

Synergy Resources

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

Surface Location: SRC Kiehn Pad Sec.4-T4N-R68W

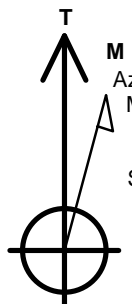
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 5064.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1365556.49	3137751.61	40.335800	-105.005864	
RKB - 13' WELL @ 5077.0ft (RKB - 13')						

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 201'FSL & 1940'FEL	1.0	0.0	0.0	Point
BHL 470'FNL & 1705'FWL	7000.0	4430.4	-1851.9	Point



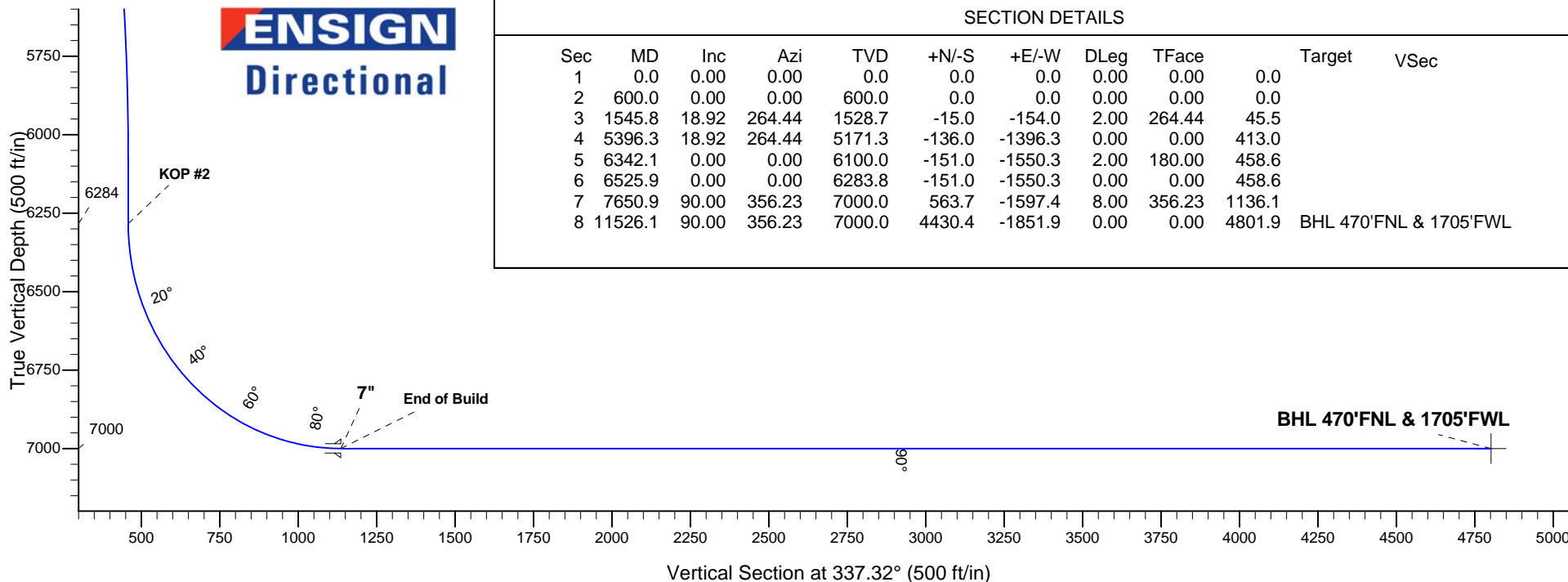
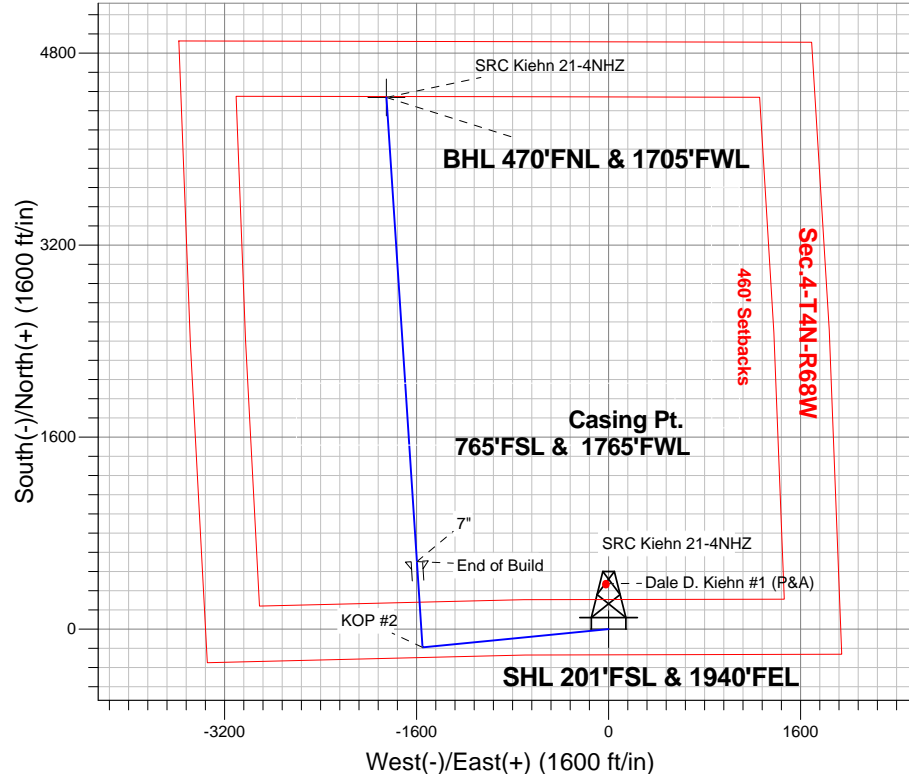
Azimuths to True North
Magnetic North: 8.60°

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

ANNOTATIONS

TVD	MD	Annotation
600.0	600.0	KOP #1
6283.8	6525.9	KOP #2
7000.0	7650.9	End of Build

SRC Kiehn Pad Sec.4-T4N-R68W
SRC Kiehn 21-4NHZ
Plan #2 (4-25-14)
8:11, 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	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1545.8	18.92	264.44	1528.7	-15.0	-154.0	2.00	264.44	45.5	
4	5396.3	18.92	264.44	5171.3	-136.0	-1396.3	0.00	0.00	413.0	
5	6342.1	0.00	0.00	6100.0	-151.0	-1550.3	2.00	180.00	458.6	
6	6525.9	0.00	0.00	6283.8	-151.0	-1550.3	0.00	0.00	458.6	
7	7650.9	90.00	356.23	7000.0	563.7	-1597.4	8.00	356.23	1136.1	
8	11526.1	90.00	356.23	7000.0	4430.4	-1851.9	0.00	0.00	4801.9	BHL 470'FNL & 1705'FWL



Synergy Resources

SEC.4-T4N-R68W

SRC Kiehn Pad Sec.4-T4N-R68W

SRC Kiehn 21-4NHZ

Wellbore #1

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

Standard Planning Report

29 April, 2014

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn 21-4NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Project:	SEC.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site:	SRC Kiehn Pad Sec.4-T4N-R68W	North Reference:	True
Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-25-14)		

Project	SEC.4-T4N-R68W, Weld, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site						SRC Kiehn Pad Sec.4-T4N-R68W											
Site Position:						Northing:			1,365,561.75 ft			Latitude:			40.335811		
From:			Lat/Long			Easting:			3,137,974.04 ft			Longitude:			-105.005066		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.32 °		

Well	SRC Kiehn 21-4NHZ					
Well Position	+N-S	-4.0 ft	Northing:	1,365,556.49 ft	Latitude:	40.335800
	+E-W	-222.5 ft	Easting:	3,137,751.61 ft	Longitude:	-105.005864
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,064.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/25/2014	8.60	66.86	52,769

Design	Plan #2 (4-25-14)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	337.32

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	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,545.8	18.92	264.44	1,528.7	-15.0	-154.0	2.00	2.00	0.00	264.44	
5,396.3	18.92	264.44	5,171.3	-136.0	-1,396.3	0.00	0.00	0.00	0.00	
6,342.1	0.00	0.00	6,100.0	-151.0	-1,550.3	2.00	-2.00	0.00	180.00	
6,525.9	0.00	0.00	6,283.8	-151.0	-1,550.3	0.00	0.00	0.00	0.00	
7,650.9	90.00	356.23	7,000.0	563.7	-1,597.4	8.00	8.00	0.00	356.23	
11,526.1	90.00	356.23	7,000.0	4,430.4	-1,851.9	0.00	0.00	0.00	0.00	BHL 470'FNL & 170'

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn 21-4NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Project:	SEC.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site:	SRC Kiehn Pad Sec.4-T4N-R68W	North Reference:	True
Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-25-14)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 201'FSL & 1940'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
KOP #1									
700.0	2.00	264.44	700.0	-0.2	-1.7	0.5	2.00	2.00	0.00
800.0	4.00	264.44	799.8	-0.7	-6.9	2.1	2.00	2.00	0.00
900.0	6.00	264.44	899.5	-1.5	-15.6	4.6	2.00	2.00	0.00
1,000.0	8.00	264.44	998.7	-2.7	-27.7	8.2	2.00	2.00	0.00
1,100.0	10.00	264.44	1,097.5	-4.2	-43.3	12.8	2.00	2.00	0.00
1,200.0	12.00	264.44	1,195.6	-6.1	-62.3	18.4	2.00	2.00	0.00
1,300.0	14.00	264.44	1,293.1	-8.2	-84.7	25.1	2.00	2.00	0.00
1,400.0	16.00	264.44	1,389.6	-10.8	-110.5	32.7	2.00	2.00	0.00
1,500.0	18.00	264.44	1,485.3	-13.6	-139.6	41.3	2.00	2.00	0.00
1,545.8	18.92	264.44	1,528.7	-15.0	-154.0	45.5	2.00	2.00	0.00
1,600.0	18.92	264.44	1,580.0	-16.7	-171.5	50.7	0.00	0.00	0.00
1,700.0	18.92	264.44	1,674.6	-19.8	-203.7	60.3	0.00	0.00	0.00
1,800.0	18.92	264.44	1,769.2	-23.0	-236.0	69.8	0.00	0.00	0.00
1,900.0	18.92	264.44	1,863.8	-26.1	-268.3	79.4	0.00	0.00	0.00
2,000.0	18.92	264.44	1,958.4	-29.3	-300.5	88.9	0.00	0.00	0.00
2,100.0	18.92	264.44	2,053.0	-32.4	-332.8	98.4	0.00	0.00	0.00
2,200.0	18.92	264.44	2,147.6	-35.6	-365.1	108.0	0.00	0.00	0.00
2,300.0	18.92	264.44	2,242.2	-38.7	-397.3	117.5	0.00	0.00	0.00
2,400.0	18.92	264.44	2,336.8	-41.8	-429.6	127.1	0.00	0.00	0.00
2,500.0	18.92	264.44	2,431.4	-45.0	-461.8	136.6	0.00	0.00	0.00
2,600.0	18.92	264.44	2,526.0	-48.1	-494.1	146.2	0.00	0.00	0.00
2,700.0	18.92	264.44	2,620.6	-51.3	-526.4	155.7	0.00	0.00	0.00
2,800.0	18.92	264.44	2,715.2	-54.4	-558.6	165.2	0.00	0.00	0.00
2,900.0	18.92	264.44	2,809.8	-57.6	-590.9	174.8	0.00	0.00	0.00
3,000.0	18.92	264.44	2,904.4	-60.7	-623.2	184.3	0.00	0.00	0.00
3,100.0	18.92	264.44	2,999.0	-63.8	-655.4	193.9	0.00	0.00	0.00
3,200.0	18.92	264.44	3,093.6	-67.0	-687.7	203.4	0.00	0.00	0.00
3,300.0	18.92	264.44	3,188.2	-70.1	-720.0	213.0	0.00	0.00	0.00
3,400.0	18.92	264.44	3,282.8	-73.3	-752.2	222.5	0.00	0.00	0.00
3,500.0	18.92	264.44	3,377.4	-76.4	-784.5	232.1	0.00	0.00	0.00
3,600.0	18.92	264.44	3,472.0	-79.6	-816.8	241.6	0.00	0.00	0.00
3,700.0	18.92	264.44	3,566.6	-82.7	-849.0	251.1	0.00	0.00	0.00
3,800.0	18.92	264.44	3,661.2	-85.8	-881.3	260.7	0.00	0.00	0.00
3,900.0	18.92	264.44	3,755.8	-89.0	-913.5	270.2	0.00	0.00	0.00
4,000.0	18.92	264.44	3,850.4	-92.1	-945.8	279.8	0.00	0.00	0.00
4,100.0	18.92	264.44	3,945.0	-95.3	-978.1	289.3	0.00	0.00	0.00
4,200.0	18.92	264.44	4,039.6	-98.4	-1,010.3	298.9	0.00	0.00	0.00
4,300.0	18.92	264.44	4,134.2	-101.6	-1,042.6	308.4	0.00	0.00	0.00
4,400.0	18.92	264.44	4,228.8	-104.7	-1,074.9	317.9	0.00	0.00	0.00
4,500.0	18.92	264.44	4,323.4	-107.8	-1,107.1	327.5	0.00	0.00	0.00
4,600.0	18.92	264.44	4,418.0	-111.0	-1,139.4	337.0	0.00	0.00	0.00
4,700.0	18.92	264.44	4,512.6	-114.1	-1,171.7	346.6	0.00	0.00	0.00
4,800.0	18.92	264.44	4,607.2	-117.3	-1,203.9	356.1	0.00	0.00	0.00
4,900.0	18.92	264.44	4,701.8	-120.4	-1,236.2	365.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn 21-4NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Project:	SEC.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site:	SRC Kiehn Pad Sec.4-T4N-R68W	North Reference:	True
Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-25-14)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,000.0	18.92	264.44	4,796.4	-123.5	-1,268.5	375.2	0.00	0.00	0.00	
5,100.0	18.92	264.44	4,891.0	-126.7	-1,300.7	384.7	0.00	0.00	0.00	
5,200.0	18.92	264.44	4,985.6	-129.8	-1,333.0	394.3	0.00	0.00	0.00	
5,300.0	18.92	264.44	5,080.2	-133.0	-1,365.2	403.8	0.00	0.00	0.00	
5,396.3	18.92	264.44	5,171.3	-136.0	-1,396.3	413.0	0.00	0.00	0.00	
5,400.0	18.84	264.44	5,174.8	-136.1	-1,397.5	413.4	2.00	-2.00	0.00	
5,500.0	16.84	264.44	5,270.0	-139.1	-1,428.0	422.4	2.00	-2.00	0.00	
5,600.0	14.84	264.44	5,366.2	-141.7	-1,455.2	430.4	2.00	-2.00	0.00	
5,700.0	12.84	264.44	5,463.3	-144.1	-1,479.0	437.5	2.00	-2.00	0.00	
5,800.0	10.84	264.44	5,561.1	-146.0	-1,499.4	443.5	2.00	-2.00	0.00	
5,900.0	8.84	264.44	5,659.6	-147.7	-1,516.4	448.6	2.00	-2.00	0.00	
6,000.0	6.84	264.44	5,758.7	-149.0	-1,530.0	452.6	2.00	-2.00	0.00	
6,100.0	4.84	264.44	5,858.2	-150.0	-1,540.1	455.6	2.00	-2.00	0.00	
6,200.0	2.84	264.44	5,958.0	-150.7	-1,546.8	457.5	2.00	-2.00	0.00	
6,300.0	0.84	264.44	6,057.9	-151.0	-1,550.0	458.5	2.00	-2.00	0.00	
6,342.1	0.00	0.00	6,100.0	-151.0	-1,550.3	458.6	2.00	-2.00	0.00	
6,400.0	0.00	0.00	6,157.9	-151.0	-1,550.3	458.6	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,257.9	-151.0	-1,550.3	458.6	0.00	0.00	0.00	
6,525.9	0.00	0.00	6,283.8	-151.0	-1,550.3	458.6	0.00	0.00	0.00	
KOP #2										
6,600.0	5.93	356.23	6,357.8	-147.2	-1,550.6	462.2	8.00	8.00	0.00	
6,700.0	13.93	356.23	6,456.2	-130.0	-1,551.7	478.5	8.00	8.00	0.00	
6,800.0	21.93	356.23	6,551.3	-99.3	-1,553.7	507.6	8.00	8.00	0.00	
6,900.0	29.93	356.23	6,641.1	-55.7	-1,556.6	548.9	8.00	8.00	0.00	
7,000.0	37.93	356.23	6,724.0	-0.1	-1,560.2	601.7	8.00	8.00	0.00	
7,100.0	45.93	356.23	6,798.4	66.6	-1,564.6	664.8	8.00	8.00	0.00	
7,200.0	53.93	356.23	6,862.7	142.9	-1,569.6	737.2	8.00	8.00	0.00	
7,300.0	61.93	356.23	6,915.7	227.3	-1,575.2	817.3	8.00	8.00	0.00	
7,400.0	69.93	356.23	6,956.5	318.4	-1,581.2	903.6	8.00	8.00	0.00	
7,500.0	77.93	356.23	6,984.2	414.2	-1,587.5	994.4	8.00	8.00	0.00	
7,600.0	85.93	356.23	6,998.2	512.9	-1,594.0	1,088.0	8.00	8.00	0.00	
7,650.9	90.00	356.23	7,000.0	563.6	-1,597.3	1,136.1	8.00	8.00	0.00	
End of Build - 7"										
7,700.0	90.00	356.23	7,000.0	612.6	-1,600.6	1,182.5	0.00	0.00	0.00	
7,800.0	90.00	356.23	7,000.0	712.4	-1,607.1	1,277.1	0.00	0.00	0.00	
7,900.0	90.00	356.23	7,000.0	812.2	-1,613.7	1,371.7	0.00	0.00	0.00	
8,000.0	90.00	356.23	7,000.0	912.0	-1,620.3	1,466.3	0.00	0.00	0.00	
8,100.0	90.00	356.23	7,000.0	1,011.8	-1,626.9	1,560.9	0.00	0.00	0.00	
8,200.0	90.00	356.23	7,000.0	1,111.6	-1,633.4	1,655.5	0.00	0.00	0.00	
8,300.0	90.00	356.23	7,000.0	1,211.3	-1,640.0	1,750.1	0.00	0.00	0.00	
8,400.0	90.00	356.23	7,000.0	1,311.1	-1,646.6	1,844.7	0.00	0.00	0.00	
8,500.0	90.00	356.23	7,000.0	1,410.9	-1,653.1	1,939.3	0.00	0.00	0.00	
8,600.0	90.00	356.23	7,000.0	1,510.7	-1,659.7	2,033.9	0.00	0.00	0.00	
8,700.0	90.00	356.23	7,000.0	1,610.5	-1,666.3	2,128.5	0.00	0.00	0.00	
8,800.0	90.00	356.23	7,000.0	1,710.3	-1,672.8	2,223.1	0.00	0.00	0.00	
8,900.0	90.00	356.23	7,000.0	1,810.0	-1,679.4	2,317.7	0.00	0.00	0.00	
9,000.0	90.00	356.23	7,000.0	1,909.8	-1,686.0	2,412.3	0.00	0.00	0.00	
9,100.0	90.00	356.23	7,000.0	2,009.6	-1,692.5	2,506.9	0.00	0.00	0.00	
9,200.0	90.00	356.23	7,000.0	2,109.4	-1,699.1	2,601.5	0.00	0.00	0.00	
9,300.0	90.00	356.23	7,000.0	2,209.2	-1,705.7	2,696.1	0.00	0.00	0.00	
9,400.0	90.00	356.23	7,000.0	2,309.0	-1,712.3	2,790.7	0.00	0.00	0.00	
9,500.0	90.00	356.23	7,000.0	2,408.7	-1,718.8	2,885.3	0.00	0.00	0.00	
9,600.0	90.00	356.23	7,000.0	2,508.5	-1,725.4	2,979.9	0.00	0.00	0.00	
9,700.0	90.00	356.23	7,000.0	2,608.3	-1,732.0	3,074.5	0.00	0.00	0.00	

Plan Annotations					
	Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
			+N/-S	+E/-W	
			(ft)	(ft)	
	600.0	600.0	0.0	0.0	KOP #1
	6,525.9	6,283.8	-151.0	-1,550.3	KOP #2
	7,650.9	7,000.0	563.6	-1,597.3	End of Build



Synergy Resources

SEC.4-T4N-R68W

SRC Kiehn Pad Sec.4-T4N-R68W

SRC Kiehn 21-4NHZ

Wellbore #1

Plan #2 (4-25-14)

Anticollision Report

29 April, 2014

Offset Design													Offset Site Error: 0.0 ft	
SRC Kiehn (Existing) Pad Sec.4-T4N-R68W - Dale D. Kiehn #1 (P&A) - Wellbore #1 - Wellbore #1													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)			
1,300.0	1,293.1	3,966.1	3,966.1	3.2	79.3	104.11	380.3	-23.4	393.4	311.0	82.34	4.778		
1,400.0	1,389.6	4,062.6	4,062.6	3.7	81.3	107.45	380.3	-23.4	400.6	316.1	84.56	4.738		
1,500.0	1,485.3	4,158.3	4,158.3	4.2	83.2	111.01	380.3	-23.4	410.7	324.0	86.72	4.736 SF		
1,600.0	1,580.0	4,253.0	4,253.0	4.8	85.1	114.78	380.3	-23.4	423.7	334.9	88.84	4.770		
1,700.0	1,674.6	4,347.6	4,347.6	5.4	87.0	118.47	380.3	-23.4	438.9	347.9	90.97	4.825		
1,800.0	1,769.2	4,442.2	4,442.2	6.1	88.8	121.91	380.3	-23.4	455.9	362.8	93.07	4.898		
1,900.0	1,863.8	4,536.8	4,536.8	6.7	90.7	125.12	380.3	-23.4	474.5	379.4	95.14	4.987		
2,000.0	1,958.4	4,631.4	4,631.4	7.4	92.6	128.09	380.3	-23.4	494.5	397.3	97.19	5.088		
2,100.0	2,053.0	4,726.0	4,726.0	8.0	94.5	130.84	380.3	-23.4	515.8	416.6	99.21	5.199		
2,200.0	2,147.6	4,820.6	4,820.6	8.7	96.4	133.38	380.3	-23.4	538.2	437.0	101.22	5.317		
2,300.0	2,242.2	4,915.2	4,915.2	9.4	98.3	135.72	380.3	-23.4	561.6	458.4	103.22	5.441		
2,400.0	2,336.8	5,009.8	5,009.8	10.1	100.2	137.88	380.3	-23.4	585.8	480.6	105.21	5.568		
2,500.0	2,431.4	5,104.4	5,104.4	10.8	102.1	139.87	380.3	-23.4	610.8	503.6	107.20	5.698		
2,600.0	2,526.0	5,199.0	5,199.0	11.4	104.0	141.72	380.3	-23.4	636.5	527.3	109.19	5.829		
2,700.0	2,620.6	5,293.6	5,293.6	12.1	105.9	143.42	380.3	-23.4	662.8	551.6	111.18	5.961		
2,800.0	2,715.2	5,388.2	5,388.2	12.8	107.8	145.00	380.3	-23.4	689.5	576.4	113.16	6.093		
2,900.0	2,809.8	5,482.8	5,482.8	13.5	109.7	146.46	380.3	-23.4	716.8	601.6	115.15	6.225		
3,000.0	2,904.4	5,577.4	5,577.4	14.2	111.5	147.82	380.3	-23.4	744.4	627.3	117.15	6.355		
3,100.0	2,999.0	5,672.0	5,672.0	14.9	113.4	149.08	380.3	-23.4	772.5	653.3	119.14	6.484		
3,200.0	3,093.6	5,766.6	5,766.6	15.6	115.3	150.26	380.3	-23.4	800.8	679.7	121.14	6.611		
3,300.0	3,188.2	5,861.2	5,861.2	16.3	117.2	151.36	380.3	-23.4	829.5	706.4	123.14	6.736		
3,400.0	3,282.8	5,955.8	5,955.8	16.9	119.1	152.38	380.3	-23.4	858.4	733.3	125.15	6.859		
3,500.0	3,377.4	6,050.4	6,050.4	17.6	121.0	153.34	380.3	-23.4	887.6	760.4	127.16	6.980		
3,600.0	3,472.0	6,145.0	6,145.0	18.3	122.9	154.24	380.3	-23.4	917.0	787.8	129.17	7.099		
3,700.0	3,566.6	6,239.6	6,239.6	19.0	124.8	155.08	380.3	-23.4	946.6	815.4	131.19	7.215		
3,800.0	3,661.2	6,334.2	6,334.2	19.7	126.7	155.88	380.3	-23.4	976.3	843.1	133.21	7.329		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 21-4CHZ - Wellbore #1 - Plan #2 (4-25-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.08	0.4	22.6	22.6					
100.0	100.0	100.0	100.0	0.1	0.1	89.08	0.4	22.6	22.6	22.4	0.22	100.481		
200.0	200.0	200.0	200.0	0.3	0.3	89.08	0.4	22.6	22.6	21.9	0.67	33.494		
300.0	300.0	300.0	300.0	0.6	0.6	89.08	0.4	22.6	22.6	21.5	1.12	20.096		
400.0	400.0	400.0	400.0	0.8	0.8	89.08	0.4	22.6	22.6	21.0	1.57	14.354		
500.0	500.0	500.0	500.0	1.0	1.0	89.08	0.4	22.6	22.6	20.6	2.02	11.165		
600.0	600.0	600.0	600.0	1.2	1.2	89.08	0.4	22.6	22.6	20.1	2.47	9.135 CC, ES		
700.0	700.0	700.0	700.0	1.4	1.5	-175.69	0.4	22.6	24.3	21.4	2.91	8.363		
800.0	799.8	799.8	799.8	1.7	1.7	-176.45	0.4	22.6	29.5	26.2	3.34	8.858		
900.0	899.5	900.8	900.7	1.9	1.9	-177.09	0.2	20.8	36.5	32.8	3.75	9.735		
1,000.0	998.7	1,001.9	1,001.8	2.1	2.1	-177.45	-0.4	15.5	43.4	39.3	4.15	10.457		
1,100.0	1,097.5	1,103.3	1,102.8	2.4	2.3	-177.66	-1.4	6.6	50.3	45.7	4.57	11.020		
1,200.0	1,195.6	1,205.0	1,203.7	2.8	2.6	-177.76	-2.8	-5.8	57.1	52.2	4.99	11.457		
1,300.0	1,293.1	1,306.9	1,304.3	3.2	2.9	-177.79	-4.6	-21.9	63.9	58.5	5.42	11.788		
1,400.0	1,389.6	1,409.1	1,404.5	3.7	3.2	-177.78	-6.8	-41.5	70.6	64.8	5.87	12.029		
1,500.0	1,485.3	1,511.5	1,504.2	4.2	3.6	-177.72	-9.4	-64.8	77.3	70.9	6.34	12.191		
1,600.0	1,580.0	1,614.2	1,603.3	4.8	4.1	-177.63	-12.4	-91.6	83.3	76.4	6.85	12.166		
1,700.0	1,674.6	1,715.3	1,700.0	5.4	4.6	-177.45	-15.6	-120.8	86.8	79.4	7.40	11.734		
1,800.0	1,769.2	1,815.2	1,795.5	6.1	5.1	-177.28	-18.9	-149.9	90.1	82.2	7.95	11.331		
1,900.0	1,863.8	1,915.2	1,891.1	6.7	5.7	-177.13	-22.1	-179.0	93.4	84.9	8.52	10.956		
2,000.0	1,958.4	2,015.1	1,986.7	7.4	6.3	-176.98	-25.4	-208.1	96.7	87.6	9.11	10.619		
2,100.0	2,053.0	2,115.0	2,082.2	8.0	6.9	-176.84	-28.6	-237.2	100.0	90.3	9.69	10.315		
2,200.0	2,147.6	2,215.0	2,177.8	8.7	7.5	-176.71	-31.9	-266.3	103.3	93.0	10.29	10.039		
2,300.0	2,242.2	2,314.9	2,273.3	9.4	8.1	-176.59	-35.1	-295.4	106.6	95.7	10.89	9.789		
2,400.0	2,336.8	2,414.9	2,368.9	10.1	8.7	-176.48	-38.4	-324.6	109.9	98.4	11.49	9.561		
2,500.0	2,431.4	2,514.8	2,464.5	10.8	9.3	-176.38	-41.6	-353.7	113.2	101.1	12.10	9.353		
2,600.0	2,526.0	2,614.8	2,560.0	11.4	9.9	-176.28	-44.9	-382.8	116.5	103.8	12.71	9.162		
2,700.0	2,620.6	2,714.7	2,655.6	12.1	10.5	-176.18	-48.1	-411.9	119.8	106.5	13.33	8.987		
2,800.0	2,715.2	2,814.7	2,751.1	12.8	11.1	-176.09	-51.4	-441.0	123.1	109.1	13.95	8.825		
2,900.0	2,809.8	2,914.6	2,846.7	13.5	11.7	-176.01	-54.6	-470.1	126.4	111.8	14.57	8.676		
3,000.0	2,904.4	3,014.5	2,942.2	14.2	12.3	-175.92	-57.9	-499.2	129.7	114.5	15.19	8.538		
3,100.0	2,999.0	3,114.5	3,037.8	14.9	12.9	-175.85	-61.1	-528.3	133.0	117.2	15.81	8.410		
3,200.0	3,093.6	3,214.4	3,133.4	15.6	13.6	-175.77	-64.4	-557.4	136.3	119.8	16.44	8.290		
3,300.0	3,188.2	3,314.4	3,228.9	16.3	14.2	-175.71	-67.6	-586.5	139.6	122.5	17.07	8.179		
3,400.0	3,282.8	3,414.3	3,324.5	16.9	14.8	-175.64	-70.9	-615.6	142.9	125.2	17.69	8.075		
3,500.0	3,377.4	3,514.3	3,420.0	17.6	15.4	-175.58	-74.1	-644.7	146.2	127.9	18.32	7.977		
3,600.0	3,472.0	3,614.2	3,515.6	18.3	16.1	-175.52	-77.4	-673.8	149.5	130.5	18.96	7.886		
3,700.0	3,566.6	3,714.2	3,611.2	19.0	16.7	-175.46	-80.6	-702.9	152.8	133.2	19.59	7.800		
3,800.0	3,661.2	3,814.1	3,706.7	19.7	17.3	-175.40	-83.9	-732.0	156.1	135.9	20.22	7.719		
3,900.0	3,755.8	3,914.1	3,802.3	20.4	17.9	-175.35	-87.1	-761.1	159.4	138.5	20.86	7.642		
4,000.0	3,850.4	4,014.0	3,897.8	21.1	18.5	-175.30	-90.4	-790.2	162.7	141.2	21.49	7.570		
4,100.0	3,945.0	4,113.9	3,993.4	21.8	19.2	-175.25	-93.6	-819.3	166.0	143.9	22.13	7.502		
4,200.0	4,039.6	4,213.9	4,089.0	22.5	19.8	-175.20	-96.9	-848.4	169.3	146.5	22.76	7.437		
4,300.0	4,134.2	4,313.8	4,184.5	23.2	20.4	-175.16	-100.1	-877.5	172.6	149.2	23.40	7.376		
4,400.0	4,228.8	4,413.8	4,280.1	23.9	21.0	-175.11	-103.4	-906.6	175.9	151.9	24.04	7.317		
4,500.0	4,323.4	4,513.7	4,375.6	24.6	21.7	-175.07	-106.6	-935.7	179.2	154.5	24.68	7.262		
4,600.0	4,418.0	4,613.7	4,471.2	25.3	22.3	-175.03	-109.9	-964.8	182.5	157.2	25.31	7.209		
4,700.0	4,512.6	4,713.6	4,566.7	26.0	22.9	-174.99	-113.1	-993.9	185.8	159.8	25.95	7.159		
4,800.0	4,607.2	4,813.6	4,662.3	26.6	23.6	-174.95	-116.3	-1,023.0	189.1	162.5	26.59	7.111		
4,900.0	4,701.8	4,913.5	4,757.9	27.3	24.2	-174.92	-119.6	-1,052.1	192.4	165.2	27.23	7.065		
5,000.0	4,796.4	5,013.5	4,853.4	28.0	24.8	-174.88	-122.8	-1,081.2	195.7	167.8	27.87	7.021		
5,100.0	4,891.0	5,113.4	4,949.0	28.7	25.4	-174.85	-126.1	-1,110.4	199.0	170.5	28.52	6.979		

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 21-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 21-4CHZ - Wellbore #1 - Plan #2 (4-25-14)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.0	4,985.6	5,213.3	5,044.5	29.4	26.1	-174.81	-129.3	-1,139.5	202.3	173.1	29.16	6.938	
5,300.0	5,080.2	5,313.3	5,140.1	30.1	26.7	-174.78	-132.6	-1,168.6	205.6	175.8	29.80	6.900	
5,400.0	5,174.8	5,413.2	5,235.7	30.8	27.3	-174.75	-135.8	-1,197.7	208.9	178.5	30.44	6.862	
5,500.0	5,270.0	5,508.2	5,326.7	31.3	27.8	-174.71	-138.8	-1,224.5	211.2	180.2	31.04	6.806	
5,600.0	5,366.2	5,600.0	5,415.5	31.8	28.2	-174.67	-141.4	-1,247.7	213.2	181.7	31.54	6.760	
5,700.0	5,463.3	5,694.4	5,507.5	32.2	28.6	-174.63	-143.8	-1,268.7	214.9	182.9	31.99	6.719	
5,800.0	5,561.1	5,787.4	5,598.8	32.5	28.9	-174.60	-145.7	-1,286.3	216.4	184.0	32.37	6.686	
5,900.0	5,659.6	5,880.4	5,690.6	32.8	29.2	-174.58	-147.4	-1,301.0	217.6	184.9	32.68	6.659	
6,000.0	5,758.7	5,973.3	5,782.8	33.1	29.4	-174.56	-148.7	-1,312.7	218.6	185.7	32.94	6.637	
6,100.0	5,858.2	6,066.3	5,875.3	33.3	29.6	-174.55	-149.7	-1,321.4	219.3	186.2	33.13	6.621	
6,200.0	5,958.0	6,159.2	5,968.0	33.5	29.7	-174.54	-150.3	-1,327.2	219.8	186.6	33.26	6.610	
6,300.0	6,057.9	6,252.1	6,060.9	33.6	29.8	-174.53	-150.6	-1,330.0	220.1	186.7	33.33	6.603	
6,400.0	6,157.9	6,349.1	6,157.9	33.6	29.9	89.91	-150.6	-1,330.2	220.1	185.7	34.35	6.408	
6,500.0	6,257.9	6,449.1	6,257.9	33.7	30.0	89.91	-150.6	-1,330.2	220.1	185.4	34.65	6.351	
6,600.0	6,357.8	6,550.6	6,359.2	33.8	30.1	93.65	-146.7	-1,330.5	220.1	185.9	34.17	6.440	
6,700.0	6,456.2	6,652.6	6,459.5	33.9	30.2	93.56	-128.8	-1,331.7	220.1	185.6	34.45	6.388	
6,800.0	6,551.3	6,754.5	6,556.2	34.0	30.3	93.40	-96.9	-1,333.8	220.0	185.4	34.67	6.347	
6,900.0	6,641.1	6,856.3	6,647.3	34.1	30.4	93.17	-51.8	-1,336.7	220.0	185.1	34.90	6.304	
7,000.0	6,724.0	6,957.9	6,730.9	34.2	30.5	92.88	5.7	-1,340.5	219.9	184.7	35.23	6.243	
7,100.0	6,798.4	7,059.4	6,805.4	34.3	30.6	92.54	74.3	-1,345.0	219.9	184.1	35.75	6.150	
7,200.0	6,862.7	7,160.6	6,869.4	34.4	30.8	92.14	152.6	-1,350.2	219.8	183.3	36.55	6.014	
7,300.0	6,915.7	7,261.7	6,921.5	34.6	31.0	91.70	238.8	-1,355.8	219.8	182.1	37.67	5.833	
7,400.0	6,956.5	7,362.4	6,960.9	34.9	31.3	91.23	331.3	-1,361.9	219.7	180.6	39.13	5.615	
7,500.0	6,984.2	7,462.9	6,986.9	35.3	31.7	90.73	428.1	-1,368.3	219.7	178.8	40.90	5.371	
7,600.0	6,998.2	7,563.2	6,999.1	35.7	32.3	90.23	527.3	-1,374.8	219.7	176.8	42.91	5.119	
7,605.1	6,998.5	7,568.3	6,999.3	35.8	32.3	90.20	532.4	-1,375.1	219.7	176.7	43.02	5.106	
7,700.0	7,000.0	7,663.2	7,000.0	36.3	32.9	90.00	627.1	-1,381.4	219.7	174.5	45.17	4.864	
7,800.0	7,000.0	7,763.2	7,000.0	36.9	33.6	90.00	726.8	-1,387.9	219.7	172.1	47.65	4.611	
7,900.0	7,000.0	7,863.2	7,000.0	37.7	34.4	90.00	826.6	-1,394.5	219.7	169.4	50.31	4.367	
8,000.0	7,000.0	7,963.2	7,000.0	38.5	35.4	90.00	926.4	-1,401.0	219.7	166.6	53.12	4.136	
8,100.0	7,000.0	8,063.2	7,000.0	39.4	36.4	90.00	1,026.2	-1,407.6	219.7	163.7	56.06	3.919	
8,200.0	7,000.0	8,163.2	7,000.0	40.4	37.5	90.00	1,126.0	-1,414.2	219.7	160.6	59.12	3.717	
8,300.0	7,000.0	8,263.2	7,000.0	41.5	38.7	90.00	1,225.8	-1,420.7	219.7	157.5	62.27	3.529	
8,400.0	7,000.0	8,363.2	7,000.0	42.6	39.9	90.00	1,325.5	-1,427.3	219.7	154.2	65.49	3.355	
8,500.0	7,000.0	8,463.2	7,000.0	43.8	41.2	90.00	1,425.3	-1,433.9	219.8	151.0	68.79	3.194	
8,600.0	7,000.0	8,563.2	7,000.0	45.1	42.6	90.00	1,525.1	-1,440.4	219.8	147.6	72.15	3.046	
8,700.0	7,000.0	8,663.2	7,000.0	46.4	44.0	90.00	1,624.9	-1,447.0	219.8	144.2	75.56	2.909	
8,800.0	7,000.0	8,763.2	7,000.0	47.8	45.5	90.00	1,724.7	-1,453.5	219.8	140.8	79.01	2.781	
8,900.0	7,000.0	8,863.2	7,000.0	49.2	47.0	90.00	1,824.5	-1,460.1	219.8	137.3	82.51	2.664	
9,000.0	7,000.0	8,963.2	7,000.0	50.7	48.5	90.00	1,924.3	-1,466.7	219.8	133.8	86.04	2.555	
9,100.0	7,000.0	9,063.2	7,000.0	52.1	50.1	90.00	2,024.0	-1,473.2	219.8	130.2	89.59	2.453	
9,200.0	7,000.0	9,163.2	7,000.0	53.7	51.7	90.00	2,123.8	-1,479.8	219.8	126.6	93.18	2.359	
9,300.0	7,000.0	9,263.2	7,000.0	55.2	53.3	90.00	2,223.6	-1,486.3	219.8	123.0	96.79	2.271	
9,400.0	7,000.0	9,363.2	7,000.0	56.8	55.0	90.00	2,323.4	-1,492.9	219.8	119.4	100.42	2.189	
9,500.0	7,000.0	9,463.2	7,000.0	58.4	56.6	90.00	2,423.2	-1,499.5	219.8	115.8	104.07	2.112	
9,600.0	7,000.0	9,563.2	7,000.0	60.0	58.3	90.00	2,523.0	-1,506.0	219.8	112.1	107.74	2.040	
9,700.0	7,000.0	9,663.2	7,000.0	61.7	60.0	90.00	2,622.7	-1,512.6	219.8	108.4	111.42	1.973	
9,800.0	7,000.0	9,763.2	7,000.0	63.3	61.7	90.00	2,722.5	-1,519.2	219.9	104.7	115.12	1.910	
9,900.0	7,000.0	9,863.2	7,000.0	65.0	63.4	90.00	2,822.3	-1,525.7	219.9	101.0	118.83	1.850	
10,000.0	7,000.0	9,963.2	7,000.0	66.7	65.2	90.00	2,922.1	-1,532.3	219.9	97.3	122.55	1.794	
10,100.0	7,000.0	10,063.2	7,000.0	68.4	66.9	90.00	3,021.9	-1,538.8	219.9	93.6	126.28	1.741	
10,200.0	7,000.0	10,163.2	7,000.0	70.1	68.7	90.00	3,121.7	-1,545.4	219.9	89.9	130.03	1.691	

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 21-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design												SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 21-4CHZ - Wellbore #1 - Plan #2 (4-25-14)		Offset Site Error:		0.0 ft
Survey Program: 0-MWD														Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							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)					
10,300.0	7,000.0	10,263.2	7,000.0	71.9	70.5	90.00	3,221.4	-1,552.0	219.9	86.1	133.78	1.644				
10,400.0	7,000.0	10,363.2	7,000.0	73.6	72.3	90.00	3,321.2	-1,558.5	219.9	82.4	137.53	1.599				
10,500.0	7,000.0	10,463.2	7,000.0	75.4	74.1	90.00	3,421.0	-1,565.1	219.9	78.6	141.30	1.556				
10,600.0	7,000.0	10,563.2	7,000.0	77.1	75.9	90.00	3,520.8	-1,571.6	219.9	74.8	145.07	1.516				
10,700.0	7,000.0	10,663.2	7,000.0	78.9	77.7	90.00	3,620.6	-1,578.2	219.9	71.1	148.85	1.477 Level 3				
10,800.0	7,000.0	10,763.2	7,000.0	80.7	79.5	90.00	3,720.4	-1,584.8	219.9	67.3	152.64	1.441 Level 3				
10,900.0	7,000.0	10,863.2	7,000.0	82.5	81.3	90.00	3,820.2	-1,591.3	219.9	63.5	156.43	1.406 Level 3				
11,000.0	7,000.0	10,963.2	7,000.0	84.3	83.1	90.00	3,919.9	-1,597.9	219.9	59.7	160.23	1.373 Level 3				
11,100.0	7,000.0	11,063.2	7,000.0	86.1	85.0	90.00	4,019.7	-1,604.5	220.0	55.9	164.03	1.341 Level 3				
11,200.0	7,000.0	11,163.2	7,000.0	87.9	86.8	90.00	4,119.5	-1,611.0	220.0	52.1	167.83	1.311 Level 3				
11,300.0	7,000.0	11,263.2	7,000.0	89.7	88.6	90.00	4,219.3	-1,617.6	220.0	48.3	171.64	1.282 Level 3				
11,400.0	7,000.0	11,363.2	7,000.0	91.6	90.5	90.00	4,319.1	-1,624.1	220.0	44.5	175.45	1.254 Level 3				
11,500.0	7,000.0	11,463.2	7,000.0	93.4	92.3	90.00	4,418.9	-1,630.7	220.0	40.7	179.27	1.227 Level 2				
11,500.2	7,000.0	11,463.4	7,000.0	93.4	92.3	90.00	4,419.1	-1,630.7	220.0	40.7	179.28	1.227 Level 2				
11,526.1	7,000.0	11,474.4	7,000.0	93.9	92.6	90.00	4,430.1	-1,631.4	220.5	40.6	179.88	1.226 Level 2, SF				

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	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 CC, ES		
700.0	700.0	700.0	700.0	1.4	1.5	-175.78	1.5	67.5	69.2	66.3	2.91	23.800		
800.0	799.8	799.8	799.8	1.7	1.7	-176.07	1.5	67.5	74.4	71.1	3.34	22.318		
900.0	899.5	899.5	899.5	1.9	1.9	-176.47	1.5	67.5	83.1	79.4	3.77	22.075		
1,000.0	998.7	998.7	998.7	2.1	2.1	-176.91	1.5	67.5	95.3	91.1	4.20	22.699		
1,100.0	1,097.5	1,097.5	1,097.5	2.4	2.4	-177.33	1.5	67.5	110.9	106.3	4.63	23.950		
1,200.0	1,195.6	1,195.6	1,195.6	2.8	2.6	-177.71	1.5	67.5	130.0	124.9	5.07	25.664		
1,300.0	1,293.1	1,298.2	1,298.2	3.2	2.8	-177.98	1.2	65.8	150.9	145.4	5.49	27.493		
1,400.0	1,389.6	1,401.8	1,401.7	3.7	3.0	-178.12	0.4	60.4	171.7	165.8	5.90	29.115		
1,500.0	1,485.3	1,506.3	1,505.7	4.2	3.2	-178.16	-1.1	51.3	192.4	186.0	6.32	30.451		
1,600.0	1,580.0	1,611.7	1,610.3	4.8	3.5	-178.12	-3.1	38.3	212.4	205.6	6.78	31.347		
1,700.0	1,674.6	1,718.5	1,715.7	5.4	3.8	-178.01	-5.8	21.2	229.1	221.9	7.27	31.498		
1,800.0	1,769.2	1,826.5	1,821.5	6.1	4.1	-177.83	-9.2	0.1	242.2	234.4	7.79	31.077		
1,900.0	1,863.8	1,927.2	1,919.7	6.7	4.5	-177.62	-12.6	-22.0	252.9	244.6	8.32	30.402		
2,000.0	1,958.4	2,026.6	2,016.6	7.4	4.8	-177.43	-16.1	-43.8	263.6	254.7	8.85	29.768		
2,100.0	2,053.0	2,126.0	2,113.6	8.0	5.2	-177.25	-19.5	-65.6	274.3	264.9	9.39	29.200		
2,200.0	2,147.6	2,225.4	2,210.5	8.7	5.6	-177.09	-23.0	-87.4	285.0	275.0	9.94	28.659		
2,300.0	2,242.2	2,324.9	2,307.4	9.4	6.1	-176.94	-26.4	-109.2	295.6	285.1	10.50	28.158		
2,400.0	2,336.8	2,424.3	2,404.4	10.1	6.5	-176.80	-29.8	-131.0	306.3	295.3	11.06	27.694		
2,500.0	2,431.4	2,523.7	2,501.3	10.8	6.9	-176.67	-33.3	-152.9	317.0	305.4	11.63	27.265		
2,600.0	2,526.0	2,623.1	2,598.3	11.4	7.4	-176.55	-36.7	-174.7	327.7	315.5	12.20	26.866		
2,700.0	2,620.6	2,722.6	2,695.2	12.1	7.8	-176.43	-40.2	-196.5	338.4	325.6	12.77	26.495		
2,800.0	2,715.2	2,822.0	2,792.2	12.8	8.3	-176.33	-43.6	-218.3	349.1	335.8	13.35	26.150		
2,900.0	2,809.8	2,921.4	2,889.1	13.5	8.7	-176.23	-47.0	-240.1	359.8	345.9	13.93	25.828		
3,000.0	2,904.4	3,020.8	2,986.0	14.2	9.2	-176.13	-50.5	-261.9	370.5	356.0	14.51	25.528		
3,100.0	2,999.0	3,120.3	3,083.0	14.9	9.7	-176.04	-53.9	-283.7	381.2	366.1	15.10	25.247		
3,200.0	3,093.6	3,219.7	3,179.9	15.6	10.1	-175.96	-57.4	-305.6	391.9	376.2	15.69	24.983		
3,300.0	3,188.2	3,319.1	3,276.9	16.3	10.6	-175.88	-60.8	-327.4	402.6	386.3	16.28	24.736		
3,400.0	3,282.8	3,418.5	3,373.8	16.9	11.1	-175.80	-64.2	-349.2	413.3	396.4	16.87	24.504		
3,500.0	3,377.4	3,518.0	3,470.7	17.6	11.5	-175.73	-67.7	-371.0	424.0	406.5	17.46	24.285		
3,600.0	3,472.0	3,617.4	3,567.7	18.3	12.0	-175.66	-71.1	-392.8	434.7	416.6	18.05	24.079		
3,700.0	3,566.6	3,716.8	3,664.6	19.0	12.5	-175.59	-74.6	-414.6	445.4	426.7	18.65	23.885		
3,800.0	3,661.2	3,816.2	3,761.6	19.7	13.0	-175.53	-78.0	-436.4	456.1	436.9	19.24	23.701		
3,900.0	3,755.8	3,915.7	3,858.5	20.4	13.4	-175.47	-81.4	-458.3	466.8	447.0	19.84	23.526		
4,000.0	3,850.4	4,015.1	3,955.4	21.1	13.9	-175.42	-84.9	-480.1	477.5	457.1	20.44	23.361		
4,100.0	3,945.0	4,114.5	4,052.4	21.8	14.4	-175.36	-88.3	-501.9	488.2	467.2	21.04	23.205		
4,200.0	4,039.6	4,213.9	4,149.3	22.5	14.9	-175.31	-91.8	-523.7	498.9	477.3	21.64	23.056		
4,300.0	4,134.2	4,313.4	4,246.3	23.2	15.4	-175.26	-95.2	-545.5	509.6	487.4	22.24	22.914		
4,400.0	4,228.8	4,412.8	4,343.2	23.9	15.8	-175.21	-98.6	-567.3	520.3	497.5	22.84	22.779		
4,500.0	4,323.4	4,512.2	4,440.1	24.6	16.3	-175.17	-102.1	-589.1	531.0	507.6	23.44	22.650		
4,600.0	4,418.0	4,611.6	4,537.1	25.3	16.8	-175.12	-105.5	-610.9	541.7	517.7	24.05	22.527		
4,700.0	4,512.6	4,711.1	4,634.0	26.0	17.3	-175.08	-109.0	-632.8	552.4	527.8	24.65	22.410		
4,800.0	4,607.2	4,810.5	4,731.0	26.6	17.8	-175.04	-112.4	-654.6	563.1	537.9	25.26	22.298		
4,900.0	4,701.8	4,909.9	4,827.9	27.3	18.2	-175.00	-115.8	-676.4	573.9	548.0	25.86	22.190		
5,000.0	4,796.4	5,009.3	4,924.9	28.0	18.7	-174.96	-119.3	-698.2	584.6	558.1	26.47	22.087		
5,100.0	4,891.0	5,108.8	5,021.8	28.7	19.2	-174.93	-122.7	-720.0	595.3	568.2	27.07	21.988		

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 21-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	4,985.6	5,208.2	5,118.7	29.4	19.7	-174.89	-126.2	-741.8	606.0	578.3	27.68	21.894	
5,300.0	5,080.2	5,307.6	5,215.7	30.1	20.2	-174.86	-129.6	-763.6	616.7	588.4	28.28	21.803	
5,400.0	5,174.8	5,407.0	5,312.6	30.8	20.7	-174.83	-133.0	-785.5	627.4	598.5	28.89	21.714	
5,500.0	5,270.0	5,506.6	5,409.7	31.3	21.1	-174.79	-136.5	-807.3	636.2	606.7	29.52	21.556	
5,600.0	5,366.2	5,600.0	5,500.8	31.8	21.6	-174.74	-139.7	-827.5	641.9	611.8	30.07	21.347	
5,700.0	5,463.3	5,680.1	5,579.4	32.2	21.8	-174.69	-142.1	-843.0	646.5	616.0	30.50	21.193	
5,800.0	5,561.1	5,761.8	5,659.9	32.5	22.1	-174.66	-144.2	-856.5	650.4	619.5	30.89	21.057	
5,900.0	5,659.6	5,843.4	5,740.7	32.8	22.3	-174.62	-146.0	-867.8	653.7	622.5	31.22	20.940	
6,000.0	5,758.7	5,924.9	5,821.7	33.1	22.5	-174.60	-147.4	-876.8	656.3	624.8	31.49	20.843	
6,100.0	5,858.2	6,000.0	5,896.5	33.3	22.6	-174.58	-148.4	-883.0	658.3	626.6	31.69	20.771	
6,200.0	5,958.0	6,087.9	5,984.3	33.5	22.8	-174.57	-149.2	-887.8	659.5	627.6	31.86	20.701	
6,300.0	6,057.9	6,169.3	6,065.7	33.6	22.9	-174.56	-149.5	-889.9	660.1	628.1	31.96	20.652	
6,400.0	6,157.9	6,261.5	6,157.9	33.6	23.0	89.87	-149.5	-890.1	660.2	627.3	32.89	20.072	
6,500.0	6,257.9	6,361.5	6,257.9	33.7	23.1	89.87	-149.5	-890.1	660.2	627.0	33.21	19.878	
6,600.0	6,357.8	6,466.1	6,362.3	33.8	23.2	93.62	-145.2	-890.4	660.2	627.3	32.87	20.086	
6,700.0	6,456.2	6,572.2	6,466.5	33.9	23.4	93.53	-125.9	-891.7	660.1	626.9	33.15	19.914	
6,800.0	6,551.3	6,678.0	6,566.5	34.0	23.5	93.36	-91.5	-893.9	660.0	626.6	33.37	19.775	
6,900.0	6,641.1	6,783.5	6,660.0	34.1	23.6	93.13	-43.0	-897.1	659.8	626.2	33.62	19.628	
7,000.0	6,724.0	6,888.4	6,744.9	34.2	23.7	92.83	18.3	-901.2	659.7	625.7	33.97	19.420	
7,100.0	6,798.4	6,992.8	6,819.6	34.3	23.8	92.47	90.9	-905.9	659.5	625.0	34.52	19.103	
7,200.0	6,862.7	7,096.5	6,882.6	34.4	24.0	92.07	173.0	-911.3	659.3	624.0	35.37	18.641	
7,300.0	6,915.7	7,199.4	6,932.7	34.6	24.3	91.63	262.6	-917.2	659.2	622.6	36.55	18.033	
7,400.0	6,956.5	7,301.5	6,969.2	34.9	24.8	91.15	357.7	-923.4	659.1	621.0	38.08	17.306	
7,500.0	6,984.2	7,402.9	6,991.6	35.3	25.3	90.66	456.2	-929.9	659.0	619.1	39.92	16.507	
7,594.8	6,997.8	7,498.2	6,999.9	35.7	26.0	90.18	550.9	-936.1	659.0	617.1	41.89	15.730	
7,600.0	6,998.2	7,503.3	6,999.9	35.7	26.0	90.15	556.0	-936.5	659.0	617.0	42.00	15.689	
7,700.0	7,000.0	7,603.3	7,000.0	36.3	26.8	90.00	655.8	-943.0	659.0	614.7	44.32	14.869	
7,800.0	7,000.0	7,703.3	7,000.0	36.9	27.8	90.00	755.6	-949.6	659.0	612.1	46.86	14.063	
7,900.0	7,000.0	7,803.3	7,000.0	37.7	28.9	90.00	855.4	-956.1	659.0	609.4	49.58	13.293	
8,000.0	7,000.0	7,903.3	7,000.0	38.5	30.1	90.00	955.2	-962.7	659.0	606.6	52.44	12.567	
8,100.0	7,000.0	8,003.3	7,000.0	39.4	31.3	90.00	1,054.9	-969.2	659.1	603.6	55.43	11.889	
8,200.0	7,000.0	8,103.3	7,000.0	40.4	32.7	90.00	1,154.7	-975.8	659.1	600.5	58.53	11.260	
8,300.0	7,000.0	8,203.3	7,000.0	41.5	34.1	90.00	1,254.5	-982.3	659.1	597.4	61.72	10.679	
8,400.0	7,000.0	8,303.3	7,000.0	42.6	35.6	90.00	1,354.3	-988.9	659.1	594.1	64.98	10.143	
8,500.0	7,000.0	8,403.3	7,000.0	43.8	37.1	90.00	1,454.1	-995.4	659.1	590.8	68.31	9.648	
8,600.0	7,000.0	8,503.3	7,000.0	45.1	38.7	90.00	1,553.9	-1,002.0	659.1	587.4	71.70	9.193	
8,700.0	7,000.0	8,603.3	7,000.0	46.4	40.2	90.00	1,653.7	-1,008.5	659.2	584.0	75.14	8.773	
8,800.0	7,000.0	8,703.3	7,000.0	47.8	41.9	90.00	1,753.4	-1,015.1	659.2	580.6	78.62	8.384	
8,900.0	7,000.0	8,803.3	7,000.0	49.2	43.5	90.00	1,853.2	-1,021.6	659.2	577.1	82.14	8.026	
9,000.0	7,000.0	8,903.3	7,000.0	50.7	45.2	90.00	1,953.0	-1,028.2	659.2	573.5	85.69	7.693	
9,100.0	7,000.0	9,003.3	7,000.0	52.1	46.9	90.00	2,052.8	-1,034.7	659.2	570.0	89.27	7.385	
9,200.0	7,000.0	9,103.3	7,000.0	53.7	48.6	90.00	2,152.6	-1,041.3	659.3	566.4	92.87	7.099	
9,300.0	7,000.0	9,203.3	7,000.0	55.2	50.4	90.00	2,252.4	-1,047.8	659.3	562.8	96.50	6.832	
9,400.0	7,000.0	9,303.3	7,000.0	56.8	52.1	90.00	2,352.2	-1,054.4	659.3	559.1	100.15	6.583	
9,500.0	7,000.0	9,403.3	7,000.0	58.4	53.9	90.00	2,451.9	-1,060.9	659.3	555.5	103.81	6.351	
9,600.0	7,000.0	9,503.3	7,000.0	60.0	55.7	90.00	2,551.7	-1,067.5	659.3	551.8	107.49	6.134	
9,700.0	7,000.0	9,603.3	7,000.0	61.7	57.5	90.00	2,651.5	-1,074.0	659.3	548.2	111.19	5.930	
9,800.0	7,000.0	9,703.3	7,000.0	63.3	59.3	90.00	2,751.3	-1,080.6	659.4	544.5	114.90	5.739	
9,900.0	7,000.0	9,803.3	7,000.0	65.0	61.1	90.00	2,851.1	-1,087.1	659.4	540.8	118.62	5.559	
10,000.0	7,000.0	9,903.3	7,000.0	66.7	62.9	90.00	2,950.9	-1,093.7	659.4	537.0	122.35	5.389	
10,100.0	7,000.0	10,003.3	7,000.0	68.4	64.7	90.00	3,050.7	-1,100.2	659.4	533.3	126.10	5.230	
10,200.0	7,000.0	10,103.3	7,000.0	70.1	66.5	90.00	3,150.4	-1,106.8	659.4	529.6	129.85	5.079	

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 21-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design												SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 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		Between Centres	Between Ellipses	Minimum Separation	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)						
10,300.0	7,000.0	10,203.3	7,000.0	71.9	68.4	90.00	3,250.2	-1,113.3	659.5	525.9	133.61	4.936					
10,400.0	7,000.0	10,303.3	7,000.0	73.6	70.2	90.00	3,350.0	-1,119.9	659.5	522.1	137.37	4.801					
10,500.0	7,000.0	10,403.3	7,000.0	75.4	72.1	90.00	3,449.8	-1,126.4	659.5	518.3	141.15	4.672					
10,600.0	7,000.0	10,503.3	7,000.0	77.1	73.9	90.00	3,549.6	-1,133.0	659.5	514.6	144.93	4.551					
10,700.0	7,000.0	10,603.3	7,000.0	78.9	75.8	90.00	3,649.4	-1,139.5	659.5	510.8	148.72	4.435					
10,800.0	7,000.0	10,703.3	7,000.0	80.7	77.6	90.00	3,749.1	-1,146.1	659.5	507.0	152.51	4.325					
10,900.0	7,000.0	10,803.3	7,000.0	82.5	79.5	90.00	3,848.9	-1,152.6	659.6	503.3	156.31	4.220					
11,000.0	7,000.0	10,903.3	7,000.0	84.3	81.4	90.00	3,948.7	-1,159.2	659.6	499.5	160.11	4.120					
11,100.0	7,000.0	11,003.3	7,000.0	86.1	83.3	90.00	4,048.5	-1,165.7	659.6	495.7	163.91	4.024					
11,200.0	7,000.0	11,103.3	7,000.0	87.9	85.1	90.00	4,148.3	-1,172.3	659.6	491.9	167.72	3.933					
11,300.0	7,000.0	11,203.3	7,000.0	89.7	87.0	90.00	4,248.1	-1,178.9	659.6	488.1	171.54	3.845					
11,400.0	7,000.0	11,303.3	7,000.0	91.6	88.9	90.00	4,347.9	-1,185.4	659.7	484.3	175.36	3.762					
11,453.2	7,000.0	11,356.5	7,000.0	92.5	89.9	90.00	4,400.9	-1,188.9	659.7	482.3	177.39	3.719					
11,500.0	7,000.0	11,384.9	7,000.0	93.4	90.4	90.00	4,429.3	-1,190.7	659.9	481.1	178.83	3.690					
11,526.1	7,000.0	11,384.9	7,000.0	93.9	90.4	90.00	4,429.3	-1,190.7	661.2	482.0	179.23	3.689 SF					

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 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 (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	45.2	45.2					
100.0	100.0	100.0	100.0	0.1	0.1	88.61	1.1	45.2	45.2	45.0	0.22	200.994		
200.0	200.0	200.0	200.0	0.3	0.3	88.61	1.1	45.2	45.2	44.5	0.67	66.998		
300.0	300.0	300.0	300.0	0.6	0.6	88.61	1.1	45.2	45.2	44.1	1.12	40.199		
400.0	400.0	400.0	400.0	0.8	0.8	88.61	1.1	45.2	45.2	43.6	1.57	28.713		
500.0	500.0	500.0	500.0	1.0	1.0	88.61	1.1	45.2	45.2	43.2	2.02	22.333		
600.0	600.0	600.0	600.0	1.2	1.2	88.61	1.1	45.2	45.2	42.7	2.47	18.272 CC, ES		
700.0	700.0	700.0	700.0	1.4	1.5	-175.98	1.1	45.2	46.9	44.0	2.91	16.131		
800.0	799.8	799.8	799.8	1.7	1.7	-176.37	1.1	45.2	52.1	48.8	3.34	15.631		
900.0	899.5	899.5	899.5	1.9	1.9	-176.88	1.1	45.2	60.8	57.1	3.77	16.154		
1,000.0	998.7	998.7	998.7	2.1	2.1	-177.39	1.1	45.2	73.0	68.8	4.20	17.390		
1,100.0	1,097.5	1,100.5	1,100.5	2.4	2.3	-177.77	0.9	43.4	86.9	82.3	4.62	18.829		
1,200.0	1,195.6	1,202.9	1,202.7	2.8	2.6	-177.98	0.2	38.0	100.8	95.8	5.02	20.070		
1,300.0	1,293.1	1,305.8	1,305.2	3.2	2.8	-178.07	-1.0	29.0	114.6	109.1	5.44	21.070		
1,400.0	1,389.6	1,409.3	1,407.9	3.7	3.0	-178.08	-2.7	16.2	128.2	122.4	5.86	21.867		
1,500.0	1,485.3	1,513.2	1,510.5	4.2	3.3	-178.04	-4.8	-0.3	141.8	135.5	6.31	22.487		
1,600.0	1,580.0	1,617.8	1,613.0	4.8	3.7	-177.96	-7.5	-20.6	154.7	147.9	6.79	22.791		
1,700.0	1,674.6	1,723.2	1,715.5	5.4	4.1	-177.81	-10.7	-44.9	164.3	157.0	7.31	22.475		
1,800.0	1,769.2	1,824.5	1,813.4	6.1	4.5	-177.61	-14.1	-70.8	171.3	163.4	7.85	21.821		
1,900.0	1,863.8	1,924.3	1,909.8	6.7	4.9	-177.43	-17.4	-96.4	178.1	169.7	8.39	21.228		
2,000.0	1,958.4	2,024.0	2,006.2	7.4	5.4	-177.26	-20.8	-122.0	185.0	176.0	8.95	20.670		
2,100.0	2,053.0	2,123.8	2,102.5	8.0	5.9	-177.10	-24.1	-147.6	191.8	182.3	9.51	20.163		
2,200.0	2,147.6	2,223.6	2,198.9	8.7	6.4	-176.96	-27.5	-173.3	198.7	188.6	10.09	19.699		
2,300.0	2,242.2	2,323.3	2,295.2	9.4	6.9	-176.82	-30.8	-198.9	205.6	194.9	10.66	19.275		
2,400.0	2,336.8	2,423.1	2,391.6	10.1	7.5	-176.69	-34.1	-224.5	212.4	201.2	11.25	18.885		
2,500.0	2,431.4	2,522.9	2,487.9	10.8	8.0	-176.57	-37.5	-250.1	219.3	207.4	11.84	18.528		
2,600.0	2,526.0	2,622.6	2,584.3	11.4	8.5	-176.46	-40.8	-275.7	226.1	213.7	12.43	18.198		
2,700.0	2,620.6	2,722.4	2,680.7	12.1	9.0	-176.36	-44.2	-301.4	233.0	220.0	13.02	17.894		
2,800.0	2,715.2	2,822.1	2,777.0	12.8	9.6	-176.26	-47.5	-327.0	239.9	226.2	13.62	17.612		
2,900.0	2,809.8	2,921.9	2,873.4	13.5	10.1	-176.16	-50.9	-352.6	246.7	232.5	14.22	17.352		
3,000.0	2,904.4	3,021.7	2,969.7	14.2	10.7	-176.07	-54.2	-378.2	253.6	238.8	14.82	17.109		
3,100.0	2,999.0	3,121.4	3,066.1	14.9	11.2	-175.99	-57.6	-403.9	260.4	245.0	15.43	16.883		
3,200.0	3,093.6	3,221.2	3,162.5	15.6	11.7	-175.91	-60.9	-429.5	267.3	251.3	16.03	16.672		
3,300.0	3,188.2	3,321.0	3,258.8	16.3	12.3	-175.83	-64.3	-455.1	274.2	257.5	16.64	16.475		
3,400.0	3,282.8	3,420.7	3,355.2	16.9	12.8	-175.76	-67.6	-480.7	281.0	263.8	17.25	16.291		
3,500.0	3,377.4	3,520.5	3,451.5	17.6	13.4	-175.69	-71.0	-506.4	287.9	270.0	17.86	16.117		
3,600.0	3,472.0	3,620.3	3,547.9	18.3	13.9	-175.63	-74.3	-532.0	294.8	276.3	18.48	15.954		
3,700.0	3,566.6	3,720.0	3,644.2	19.0	14.5	-175.57	-77.7	-557.6	301.6	282.5	19.09	15.801		
3,800.0	3,661.2	3,819.8	3,740.6	19.7	15.0	-175.51	-81.0	-583.2	308.5	288.8	19.70	15.656		
3,900.0	3,755.8	3,919.5	3,837.0	20.4	15.6	-175.45	-84.4	-608.8	315.4	295.0	20.32	15.520		
4,000.0	3,850.4	4,019.3	3,933.3	21.1	16.1	-175.40	-87.7	-634.5	322.2	301.3	20.94	15.390		
4,100.0	3,945.0	4,119.1	4,029.7	21.8	16.7	-175.34	-91.1	-660.1	329.1	307.5	21.56	15.268		
4,200.0	4,039.6	4,218.8	4,126.0	22.5	17.2	-175.29	-94.4	-685.7	336.0	313.8	22.17	15.152		
4,300.0	4,134.2	4,318.6	4,222.4	23.2	17.8	-175.24	-97.8	-711.3	342.8	320.0	22.79	15.041		
4,400.0	4,228.8	4,418.4	4,318.8	23.9	18.4	-175.20	-101.1	-737.0	349.7	326.3	23.41	14.936		
4,500.0	4,323.4	4,518.1	4,415.1	24.6	18.9	-175.15	-104.5	-762.6	356.6	332.5	24.03	14.836		
4,600.0	4,418.0	4,617.9	4,511.5	25.3	19.5	-175.11	-107.8	-788.2	363.4	338.8	24.65	14.741		
4,700.0	4,512.6	4,717.7	4,607.8	26.0	20.0	-175.07	-111.2	-813.8	370.3	345.0	25.28	14.650		
4,800.0	4,607.2	4,817.4	4,704.2	26.6	20.6	-175.03	-114.5	-839.4	377.2	351.3	25.90	14.563		
4,900.0	4,701.8	4,917.2	4,800.6	27.3	21.1	-174.99	-117.9	-865.1	384.0	357.5	26.52	14.480		
5,000.0	4,796.4	5,016.9	4,896.9	28.0	21.7	-174.95	-121.2	-890.7	390.9	363.8	27.15	14.401		
5,100.0	4,891.0	5,116.7	4,993.3	28.7	22.2	-174.92	-124.6	-916.3	397.8	370.0	27.77	14.325		

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

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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
5,200.0	4,985.6	5,216.5	5,089.6	29.4	22.8	-174.88	-127.9	-941.9	404.7	376.3	28.39	14.252			
5,300.0	5,080.2	5,316.2	5,186.0	30.1	23.4	-174.85	-131.3	-967.6	411.5	382.5	29.02	14.182			
5,400.0	5,174.8	5,416.0	5,282.3	30.8	23.9	-174.82	-134.6	-993.2	418.4	388.7	29.64	14.114			
5,500.0	5,270.0	5,513.1	5,376.2	31.3	24.4	-174.78	-137.9	-1,018.1	423.5	393.2	30.26	13.996			
5,600.0	5,366.2	5,600.0	5,460.6	31.8	24.8	-174.73	-140.5	-1,038.6	427.2	396.4	30.75	13.889			
5,700.0	5,463.3	5,687.2	5,545.9	32.2	25.1	-174.69	-142.9	-1,056.6	430.4	399.2	31.20	13.797			
5,800.0	5,561.1	5,774.2	5,631.4	32.5	25.3	-174.66	-144.9	-1,072.0	433.2	401.6	31.58	13.718			
5,900.0	5,659.6	5,861.1	5,717.4	32.8	25.6	-174.63	-146.6	-1,084.8	435.5	403.6	31.90	13.651			
6,000.0	5,758.7	5,947.9	5,803.6	33.1	25.8	-174.61	-147.9	-1,095.0	437.3	405.2	32.16	13.597			
6,100.0	5,858.2	6,034.8	5,890.1	33.3	26.0	-174.59	-148.9	-1,102.6	438.7	406.3	32.37	13.554			
6,200.0	5,958.0	6,121.6	5,976.7	33.5	26.1	-174.58	-149.6	-1,107.6	439.6	407.1	32.51	13.522			
6,300.0	6,057.9	6,208.3	6,063.5	33.6	26.2	-174.58	-149.9	-1,110.0	440.0	407.4	32.60	13.500			
6,400.0	6,157.9	6,302.8	6,157.9	33.6	26.3	89.86	-149.9	-1,110.2	440.1	406.5	33.56	13.112			
6,500.0	6,257.9	6,402.8	6,257.9	33.7	26.4	89.86	-149.9	-1,110.2	440.1	406.2	33.88	12.990			
6,600.0	6,357.8	6,505.8	6,360.7	33.8	26.5	93.60	-145.8	-1,110.5	440.1	406.6	33.47	13.148			
6,700.0	6,456.2	6,609.7	6,462.9	33.9	26.6	93.51	-127.2	-1,111.7	440.0	406.3	33.75	13.038			
6,800.0	6,551.3	6,713.5	6,561.2	34.0	26.7	93.35	-94.1	-1,113.9	439.9	406.0	33.97	12.950			
6,900.0	6,641.1	6,817.1	6,653.5	34.1	26.8	93.12	-47.4	-1,117.0	439.8	405.6	34.21	12.858			
7,000.0	6,724.0	6,920.4	6,737.8	34.2	26.9	92.83	12.0	-1,120.9	439.7	405.2	34.55	12.727			
7,100.0	6,798.4	7,023.3	6,812.4	34.3	27.1	92.48	82.6	-1,125.5	439.6	404.5	35.09	12.528			
7,200.0	6,862.7	7,125.7	6,875.9	34.4	27.3	92.09	162.7	-1,130.8	439.5	403.6	35.91	12.238			
7,300.0	6,915.7	7,227.7	6,927.1	34.6	27.5	91.65	250.6	-1,136.6	439.4	402.3	37.07	11.854			
7,400.0	6,956.5	7,329.2	6,965.1	34.9	27.9	91.18	344.4	-1,142.7	439.3	400.8	38.56	11.392			
7,500.0	6,984.2	7,430.1	6,989.4	35.3	28.4	90.69	442.1	-1,149.1	439.3	398.9	40.37	10.882			
7,600.0	6,998.2	7,530.5	6,999.6	35.7	29.0	90.19	541.7	-1,155.7	439.3	396.8	42.42	10.356			
7,608.5	6,998.8	7,539.0	6,999.9	35.8	29.0	90.14	550.1	-1,156.2	439.3	396.7	42.60	10.311			
7,700.0	7,000.0	7,630.5	7,000.0	36.3	29.7	90.00	641.4	-1,162.2	439.3	394.6	44.70	9.826			
7,800.0	7,000.0	7,730.5	7,000.0	36.9	30.5	90.00	741.2	-1,168.8	439.3	392.1	47.21	9.304			
7,900.0	7,000.0	7,830.5	7,000.0	37.7	31.5	90.00	841.0	-1,175.4	439.3	389.4	49.90	8.803			
8,000.0	7,000.0	7,930.5	7,000.0	38.5	32.5	90.00	940.8	-1,181.9	439.3	386.6	52.74	8.329			
8,100.0	7,000.0	8,030.5	7,000.0	39.4	33.7	90.00	1,040.6	-1,188.5	439.3	383.6	55.71	7.885			
8,200.0	7,000.0	8,130.5	7,000.0	40.4	34.9	90.00	1,140.4	-1,195.0	439.3	380.5	58.79	7.473			
8,300.0	7,000.0	8,230.5	7,000.0	41.5	36.2	90.00	1,240.2	-1,201.6	439.3	377.4	61.96	7.091			
8,400.0	7,000.0	8,330.5	7,000.0	42.6	37.6	90.00	1,339.9	-1,208.2	439.3	374.1	65.20	6.738			
8,500.0	7,000.0	8,430.5	7,000.0	43.8	39.0	90.00	1,439.7	-1,214.7	439.4	370.8	68.52	6.412			
8,600.0	7,000.0	8,530.5	7,000.0	45.1	40.4	90.00	1,539.5	-1,221.3	439.4	367.5	71.89	6.111			
8,700.0	7,000.0	8,630.5	7,000.0	46.4	42.0	90.00	1,639.3	-1,227.8	439.4	364.1	75.32	5.834			
8,800.0	7,000.0	8,730.5	7,000.0	47.8	43.5	90.00	1,739.1	-1,234.4	439.4	360.6	78.79	5.577			
8,900.0	7,000.0	8,830.5	7,000.0	49.2	45.1	90.00	1,838.9	-1,241.0	439.4	357.1	82.29	5.340			
9,000.0	7,000.0	8,930.5	7,000.0	50.7	46.7	90.00	1,938.6	-1,247.5	439.4	353.6	85.83	5.119			
9,100.0	7,000.0	9,030.5	7,000.0	52.1	48.3	90.00	2,038.4	-1,254.1	439.4	350.0	89.40	4.915			
9,200.0	7,000.0	9,130.5	7,000.0	53.7	50.0	90.00	2,138.2	-1,260.6	439.4	346.4	93.00	4.725			
9,300.0	7,000.0	9,230.5	7,000.0	55.2	51.7	90.00	2,238.0	-1,267.2	439.4	342.8	96.62	4.548			
9,400.0	7,000.0	9,330.5	7,000.0	56.8	53.4	90.00	2,337.8	-1,273.7	439.5	339.2	100.26	4.383			
9,500.0	7,000.0	9,430.5	7,000.0	58.4	55.1	90.00	2,437.6	-1,280.3	439.5	335.6	103.91	4.229			
9,600.0	7,000.0	9,530.5	7,000.0	60.0	56.8	90.00	2,537.4	-1,286.9	439.5	331.9	107.59	4.085			
9,700.0	7,000.0	9,630.5	7,000.0	61.7	58.6	90.00	2,637.1	-1,293.4	439.5	328.2	111.28	3.949			
9,800.0	7,000.0	9,730.5	7,000.0	63.3	60.4	90.00	2,736.9	-1,300.0	439.5	324.5	114.98	3.822			
9,900.0	7,000.0	9,830.5	7,000.0	65.0	62.1	90.00	2,836.7	-1,306.5	439.5	320.8	118.70	3.703			
10,000.0	7,000.0	9,930.5	7,000.0	66.7	63.9	90.00	2,936.5	-1,313.1	439.5	317.1	122.43	3.590			
10,100.0	7,000.0	10,030.5	7,000.0	68.4	65.7	90.00	3,036.3	-1,319.7	439.5	313.4	126.17	3.484			
10,200.0	7,000.0	10,130.5	7,000.0	70.1	67.5	90.00	3,136.1	-1,326.2	439.5	309.6	129.91	3.383			

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 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	10,230.5	7,000.0	71.9	69.3	90.00	3,235.8	-1,332.8	439.6	305.9	133.67	3.288	
10,400.0	7,000.0	10,330.5	7,000.0	73.6	71.1	90.00	3,335.6	-1,339.3	439.6	302.1	137.43	3.198	
10,500.0	7,000.0	10,430.5	7,000.0	75.4	73.0	90.00	3,435.4	-1,345.9	439.6	298.4	141.20	3.113	
10,600.0	7,000.0	10,530.5	7,000.0	77.1	74.8	90.00	3,535.2	-1,352.4	439.6	294.6	144.98	3.032	
10,700.0	7,000.0	10,630.5	7,000.0	78.9	76.6	90.00	3,635.0	-1,359.0	439.6	290.8	148.76	2.955	
10,800.0	7,000.0	10,730.5	7,000.0	80.7	78.5	90.00	3,734.8	-1,365.6	439.6	287.1	152.55	2.882	
10,900.0	7,000.0	10,830.5	7,000.0	82.5	80.3	90.00	3,834.6	-1,372.1	439.6	283.3	156.35	2.812	
11,000.0	7,000.0	10,930.5	7,000.0	84.3	82.2	90.00	3,934.3	-1,378.7	439.6	279.5	160.14	2.745	
11,100.0	7,000.0	11,030.5	7,000.0	86.1	84.0	90.00	4,034.1	-1,385.2	439.6	275.7	163.95	2.682	
11,200.0	7,000.0	11,130.5	7,000.0	87.9	85.9	90.00	4,133.9	-1,391.8	439.7	271.9	167.76	2.621	
11,300.0	7,000.0	11,230.5	7,000.0	89.7	87.7	90.00	4,233.7	-1,398.4	439.7	268.1	171.57	2.563	
11,400.0	7,000.0	11,330.5	7,000.0	91.6	89.6	90.00	4,333.5	-1,404.9	439.7	264.3	175.38	2.507	
11,459.2	7,000.0	11,389.8	7,000.0	92.6	90.7	90.00	4,392.6	-1,408.8	439.7	262.0	177.65	2.475	
11,500.0	7,000.0	11,427.8	7,000.0	93.4	91.5	90.00	4,430.6	-1,411.3	439.7	260.5	179.15	2.454	
11,526.1	7,000.0	11,427.8	7,000.0	93.9	91.5	90.00	4,430.6	-1,411.3	440.6	261.1	179.55	2.454 SF	

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)			
0.0	0.0	0.0	0.0	0.0	0.0	-90.94	-0.4	-22.3	22.3					
100.0	100.0	100.0	100.0	0.1	0.1	-90.94	-0.4	-22.3	22.3	22.1	0.22	99.240		
200.0	200.0	200.0	200.0	0.3	0.3	-90.94	-0.4	-22.3	22.3	21.6	0.67	33.080		
300.0	300.0	300.0	300.0	0.6	0.6	-90.94	-0.4	-22.3	22.3	21.2	1.12	19.848		
400.0	400.0	400.0	400.0	0.8	0.8	-90.94	-0.4	-22.3	22.3	20.7	1.57	14.177 CC, ES		
500.0	500.0	499.2	499.2	1.0	1.0	-91.22	-0.5	-24.0	24.0	22.0	2.01	11.967		
600.0	600.0	598.1	598.0	1.2	1.2	-91.88	-1.0	-29.1	29.2	26.8	2.44	11.955		
700.0	700.0	696.8	696.3	1.4	1.4	3.13	-1.7	-37.6	36.1	33.2	2.86	12.607		
800.0	799.8	795.2	793.9	1.7	1.7	2.81	-2.7	-49.4	42.9	39.6	3.28	13.091		
900.0	899.5	893.4	890.9	1.9	2.0	2.61	-4.0	-64.5	49.7	46.0	3.71	13.410		
1,000.0	998.7	991.3	987.1	2.1	2.4	2.51	-5.6	-82.9	56.4	52.3	4.15	13.609		
1,100.0	1,097.5	1,089.1	1,082.5	2.4	2.8	2.46	-7.5	-104.5	63.1	58.5	4.60	13.715		
1,200.0	1,195.6	1,186.6	1,176.8	2.8	3.3	2.45	-9.6	-129.2	69.6	64.5	5.06	13.746		
1,300.0	1,293.1	1,283.9	1,270.0	3.2	3.8	2.47	-12.0	-157.1	76.1	70.5	5.55	13.714		
1,400.0	1,389.6	1,381.0	1,362.0	3.7	4.4	2.52	-14.7	-188.0	82.5	76.4	6.05	13.629		
1,500.0	1,485.3	1,479.4	1,454.1	4.2	5.1	2.59	-17.6	-222.1	88.3	81.8	6.57	13.443		
1,600.0	1,580.0	1,579.3	1,547.7	4.8	5.8	2.73	-20.7	-257.2	91.7	84.6	7.14	12.852		
1,700.0	1,674.6	1,679.2	1,641.2	5.4	6.5	2.88	-23.7	-292.4	94.8	87.0	7.74	12.246		
1,800.0	1,769.2	1,779.2	1,734.7	6.1	7.2	3.02	-26.7	-327.5	97.8	89.5	8.35	11.714		
1,900.0	1,863.8	1,879.2	1,828.3	6.7	8.0	3.14	-29.8	-362.6	100.9	91.9	8.97	11.244		
2,000.0	1,958.4	1,979.1	1,921.8	7.4	8.7	3.27	-32.8	-397.7	103.9	94.3	9.59	10.828		
2,100.0	2,053.0	2,079.1	2,015.3	8.0	9.4	3.38	-35.8	-432.8	106.9	96.7	10.23	10.457		
2,200.0	2,147.6	2,179.0	2,108.9	8.7	10.2	3.49	-38.9	-467.9	110.0	99.1	10.86	10.124		
2,300.0	2,242.2	2,279.0	2,202.4	9.4	10.9	3.59	-41.9	-503.0	113.0	101.5	11.50	9.825		
2,400.0	2,336.8	2,378.9	2,295.9	10.1	11.7	3.69	-44.9	-538.1	116.0	103.9	12.14	9.555		
2,500.0	2,431.4	2,478.9	2,389.5	10.8	12.4	3.78	-48.0	-573.3	119.1	106.3	12.79	9.309		
2,600.0	2,526.0	2,578.8	2,483.0	11.4	13.2	3.86	-51.0	-608.4	122.1	108.7	13.44	9.086		
2,700.0	2,620.6	2,678.8	2,576.5	12.1	13.9	3.95	-54.0	-643.5	125.1	111.1	14.09	8.881		
2,800.0	2,715.2	2,778.7	2,670.1	12.8	14.7	4.03	-57.1	-678.6	128.2	113.4	14.74	8.694		
2,900.0	2,809.8	2,878.7	2,763.6	13.5	15.4	4.10	-60.1	-713.7	131.2	115.8	15.40	8.521		
3,000.0	2,904.4	2,978.6	2,857.1	14.2	16.2	4.17	-63.1	-748.8	134.3	118.2	16.06	8.362		
3,100.0	2,999.0	3,078.6	2,950.7	14.9	16.9	4.24	-66.2	-783.9	137.3	120.6	16.71	8.215		
3,200.0	3,093.6	3,178.6	3,044.2	15.6	17.7	4.31	-69.2	-819.0	140.3	123.0	17.37	8.078		
3,300.0	3,188.2	3,278.5	3,137.7	16.3	18.4	4.37	-72.2	-854.2	143.4	125.3	18.04	7.950		
3,400.0	3,282.8	3,378.5	3,231.3	16.9	19.2	4.43	-75.3	-889.3	146.4	127.7	18.70	7.831		
3,500.0	3,377.4	3,478.4	3,324.8	17.6	20.0	4.49	-78.3	-924.4	149.5	130.1	19.36	7.720		
3,600.0	3,472.0	3,578.4	3,418.3	18.3	20.7	4.54	-81.3	-959.5	152.5	132.5	20.02	7.616		
3,700.0	3,566.6	3,678.3	3,511.9	19.0	21.5	4.60	-84.4	-994.6	155.5	134.9	20.69	7.518		
3,800.0	3,661.2	3,778.3	3,605.4	19.7	22.2	4.65	-87.4	-1,029.7	158.6	137.2	21.35	7.426		
3,900.0	3,755.8	3,878.2	3,698.9	20.4	23.0	4.70	-90.4	-1,064.8	161.6	139.6	22.02	7.340		
4,000.0	3,850.4	3,978.2	3,792.5	21.1	23.7	4.75	-93.5	-1,099.9	164.7	142.0	22.69	7.258		
4,100.0	3,945.0	4,078.1	3,886.0	21.8	24.5	4.79	-96.5	-1,135.1	167.7	144.3	23.35	7.181		
4,200.0	4,039.6	4,178.1	3,979.5	22.5	25.2	4.84	-99.5	-1,170.2	170.7	146.7	24.02	7.108		
4,300.0	4,134.2	4,278.0	4,073.1	23.2	26.0	4.88	-102.6	-1,205.3	173.8	149.1	24.69	7.038		
4,400.0	4,228.8	4,378.0	4,166.6	23.9	26.8	4.92	-105.6	-1,240.4	176.8	151.5	25.36	6.972		
4,500.0	4,323.4	4,478.0	4,260.1	24.6	27.5	4.96	-108.6	-1,275.5	179.9	153.8	26.03	6.910		
4,600.0	4,418.0	4,577.9	4,353.7	25.3	28.3	5.00	-111.7	-1,310.6	182.9	156.2	26.70	6.850		
4,700.0	4,512.6	4,677.9	4,447.2	26.0	29.0	5.03	-114.7	-1,345.7	185.9	158.6	27.37	6.794		
4,800.0	4,607.2	4,777.8	4,540.8	26.6	29.8	5.07	-117.7	-1,380.9	189.0	160.9	28.04	6.739		
4,900.0	4,701.8	4,877.8	4,634.3	27.3	30.5	5.11	-120.8	-1,416.0	192.0	163.3	28.71	6.688		
5,000.0	4,796.4	4,977.7	4,727.8	28.0	31.3	5.14	-123.8	-1,451.1	195.1	165.7	29.39	6.638		
5,100.0	4,891.0	5,077.7	4,821.4	28.7	32.1	5.17	-126.8	-1,486.2	198.1	168.1	30.06	6.591		

COMPASS 2003.21 Build 46

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 21-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	4,985.6	5,177.6	4,914.9	29.4	32.8	5.20	-129.9	-1,521.3	201.2	170.4	30.73	6.546	
5,300.0	5,080.2	5,277.6	5,008.4	30.1	33.6	5.23	-132.9	-1,556.4	204.2	172.8	31.40	6.503	
5,400.0	5,174.8	5,378.5	5,102.9	30.8	34.3	5.27	-135.9	-1,591.8	207.2	175.1	32.08	6.460	
5,500.0	5,270.0	5,486.3	5,204.6	31.3	34.9	5.31	-139.0	-1,627.3	209.8	177.1	32.68	6.419	
5,600.0	5,366.2	5,594.2	5,307.7	31.8	35.5	5.34	-141.7	-1,659.0	212.0	178.8	33.21	6.385	
5,700.0	5,463.3	5,702.2	5,412.0	32.2	36.0	5.38	-144.1	-1,686.8	214.0	180.4	33.67	6.357	
5,800.0	5,561.1	5,810.3	5,517.4	32.5	36.4	5.40	-146.2	-1,710.7	215.7	181.7	34.05	6.335	
5,900.0	5,659.6	5,918.4	5,623.7	32.8	36.7	5.43	-147.9	-1,730.6	217.2	182.8	34.37	6.319	
6,000.0	5,758.7	6,026.6	5,730.7	33.1	37.0	5.44	-149.3	-1,746.5	218.3	183.7	34.61	6.308	
6,100.0	5,858.2	6,134.8	5,838.2	33.3	37.2	5.46	-150.3	-1,758.4	219.1	184.4	34.78	6.301	
6,200.0	5,958.0	6,243.1	5,946.2	33.5	37.4	5.46	-151.0	-1,766.2	219.7	184.8	34.88	6.300	
6,300.0	6,057.9	6,351.4	6,054.4	33.6	37.5	5.47	-151.3	-1,769.9	220.0	185.1	34.91	6.302	
6,400.0	6,157.9	6,454.8	6,157.9	33.6	37.6	-90.09	-151.4	-1,770.3	220.0	184.0	36.02	6.108	
6,500.0	6,257.9	6,554.8	6,257.9	33.7	37.7	-90.09	-151.4	-1,770.3	220.0	183.7	36.31	6.060	
6,600.0	6,357.8	6,653.4	6,356.3	33.8	37.7	-86.35	-147.7	-1,770.5	220.0	184.3	35.70	6.163	
6,700.0	6,456.2	6,751.5	6,452.9	33.9	37.8	-86.43	-131.1	-1,771.6	220.0	184.0	35.97	6.116	
6,800.0	6,551.3	6,850.0	6,546.8	34.0	37.9	-86.59	-101.5	-1,773.6	219.9	183.8	36.18	6.079	
6,900.0	6,641.1	6,947.9	6,635.1	34.1	38.0	-86.81	-59.5	-1,776.4	219.9	183.5	36.40	6.041	
7,000.0	6,724.0	7,046.3	6,717.3	34.2	38.1	-87.09	-5.6	-1,779.9	219.8	183.1	36.72	5.988	
7,100.0	6,798.4	7,144.8	6,791.4	34.3	38.2	-87.43	59.1	-1,784.2	219.8	182.6	37.21	5.906	
7,200.0	6,862.7	7,243.6	6,856.0	34.4	38.3	-87.81	133.5	-1,789.1	219.7	181.8	37.96	5.788	
7,300.0	6,915.7	7,342.5	6,909.8	34.6	38.5	-88.24	216.2	-1,794.5	219.7	180.7	39.03	5.629	
7,400.0	6,956.5	7,441.7	6,951.9	34.9	38.8	-88.71	305.7	-1,800.4	219.7	179.2	40.42	5.434	
7,500.0	6,984.2	7,541.1	6,981.2	35.3	39.1	-89.20	400.4	-1,806.7	219.6	177.5	42.12	5.214	
7,600.0	6,998.2	7,640.8	6,997.1	35.7	39.5	-89.70	498.6	-1,813.2	219.6	175.6	44.06	4.985	
7,601.6	6,998.3	7,642.4	6,997.2	35.8	39.5	-89.71	500.1	-1,813.3	219.6	175.5	44.09	4.981	
7,700.0	7,000.0	7,740.7	7,000.0	36.3	40.0	-90.00	598.2	-1,819.7	219.6	173.4	46.23	4.751	
7,800.0	7,000.0	7,840.7	7,000.0	36.9	40.5	-90.00	698.0	-1,826.3	219.6	171.0	48.65	4.515	
7,900.0	7,000.0	7,940.7	7,000.0	37.7	41.2	-90.00	797.8	-1,832.9	219.6	168.4	51.25	4.286	
8,000.0	7,000.0	8,040.7	7,000.0	38.5	41.9	-90.00	897.5	-1,839.5	219.7	165.6	54.01	4.067	
8,100.0	7,000.0	8,140.7	7,000.0	39.4	42.7	-90.00	997.3	-1,846.0	219.7	162.8	56.90	3.861	
8,200.0	7,000.0	8,240.7	7,000.0	40.4	43.6	-90.00	1,097.1	-1,852.6	219.7	159.8	59.90	3.667	
8,300.0	7,000.0	8,340.7	7,000.0	41.5	44.6	-90.00	1,196.9	-1,859.2	219.7	156.7	63.00	3.487	
8,400.0	7,000.0	8,440.7	7,000.0	42.6	45.6	-90.00	1,296.7	-1,865.8	219.7	153.5	66.19	3.319	
8,500.0	7,000.0	8,540.7	7,000.0	43.8	46.7	-90.00	1,396.5	-1,872.4	219.7	150.2	69.45	3.163	
8,600.0	7,000.0	8,640.7	7,000.0	45.1	47.9	-90.00	1,496.2	-1,878.9	219.7	146.9	72.77	3.019	
8,700.0	7,000.0	8,740.7	7,000.0	46.4	49.1	-90.00	1,596.0	-1,885.5	219.7	143.6	76.15	2.885	
8,800.0	7,000.0	8,840.7	7,000.0	47.8	50.4	-90.00	1,695.8	-1,892.1	219.7	140.2	79.57	2.761	
8,900.0	7,000.0	8,940.7	7,000.0	49.2	51.7	-90.00	1,795.6	-1,898.7	219.7	136.7	83.03	2.646	
9,000.0	7,000.0	9,040.7	7,000.0	50.7	53.1	-90.00	1,895.4	-1,905.2	219.7	133.2	86.54	2.539	
9,100.0	7,000.0	9,140.7	7,000.0	52.1	54.5	-90.00	1,995.2	-1,911.8	219.8	129.7	90.07	2.440	
9,200.0	7,000.0	9,240.7	7,000.0	53.7	55.9	-90.00	2,094.9	-1,918.4	219.8	126.1	93.63	2.347	
9,300.0	7,000.0	9,340.7	7,000.0	55.2	57.4	-90.00	2,194.7	-1,925.0	219.8	122.5	97.22	2.260	
9,400.0	7,000.0	9,440.7	7,000.0	56.8	58.9	-90.00	2,294.5	-1,931.6	219.8	118.9	100.84	2.180	
9,500.0	7,000.0	9,540.7	7,000.0	58.4	60.4	-90.00	2,394.3	-1,938.1	219.8	115.3	104.47	2.104	
9,600.0	7,000.0	9,640.7	7,000.0	60.0	62.0	-90.00	2,494.1	-1,944.7	219.8	111.7	108.12	2.033	
9,700.0	7,000.0	9,740.7	7,000.0	61.7	63.6	-90.00	2,593.9	-1,951.3	219.8	108.0	111.79	1.966	
9,800.0	7,000.0	9,840.7	7,000.0	63.3	65.2	-90.00	2,693.6	-1,957.9	219.8	104.4	115.47	1.904	
9,900.0	7,000.0	9,940.7	7,000.0	65.0	66.8	-90.00	2,793.4	-1,964.5	219.8	100.7	119.16	1.845	
10,000.0	7,000.0	10,040.7	7,000.0	66.7	68.5	-90.00	2,893.2	-1,971.0	219.8	97.0	122.87	1.789	
10,100.0	7,000.0	10,140.7	7,000.0	68.4	70.1	-90.00	2,993.0	-1,977.6	219.8	93.3	126.59	1.737	
10,200.0	7,000.0	10,240.7	7,000.0	70.1	71.8	-90.00	3,092.8	-1,984.2	219.9	89.5	130.32	1.687	

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 21-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn A-4CHZ - Wellbore #1 - Plan #2 (4-25-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							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)			
10,300.0	7,000.0	10,340.7	7,000.0	71.9	73.5	-90.00	3,192.6	-1,990.8	219.9	85.8	134.06	1.640		
10,400.0	7,000.0	10,440.7	7,000.0	73.6	75.2	-90.00	3,292.3	-1,997.3	219.9	82.1	137.81	1.596		
10,500.0	7,000.0	10,540.7	7,000.0	75.4	76.9	-90.00	3,392.1	-2,003.9	219.9	78.3	141.56	1.553		
10,600.0	7,000.0	10,640.7	7,000.0	77.1	78.6	-90.00	3,491.9	-2,010.5	219.9	74.6	145.33	1.513		
10,700.0	7,000.0	10,740.7	7,000.0	78.9	80.4	-90.00	3,591.7	-2,017.1	219.9	70.8	149.10	1.475 Level 3		
10,800.0	7,000.0	10,840.7	7,000.0	80.7	82.1	-90.00	3,691.5	-2,023.7	219.9	67.0	152.87	1.439 Level 3		
10,900.0	7,000.0	10,940.7	7,000.0	82.5	83.9	-90.00	3,791.3	-2,030.2	219.9	63.3	156.66	1.404 Level 3		
11,000.0	7,000.0	11,040.7	7,000.0	84.3	85.6	-90.00	3,891.0	-2,036.8	219.9	59.5	160.45	1.371 Level 3		
11,100.0	7,000.0	11,140.7	7,000.0	86.1	87.4	-90.00	3,990.8	-2,043.4	219.9	55.7	164.24	1.339 Level 3		
11,200.0	7,000.0	11,240.7	7,000.0	87.9	89.2	-90.00	4,090.6	-2,050.0	220.0	51.9	168.04	1.309 Level 3		
11,300.0	7,000.0	11,340.7	7,000.0	89.7	91.0	-90.00	4,190.4	-2,056.6	220.0	48.1	171.84	1.280 Level 3		
11,400.0	7,000.0	11,440.7	7,000.0	91.6	92.8	-90.00	4,290.2	-2,063.1	220.0	44.3	175.64	1.252 Level 3		
11,500.0	7,000.0	11,540.7	7,000.0	93.4	94.6	-90.00	4,390.0	-2,069.7	220.0	40.5	179.45	1.226 Level 2		
11,526.1	7,000.0	11,566.8	7,000.0	93.9	95.1	-90.00	4,416.0	-2,071.4	220.0	39.6	180.35	1.220 Level 2, SF		

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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 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.51	-0.4	-42.4	42.4					
100.0	100.0	100.0	100.0	0.1	0.1	-90.51	-0.4	-42.4	42.4	42.2	0.22	188.539		
200.0	200.0	200.0	200.0	0.3	0.3	-90.51	-0.4	-42.4	42.4	41.7	0.67	62.846 CC, ES		
300.0	300.0	298.5	298.5	0.6	0.5	-90.66	-0.5	-44.1	44.1	43.0	1.11	39.734		
400.0	400.0	396.8	396.6	0.8	0.8	-91.05	-0.9	-49.1	49.2	47.7	1.55	31.713		
500.0	500.0	494.6	494.1	1.0	1.0	-91.54	-1.5	-57.5	57.8	55.8	2.02	28.584		
600.0	600.0	591.7	590.5	1.2	1.3	-92.03	-2.4	-69.0	69.7	67.2	2.52	27.622		
700.0	700.0	688.2	685.9	1.4	1.6	3.16	-3.6	-83.8	83.3	80.4	2.90	28.741		
800.0	799.8	784.3	780.3	1.7	2.0	2.93	-5.0	-101.6	96.7	93.4	3.33	29.046		
900.0	899.5	880.0	873.6	1.9	2.4	2.79	-6.6	-122.5	110.0	106.3	3.78	29.139		
1,000.0	998.7	975.2	965.8	2.1	2.9	2.72	-8.4	-146.3	123.2	118.9	4.24	29.079		
1,100.0	1,097.5	1,070.1	1,056.8	2.4	3.4	2.68	-10.5	-173.1	136.2	131.4	4.71	28.903		
1,200.0	1,195.6	1,164.6	1,146.4	2.8	4.0	2.68	-12.8	-202.7	149.0	143.8	5.20	28.631		
1,300.0	1,293.1	1,258.7	1,234.7	3.2	4.7	2.70	-15.3	-235.2	161.6	155.8	5.71	28.271		
1,400.0	1,389.6	1,354.8	1,323.9	3.7	5.4	2.74	-18.1	-271.0	173.7	167.4	6.23	27.859		
1,500.0	1,485.3	1,454.3	1,416.0	4.2	6.2	2.83	-21.0	-308.6	182.9	176.1	6.80	26.890		
1,600.0	1,580.0	1,554.2	1,508.4	4.8	7.0	2.96	-23.9	-346.3	189.1	181.7	7.39	25.571		
1,700.0	1,674.6	1,654.0	1,600.8	5.4	7.8	3.09	-26.9	-384.0	195.0	186.9	8.02	24.316		
1,800.0	1,769.2	1,753.8	1,693.2	6.1	8.6	3.21	-29.8	-421.7	200.8	192.2	8.65	23.219		
1,900.0	1,863.8	1,853.6	1,785.5	6.7	9.4	3.33	-32.7	-459.5	206.7	197.4	9.29	22.254		
2,000.0	1,958.4	1,953.5	1,877.9	7.4	10.2	3.44	-35.6	-497.2	212.6	202.6	9.93	21.401		
2,100.0	2,053.0	2,053.3	1,970.3	8.0	11.0	3.54	-38.6	-534.9	218.4	207.8	10.58	20.643		
2,200.0	2,147.6	2,153.1	2,062.7	8.7	11.8	3.64	-41.5	-572.6	224.3	213.1	11.23	19.965		
2,300.0	2,242.2	2,252.9	2,155.1	9.4	12.6	3.74	-44.4	-610.3	230.2	218.3	11.89	19.355		
2,400.0	2,336.8	2,352.8	2,247.5	10.1	13.4	3.83	-47.3	-648.0	236.0	223.5	12.55	18.805		
2,500.0	2,431.4	2,452.6	2,339.8	10.8	14.2	3.91	-50.2	-685.7	241.9	228.7	13.21	18.306		
2,600.0	2,526.0	2,552.4	2,432.2	11.4	15.0	3.99	-53.2	-723.4	247.8	233.9	13.88	17.852		
2,700.0	2,620.6	2,652.2	2,524.6	12.1	15.9	4.07	-56.1	-761.1	253.6	239.1	14.55	17.438		
2,800.0	2,715.2	2,752.1	2,617.0	12.8	16.7	4.14	-59.0	-798.8	259.5	244.3	15.21	17.057		
2,900.0	2,809.8	2,851.9	2,709.4	13.5	17.5	4.21	-61.9	-836.5	265.4	249.5	15.89	16.707		
3,000.0	2,904.4	2,951.7	2,801.8	14.2	18.3	4.28	-64.9	-874.2	271.3	254.7	16.56	16.384		
3,100.0	2,999.0	3,051.6	2,894.2	14.9	19.1	4.34	-67.8	-912.0	277.1	259.9	17.23	16.084		
3,200.0	3,093.6	3,151.4	2,986.5	15.6	19.9	4.40	-70.7	-949.7	283.0	265.1	17.90	15.807		
3,300.0	3,188.2	3,251.2	3,078.9	16.3	20.7	4.46	-73.6	-987.4	288.9	270.3	18.58	15.548		
3,400.0	3,282.8	3,351.0	3,171.3	16.9	21.6	4.52	-76.6	-1,025.1	294.8	275.5	19.26	15.307		
3,500.0	3,377.4	3,450.9	3,263.7	17.6	22.4	4.57	-79.5	-1,062.8	300.6	280.7	19.93	15.082		
3,600.0	3,472.0	3,550.7	3,356.1	18.3	23.2	4.63	-82.4	-1,100.5	306.5	285.9	20.61	14.871		
3,700.0	3,566.6	3,650.5	3,448.5	19.0	24.0	4.68	-85.3	-1,138.2	312.4	291.1	21.29	14.672		
3,800.0	3,661.2	3,750.3	3,540.9	19.7	24.8	4.72	-88.2	-1,175.9	318.3	296.3	21.97	14.486		
3,900.0	3,755.8	3,850.2	3,633.2	20.4	25.6	4.77	-91.2	-1,213.6	324.1	301.5	22.65	14.310		
4,000.0	3,850.4	3,950.0	3,725.6	21.1	26.5	4.82	-94.1	-1,251.3	330.0	306.7	23.33	14.145		
4,100.0	3,945.0	4,049.8	3,818.0	21.8	27.3	4.86	-97.0	-1,289.0	335.9	311.9	24.01	13.988		
4,200.0	4,039.6	4,149.7	3,910.4	22.5	28.1	4.90	-99.9	-1,326.7	341.8	317.1	24.69	13.840		
4,300.0	4,134.2	4,249.5	4,002.8	23.2	28.9	4.94	-102.9	-1,364.4	347.6	322.3	25.38	13.699		
4,400.0	4,228.8	4,349.3	4,095.2	23.9	29.7	4.98	-105.8	-1,402.2	353.5	327.5	26.06	13.565		
4,500.0	4,323.4	4,449.1	4,187.5	24.6	30.5	5.02	-108.7	-1,439.9	359.4	332.7	26.74	13.438		
4,600.0	4,418.0	4,549.0	4,279.9	25.3	31.4	5.06	-111.6	-1,477.6	365.3	337.8	27.43	13.318		
4,700.0	4,512.6	4,648.8	4,372.3	26.0	32.2	5.09	-114.5	-1,515.3	371.1	343.0	28.11	13.203		
4,800.0	4,607.2	4,748.6	4,464.7	26.6	33.0	5.13	-117.5	-1,553.0	377.0	348.2	28.80	13.093		
4,900.0	4,701.8	4,848.4	4,557.1	27.3	33.8	5.16	-120.4	-1,590.7	382.9	353.4	29.48	12.988		
5,000.0	4,796.4	4,948.3	4,649.5	28.0	34.6	5.19	-123.3	-1,628.4	388.8	358.6	30.17	12.888		
5,100.0	4,891.0	5,048.1	4,741.9	28.7	35.4	5.22	-126.2	-1,666.1	394.7	363.8	30.85	12.792		

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 21-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.0	4,985.6	5,147.9	4,834.2	29.4	36.3	5.25	-129.2	-1,703.8	400.5	369.0	31.54	12.700	
5,300.0	5,080.2	5,247.7	4,926.6	30.1	37.1	5.28	-132.1	-1,741.5	406.4	374.2	32.22	12.612	
5,400.0	5,174.8	5,348.4	5,019.7	30.8	37.9	5.31	-135.0	-1,779.5	412.3	379.4	32.91	12.527	
5,500.0	5,270.0	5,465.1	5,128.7	31.3	38.6	5.35	-138.3	-1,821.2	417.8	384.3	33.54	12.456	
5,600.0	5,366.2	5,582.1	5,239.6	31.8	39.3	5.39	-141.2	-1,858.5	422.7	388.6	34.09	12.399	
5,700.0	5,463.3	5,699.3	5,352.1	32.2	39.8	5.42	-143.7	-1,891.3	427.1	392.5	34.57	12.354	
5,800.0	5,561.1	5,816.8	5,466.1	32.5	40.3	5.45	-145.9	-1,919.6	430.8	395.8	34.96	12.321	
5,900.0	5,659.6	5,934.5	5,581.3	32.8	40.7	5.47	-147.7	-1,943.2	433.9	398.6	35.28	12.297	
6,000.0	5,758.7	6,052.3	5,697.6	33.1	41.1	5.49	-149.2	-1,962.1	436.4	400.8	35.52	12.284	
6,100.0	5,858.2	6,170.2	5,814.7	33.3	41.3	5.50	-150.3	-1,976.2	438.2	402.5	35.69	12.280	
6,200.0	5,958.0	6,288.2	5,932.3	33.5	41.5	5.51	-151.0	-1,985.5	439.4	403.7	35.77	12.285	
6,300.0	6,057.9	6,406.3	6,050.3	33.6	41.6	5.51	-151.3	-1,989.9	440.0	404.2	35.78	12.299	
6,400.0	6,157.9	6,513.9	6,157.9	33.6	41.7	-90.05	-151.4	-1,990.4	440.1	403.1	36.94	11.912	
6,500.0	6,257.9	6,613.9	6,257.9	33.7	41.8	-90.05	-151.4	-1,990.4	440.1	402.9	37.22	11.823	
6,600.0	6,357.8	6,711.1	6,354.9	33.8	41.9	-86.30	-147.8	-1,990.6	440.1	403.5	36.54	12.043	
6,700.0	6,456.2	6,807.3	6,449.7	33.9	41.9	-86.39	-131.9	-1,991.7	440.0	403.2	36.81	11.954	
6,800.0	6,551.3	6,903.6	6,541.7	34.0	42.0	-86.54	-103.4	-1,993.5	440.0	402.9	37.02	11.884	
6,900.0	6,641.1	7,000.0	6,629.0	34.1	42.1	-86.76	-62.9	-1,996.2	439.9	402.6	37.24	11.812	
7,000.0	6,724.0	7,096.9	6,710.5	34.2	42.1	-87.04	-10.7	-1,999.7	439.8	402.2	37.54	11.713	
7,100.0	6,798.4	7,193.9	6,784.3	34.3	42.2	-87.38	52.1	-2,003.8	439.6	401.6	38.02	11.562	
7,200.0	6,862.7	7,291.3	6,849.1	34.4	42.4	-87.76	124.5	-2,008.6	439.5	400.8	38.75	11.341	
7,300.0	6,915.7	7,389.2	6,903.7	34.6	42.5	-88.19	205.4	-2,013.9	439.4	399.6	39.79	11.043	
7,400.0	6,956.5	7,487.4	6,947.0	34.9	42.8	-88.66	293.4	-2,019.7	439.3	398.2	41.15	10.676	
7,500.0	6,984.2	7,586.2	6,977.8	35.3	43.1	-89.15	386.9	-2,025.9	439.3	396.4	42.81	10.261	
7,600.0	6,998.2	7,685.5	6,995.6	35.7	43.4	-89.66	484.3	-2,032.3	439.2	394.5	44.71	9.824	
7,624.8	6,999.7	7,710.2	6,997.9	35.9	43.5	-89.76	508.8	-2,033.9	439.2	394.0	45.22	9.713	
7,700.0	7,000.0	7,785.3	7,000.0	36.3	43.8	-90.00	583.7	-2,038.9	439.2	392.4	46.83	9.380	
7,800.0	7,000.0	7,885.3	7,000.0	36.9	44.4	-90.00	683.5	-2,045.4	439.2	390.0	49.22	8.925	
7,900.0	7,000.0	7,985.3	7,000.0	37.7	44.9	-90.00	783.3	-2,052.0	439.3	387.5	51.79	8.482	
8,000.0	7,000.0	8,085.3	7,000.0	38.5	45.6	-90.00	883.1	-2,058.6	439.3	384.8	54.52	8.058	
8,100.0	7,000.0	8,185.3	7,000.0	39.4	46.3	-90.00	982.9	-2,065.2	439.3	381.9	57.38	7.656	
8,200.0	7,000.0	8,285.3	7,000.0	40.4	47.1	-90.00	1,082.6	-2,071.8	439.3	378.9	60.36	7.278	
8,300.0	7,000.0	8,385.3	7,000.0	41.5	48.0	-90.00	1,182.4	-2,078.3	439.3	375.9	63.43	6.925	
8,400.0	7,000.0	8,485.3	7,000.0	42.6	49.0	-90.00	1,282.2	-2,084.9	439.3	372.7	66.60	6.597	
8,500.0	7,000.0	8,585.3	7,000.0	43.8	50.0	-90.00	1,382.0	-2,091.5	439.3	369.5	69.83	6.291	
8,600.0	7,000.0	8,685.3	7,000.0	45.1	51.0	-90.00	1,481.8	-2,098.1	439.3	366.2	73.14	6.007	
8,700.0	7,000.0	8,785.3	7,000.0	46.4	52.1	-90.00	1,581.6	-2,104.7	439.3	362.8	76.49	5.743	
8,800.0	7,000.0	8,885.3	7,000.0	47.8	53.3	-90.00	1,681.3	-2,111.2	439.4	359.5	79.90	5.499	
8,900.0	7,000.0	8,985.3	7,000.0	49.2	54.6	-90.00	1,781.1	-2,117.8	439.4	356.0	83.35	5.271	
9,000.0	7,000.0	9,085.3	7,000.0	50.7	55.8	-90.00	1,880.9	-2,124.4	439.4	352.5	86.84	5.060	
9,100.0	7,000.0	9,185.3	7,000.0	52.1	57.1	-90.00	1,980.7	-2,131.0	439.4	349.0	90.36	4.863	
9,200.0	7,000.0	9,285.3	7,000.0	53.7	58.5	-90.00	2,080.5	-2,137.6	439.4	345.5	93.91	4.679	
9,300.0	7,000.0	9,385.3	7,000.0	55.2	59.9	-90.00	2,180.3	-2,144.1	439.4	341.9	97.49	4.507	
9,400.0	7,000.0	9,485.3	7,000.0	56.8	61.3	-90.00	2,280.0	-2,150.7	439.4	338.3	101.09	4.347	
9,500.0	7,000.0	9,585.3	7,000.0	58.4	62.8	-90.00	2,379.8	-2,157.3	439.4	334.7	104.71	4.197	
9,600.0	7,000.0	9,685.3	7,000.0	60.0	64.3	-90.00	2,479.6	-2,163.9	439.4	331.1	108.35	4.056	
9,700.0	7,000.0	9,785.3	7,000.0	61.7	65.8	-90.00	2,579.4	-2,170.5	439.5	327.4	112.01	3.923	
9,800.0	7,000.0	9,885.3	7,000.0	63.3	67.3	-90.00	2,679.2	-2,177.0	439.5	323.8	115.68	3.799	
9,900.0	7,000.0	9,985.3	7,000.0	65.0	68.9	-90.00	2,779.0	-2,183.6	439.5	320.1	119.37	3.682	
10,000.0	7,000.0	10,085.3	7,000.0	66.7	70.5	-90.00	2,878.7	-2,190.2	439.5	316.4	123.07	3.571	
10,100.0	7,000.0	10,185.3	7,000.0	68.4	72.1	-90.00	2,978.5	-2,196.8	439.5	312.7	126.78	3.467	
10,200.0	7,000.0	10,285.3	7,000.0	70.1	73.7	-90.00	3,078.3	-2,203.4	439.5	309.0	130.51	3.368	

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 21-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn 21-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

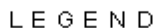
Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn A-4NHZ - Wellbore #1 - Plan #2 (4-25-14)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (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	
10,300.0	7,000.0	10,385.3	7,000.0	71.9	75.3	-90.00	3,178.1	-2,210.0	439.5	305.3	134.24	3.274	
10,400.0	7,000.0	10,485.3	7,000.0	73.6	77.0	-90.00	3,277.9	-2,216.5	439.5	301.6	137.98	3.185	
10,500.0	7,000.0	10,585.3	7,000.0	75.4	78.7	-90.00	3,377.7	-2,223.1	439.5	297.8	141.73	3.101	
10,600.0	7,000.0	10,685.3	7,000.0	77.1	80.3	-90.00	3,477.4	-2,229.7	439.6	294.1	145.49	3.021	
10,700.0	7,000.0	10,785.3	7,000.0	78.9	82.0	-90.00	3,577.2	-2,236.3	439.6	290.3	149.25	2.945	
10,800.0	7,000.0	10,885.3	7,000.0	80.7	83.8	-90.00	3,677.0	-2,242.9	439.6	286.6	153.02	2.873	
10,900.0	7,000.0	10,985.3	7,000.0	82.5	85.5	-90.00	3,776.8	-2,249.4	439.6	282.8	156.80	2.803	
11,000.0	7,000.0	11,085.3	7,000.0	84.3	87.2	-90.00	3,876.6	-2,256.0	439.6	279.0	160.59	2.737	
11,100.0	7,000.0	11,185.3	7,000.0	86.1	88.9	-90.00	3,976.4	-2,262.6	439.6	275.2	164.37	2.674	
11,200.0	7,000.0	11,285.3	7,000.0	87.9	90.7	-90.00	4,076.1	-2,269.2	439.6	271.5	168.17	2.614	
11,300.0	7,000.0	11,385.3	7,000.0	89.7	92.4	-90.00	4,175.9	-2,275.8	439.6	267.7	171.97	2.557	
11,400.0	7,000.0	11,485.3	7,000.0	91.6	94.2	-90.00	4,275.7	-2,282.3	439.6	263.9	175.77	2.501	
11,500.0	7,000.0	11,585.3	7,000.0	93.4	96.0	-90.00	4,375.5	-2,288.9	439.7	260.1	179.58	2.448	
11,526.1	7,000.0	11,611.4	7,000.0	93.9	96.4	-90.00	4,401.5	-2,290.6	439.7	259.2	180.47	2.436 SF	



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



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 21-4NHZ
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.32°



Kiehn #1 (P&A), Wellbore #1, Wellbore #1 V0  SRC Kiehn A-4NHZ, Wellbore #1, Plan #2 (4-25-14) V0  SRC Kiehn A-4CHZ, Wellbore #1, Plan #2 (4-25-14) V0 SRC Kiehn 22-4NHZ, Wellbore #1, Plan #2 (4-25-14) V0 SRC Kiehn 22-4CHZ, Wellbore #1, Plan #2 (4-25-14) V0 SRC Kiehn 21-4CHZ, Wellbore #1, Plan #2 (4-25-14) V0