.2	0.00	0.00	0.00	
5,400.0	17.04	263.63	5,223.0	-135.8	-1,216.4	298.3	0.00	0.00	0.00	
5,439.3	17.04	263.63	5,260.6	-137.1	-1,227.8	301.1	0.00	0.00	0.00	
5,500.0	15.82	263.63	5,318.8	-139.0	-1,244.9	305.3	2.00	-2.00	0.00	
5,600.0	13.82	263.63	5,415.5	-141.8	-1,270.3	311.5	2.00	-2.00	0.00	
5,700.0	11.82	263.63	5,513.0	-144.3	-1,292.4	316.9	2.00	-2.00	0.00	
5,800.0	9.82	263.63	5,611.2	-146.3	-1,311.0	321.5	2.00	-2.00	0.00	
5,900.0	7.82	263.63	5,710.0	-148.0	-1,326.3	325.3	2.00	-2.00	0.00	
6,000.0	5.82	263.63	5,809.3	-149.4	-1,338.1	328.2	2.00	-2.00	0.00	
6,100.0	3.82	263.63	5,908.9	-150.3	-1,346.5	330.2	2.00	-2.00	0.00	
6,200.0	1.82	263.63	6,008.8	-150.8	-1,351.4	331.4	2.00	-2.00	0.00	
6,291.2	0.00	0.00	6,100.0	-151.0	-1,352.8	331.8	2.00	-2.00	0.00	
6,300.0	0.00	0.00	6,108.8	-151.0	-1,352.8	331.8	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,208.8	-151.0	-1,352.8	331.8	0.00	0.00	0.00	
6,475.0	0.00	0.00	6,283.8	-151.0	-1,352.8	331.8	0.00	0.00	0.00	
KOP #2										
6,500.0	2.00	356.24	6,308.8	-150.6	-1,352.8	332.2	7.99	7.99	0.00	
6,600.0	10.00	356.24	6,408.1	-140.1	-1,353.5	342.2	8.00	8.00	0.00	
6,700.0	18.00	356.24	6,505.1	-116.0	-1,355.1	365.3	8.00	8.00	0.00	
6,800.0	26.00	356.24	6,597.7	-78.7	-1,357.6	401.2	8.00	8.00	0.00	
6,900.0	34.00	356.24	6,684.3	-28.8	-1,360.8	449.0	8.00	8.00	0.00	
7,000.0	42.00	356.24	6,763.0	32.5	-1,364.9	507.9	8.00	8.00	0.00	
7,100.0	50.00	356.24	6,832.4	104.3	-1,369.6	576.8	8.00	8.00	0.00	
7,200.0	58.00	356.24	6,891.2	184.9	-1,374.9	654.2	8.00	8.00	0.00	
7,300.0	66.00	356.24	6,938.1	273.0	-1,380.7	738.7	8.00	8.00	0.00	
7,400.0	74.00	356.24	6,972.2	366.6	-1,386.8	828.6	8.00	8.00	0.00	
7,500.0	82.00	356.24	6,993.0	464.2	-1,393.3	922.2	8.00	8.00	0.00	
7,600.0	90.00	356.24	7,000.0	563.6	-1,399.8	1,017.7	8.00	8.00	0.00	
End of Build - 7"										
7,700.0	90.00	356.24	7,000.0	663.4	-1,406.4	1,113.4	0.00	0.00	0.00	
7,800.0	90.00	356.24	7,000.0	763.2	-1,412.9	1,209.2	0.00	0.00	0.00	
7,900.0	90.00	356.24	7,000.0	863.0	-1,419.5	1,305.0	0.00	0.00	0.00	
8,000.0	90.00	356.24	7,000.0	962.8	-1,426.0	1,400.8	0.00	0.00	0.00	
8,100.0	90.00	356.24	7,000.0	1,062.5	-1,432.6	1,496.5	0.00	0.00	0.00	
8,200.0	90.00	356.24	7,000.0	1,162.3	-1,439.2	1,592.3	0.00	0.00	0.00	
8,300.0	90.00	356.24	7,000.0	1,262.1	-1,445.7	1,688.1	0.00	0.00	0.00	
8,400.0	90.00	356.24	7,000.0	1,361.9	-1,452.3	1,783.9	0.00	0.00	0.00	
8,500.0	90.00	356.24	7,000.0	1,461.7	-1,458.8	1,879.7	0.00	0.00	0.00	
8,600.0	90.00	356.24	7,000.0	1,561.5	-1,465.4	1,975.4	0.00	0.00	0.00	
8,700.0	90.00	356.24	7,000.0	1,661.3	-1,472.0	2,071.2	0.00	0.00	0.00	
8,800.0	90.00	356.24	7,000.0	1,761.0	-1,478.5	2,167.0	0.00	0.00	0.00	
8,900.0	90.00	356.24	7,000.0	1,860.8	-1,485.1	2,262.8	0.00	0.00	0.00	
9,000.0	90.00	356.24	7,000.0	1,960.6	-1,491.7	2,358.5	0.00	0.00	0.00	
9,100.0	90.00	356.24	7,000.0	2,060.4	-1,498.2	2,454.3	0.00	0.00	0.00	
9,200.0	90.00	356.24	7,000.0	2,160.2	-1,504.8	2,550.1	0.00	0.00	0.00	
9,300.0	90.00	356.24	7,000.0	2,260.0	-1,511.3	2,645.9	0.00	0.00	0.00	
9,400.0	90.00	356.24	7,000.0	2,359.7	-1,517.9	2,741.6	0.00	0.00	0.00	
9,500.0	90.00	356.24	7,000.0	2,459.5	-1,524.5	2,837.4	0.00	0.00	0.00	
9,600.0	90.00	356.24	7,000.0	2,559.3	-1,531.0	2,933.2	0.00	0.00	0.00	
9,700.0	90.00	356.24	7,000.0	2,659.1	-1,537.6	3,029.0	0.00	0.00	0.00	
9,800.0	90.00	356.24	7,000.0	2,758.9	-1,544.2	3,124.7	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn 21-4CHZ
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 21-4CHZ	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)	
9,900.0	90.00	356.24	7,000.0	2,858.7	-1,550.7	3,220.5	0.00	0.00	0.00	
10,000.0	90.00	356.24	7,000.0	2,958.5	-1,557.3	3,316.3	0.00	0.00	0.00	
10,100.0	90.00	356.24	7,000.0	3,058.2	-1,563.8	3,412.1	0.00	0.00	0.00	
10,200.0	90.00	356.24	7,000.0	3,158.0	-1,570.4	3,507.8	0.00	0.00	0.00	
10,300.0	90.00	356.24	7,000.0	3,257.8	-1,577.0	3,603.6	0.00	0.00	0.00	
10,400.0	90.00	356.24	7,000.0	3,357.6	-1,583.5	3,699.4	0.00	0.00	0.00	
10,500.0	90.00	356.24	7,000.0	3,457.4	-1,590.1	3,795.2	0.00	0.00	0.00	
10,600.0	90.00	356.24	7,000.0	3,557.2	-1,596.6	3,890.9	0.00	0.00	0.00	
10,700.0	90.00	356.24	7,000.0	3,656.9	-1,603.2	3,986.7	0.00	0.00	0.00	
10,800.0	90.00	356.24	7,000.0	3,756.7	-1,609.8	4,082.5	0.00	0.00	0.00	
10,900.0	90.00	356.24	7,000.0	3,856.5	-1,616.3	4,178.3	0.00	0.00	0.00	
11,000.0	90.00	356.24	7,000.0	3,956.3	-1,622.9	4,274.0	0.00	0.00	0.00	
11,100.0	90.00	356.24	7,000.0	4,056.1	-1,629.5	4,369.8	0.00	0.00	0.00	
11,200.0	90.00	356.24	7,000.0	4,155.9	-1,636.0	4,465.6	0.00	0.00	0.00	
11,300.0	90.00	356.24	7,000.0	4,255.7	-1,642.6	4,561.4	0.00	0.00	0.00	
11,400.0	90.00	356.24	7,000.0	4,355.4	-1,649.1	4,657.1	0.00	0.00	0.00	
11,474.4	90.00	356.24	7,000.0	4,429.7	-1,654.0	4,728.4	0.00	0.00	0.00	
BHL 470'FNL & 1925'FWL										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,600.0	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	
800.0	800.0	0.0	0.0	KOP #1	
6,475.0	6,283.8	-151.0	-1,352.8	KOP #2	
7,600.0	7,000.0	563.6	-1,399.8	End of Build	



Synergy Resources

SEC.4-T4N-R68W

SRC Kiehn Pad Sec.4-T4N-R68W

SRC Kiehn 21-4CHZ

Wellbore #1

Plan #2 (4-25-14)

Anticollision Report

29 April, 2014

Offset Design													Offset Site Error:	
SRC Kiehn (Existing) Pad Sec.4-T4N-R68W - Dale D. Kiehn #1 (P&A) - Wellbore #1 - Wellbore #1													0.0 ft	
Survey Program: 7790-UNKNOWN													Offset Well Error:	
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)			
1,000.0	999.8	3,672.8	3,672.8	2.1	73.5	90.51	380.0	-46.0	382.7	307.2	75.56	5.065		
1,100.0	1,099.5	3,772.5	3,772.5	2.3	75.4	91.81	380.0	-46.0	382.9	305.1	77.77	4.923		
1,200.0	1,198.7	3,871.7	3,871.7	2.6	77.4	93.60	380.0	-46.0	383.5	303.5	80.00	4.793		
1,300.0	1,297.5	3,970.5	3,970.5	2.9	79.4	95.87	380.0	-46.0	384.8	302.5	82.25	4.678	ES	
1,400.0	1,395.6	4,068.6	4,068.6	3.2	81.4	98.58	380.0	-46.0	387.2	302.7	84.51	4.582		
1,500.0	1,493.1	4,166.1	4,166.1	3.6	83.3	101.68	380.0	-46.0	391.3	304.5	86.77	4.510		
1,600.0	1,589.6	4,262.6	4,262.6	4.0	85.3	105.10	380.0	-46.0	397.5	308.5	89.00	4.466		
1,700.0	1,685.4	4,358.4	4,358.4	4.5	87.2	108.80	380.0	-46.0	406.2	315.0	91.20	4.454	SF	
1,800.0	1,781.0	4,454.0	4,454.0	5.1	89.1	112.47	380.0	-46.0	417.0	323.6	93.41	4.464		
1,900.0	1,876.6	4,549.6	4,549.6	5.6	91.0	115.96	380.0	-46.0	429.5	333.9	95.59	4.493		
2,000.0	1,972.2	4,645.2	4,645.2	6.2	92.9	119.25	380.0	-46.0	443.5	345.8	97.74	4.538		
2,100.0	2,067.8	4,740.8	4,740.8	6.8	94.8	122.34	380.0	-46.0	459.0	359.2	99.86	4.597		
2,200.0	2,163.4	4,836.4	4,836.4	7.4	96.7	125.24	380.0	-46.0	475.8	373.9	101.96	4.667		
2,300.0	2,259.1	4,932.1	4,932.1	8.0	98.6	127.94	380.0	-46.0	493.8	389.8	104.05	4.746		
2,400.0	2,354.7	5,027.7	5,027.7	8.6	100.6	130.46	380.0	-46.0	512.8	406.7	106.11	4.833		
2,500.0	2,450.3	5,123.3	5,123.3	9.2	102.5	132.80	380.0	-46.0	532.8	424.6	108.17	4.926		
2,600.0	2,545.9	5,218.9	5,218.9	9.8	104.4	134.98	380.0	-46.0	553.6	443.4	110.21	5.023		
2,700.0	2,641.5	5,314.5	5,314.5	10.4	106.3	137.00	380.0	-46.0	575.1	462.9	112.25	5.123		
2,800.0	2,737.1	5,410.1	5,410.1	11.0	108.2	138.88	380.0	-46.0	597.3	483.0	114.28	5.226		
2,900.0	2,832.7	5,505.7	5,505.7	11.6	110.1	140.63	380.0	-46.0	620.1	503.8	116.31	5.331		
3,000.0	2,928.3	5,601.3	5,601.3	12.2	112.0	142.26	380.0	-46.0	643.4	525.0	118.34	5.436		
3,100.0	3,023.9	5,696.9	5,696.9	12.9	113.9	143.78	380.0	-46.0	667.2	546.8	120.37	5.542		
3,200.0	3,119.6	5,792.6	5,792.6	13.5	115.9	145.19	380.0	-46.0	691.4	569.0	122.41	5.648		
3,300.0	3,215.2	5,888.2	5,888.2	14.1	117.8	146.51	380.0	-46.0	715.9	591.5	124.44	5.753		
3,400.0	3,310.8	5,983.8	5,983.8	14.7	119.7	147.75	380.0	-46.0	740.9	614.4	126.47	5.858		
3,500.0	3,406.4	6,079.4	6,079.4	15.3	121.6	148.90	380.0	-46.0	766.1	637.6	128.51	5.962		
3,600.0	3,502.0	6,175.0	6,175.0	16.0	123.5	149.99	380.0	-46.0	791.6	661.1	130.55	6.064		
3,700.0	3,597.6	6,270.6	6,270.6	16.6	125.4	151.00	380.0	-46.0	817.4	684.8	132.59	6.165		
3,800.0	3,693.2	6,366.2	6,366.2	17.2	127.3	151.96	380.0	-46.0	843.4	708.8	134.63	6.264		
3,900.0	3,788.8	6,461.8	6,461.8	17.8	129.2	152.86	380.0	-46.0	869.6	732.9	136.68	6.362		
4,000.0	3,884.4	6,557.4	6,557.4	18.5	131.1	153.71	380.0	-46.0	896.0	757.3	138.73	6.459		
4,100.0	3,980.1	6,653.1	6,653.1	19.1	133.1	154.51	380.0	-46.0	922.6	781.8	140.79	6.553		
4,200.0	4,075.7	6,748.7	6,748.7	19.7	135.0	155.26	380.0	-46.0	949.3	806.5	142.84	6.646		
4,300.0	4,171.3	6,844.3	6,844.3	20.3	136.9	155.98	380.0	-46.0	976.2	831.3	144.90	6.737		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4CHZ
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 21-4CHZ	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							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	-90.92	-0.4	-22.6	22.6					
100.0	100.0	100.0	100.0	0.1	0.1	-90.92	-0.4	-22.6	22.6	22.4	0.22	100.481		
200.0	200.0	200.0	200.0	0.3	0.3	-90.92	-0.4	-22.6	22.6	21.9	0.67	33.494		
300.0	300.0	300.0	300.0	0.6	0.6	-90.92	-0.4	-22.6	22.6	21.5	1.12	20.096		
400.0	400.0	400.0	400.0	0.8	0.8	-90.92	-0.4	-22.6	22.6	21.0	1.57	14.354		
500.0	500.0	500.0	500.0	1.0	1.0	-90.92	-0.4	-22.6	22.6	20.6	2.02	11.165		
600.0	600.0	600.0	600.0	1.2	1.2	-90.92	-0.4	-22.6	22.6	20.1	2.47	9.135 CC, ES		
700.0	700.0	699.2	699.2	1.5	1.4	-91.25	-0.5	-24.3	24.3	21.4	2.91	8.364		
800.0	800.0	798.1	798.0	1.7	1.7	-92.00	-1.0	-29.4	29.5	26.1	3.34	8.836		
900.0	900.0	896.8	896.2	1.9	1.9	3.73	-1.9	-37.9	36.4	32.6	3.75	9.699		
1,000.0	999.8	995.2	993.9	2.1	2.1	3.36	-3.0	-49.7	43.2	39.0	4.16	10.393		
1,100.0	1,099.5	1,093.3	1,090.9	2.3	2.4	3.15	-4.5	-64.8	50.0	45.4	4.57	10.931		
1,200.0	1,198.7	1,191.3	1,187.1	2.6	2.8	3.04	-6.3	-83.1	56.7	51.7	5.00	11.346		
1,300.0	1,297.5	1,289.0	1,282.4	2.9	3.1	3.00	-8.4	-104.7	63.3	57.9	5.43	11.659		
1,400.0	1,395.6	1,386.5	1,376.7	3.2	3.6	3.00	-10.8	-129.4	69.9	64.0	5.88	11.885		
1,500.0	1,493.1	1,483.8	1,469.9	3.6	4.1	3.04	-13.5	-157.2	76.3	70.0	6.34	12.038		
1,600.0	1,589.6	1,582.0	1,562.9	4.0	4.7	3.12	-16.5	-188.2	82.5	75.7	6.82	12.089		
1,700.0	1,685.4	1,681.9	1,657.5	4.5	5.3	3.28	-19.6	-220.5	86.3	78.9	7.34	11.755		
1,800.0	1,781.0	1,781.8	1,752.0	5.1	5.9	3.46	-22.8	-252.7	89.6	81.7	7.90	11.333		
1,900.0	1,876.6	1,881.8	1,846.5	5.6	6.6	3.61	-25.9	-285.0	92.9	84.4	8.47	10.960		
2,000.0	1,972.2	1,981.7	1,941.1	6.2	7.3	3.76	-29.1	-317.2	96.1	87.1	9.05	10.623		
2,100.0	2,067.8	2,081.7	2,035.6	6.8	7.9	3.90	-32.2	-349.5	99.4	89.8	9.64	10.318		
2,200.0	2,163.4	2,181.6	2,130.2	7.4	8.6	4.03	-35.3	-381.7	102.7	92.5	10.23	10.042		
2,300.0	2,259.1	2,281.6	2,224.7	8.0	9.3	4.15	-38.5	-414.0	106.0	95.2	10.83	9.792		
2,400.0	2,354.7	2,381.5	2,319.3	8.6	10.0	4.27	-41.6	-446.2	109.3	97.9	11.43	9.563		
2,500.0	2,450.3	2,481.5	2,413.8	9.2	10.6	4.37	-44.8	-478.4	112.6	100.6	12.04	9.355		
2,600.0	2,545.9	2,581.4	2,508.4	9.8	11.3	4.48	-47.9	-510.7	115.9	103.3	12.65	9.163		
2,700.0	2,641.5	2,681.3	2,602.9	10.4	12.0	4.57	-51.0	-542.9	119.2	106.0	13.27	8.988		
2,800.0	2,737.1	2,781.3	2,697.5	11.0	12.7	4.66	-54.2	-575.2	122.5	108.6	13.88	8.826		
2,900.0	2,832.7	2,881.2	2,792.0	11.6	13.4	4.75	-57.3	-607.4	125.8	111.3	14.50	8.676		
3,000.0	2,928.3	2,981.2	2,886.6	12.2	14.1	4.83	-60.5	-639.7	129.1	114.0	15.12	8.538		
3,100.0	3,023.9	3,081.1	2,981.1	12.9	14.7	4.91	-63.6	-671.9	132.4	116.7	15.75	8.409		
3,200.0	3,119.6	3,181.1	3,075.7	13.5	15.4	4.98	-66.8	-704.2	135.7	119.4	16.37	8.290		
3,300.0	3,215.2	3,281.0	3,170.2	14.1	16.1	5.05	-69.9	-736.4	139.0	122.0	17.00	8.178		
3,400.0	3,310.8	3,381.0	3,264.8	14.7	16.8	5.12	-73.0	-768.7	142.3	124.7	17.63	8.074		
3,500.0	3,406.4	3,480.9	3,359.3	15.3	17.5	5.18	-76.2	-800.9	145.6	127.4	18.26	7.976		
3,600.0	3,502.0	3,580.9	3,453.9	16.0	18.2	5.24	-79.3	-833.2	148.9	130.0	18.89	7.885		
3,700.0	3,597.6	3,680.8	3,548.4	16.6	18.9	5.30	-82.5	-865.4	152.2	132.7	19.52	7.799		
3,800.0	3,693.2	3,780.7	3,643.0	17.2	19.6	5.36	-85.6	-897.7	155.5	135.4	20.15	7.717		
3,900.0	3,788.8	3,880.7	3,737.5	17.8	20.3	5.41	-88.7	-929.9	158.8	138.0	20.79	7.641		
4,000.0	3,884.4	3,980.6	3,832.1	18.5	21.0	5.46	-91.9	-962.1	162.1	140.7	21.42	7.569		
4,100.0	3,980.1	4,080.6	3,926.6	19.1	21.7	5.51	-95.0	-994.4	165.4	143.4	22.06	7.500		
4,200.0	4,075.7	4,180.5	4,021.2	19.7	22.3	5.56	-98.2	-1,026.6	168.7	146.0	22.69	7.436		
4,300.0	4,171.3	4,280.5	4,115.7	20.3	23.0	5.60	-101.3	-1,058.9	172.0	148.7	23.33	7.374		
4,400.0	4,266.9	4,380.4	4,210.3	21.0	23.7	5.65	-104.4	-1,091.1	175.3	151.4	23.97	7.316		
4,500.0	4,362.5	4,480.4	4,304.8	21.6	24.4	5.69	-107.6	-1,123.4	178.6	154.0	24.61	7.260		
4,600.0	4,458.1	4,580.3	4,399.4	22.2	25.1	5.73	-110.7	-1,155.6	181.9	156.7	25.24	7.207		
4,700.0	4,553.7	4,680.3	4,493.9	22.8	25.8	5.77	-113.9	-1,187.9	185.2	159.4	25.88	7.157		
4,800.0	4,649.3	4,780.2	4,588.4	23.5	26.5	5.81	-117.0	-1,220.1	188.5	162.0	26.52	7.109		
4,900.0	4,744.9	4,880.1	4,683.0	24.1	27.2	5.84	-120.1	-1,252.4	191.8	164.7	27.16	7.063		
5,000.0	4,840.6	4,980.1	4,777.5	24.7	27.9	5.88	-123.3	-1,284.6	195.1	167.3	27.80	7.019		
5,100.0	4,936.2	5,080.0	4,872.1	25.4	28.6	5.91	-126.4	-1,316.9	198.5	170.0	28.44	6.977		

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 21-4CHZ
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 21-4CHZ	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							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	5,031.8	5,180.0	4,966.6	26.0	29.3	5.95	-129.6	-1,349.1	201.8	172.7	29.09	6.937		
5,300.0	5,127.4	5,279.9	5,061.2	26.6	30.0	5.98	-132.7	-1,381.3	205.1	175.3	29.73	6.898		
5,400.0	5,223.0	5,379.9	5,155.7	27.2	30.7	6.01	-135.8	-1,413.6	208.4	178.0	30.37	6.861		
5,500.0	5,318.8	5,486.4	5,257.0	27.8	31.2	6.06	-139.1	-1,446.6	211.0	180.0	30.98	6.810		
5,600.0	5,415.5	5,594.3	5,360.7	28.2	31.7	6.11	-142.0	-1,476.3	213.1	181.6	31.51	6.763		
5,700.0	5,513.0	5,702.4	5,465.6	28.6	32.2	6.16	-144.5	-1,502.1	215.0	183.0	31.98	6.724		
5,800.0	5,611.2	5,810.5	5,571.4	28.9	32.6	6.19	-146.6	-1,523.9	216.6	184.2	32.37	6.690		
5,900.0	5,710.0	5,918.6	5,678.0	29.2	32.9	6.22	-148.3	-1,541.8	217.8	185.1	32.70	6.662		
6,000.0	5,809.3	6,026.8	5,785.3	29.4	33.1	6.25	-149.7	-1,555.6	218.8	185.9	32.96	6.640		
6,100.0	5,908.9	6,135.1	5,893.1	29.6	33.3	6.26	-150.6	-1,565.4	219.5	186.4	33.15	6.623		
6,200.0	6,008.8	6,243.3	6,001.2	29.8	33.5	6.27	-151.2	-1,571.2	220.0	186.7	33.28	6.610		
6,300.0	6,108.8	6,350.9	6,108.8	29.9	33.6	-90.09	-151.4	-1,572.9	220.1	185.9	34.20	6.436		
6,400.0	6,208.8	6,450.9	6,208.8	30.0	33.7	-90.09	-151.4	-1,572.9	220.1	185.6	34.50	6.379		
6,471.7	6,280.5	6,522.6	6,280.5	30.0	33.7	-86.57	-151.4	-1,572.9	220.0	186.2	33.88	6.495		
6,500.0	6,308.8	6,550.0	6,307.9	30.1	33.8	-86.33	-151.0	-1,572.9	220.1	186.1	34.01	6.472		
6,600.0	6,408.1	6,648.5	6,405.8	30.2	33.9	-86.39	-140.9	-1,573.6	220.1	185.8	34.32	6.413		
6,700.0	6,505.1	6,746.6	6,501.0	30.2	33.9	-86.51	-117.7	-1,575.1	220.0	185.5	34.55	6.368		
6,800.0	6,597.7	6,844.8	6,592.3	30.3	34.0	-86.70	-81.7	-1,577.5	220.0	185.2	34.76	6.328		
6,900.0	6,684.3	6,943.1	6,677.8	30.4	34.1	-86.95	-33.5	-1,580.6	220.0	184.9	35.02	6.280		
7,000.0	6,763.0	7,041.6	6,756.1	30.5	34.2	-87.26	26.0	-1,584.6	219.9	184.5	35.42	6.208		
7,100.0	6,832.4	7,140.2	6,825.5	30.7	34.3	-87.62	95.8	-1,589.2	219.8	183.8	36.04	6.101		
7,200.0	6,891.2	7,239.1	6,884.8	30.9	34.5	-88.03	174.6	-1,594.3	219.8	182.8	36.95	5.948		
7,300.0	6,938.1	7,338.1	6,932.8	31.1	34.7	-88.48	261.0	-1,600.0	219.7	181.5	38.20	5.753		
7,400.0	6,972.2	7,437.4	6,968.4	31.5	35.0	-88.95	353.4	-1,606.1	219.7	179.9	39.77	5.525		
7,500.0	6,993.0	7,537.0	6,991.0	31.9	35.4	-89.45	450.1	-1,612.5	219.7	178.1	41.62	5.278		
7,563.3	6,999.1	7,600.2	6,998.2	32.3	35.7	-89.78	512.7	-1,616.6	219.7	176.8	42.93	5.118		
7,600.0	7,000.0	7,636.8	6,999.9	32.5	35.9	-89.96	549.2	-1,619.0	219.7	176.0	43.70	5.027		
7,700.0	7,000.0	7,736.8	7,000.0	33.1	36.5	-90.00	649.0	-1,625.6	219.7	173.6	46.05	4.770		
7,800.0	7,000.0	7,836.8	7,000.0	33.9	37.2	-90.00	748.8	-1,632.1	219.7	171.1	48.60	4.520		
7,900.0	7,000.0	7,936.8	7,000.0	34.8	38.0	-90.00	848.5	-1,638.7	219.7	168.4	51.32	4.281		
8,000.0	7,000.0	8,036.8	7,000.0	35.7	38.8	-90.00	948.3	-1,645.3	219.7	165.5	54.19	4.055		
8,100.0	7,000.0	8,136.8	7,000.0	36.8	39.8	-90.00	1,048.1	-1,651.9	219.7	162.6	57.17	3.843		
8,200.0	7,000.0	8,236.8	7,000.0	37.9	40.8	-90.00	1,147.9	-1,658.4	219.7	159.5	60.26	3.646		
8,300.0	7,000.0	8,336.8	7,000.0	39.1	41.9	-90.00	1,247.7	-1,665.0	219.7	156.3	63.44	3.464		
8,400.0	7,000.0	8,436.8	7,000.0	40.4	43.1	-90.00	1,347.5	-1,671.6	219.7	153.0	66.70	3.295		
8,500.0	7,000.0	8,536.8	7,000.0	41.7	44.3	-90.00	1,447.2	-1,678.1	219.8	149.7	70.02	3.139		
8,600.0	7,000.0	8,636.8	7,000.0	43.1	45.6	-90.00	1,547.0	-1,684.7	219.8	146.4	73.40	2.994		
8,700.0	7,000.0	8,736.8	7,000.0	44.6	46.9	-90.00	1,646.8	-1,691.3	219.8	142.9	76.82	2.861		
8,800.0	7,000.0	8,836.8	7,000.0	46.0	48.3	-90.00	1,746.6	-1,697.8	219.8	139.5	80.29	2.737		
8,900.0	7,000.0	8,936.8	7,000.0	47.6	49.7	-90.00	1,846.4	-1,704.4	219.8	136.0	83.80	2.623		
9,000.0	7,000.0	9,036.8	7,000.0	49.1	51.2	-90.00	1,946.2	-1,711.0	219.8	132.5	87.34	2.517		
9,100.0	7,000.0	9,136.8	7,000.0	50.7	52.7	-90.00	2,046.0	-1,717.5	219.8	128.9	90.91	2.418		
9,200.0	7,000.0	9,236.8	7,000.0	52.3	54.2	-90.00	2,145.7	-1,724.1	219.8	125.3	94.50	2.326		
9,300.0	7,000.0	9,336.8	7,000.0	53.9	55.8	-90.00	2,245.5	-1,730.7	219.8	121.7	98.12	2.240		
9,400.0	7,000.0	9,436.8	7,000.0	55.6	57.4	-90.00	2,345.3	-1,737.3	219.8	118.1	101.76	2.160		
9,500.0	7,000.0	9,536.8	7,000.0	57.2	59.0	-90.00	2,445.1	-1,743.8	219.8	114.4	105.42	2.085		
9,600.0	7,000.0	9,636.8	7,000.0	58.9	60.6	-90.00	2,544.9	-1,750.4	219.8	110.7	109.09	2.015		
9,700.0	7,000.0	9,736.8	7,000.0	60.6	62.3	-90.00	2,644.7	-1,757.0	219.8	107.1	112.78	1.949		
9,800.0	7,000.0	9,836.8	7,000.0	62.4	63.9	-90.00	2,744.4	-1,763.5	219.9	103.4	116.48	1.887		
9,900.0	7,000.0	9,936.8	7,000.0	64.1	65.6	-90.00	2,844.2	-1,770.1	219.9	99.7	120.19	1.829		
10,000.0	7,000.0	10,036.8	7,000.0	65.8	67.3	-90.00	2,944.0	-1,776.7	219.9	95.9	123.92	1.774		
10,100.0	7,000.0	10,136.8	7,000.0	67.6	69.0	-90.00	3,043.8	-1,783.2	219.9	92.2	127.66	1.722		

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 21-4CHZ
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 21-4CHZ	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	10,236.8	7,000.0	69.4	70.8	-90.00	3,143.6	-1,789.8	219.9	88.5	131.40	1.673	
10,300.0	7,000.0	10,336.8	7,000.0	71.1	72.5	-90.00	3,243.4	-1,796.4	219.9	84.7	135.15	1.627	
10,400.0	7,000.0	10,436.8	7,000.0	72.9	74.3	-90.00	3,343.1	-1,802.9	219.9	81.0	138.92	1.583	
10,500.0	7,000.0	10,536.8	7,000.0	74.7	76.0	-90.00	3,442.9	-1,809.5	219.9	77.2	142.69	1.541	
10,600.0	7,000.0	10,636.8	7,000.0	76.5	77.8	-90.00	3,542.7	-1,816.1	219.9	73.5	146.46	1.502	
10,700.0	7,000.0	10,736.8	7,000.0	78.3	79.6	-90.00	3,642.5	-1,822.7	219.9	69.7	150.24	1.464	Level 3
10,800.0	7,000.0	10,836.8	7,000.0	80.2	81.4	-90.00	3,742.3	-1,829.2	219.9	65.9	154.03	1.428	Level 3
10,900.0	7,000.0	10,936.8	7,000.0	82.0	83.2	-90.00	3,842.1	-1,835.8	219.9	62.1	157.82	1.394	Level 3
11,000.0	7,000.0	11,036.8	7,000.0	83.8	85.0	-90.00	3,941.8	-1,842.4	219.9	58.3	161.62	1.361	Level 3
11,100.0	7,000.0	11,136.8	7,000.0	85.6	86.8	-90.00	4,041.6	-1,848.9	220.0	54.5	165.42	1.330	Level 3
11,200.0	7,000.0	11,236.8	7,000.0	87.5	88.6	-90.00	4,141.4	-1,855.5	220.0	50.7	169.23	1.300	Level 3
11,300.0	7,000.0	11,336.8	7,000.0	89.3	90.4	-90.00	4,241.2	-1,862.1	220.0	46.9	173.04	1.271	Level 3
11,400.0	7,000.0	11,436.8	7,000.0	91.2	92.2	-90.00	4,341.0	-1,868.6	220.0	43.1	176.85	1.244	Level 2
11,474.4	7,000.0	11,511.2	7,000.0	92.6	93.6	-90.00	4,415.2	-1,873.5	220.0	40.3	179.65	1.225	Level 2, SF

SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 22-4CHZ - 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						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	88.61	1.1	44.9	44.9				
100.0	100.0	100.0	100.0	0.1	0.1	88.61	1.1	44.9	44.9	44.7	0.22	199.754	
200.0	200.0	200.0	200.0	0.3	0.3	88.61	1.1	44.9	44.9	44.2	0.67	66.585	
300.0	300.0	300.0	300.0	0.6	0.6	88.61	1.1	44.9	44.9	43.8	1.12	39.951	
400.0	400.0	400.0	400.0	0.8	0.8	88.61	1.1	44.9	44.9	43.3	1.57	28.536	
500.0	500.0	500.0	500.0	1.0	1.0	88.61	1.1	44.9	44.9	42.9	2.02	22.195	
600.0	600.0	600.0	600.0	1.2	1.2	88.61	1.1	44.9	44.9	42.4	2.47	18.159	
700.0	700.0	700.0	700.0	1.5	1.5	88.61	1.1	44.9	44.9	42.0	2.92	15.366	
800.0	800.0	800.0	800.0	1.7	1.7	88.61	1.1	44.9	44.9	41.5	3.37	13.317 CC, ES	
900.0	900.0	900.0	900.0	1.9	1.9	-175.21	1.1	44.9	46.6	42.8	3.81	12.254	
1,000.0	999.8	999.8	999.8	2.1	2.1	-175.68	1.1	44.9	51.9	47.6	4.23	12.265	
1,100.0	1,099.5	1,099.5	1,099.5	2.3	2.4	-176.29	1.1	44.9	60.5	55.9	4.65	13.018	
1,200.0	1,198.7	1,198.7	1,198.7	2.6	2.6	-176.90	1.1	44.9	72.7	67.6	5.07	14.330	
1,300.0	1,297.5	1,300.5	1,300.5	2.9	2.8	-177.35	0.8	43.1	86.6	81.2	5.48	15.803	
1,400.0	1,395.6	1,402.9	1,402.7	3.2	3.0	-177.57	0.0	37.8	100.5	94.6	5.88	17.105	
1,500.0	1,493.1	1,505.8	1,505.2	3.6	3.2	-177.66	-1.4	28.8	114.3	108.0	6.28	18.209	
1,600.0	1,589.6	1,609.2	1,607.8	4.0	3.5	-177.64	-3.5	16.1	128.0	121.3	6.69	19.138	
1,700.0	1,685.4	1,713.2	1,710.4	4.5	3.7	-177.56	-6.0	-0.4	141.1	134.0	7.13	19.789	
1,800.0	1,781.0	1,818.0	1,813.2	5.1	4.1	-177.38	-9.2	-20.7	151.2	143.5	7.62	19.836	
1,900.0	1,876.6	1,919.0	1,911.7	5.6	4.4	-177.14	-12.7	-42.8	158.6	150.5	8.12	19.535	
2,000.0	1,972.2	2,018.7	2,008.9	6.2	4.8	-176.92	-16.2	-64.6	166.0	157.4	8.63	19.232	
2,100.0	2,067.8	2,118.4	2,106.2	6.8	5.2	-176.72	-19.6	-86.5	173.4	164.3	9.15	18.954	
2,200.0	2,163.4	2,218.1	2,203.4	7.4	5.6	-176.53	-23.1	-108.4	180.8	171.2	9.68	18.682	
2,300.0	2,259.1	2,317.9	2,300.6	8.0	6.0	-176.36	-26.5	-130.3	188.2	178.0	10.22	18.426	
2,400.0	2,354.7	2,417.6	2,397.9	8.6	6.5	-176.20	-30.0	-152.2	195.6	184.9	10.76	18.185	
2,500.0	2,450.3	2,517.3	2,495.1	9.2	6.9	-176.06	-33.4	-174.0	203.1	191.7	11.31	17.960	
2,600.0	2,545.9	2,617.0	2,592.3	9.8	7.4	-175.92	-36.9	-195.9	210.5	198.6	11.86	17.748	
2,700.0	2,641.5	2,716.8	2,689.6	10.4	7.8	-175.80	-40.3	-217.8	217.9	205.5	12.41	17.549	
2,800.0	2,737.1	2,816.5	2,786.8	11.0	8.3	-175.68	-43.8	-239.7	225.3	212.3	12.97	17.363	
2,900.0	2,832.7	2,916.2	2,884.0	11.6	8.7	-175.57	-47.2	-261.6	232.7	219.1	13.54	17.187	
3,000.0	2,928.3	3,015.9	2,981.3	12.2	9.2	-175.47	-50.7	-283.4	240.1	226.0	14.10	17.023	
3,100.0	3,023.9	3,115.7	3,078.5	12.9	9.6	-175.37	-54.1	-305.3	247.5	232.8	14.67	16.868	
3,200.0	3,119.6	3,215.4	3,175.7	13.5	10.1	-175.28	-57.6	-327.2	254.9	239.7	15.24	16.723	
3,300.0	3,215.2	3,315.1	3,273.0	14.1	10.6	-175.19	-61.0	-349.1	262.3	246.5	15.82	16.585	
3,400.0	3,310.8	3,414.8	3,370.2	14.7	11.1	-175.11	-64.5	-371.0	269.7	253.4	16.39	16.456	
3,500.0	3,406.4	3,514.6	3,467.4	15.3	11.5	-175.03	-67.9	-392.8	277.2	260.2	16.97	16.333	
3,600.0	3,502.0	3,614.3	3,564.7	16.0	12.0	-174.96	-71.4	-414.7	284.6	267.0	17.55	16.217	
3,700.0	3,597.6	3,714.0	3,661.9	16.6	12.5	-174.89	-74.8	-436.6	292.0	273.9	18.13	16.108	
3,800.0	3,693.2	3,813.7	3,759.1	17.2	13.0	-174.82	-78.3	-458.5	299.4	280.7	18.71	16.004	
3,900.0	3,788.8	3,913.5	3,856.4	17.8	13.4	-174.76	-81.7	-480.3	306.8	287.5	19.29	15.905	
4,000.0	3,884.4	4,013.2	3,953.6	18.5	13.9	-174.70	-85.2	-502.2	314.2	294.4	19.87	15.812	
4,100.0	3,980.1	4,112.9	4,050.8	19.1	14.4	-174.64	-88.6	-524.1	321.6	301.2	20.46	15.722	
4,200.0	4,075.7	4,212.6	4,148.1	19.7	14.9	-174.59	-92.1	-546.0	329.1	308.0	21.04	15.638	
4,300.0	4,171.3	4,312.4	4,245.3	20.3	15.3	-174.54	-95.5	-567.9	336.5	314.9	21.63	15.557	
4,400.0	4,266.9	4,412.1	4,342.5	21.0	15.8	-174.49	-99.0	-589.7	343.9	321.7	22.22	15.480	
4,500.0	4,362.5	4,511.8	4,439.8	21.6	16.3	-174.44	-102.4	-611.6	351.3	328.5	22.80	15.406	
4,600.0	4,458.1	4,611.5	4,537.0	22.2	16.8	-174.39	-105.9	-633.5	358.7	335.3	23.39	15.335	
4,700.0	4,553.7	4,711.3	4,634.2	22.8	17.3	-174.35	-109.3	-655.4	366.1	342.2	23.98	15.268	
4,800.0	4,649.3	4,811.0	4,731.5	23.5	17.8	-174.31	-112.8	-677.3	373.6	349.0	24.57	15.203	
4,900.0	4,744.9	4,910.7	4,828.7	24.1	18.2	-174.27	-116.2	-699.1	381.0	355.8	25.16	15.142	
5,000.0	4,840.6	5,010.4	4,925.9	24.7	18.7	-174.23	-119.7	-721.0	388.4	362.6	25.75	15.082	
5,100.0	4,936.2	5,110.1	5,023.2	25.4	19.2	-174.19	-123.1	-742.9	395.8	369.5	26.34	15.025	

COMPASS 2003.21 Build 46

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4CHZ
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 21-4CHZ	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	5,031.8	5,209.9	5,120.4	26.0	19.7	-174.15	-126.6	-764.8	403.2	376.3	26.94	14.971	
5,300.0	5,127.4	5,309.6	5,217.6	26.6	20.2	-174.12	-130.0	-786.7	410.7	383.1	27.53	14.918	
5,400.0	5,223.0	5,409.3	5,314.9	27.2	20.7	-174.09	-133.5	-808.5	418.1	390.0	28.12	14.868	
5,500.0	5,318.8	5,509.1	5,412.1	27.8	21.2	-174.05	-136.9	-830.4	424.9	396.1	28.73	14.786	
5,600.0	5,415.5	5,600.0	5,500.8	28.2	21.6	-173.99	-140.0	-850.1	428.8	399.5	29.27	14.648	
5,700.0	5,513.0	5,690.0	5,589.1	28.6	21.9	-173.93	-142.8	-867.4	431.8	402.1	29.72	14.527	
5,800.0	5,611.2	5,776.9	5,674.9	28.9	22.1	-173.88	-145.0	-881.4	434.4	404.2	30.12	14.423	
5,900.0	5,710.0	5,863.9	5,761.0	29.2	22.3	-173.84	-146.8	-892.8	436.5	406.0	30.45	14.333	
6,000.0	5,809.3	5,950.7	5,847.4	29.4	22.5	-173.81	-148.2	-901.7	438.1	407.3	30.73	14.255	
6,100.0	5,908.9	6,037.6	5,934.1	29.6	22.7	-173.79	-149.2	-908.0	439.2	408.3	30.96	14.188	
6,200.0	6,008.8	6,124.4	6,020.8	29.8	22.8	-173.78	-149.7	-911.6	439.9	408.8	31.13	14.132	
6,300.0	6,108.8	6,212.4	6,108.8	29.9	22.9	89.86	-149.9	-912.7	440.1	408.2	31.92	13.786	
6,400.0	6,208.8	6,312.4	6,208.8	30.0	23.1	89.86	-149.9	-912.7	440.1	407.8	32.25	13.645	
6,500.0	6,308.8	6,413.4	6,309.8	30.1	23.2	93.62	-149.4	-912.7	440.1	408.1	31.96	13.770	
6,600.0	6,408.1	6,517.4	6,413.1	30.2	23.3	93.56	-138.2	-913.5	440.1	407.8	32.28	13.631	
6,700.0	6,505.1	6,621.3	6,513.5	30.2	23.4	93.44	-112.1	-915.2	440.0	407.5	32.53	13.526	
6,800.0	6,597.7	6,725.0	6,609.0	30.3	23.5	93.24	-72.0	-917.8	439.9	407.2	32.75	13.431	
6,900.0	6,684.3	6,828.4	6,697.5	30.4	23.6	92.98	-18.7	-921.3	439.8	406.8	33.03	13.314	
7,000.0	6,763.0	6,931.5	6,777.0	30.5	23.7	92.66	46.6	-925.6	439.7	406.2	33.47	13.137	
7,100.0	6,832.4	7,034.2	6,846.2	30.7	23.9	92.29	122.2	-930.6	439.6	405.4	34.14	12.875	
7,200.0	6,891.2	7,136.4	6,903.5	30.9	24.1	91.87	206.5	-936.1	439.5	404.3	35.13	12.509	
7,300.0	6,938.1	7,238.1	6,948.1	31.1	24.5	91.41	297.7	-942.1	439.4	402.9	36.47	12.048	
7,400.0	6,972.2	7,339.3	6,979.2	31.5	25.0	90.93	393.7	-948.4	439.3	401.2	38.15	11.517	
7,500.0	6,993.0	7,440.0	6,996.3	31.9	25.6	90.44	492.6	-954.9	439.3	399.2	40.11	10.952	
7,555.4	6,998.6	7,495.5	6,999.8	32.2	26.0	90.16	547.9	-958.5	439.3	398.0	41.31	10.635	
7,600.0	7,000.0	7,540.2	7,000.0	32.5	26.3	90.00	592.4	-961.5	439.3	397.0	42.31	10.384	
7,700.0	7,000.0	7,640.1	7,000.0	33.1	27.2	90.00	692.2	-968.0	439.3	394.5	44.75	9.816	
7,800.0	7,000.0	7,740.1	7,000.0	33.9	28.2	90.00	792.0	-974.6	439.3	391.9	47.39	9.270	
7,900.0	7,000.0	7,840.1	7,000.0	34.8	29.3	90.00	891.8	-981.1	439.3	389.1	50.19	8.753	
8,000.0	7,000.0	7,940.1	7,000.0	35.7	30.5	90.00	991.5	-987.7	439.3	386.2	53.13	8.269	
8,100.0	7,000.0	8,040.1	7,000.0	36.8	31.8	90.00	1,091.3	-994.2	439.3	383.2	56.19	7.819	
8,200.0	7,000.0	8,140.1	7,000.0	37.9	33.2	90.00	1,191.1	-1,000.8	439.3	380.0	59.34	7.404	
8,300.0	7,000.0	8,240.1	7,000.0	39.1	34.6	90.00	1,290.9	-1,007.3	439.4	376.8	62.58	7.021	
8,400.0	7,000.0	8,340.1	7,000.0	40.4	36.1	90.00	1,390.7	-1,013.9	439.4	373.5	65.89	6.668	
8,500.0	7,000.0	8,440.1	7,000.0	41.7	37.7	90.00	1,490.5	-1,020.4	439.4	370.1	69.26	6.344	
8,600.0	7,000.0	8,540.1	7,000.0	43.1	39.2	90.00	1,590.3	-1,027.0	439.4	366.7	72.68	6.045	
8,700.0	7,000.0	8,640.1	7,000.0	44.6	40.8	90.00	1,690.0	-1,033.5	439.4	363.3	76.15	5.770	
8,800.0	7,000.0	8,740.1	7,000.0	46.0	42.5	90.00	1,789.8	-1,040.1	439.4	359.8	79.66	5.516	
8,900.0	7,000.0	8,840.1	7,000.0	47.6	44.1	90.00	1,889.6	-1,046.6	439.4	356.2	83.20	5.281	
9,000.0	7,000.0	8,940.1	7,000.0	49.1	45.8	90.00	1,989.4	-1,053.2	439.4	352.7	86.77	5.064	
9,100.0	7,000.0	9,040.1	7,000.0	50.7	47.5	90.00	2,089.2	-1,059.7	439.4	349.1	90.37	4.862	
9,200.0	7,000.0	9,140.1	7,000.0	52.3	49.3	90.00	2,189.0	-1,066.3	439.5	345.5	94.00	4.675	
9,300.0	7,000.0	9,240.1	7,000.0	53.9	51.0	90.00	2,288.8	-1,072.8	439.5	341.8	97.64	4.501	
9,400.0	7,000.0	9,340.1	7,000.0	55.6	52.8	90.00	2,388.5	-1,079.4	439.5	338.2	101.31	4.338	
9,500.0	7,000.0	9,440.1	7,000.0	57.2	54.5	90.00	2,488.3	-1,085.9	439.5	334.5	104.99	4.186	
9,600.0	7,000.0	9,540.1	7,000.0	58.9	56.3	90.00	2,588.1	-1,092.5	439.5	330.8	108.68	4.044	
9,700.0	7,000.0	9,640.1	7,000.0	60.6	58.1	90.00	2,687.9	-1,099.0	439.5	327.1	112.39	3.911	
9,800.0	7,000.0	9,740.1	7,000.0	62.4	59.9	90.00	2,787.7	-1,105.6	439.5	323.4	116.11	3.785	
9,900.0	7,000.0	9,840.1	7,000.0	64.1	61.7	90.00	2,887.5	-1,112.1	439.5	319.7	119.84	3.668	
10,000.0	7,000.0	9,940.1	7,000.0	65.8	63.5	90.00	2,987.2	-1,118.7	439.5	316.0	123.59	3.557	
10,100.0	7,000.0	10,040.1	7,000.0	67.6	65.4	90.00	3,087.0	-1,125.2	439.5	312.2	127.34	3.452	
10,200.0	7,000.0	10,140.1	7,000.0	69.4	67.2	90.00	3,186.8	-1,131.8	439.6	308.5	131.10	3.353	

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 21-4CHZ
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 21-4CHZ	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 22-4CHZ - 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							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)						
10,300.0	7,000.0	10,240.1	7,000.0	71.1	69.1	90.00	3,286.6	-1,138.3	439.6	304.7	134.86	3.259					
10,400.0	7,000.0	10,340.1	7,000.0	72.9	70.9	90.00	3,386.4	-1,144.9	439.6	300.9	138.64	3.171					
10,500.0	7,000.0	10,440.1	7,000.0	74.7	72.8	90.00	3,486.2	-1,151.4	439.6	297.2	142.42	3.087					
10,600.0	7,000.0	10,540.1	7,000.0	76.5	74.6	90.00	3,586.0	-1,158.0	439.6	293.4	146.21	3.007					
10,700.0	7,000.0	10,640.1	7,000.0	78.3	76.5	90.00	3,685.7	-1,164.5	439.6	289.6	150.00	2.931					
10,800.0	7,000.0	10,740.1	7,000.0	80.2	78.3	90.00	3,785.5	-1,171.1	439.6	285.8	153.80	2.858					
10,900.0	7,000.0	10,840.1	7,000.0	82.0	80.2	90.00	3,885.3	-1,177.6	439.6	282.0	157.60	2.790					
11,000.0	7,000.0	10,940.1	7,000.0	83.8	82.1	90.00	3,985.1	-1,184.2	439.6	278.2	161.41	2.724					
11,100.0	7,000.0	11,040.1	7,000.0	85.6	84.0	90.00	4,084.9	-1,190.7	439.7	274.4	165.22	2.661					
11,200.0	7,000.0	11,140.1	7,000.0	87.5	85.8	90.00	4,184.7	-1,197.3	439.7	270.6	169.04	2.601					
11,300.0	7,000.0	11,240.1	7,000.0	89.3	87.7	90.00	4,284.5	-1,203.8	439.7	266.8	172.85	2.544					
11,400.0	7,000.0	11,340.1	7,000.0	91.2	89.6	90.00	4,384.2	-1,210.4	439.7	263.0	176.68	2.489					
11,427.5	7,000.0	11,367.6	7,000.0	91.7	90.1	90.00	4,411.7	-1,212.2	439.7	262.0	177.73	2.474					
11,474.4	7,000.0	11,384.9	7,000.0	92.6	90.4	90.00	4,428.9	-1,213.3	440.7	261.7	178.96	2.463 SF					

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 22-4NHZ - 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							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	88.15	0.7	22.6	22.6					
100.0	100.0	100.0	100.0	0.1	0.1	88.15	0.7	22.6	22.6	22.4	0.22	100.520		
200.0	200.0	200.0	200.0	0.3	0.3	88.15	0.7	22.6	22.6	21.9	0.67	33.507		
300.0	300.0	300.0	300.0	0.6	0.6	88.15	0.7	22.6	22.6	21.5	1.12	20.104		
400.0	400.0	400.0	400.0	0.8	0.8	88.15	0.7	22.6	22.6	21.0	1.57	14.360		
500.0	500.0	500.0	500.0	1.0	1.0	88.15	0.7	22.6	22.6	20.6	2.02	11.169		
600.0	600.0	600.0	600.0	1.2	1.2	88.15	0.7	22.6	22.6	20.1	2.47	9.138		
700.0	700.0	700.0	700.0	1.5	1.5	88.15	0.7	22.6	22.6	19.7	2.92	7.732		
800.0	800.0	800.0	800.0	1.7	1.7	88.15	0.7	22.6	22.6	19.2	3.37	6.701 CC, ES		
900.0	900.0	900.0	900.0	1.9	1.9	-175.80	0.7	22.6	24.3	20.5	3.81	6.394		
1,000.0	999.8	999.8	999.8	2.1	2.1	-176.54	0.7	22.6	29.6	25.3	4.23	6.991		
1,100.0	1,099.5	1,100.8	1,100.7	2.3	2.3	-177.15	0.5	20.8	36.5	31.9	4.63	7.878		
1,200.0	1,198.7	1,201.9	1,201.8	2.6	2.6	-177.47	-0.2	15.5	43.4	38.4	5.03	8.639		
1,300.0	1,297.5	1,303.3	1,302.8	2.9	2.8	-177.62	-1.4	6.7	50.3	44.9	5.43	9.270		
1,400.0	1,395.6	1,405.0	1,403.7	3.2	3.0	-177.67	-3.0	-5.8	57.2	51.3	5.84	9.793		
1,500.0	1,493.1	1,506.9	1,504.3	3.6	3.3	-177.64	-5.1	-21.8	63.9	57.7	6.26	10.222		
1,600.0	1,589.6	1,609.1	1,604.5	4.0	3.6	-177.57	-7.6	-41.4	70.7	64.0	6.69	10.569		
1,700.0	1,685.4	1,711.5	1,704.3	4.5	4.0	-177.44	-10.7	-64.6	76.9	69.7	7.15	10.749		
1,800.0	1,781.0	1,812.5	1,801.9	5.1	4.4	-177.21	-14.0	-90.3	80.7	73.0	7.66	10.532		
1,900.0	1,876.6	1,912.5	1,898.4	5.6	4.9	-177.00	-17.4	-115.9	84.3	76.1	8.18	10.298		
2,000.0	1,972.2	2,012.4	1,994.9	6.2	5.4	-176.80	-20.7	-141.6	87.8	79.1	8.71	10.077		
2,100.0	2,067.8	2,112.3	2,091.4	6.8	5.9	-176.62	-24.1	-167.3	91.4	82.1	9.26	9.872		
2,200.0	2,163.4	2,212.3	2,188.0	7.4	6.4	-176.46	-27.4	-192.9	94.9	85.1	9.81	9.682		
2,300.0	2,259.1	2,312.2	2,284.5	8.0	6.9	-176.30	-30.8	-218.6	98.5	88.1	10.36	9.505		
2,400.0	2,354.7	2,412.1	2,381.0	8.6	7.4	-176.16	-34.1	-244.3	102.1	91.1	10.93	9.342		
2,500.0	2,450.3	2,512.1	2,477.5	9.2	7.9	-176.02	-37.5	-269.9	105.6	94.1	11.49	9.191		
2,600.0	2,545.9	2,612.0	2,574.1	9.8	8.4	-175.90	-40.9	-295.6	109.2	97.1	12.07	9.050		
2,700.0	2,641.5	2,712.0	2,670.6	10.4	9.0	-175.78	-44.2	-321.3	112.8	100.1	12.64	8.920		
2,800.0	2,737.1	2,811.9	2,767.1	11.0	9.5	-175.67	-47.6	-346.9	116.3	103.1	13.22	8.799		
2,900.0	2,832.7	2,911.8	2,863.6	11.6	10.1	-175.56	-50.9	-372.6	119.9	106.1	13.80	8.686		
3,000.0	2,928.3	3,011.8	2,960.2	12.2	10.6	-175.46	-54.3	-398.3	123.5	109.1	14.39	8.581		
3,100.0	3,023.9	3,111.7	3,056.7	12.9	11.1	-175.37	-57.6	-423.9	127.0	112.1	14.98	8.483		
3,200.0	3,119.6	3,211.6	3,153.2	13.5	11.7	-175.28	-61.0	-449.6	130.6	115.0	15.57	8.390		
3,300.0	3,215.2	3,311.6	3,249.7	14.1	12.2	-175.20	-64.3	-475.3	134.2	118.0	16.16	8.304		
3,400.0	3,310.8	3,411.5	3,346.3	14.7	12.8	-175.12	-67.7	-500.9	137.7	121.0	16.75	8.223		
3,500.0	3,406.4	3,511.4	3,442.8	15.3	13.3	-175.05	-71.0	-526.6	141.3	124.0	17.35	8.147		
3,600.0	3,502.0	3,611.4	3,539.3	16.0	13.9	-174.98	-74.4	-552.3	144.9	126.9	17.94	8.075		
3,700.0	3,597.6	3,711.3	3,635.8	16.6	14.4	-174.91	-77.8	-577.9	148.4	129.9	18.54	8.007		
3,800.0	3,693.2	3,811.3	3,732.4	17.2	15.0	-174.85	-81.1	-603.6	152.0	132.9	19.14	7.943		
3,900.0	3,788.8	3,911.2	3,828.9	17.8	15.5	-174.78	-84.5	-629.3	155.6	135.8	19.74	7.882		
4,000.0	3,884.4	4,011.1	3,925.4	18.5	16.1	-174.73	-87.8	-654.9	159.2	138.8	20.34	7.825		
4,100.0	3,980.1	4,111.1	4,021.9	19.1	16.6	-174.67	-91.2	-680.6	162.7	141.8	20.94	7.770		
4,200.0	4,075.7	4,211.0	4,118.5	19.7	17.2	-174.62	-94.5	-706.3	166.3	144.7	21.54	7.719		
4,300.0	4,171.3	4,310.9	4,215.0	20.3	17.8	-174.56	-97.9	-731.9	169.9	147.7	22.15	7.669		
4,400.0	4,266.9	4,410.9	4,311.5	21.0	18.3	-174.51	-101.2	-757.6	173.4	150.7	22.75	7.623		
4,500.0	4,362.5	4,510.8	4,408.0	21.6	18.9	-174.47	-104.6	-783.3	177.0	153.6	23.36	7.578		
4,600.0	4,458.1	4,610.7	4,504.6	22.2	19.4	-174.42	-107.9	-808.9	180.6	156.6	23.96	7.535		
4,700.0	4,553.7	4,710.7	4,601.1	22.8	20.0	-174.38	-111.3	-834.6	184.1	159.6	24.57	7.495		
4,800.0	4,649.3	4,810.6	4,697.6	23.5	20.5	-174.34	-114.7	-860.3	187.7	162.5	25.18	7.456		
4,900.0	4,744.9	4,910.5	4,794.1	24.1	21.1	-174.30	-118.0	-885.9	191.3	165.5	25.78	7.419		
5,000.0	4,840.6	5,010.5	4,890.7	24.7	21.6	-174.26	-121.4	-911.6	194.9	168.5	26.39	7.383		
5,100.0	4,936.2	5,110.4	4,987.2	25.4	22.2	-174.22	-124.7	-937.3	198.4	171.4	27.00	7.349		

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SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 22-4NHZ - 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	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	5,031.8	5,210.4	5,083.7	26.0	22.8	-174.18	-128.1	-963.0	202.0	174.4	27.61	7.316		
5,300.0	5,127.4	5,310.3	5,180.3	26.6	23.3	-174.15	-131.4	-988.6	205.6	177.3	28.22	7.285		
5,400.0	5,223.0	5,410.2	5,276.8	27.2	23.9	-174.11	-134.8	-1,014.3	209.1	180.3	28.83	7.254		
5,500.0	5,318.8	5,509.1	5,372.3	27.8	24.4	-174.07	-138.1	-1,039.6	212.1	182.7	29.44	7.204		
5,600.0	5,415.5	5,600.0	5,460.6	28.2	24.8	-174.01	-140.9	-1,061.2	214.0	184.0	29.94	7.146		
5,700.0	5,513.0	5,695.3	5,553.8	28.6	25.1	-173.96	-143.5	-1,080.7	215.6	185.2	30.40	7.092		
5,800.0	5,611.2	5,788.3	5,645.3	28.9	25.4	-173.91	-145.6	-1,096.8	216.9	186.2	30.79	7.046		
5,900.0	5,710.0	5,881.3	5,737.4	29.2	25.6	-173.88	-147.3	-1,110.0	218.1	186.9	31.12	7.007		
6,000.0	5,809.3	5,974.2	5,829.8	29.4	25.8	-173.85	-148.6	-1,120.2	218.9	187.5	31.39	6.973		
6,100.0	5,908.9	6,067.2	5,922.4	29.6	26.0	-173.83	-149.6	-1,127.4	219.5	187.9	31.61	6.945		
6,200.0	6,008.8	6,160.1	6,015.2	29.8	26.2	-173.82	-150.1	-1,131.6	219.9	188.1	31.76	6.923		
6,300.0	6,108.8	6,253.7	6,108.8	29.9	26.3	89.81	-150.3	-1,132.8	220.0	187.4	32.59	6.749		
6,400.0	6,208.8	6,353.7	6,208.8	30.0	26.4	89.81	-150.3	-1,132.8	220.0	187.1	32.92	6.683		
6,500.0	6,308.8	6,454.1	6,309.3	30.1	26.5	93.57	-149.8	-1,132.8	220.0	187.4	32.56	6.756		
6,600.0	6,408.1	6,556.1	6,410.5	30.2	26.6	93.52	-139.0	-1,133.6	220.0	187.1	32.88	6.690		
6,700.0	6,505.1	6,658.0	6,509.2	30.2	26.7	93.39	-114.0	-1,135.2	219.9	186.8	33.13	6.640		
6,800.0	6,597.7	6,759.8	6,603.2	30.3	26.8	93.21	-75.3	-1,137.7	219.9	186.6	33.35	6.595		
6,900.0	6,684.3	6,861.4	6,690.7	30.4	26.9	92.95	-23.7	-1,141.1	219.9	186.2	33.62	6.539		
7,000.0	6,763.0	6,963.0	6,769.9	30.5	27.0	92.64	39.5	-1,145.3	219.8	185.7	34.05	6.456		
7,100.0	6,832.4	7,064.3	6,839.2	30.7	27.1	92.28	113.2	-1,150.1	219.7	185.0	34.70	6.333		
7,200.0	6,891.2	7,165.4	6,897.3	30.9	27.4	91.87	195.6	-1,155.6	219.7	184.0	35.66	6.160		
7,300.0	6,938.1	7,266.3	6,943.1	31.1	27.7	91.43	285.2	-1,161.4	219.6	182.7	36.97	5.941		
7,400.0	6,972.2	7,366.9	6,975.8	31.5	28.1	90.95	380.1	-1,167.7	219.6	181.0	38.61	5.688		
7,500.0	6,993.0	7,467.3	6,994.8	31.9	28.6	90.46	478.4	-1,174.1	219.6	179.0	40.54	5.416		
7,573.4	6,999.5	7,540.8	6,999.9	32.3	29.0	90.10	551.5	-1,178.9	219.6	177.5	42.11	5.214		
7,600.0	7,000.0	7,567.4	7,000.0	32.5	29.2	90.00	578.1	-1,180.7	219.6	176.9	42.69	5.143		
7,700.0	7,000.0	7,667.4	7,000.0	33.1	30.0	90.00	677.8	-1,187.2	219.6	174.5	45.12	4.867		
7,800.0	7,000.0	7,767.4	7,000.0	33.9	30.9	90.00	777.6	-1,193.8	219.6	171.9	47.73	4.601		
7,900.0	7,000.0	7,867.4	7,000.0	34.8	31.8	90.00	877.4	-1,200.4	219.6	169.1	50.50	4.348		
8,000.0	7,000.0	7,967.4	7,000.0	35.7	32.9	90.00	977.2	-1,206.9	219.6	166.2	53.42	4.111		
8,100.0	7,000.0	8,067.4	7,000.0	36.8	34.1	90.00	1,076.9	-1,213.5	219.6	163.1	56.45	3.890		
8,200.0	7,000.0	8,167.4	7,000.0	37.9	35.4	90.00	1,176.7	-1,220.0	219.6	160.0	59.59	3.685		
8,300.0	7,000.0	8,267.4	7,000.0	39.1	36.7	90.00	1,276.5	-1,226.6	219.6	156.8	62.81	3.496		
8,400.0	7,000.0	8,367.4	7,000.0	40.4	38.1	90.00	1,376.3	-1,233.2	219.6	153.5	66.10	3.322		
8,500.0	7,000.0	8,467.4	7,000.0	41.7	39.5	90.00	1,476.1	-1,239.7	219.6	150.2	69.46	3.162		
8,600.0	7,000.0	8,567.4	7,000.0	43.1	41.0	90.00	1,575.9	-1,246.3	219.6	146.7	72.87	3.014		
8,700.0	7,000.0	8,667.4	7,000.0	44.6	42.5	90.00	1,675.7	-1,252.8	219.6	143.3	76.32	2.878		
8,800.0	7,000.0	8,767.4	7,000.0	46.0	44.1	90.00	1,775.4	-1,259.4	219.6	139.8	79.82	2.751		
8,900.0	7,000.0	8,867.4	7,000.0	47.6	45.7	90.00	1,875.2	-1,265.9	219.6	136.3	83.35	2.635		
9,000.0	7,000.0	8,967.4	7,000.0	49.1	47.3	90.00	1,975.0	-1,272.5	219.6	132.7	86.91	2.527		
9,100.0	7,000.0	9,067.4	7,000.0	50.7	49.0	90.00	2,074.8	-1,279.1	219.6	129.1	90.50	2.427		
9,200.0	7,000.0	9,167.4	7,000.0	52.3	50.6	90.00	2,174.6	-1,285.6	219.6	125.5	94.12	2.334		
9,300.0	7,000.0	9,267.4	7,000.0	53.9	52.3	90.00	2,274.4	-1,292.2	219.6	121.9	97.76	2.247		
9,400.0	7,000.0	9,367.4	7,000.0	55.6	54.0	90.00	2,374.2	-1,298.7	219.6	118.2	101.41	2.166		
9,500.0	7,000.0	9,467.4	7,000.0	57.2	55.7	90.00	2,473.9	-1,305.3	219.6	114.6	105.09	2.090		
9,600.0	7,000.0	9,567.4	7,000.0	58.9	57.5	90.00	2,573.7	-1,311.9	219.6	110.9	108.77	2.019		
9,700.0	7,000.0	9,667.4	7,000.0	60.6	59.2	90.00	2,673.5	-1,318.4	219.6	107.2	112.48	1.953		
9,800.0	7,000.0	9,767.4	7,000.0	62.4	61.0	90.00	2,773.3	-1,325.0	219.7	103.5	116.19	1.890		
9,900.0	7,000.0	9,867.4	7,000.0	64.1	62.8	90.00	2,873.1	-1,331.5	219.7	99.7	119.92	1.832		
10,000.0	7,000.0	9,967.4	7,000.0	65.8	64.6	90.00	2,972.9	-1,338.1	219.7	96.0	123.66	1.776		
10,100.0	7,000.0	10,067.4	7,000.0	67.6	66.4	90.00	3,072.6	-1,344.6	219.7	92.3	127.40	1.724		
10,200.0	7,000.0	10,167.4	7,000.0	69.4	68.2	90.00	3,172.4	-1,351.2	219.7	88.5	131.16	1.675		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4CHZ
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 21-4CHZ	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 22-4NHZ - 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
10,300.0	7,000.0	10,267.4	7,000.0	71.1	70.0	90.00	3,272.2	-1,357.8	219.7	84.7	134.92	1.628	
10,400.0	7,000.0	10,367.4	7,000.0	72.9	71.8	90.00	3,372.0	-1,364.3	219.7	81.0	138.69	1.584	
10,500.0	7,000.0	10,467.4	7,000.0	74.7	73.6	90.00	3,471.8	-1,370.9	219.7	77.2	142.47	1.542	
10,600.0	7,000.0	10,567.4	7,000.0	76.5	75.5	90.00	3,571.6	-1,377.4	219.7	73.4	146.26	1.502	
10,700.0	7,000.0	10,667.4	7,000.0	78.3	77.3	90.00	3,671.4	-1,384.0	219.7	69.6	150.05	1.464	Level 3
10,800.0	7,000.0	10,767.4	7,000.0	80.2	79.1	90.00	3,771.1	-1,390.6	219.7	65.8	153.84	1.428	Level 3
10,900.0	7,000.0	10,867.4	7,000.0	82.0	81.0	90.00	3,870.9	-1,397.1	219.7	62.0	157.64	1.394	Level 3
11,000.0	7,000.0	10,967.4	7,000.0	83.8	82.8	90.00	3,970.7	-1,403.7	219.7	58.2	161.44	1.361	Level 3
11,100.0	7,000.0	11,067.4	7,000.0	85.6	84.7	90.00	4,070.5	-1,410.2	219.7	54.4	165.25	1.329	Level 3
11,200.0	7,000.0	11,167.4	7,000.0	87.5	86.6	90.00	4,170.3	-1,416.8	219.7	50.6	169.07	1.299	Level 3
11,300.0	7,000.0	11,267.4	7,000.0	89.3	88.4	90.00	4,270.1	-1,423.3	219.7	46.8	172.88	1.271	Level 3
11,400.0	7,000.0	11,367.4	7,000.0	91.2	90.3	90.00	4,369.8	-1,429.9	219.7	43.0	176.70	1.243	Level 2
11,438.3	7,000.0	11,405.7	7,000.0	91.9	91.0	90.00	4,408.1	-1,432.4	219.7	41.5	178.17	1.233	Level 2
11,474.4	7,000.0	11,427.8	7,000.0	92.6	91.5	90.00	4,430.2	-1,433.9	220.1	40.9	179.28	1.228	Level 2, SF

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4CHZ
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 21-4CHZ	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	-90.93	-0.7	-44.9	44.9					
100.0	100.0	100.0	100.0	0.1	0.1	-90.93	-0.7	-44.9	44.9	44.7	0.22	199.721		
200.0	200.0	200.0	200.0	0.3	0.3	-90.93	-0.7	-44.9	44.9	44.2	0.67	66.574		
300.0	300.0	300.0	300.0	0.6	0.6	-90.93	-0.7	-44.9	44.9	43.8	1.12	39.944		
400.0	400.0	400.0	400.0	0.8	0.8	-90.93	-0.7	-44.9	44.9	43.3	1.57	28.532 CC, ES		
500.0	500.0	498.4	498.4	1.0	1.0	-91.08	-0.9	-46.6	46.6	44.6	2.01	23.224		
600.0	600.0	596.6	596.5	1.2	1.2	-91.45	-1.3	-51.6	51.7	49.3	2.44	21.204		
700.0	700.0	694.3	693.8	1.5	1.4	-91.94	-2.0	-59.9	60.3	57.4	2.90	20.824		
800.0	800.0	791.4	790.2	1.7	1.7	-92.42	-3.0	-71.5	72.2	68.8	3.38	21.371		
900.0	900.0	887.8	885.5	1.9	2.0	3.57	-4.3	-86.2	85.8	82.0	3.76	22.840		
1,000.0	999.8	983.8	979.8	2.1	2.3	3.35	-5.8	-103.9	99.2	95.0	4.18	23.750		
1,100.0	1,099.5	1,079.4	1,073.0	2.3	2.7	3.22	-7.6	-124.8	112.5	107.9	4.61	24.405		
1,200.0	1,198.7	1,174.6	1,165.2	2.6	3.2	3.16	-9.7	-148.6	125.6	120.6	5.05	24.858		
1,300.0	1,297.5	1,269.4	1,256.1	2.9	3.7	3.14	-12.0	-175.3	138.6	133.1	5.51	25.147		
1,400.0	1,395.6	1,363.8	1,345.7	3.2	4.3	3.16	-14.5	-204.9	151.3	145.4	5.98	25.298		
1,500.0	1,493.1	1,459.3	1,435.3	3.6	4.9	3.20	-17.4	-237.7	163.8	157.3	6.48	25.292		
1,600.0	1,589.6	1,558.8	1,528.4	4.0	5.6	3.30	-20.4	-272.6	173.7	166.7	6.98	24.867		
1,700.0	1,685.4	1,658.5	1,621.8	4.5	6.3	3.45	-23.4	-307.7	180.5	172.9	7.53	23.953		
1,800.0	1,781.0	1,758.3	1,715.2	5.1	7.1	3.61	-26.5	-342.7	186.8	178.7	8.12	23.015		
1,900.0	1,876.6	1,858.1	1,808.6	5.6	7.8	3.75	-29.5	-377.8	193.1	184.4	8.71	22.178		
2,000.0	1,972.2	1,957.9	1,902.0	6.2	8.5	3.88	-32.5	-412.8	199.4	190.1	9.31	21.429		
2,100.0	2,067.8	2,057.7	1,995.4	6.8	9.3	4.01	-35.5	-447.9	205.8	195.9	9.91	20.757		
2,200.0	2,163.4	2,157.5	2,088.7	7.4	10.0	4.13	-38.6	-483.0	212.1	201.6	10.53	20.151		
2,300.0	2,259.1	2,257.3	2,182.1	8.0	10.8	4.24	-41.6	-518.0	218.4	207.3	11.14	19.603		
2,400.0	2,354.7	2,357.1	2,275.5	8.6	11.5	4.35	-44.6	-553.1	224.8	213.0	11.76	19.106		
2,500.0	2,450.3	2,456.9	2,368.9	9.2	12.3	4.45	-47.7	-588.1	231.1	218.7	12.39	18.653		
2,600.0	2,545.9	2,556.7	2,462.3	9.8	13.0	4.54	-50.7	-623.2	237.4	224.4	13.02	18.240		
2,700.0	2,641.5	2,656.5	2,555.7	10.4	13.8	4.63	-53.7	-658.2	243.8	230.1	13.65	17.861		
2,800.0	2,737.1	2,756.3	2,649.1	11.0	14.5	4.72	-56.7	-693.3	250.1	235.8	14.28	17.512		
2,900.0	2,832.7	2,856.1	2,742.5	11.6	15.3	4.80	-59.8	-728.4	256.4	241.5	14.92	17.191		
3,000.0	2,928.3	2,955.9	2,835.9	12.2	16.0	4.87	-62.8	-763.4	262.8	247.2	15.55	16.894		
3,100.0	3,023.9	3,055.7	2,929.2	12.9	16.8	4.95	-65.8	-798.5	269.1	252.9	16.19	16.618		
3,200.0	3,119.6	3,155.5	3,022.6	13.5	17.5	5.02	-68.9	-833.5	275.4	258.6	16.83	16.362		
3,300.0	3,215.2	3,255.3	3,116.0	14.1	18.3	5.08	-71.9	-868.6	281.8	264.3	17.48	16.123		
3,400.0	3,310.8	3,355.1	3,209.4	14.7	19.0	5.15	-74.9	-903.6	288.1	270.0	18.12	15.900		
3,500.0	3,406.4	3,454.9	3,302.8	15.3	19.8	5.21	-77.9	-938.7	294.4	275.7	18.76	15.692		
3,600.0	3,502.0	3,554.7	3,396.2	16.0	20.5	5.27	-81.0	-973.8	300.8	281.4	19.41	15.496		
3,700.0	3,597.6	3,654.5	3,489.6	16.6	21.3	5.32	-84.0	-1,008.8	307.1	287.1	20.06	15.313		
3,800.0	3,693.2	3,754.3	3,583.0	17.2	22.0	5.38	-87.0	-1,043.9	313.5	292.7	20.70	15.140		
3,900.0	3,788.8	3,854.1	3,676.4	17.8	22.8	5.43	-90.1	-1,078.9	319.8	298.4	21.35	14.977		
4,000.0	3,884.4	3,953.9	3,769.7	18.5	23.5	5.48	-93.1	-1,114.0	326.1	304.1	22.00	14.823		
4,100.0	3,980.1	4,053.7	3,863.1	19.1	24.3	5.53	-96.1	-1,149.1	332.5	309.8	22.65	14.678		
4,200.0	4,075.7	4,153.5	3,956.5	19.7	25.1	5.57	-99.1	-1,184.1	338.8	315.5	23.30	14.540		
4,300.0	4,171.3	4,253.3	4,049.9	20.3	25.8	5.62	-102.2	-1,219.2	345.1	321.2	23.95	14.409		
4,400.0	4,266.9	4,353.1	4,143.3	21.0	26.6	5.66	-105.2	-1,254.2	351.5	326.9	24.60	14.285		
4,500.0	4,362.5	4,452.9	4,236.7	21.6	27.3	5.70	-108.2	-1,289.3	357.8	332.6	25.26	14.167		
4,600.0	4,458.1	4,552.7	4,330.1	22.2	28.1	5.74	-111.3	-1,324.3	364.2	338.3	25.91	14.055		
4,700.0	4,553.7	4,652.5	4,423.5	22.8	28.8	5.78	-114.3	-1,359.4	370.5	343.9	26.56	13.948		
4,800.0	4,649.3	4,752.3	4,516.9	23.5	29.6	5.81	-117.3	-1,394.5	376.8	349.6	27.22	13.846		
4,900.0	4,744.9	4,852.1	4,610.3	24.1	30.4	5.85	-120.3	-1,429.5	383.2	355.3	27.87	13.748		
5,000.0	4,840.6	4,951.9	4,703.6	24.7	31.1	5.89	-123.4	-1,464.6	389.5	361.0	28.53	13.655		
5,100.0	4,936.2	5,051.7	4,797.0	25.4	31.9	5.92	-126.4	-1,499.6	395.9	366.7	29.18	13.566		

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

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	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	5,031.8	5,151.5	4,890.4	26.0	32.6	5.95	-129.4	-1,534.7	402.2	372.4	29.84	13.480		
5,300.0	5,127.4	5,251.3	4,983.8	26.6	33.4	5.98	-132.5	-1,569.8	408.5	378.1	30.49	13.398		
5,400.0	5,223.0	5,351.1	5,077.2	27.2	34.1	6.01	-135.5	-1,604.8	414.9	383.7	31.15	13.320		
5,500.0	5,318.8	5,465.6	5,185.0	27.8	34.8	6.06	-138.8	-1,643.4	420.4	388.6	31.79	13.221		
5,600.0	5,415.5	5,582.7	5,296.7	28.2	35.4	6.11	-141.8	-1,678.4	425.0	392.6	32.34	13.140		
5,700.0	5,513.0	5,700.1	5,410.0	28.6	35.9	6.16	-144.5	-1,708.9	429.0	396.2	32.82	13.071		
5,800.0	5,611.2	5,817.6	5,524.6	28.9	36.4	6.19	-146.7	-1,734.7	432.4	399.2	33.22	13.015		
5,900.0	5,710.0	5,935.4	5,640.4	29.2	36.8	6.22	-148.5	-1,755.9	435.2	401.7	33.55	12.970		
6,000.0	5,809.3	6,053.2	5,757.1	29.4	37.1	6.25	-150.0	-1,772.4	437.4	403.6	33.81	12.936		
6,100.0	5,908.9	6,171.2	5,874.5	29.6	37.3	6.26	-151.0	-1,784.0	438.9	404.9	34.00	12.911		
6,200.0	6,008.8	6,289.2	5,992.3	29.8	37.5	6.27	-151.6	-1,790.9	439.8	405.7	34.11	12.896		
6,300.0	6,108.8	6,405.7	6,108.8	29.9	37.6	-90.09	-151.7	-1,792.9	440.1	405.0	35.07	12.548		
6,400.0	6,208.8	6,505.7	6,208.8	30.0	37.6	-90.09	-151.7	-1,792.9	440.1	404.7	35.37	12.443		
6,500.0	6,308.8	6,604.8	6,307.8	30.1	37.7	-86.33	-151.3	-1,792.9	440.1	405.3	34.80	12.645		
6,600.0	6,408.1	6,701.0	6,403.5	30.2	37.8	-86.39	-141.7	-1,793.5	440.1	404.9	35.11	12.533		
6,700.0	6,505.1	6,797.3	6,497.1	30.2	37.9	-86.51	-119.3	-1,795.0	440.0	404.7	35.35	12.448		
6,800.0	6,597.7	6,893.8	6,587.0	30.3	37.9	-86.69	-84.6	-1,797.3	439.9	404.4	35.56	12.373		
6,900.0	6,684.3	6,990.4	6,671.5	30.4	38.0	-86.94	-38.0	-1,800.4	439.8	404.0	35.81	12.283		
7,000.0	6,763.0	7,087.4	6,749.2	30.5	38.1	-87.24	19.7	-1,804.2	439.7	403.5	36.20	12.148		
7,100.0	6,832.4	7,184.6	6,818.6	30.7	38.2	-87.60	87.6	-1,808.7	439.6	402.8	36.79	11.950		
7,200.0	6,891.2	7,282.3	6,878.4	30.9	38.4	-88.00	164.6	-1,813.7	439.5	401.8	37.69	11.662		
7,300.0	6,938.1	7,380.4	6,927.3	31.1	38.6	-88.45	249.3	-1,819.3	439.4	400.5	38.90	11.296		
7,400.0	6,972.2	7,478.9	6,964.4	31.5	38.9	-88.92	340.3	-1,825.3	439.3	398.9	40.43	10.866		
7,500.0	6,993.0	7,577.9	6,988.6	31.9	39.2	-89.42	436.1	-1,831.6	439.3	397.1	42.25	10.397		
7,565.6	6,999.2	7,643.2	6,997.3	32.3	39.5	-89.75	500.6	-1,835.9	439.3	395.7	43.58	10.080		
7,600.0	7,000.0	7,677.5	6,999.4	32.5	39.6	-89.93	534.8	-1,838.1	439.3	395.0	44.29	9.919		
7,700.0	7,000.0	7,777.5	7,000.0	33.1	40.2	-90.00	634.5	-1,844.7	439.3	392.7	46.60	9.427		
7,800.0	7,000.0	7,877.5	7,000.0	33.9	40.8	-90.00	734.3	-1,851.3	439.3	390.2	49.12	8.944		
7,900.0	7,000.0	7,977.5	7,000.0	34.8	41.4	-90.00	834.1	-1,857.9	439.4	387.5	51.81	8.480		
8,000.0	7,000.0	8,077.5	7,000.0	35.7	42.2	-90.00	933.9	-1,864.5	439.4	384.7	54.65	8.040		
8,100.0	7,000.0	8,177.5	7,000.0	36.8	43.1	-90.00	1,033.6	-1,871.0	439.4	381.8	57.61	7.627		
8,200.0	7,000.0	8,277.5	7,000.0	37.9	44.0	-90.00	1,133.4	-1,877.6	439.4	378.7	60.67	7.242		
8,300.0	7,000.0	8,377.5	7,000.0	39.1	45.0	-90.00	1,233.2	-1,884.2	439.4	375.6	63.83	6.885		
8,400.0	7,000.0	8,477.5	7,000.0	40.4	46.0	-90.00	1,333.0	-1,890.8	439.4	372.4	67.06	6.553		
8,500.0	7,000.0	8,577.5	7,000.0	41.7	47.2	-90.00	1,432.8	-1,897.4	439.5	369.1	70.36	6.246		
8,600.0	7,000.0	8,677.5	7,000.0	43.1	48.4	-90.00	1,532.6	-1,903.9	439.5	365.8	73.72	5.961		
8,700.0	7,000.0	8,777.5	7,000.0	44.6	49.6	-90.00	1,632.3	-1,910.5	439.5	362.4	77.13	5.698		
8,800.0	7,000.0	8,877.5	7,000.0	46.0	50.9	-90.00	1,732.1	-1,917.1	439.5	358.9	80.58	5.454		
8,900.0	7,000.0	8,977.5	7,000.0	47.6	52.2	-90.00	1,831.9	-1,923.7	439.5	355.4	84.08	5.228		
9,000.0	7,000.0	9,077.5	7,000.0	49.1	53.6	-90.00	1,931.7	-1,930.2	439.5	351.9	87.60	5.017		
9,100.0	7,000.0	9,177.5	7,000.0	50.7	55.0	-90.00	2,031.5	-1,936.8	439.6	348.4	91.16	4.822		
9,200.0	7,000.0	9,277.5	7,000.0	52.3	56.5	-90.00	2,131.3	-1,943.4	439.6	344.8	94.74	4.640		
9,300.0	7,000.0	9,377.5	7,000.0	53.9	58.0	-90.00	2,231.0	-1,950.0	439.6	341.2	98.35	4.470		
9,400.0	7,000.0	9,477.5	7,000.0	55.6	59.5	-90.00	2,330.8	-1,956.6	439.6	337.6	101.98	4.311		
9,500.0	7,000.0	9,577.5	7,000.0	57.2	61.0	-90.00	2,430.6	-1,963.1	439.6	334.0	105.63	4.162		
9,600.0	7,000.0	9,677.5	7,000.0	58.9	62.6	-90.00	2,530.4	-1,969.7	439.6	330.4	109.29	4.023		
9,700.0	7,000.0	9,777.5	7,000.0	60.6	64.2	-90.00	2,630.2	-1,976.3	439.7	326.7	112.97	3.892		
9,800.0	7,000.0	9,877.5	7,000.0	62.4	65.8	-90.00	2,730.0	-1,982.9	439.7	323.0	116.67	3.769		
9,900.0	7,000.0	9,977.5	7,000.0	64.1	67.4	-90.00	2,829.7	-1,989.5	439.7	319.3	120.37	3.653		
10,000.0	7,000.0	10,077.5	7,000.0	65.8	69.1	-90.00	2,929.5	-1,996.0	439.7	315.6	124.09	3.543		
10,100.0	7,000.0	10,177.5	7,000.0	67.6	70.7	-90.00	3,029.3	-2,002.6	439.7	311.9	127.82	3.440		
10,200.0	7,000.0	10,277.5	7,000.0	69.4	72.4	-90.00	3,129.1	-2,009.2	439.7	308.2	131.56	3.343		

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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
10,300.0	7,000.0	10,377.5	7,000.0	71.1	74.1	-90.00	3,228.9	-2,015.8	439.8	304.5	135.31	3.250		
10,400.0	7,000.0	10,477.5	7,000.0	72.9	75.8	-90.00	3,328.7	-2,022.3	439.8	300.7	139.06	3.162		
10,500.0	7,000.0	10,577.5	7,000.0	74.7	77.5	-90.00	3,428.4	-2,028.9	439.8	297.0	142.83	3.079		
10,600.0	7,000.0	10,677.5	7,000.0	76.5	79.3	-90.00	3,528.2	-2,035.5	439.8	293.2	146.60	3.000		
10,700.0	7,000.0	10,777.5	7,000.0	78.3	81.0	-90.00	3,628.0	-2,042.1	439.8	289.5	150.37	2.925		
10,800.0	7,000.0	10,877.5	7,000.0	80.2	82.8	-90.00	3,727.8	-2,048.7	439.8	285.7	154.16	2.853		
10,900.0	7,000.0	10,977.5	7,000.0	82.0	84.5	-90.00	3,827.6	-2,055.2	439.9	281.9	157.95	2.785		
11,000.0	7,000.0	11,077.5	7,000.0	83.8	86.3	-90.00	3,927.4	-2,061.8	439.9	278.1	161.74	2.720		
11,100.0	7,000.0	11,177.5	7,000.0	85.6	88.1	-90.00	4,027.1	-2,068.4	439.9	274.4	165.54	2.657		
11,200.0	7,000.0	11,277.5	7,000.0	87.5	89.9	-90.00	4,126.9	-2,075.0	439.9	270.6	169.34	2.598		
11,300.0	7,000.0	11,377.5	7,000.0	89.3	91.7	-90.00	4,226.7	-2,081.6	439.9	266.8	173.15	2.541		
11,400.0	7,000.0	11,477.5	7,000.0	91.2	93.4	-90.00	4,326.5	-2,088.1	440.0	263.0	176.96	2.486		
11,474.4	7,000.0	11,551.9	7,000.0	92.6	94.8	-90.00	4,400.8	-2,093.0	440.0	260.2	179.80	2.447 SF		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4CHZ
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 21-4CHZ	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	-90.65	-0.7	-65.0	65.0					
100.0	100.0	100.0	100.0	0.1	0.1	-90.65	-0.7	-65.0	65.0	64.7	0.22	289.018		
200.0	200.0	200.0	200.0	0.3	0.3	-90.65	-0.7	-65.0	65.0	64.3	0.67	96.339 CC, ES		
300.0	300.0	297.7	297.7	0.6	0.5	-90.75	-0.9	-66.6	66.7	65.6	1.11	60.161		
400.0	400.0	395.3	395.1	0.8	0.8	-91.00	-1.3	-71.6	71.8	70.2	1.55	46.326		
500.0	500.0	492.3	491.8	1.0	1.0	-91.36	-1.9	-79.8	80.3	78.2	2.02	39.810		
600.0	600.0	588.7	587.6	1.2	1.3	-91.74	-2.8	-91.2	92.1	89.6	2.52	36.616		
700.0	700.0	684.3	682.0	1.5	1.6	-92.11	-3.9	-105.7	107.3	104.2	3.05	35.127		
800.0	800.0	778.7	774.8	1.7	2.0	-92.44	-5.2	-123.0	125.7	122.1	3.64	34.575		
900.0	900.0	872.3	866.1	1.9	2.4	3.66	-6.8	-143.2	145.7	141.8	3.82	38.105		
1,000.0	999.8	965.3	956.2	2.1	2.8	3.50	-8.6	-166.3	165.4	161.1	4.26	38.820		
1,100.0	1,099.5	1,057.7	1,044.9	2.3	3.3	3.41	-10.6	-192.0	184.9	180.1	4.71	39.239		
1,200.0	1,198.7	1,149.6	1,132.3	2.6	3.9	3.36	-12.8	-220.4	204.1	198.9	5.18	39.429		
1,300.0	1,297.5	1,241.0	1,218.2	2.9	4.5	3.35	-15.2	-251.5	223.0	217.4	5.66	39.426		
1,400.0	1,395.6	1,333.4	1,304.1	3.2	5.2	3.36	-17.8	-285.5	241.6	235.4	6.15	39.282		
1,500.0	1,493.1	1,432.1	1,395.5	3.6	6.0	3.42	-20.7	-322.8	257.7	251.0	6.68	38.592		
1,600.0	1,589.6	1,531.3	1,487.2	4.0	6.8	3.52	-23.6	-360.3	270.4	263.2	7.22	37.452		
1,700.0	1,685.4	1,630.8	1,579.4	4.5	7.6	3.65	-26.5	-397.9	280.0	272.2	7.79	35.932		
1,800.0	1,781.0	1,730.4	1,671.5	5.1	8.4	3.79	-29.5	-435.5	289.2	280.8	8.39	34.445		
1,900.0	1,876.6	1,830.0	1,763.7	5.6	9.2	3.92	-32.4	-473.1	298.3	289.3	9.01	33.125		
2,000.0	1,972.2	1,929.6	1,855.8	6.2	10.0	4.04	-35.3	-510.7	307.5	297.8	9.62	31.949		
2,100.0	2,067.8	2,029.2	1,948.0	6.8	10.8	4.16	-38.2	-548.3	316.6	306.4	10.25	30.897		
2,200.0	2,163.4	2,128.7	2,040.1	7.4	11.6	4.27	-41.1	-585.9	325.8	314.9	10.88	29.951		
2,300.0	2,259.1	2,228.3	2,132.3	8.0	12.4	4.37	-44.0	-623.6	334.9	323.4	11.51	29.099		
2,400.0	2,354.7	2,327.9	2,224.4	8.6	13.2	4.47	-47.0	-661.2	344.1	331.9	12.15	28.326		
2,500.0	2,450.3	2,427.5	2,316.6	9.2	14.0	4.56	-49.9	-698.8	353.2	340.5	12.79	27.624		
2,600.0	2,545.9	2,527.0	2,408.8	9.8	14.8	4.65	-52.8	-736.4	362.4	349.0	13.43	26.983		
2,700.0	2,641.5	2,626.6	2,500.9	10.4	15.6	4.73	-55.7	-774.0	371.6	357.5	14.08	26.396		
2,800.0	2,737.1	2,726.2	2,593.1	11.0	16.5	4.81	-58.6	-811.6	380.7	366.0	14.73	25.856		
2,900.0	2,832.7	2,825.8	2,685.2	11.6	17.3	4.88	-61.5	-849.2	389.9	374.5	15.37	25.359		
3,000.0	2,928.3	2,925.4	2,777.4	12.2	18.1	4.96	-64.5	-886.9	399.1	383.0	16.03	24.900		
3,100.0	3,023.9	3,024.9	2,869.5	12.9	18.9	5.02	-67.4	-924.5	408.2	391.5	16.68	24.474		
3,200.0	3,119.6	3,124.5	2,961.7	13.5	19.7	5.09	-70.3	-962.1	417.4	400.1	17.33	24.078		
3,300.0	3,215.2	3,224.1	3,053.8	14.1	20.5	5.15	-73.2	-999.7	426.6	408.6	17.99	23.710		
3,400.0	3,310.8	3,323.7	3,146.0	14.7	21.3	5.21	-76.1	-1,037.3	435.7	417.1	18.65	23.366		
3,500.0	3,406.4	3,423.2	3,238.1	15.3	22.1	5.27	-79.0	-1,074.9	444.9	425.6	19.31	23.044		
3,600.0	3,502.0	3,522.8	3,330.3	16.0	23.0	5.33	-81.9	-1,112.5	454.1	434.1	19.97	22.742		
3,700.0	3,597.6	3,622.4	3,422.5	16.6	23.8	5.38	-84.9	-1,150.2	463.2	442.6	20.63	22.459		
3,800.0	3,693.2	3,722.0	3,514.6	17.2	24.6	5.43	-87.8	-1,187.8	472.4	451.1	21.29	22.192		
3,900.0	3,788.8	3,821.6	3,606.8	17.8	25.4	5.48	-90.7	-1,225.4	481.6	459.6	21.95	21.941		
4,000.0	3,884.4	3,921.1	3,698.9	18.5	26.2	5.53	-93.6	-1,263.0	490.7	468.1	22.61	21.703		
4,100.0	3,980.1	4,020.7	3,791.1	19.1	27.0	5.57	-96.5	-1,300.6	499.9	476.6	23.27	21.479		
4,200.0	4,075.7	4,120.3	3,883.2	19.7	27.8	5.62	-99.4	-1,338.2	509.1	485.1	23.94	21.267		
4,300.0	4,171.3	4,219.9	3,975.4	20.3	28.7	5.66	-102.4	-1,375.8	518.2	493.6	24.60	21.065		
4,400.0	4,266.9	4,319.5	4,067.5	21.0	29.5	5.70	-105.3	-1,413.5	527.4	502.1	25.27	20.874		
4,500.0	4,362.5	4,419.0	4,159.7	21.6	30.3	5.74	-108.2	-1,451.1	536.6	510.6	25.93	20.692		
4,600.0	4,458.1	4,518.6	4,251.8	22.2	31.1	5.78	-111.1	-1,488.7	545.7	519.1	26.60	20.518		
4,700.0	4,553.7	4,618.2	4,344.0	22.8	31.9	5.82	-114.0	-1,526.3	554.9	527.6	27.26	20.353		
4,800.0	4,649.3	4,717.8	4,436.2	23.5	32.7	5.85	-116.9	-1,563.9	564.1	536.1	27.93	20.196		
4,900.0	4,744.9	4,817.3	4,528.3	24.1	33.6	5.89	-119.8	-1,601.5	573.3	544.7	28.60	20.045		
5,000.0	4,840.6	4,916.9	4,620.5	24.7	34.4	5.92	-122.8	-1,639.1	582.4	553.2	29.27	19.902		
5,100.0	4,936.2	5,016.5	4,712.6	25.4	35.2	5.95	-125.7	-1,676.8	591.6	561.7	29.93	19.764		

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

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn A-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	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	5,031.8	5,116.1	4,804.8	26.0	36.0	5.98	-128.6	-1,714.4	600.8	570.2	30.60	19.632		
5,300.0	5,127.4	5,215.7	4,896.9	26.6	36.8	6.02	-131.5	-1,752.0	609.9	578.7	31.27	19.506		
5,400.0	5,223.0	5,315.2	4,989.1	27.2	37.6	6.05	-134.4	-1,789.6	619.1	587.2	31.94	19.384		
5,500.0	5,318.8	5,434.9	5,100.3	27.8	38.5	6.09	-137.8	-1,833.4	627.8	595.1	32.62	19.247		
5,600.0	5,415.5	5,562.7	5,221.1	28.2	39.2	6.14	-141.1	-1,875.2	635.4	602.2	33.19	19.142		
5,700.0	5,513.0	5,691.0	5,344.0	28.6	39.8	6.19	-143.9	-1,911.7	642.0	608.3	33.69	19.054		
5,800.0	5,611.2	5,819.7	5,468.9	28.9	40.3	6.22	-146.3	-1,942.8	647.6	613.5	34.11	18.984		
5,900.0	5,710.0	5,948.8	5,595.5	29.2	40.8	6.25	-148.3	-1,968.3	652.2	617.7	34.45	18.931		
6,000.0	5,809.3	6,078.2	5,723.3	29.4	41.1	6.28	-149.8	-1,988.2	655.7	621.0	34.71	18.892		
6,100.0	5,908.9	6,207.8	5,852.1	29.6	41.4	6.29	-150.9	-2,002.2	658.2	623.4	34.89	18.867		
6,200.0	6,008.8	6,337.6	5,981.6	29.8	41.6	6.30	-151.6	-2,010.5	659.7	624.7	34.98	18.859		
6,300.0	6,108.8	6,464.8	6,108.8	29.9	41.7	-90.06	-151.7	-2,013.0	660.2	624.2	35.99	18.341		
6,400.0	6,208.8	6,564.8	6,208.8	30.0	41.8	-90.06	-151.7	-2,013.0	660.2	623.9	36.28	18.196		
6,500.0	6,308.8	6,663.4	6,307.4	30.1	41.8	-86.30	-151.4	-2,013.0	660.2	624.5	35.64	18.520		
6,600.0	6,408.1	6,757.8	6,401.2	30.2	41.9	-86.36	-142.1	-2,013.6	660.1	624.2	35.95	18.361		
6,700.0	6,505.1	6,852.3	6,493.2	30.2	42.0	-86.47	-120.5	-2,015.0	660.0	623.9	36.19	18.240		
6,800.0	6,597.7	6,947.0	6,581.7	30.3	42.0	-86.66	-87.0	-2,017.2	659.9	623.5	36.39	18.134		
6,900.0	6,684.3	7,042.0	6,665.2	30.4	42.1	-86.90	-42.0	-2,020.2	659.8	623.1	36.64	18.007		
7,000.0	6,763.0	7,137.4	6,742.3	30.5	42.2	-87.20	13.9	-2,023.9	659.6	622.6	37.01	17.820		
7,100.0	6,832.4	7,233.3	6,811.7	30.7	42.3	-87.56	79.9	-2,028.2	659.4	621.8	37.59	17.541		
7,200.0	6,891.2	7,329.7	6,871.8	30.9	42.4	-87.96	155.0	-2,033.2	659.3	620.8	38.47	17.139		
7,300.0	6,938.1	7,426.7	6,921.7	31.1	42.6	-88.41	237.9	-2,038.7	659.1	619.5	39.65	16.624		
7,400.0	6,972.2	7,524.4	6,960.0	31.5	42.9	-88.88	327.5	-2,044.6	659.0	617.9	41.15	16.016		
7,500.0	6,993.0	7,622.9	6,986.0	31.9	43.2	-89.38	422.2	-2,050.8	658.9	616.0	42.93	15.350		
7,586.2	6,999.9	7,708.4	6,997.8	32.4	43.5	-89.82	506.6	-2,056.4	658.9	614.3	44.64	14.759		
7,600.0	7,000.0	7,722.2	6,998.7	32.5	43.6	-89.89	520.4	-2,057.3	658.9	614.0	44.93	14.667		
7,700.0	7,000.0	7,822.1	7,000.0	33.1	44.0	-90.00	620.0	-2,063.9	658.9	611.7	47.20	13.961		
7,800.0	7,000.0	7,922.1	7,000.0	33.9	44.6	-90.00	719.8	-2,070.4	658.9	609.3	49.68	13.263		
7,900.0	7,000.0	8,022.1	7,000.0	34.8	45.2	-90.00	819.6	-2,077.0	659.0	606.6	52.34	12.590		
8,000.0	7,000.0	8,122.1	7,000.0	35.7	45.9	-90.00	919.4	-2,083.6	659.0	603.8	55.15	11.949		
8,100.0	7,000.0	8,222.1	7,000.0	36.8	46.6	-90.00	1,019.2	-2,090.2	659.0	600.9	58.08	11.347		
8,200.0	7,000.0	8,322.1	7,000.0	37.9	47.4	-90.00	1,119.0	-2,096.8	659.0	597.9	61.12	10.783		
8,300.0	7,000.0	8,422.1	7,000.0	39.1	48.3	-90.00	1,218.7	-2,103.3	659.0	594.8	64.25	10.257		
8,400.0	7,000.0	8,522.1	7,000.0	40.4	49.3	-90.00	1,318.5	-2,109.9	659.1	591.6	67.46	9.769		
8,500.0	7,000.0	8,622.1	7,000.0	41.7	50.3	-90.00	1,418.3	-2,116.5	659.1	588.3	70.74	9.317		
8,600.0	7,000.0	8,722.1	7,000.0	43.1	51.4	-90.00	1,518.1	-2,123.1	659.1	585.0	74.08	8.897		
8,700.0	7,000.0	8,822.1	7,000.0	44.6	52.6	-90.00	1,617.9	-2,129.7	659.1	581.6	77.47	8.508		
8,800.0	7,000.0	8,922.1	7,000.0	46.0	53.8	-90.00	1,717.7	-2,136.2	659.1	578.2	80.91	8.146		
8,900.0	7,000.0	9,022.1	7,000.0	47.6	55.0	-90.00	1,817.4	-2,142.8	659.2	574.8	84.39	7.811		
9,000.0	7,000.0	9,122.1	7,000.0	49.1	56.3	-90.00	1,917.2	-2,149.4	659.2	571.3	87.90	7.499		
9,100.0	7,000.0	9,222.1	7,000.0	50.7	57.6	-90.00	2,017.0	-2,156.0	659.2	567.7	91.44	7.209		
9,200.0	7,000.0	9,322.1	7,000.0	52.3	59.0	-90.00	2,116.8	-2,162.6	659.2	564.2	95.01	6.938		
9,300.0	7,000.0	9,422.1	7,000.0	53.9	60.4	-90.00	2,216.6	-2,169.1	659.2	560.6	98.61	6.685		
9,400.0	7,000.0	9,522.1	7,000.0	55.6	61.9	-90.00	2,316.4	-2,175.7	659.3	557.0	102.23	6.449		
9,500.0	7,000.0	9,622.1	7,000.0	57.2	63.3	-90.00	2,416.1	-2,182.3	659.3	553.4	105.87	6.227		
9,600.0	7,000.0	9,722.1	7,000.0	58.9	64.8	-90.00	2,515.9	-2,188.9	659.3	549.8	109.52	6.020		
9,700.0	7,000.0	9,822.1	7,000.0	60.6	66.3	-90.00	2,615.7	-2,195.5	659.3	546.1	113.19	5.825		
9,800.0	7,000.0	9,922.1	7,000.0	62.4	67.9	-90.00	2,715.5	-2,202.0	659.3	542.4	116.88	5.641		
9,900.0	7,000.0	10,022.1	7,000.0	64.1	69.5	-90.00	2,815.3	-2,208.6	659.3	538.8	120.58	5.468		
10,000.0	7,000.0	10,122.1	7,000.0	65.8	71.1	-90.00	2,915.1	-2,215.2	659.4	535.1	124.29	5.305		
10,100.0	7,000.0	10,222.1	7,000.0	67.6	72.7	-90.00	3,014.8	-2,221.8	659.4	531.4	128.01	5.151		
10,200.0	7,000.0	10,322.1	7,000.0	69.4	74.3	-90.00	3,114.6	-2,228.4	659.4	527.7	131.74	5.005		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4CHZ
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 21-4CHZ	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-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
10,300.0	7,000.0	10,422.1	7,000.0	71.1	75.9	-90.00	3,214.4	-2,235.0	659.4	523.9	135.48	4.867	
10,400.0	7,000.0	10,522.1	7,000.0	72.9	77.6	-90.00	3,314.2	-2,241.5	659.4	520.2	139.23	4.736	
10,500.0	7,000.0	10,622.1	7,000.0	74.7	79.3	-90.00	3,414.0	-2,248.1	659.5	516.5	142.99	4.612	
10,600.0	7,000.0	10,722.1	7,000.0	76.5	81.0	-90.00	3,513.8	-2,254.7	659.5	512.7	146.76	4.494	
10,700.0	7,000.0	10,822.1	7,000.0	78.3	82.7	-90.00	3,613.5	-2,261.3	659.5	509.0	150.53	4.381	
10,800.0	7,000.0	10,922.1	7,000.0	80.2	84.4	-90.00	3,713.3	-2,267.9	659.5	505.2	154.31	4.274	
10,900.0	7,000.0	11,022.1	7,000.0	82.0	86.1	-90.00	3,813.1	-2,274.4	659.5	501.4	158.09	4.172	
11,000.0	7,000.0	11,122.1	7,000.0	83.8	87.8	-90.00	3,912.9	-2,281.0	659.6	497.7	161.88	4.074	
11,100.0	7,000.0	11,222.1	7,000.0	85.6	89.6	-90.00	4,012.7	-2,287.6	659.6	493.9	165.67	3.981	
11,200.0	7,000.0	11,322.1	7,000.0	87.5	91.3	-90.00	4,112.5	-2,294.2	659.6	490.1	169.47	3.892	
11,300.0	7,000.0	11,422.1	7,000.0	89.3	93.1	-90.00	4,212.2	-2,300.8	659.6	486.3	173.27	3.807	
11,400.0	7,000.0	11,522.1	7,000.0	91.2	94.9	-90.00	4,312.0	-2,307.3	659.6	482.5	177.08	3.725	
11,474.4	7,000.0	11,596.5	7,000.0	92.6	96.2	-90.00	4,386.3	-2,312.2	659.6	479.7	179.92	3.666 SF	

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4CHZ
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 21-4CHZ	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 N-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	88.76	1.5	67.5	67.5					
100.0	100.0	100.0	100.0	0.1	0.1	88.76	1.5	67.5	67.5	67.3	0.22	300.232		
200.0	200.0	200.0	200.0	0.3	0.3	88.76	1.5	67.5	67.5	66.8	0.67	100.077		
300.0	300.0	300.0	300.0	0.6	0.6	88.76	1.5	67.5	67.5	66.4	1.12	60.046		
400.0	400.0	400.0	400.0	0.8	0.8	88.76	1.5	67.5	67.5	65.9	1.57	42.890		
500.0	500.0	500.0	500.0	1.0	1.0	88.76	1.5	67.5	67.5	65.5	2.02	33.359		
600.0	600.0	600.0	600.0	1.2	1.2	88.76	1.5	67.5	67.5	65.0	2.47	27.294		
700.0	700.0	700.0	700.0	1.5	1.5	88.76	1.5	67.5	67.5	64.6	2.92	23.095		
800.0	800.0	800.0	800.0	1.7	1.7	88.76	1.5	67.5	67.5	64.1	3.37	20.015 CC, ES		
900.0	900.0	900.0	900.0	1.9	1.9	-174.99	1.5	67.5	69.2	65.4	3.81	18.188		
1,000.0	999.8	999.8	999.8	2.1	2.1	-175.34	1.5	67.5	74.4	70.2	4.23	17.607		
1,100.0	1,099.5	1,099.5	1,099.5	2.3	2.4	-175.81	1.5	67.5	83.1	78.5	4.65	17.872		
1,200.0	1,198.7	1,198.7	1,198.7	2.6	2.6	-176.33	1.5	67.5	95.3	90.2	5.07	18.778		
1,300.0	1,297.5	1,297.5	1,297.5	2.9	2.8	-176.83	1.5	67.5	110.9	105.4	5.50	20.176		
1,400.0	1,395.6	1,395.6	1,395.6	3.2	3.0	-177.28	1.5	67.5	130.0	124.0	5.92	21.960		
1,500.0	1,493.1	1,498.2	1,498.2	3.6	3.2	-177.60	1.1	65.8	150.8	144.5	6.33	23.841		
1,600.0	1,589.6	1,601.8	1,601.6	4.0	3.4	-177.73	0.1	60.5	171.7	164.9	6.72	25.542		
1,700.0	1,685.4	1,706.3	1,705.7	4.5	3.7	-177.74	-1.7	51.4	192.0	184.8	7.15	26.861		
1,800.0	1,781.0	1,812.2	1,810.8	5.1	3.9	-177.63	-4.3	38.4	209.1	201.5	7.61	27.469		
1,900.0	1,876.6	1,919.3	1,916.4	5.6	4.2	-177.40	-7.7	21.4	222.7	214.6	8.10	27.495		
2,000.0	1,972.2	2,019.1	2,014.6	6.2	4.5	-177.15	-11.2	3.5	234.2	225.6	8.59	27.259		
2,100.0	2,067.8	2,118.5	2,112.3	6.8	4.8	-176.92	-14.8	-14.2	245.6	236.5	9.09	27.012		
2,200.0	2,163.4	2,217.8	2,209.9	7.4	5.1	-176.71	-18.3	-32.0	257.1	247.5	9.60	26.787		
2,300.0	2,259.1	2,317.1	2,307.6	8.0	5.5	-176.52	-21.8	-49.8	268.6	258.5	10.12	26.551		
2,400.0	2,354.7	2,416.5	2,405.3	8.6	5.8	-176.35	-25.4	-67.6	280.1	269.4	10.64	26.326		
2,500.0	2,450.3	2,515.8	2,502.9	9.2	6.2	-176.19	-28.9	-85.4	291.6	280.4	11.17	26.108		
2,600.0	2,545.9	2,615.1	2,600.6	9.8	6.5	-176.04	-32.4	-103.2	303.0	291.3	11.70	25.900		
2,700.0	2,641.5	2,714.5	2,698.3	10.4	6.9	-175.90	-36.0	-121.0	314.5	302.3	12.24	25.702		
2,800.0	2,737.1	2,813.8	2,795.9	11.0	7.3	-175.77	-39.5	-138.8	326.0	313.2	12.78	25.512		
2,900.0	2,832.7	2,913.2	2,893.6	11.6	7.6	-175.65	-43.0	-156.6	337.5	324.2	13.32	25.332		
3,000.0	2,928.3	3,012.5	2,991.3	12.2	8.0	-175.54	-46.6	-174.4	349.0	335.1	13.87	25.160		
3,100.0	3,023.9	3,111.8	3,088.9	12.9	8.4	-175.44	-50.1	-192.2	360.5	346.1	14.42	24.997		
3,200.0	3,119.6	3,211.2	3,186.6	13.5	8.8	-175.34	-53.7	-210.0	372.0	357.0	14.97	24.842		
3,300.0	3,215.2	3,310.5	3,284.3	14.1	9.2	-175.25	-57.2	-227.8	383.5	368.0	15.53	24.694		
3,400.0	3,310.8	3,409.8	3,381.9	14.7	9.6	-175.16	-60.7	-245.6	395.0	378.9	16.09	24.554		
3,500.0	3,406.4	3,509.2	3,479.6	15.3	10.0	-175.08	-64.3	-263.4	406.5	389.8	16.64	24.421		
3,600.0	3,502.0	3,608.5	3,577.2	16.0	10.4	-175.00	-67.8	-281.2	418.0	400.8	17.21	24.294		
3,700.0	3,597.6	3,707.8	3,674.9	16.6	10.8	-174.93	-71.3	-299.0	429.5	411.7	17.77	24.173		
3,800.0	3,693.2	3,807.2	3,772.6	17.2	11.2	-174.86	-74.9	-316.8	441.0	422.6	18.33	24.057		
3,900.0	3,788.8	3,906.5	3,870.2	17.8	11.6	-174.79	-78.4	-334.6	452.5	433.6	18.89	23.947		
4,000.0	3,884.4	4,005.8	3,967.9	18.5	12.0	-174.73	-81.9	-352.4	464.0	444.5	19.46	23.842		
4,100.0	3,980.1	4,105.2	4,065.6	19.1	12.4	-174.67	-85.5	-370.2	475.5	455.4	20.03	23.741		
4,200.0	4,075.7	4,204.5	4,163.2	19.7	12.8	-174.61	-89.0	-388.0	487.0	466.4	20.59	23.645		
4,300.0	4,171.3	4,303.8	4,260.9	20.3	13.2	-174.56	-92.5	-405.8	498.5	477.3	21.16	23.553		
4,400.0	4,266.9	4,403.2	4,358.6	21.0	13.6	-174.51	-96.1	-423.6	510.0	488.2	21.73	23.465		
4,500.0	4,362.5	4,502.5	4,456.2	21.6	14.0	-174.46	-99.6	-441.4	521.5	499.2	22.30	23.381		
4,600.0	4,458.1	4,601.9	4,553.9	22.2	14.4	-174.41	-103.1	-459.2	533.0	510.1	22.87	23.300		
4,700.0	4,553.7	4,701.2	4,651.5	22.8	14.8	-174.37	-106.7	-477.0	544.5	521.0	23.45	23.223		
4,800.0	4,649.3	4,800.5	4,749.2	23.5	15.3	-174.32	-110.2	-494.8	556.0	532.0	24.02	23.148		
4,900.0	4,744.9	4,899.9	4,846.9	24.1	15.7	-174.28	-113.7	-512.6	567.5	542.9	24.59	23.077		
5,000.0	4,840.6	4,999.2	4,944.5	24.7	16.1	-174.24	-117.3	-530.4	579.0	553.8	25.16	23.008		
5,100.0	4,936.2	5,098.5	5,042.2	25.4	16.5	-174.20	-120.8	-548.2	590.5	564.8	25.74	22.942		

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 21-4CHZ
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 21-4CHZ	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	5,031.8	5,197.9	5,139.9	26.0	16.9	-174.17	-124.3	-566.0	602.0	575.7	26.31	22.878	
5,300.0	5,127.4	5,297.2	5,237.5	26.6	17.3	-174.13	-127.9	-583.8	613.5	586.6	26.89	22.816	
5,400.0	5,223.0	5,396.5	5,335.2	27.2	17.7	-174.10	-131.4	-601.5	625.0	597.5	27.46	22.757	
5,500.0	5,318.8	5,495.9	5,432.9	27.8	18.1	-174.07	-135.0	-619.4	635.9	607.8	28.07	22.656	
5,600.0	5,415.5	5,595.6	5,530.9	28.2	18.5	-174.02	-138.5	-637.2	643.6	614.9	28.64	22.474	
5,700.0	5,513.0	5,685.8	5,619.7	28.6	18.9	-173.94	-141.6	-653.1	648.2	619.0	29.13	22.252	
5,800.0	5,611.2	5,767.6	5,700.4	28.9	19.1	-173.89	-144.1	-665.4	651.8	622.3	29.52	22.077	
5,900.0	5,710.0	5,849.2	5,781.5	29.2	19.3	-173.84	-146.1	-675.4	654.8	624.9	29.86	21.925	
6,000.0	5,809.3	5,930.9	5,862.7	29.4	19.5	-173.80	-147.6	-683.2	657.1	626.9	30.15	21.793	
6,100.0	5,908.9	6,012.4	5,944.1	29.6	19.7	-173.78	-148.7	-688.7	658.7	628.3	30.39	21.678	
6,200.0	6,008.8	6,100.0	6,031.6	29.8	19.8	-173.76	-149.4	-692.0	659.7	629.1	30.58	21.573	
6,206.7	6,015.5	6,100.0	6,031.6	29.8	19.8	-173.76	-149.4	-692.0	659.7	629.1	30.58	21.573	
6,300.0	6,108.8	6,177.2	6,108.8	29.9	19.9	89.87	-149.5	-692.8	660.0	628.6	31.32	21.070	
6,400.0	6,208.8	6,277.2	6,208.8	30.0	20.0	89.87	-149.5	-692.8	660.0	628.3	31.66	20.845	
6,500.0	6,308.8	6,378.7	6,310.3	30.1	20.2	93.63	-149.1	-692.9	660.0	628.5	31.43	20.996	
6,600.0	6,408.1	6,484.9	6,415.7	30.2	20.3	93.58	-137.3	-693.6	659.9	628.2	31.76	20.777	
6,700.0	6,505.1	6,590.8	6,518.0	30.2	20.4	93.45	-110.2	-695.4	659.8	627.8	32.01	20.612	
6,800.0	6,597.7	6,696.5	6,615.0	30.3	20.6	93.25	-68.6	-698.1	659.7	627.5	32.24	20.463	
6,900.0	6,684.3	6,801.7	6,704.3	30.4	20.7	92.98	-13.4	-701.8	659.6	627.0	32.53	20.278	
7,000.0	6,763.0	6,906.3	6,784.3	30.5	20.8	92.65	53.9	-706.2	659.4	626.4	32.97	19.999	
7,100.0	6,832.4	7,010.4	6,853.1	30.7	21.0	92.27	131.6	-711.3	659.2	625.6	33.67	19.581	
7,200.0	6,891.2	7,113.7	6,909.7	30.9	21.3	91.85	217.7	-716.9	659.1	624.4	34.69	19.001	
7,300.0	6,938.1	7,216.2	6,952.9	31.1	21.7	91.39	310.4	-723.0	658.9	622.9	36.05	18.276	
7,400.0	6,972.2	7,317.9	6,982.3	31.5	22.2	90.90	407.4	-729.3	658.8	621.1	37.76	17.448	
7,500.0	6,993.0	7,418.8	6,997.6	31.9	22.9	90.40	506.9	-735.8	658.8	619.0	39.76	16.571	
7,535.4	6,997.1	7,454.3	6,999.6	32.1	23.2	90.22	542.3	-738.2	658.8	618.3	40.53	16.256	
7,600.0	7,000.0	7,518.9	7,000.0	32.5	23.8	90.00	606.7	-742.4	658.8	616.8	41.98	15.693	
7,700.0	7,000.0	7,618.9	7,000.0	33.1	24.8	90.00	706.5	-748.9	658.8	614.4	44.45	14.822	
7,800.0	7,000.0	7,718.9	7,000.0	33.9	26.0	90.00	806.3	-755.5	658.9	611.7	47.11	13.985	
7,900.0	7,000.0	7,818.9	7,000.0	34.8	27.2	90.00	906.1	-762.0	658.9	608.9	49.94	13.194	
8,000.0	7,000.0	7,918.9	7,000.0	35.7	28.6	90.00	1,005.9	-768.5	658.9	606.0	52.90	12.456	
8,100.0	7,000.0	8,018.9	7,000.0	36.8	30.0	90.00	1,105.6	-775.1	658.9	603.0	55.97	11.772	
8,200.0	7,000.0	8,118.9	7,000.0	37.9	31.5	90.00	1,205.4	-781.6	658.9	599.8	59.15	11.141	
8,300.0	7,000.0	8,218.9	7,000.0	39.1	33.0	90.00	1,305.2	-788.2	659.0	596.6	62.40	10.561	
8,400.0	7,000.0	8,318.9	7,000.0	40.4	34.6	90.00	1,405.0	-794.7	659.0	593.3	65.72	10.027	
8,500.0	7,000.0	8,418.9	7,000.0	41.7	36.2	90.00	1,504.8	-801.2	659.0	589.9	69.11	9.536	
8,600.0	7,000.0	8,518.9	7,000.0	43.1	37.9	90.00	1,604.6	-807.8	659.0	586.5	72.54	9.085	
8,700.0	7,000.0	8,618.9	7,000.0	44.6	39.5	90.00	1,704.4	-814.3	659.1	583.0	76.02	8.669	
8,800.0	7,000.0	8,718.9	7,000.0	46.0	41.2	90.00	1,804.1	-820.9	659.1	579.5	79.54	8.286	
8,900.0	7,000.0	8,818.9	7,000.0	47.6	42.9	90.00	1,903.9	-827.4	659.1	576.0	83.09	7.932	
9,000.0	7,000.0	8,918.9	7,000.0	49.1	44.7	90.00	2,003.7	-833.9	659.1	572.5	86.67	7.605	
9,100.0	7,000.0	9,018.9	7,000.0	50.7	46.4	90.00	2,103.5	-840.5	659.1	568.9	90.28	7.301	
9,200.0	7,000.0	9,118.9	7,000.0	52.3	48.2	90.00	2,203.3	-847.0	659.2	565.3	93.91	7.019	
9,300.0	7,000.0	9,218.9	7,000.0	53.9	50.0	90.00	2,303.1	-853.6	659.2	561.6	97.56	6.757	
9,400.0	7,000.0	9,318.9	7,000.0	55.6	51.8	90.00	2,402.9	-860.1	659.2	558.0	101.23	6.512	
9,500.0	7,000.0	9,418.9	7,000.0	57.2	53.6	90.00	2,502.6	-866.6	659.2	554.3	104.92	6.283	
9,600.0	7,000.0	9,518.9	7,000.0	58.9	55.4	90.00	2,602.4	-873.2	659.3	550.6	108.62	6.070	
9,700.0	7,000.0	9,618.9	7,000.0	60.6	57.2	90.00	2,702.2	-879.7	659.3	547.0	112.33	5.869	
9,800.0	7,000.0	9,718.9	7,000.0	62.4	59.1	90.00	2,802.0	-886.3	659.3	543.3	116.06	5.681	
9,900.0	7,000.0	9,818.9	7,000.0	64.1	60.9	90.00	2,901.8	-892.8	659.3	539.5	119.79	5.504	
10,000.0	7,000.0	9,918.9	7,000.0	65.8	62.8	90.00	3,001.6	-899.3	659.4	535.8	123.54	5.337	
10,100.0	7,000.0	10,018.9	7,000.0	67.6	64.6	90.00	3,101.4	-905.9	659.4	532.1	127.30	5.180	

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 21-4CHZ
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 21-4CHZ	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 N-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	10,118.9	7,000.0	69.4	66.5	90.00	3,201.1	-912.4	659.4	528.3	131.06	5.031	
10,300.0	7,000.0	10,218.9	7,000.0	71.1	68.3	90.00	3,300.9	-919.0	659.4	524.6	134.83	4.891	
10,400.0	7,000.0	10,318.9	7,000.0	72.9	70.2	90.00	3,400.7	-925.5	659.4	520.8	138.61	4.758	
10,500.0	7,000.0	10,418.9	7,000.0	74.7	72.1	90.00	3,500.5	-932.0	659.5	517.1	142.39	4.631	
10,600.0	7,000.0	10,518.9	7,000.0	76.5	74.0	90.00	3,600.3	-938.6	659.5	513.3	146.18	4.511	
10,700.0	7,000.0	10,618.9	7,000.0	78.3	75.8	90.00	3,700.1	-945.1	659.5	509.5	149.98	4.397	
10,800.0	7,000.0	10,718.9	7,000.0	80.2	77.7	90.00	3,799.9	-951.6	659.5	505.8	153.78	4.289	
10,900.0	7,000.0	10,818.9	7,000.0	82.0	79.6	90.00	3,899.6	-958.2	659.6	502.0	157.58	4.185	
11,000.0	7,000.0	10,918.9	7,000.0	83.8	81.5	90.00	3,999.4	-964.7	659.6	498.2	161.39	4.087	
11,100.0	7,000.0	11,018.9	7,000.0	85.6	83.4	90.00	4,099.2	-971.3	659.6	494.4	165.21	3.993	
11,200.0	7,000.0	11,118.9	7,000.0	87.5	85.3	90.00	4,199.0	-977.8	659.6	490.6	169.03	3.903	
11,300.0	7,000.0	11,218.9	7,000.0	89.3	87.2	90.00	4,298.8	-984.3	659.6	486.8	172.85	3.816	
11,400.0	7,000.0	11,318.9	7,000.0	91.2	89.1	90.00	4,398.6	-990.9	659.7	483.0	176.67	3.734	
11,406.1	7,000.0	11,325.0	7,000.0	91.3	89.2	90.00	4,404.7	-991.3	659.7	482.8	176.90	3.729	
11,474.4	7,000.0	11,349.0	7,000.0	92.6	89.6	90.00	4,428.6	-992.8	661.2	482.5	178.67	3.701 SF	

Reference Depths are relative to WELL @ 5077.0ft (RKB - 13')	Coordinates are relative to: SRC Kiehn 21-4CHZ
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: 0.32°



Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4CHZ
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 21-4CHZ	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 21-4CHZ
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.32°

