

Synergy Resources

Well Name: **SRC Markham R-16-9NHZ**

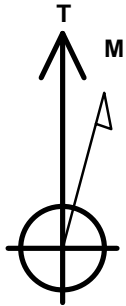
Surface Location: SRC Markham Pad Sec.16-T4N-R68W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4963.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1357581.90	3136613.09	40.313927	-105.010106	
RKB - 13' WELL @ 4976.0ft (RKB - 13')						

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 2440'FNL & 2144' FWL, SEC.16	1.0	0.0	0.0	Point
BHL 460'FNL & 920' FEL, SEC.9	6150.0	7325.2	2212.8	Point
LANDING PT. 2200'FNL & 920'FEL, SEC.16	6150.0	266.4	2223.5	Point



Azimuths to True North
Magnetic North: 8.61°

Magnetic Field
Strength: 52762.9snT
Dip Angle: 66.84°
Date: 4/7/2014
Model: IGRF2010

SRC Markham Pad Sec.16-T4N-R68W
SRC Markham R-16-9NHZ
Plan #1 (3-31-14)
10:17, April 09 2014

ANNOTATIONS

TVD	MD	Annotation
600.0	600.0	KOP - Start Build 2.00
5434.1	5845.6	Start DLS 8.00 TFO -102.12
6150.0	7040.7	Start 7058.5 hold at 7040.7 MD
6150.0	14099.1	TD at 14099.1

South(-)/North(+) (3000 ft/in)

BHL 460'FNL & 920' FEL, SEC.9

SRC Markham R-16-9NHZ

Sec.9-T4N-R68W

460' Setback

Casing Pt. 2200'FNL & 920'FEL, SEC.16

SRC Markham R-16-9NHZ

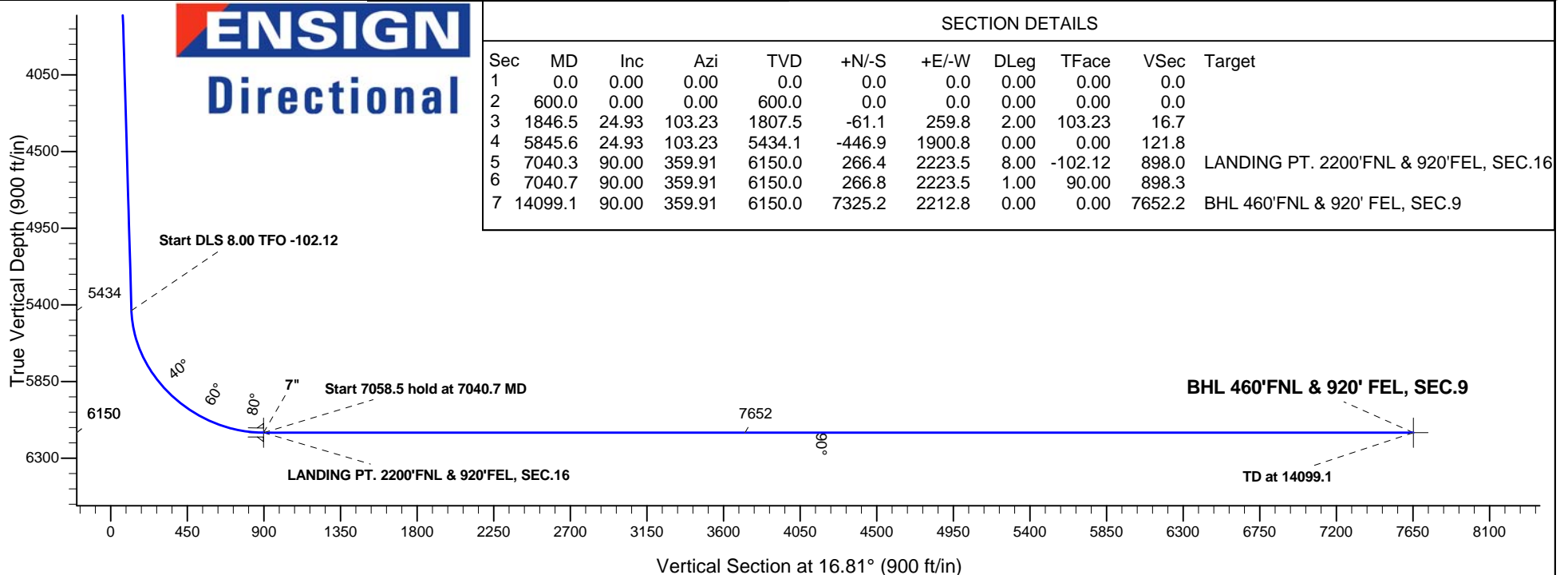
460' Setback

Sec.16-T4N-R68W

SHL 2440'FNL & 2144' FWL, SEC.16

LANDING PT. 2200'FNL & 920'FEL, SEC.16

West(-)/East(+) (3000 ft/in)





Synergy Resources

Sec.16-T4N-R68W

SRC Markham Pad Sec.16-T4N-R68W

SRC Markham R-16-9NHZ

Wellbore #1

Plan: Plan #1 (3-31-14)

Standard Planning Report

09 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	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,846.5	24.93	103.23	1,807.5	-61.1	259.8	2.00	2.00	0.00	103.23	
5,845.6	24.93	103.23	5,434.1	-446.9	1,900.8	0.00	0.00	0.00	0.00	
7,040.3	90.00	359.91	6,150.0	266.4	2,223.5	8.00	5.45	-8.65	-102.12	LANDING PT. 2200'
7,040.7	90.00	359.91	6,150.0	266.8	2,223.5	1.00	0.00	1.00	90.00	
14,099.1	90.00	359.91	6,150.0	7,325.2	2,212.8	0.00	0.00	0.00	0.00	BHL 460'FNL & 920'

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Project:	Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site:	SRC Markham Pad Sec.16-T4N-R68W	North Reference:	True
Well:	SRC Markham R-16-9NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-31-14)		

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 2440'FNL & 2144' FWL, SEC.16									
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 - Start Build 2.00									
700.0	2.00	103.23	700.0	-0.4	1.7	0.1	2.00	2.00	0.00
800.0	4.00	103.23	799.8	-1.6	6.8	0.4	2.00	2.00	0.00
900.0	6.00	103.23	899.5	-3.6	15.3	1.0	2.00	2.00	0.00
1,000.0	8.00	103.23	998.7	-6.4	27.1	1.7	2.00	2.00	0.00
1,100.0	10.00	103.23	1,097.5	-10.0	42.4	2.7	2.00	2.00	0.00
1,200.0	12.00	103.23	1,195.6	-14.3	60.9	3.9	2.00	2.00	0.00
1,300.0	14.00	103.23	1,293.1	-19.5	82.8	5.3	2.00	2.00	0.00
1,400.0	16.00	103.23	1,389.6	-25.4	108.0	6.9	2.00	2.00	0.00
1,500.0	18.00	103.23	1,485.3	-32.1	136.5	8.7	2.00	2.00	0.00
1,600.0	20.00	103.23	1,579.8	-39.5	168.2	10.8	2.00	2.00	0.00
1,700.0	22.00	103.23	1,673.2	-47.7	203.1	13.0	2.00	2.00	0.00
1,800.0	24.00	103.23	1,765.2	-56.7	241.1	15.5	2.00	2.00	0.00
1,846.5	24.93	103.23	1,807.5	-61.1	259.8	16.7	2.00	2.00	0.00
1,900.0	24.93	103.23	1,856.1	-66.3	281.8	18.1	0.00	0.00	0.00
2,000.0	24.93	103.23	1,946.7	-75.9	322.8	20.7	0.00	0.00	0.00
2,100.0	24.93	103.23	2,037.4	-85.5	363.9	23.3	0.00	0.00	0.00
2,200.0	24.93	103.23	2,128.1	-95.2	404.9	26.0	0.00	0.00	0.00
2,300.0	24.93	103.23	2,218.8	-104.8	445.9	28.6	0.00	0.00	0.00
2,400.0	24.93	103.23	2,309.5	-114.5	487.0	31.2	0.00	0.00	0.00
2,500.0	24.93	103.23	2,400.2	-124.1	528.0	33.8	0.00	0.00	0.00
2,600.0	24.93	103.23	2,490.8	-133.8	569.0	36.5	0.00	0.00	0.00
2,700.0	24.93	103.23	2,581.5	-143.4	610.0	39.1	0.00	0.00	0.00
2,800.0	24.93	103.23	2,672.2	-153.1	651.1	41.7	0.00	0.00	0.00
2,900.0	24.93	103.23	2,762.9	-162.7	692.1	44.4	0.00	0.00	0.00
3,000.0	24.93	103.23	2,853.6	-172.4	733.1	47.0	0.00	0.00	0.00
3,100.0	24.93	103.23	2,944.2	-182.0	774.2	49.6	0.00	0.00	0.00
3,200.0	24.93	103.23	3,034.9	-191.7	815.2	52.3	0.00	0.00	0.00
3,300.0	24.93	103.23	3,125.6	-201.3	856.2	54.9	0.00	0.00	0.00
3,400.0	24.93	103.23	3,216.3	-211.0	897.3	57.5	0.00	0.00	0.00
3,500.0	24.93	103.23	3,307.0	-220.6	938.3	60.1	0.00	0.00	0.00
3,600.0	24.93	103.23	3,397.7	-230.3	979.3	62.8	0.00	0.00	0.00
3,700.0	24.93	103.23	3,488.3	-239.9	1,020.4	65.4	0.00	0.00	0.00
3,800.0	24.93	103.23	3,579.0	-249.6	1,061.4	68.0	0.00	0.00	0.00
3,900.0	24.93	103.23	3,669.7	-259.2	1,102.4	70.7	0.00	0.00	0.00
4,000.0	24.93	103.23	3,760.4	-268.8	1,143.5	73.3	0.00	0.00	0.00
4,100.0	24.93	103.23	3,851.1	-278.5	1,184.5	75.9	0.00	0.00	0.00
4,200.0	24.93	103.23	3,941.8	-288.1	1,225.5	78.6	0.00	0.00	0.00
4,300.0	24.93	103.23	4,032.4	-297.8	1,266.6	81.2	0.00	0.00	0.00
4,400.0	24.93	103.23	4,123.1	-307.4	1,307.6	83.8	0.00	0.00	0.00
4,500.0	24.93	103.23	4,213.8	-317.1	1,348.6	86.4	0.00	0.00	0.00
4,600.0	24.93	103.23	4,304.5	-326.7	1,389.6	89.1	0.00	0.00	0.00
4,700.0	24.93	103.23	4,395.2	-336.4	1,430.7	91.7	0.00	0.00	0.00
4,800.0	24.93	103.23	4,485.9	-346.0	1,471.7	94.3	0.00	0.00	0.00
4,900.0	24.93	103.23	4,576.5	-355.7	1,512.7	97.0	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Project:	Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site:	SRC Markham Pad Sec.16-T4N-R68W	North Reference:	True
Well:	SRC Markham R-16-9NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-31-14)		

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	24.93	103.23	4,667.2	-365.3	1,553.8	99.6	0.00	0.00	0.00
5,100.0	24.93	103.23	4,757.9	-375.0	1,594.8	102.2	0.00	0.00	0.00
5,200.0	24.93	103.23	4,848.6	-384.6	1,635.8	104.9	0.00	0.00	0.00
5,300.0	24.93	103.23	4,939.3	-394.3	1,676.9	107.5	0.00	0.00	0.00
5,400.0	24.93	103.23	5,029.9	-403.9	1,717.9	110.1	0.00	0.00	0.00
5,500.0	24.93	103.23	5,120.6	-413.6	1,758.9	112.7	0.00	0.00	0.00
5,600.0	24.93	103.23	5,211.3	-423.2	1,800.0	115.4	0.00	0.00	0.00
5,700.0	24.93	103.23	5,302.0	-432.8	1,841.0	118.0	0.00	0.00	0.00
5,800.0	24.93	103.23	5,392.7	-442.5	1,882.0	120.6	0.00	0.00	0.00
5,845.6	24.93	103.23	5,434.0	-446.9	1,900.7	121.8	0.00	0.00	0.00
Start DLS 8.00 TFO -102.12									
5,900.0	24.37	92.88	5,483.5	-450.1	1,923.1	125.3	7.99	-1.04	-19.03
6,000.0	25.21	73.83	5,574.4	-445.2	1,964.2	141.8	8.00	0.84	-19.05
6,100.0	28.24	57.29	5,663.9	-426.4	2,004.7	171.5	8.00	3.03	-16.54
6,200.0	32.85	44.38	5,750.1	-394.2	2,043.6	213.6	8.00	4.61	-12.91
6,300.0	38.48	34.59	5,831.3	-349.2	2,080.3	267.3	8.00	5.63	-9.78
6,400.0	44.74	27.07	5,906.1	-292.1	2,114.0	331.7	8.00	6.26	-7.52
6,500.0	51.39	21.08	5,972.9	-224.2	2,144.1	405.4	8.00	6.65	-5.99
6,600.0	58.30	16.13	6,030.5	-146.8	2,170.1	487.0	8.00	6.91	-4.95
6,700.0	65.37	11.88	6,077.7	-61.3	2,191.3	575.0	8.00	7.07	-4.25
6,800.0	72.54	8.09	6,113.6	30.6	2,207.4	667.6	8.00	7.18	-3.79
6,900.0	79.78	4.59	6,137.5	127.0	2,218.0	763.0	8.00	7.24	-3.50
7,000.0	87.06	1.24	6,149.0	226.1	2,223.1	859.3	8.00	7.28	-3.35
7,040.3	90.00	359.91	6,150.0	266.4	2,223.5	898.0	8.00	7.29	-3.30
7" - LANDING PT. 2200'FNL & 920'FEL, SEC.16									
7,040.7	90.00	359.91	6,150.0	266.8	2,223.5	898.4	0.80	0.32	0.74
Start 7058.5 hold at 7040.7 MD									
7,100.0	90.00	359.91	6,150.0	326.1	2,223.4	955.1	0.00	0.00	0.00
7,200.0	90.00	359.91	6,150.0	426.1	2,223.2	1,050.8	0.00	0.00	0.00
7,300.0	90.00	359.91	6,150.0	526.1	2,223.1	1,146.5	0.00	0.00	0.00
7,400.0	90.00	359.91	6,150.0	626.1	2,222.9	1,242.2	0.00	0.00	0.00
7,500.0	90.00	359.91	6,150.0	726.1	2,222.8	1,337.8	0.00	0.00	0.00
7,600.0	90.00	359.91	6,150.0	826.1	2,222.6	1,433.5	0.00	0.00	0.00
7,700.0	90.00	359.91	6,150.0	926.1	2,222.5	1,529.2	0.00	0.00	0.00
7,800.0	90.00	359.91	6,150.0	1,026.1	2,222.3	1,624.9	0.00	0.00	0.00
7,900.0	90.00	359.91	6,150.0	1,126.1	2,222.2	1,720.6	0.00	0.00	0.00
8,000.0	90.00	359.91	6,150.0	1,226.1	2,222.0	1,816.3	0.00	0.00	0.00
8,100.0	90.00	359.91	6,150.0	1,326.1	2,221.9	1,911.9	0.00	0.00	0.00
8,200.0	90.00	359.91	6,150.0	1,426.1	2,221.7	2,007.6	0.00	0.00	0.00
8,300.0	90.00	359.91	6,150.0	1,526.1	2,221.6	2,103.3	0.00	0.00	0.00
8,400.0	90.00	359.91	6,150.0	1,626.1	2,221.4	2,199.0	0.00	0.00	0.00
8,500.0	90.00	359.91	6,150.0	1,726.1	2,221.3	2,294.7	0.00	0.00	0.00
8,600.0	90.00	359.91	6,150.0	1,826.1	2,221.1	2,390.4	0.00	0.00	0.00
8,700.0	90.00	359.91	6,150.0	1,926.1	2,220.9	2,486.0	0.00	0.00	0.00
8,800.0	90.00	359.91	6,150.0	2,026.1	2,220.8	2,581.7	0.00	0.00	0.00
8,900.0	90.00	359.91	6,150.0	2,126.1	2,220.6	2,677.4	0.00	0.00	0.00
9,000.0	90.00	359.91	6,150.0	2,226.1	2,220.5	2,773.1	0.00	0.00	0.00
9,100.0	90.00	359.91	6,150.0	2,326.1	2,220.3	2,868.8	0.00	0.00	0.00
9,200.0	90.00	359.91	6,150.0	2,426.1	2,220.2	2,964.5	0.00	0.00	0.00
9,300.0	90.00	359.91	6,150.0	2,526.1	2,220.0	3,060.2	0.00	0.00	0.00
9,400.0	90.00	359.91	6,150.0	2,626.1	2,219.9	3,155.8	0.00	0.00	0.00
9,500.0	90.00	359.91	6,150.0	2,726.1	2,219.7	3,251.5	0.00	0.00	0.00
9,600.0	90.00	359.91	6,150.0	2,826.1	2,219.6	3,347.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Project:	Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site:	SRC Markham Pad Sec.16-T4N-R68W	North Reference:	True
Well:	SRC Markham R-16-9NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-31-14)		

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)
9,700.0	90.00	359.91	6,150.0	2,926.1	2,219.4	3,442.9	0.00	0.00	0.00
9,800.0	90.00	359.91	6,150.0	3,026.1	2,219.3	3,538.6	0.00	0.00	0.00
9,900.0	90.00	359.91	6,150.0	3,126.1	2,219.1	3,634.3	0.00	0.00	0.00
10,000.0	90.00	359.91	6,150.0	3,226.1	2,219.0	3,729.9	0.00	0.00	0.00
10,100.0	90.00	359.91	6,150.0	3,326.1	2,218.8	3,825.6	0.00	0.00	0.00
10,200.0	90.00	359.91	6,150.0	3,426.1	2,218.7	3,921.3	0.00	0.00	0.00
10,300.0	90.00	359.91	6,150.0	3,526.1	2,218.5	4,017.0	0.00	0.00	0.00
10,400.0	90.00	359.91	6,150.0	3,626.1	2,218.4	4,112.7	0.00	0.00	0.00
10,500.0	90.00	359.91	6,150.0	3,726.1	2,218.2	4,208.4	0.00	0.00	0.00
10,600.0	90.00	359.91	6,150.0	3,826.1	2,218.1	4,304.0	0.00	0.00	0.00
10,700.0	90.00	359.91	6,150.0	3,926.1	2,217.9	4,399.7	0.00	0.00	0.00
10,800.0	90.00	359.91	6,150.0	4,026.1	2,217.8	4,495.4	0.00	0.00	0.00
10,900.0	90.00	359.91	6,150.0	4,126.1	2,217.6	4,591.1	0.00	0.00	0.00
11,000.0	90.00	359.91	6,150.0	4,226.1	2,217.5	4,686.8	0.00	0.00	0.00
11,100.0	90.00	359.91	6,150.0	4,326.1	2,217.3	4,782.5	0.00	0.00	0.00
11,200.0	90.00	359.91	6,150.0	4,426.1	2,217.2	4,878.1	0.00	0.00	0.00
11,300.0	90.00	359.91	6,150.0	4,526.1	2,217.0	4,973.8	0.00	0.00	0.00
11,400.0	90.00	359.91	6,150.0	4,626.1	2,216.9	5,069.5	0.00	0.00	0.00
11,500.0	90.00	359.91	6,150.0	4,726.1	2,216.7	5,165.2	0.00	0.00	0.00
11,600.0	90.00	359.91	6,150.0	4,826.1	2,216.6	5,260.9	0.00	0.00	0.00
11,700.0	90.00	359.91	6,150.0	4,926.1	2,216.4	5,356.6	0.00	0.00	0.00
11,800.0	90.00	359.91	6,150.0	5,026.1	2,216.3	5,452.2	0.00	0.00	0.00
11,900.0	90.00	359.91	6,150.0	5,126.1	2,216.1	5,547.9	0.00	0.00	0.00
12,000.0	90.00	359.91	6,150.0	5,226.1	2,216.0	5,643.6	0.00	0.00	0.00
12,100.0	90.00	359.91	6,150.0	5,326.1	2,215.8	5,739.3	0.00	0.00	0.00
12,200.0	90.00	359.91	6,150.0	5,426.1	2,215.7	5,835.0	0.00	0.00	0.00
12,300.0	90.00	359.91	6,150.0	5,526.1	2,215.5	5,930.7	0.00	0.00	0.00
12,400.0	90.00	359.91	6,150.0	5,626.1	2,215.4	6,026.4	0.00	0.00	0.00
12,500.0	90.00	359.91	6,150.0	5,726.1	2,215.2	6,122.0	0.00	0.00	0.00
12,600.0	90.00	359.91	6,150.0	5,826.1	2,215.1	6,217.7	0.00	0.00	0.00
12,700.0	90.00	359.91	6,150.0	5,926.1	2,214.9	6,313.4	0.00	0.00	0.00
12,800.0	90.00	359.91	6,150.0	6,026.1	2,214.8	6,409.1	0.00	0.00	0.00
12,900.0	90.00	359.91	6,150.0	6,126.1	2,214.6	6,504.8	0.00	0.00	0.00
13,000.0	90.00	359.91	6,150.0	6,226.1	2,214.4	6,600.5	0.00	0.00	0.00
13,100.0	90.00	359.91	6,150.0	6,326.1	2,214.3	6,696.1	0.00	0.00	0.00
13,200.0	90.00	359.91	6,150.0	6,426.1	2,214.1	6,791.8	0.00	0.00	0.00
13,300.0	90.00	359.91	6,150.0	6,526.1	2,214.0	6,887.5	0.00	0.00	0.00
13,400.0	90.00	359.91	6,150.0	6,626.1	2,213.8	6,983.2	0.00	0.00	0.00
13,500.0	90.00	359.91	6,150.0	6,726.1	2,213.7	7,078.9	0.00	0.00	0.00
13,600.0	90.00	359.91	6,150.0	6,826.1	2,213.5	7,174.6	0.00	0.00	0.00
13,700.0	90.00	359.91	6,150.0	6,926.1	2,213.4	7,270.2	0.00	0.00	0.00
13,800.0	90.00	359.91	6,150.0	7,026.1	2,213.2	7,365.9	0.00	0.00	0.00
13,900.0	90.00	359.91	6,150.0	7,126.1	2,213.1	7,461.6	0.00	0.00	0.00
14,000.0	90.00	359.91	6,150.0	7,226.1	2,212.9	7,557.3	0.00	0.00	0.00
14,099.1	90.00	359.91	6,150.0	7,325.2	2,212.8	7,652.1	0.00	0.00	0.00
TD at 14099.1 - BHL 460'FNL & 920' FEL, SEC.9									

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Project:	Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site:	SRC Markham Pad Sec.16-T4N-R68W	North Reference:	True
Well:	SRC Markham R-16-9NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-31-14)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (")	Hole Diameter (")
7,040.3	6,150.0	7"		7	7-1/2

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
600.0	600.0	0.0	0.0	KOP - Start Build 2.00	
5,845.6	5,434.1	-61.1	259.8	Start DLS 8.00 TFO -102.12	
7,040.7	6,150.0	-446.9	1,900.8	Start 7058.5 hold at 7040.7 MD	
14,099.1	6,150.0	266.8	2,223.5	TD at 14099.1	



Synergy Resources

Sec.16-T4N-R68W

SRC Markham Pad Sec.16-T4N-R68W

SRC Markham R-16-9NHZ

Wellbore #1

Plan #1 (3-31-14)

Anticollision Report

09 April, 2014

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Project:	Sec.16-T4N-R68W	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Reference Site:	SRC Markham Pad Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Markham R-16-9NHZ	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 #1 (3-31-14)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (3-31-14)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCSWA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	4/7/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	14,099.1	Plan #1 (3-31-14) (Wellbore #1)	MWD	MWD - Standard	

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
SRC Markham Pad Sec.16-T4N-R68W						
SRC Markham 31-16-9CHZ - Wellbore #1 - Plan #1 (3-31	600.0	601.0	112.4	109.9	45.417	CC, ES
SRC Markham 31-16-9CHZ - Wellbore #1 - Plan #1 (3-31	5,700.0	5,739.8	964.0	926.5	25.748	SF
SRC Markham 31-16-9NHZ - Wellbore #1 - Plan #1 (3-31	600.0	601.0	89.8	87.3	36.290	CC, ES
SRC Markham 31-16-9NHZ - Wellbore #1 - Plan #1 (3-31	14,099.1	13,864.6	880.0	593.8	3.074	SF
SRC Markham 41-16-9CHZ - Wellbore #1 - Plan #1 (3-31	400.0	400.0	22.6	21.0	14.359	CC
SRC Markham 41-16-9CHZ - Wellbore #1 - Plan #1 (3-31	14,099.1	14,287.1	260.8	16.7	1.069	Level 2, ES, SF
SRC Markham 41-16-9NHZ - Wellbore #1 - Plan #1 (3-31	200.0	200.0	45.2	44.5	67.002	CC, ES
SRC Markham 41-16-9NHZ - Wellbore #1 - Plan #1 (3-31	14,099.1	14,224.1	439.7	152.6	1.532	SF
SRC Markham C-16-9CHZ - Wellbore #1 - Plan #1 (3-31	600.0	600.0	67.5	65.0	27.298	CC, ES
SRC Markham C-16-9CHZ - Wellbore #1 - Plan #1 (3-31	14,099.1	14,050.0	674.7	391.0	2.379	SF
SRC Markham C-16-9NHZ - Wellbore #1 - Plan #1 (3-31	600.0	600.0	44.9	42.4	18.161	CC, ES
SRC Markham C-16-9NHZ - Wellbore #1 - Plan #1 (3-31	14,099.1	13,976.5	440.0	153.5	1.536	SF
SRC Markham R-16-9-CHZ - Wellbore #1 - Plan#1 (3-31	600.0	600.0	22.3	19.8	9.025	CC
SRC Markham R-16-9-CHZ - Wellbore #1 - Plan#1 (3-31	14,099.1	14,165.0	260.8	3.2	1.012	Level 2, ES, SF

SRC Markham Pad Sec.16-T4N-R68W - SRC Markham 31-16-9CHZ - Wellbore #1 - Plan #1 (3-31-14)													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	1.0	1.0	0.0	0.0	-90.56	-1.1	-112.4	112.4	112.4	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-90.56	-1.1	-112.4	112.4	112.2	0.23	495.091		
200.0	200.0	201.0	201.0	0.3	0.3	-90.56	-1.1	-112.4	112.4	111.7	0.68	166.127		
300.0	300.0	301.0	301.0	0.6	0.6	-90.56	-1.1	-112.4	112.4	111.3	1.13	99.809		
400.0	400.0	401.0	401.0	0.8	0.8	-90.56	-1.1	-112.4	112.4	110.8	1.58	71.333		
500.0	500.0	501.0	501.0	1.0	1.0	-90.56	-1.1	-112.4	112.4	110.4	2.03	55.499		
600.0	600.0	601.0	601.0	1.2	1.2	-90.56	-1.1	-112.4	112.4	109.9	2.47	45.417 CC, ES		
700.0	700.0	701.0	701.0	1.4	1.5	166.41	-1.1	-112.4	114.1	111.2	2.91	39.221		
800.0	799.8	800.8	800.8	1.7	1.7	166.98	-1.1	-112.4	119.2	115.8	3.33	35.755		
900.0	899.5	900.5	900.5	1.9	1.9	167.83	-1.1	-112.4	127.7	123.9	3.76	33.936		
1,000.0	998.7	999.7	999.7	2.1	2.1	168.83	-1.1	-112.4	139.6	135.4	4.20	33.283		
1,100.0	1,097.5	1,098.5	1,098.5	2.4	2.4	169.90	-1.1	-112.4	155.0	150.4	4.63	33.482		
1,200.0	1,195.6	1,196.6	1,196.6	2.8	2.6	170.94	-1.1	-112.4	173.8	168.8	5.07	34.320		
1,300.0	1,293.1	1,294.1	1,294.1	3.2	2.8	171.91	-1.1	-112.4	196.1	190.6	5.50	35.645		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Project:	Sec.16-T4N-R68W	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Reference Site:	SRC Markham Pad Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Markham R-16-9NHZ	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 #1 (3-31-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Markham Pad Sec.16-T4N-R68W - SRC Markham 31-16-9CHZ - Wellbore #1 - Plan #1 (3-31-14)													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		
1,400.0	1,389.6	1,390.6	1,390.6	3.6	3.0	172.79	-1.1	-112.4	221.8	215.8	5.94	37.346		
1,500.0	1,485.3	1,486.3	1,486.3	4.2	3.2	173.56	-1.1	-112.4	250.8	244.4	6.37	39.343		
1,600.0	1,579.8	1,580.8	1,580.8	4.8	3.4	174.23	-1.1	-112.4	283.2	276.4	6.81	41.571		
1,700.0	1,673.2	1,683.0	1,683.0	5.5	3.7	174.80	-1.6	-111.3	317.8	310.6	7.25	43.853		
1,800.0	1,765.2	1,788.7	1,788.6	6.2	3.9	175.15	-3.6	-106.7	352.5	344.9	7.67	45.967		
1,900.0	1,856.1	1,896.1	1,895.5	7.1	4.1	175.34	-7.3	-98.4	386.7	378.6	8.14	47.501		
2,000.0	1,946.7	2,006.0	2,004.7	7.9	4.3	175.37	-12.9	-86.2	417.7	409.1	8.67	48.185		
2,100.0	2,037.4	2,118.5	2,115.7	8.8	4.6	175.25	-20.3	-69.7	445.2	436.0	9.23	48.254		
2,200.0	2,128.1	2,233.3	2,228.2	9.7	4.9	174.98	-29.6	-48.8	469.0	459.2	9.81	47.790		
2,300.0	2,218.8	2,350.0	2,341.5	10.6	5.3	174.59	-41.1	-23.3	488.9	478.5	10.43	46.861		
2,400.0	2,309.5	2,468.4	2,455.2	11.5	5.8	174.08	-54.6	6.8	505.1	494.0	11.09	45.545		
2,500.0	2,400.2	2,570.4	2,552.4	12.4	6.3	173.58	-67.3	35.1	518.7	507.0	11.74	44.188		
2,600.0	2,490.8	2,669.4	2,646.6	13.3	6.8	173.12	-79.6	62.6	532.3	519.9	12.40	42.919		
2,700.0	2,581.5	2,768.4	2,740.9	14.2	7.3	172.68	-91.9	90.1	546.0	532.9	13.08	41.729		
2,800.0	2,672.2	2,867.3	2,835.2	15.1	7.9	172.27	-104.3	117.6	559.7	545.9	13.78	40.614		
2,900.0	2,762.9	2,966.3	2,929.5	16.0	8.4	171.87	-116.6	145.1	573.4	558.9	14.49	39.568		
3,000.0	2,853.6	3,065.3	3,023.7	16.9	9.0	171.49	-128.9	172.5	587.2	572.0	15.22	38.588		
3,100.0	2,944.2	3,164.3	3,118.0	17.8	9.6	171.13	-141.3	200.0	600.9	585.0	15.95	37.669		
3,200.0	3,034.9	3,263.3	3,212.3	18.7	10.2	170.79	-153.6	227.5	614.7	598.0	16.70	36.808		
3,300.0	3,125.6	3,362.2	3,306.6	19.6	10.7	170.46	-166.0	255.0	628.6	611.1	17.46	36.001		
3,400.0	3,216.3	3,461.2	3,400.9	20.5	11.3	170.14	-178.3	282.5	642.4	624.2	18.23	35.242		
3,500.0	3,307.0	3,560.2	3,495.1	21.5	11.9	169.84	-190.6	310.0	656.2	637.2	19.01	34.530		
3,600.0	3,397.7	3,659.2	3,589.4	22.4	12.6	169.55	-203.0	337.5	670.1	650.3	19.79	33.860		
3,700.0	3,488.3	3,758.1	3,683.7	23.3	13.2	169.28	-215.3	365.0	684.0	663.4	20.58	33.229		
3,800.0	3,579.0	3,857.1	3,778.0	24.2	13.8	169.01	-227.6	392.5	697.9	676.5	21.39	32.635		
3,900.0	3,669.7	3,956.1	3,872.2	25.1	14.4	168.75	-240.0	420.0	711.8	689.6	22.19	32.074		
4,000.0	3,760.4	4,055.1	3,966.5	26.0	15.0	168.51	-252.3	447.5	725.7	702.7	23.01	31.544		
4,100.0	3,851.1	4,154.1	4,060.8	27.0	15.6	168.27	-264.7	475.0	739.7	715.9	23.83	31.044		
4,200.0	3,941.8	4,253.0	4,155.1	27.9	16.3	168.04	-277.0	502.5	753.6	729.0	24.65	30.570		
4,300.0	4,032.4	4,352.0	4,249.4	28.8	16.9	167.82	-289.3	530.0	767.6	742.1	25.48	30.121		
4,400.0	4,123.1	4,451.0	4,343.6	29.7	17.5	167.61	-301.7	557.5	781.6	755.3	26.32	29.695		
4,500.0	4,213.8	4,550.0	4,437.9	30.6	18.2	167.40	-314.0	585.0	795.6	768.4	27.16	29.290		
4,600.0	4,304.5	4,648.9	4,532.2	31.5	18.8	167.21	-326.3	612.5	809.6	781.6	28.01	28.906		
4,700.0	4,395.2	4,747.9	4,626.5	32.5	19.4	167.02	-338.7	640.0	823.6	794.7	28.86	28.540		
4,800.0	4,485.9	4,846.9	4,720.7	33.4	20.1	166.83	-351.0	667.5	837.6	807.9	29.71	28.192		
4,900.0	4,576.5	4,945.9	4,815.0	34.3	20.7	166.65	-363.4	695.0	851.6	821.0	30.57	27.860		
5,000.0	4,667.2	5,044.9	4,909.3	35.2	21.3	166.48	-375.7	722.5	865.6	834.2	31.43	27.543		
5,100.0	4,757.9	5,143.8	5,003.6	36.1	22.0	166.31	-388.0	750.0	879.7	847.4	32.29	27.240		
5,200.0	4,848.6	5,242.8	5,097.9	37.1	22.6	166.15	-400.4	777.5	893.7	860.5	33.16	26.951		
5,300.0	4,939.3	5,341.8	5,192.1	38.0	23.2	165.99	-412.7	805.0	907.8	873.7	34.03	26.674		
5,400.0	5,029.9	5,440.8	5,286.4	38.9	23.9	165.84	-425.0	832.4	921.8	886.9	34.90	26.410		
5,500.0	5,120.6	5,539.8	5,380.7	39.8	24.5	165.69	-437.4	859.9	935.9	900.1	35.78	26.156		
5,600.0	5,211.3	5,638.7	5,475.0	40.7	25.1	165.55	-449.7	887.4	949.9	913.3	36.66	25.912		
5,700.0	5,302.0	5,739.8	5,571.5	41.7	25.7	165.55	-460.0	915.6	964.0	926.5	37.44	25.748 SF		
5,800.0	5,392.7	5,840.9	5,668.5	42.6	26.2	166.31	-457.4	943.8	977.7	940.0	37.72	25.920		
5,900.0	5,483.5	5,937.4	5,759.7	43.4	26.5	177.70	-441.7	970.4	991.7	954.4	37.31	26.579		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Project:	Sec.16-T4N-R68W	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Reference Site:	SRC Markham Pad Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Markham R-16-9NHZ	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 #1 (3-31-14)	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
0.0	0.0	1.0	1.0	0.0	0.0	-90.71	-1.1	-89.8	89.8	89.8	0.00	N/A	
100.0	100.0	101.0	101.0	0.1	0.1	-90.71	-1.1	-89.8	89.8	89.6	0.23	395.593	
200.0	200.0	201.0	201.0	0.3	0.3	-90.71	-1.1	-89.8	89.8	89.1	0.68	132.740	
300.0	300.0	301.0	301.0	0.6	0.6	-90.71	-1.1	-89.8	89.8	88.7	1.13	79.750	
400.0	400.0	401.0	401.0	0.8	0.8	-90.71	-1.1	-89.8	89.8	88.2	1.58	56.997	
500.0	500.0	501.0	501.0	1.0	1.0	-90.71	-1.1	-89.8	89.8	87.8	2.03	44.345	
600.0	600.0	601.0	601.0	1.2	1.2	-90.71	-1.1	-89.8	89.8	87.3	2.47	36.290 CC, ES	
700.0	700.0	701.0	701.0	1.4	1.5	166.32	-1.1	-89.8	91.5	88.6	2.91	31.455	
800.0	799.8	800.8	800.8	1.7	1.7	167.03	-1.1	-89.8	96.6	93.3	3.33	28.979	
900.0	899.5	900.5	900.5	1.9	1.9	168.06	-1.1	-89.8	105.1	101.3	3.76	27.934	
1,000.0	998.7	999.7	999.7	2.1	2.1	169.25	-1.1	-89.8	117.1	112.9	4.19	27.904	
1,100.0	1,097.5	1,098.5	1,098.5	2.4	2.4	170.46	-1.1	-89.8	132.5	127.8	4.63	28.616	
1,200.0	1,195.6	1,196.6	1,196.6	2.8	2.6	171.60	-1.1	-89.8	151.3	146.3	5.06	29.882	
1,300.0	1,293.1	1,294.1	1,294.1	3.2	2.8	172.63	-1.1	-89.8	173.6	168.1	5.50	31.570	
1,400.0	1,389.6	1,390.6	1,390.6	3.6	3.0	173.52	-1.1	-89.8	199.3	193.4	5.93	33.584	
1,500.0	1,485.3	1,493.5	1,493.5	4.2	3.2	174.26	-1.7	-88.4	227.0	220.7	6.36	35.679	
1,600.0	1,579.8	1,598.1	1,598.0	4.8	3.4	174.71	-3.6	-83.4	254.7	247.9	6.78	37.592	
1,700.0	1,673.2	1,703.9	1,703.3	5.5	3.7	174.97	-6.9	-74.8	282.3	275.1	7.20	39.199	
1,800.0	1,765.2	1,810.9	1,809.5	6.2	3.9	175.07	-11.6	-62.3	309.8	302.2	7.65	40.517	
1,900.0	1,856.1	1,919.1	1,916.3	7.1	4.2	175.07	-17.9	-46.0	336.6	328.5	8.15	41.312	
2,000.0	1,946.7	2,029.4	2,024.4	7.9	4.5	174.95	-25.8	-25.5	360.2	351.5	8.71	41.345	
2,100.0	2,037.4	2,141.6	2,133.3	8.8	4.9	174.70	-35.3	-0.7	380.0	370.7	9.31	40.834	
2,200.0	2,128.1	2,255.3	2,242.6	9.7	5.4	174.33	-46.5	28.5	396.1	386.2	9.94	39.848	
2,300.0	2,218.8	2,370.2	2,351.7	10.6	6.0	173.83	-59.4	62.1	408.4	397.8	10.60	38.515	
2,400.0	2,309.5	2,473.0	2,448.5	11.5	6.5	173.33	-71.9	94.7	418.0	406.7	11.27	37.077	
2,500.0	2,400.2	2,572.5	2,542.0	12.4	7.1	172.85	-84.1	126.3	427.6	415.6	11.96	35.753	
2,600.0	2,490.8	2,672.0	2,635.6	13.3	7.7	172.40	-96.2	157.9	437.2	424.5	12.66	34.526	
2,700.0	2,581.5	2,771.5	2,729.1	14.2	8.4	171.97	-108.3	189.5	446.8	433.4	13.38	33.387	
2,800.0	2,672.2	2,870.9	2,822.7	15.1	9.0	171.56	-120.5	221.1	456.4	442.3	14.12	32.331	
2,900.0	2,762.9	2,970.4	2,916.2	16.0	9.7	171.16	-132.6	252.7	466.1	451.2	14.87	31.351	
3,000.0	2,853.6	3,069.9	3,009.8	16.9	10.4	170.78	-144.7	284.3	475.8	460.1	15.63	30.440	
3,100.0	2,944.2	3,169.4	3,103.3	17.8	11.0	170.42	-156.9	315.8	485.5	469.1	16.41	29.592	
3,200.0	3,034.9	3,268.9	3,196.9	18.7	11.7	170.07	-169.0	347.4	495.2	478.0	17.19	28.803	
3,300.0	3,125.6	3,368.4	3,290.4	19.6	12.4	169.73	-181.1	379.0	504.9	486.9	17.99	28.067	
3,400.0	3,216.3	3,467.8	3,384.0	20.5	13.1	169.41	-193.3	410.6	514.7	495.9	18.80	27.380	
3,500.0	3,307.0	3,567.3	3,477.5	21.5	13.8	169.10	-205.4	442.2	524.5	504.8	19.62	26.737	
3,600.0	3,397.7	3,666.8	3,571.0	22.4	14.5	168.80	-217.5	473.8	534.2	513.8	20.44	26.136	
3,700.0	3,488.3	3,766.3	3,664.6	23.3	15.2	168.51	-229.7	505.4	544.0	522.8	21.28	25.571	
3,800.0	3,579.0	3,865.8	3,758.1	24.2	15.9	168.23	-241.8	537.0	553.9	531.7	22.12	25.041	
3,900.0	3,669.7	3,965.2	3,851.7	25.1	16.6	167.96	-253.9	568.6	563.7	540.7	22.97	24.543	
4,000.0	3,760.4	4,064.7	3,945.2	26.0	17.3	167.70	-266.1	600.2	573.5	549.7	23.82	24.074	
4,100.0	3,851.1	4,164.2	4,038.8	27.0	18.0	167.44	-278.2	631.8	583.4	558.7	24.69	23.631	
4,200.0	3,941.8	4,263.7	4,132.3	27.9	18.7	167.20	-290.3	663.4	593.2	567.7	25.56	23.213	
4,300.0	4,032.4	4,363.2	4,225.9	28.8	19.4	166.96	-302.5	695.0	603.1	576.7	26.43	22.818	
4,400.0	4,123.1	4,462.7	4,319.4	29.7	20.2	166.74	-314.6	726.6	613.0	585.7	27.31	22.444	
4,500.0	4,213.8	4,562.1	4,413.0	30.6	20.9	166.52	-326.7	758.2	622.9	594.7	28.20	22.089	
4,600.0	4,304.5	4,661.6	4,506.5	31.5	21.6	166.30	-338.9	789.8	632.8	603.7	29.09	21.753	
4,700.0	4,395.2	4,761.1	4,600.1	32.5	22.3	166.10	-351.0	821.4	642.7	612.7	29.98	21.433	
4,800.0	4,485.9	4,860.6	4,693.6	33.4	23.0	165.89	-363.1	853.0	652.6	621.7	30.89	21.129	
4,900.0	4,576.5	4,960.1	4,787.2	34.3	23.7	165.70	-375.3	884.6	662.5	630.7	31.79	20.840	
5,000.0	4,667.2	5,059.5	4,880.7	35.2	24.5	165.51	-387.4	916.2	672.4	639.7	32.70	20.565	
5,100.0	4,757.9	5,159.0	4,974.3	36.1	25.2	165.33	-399.5	947.8	682.4	648.8	33.61	20.302	

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 Markham R-16-9NHZ
Project:	Sec.16-T4N-R68W	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Reference Site:	SRC Markham Pad Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Markham R-16-9NHZ	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 #1 (3-31-14)	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	4,848.6	5,258.5	5,067.8	37.1	25.9	165.15	-411.7	979.4	692.3	657.8	34.53	20.051	
5,300.0	4,939.3	5,358.0	5,161.3	38.0	26.6	164.97	-423.8	1,011.0	702.3	666.8	35.45	19.811	
5,400.0	5,029.9	5,457.5	5,254.9	38.9	27.3	164.81	-435.9	1,042.6	712.2	675.9	36.37	19.582	
5,500.0	5,120.6	5,556.9	5,348.4	39.8	28.1	164.64	-448.1	1,074.2	722.2	684.9	37.30	19.362	
5,600.0	5,211.3	5,659.3	5,444.9	40.7	28.7	164.68	-458.0	1,106.7	732.0	693.9	38.10	19.214	
5,700.0	5,302.0	5,762.0	5,542.1	41.7	29.3	165.75	-454.6	1,139.5	741.4	703.2	38.22	19.400	
5,800.0	5,392.7	5,859.0	5,632.6	42.6	29.7	167.75	-438.0	1,170.0	751.0	713.2	37.78	19.879	
5,900.0	5,483.5	5,948.4	5,713.4	43.4	30.0	-179.83	-411.4	1,197.3	762.1	725.1	36.93	20.637	
6,000.0	5,574.4	6,033.7	5,787.0	44.2	30.3	-159.18	-376.2	1,222.1	774.8	738.6	36.25	21.375	
6,100.0	5,663.9	6,116.0	5,853.8	44.8	30.5	-141.25	-333.8	1,244.6	788.7	752.6	36.08	21.859	
6,200.0	5,750.1	6,200.0	5,916.8	45.4	30.6	-127.12	-282.5	1,265.7	803.1	766.8	36.36	22.086	
6,300.0	5,831.3	6,273.8	5,967.1	45.9	30.7	-116.60	-231.3	1,282.6	817.5	780.6	36.90	22.153	
6,400.0	5,906.1	6,350.0	6,013.5	46.3	30.8	-108.63	-172.9	1,298.2	831.3	793.8	37.51	22.164	
6,500.0	5,972.9	6,425.0	6,053.2	46.7	30.9	-102.60	-110.7	1,311.5	844.1	806.0	38.05	22.186	
6,600.0	6,030.5	6,500.0	6,086.5	46.9	30.9	-98.04	-44.5	1,322.7	855.3	816.9	38.44	22.251	
6,700.0	6,077.7	6,572.0	6,112.2	47.1	31.0	-94.67	22.2	1,331.2	864.7	826.0	38.73	22.326	
6,800.0	6,113.6	6,650.0	6,132.7	47.3	31.0	-92.25	97.1	1,338.0	872.1	833.0	39.05	22.331	
6,900.0	6,137.5	6,716.6	6,144.0	47.4	31.1	-90.75	162.6	1,341.7	877.0	837.6	39.45	22.233	
7,000.0	6,149.0	6,788.4	6,149.6	47.4	31.1	-90.01	234.1	1,343.5	879.6	839.4	40.15	21.906	
7,100.0	6,150.0	6,879.1	6,150.0	47.5	31.2	-89.93	324.8	1,343.5	879.9	838.7	41.12	21.399	
7,200.0	6,150.0	6,979.1	6,150.0	47.6	31.4	-89.93	424.8	1,343.4	879.9	837.2	42.65	20.630	
7,300.0	6,150.0	7,079.1	6,150.0	47.7	31.7	-89.93	524.8	1,343.2	879.9	835.4	44.50	19.774	
7,400.0	6,150.0	7,179.1	6,150.0	47.9	32.1	-89.93	624.8	1,343.1	879.9	833.3	46.59	18.887	
7,500.0	6,150.0	7,279.1	6,150.0	48.2	32.6	-89.93	724.8	1,342.9	879.9	831.0	48.89	17.998	
7,600.0	6,150.0	7,379.1	6,150.0	48.5	33.3	-89.93	824.8	1,342.7	879.9	828.5	51.37	17.127	
7,700.0	6,150.0	7,479.1	6,150.0	48.8	34.1	-89.93	924.8	1,342.6	879.9	825.8	54.02	16.288	
7,800.0	6,150.0	7,579.1	6,150.0	49.2	35.0	-89.93	1,024.8	1,342.4	879.9	823.1	56.80	15.490	
7,900.0	6,150.0	7,679.1	6,150.0	49.7	36.0	-89.93	1,124.8	1,342.3	879.9	820.2	59.70	14.738	
8,000.0	6,150.0	7,779.1	6,150.0	50.3	37.1	-89.93	1,224.8	1,342.1	879.9	817.2	62.70	14.033	
8,100.0	6,150.0	7,879.1	6,150.0	50.9	38.3	-89.93	1,324.8	1,342.0	879.9	814.1	65.79	13.375	
8,200.0	6,150.0	7,979.1	6,150.0	51.6	39.6	-89.93	1,424.8	1,341.8	879.9	810.9	68.95	12.761	
8,300.0	6,150.0	8,079.1	6,150.0	52.4	40.9	-89.93	1,524.8	1,341.7	879.9	807.7	72.18	12.191	
8,400.0	6,150.0	8,179.1	6,150.0	53.3	42.3	-89.93	1,624.8	1,341.5	879.9	804.4	75.46	11.660	
8,500.0	6,150.0	8,279.1	6,150.0	54.2	43.8	-89.93	1,724.8	1,341.4	879.9	801.1	78.80	11.166	
8,600.0	6,150.0	8,379.1	6,150.0	55.2	45.3	-89.93	1,824.8	1,341.2	879.9	797.7	82.18	10.707	
8,700.0	6,150.0	8,479.1	6,150.0	56.2	46.8	-89.93	1,924.8	1,341.1	879.9	794.3	85.60	10.279	
8,800.0	6,150.0	8,579.1	6,150.0	57.4	48.4	-89.93	2,024.8	1,340.9	879.9	790.8	89.05	9.881	
8,900.0	6,150.0	8,679.1	6,150.0	58.5	50.0	-89.93	2,124.8	1,340.8	879.9	787.3	92.53	9.509	
9,000.0	6,150.0	8,779.1	6,150.0	59.8	51.6	-89.93	2,224.8	1,340.6	879.9	783.8	96.04	9.161	
9,100.0	6,150.0	8,879.1	6,150.0	61.0	53.2	-89.93	2,324.8	1,340.5	879.9	780.3	99.58	8.836	
9,200.0	6,150.0	8,979.1	6,150.0	62.4	54.9	-89.93	2,424.8	1,340.3	879.9	776.7	103.13	8.531	
9,300.0	6,150.0	9,079.1	6,150.0	63.7	56.6	-89.93	2,524.8	1,340.2	879.9	773.2	106.71	8.245	
9,400.0	6,150.0	9,179.1	6,150.0	65.1	58.3	-89.93	2,624.8	1,340.0	879.9	769.6	110.30	7.977	
9,500.0	6,150.0	9,279.1	6,150.0	66.6	60.0	-89.93	2,724.8	1,339.9	879.9	766.0	113.91	7.724	
9,600.0	6,150.0	9,379.1	6,150.0	68.1	61.7	-89.93	2,824.8	1,339.7	879.9	762.3	117.54	7.486	
9,700.0	6,150.0	9,479.1	6,150.0	69.6	63.5	-89.93	2,924.8	1,339.6	879.9	758.7	121.18	7.261	
9,800.0	6,150.0	9,579.1	6,150.0	71.1	65.2	-89.93	3,024.8	1,339.4	879.9	755.1	124.83	7.049	
9,900.0	6,150.0	9,679.1	6,150.0	72.6	67.0	-89.93	3,124.8	1,339.3	879.9	751.4	128.49	6.848	
10,000.0	6,150.0	9,779.1	6,150.0	74.2	68.7	-89.93	3,224.8	1,339.1	879.9	747.7	132.16	6.658	
10,100.0	6,150.0	9,879.1	6,150.0	75.8	70.5	-89.93	3,324.8	1,338.9	879.9	744.0	135.84	6.477	
10,200.0	6,150.0	9,979.1	6,150.0	77.4	72.3	-89.93	3,424.8	1,338.8	879.9	740.4	139.53	6.306	
10,300.0	6,150.0	10,079.1	6,150.0	79.1	74.1	-89.93	3,524.8	1,338.6	879.9	736.7	143.23	6.143	

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 Markham R-16-9NHZ
Project:	Sec.16-T4N-R68W	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Reference Site:	SRC Markham Pad Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Markham R-16-9NHZ	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 #1 (3-31-14)	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	
10,400.0	6,150.0	10,179.1	6,150.0	80.7	75.9	-89.93	3,624.8	1,338.5	879.9	733.0	146.94	5.988	
10,500.0	6,150.0	10,279.1	6,150.0	82.4	77.7	-89.93	3,724.8	1,338.3	879.9	729.2	150.65	5.841	
10,600.0	6,150.0	10,379.1	6,150.0	84.1	79.5	-89.93	3,824.8	1,338.2	879.9	725.5	154.37	5.700	
10,700.0	6,150.0	10,479.1	6,150.0	85.7	81.3	-89.93	3,924.8	1,338.0	879.9	721.8	158.09	5.566	
10,800.0	6,150.0	10,579.1	6,150.0	87.4	83.1	-89.93	4,024.8	1,337.9	879.9	718.1	161.82	5.438	
10,900.0	6,150.0	10,679.1	6,150.0	89.2	84.9	-89.93	4,124.8	1,337.7	879.9	714.3	165.55	5.315	
11,000.0	6,150.0	10,779.1	6,150.0	90.9	86.8	-89.93	4,224.8	1,337.6	879.9	710.6	169.29	5.197	
11,100.0	6,150.0	10,879.1	6,150.0	92.6	88.6	-89.93	4,324.8	1,337.4	879.9	706.9	173.04	5.085	
11,200.0	6,150.0	10,979.1	6,150.0	94.3	90.4	-89.93	4,424.8	1,337.3	879.9	703.1	176.78	4.977	
11,300.0	6,150.0	11,079.1	6,150.0	96.1	92.3	-89.93	4,524.8	1,337.1	879.9	699.4	180.54	4.874	
11,400.0	6,150.0	11,179.1	6,150.0	97.8	94.1	-89.93	4,624.8	1,337.0	879.9	695.6	184.29	4.774	
11,500.0	6,150.0	11,279.1	6,150.0	99.6	96.0	-89.93	4,724.8	1,336.8	879.9	691.8	188.05	4.679	
11,600.0	6,150.0	11,379.1	6,150.0	101.4	97.8	-89.93	4,824.8	1,336.7	879.9	688.1	191.81	4.587	
11,700.0	6,150.0	11,479.1	6,150.0	103.1	99.7	-89.93	4,924.8	1,336.5	879.9	684.3	195.58	4.499	
11,800.0	6,150.0	11,579.1	6,150.0	104.9	101.5	-89.93	5,024.8	1,336.4	879.9	680.6	199.35	4.414	
11,900.0	6,150.0	11,679.1	6,150.0	106.7	103.4	-89.93	5,124.8	1,336.2	879.9	676.8	203.12	4.332	
12,000.0	6,150.0	11,779.1	6,150.0	108.5	105.2	-89.93	5,224.8	1,336.1	879.9	673.0	206.89	4.253	
12,100.0	6,150.0	11,879.1	6,150.0	110.3	107.1	-89.93	5,324.8	1,335.9	879.9	669.2	210.67	4.177	
12,200.0	6,150.0	11,979.1	6,150.0	112.1	108.9	-89.93	5,424.8	1,335.8	879.9	665.5	214.45	4.103	
12,300.0	6,150.0	12,079.1	6,150.0	113.9	110.8	-89.93	5,524.8	1,335.6	879.9	661.7	218.23	4.032	
12,400.0	6,150.0	12,179.1	6,150.0	115.7	112.7	-89.93	5,624.8	1,335.5	879.9	657.9	222.01	3.963	
12,500.0	6,150.0	12,279.1	6,150.0	117.5	114.5	-89.93	5,724.8	1,335.3	879.9	654.1	225.79	3.897	
12,600.0	6,150.0	12,379.1	6,150.0	119.3	116.4	-89.93	5,824.8	1,335.1	879.9	650.3	229.58	3.833	
12,700.0	6,150.0	12,479.1	6,150.0	121.2	118.3	-89.93	5,924.8	1,335.0	879.9	646.5	233.37	3.770	
12,800.0	6,150.0	12,579.1	6,150.0	123.0	120.1	-89.93	6,024.8	1,334.8	879.9	642.8	237.16	3.710	
12,900.0	6,150.0	12,679.1	6,150.0	124.8	122.0	-89.93	6,124.8	1,334.7	879.9	639.0	240.95	3.652	
13,000.0	6,150.0	12,779.1	6,150.0	126.6	123.9	-89.93	6,224.8	1,334.5	879.9	635.2	244.74	3.595	
13,100.0	6,150.0	12,879.1	6,150.0	128.5	125.8	-89.93	6,324.8	1,334.4	879.9	631.4	248.54	3.540	
13,200.0	6,150.0	12,979.1	6,150.0	130.3	127.7	-89.93	6,424.8	1,334.2	879.9	627.6	252.33	3.487	
13,300.0	6,150.0	13,079.1	6,150.0	132.1	129.5	-89.93	6,524.8	1,334.1	879.9	623.8	256.13	3.435	
13,400.0	6,150.0	13,179.1	6,150.0	134.0	131.4	-89.93	6,624.8	1,333.9	879.9	620.0	259.93	3.385	
13,500.0	6,150.0	13,279.1	6,150.0	135.8	133.3	-89.93	6,724.8	1,333.8	879.9	616.2	263.73	3.336	
13,600.0	6,150.0	13,379.1	6,150.0	137.7	135.2	-89.93	6,824.8	1,333.6	879.9	612.4	267.53	3.289	
13,700.0	6,150.0	13,479.1	6,150.0	139.5	137.1	-89.93	6,924.8	1,333.5	879.9	608.6	271.33	3.243	
13,800.0	6,150.0	13,579.1	6,150.0	141.4	138.9	-89.93	7,024.8	1,333.3	879.9	604.8	275.14	3.198	
13,900.0	6,150.0	13,679.1	6,150.0	143.2	140.8	-89.93	7,124.8	1,333.2	879.9	601.0	278.94	3.155	
14,000.0	6,150.0	13,779.1	6,150.0	145.1	142.7	-89.93	7,224.8	1,333.0	879.9	597.2	282.75	3.112	
14,055.2	6,150.0	13,834.3	6,150.0	146.1	143.8	-89.93	7,280.0	1,332.9	879.9	595.1	284.85	3.089	
14,099.1	6,150.0	13,864.6	6,150.0	146.9	144.3	-89.93	7,310.2	1,332.9	880.0	593.8	286.26	3.074 SF	

SRC Markham Pad Sec.16-T4N-R68W - SRC Markham 41-16-9CHZ - Wellbore #1 - Plan #1 (3-31-14)												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 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	100.513	
200.0	200.0	200.0	200.0	0.3	0.3	89.08	0.4	22.6	22.6	21.9	0.67	33.504	
300.0	300.0	300.0	300.0	0.6	0.6	89.08	0.4	22.6	22.6	21.5	1.12	20.103	
400.0	400.0	400.0	400.0	0.8	0.8	89.08	0.4	22.6	22.6	21.0	1.57	14.359	CC
500.0	500.0	499.2	499.2	1.0	1.0	89.98	0.0	24.3	24.3	22.3	2.01	12.100	
600.0	600.0	598.2	598.0	1.2	1.2	92.08	-1.1	29.3	29.4	26.9	2.44	12.044	
700.0	700.0	696.8	696.3	1.4	1.4	-9.33	-2.8	37.6	36.2	33.3	2.86	12.670	
800.0	799.8	795.2	794.0	1.7	1.7	-8.18	-5.3	49.2	43.0	39.7	3.27	13.147	
900.0	899.5	893.4	891.0	1.9	2.0	-7.44	-8.5	64.0	49.7	46.0	3.70	13.460	
1,000.0	998.7	991.4	987.2	2.1	2.4	-6.95	-12.3	82.1	56.4	52.3	4.13	13.653	
1,100.0	1,097.5	1,089.1	1,082.5	2.4	2.8	-6.64	-16.8	103.3	63.1	58.5	4.59	13.752	
1,200.0	1,195.6	1,186.7	1,176.8	2.8	3.2	-6.44	-22.0	127.6	69.7	64.6	5.06	13.774	
1,300.0	1,293.1	1,284.0	1,270.0	3.2	3.8	-6.34	-27.8	154.9	76.1	70.6	5.55	13.731	
1,400.0	1,389.6	1,381.1	1,362.0	3.6	4.4	-6.31	-34.3	185.3	82.5	76.5	6.05	13.632	
1,500.0	1,485.3	1,478.0	1,452.8	4.2	5.0	-6.33	-41.4	218.6	88.8	82.3	6.58	13.493	
1,600.0	1,579.8	1,574.7	1,542.1	4.8	5.8	-6.39	-49.1	254.9	95.0	87.9	7.14	13.311	
1,700.0	1,673.2	1,671.5	1,630.2	5.5	6.6	-6.49	-57.4	294.1	101.1	93.4	7.72	13.089	
1,800.0	1,765.2	1,771.5	1,720.6	6.2	7.5	-6.73	-66.3	335.8	105.1	96.8	8.35	12.597	
1,900.0	1,856.1	1,871.4	1,811.0	7.1	8.4	-7.15	-75.2	377.5	106.2	97.1	9.03	11.761	
2,000.0	1,946.7	1,971.4	1,901.4	7.9	9.3	-7.60	-84.1	419.3	106.9	97.1	9.76	10.948	
2,100.0	2,037.4	2,071.4	1,991.9	8.8	10.2	-8.03	-92.9	461.0	107.5	97.0	10.51	10.231	
2,200.0	2,128.1	2,171.4	2,082.3	9.7	11.1	-8.47	-101.8	502.7	108.2	97.0	11.28	9.597	
2,300.0	2,218.8	2,271.4	2,172.7	10.6	12.0	-8.89	-110.7	544.5	108.9	96.9	12.06	9.032	
2,400.0	2,309.5	2,371.4	2,263.2	11.5	12.9	-9.31	-119.6	586.2	109.6	96.8	12.86	8.527	
2,500.0	2,400.2	2,471.4	2,353.6	12.4	13.8	-9.73	-128.5	627.9	110.4	96.7	13.67	8.073	
2,600.0	2,490.8	2,571.4	2,444.0	13.3	14.8	-10.14	-137.4	669.7	111.1	96.6	14.50	7.663	
2,700.0	2,581.5	2,671.4	2,534.5	14.2	15.7	-10.54	-146.3	711.4	111.8	96.5	15.33	7.291	
2,800.0	2,672.2	2,771.4	2,624.9	15.1	16.6	-10.94	-155.1	753.2	112.5	96.3	16.19	6.952	
2,900.0	2,762.9	2,871.4	2,715.3	16.0	17.5	-11.34	-164.0	794.9	113.3	96.2	17.05	6.643	
3,000.0	2,853.6	2,971.4	2,805.7	16.9	18.5	-11.73	-172.9	836.6	114.0	96.1	17.93	6.359	
3,100.0	2,944.2	3,071.4	2,896.2	17.8	19.4	-12.11	-181.8	878.4	114.7	95.9	18.82	6.098	
3,200.0	3,034.9	3,171.4	2,986.6	18.7	20.3	-12.49	-190.7	920.1	115.5	95.8	19.72	5.858	
3,300.0	3,125.6	3,271.4	3,077.0	19.6	21.2	-12.87	-199.6	961.8	116.2	95.6	20.63	5.635	
3,400.0	3,216.3	3,371.4	3,167.5	20.5	22.2	-13.24	-208.4	1,003.6	117.0	95.5	21.55	5.429	
3,500.0	3,307.0	3,471.4	3,257.9	21.5	23.1	-13.60	-217.3	1,045.3	117.8	95.3	22.49	5.236	
3,600.0	3,397.7	3,571.4	3,348.3	22.4	24.0	-13.96	-226.2	1,087.1	118.5	95.1	23.44	5.057	
3,700.0	3,488.3	3,671.3	3,438.8	23.3	25.0	-14.32	-235.1	1,128.8	119.3	94.9	24.40	4.890	
3,800.0	3,579.0	3,771.3	3,529.2	24.2	25.9	-14.67	-244.0	1,170.5	120.1	94.7	25.37	4.734	
3,900.0	3,669.7	3,871.3	3,619.6	25.1	26.8	-15.02	-252.9	1,212.3	120.9	94.5	26.35	4.587	
4,000.0	3,760.4	3,971.3	3,710.1	26.0	27.8	-15.36	-261.7	1,254.0	121.7	94.3	27.35	4.449	
4,100.0	3,851.1	4,071.3	3,800.5	27.0	28.7	-15.69	-270.6	1,295.7	122.5	94.1	28.35	4.319	
4,200.0	3,941.8	4,171.3	3,890.9	27.9	29.6	-16.03	-279.5	1,337.5	123.3	93.9	29.36	4.197	
4,300.0	4,032.4	4,271.3	3,981.4	28.8	30.6	-16.36	-288.4	1,379.2	124.1	93.7	30.39	4.082	
4,400.0	4,123.1	4,371.3	4,071.8	29.7	31.5	-16.68	-297.3	1,421.0	124.9	93.4	31.43	3.973	
4,500.0	4,213.8	4,471.3	4,162.2	30.6	32.4	-17.00	-306.2	1,462.7	125.7	93.2	32.47	3.870	
4,600.0	4,304.5	4,571.3	4,252.7	31.5	33.4	-17.32	-315.0	1,504.4	126.5	92.9	33.53	3.772	
4,700.0	4,395.2	4,671.3	4,343.1	32.5	34.3	-17.63	-323.9	1,546.2	127.3	92.7	34.60	3.679	
4,800.0	4,485.9	4,771.3	4,433.5	33.4	35.2	-17.94	-332.8	1,587.9	128.1	92.4	35.67	3.591	
4,900.0	4,576.5	4,871.3	4,524.0	34.3	36.2	-18.24	-341.7	1,629.6	128.9	92.2	36.76	3.507	
5,000.0	4,667.2	4,971.3	4,614.4	35.2	37.1	-18.55	-350.6	1,671.4	129.8	91.9	37.86	3.428	
5,100.0	4,757.9	5,071.3	4,704.8	36.1	38.0	-18.84	-359.5	1,713.1	130.6	91.6	38.96	3.352	

COMPASS 2003.21 Build 46

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Project:	Sec.16-T4N-R68W	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Reference Site:	SRC Markham Pad Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Markham R-16-9NHZ	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 #1 (3-31-14)	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	4,848.6	5,171.3	4,795.3	37.1	39.0	-19.14	-368.3	1,754.8	131.4	91.3	40.08	3.279		
5,300.0	4,939.3	5,271.3	4,885.7	38.0	39.9	-19.42	-377.2	1,796.6	132.3	91.1	41.20	3.210		
5,400.0	5,029.9	5,371.2	4,976.1	38.9	40.8	-19.71	-386.1	1,838.3	133.1	90.8	42.33	3.144		
5,500.0	5,120.6	5,471.2	5,066.5	39.8	41.8	-19.99	-395.0	1,880.1	133.9	90.5	43.47	3.081		
5,600.0	5,211.3	5,571.2	5,157.0	40.7	42.7	-20.27	-403.9	1,921.8	134.8	90.2	44.62	3.020		
5,700.0	5,302.0	5,671.2	5,247.4	41.7	43.6	-20.55	-412.8	1,963.5	135.6	89.9	45.78	2.963		
5,800.0	5,392.7	5,771.2	5,337.8	42.6	44.6	-20.82	-421.6	2,005.3	136.5	89.5	46.95	2.907		
5,900.0	5,483.5	5,871.2	5,428.2	43.4	45.5	-10.84	-430.5	2,047.0	137.0	89.6	47.39	2.892		
6,000.0	5,574.4	5,970.1	5,517.7	44.2	46.4	12.23	-439.3	2,088.3	136.5	92.5	43.99	3.104		
6,004.4	5,578.4	5,974.4	5,521.6	44.2	46.5	13.32	-439.7	2,090.1	136.5	92.7	43.78	3.118		
6,100.0	5,663.9	6,067.0	5,605.4	44.8	47.3	37.69	-447.4	2,128.8	138.8	98.7	40.09	3.461		
6,200.0	5,750.1	6,167.4	5,696.4	45.4	48.1	60.10	-445.6	2,170.7	147.3	106.2	41.04	3.589		
6,300.0	5,831.3	6,272.5	5,790.6	45.9	48.8	77.81	-428.7	2,214.2	161.0	116.5	44.47	3.620		
6,400.0	5,906.1	6,383.1	5,886.1	46.3	49.5	91.40	-394.8	2,258.2	178.1	131.3	46.82	3.804		
6,500.0	5,972.9	6,499.7	5,980.4	46.7	50.1	101.66	-342.0	2,301.6	196.8	150.0	46.77	4.207		
6,600.0	6,030.5	6,622.5	6,069.9	46.9	50.6	109.30	-269.0	2,342.8	215.2	170.8	44.40	4.847		
6,700.0	6,077.7	6,751.7	6,150.4	47.1	51.0	114.87	-175.2	2,379.8	231.9	191.6	40.33	5.751		
6,800.0	6,113.6	6,886.7	6,216.8	47.3	51.3	118.75	-61.9	2,410.2	245.7	210.2	35.50	6.920		
6,900.0	6,137.5	7,026.6	6,264.0	47.4	51.5	121.20	67.7	2,431.8	255.4	224.2	31.17	8.194		
7,000.0	6,149.0	7,169.6	6,287.7	47.4	51.7	122.35	208.1	2,442.5	260.3	231.4	28.88	9.013		
7,100.0	6,150.0	7,288.0	6,290.0	47.5	51.7	122.47	326.4	2,443.4	260.8	231.5	29.27	8.910		
7,200.0	6,150.0	7,388.0	6,290.0	47.6	51.8	122.47	426.4	2,443.2	260.8	230.3	30.46	8.563		
7,300.0	6,150.0	7,488.0	6,290.0	47.7	51.9	122.47	526.4	2,443.1	260.8	228.8	31.96	8.159		
7,400.0	6,150.0	7,588.0	6,290.0	47.9	52.1	122.47	626.4	2,442.9	260.8	227.1	33.73	7.731		
7,500.0	6,150.0	7,688.0	6,290.0	48.2	52.3	122.47	726.4	2,442.8	260.8	225.1	35.73	7.300		
7,600.0	6,150.0	7,788.0	6,290.0	48.5	52.6	122.47	826.4	2,442.6	260.8	222.9	37.91	6.879		
7,700.0	6,150.0	7,888.0	6,290.0	48.8	52.9	122.47	926.4	2,442.5	260.8	220.5	40.25	6.479		
7,800.0	6,150.0	7,988.0	6,290.0	49.2	53.2	122.47	1,026.4	2,442.3	260.8	218.1	42.72	6.104		
7,900.0	6,150.0	8,088.0	6,290.0	49.7	53.7	122.47	1,126.4	2,442.2	260.8	215.5	45.31	5.756		
8,000.0	6,150.0	8,188.0	6,290.0	50.3	54.2	122.47	1,226.4	2,442.0	260.8	212.8	47.98	5.435		
8,100.0	6,150.0	8,288.0	6,290.0	50.9	54.7	122.47	1,326.4	2,441.9	260.8	210.1	50.74	5.140		
8,200.0	6,150.0	8,388.0	6,290.0	51.6	55.3	122.47	1,426.4	2,441.7	260.8	207.2	53.56	4.869		
8,300.0	6,150.0	8,488.0	6,290.0	52.4	56.0	122.47	1,526.4	2,441.6	260.8	204.4	56.43	4.621		
8,400.0	6,150.0	8,588.0	6,290.0	53.3	56.8	122.47	1,626.4	2,441.4	260.8	201.4	59.36	4.394		
8,500.0	6,150.0	8,688.0	6,290.0	54.2	57.6	122.47	1,726.4	2,441.3	260.8	198.5	62.32	4.185		
8,600.0	6,150.0	8,788.0	6,290.0	55.2	58.4	122.47	1,826.4	2,441.1	260.8	195.5	65.32	3.992		
8,700.0	6,150.0	8,888.0	6,290.0	56.2	59.4	122.47	1,926.4	2,441.0	260.8	192.4	68.35	3.815		
8,800.0	6,150.0	8,988.0	6,290.0	57.4	60.4	122.47	2,026.4	2,440.8	260.8	189.4	71.41	3.652		
8,900.0	6,150.0	9,088.0	6,290.0	58.5	61.5	122.47	2,126.4	2,440.7	260.8	186.3	74.49	3.501		
9,000.0	6,150.0	9,188.0	6,290.0	59.8	62.6	122.47	2,226.4	2,440.5	260.8	183.2	77.60	3.361		
9,100.0	6,150.0	9,288.0	6,290.0	61.0	63.7	122.47	2,326.4	2,440.4	260.8	180.1	80.72	3.231		
9,200.0	6,150.0	9,388.0	6,290.0	62.4	65.0	122.47	2,426.4	2,440.2	260.8	176.9	83.86	3.110		
9,300.0	6,150.0	9,488.0	6,290.0	63.7	66.2	122.47	2,526.4	2,440.1	260.8	173.8	87.01	2.997		
9,400.0	6,150.0	9,588.0	6,290.0	65.1	67.5	122.47	2,626.4	2,439.9	260.8	170.6	90.17	2.892		
9,500.0	6,150.0	9,688.0	6,290.0	66.6	68.9	122.47	2,726.4	2,439.8	260.8	167.4	93.35	2.794		
9,600.0	6,150.0	9,788.0	6,290.0	68.1	70.3	122.47	2,826.4	2,439.6	260.8	164.2	96.54	2.701		
9,700.0	6,150.0	9,888.0	6,290.0	69.6	71.7	122.47	2,926.4	2,439.4	260.8	161.0	99.73	2.615		
9,800.0	6,150.0	9,988.0	6,290.0	71.1	73.2	122.47	3,026.4	2,439.3	260.8	157.8	102.94	2.533		
9,900.0	6,150.0	10,088.0	6,290.0	72.6	74.6	122.47	3,126.4	2,439.1	260.8	154.6	106.15	2.457		
10,000.0	6,150.0	10,188.0	6,290.0	74.2	76.2	122.47	3,226.4	2,439.0	260.8	151.4	109.37	2.384		
10,100.0	6,150.0	10,288.0	6,290.0	75.8	77.7	122.47	3,326.4	2,438.8	260.8	148.2	112.60	2.316		
10,200.0	6,150.0	10,388.0	6,290.0	77.4	79.2	122.47	3,426.4	2,438.7	260.8	144.9	115.84	2.251		

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

Offset Design SRC Markham Pad Sec.16-T4N-R68W - SRC Markham 41-16-9CHZ - Wellbore #1 - Plan #1 (3-31-14)												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	6,150.0	10,488.0	6,290.0	79.1	80.8	122.47	3,526.4	2,438.5	260.8	141.7	119.07	2.190	
10,400.0	6,150.0	10,588.0	6,290.0	80.7	82.4	122.47	3,626.4	2,438.4	260.8	138.5	122.32	2.132	
10,500.0	6,150.0	10,688.0	6,290.0	82.4	84.0	122.47	3,726.4	2,438.2	260.8	135.2	125.57	2.077	
10,600.0	6,150.0	10,788.0	6,290.0	84.1	85.7	122.47	3,826.4	2,438.1	260.8	132.0	128.82	2.024	
10,700.0	6,150.0	10,888.0	6,290.0	85.7	87.3	122.47	3,926.4	2,437.9	260.8	128.7	132.08	1.974	
10,800.0	6,150.0	10,988.0	6,290.0	87.4	89.0	122.47	4,026.4	2,437.8	260.8	125.4	135.34	1.927	
10,900.0	6,150.0	11,088.0	6,290.0	89.2	90.6	122.47	4,126.4	2,437.6	260.8	122.2	138.60	1.881	
11,000.0	6,150.0	11,188.0	6,290.0	90.9	92.3	122.47	4,226.4	2,437.5	260.8	118.9	141.87	1.838	
11,100.0	6,150.0	11,288.0	6,290.0	92.6	94.0	122.47	4,326.4	2,437.3	260.8	115.6	145.14	1.797	
11,200.0	6,150.0	11,388.0	6,290.0	94.3	95.7	122.47	4,426.4	2,437.2	260.8	112.4	148.41	1.757	
11,300.0	6,150.0	11,488.0	6,290.0	96.1	97.4	122.47	4,526.4	2,437.0	260.8	109.1	151.69	1.719	
11,400.0	6,150.0	11,588.0	6,290.0	97.8	99.1	122.47	4,626.4	2,436.9	260.8	105.8	154.97	1.683	
11,500.0	6,150.0	11,688.0	6,290.0	99.6	100.9	122.47	4,726.4	2,436.7	260.8	102.5	158.25	1.648	
11,600.0	6,150.0	11,788.0	6,290.0	101.4	102.6	122.47	4,826.4	2,436.6	260.8	99.2	161.53	1.614	
11,700.0	6,150.0	11,888.0	6,290.0	103.1	104.4	122.47	4,926.4	2,436.4	260.8	96.0	164.82	1.582	
11,800.0	6,150.0	11,988.0	6,290.0	104.9	106.1	122.47	5,026.4	2,436.3	260.8	92.7	168.10	1.551	
11,900.0	6,150.0	12,088.0	6,290.0	106.7	107.9	122.47	5,126.4	2,436.1	260.8	89.4	171.39	1.521	
12,000.0	6,150.0	12,188.0	6,290.0	108.5	109.6	122.47	5,226.4	2,436.0	260.8	86.1	174.68	1.493 Level 3	
12,100.0	6,150.0	12,288.0	6,290.0	110.3	111.4	122.47	5,326.4	2,435.8	260.8	82.8	177.97	1.465 Level 3	
12,200.0	6,150.0	12,388.0	6,290.0	112.1	113.2	122.47	5,426.4	2,435.7	260.8	79.5	181.27	1.439 Level 3	
12,300.0	6,150.0	12,488.0	6,290.0	113.9	115.0	122.47	5,526.4	2,435.5	260.8	76.2	184.56	1.413 Level 3	
12,400.0	6,150.0	12,588.0	6,290.0	115.7	116.8	122.47	5,626.4	2,435.3	260.8	72.9	187.86	1.388 Level 3	
12,500.0	6,150.0	12,688.0	6,290.0	117.5	118.5	122.47	5,726.4	2,435.2	260.8	69.6	191.15	1.364 Level 3	
12,600.0	6,150.0	12,788.0	6,290.0	119.3	120.3	122.47	5,826.4	2,435.0	260.8	66.3	194.45	1.341 Level 3	
12,700.0	6,150.0	12,888.0	6,290.0	121.2	122.1	122.47	5,926.4	2,434.9	260.8	63.0	197.75	1.319 Level 3	
12,800.0	6,150.0	12,988.0	6,290.0	123.0	124.0	122.47	6,026.4	2,434.7	260.8	59.7	201.05	1.297 Level 3	
12,900.0	6,150.0	13,088.0	6,290.0	124.8	125.8	122.47	6,126.4	2,434.6	260.8	56.4	204.36	1.276 Level 3	
13,000.0	6,150.0	13,188.0	6,290.0	126.6	127.6	122.47	6,226.4	2,434.4	260.8	53.1	207.66	1.256 Level 3	
13,100.0	6,150.0	13,288.0	6,290.0	128.5	129.4	122.47	6,326.4	2,434.3	260.8	49.8	210.96	1.236 Level 2	
13,200.0	6,150.0	13,388.0	6,290.0	130.3	131.2	122.47	6,426.4	2,434.1	260.8	46.5	214.27	1.217 Level 2	
13,300.0	6,150.0	13,488.0	6,290.0	132.1	133.0	122.47	6,526.4	2,434.0	260.8	43.2	217.57	1.198 Level 2	
13,400.0	6,150.0	13,588.0	6,290.0	134.0	134.9	122.47	6,626.4	2,433.8	260.8	39.9	220.88	1.181 Level 2	
13,500.0	6,150.0	13,688.0	6,290.0	135.8	136.7	122.47	6,726.4	2,433.7	260.8	36.6	224.19	1.163 Level 2	
13,600.0	6,150.0	13,788.0	6,290.0	137.7	138.5	122.47	6,826.4	2,433.5	260.8	33.3	227.50	1.146 Level 2	
13,700.0	6,150.0	13,888.0	6,290.0	139.5	140.3	122.47	6,926.4	2,433.4	260.8	29.9	230.81	1.130 Level 2	
13,800.0	6,150.0	13,988.0	6,290.0	141.4	142.2	122.47	7,026.4	2,433.2	260.8	26.6	234.11	1.114 Level 2	
13,900.0	6,150.0	14,088.0	6,290.0	143.2	144.0	122.47	7,126.4	2,433.1	260.8	23.3	237.42	1.098 Level 2	
14,000.0	6,150.0	14,188.0	6,290.0	145.1	145.9	122.47	7,226.4	2,432.9	260.8	20.0	240.74	1.083 Level 2	
14,099.1	6,150.0	14,287.1	6,290.0	146.9	147.7	122.47	7,325.6	2,432.8	260.8	16.7	244.02	1.069 Level 2, ES, SF	

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Project:	Sec.16-T4N-R68W	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Reference Site:	SRC Markham Pad Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Markham R-16-9NHZ	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 #1 (3-31-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.55	0.4	45.2	45.2					
100.0	100.0	100.0	100.0	0.1	0.1	89.55	0.4	45.2	45.2	45.0	0.22	201.006		
200.0	200.0	200.0	200.0	0.3	0.3	89.55	0.4	45.2	45.2	44.5	0.67	67.002 CC, ES		
300.0	300.0	298.4	298.4	0.6	0.5	89.97	0.0	46.8	46.9	45.8	1.11	42.285		
400.0	400.0	396.6	396.5	0.8	0.8	91.04	-0.9	51.8	51.9	50.4	1.55	33.526		
500.0	500.0	494.4	493.9	1.0	1.0	92.43	-2.5	60.0	60.4	58.4	2.01	29.983		
600.0	600.0	591.5	590.2	1.2	1.3	93.82	-4.8	71.4	72.2	69.7	2.51	28.777		
700.0	700.0	687.9	685.5	1.4	1.6	-8.30	-7.6	85.9	85.7	82.8	2.89	29.610		
800.0	799.8	783.9	779.9	1.7	2.0	-7.57	-11.0	103.4	99.1	95.8	3.32	29.804		
900.0	899.5	879.5	873.2	1.9	2.4	-7.08	-15.0	123.9	112.3	108.6	3.77	29.804		
1,000.0	998.7	974.7	965.3	2.1	2.9	-6.76	-19.6	147.4	125.5	121.2	4.23	29.665		
1,100.0	1,097.5	1,069.5	1,056.2	2.4	3.4	-6.55	-24.8	173.7	138.4	133.7	4.71	29.416		
1,200.0	1,195.6	1,163.9	1,145.8	2.8	4.0	-6.43	-30.4	202.8	151.2	146.0	5.20	29.078		
1,300.0	1,293.1	1,258.0	1,234.1	3.2	4.6	-6.37	-36.7	234.7	163.9	158.1	5.72	28.655		
1,400.0	1,389.6	1,351.6	1,320.9	3.6	5.4	-6.36	-43.4	269.3	176.3	170.0	6.24	28.255		
1,500.0	1,485.3	1,445.0	1,406.2	4.2	6.1	-6.38	-50.7	306.5	188.5	181.7	6.81	27.693		
1,600.0	1,579.8	1,538.0	1,489.8	4.8	7.0	-6.45	-58.5	346.3	200.4	193.0	7.39	27.129		
1,700.0	1,673.2	1,637.0	1,578.2	5.5	7.9	-6.58	-67.0	390.2	210.8	202.8	8.01	26.302		
1,800.0	1,765.2	1,736.7	1,667.1	6.2	8.9	-6.81	-75.7	434.5	217.7	209.0	8.66	25.122		
1,900.0	1,856.1	1,836.6	1,756.3	7.1	9.9	-7.13	-84.4	478.8	221.6	212.2	9.37	23.651		
2,000.0	1,946.7	1,936.6	1,845.4	7.9	10.8	-7.45	-93.0	523.2	225.2	215.1	10.12	22.254		
2,100.0	2,037.4	2,036.5	1,934.5	8.8	11.8	-7.77	-101.7	567.5	228.7	217.9	10.88	21.022		
2,200.0	2,128.1	2,136.4	2,023.7	9.7	12.8	-8.08	-110.3	611.9	232.3	220.7	11.66	19.931		
2,300.0	2,218.8	2,236.4	2,112.8	10.6	13.8	-8.38	-119.0	656.2	235.9	223.5	12.44	18.959		
2,400.0	2,309.5	2,336.3	2,201.9	11.5	14.8	-8.67	-127.7	700.6	239.5	226.3	13.24	18.090		
2,500.0	2,400.2	2,436.2	2,291.0	12.4	15.8	-8.95	-136.3	744.9	243.1	229.1	14.05	17.307		
2,600.0	2,490.8	2,536.1	2,380.2	13.3	16.8	-9.22	-145.0	789.2	246.7	231.9	14.86	16.601		
2,700.0	2,581.5	2,636.1	2,469.3	14.2	17.8	-9.48	-153.7	833.6	250.3	234.7	15.69	15.959		
2,800.0	2,672.2	2,736.0	2,558.4	15.1	18.7	-9.74	-162.3	877.9	254.0	237.4	16.52	15.375		
2,900.0	2,762.9	2,835.9	2,647.6	16.0	19.7	-9.99	-171.0	922.3	257.6	240.2	17.36	14.841		
3,000.0	2,853.6	2,935.9	2,736.7	16.9	20.7	-10.23	-179.6	966.6	261.2	243.0	18.20	14.351		
3,100.0	2,944.2	3,035.8	2,825.8	17.8	21.7	-10.47	-188.3	1,011.0	264.8	245.8	19.05	13.900		
3,200.0	3,034.9	3,135.7	2,914.9	18.7	22.7	-10.70	-197.0	1,055.3	268.5	248.6	19.91	13.483		
3,300.0	3,125.6	3,235.6	3,004.1	19.6	23.7	-10.92	-205.6	1,099.7	272.1	251.3	20.78	13.097		
3,400.0	3,216.3	3,335.6	3,093.2	20.5	24.7	-11.14	-214.3	1,144.0	275.8	254.1	21.65	12.739		
3,500.0	3,307.0	3,435.5	3,182.3	21.5	25.7	-11.35	-222.9	1,188.4	279.4	256.9	22.52	12.405		
3,600.0	3,397.7	3,535.4	3,271.5	22.4	26.7	-11.56	-231.6	1,232.7	283.1	259.7	23.40	12.094		
3,700.0	3,488.3	3,635.4	3,360.6	23.3	27.7	-11.76	-240.3	1,277.0	286.7	262.4	24.29	11.803		
3,800.0	3,579.0	3,735.3	3,449.7	24.2	28.7	-11.95	-248.9	1,321.4	290.4	265.2	25.18	11.530		
3,900.0	3,669.7	3,835.2	3,538.9	25.1	29.7	-12.15	-257.6	1,365.7	294.0	268.0	26.08	11.274		
4,000.0	3,760.4	3,935.1	3,628.0	26.0	30.7	-12.33	-266.3	1,410.1	297.7	270.7	26.98	11.034		
4,100.0	3,851.1	4,035.1	3,717.1	27.0	31.7	-12.51	-274.9	1,454.4	301.4	273.5	27.89	10.807		
4,200.0	3,941.8	4,135.0	3,806.2	27.9	32.7	-12.69	-283.6	1,498.8	305.0	276.2	28.80	10.593		
4,300.0	4,032.4	4,234.9	3,895.4	28.8	33.7	-12.87	-292.2	1,543.1	308.7	279.0	29.71	10.390		
4,400.0	4,123.1	4,334.9	3,984.5	29.7	34.7	-13.04	-300.9	1,587.5	312.4	281.8	30.63	10.199		
4,500.0	4,213.8	4,434.8	4,073.6	30.6	35.7	-13.20	-309.6	1,631.8	316.1	284.5	31.55	10.017		
4,600.0	4,304.5	4,534.7	4,162.8	31.5	36.7	-13.36	-318.2	1,676.2	319.8	287.3	32.48	9.845		
4,700.0	4,395.2	4,634.6	4,251.9	32.5	37.7	-13.52	-326.9	1,720.5	323.4	290.0	33.41	9.681		
4,800.0	4,485.9	4,734.6	4,341.0	33.4	38.7	-13.67	-335.6	1,764.8	327.1	292.8	34.34	9.525		
4,900.0	4,576.5	4,834.5	4,430.2	34.3	39.7	-13.83	-344.2	1,809.2	330.8	295.5	35.28	9.377		
5,000.0	4,667.2	4,934.4	4,519.3	35.2	40.6	-13.97	-352.9	1,853.5	334.5	298.3	36.22	9.235		
5,100.0	4,757.9	5,034.4	4,608.4	36.1	41.6	-14.12	-361.5	1,897.9	338.2	301.0	37.16	9.100		

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

Offset Design SRC Markham Pad Sec.16-T4N-R68W - SRC Markham 41-16-9NHZ - Wellbore #1 - Plan #1 (3-31-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.0	4,848.6	5,134.3	4,697.5	37.1	42.6	-14.26	-370.2	1,942.2	341.9	303.8	38.11	8.971		
5,300.0	4,939.3	5,234.2	4,786.7	38.0	43.6	-14.40	-378.9	1,986.6	345.6	306.5	39.06	8.847		
5,400.0	5,029.9	5,334.1	4,875.8	38.9	44.6	-14.53	-387.5	2,030.9	349.3	309.3	40.02	8.729		
5,500.0	5,120.6	5,434.1	4,964.9	39.8	45.6	-14.66	-396.2	2,075.3	353.0	312.0	40.97	8.616		
5,600.0	5,211.3	5,534.0	5,054.1	40.7	46.6	-14.79	-404.9	2,119.6	356.7	314.8	41.93	8.507		
5,700.0	5,302.0	5,633.9	5,143.2	41.7	47.6	-14.92	-413.5	2,164.0	360.4	317.5	42.89	8.403		
5,800.0	5,392.7	5,733.8	5,232.3	42.6	48.6	-15.05	-422.2	2,208.3	364.1	320.3	43.86	8.302		
5,900.0	5,483.5	5,833.7	5,321.4	43.4	49.6	-5.59	-430.8	2,252.6	367.7	323.1	44.66	8.233		
6,000.0	5,574.4	5,932.7	5,409.7	44.2	50.6	13.57	-439.4	2,296.5	370.9	326.8	44.17	8.399		
6,100.0	5,663.9	6,030.2	5,496.7	44.8	51.5	31.86	-446.2	2,339.9	375.1	332.2	42.91	8.741		
6,200.0	5,750.1	6,131.1	5,586.9	45.4	52.4	46.66	-440.9	2,384.7	381.0	338.8	42.16	9.036		
6,300.0	5,831.3	6,236.4	5,679.3	45.9	53.1	58.13	-420.3	2,430.6	388.5	346.4	42.06	9.235		
6,400.0	5,906.1	6,346.4	5,771.9	46.3	53.9	67.05	-383.0	2,476.6	397.2	354.8	42.40	9.366		
6,500.0	5,972.9	6,461.5	5,862.1	46.7	54.5	74.05	-327.5	2,521.3	406.5	363.6	42.88	9.479		
6,600.0	6,030.5	6,581.9	5,946.6	46.9	55.0	79.54	-253.0	2,563.3	415.8	372.6	43.27	9.611		
6,700.0	6,077.7	6,707.5	6,021.6	47.1	55.5	83.76	-159.6	2,600.4	424.5	381.0	43.48	9.764		
6,800.0	6,113.6	6,837.8	6,082.8	47.3	55.8	86.85	-48.8	2,630.7	431.8	388.1	43.61	9.900		
6,900.0	6,137.5	6,971.9	6,126.0	47.4	56.0	88.88	76.2	2,651.9	437.0	393.1	43.92	9.949		
7,000.0	6,149.0	7,108.6	6,147.8	47.4	56.1	89.88	210.6	2,662.5	439.7	395.1	44.68	9.842		
7,100.0	6,150.0	7,224.9	6,150.0	47.5	56.2	90.00	326.8	2,663.4	440.1	394.3	45.74	9.620		
7,200.0	6,150.0	7,324.9	6,150.0	47.6	56.3	90.00	426.8	2,663.3	440.1	392.9	47.14	9.336		
7,300.0	6,150.0	7,424.9	6,150.0	47.7	56.4	90.00	526.8	2,663.1	440.1	391.3	48.80	9.018		
7,400.0	6,150.0	7,524.9	6,150.0	47.9	56.5	90.00	626.8	2,663.0	440.0	389.4	50.69	8.681		
7,500.0	6,150.0	7,624.9	6,150.0	48.2	56.7	90.00	726.8	2,662.8	440.0	387.2	52.80	8.334		
7,600.0	6,150.0	7,724.9	6,150.0	48.5	56.9	90.00	826.8	2,662.6	440.0	384.9	55.09	7.987		
7,700.0	6,150.0	7,824.9	6,150.0	48.8	57.2	90.00	926.8	2,662.5	440.0	382.5	57.55	7.646		
7,800.0	6,150.0	7,924.9	6,150.0	49.2	57.5	90.00	1,026.8	2,662.3	440.0	379.9	60.16	7.315		
7,900.0	6,150.0	8,024.9	6,150.0	49.7	57.9	90.00	1,126.8	2,662.2	440.0	377.1	62.89	6.997		
8,000.0	6,150.0	8,124.9	6,150.0	50.3	58.3	90.00	1,226.8	2,662.0	440.0	374.3	65.73	6.694		
8,100.0	6,150.0	8,224.9	6,150.0	50.9	58.8	90.00	1,326.8	2,661.9	440.0	371.3	68.67	6.408		
8,200.0	6,150.0	8,324.9	6,150.0	51.6	59.3	90.00	1,426.8	2,661.7	440.0	368.3	71.69	6.137		
8,300.0	6,150.0	8,424.9	6,150.0	52.4	59.9	90.00	1,526.8	2,661.6	440.0	365.2	74.79	5.883		
8,400.0	6,150.0	8,524.9	6,150.0	53.3	60.5	90.00	1,626.8	2,661.4	440.0	362.0	77.96	5.644		
8,500.0	6,150.0	8,624.9	6,150.0	54.2	61.2	90.00	1,726.8	2,661.2	440.0	358.8	81.18	5.420		
8,600.0	6,150.0	8,724.9	6,150.0	55.2	62.0	90.00	1,826.8	2,661.1	440.0	355.5	84.46	5.209		
8,700.0	6,150.0	8,824.9	6,150.0	56.2	62.8	90.00	1,926.8	2,660.9	440.0	352.2	87.78	5.012		
8,800.0	6,150.0	8,924.9	6,150.0	57.4	63.7	90.00	2,026.8	2,660.8	440.0	348.8	91.14	4.827		
8,900.0	6,150.0	9,024.9	6,150.0	58.5	64.6	90.00	2,126.8	2,660.6	440.0	345.4	94.54	4.654		
9,000.0	6,150.0	9,124.9	6,150.0	59.8	65.6	90.00	2,226.8	2,660.5	440.0	342.0	97.97	4.491		
9,100.0	6,150.0	9,224.9	6,150.0	61.0	66.7	90.00	2,326.8	2,660.3	440.0	338.5	101.43	4.337		
9,200.0	6,150.0	9,324.9	6,150.0	62.4	67.8	90.00	2,426.8	2,660.1	439.9	335.0	104.92	4.193		
9,300.0	6,150.0	9,424.9	6,150.0	63.7	69.0	90.00	2,526.8	2,660.0	439.9	331.5	108.43	4.057		
9,400.0	6,150.0	9,524.9	6,150.0	65.1	70.2	90.00	2,626.8	2,659.8	439.9	328.0	111.97	3.929		
9,500.0	6,150.0	9,624.9	6,150.0	66.6	71.4	90.00	2,726.8	2,659.7	439.9	324.4	115.52	3.808		
9,600.0	6,150.0	9,724.9	6,150.0	68.1	72.7	90.00	2,826.8	2,659.5	439.9	320.8	119.09	3.694		
9,700.0	6,150.0	9,824.9	6,150.0	69.6	74.0	90.00	2,926.8	2,659.4	439.9	317.2	122.68	3.586		
9,800.0	6,150.0	9,924.9	6,150.0	71.1	75.4	90.00	3,026.8	2,659.2	439.9	313.6	126.28	3.484		
9,900.0	6,150.0	10,024.9	6,150.0	72.6	76.8	90.00	3,126.8	2,659.0	439.9	310.0	129.89	3.387		
10,000.0	6,150.0	10,124.9	6,150.0	74.2	78.2	90.00	3,226.8	2,658.9	439.9	306.4	133.52	3.295		
10,100.0	6,150.0	10,224.9	6,150.0	75.8	79.7	90.00	3,326.8	2,658.7	439.9	302.7	137.16	3.207		
10,200.0	6,150.0	10,324.9	6,150.0	77.4	81.2	90.00	3,426.8	2,658.6	439.9	299.1	140.81	3.124		
10,300.0	6,150.0	10,424.9	6,150.0	79.1	82.7	90.00	3,526.8	2,658.4	439.9	295.4	144.47	3.045		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Project:	Sec.16-T4N-R68W	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Reference Site:	SRC Markham Pad Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Markham R-16-9NHZ	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 #1 (3-31-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Markham Pad Sec.16-T4N-R68W - SRC Markham 41-16-9NHZ - Wellbore #1 - Plan #1 (3-31-14)													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	
10,400.0	6,150.0	10,524.9	6,150.0	80.7	84.2	90.00	3,626.8	2,658.3	439.9	291.7	148.14	2.969	
10,500.0	6,150.0	10,624.9	6,150.0	82.4	85.8	90.00	3,726.8	2,658.1	439.9	288.1	151.82	2.897	
10,600.0	6,150.0	10,724.9	6,150.0	84.1	87.4	90.00	3,826.8	2,657.9	439.9	284.4	155.50	2.829	
10,700.0	6,150.0	10,824.9	6,150.0	85.7	88.9	90.00	3,926.8	2,657.8	439.9	280.7	159.20	2.763	
10,800.0	6,150.0	10,924.9	6,150.0	87.4	90.6	90.00	4,026.8	2,657.6	439.9	277.0	162.90	2.700	
10,900.0	6,150.0	11,024.9	6,150.0	89.2	92.2	90.00	4,126.8	2,657.5	439.9	273.3	166.60	2.640	
11,000.0	6,150.0	11,124.9	6,150.0	90.9	93.8	90.00	4,226.8	2,657.3	439.9	269.5	170.32	2.583	
11,100.0	6,150.0	11,224.9	6,150.0	92.6	95.5	90.00	4,326.8	2,657.2	439.8	265.8	174.04	2.527	
11,200.0	6,150.0	11,324.9	6,150.0	94.3	97.1	90.00	4,426.8	2,657.0	439.8	262.1	177.76	2.474	
11,300.0	6,150.0	11,424.9	6,150.0	96.1	98.8	90.00	4,526.8	2,656.9	439.8	258.3	181.49	2.424	
11,400.0	6,150.0	11,524.9	6,150.0	97.8	100.5	90.00	4,626.8	2,656.7	439.8	254.6	185.22	2.375	
11,500.0	6,150.0	11,624.9	6,150.0	99.6	102.2	90.00	4,726.8	2,656.5	439.8	250.9	188.96	2.328	
11,600.0	6,150.0	11,724.9	6,150.0	101.4	103.9	90.00	4,826.8	2,656.4	439.8	247.1	192.70	2.282	
11,700.0	6,150.0	11,824.9	6,150.0	103.1	105.6	90.00	4,926.8	2,656.2	439.8	243.4	196.44	2.239	
11,800.0	6,150.0	11,924.9	6,150.0	104.9	107.3	90.00	5,026.8	2,656.1	439.8	239.6	200.19	2.197	
11,900.0	6,150.0	12,024.9	6,150.0	106.7	109.1	90.00	5,126.8	2,655.9	439.8	235.9	203.94	2.156	
12,000.0	6,150.0	12,124.9	6,150.0	108.5	110.8	90.00	5,226.8	2,655.8	439.8	232.1	207.70	2.117	
12,100.0	6,150.0	12,224.9	6,150.0	110.3	112.6	90.00	5,326.8	2,655.6	439.8	228.3	211.46	2.080	
12,200.0	6,150.0	12,324.9	6,150.0	112.1	114.3	90.00	5,426.8	2,655.4	439.8	224.6	215.22	2.043	
12,300.0	6,150.0	12,424.9	6,150.0	113.9	116.1	90.00	5,526.8	2,655.3	439.8	220.8	218.98	2.008	
12,400.0	6,150.0	12,524.9	6,150.0	115.7	117.8	90.00	5,626.8	2,655.1	439.8	217.0	222.75	1.974	
12,500.0	6,150.0	12,624.9	6,150.0	117.5	119.6	90.00	5,726.8	2,655.0	439.8	213.2	226.52	1.941	
12,600.0	6,150.0	12,724.9	6,150.0	119.3	121.4	90.00	5,826.8	2,654.8	439.8	209.5	230.29	1.910	
12,700.0	6,150.0	12,824.9	6,150.0	121.2	123.2	90.00	5,926.8	2,654.7	439.8	205.7	234.07	1.879	
12,800.0	6,150.0	12,924.9	6,150.0	123.0	125.0	90.00	6,026.8	2,654.5	439.8	201.9	237.84	1.849	
12,900.0	6,150.0	13,024.9	6,150.0	124.8	126.8	90.00	6,126.8	2,654.3	439.7	198.1	241.62	1.820	
13,000.0	6,150.0	13,124.9	6,150.0	126.6	128.5	90.00	6,226.8	2,654.2	439.7	194.3	245.40	1.792	
13,100.0	6,150.0	13,224.9	6,150.0	128.5	130.3	90.00	6,326.8	2,654.0	439.7	190.6	249.18	1.765	
13,200.0	6,150.0	13,324.9	6,150.0	130.3	132.1	90.00	6,426.8	2,653.9	439.7	186.8	252.97	1.738	
13,300.0	6,150.0	13,424.9	6,150.0	132.1	134.0	90.00	6,526.8	2,653.7	439.7	183.0	256.75	1.713	
13,400.0	6,150.0	13,524.9	6,150.0	134.0	135.8	90.00	6,626.8	2,653.6	439.7	179.2	260.54	1.688	
13,500.0	6,150.0	13,624.9	6,150.0	135.8	137.6	90.00	6,726.8	2,653.4	439.7	175.4	264.33	1.664	
13,600.0	6,150.0	13,724.9	6,150.0	137.7	139.4	90.00	6,826.8	2,653.2	439.7	171.6	268.12	1.640	
13,700.0	6,150.0	13,824.9	6,150.0	139.5	141.2	90.00	6,926.8	2,653.1	439.7	167.8	271.91	1.617	
13,800.0	6,150.0	13,924.9	6,150.0	141.4	143.0	90.00	7,026.8	2,652.9	439.7	164.0	275.70	1.595	
13,900.0	6,150.0	14,024.9	6,150.0	143.2	144.9	90.00	7,126.8	2,652.8	439.7	160.2	279.50	1.573	
14,000.0	6,150.0	14,124.9	6,150.0	145.1	146.7	90.00	7,226.8	2,652.6	439.7	156.4	283.29	1.552	
14,099.1	6,150.0	14,224.1	6,150.0	146.9	148.5	90.00	7,325.9	2,652.5	439.7	152.6	287.06	1.532 SF	

SRC Markham Pad Sec.16-T4N-R68W - SRC Markham C-16-9CHZ - Wellbore #1 - Plan #1 (3-31-14)													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	
0.0	0.0	0.0	0.0	0.0	0.0	-90.62	-0.7	-67.5	67.5					
100.0	100.0	100.0	100.0	0.1	0.1	-90.62	-0.7	-67.5	67.5	67.3	0.22	300.277		
200.0	200.0	200.0	200.0	0.3	0.3	-90.62	-0.7	-67.5	67.5	66.8	0.67	100.092		
300.0	300.0	300.0	300.0	0.6	0.6	-90.62	-0.7	-67.5	67.5	66.4	1.12	60.055		
400.0	400.0	400.0	400.0	0.8	0.8	-90.62	-0.7	-67.5	67.5	65.9	1.57	42.897		
500.0	500.0	500.0	500.0	1.0	1.0	-90.62	-0.7	-67.5	67.5	65.5	2.02	33.364		
600.0	600.0	600.0	600.0	1.2	1.2	-90.62	-0.7	-67.5	67.5	65.0	2.47	27.298 CC, ES		
700.0	700.0	700.0	700.0	1.4	1.5	166.49	-0.7	-67.5	69.2	66.3	2.91	23.803		
800.0	799.8	799.8	799.8	1.7	1.7	167.41	-0.7	-67.5	74.3	71.0	3.33	22.302		
900.0	899.5	899.5	899.5	1.9	1.9	168.69	-0.7	-67.5	82.8	79.1	3.76	22.023		
1,000.0	998.7	998.7	998.7	2.1	2.1	170.09	-0.7	-67.5	94.8	90.6	4.19	22.612		
1,100.0	1,097.5	1,097.5	1,097.5	2.4	2.4	171.44	-0.7	-67.5	110.2	105.6	4.63	23.832		
1,200.0	1,195.6	1,195.6	1,195.6	2.8	2.6	172.65	-0.7	-67.5	129.1	124.1	5.06	25.524		
1,300.0	1,293.1	1,298.1	1,298.1	3.2	2.8	173.62	-1.3	-65.9	149.9	144.4	5.48	27.351		
1,400.0	1,389.6	1,401.6	1,401.4	3.6	3.0	174.23	-3.0	-60.8	170.7	164.8	5.89	28.988		
1,500.0	1,485.3	1,505.9	1,505.3	4.2	3.2	174.60	-5.9	-52.0	191.4	185.1	6.31	30.339		
1,600.0	1,579.8	1,611.1	1,609.6	4.8	3.5	174.81	-10.0	-39.5	211.9	205.2	6.74	31.434		
1,700.0	1,673.2	1,717.0	1,714.2	5.5	3.7	174.89	-15.4	-23.3	232.3	225.1	7.19	32.297		
1,800.0	1,765.2	1,823.9	1,819.0	6.2	4.1	174.86	-22.0	-3.3	252.6	244.9	7.67	32.946		
1,900.0	1,856.1	1,931.7	1,923.7	7.1	4.5	174.77	-29.9	20.7	272.1	263.9	8.20	33.178		
2,000.0	1,946.7	2,040.9	2,028.8	7.9	4.9	174.57	-39.2	48.8	288.4	279.6	8.80	32.752		
2,100.0	2,037.4	2,151.2	2,133.9	8.8	5.5	174.24	-49.9	81.1	300.9	291.5	9.43	31.903		
2,200.0	2,128.1	2,259.2	2,235.2	9.7	6.1	173.81	-61.5	116.2	309.8	299.7	10.10	30.671		
2,300.0	2,218.8	2,358.8	2,328.5	10.6	6.7	173.40	-72.5	149.5	317.7	307.0	10.77	29.505		
2,400.0	2,309.5	2,458.5	2,421.8	11.5	7.4	173.01	-83.6	182.8	325.7	314.2	11.46	28.430		
2,500.0	2,400.2	2,558.1	2,515.1	12.4	8.1	172.64	-94.6	216.1	333.7	321.5	12.16	27.443		
2,600.0	2,490.8	2,657.8	2,608.3	13.3	8.8	172.28	-105.6	249.5	341.6	328.8	12.88	26.534		
2,700.0	2,581.5	2,757.5	2,701.6	14.2	9.4	171.94	-116.7	282.8	349.6	336.0	13.60	25.698		
2,800.0	2,672.2	2,857.1	2,794.9	15.1	10.2	171.62	-127.7	316.1	357.6	343.3	14.35	24.928		
2,900.0	2,762.9	2,956.8	2,888.2	16.0	10.9	171.31	-138.7	349.4	365.6	350.5	15.10	24.216		
3,000.0	2,853.6	3,056.4	2,981.4	16.9	11.6	171.02	-149.7	382.8	373.7	357.8	15.86	23.557		
3,100.0	2,944.2	3,156.1	3,074.7	17.8	12.3	170.73	-160.8	416.1	381.7	365.1	16.63	22.947		
3,200.0	3,034.9	3,255.8	3,168.0	18.7	13.0	170.46	-171.8	449.4	389.7	372.3	17.41	22.381		
3,300.0	3,125.6	3,355.4	3,261.2	19.6	13.8	170.20	-182.8	482.7	397.8	379.6	18.20	21.854		
3,400.0	3,216.3	3,455.1	3,354.5	20.5	14.5	169.95	-193.9	516.1	405.8	386.8	19.00	21.363		
3,500.0	3,307.0	3,554.7	3,447.8	21.5	15.2	169.71	-204.9	549.4	413.9	394.1	19.80	20.905		
3,600.0	3,397.7	3,654.4	3,541.1	22.4	16.0	169.48	-215.9	582.7	422.0	401.4	20.61	20.476		
3,700.0	3,488.3	3,754.1	3,634.3	23.3	16.7	169.25	-227.0	616.0	430.1	408.6	21.42	20.074		
3,800.0	3,579.0	3,853.7	3,727.6	24.2	17.4	169.04	-238.0	649.4	438.1	415.9	22.24	19.697		
3,900.0	3,669.7	3,953.4	3,820.9	25.1	18.2	168.83	-249.0	682.7	446.2	423.2	23.07	19.343		
4,000.0	3,760.4	4,053.0	3,914.2	26.0	18.9	168.63	-260.0	716.0	454.3	430.4	23.90	19.010		
4,100.0	3,851.1	4,152.7	4,007.4	27.0	19.7	168.44	-271.1	749.4	462.4	437.7	24.74	18.695		
4,200.0	3,941.8	4,252.4	4,100.7	27.9	20.4	168.25	-282.1	782.7	470.5	445.0	25.58	18.398		
4,300.0	4,032.4	4,352.0	4,194.0	28.8	21.1	168.07	-293.1	816.0	478.7	452.2	26.42	18.118		
4,400.0	4,123.1	4,451.7	4,287.2	29.7	21.9	167.90	-304.2	849.3	486.8	459.5	27.27	17.852		
4,500.0	4,213.8	4,551.3	4,380.5	30.6	22.6	167.73	-315.2	882.7	494.9	466.8	28.12	17.600		
4,600.0	4,304.5	4,651.0	4,473.8	31.5	23.4	167.57	-326.2	916.0	503.0	474.0	28.97	17.361		
4,700.0	4,395.2	4,750.6	4,567.1	32.5	24.1	167.41	-337.2	949.3	511.1	481.3	29.83	17.134		
4,800.0	4,485.9	4,850.3	4,660.3	33.4	24.9	167.26	-348.3	982.6	519.3	488.6	30.69	16.918		
4,900.0	4,576.5	4,950.0	4,753.6	34.3	25.6	167.11	-359.3	1,016.0	527.4	495.9	31.56	16.712		
5,000.0	4,667.2	5,049.6	4,846.9	35.2	26.4	166.97	-370.3	1,049.3	535.6	503.1	32.43	16.516		
5,100.0	4,757.9	5,149.3	4,940.1	36.1	27.1	166.83	-381.4	1,082.6	543.7	510.4	33.30	16.328		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Project:	Sec.16-T4N-R68W	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Reference Site:	SRC Markham Pad Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Markham R-16-9NHZ	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 #1 (3-31-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWDD												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	4,848.6	5,248.9	5,033.4	37.1	27.9	166.70	-392.4	1,115.9	551.8	517.7	34.17	16.149	
5,300.0	4,939.3	5,348.6	5,126.7	38.0	28.6	166.56	-403.4	1,149.3	560.0	524.9	35.05	15.978	
5,400.0	5,029.9	5,448.3	5,220.0	38.9	29.4	166.44	-414.5	1,182.6	568.1	532.2	35.93	15.815	
5,500.0	5,120.6	5,547.9	5,313.2	39.8	30.1	166.31	-425.5	1,215.9	576.3	539.5	36.81	15.658	
5,600.0	5,211.3	5,647.6	5,406.5	40.7	30.9	166.19	-436.5	1,249.2	584.5	546.8	37.69	15.507	
5,700.0	5,302.0	5,747.2	5,499.8	41.7	31.6	166.08	-447.5	1,282.6	592.6	554.0	38.57	15.363	
5,800.0	5,392.7	5,848.0	5,594.3	42.6	32.3	166.18	-456.4	1,316.3	600.7	561.4	39.31	15.283	
5,900.0	5,483.5	5,948.1	5,688.4	43.4	32.9	177.05	-452.5	1,349.9	608.7	569.5	39.18	15.538	
6,000.0	5,574.4	6,046.3	5,779.3	44.2	33.4	-163.79	-435.2	1,382.4	617.0	578.2	38.76	15.917	
6,100.0	5,663.9	6,142.8	5,865.8	44.8	33.8	-147.24	-405.5	1,413.2	625.3	586.9	38.44	16.268	
6,200.0	5,750.1	6,237.9	5,946.5	45.4	34.1	-134.44	-364.4	1,442.0	633.6	595.3	38.30	16.543	
6,300.0	5,831.3	6,331.7	6,020.4	45.9	34.3	-124.95	-313.1	1,468.3	641.6	603.2	38.38	16.717	
6,400.0	5,906.1	6,424.3	6,086.6	46.3	34.5	-117.94	-252.9	1,491.8	649.0	610.4	38.67	16.786	
6,500.0	5,972.9	6,516.0	6,144.4	46.7	34.7	-112.72	-184.8	1,512.3	655.8	616.7	39.13	16.760	
6,600.0	6,030.5	6,606.8	6,193.1	46.9	34.8	-108.84	-110.2	1,529.6	661.8	622.0	39.74	16.653	
6,700.0	6,077.7	6,697.0	6,232.2	47.1	34.9	-105.98	-30.3	1,543.5	666.7	626.2	40.47	16.474	
6,800.0	6,113.6	6,786.5	6,261.5	47.3	34.9	-103.97	53.7	1,553.8	670.5	629.2	41.33	16.223	
6,900.0	6,137.5	6,875.8	6,280.6	47.4	35.0	-102.68	140.5	1,560.5	673.1	630.7	42.34	15.899	
7,000.0	6,149.0	6,964.7	6,289.4	47.4	35.0	-102.05	229.0	1,563.5	674.4	630.9	43.47	15.515	
7,100.0	6,150.0	7,060.9	6,290.0	47.5	35.1	-101.98	325.1	1,563.5	674.5	630.0	44.54	15.145	
7,200.0	6,150.0	7,160.9	6,290.0	47.6	35.3	-101.98	425.1	1,563.4	674.5	628.5	46.06	14.645	
7,300.0	6,150.0	7,260.9	6,290.0	47.7	35.5	-101.98	525.1	1,563.2	674.5	626.6	47.87	14.089	
7,400.0	6,150.0	7,360.9	6,290.0	47.9	35.9	-101.98	625.1	1,563.1	674.5	624.6	49.91	13.515	
7,500.0	6,150.0	7,460.9	6,290.0	48.2	36.3	-101.98	725.1	1,562.9	674.5	622.4	52.14	12.937	
7,600.0	6,150.0	7,560.9	6,290.0	48.5	36.8	-101.98	825.1	1,562.8	674.5	620.0	54.54	12.368	
7,700.0	6,150.0	7,660.9	6,290.0	48.8	37.4	-101.98	925.1	1,562.6	674.5	617.4	57.09	11.816	
7,800.0	6,150.0	7,760.9	6,290.0	49.2	38.2	-101.98	1,025.1	1,562.5	674.5	614.8	59.76	11.287	
7,900.0	6,150.0	7,860.9	6,290.0	49.7	39.0	-101.98	1,125.1	1,562.3	674.5	612.0	62.55	10.783	
8,000.0	6,150.0	7,960.9	6,290.0	50.3	40.0	-101.98	1,225.1	1,562.2	674.5	609.1	65.44	10.308	
8,100.0	6,150.0	8,060.9	6,290.0	50.9	41.0	-101.98	1,325.1	1,562.0	674.5	606.1	68.41	9.860	
8,200.0	6,150.0	8,160.9	6,290.0	51.6	42.1	-101.98	1,425.1	1,561.9	674.5	603.1	71.46	9.439	
8,300.0	6,150.0	8,260.9	6,290.0	52.4	43.3	-101.98	1,525.1	1,561.7	674.5	600.0	74.58	9.045	
8,400.0	6,150.0	8,360.9	6,290.0	53.3	44.6	-101.98	1,625.1	1,561.6	674.5	596.8	77.75	8.676	
8,500.0	6,150.0	8,460.9	6,290.0	54.2	45.9	-101.98	1,725.1	1,561.4	674.5	593.6	80.97	8.330	
8,600.0	6,150.0	8,560.9	6,290.0	55.2	47.3	-101.98	1,825.1	1,561.2	674.5	590.3	84.24	8.007	
8,700.0	6,150.0	8,660.9	6,290.0	56.2	48.7	-101.98	1,925.1	1,561.1	674.5	587.0	87.55	7.704	
8,800.0	6,150.0	8,760.9	6,290.0	57.4	50.2	-101.98	2,025.1	1,560.9	674.5	583.6	90.90	7.421	
8,900.0	6,150.0	8,860.9	6,290.0	58.5	51.7	-101.98	2,125.1	1,560.8	674.5	580.3	94.27	7.155	
9,000.0	6,150.0	8,960.9	6,290.0	59.8	53.2	-101.98	2,225.1	1,560.6	674.5	576.9	97.68	6.906	
9,100.0	6,150.0	9,060.9	6,290.0	61.0	54.8	-101.98	2,325.1	1,560.5	674.5	573.4	101.11	6.671	
9,200.0	6,150.0	9,160.9	6,290.0	62.4	56.4	-101.98	2,425.1	1,560.3	674.5	570.0	104.57	6.451	
9,300.0	6,150.0	9,260.9	6,290.0	63.7	58.0	-101.98	2,525.1	1,560.2	674.5	566.5	108.04	6.243	
9,400.0	6,150.0	9,360.9	6,290.0	65.1	59.6	-101.98	2,625.1	1,560.0	674.6	563.0	111.54	6.048	
9,500.0	6,150.0	9,460.9	6,290.0	66.6	61.3	-101.98	2,725.1	1,559.9	674.6	559.5	115.05	5.863	
9,600.0	6,150.0	9,560.9	6,290.0	68.1	63.0	-101.98	2,825.1	1,559.7	674.6	556.0	118.58	5.689	
9,700.0	6,150.0	9,660.9	6,290.0	69.6	64.7	-101.98	2,925.1	1,559.6	674.6	552.4	122.12	5.524	
9,800.0	6,150.0	9,760.9	6,290.0	71.1	66.4	-101.98	3,025.1	1,559.4	674.6	548.9	125.68	5.367	
9,900.0	6,150.0	9,860.9	6,290.0	72.6	68.1	-101.98	3,125.1	1,559.3	674.6	545.3	129.25	5.219	
10,000.0	6,150.0	9,960.9	6,290.0	74.2	69.8	-101.98	3,225.1	1,559.1	674.6	541.7	132.83	5.079	
10,100.0	6,150.0	10,060.9	6,290.0	75.8	71.6	-101.98	3,325.1	1,559.0	674.6	538.1	136.42	4.945	
10,200.0	6,150.0	10,160.9	6,290.0	77.4	73.3	-101.98	3,425.1	1,558.8	674.6	534.5	140.01	4.818	
10,300.0	6,150.0	10,260.9	6,290.0	79.1	75.1	-101.98	3,525.1	1,558.7	674.6	530.9	143.62	4.697	

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

Offset Design										SRC Markham Pad Sec.16-T4N-R68W - SRC Markham C-16-9CHZ - Wellbore #1 - Plan #1 (3-31-14)				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)					
10,400.0	6,150.0	10,360.9	6,290.0	80.7	76.8	-101.98	3,625.1	1,558.5	674.6	527.3	147.24	4.581				
10,500.0	6,150.0	10,460.9	6,290.0	82.4	78.6	-101.98	3,725.1	1,558.3	674.6	523.7	150.86	4.471				
10,600.0	6,150.0	10,560.9	6,290.0	84.1	80.4	-101.98	3,825.1	1,558.2	674.6	520.1	154.49	4.366				
10,700.0	6,150.0	10,660.9	6,290.0	85.7	82.2	-101.98	3,925.1	1,558.0	674.6	516.4	158.13	4.266				
10,800.0	6,150.0	10,760.9	6,290.0	87.4	84.0	-101.98	4,025.1	1,557.9	674.6	512.8	161.77	4.170				
10,900.0	6,150.0	10,860.9	6,290.0	89.2	85.8	-101.98	4,125.1	1,557.7	674.6	509.2	165.42	4.078				
11,000.0	6,150.0	10,960.9	6,290.0	90.9	87.6	-101.98	4,225.1	1,557.6	674.6	505.5	169.08	3.990				
11,100.0	6,150.0	11,060.9	6,290.0	92.6	89.4	-101.98	4,325.1	1,557.4	674.6	501.8	172.74	3.905				
11,200.0	6,150.0	11,160.9	6,290.0	94.3	91.2	-101.98	4,425.1	1,557.3	674.6	498.2	176.40	3.824				
11,300.0	6,150.0	11,260.9	6,290.0	96.1	93.0	-101.98	4,525.1	1,557.1	674.6	494.5	180.07	3.746				
11,400.0	6,150.0	11,360.9	6,290.0	97.8	94.8	-101.98	4,625.1	1,557.0	674.6	490.8	183.74	3.671				
11,500.0	6,150.0	11,460.9	6,290.0	99.6	96.7	-101.98	4,725.1	1,556.8	674.6	487.2	187.42	3.599				
11,600.0	6,150.0	11,560.9	6,290.0	101.4	98.5	-101.98	4,825.1	1,556.7	674.6	483.5	191.10	3.530				
11,700.0	6,150.0	11,660.9	6,290.0	103.1	100.3	-101.98	4,925.1	1,556.5	674.6	479.8	194.78	3.463				
11,800.0	6,150.0	11,760.9	6,290.0	104.9	102.2	-101.98	5,025.1	1,556.4	674.6	476.1	198.47	3.399				
11,900.0	6,150.0	11,860.9	6,290.0	106.7	104.0	-101.98	5,125.1	1,556.2	674.6	472.4	202.16	3.337				
12,000.0	6,150.0	11,960.9	6,290.0	108.5	105.9	-101.98	5,225.1	1,556.1	674.6	468.7	205.85	3.277				
12,100.0	6,150.0	12,060.9	6,290.0	110.3	107.7	-101.98	5,325.1	1,555.9	674.6	465.0	209.55	3.219				
12,200.0	6,150.0	12,160.9	6,290.0	112.1	109.5	-101.98	5,425.1	1,555.7	674.6	461.4	213.24	3.164				
12,300.0	6,150.0	12,260.9	6,290.0	113.9	111.4	-101.98	5,525.1	1,555.6	674.6	457.7	216.94	3.110				
12,400.0	6,150.0	12,360.9	6,290.0	115.7	113.3	-101.98	5,625.1	1,555.4	674.6	454.0	220.65	3.057				
12,500.0	6,150.0	12,460.9	6,290.0	117.5	115.1	-101.98	5,725.1	1,555.3	674.6	450.2	224.35	3.007				
12,600.0	6,150.0	12,560.9	6,290.0	119.3	117.0	-101.98	5,825.1	1,555.1	674.6	446.5	228.06	2.958				
12,700.0	6,150.0	12,660.9	6,290.0	121.2	118.8	-101.98	5,925.1	1,555.0	674.6	442.8	231.77	2.911				
12,800.0	6,150.0	12,760.9	6,290.0	123.0	120.7	-101.98	6,025.1	1,554.8	674.6	439.1	235.48	2.865				
12,900.0	6,150.0	12,860.9	6,290.0	124.8	122.5	-101.98	6,125.1	1,554.7	674.6	435.4	239.19	2.820				
13,000.0	6,150.0	12,960.9	6,290.0	126.6	124.4	-101.98	6,225.1	1,554.5	674.6	431.7	242.91	2.777				
13,100.0	6,150.0	13,060.9	6,290.0	128.5	126.3	-101.98	6,325.1	1,554.4	674.6	428.0	246.63	2.735				
13,200.0	6,150.0	13,160.9	6,290.0	130.3	128.1	-101.98	6,425.1	1,554.2	674.6	424.3	250.34	2.695				
13,300.0	6,150.0	13,260.9	6,290.0	132.1	130.0	-101.98	6,525.1	1,554.1	674.6	420.6	254.06	2.655				
13,400.0	6,150.0	13,360.9	6,290.0	134.0	131.9	-101.98	6,625.1	1,553.9	674.6	416.8	257.78	2.617				
13,500.0	6,150.0	13,460.9	6,290.0	135.8	133.8	-101.98	6,725.1	1,553.8	674.6	413.1	261.51	2.580				
13,600.0	6,150.0	13,560.9	6,290.0	137.7	135.6	-101.98	6,825.1	1,553.6	674.6	409.4	265.23	2.544				
13,700.0	6,150.0	13,660.9	6,290.0	139.5	137.5	-101.98	6,925.1	1,553.5	674.6	405.7	268.96	2.508				
13,800.0	6,150.0	13,760.9	6,290.0	141.4	139.4	-101.98	7,025.1	1,553.3	674.6	401.9	272.68	2.474				
13,900.0	6,150.0	13,860.9	6,290.0	143.2	141.3	-101.98	7,125.1	1,553.2	674.6	398.2	276.41	2.441				
14,000.0	6,150.0	13,960.9	6,290.0	145.1	143.1	-101.98	7,225.1	1,553.0	674.6	394.5	280.14	2.408				
14,056.8	6,150.0	14,017.6	6,290.0	146.1	144.2	-101.98	7,281.9	1,552.9	674.6	392.4	282.26	2.390				
14,099.1	6,150.0	14,050.0	6,290.0	146.9	144.8	-101.98	7,314.3	1,552.9	674.7	391.0	283.65	2.379 SF				

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	-90.46	-0.4	-44.9	44.9					
100.0	100.0	100.0	100.0	0.1	0.1	-90.46	-0.4	-44.9	44.9	44.7	0.22	199.766		
200.0	200.0	200.0	200.0	0.3	0.3	-90.46	-0.4	-44.9	44.9	44.2	0.67	66.589		
300.0	300.0	300.0	300.0	0.6	0.6	-90.46	-0.4	-44.9	44.9	43.8	1.12	39.953		
400.0	400.0	400.0	400.0	0.8	0.8	-90.46	-0.4	-44.9	44.9	43.3	1.57	28.538		
500.0	500.0	500.0	500.0	1.0	1.0	-90.46	-0.4	-44.9	44.9	42.9	2.02	22.196		
600.0	600.0	600.0	600.0	1.2	1.2	-90.46	-0.4	-44.9	44.9	42.4	2.47	18.161	CC, ES	
700.0	700.0	700.0	700.0	1.4	1.5	166.80	-0.4	-44.9	46.6	43.7	2.91	16.032		
800.0	799.8	799.8	799.8	1.7	1.7	168.11	-0.4	-44.9	51.7	48.4	3.33	15.523		
900.0	899.5	899.5	899.5	1.9	1.9	169.78	-0.4	-44.9	60.3	56.5	3.76	16.027		
1,000.0	998.7	998.7	998.7	2.1	2.1	171.46	-0.4	-44.9	72.3	68.1	4.19	17.246		
1,100.0	1,097.5	1,100.5	1,100.4	2.4	2.3	172.77	-0.9	-43.2	86.1	81.5	4.61	18.688		
1,200.0	1,195.6	1,202.8	1,202.6	2.8	2.5	173.61	-2.4	-38.0	99.9	94.9	5.01	19.945		
1,300.0	1,293.1	1,305.6	1,305.0	3.2	2.8	174.13	-4.9	-29.3	113.7	108.3	5.42	20.961		
1,400.0	1,389.6	1,408.9	1,407.6	3.6	3.0	174.45	-8.6	-16.9	127.4	121.5	5.85	21.770		
1,500.0	1,485.3	1,512.8	1,510.1	4.2	3.3	174.61	-13.2	-1.0	140.9	134.7	6.29	22.398		
1,600.0	1,579.8	1,617.2	1,612.5	4.8	3.6	174.67	-19.0	18.7	154.4	147.7	6.75	22.864		
1,700.0	1,673.2	1,722.2	1,714.6	5.5	4.0	174.64	-25.8	42.0	167.7	160.5	7.24	23.182		
1,800.0	1,765.2	1,827.7	1,816.2	6.2	4.5	174.54	-33.8	69.0	180.9	173.2	7.74	23.364		
1,900.0	1,856.1	1,933.7	1,917.3	7.1	5.0	174.38	-42.8	99.8	193.4	185.1	8.32	23.250		
2,000.0	1,946.7	2,040.6	2,017.9	7.9	5.7	174.10	-53.0	134.5	202.6	193.7	8.96	22.628		
2,100.0	2,037.4	2,146.8	2,116.5	8.8	6.4	173.68	-64.1	172.4	208.2	198.6	9.63	21.620		
2,200.0	2,128.1	2,246.7	2,208.7	9.7	7.1	173.24	-74.9	209.3	212.5	202.2	10.32	20.597		
2,300.0	2,218.8	2,346.6	2,300.9	10.6	7.9	172.82	-85.7	246.1	216.8	205.8	11.02	19.669		
2,400.0	2,309.5	2,446.5	2,393.1	11.5	8.6	172.42	-96.5	283.0	221.2	209.4	11.75	18.825		
2,500.0	2,400.2	2,546.4	2,485.3	12.4	9.4	172.03	-107.3	319.9	225.5	213.0	12.49	18.058		
2,600.0	2,490.8	2,646.3	2,577.5	13.3	10.2	171.65	-118.1	356.7	229.8	216.6	13.24	17.358		
2,700.0	2,581.5	2,746.2	2,669.7	14.2	11.0	171.29	-128.9	393.6	234.2	220.2	14.01	16.718		
2,800.0	2,672.2	2,846.1	2,762.0	15.1	11.8	170.95	-139.7	430.5	238.5	223.8	14.79	16.132		
2,900.0	2,762.9	2,946.0	2,854.2	16.0	12.6	170.61	-150.5	467.3	242.9	227.3	15.58	15.594		
3,000.0	2,853.6	3,045.9	2,946.4	16.9	13.4	170.29	-161.3	504.2	247.3	230.9	16.38	15.099		
3,100.0	2,944.2	3,145.8	3,038.6	17.8	14.2	169.98	-172.2	541.1	251.7	234.5	17.19	14.642		
3,200.0	3,034.9	3,245.7	3,130.8	18.7	15.0	169.68	-183.0	577.9	256.1	238.1	18.01	14.219		
3,300.0	3,125.6	3,345.6	3,223.0	19.6	15.8	169.39	-193.8	614.8	260.5	241.6	18.84	13.827		
3,400.0	3,216.3	3,445.5	3,315.2	20.5	16.6	169.11	-204.6	651.7	264.9	245.2	19.67	13.463		
3,500.0	3,307.0	3,545.4	3,407.4	21.5	17.4	168.84	-215.4	688.5	269.3	248.8	20.52	13.123		
3,600.0	3,397.7	3,645.3	3,499.7	22.4	18.3	168.57	-226.2	725.4	273.7	252.3	21.37	12.807		
3,700.0	3,488.3	3,745.2	3,591.9	23.3	19.1	168.32	-237.0	762.2	278.1	255.9	22.23	12.511		
3,800.0	3,579.0	3,845.1	3,684.1	24.2	19.9	168.07	-247.8	799.1	282.5	259.5	23.10	12.233		
3,900.0	3,669.7	3,944.9	3,776.3	25.1	20.7	167.84	-258.6	836.0	287.0	263.0	23.97	11.973		
4,000.0	3,760.4	4,044.8	3,868.5	26.0	21.5	167.60	-269.4	872.8	291.4	266.6	24.85	11.729		
4,100.0	3,851.1	4,144.7	3,960.7	27.0	22.4	167.38	-280.2	909.7	295.9	270.1	25.73	11.498		
4,200.0	3,941.8	4,244.6	4,052.9	27.9	23.2	167.16	-291.0	946.6	300.3	273.7	26.62	11.281		
4,300.0	4,032.4	4,344.5	4,145.1	28.8	24.0	166.95	-301.8	983.4	304.8	277.2	27.51	11.076		
4,400.0	4,123.1	4,444.4	4,237.4	29.7	24.8	166.74	-312.7	1,020.3	309.2	280.8	28.41	10.882		
4,500.0	4,213.8	4,544.3	4,329.6	30.6	25.7	166.54	-323.5	1,057.2	313.7	284.4	29.32	10.699		
4,600.0	4,304.5	4,644.2	4,421.8	31.5	26.5	166.35	-334.3	1,094.0	318.1	287.9	30.23	10.525		
4,700.0	4,395.2	4,744.1	4,514.0	32.5	27.3	166.16	-345.1	1,130.9	322.6	291.5	31.14	10.359		
4,800.0	4,485.9	4,844.0	4,606.2	33.4	28.1	165.98	-355.9	1,167.8	327.1	295.0	32.06	10.202		
4,900.0	4,576.5	4,943.9	4,698.4	34.3	29.0	165.80	-366.7	1,204.6	331.5	298.6	32.98	10.053		
5,000.0	4,667.2	5,043.8	4,790.6	35.2	29.8	165.63	-377.5	1,241.5	336.0	302.1	33.91	9.910		
5,100.0	4,757.9	5,143.7	4,882.8	36.1	30.6	165.46	-388.3	1,278.4	340.5	305.7	34.83	9.775		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Project:	Sec.16-T4N-R68W	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Reference Site:	SRC Markham Pad Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Markham R-16-9NHZ	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 #1 (3-31-14)	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	4,848.6	5,243.6	4,975.1	37.1	31.4	165.29	-399.1	1,315.2	345.0	309.2	35.77	9.645	
5,300.0	4,939.3	5,343.5	5,067.3	38.0	32.3	165.13	-409.9	1,352.1	349.5	312.8	36.70	9.521	
5,400.0	5,029.9	5,443.4	5,159.5	38.9	33.1	164.97	-420.7	1,388.9	353.9	316.3	37.64	9.403	
5,500.0	5,120.6	5,543.3	5,251.7	39.8	33.9	164.82	-431.5	1,425.8	358.4	319.8	38.59	9.289	
5,600.0	5,211.3	5,643.2	5,343.9	40.7	34.8	164.67	-442.3	1,462.7	362.9	323.4	39.53	9.181	
5,700.0	5,302.0	5,743.8	5,436.8	41.7	35.6	164.60	-452.8	1,499.8	367.4	327.0	40.43	9.087	
5,800.0	5,392.7	5,845.4	5,531.1	42.6	36.2	166.14	-452.8	1,537.5	371.5	331.2	40.27	9.223	
5,900.0	5,483.5	5,942.9	5,620.8	43.4	36.8	178.94	-439.4	1,573.3	375.9	336.8	39.09	9.617	
6,000.0	5,574.4	6,037.4	5,705.2	44.2	37.3	-160.14	-414.0	1,607.0	381.7	343.6	38.14	10.007	
6,100.0	5,663.9	6,129.3	5,783.7	44.8	37.7	-141.98	-378.1	1,638.3	388.5	350.7	37.81	10.275	
6,200.0	5,750.1	6,219.1	5,855.7	45.4	38.0	-127.75	-332.8	1,667.0	395.9	357.9	38.03	10.412	
6,300.0	5,831.3	6,307.0	5,920.5	45.9	38.3	-117.00	-279.4	1,692.8	403.7	365.1	38.57	10.465	
6,400.0	5,906.1	6,393.3	5,977.7	46.3	38.5	-108.92	-219.0	1,715.6	411.4	372.2	39.20	10.493	
6,500.0	5,972.9	6,478.3	6,027.1	46.7	38.6	-102.81	-152.8	1,735.2	418.6	378.9	39.74	10.535	
6,600.0	6,030.5	6,562.1	6,068.4	46.9	38.8	-98.20	-81.8	1,751.6	425.2	385.1	40.09	10.606	
6,700.0	6,077.7	6,645.1	6,101.4	47.1	38.9	-94.79	-6.8	1,764.7	430.7	390.4	40.31	10.686	
6,800.0	6,113.6	6,727.4	6,125.9	47.3	39.0	-92.37	71.1	1,774.4	435.1	394.6	40.52	10.736	
6,900.0	6,137.5	6,809.3	6,142.0	47.4	39.0	-90.83	151.1	1,780.6	438.1	397.2	40.90	10.710	
7,000.0	6,149.0	6,890.8	6,149.4	47.4	39.1	-90.08	232.2	1,783.5	439.6	398.0	41.57	10.576	
7,100.0	6,150.0	6,984.0	6,150.0	47.5	39.1	-90.00	325.4	1,783.6	439.8	397.3	42.53	10.341	
7,200.0	6,150.0	7,084.0	6,150.0	47.6	39.2	-90.00	425.4	1,783.4	439.8	395.8	44.01	9.993	
7,300.0	6,150.0	7,184.0	6,150.0	47.7	39.4	-90.00	525.4	1,783.3	439.8	394.0	45.79	9.605	
7,400.0	6,150.0	7,284.0	6,150.0	47.9	39.7	-90.00	625.4	1,783.1	439.8	392.0	47.81	9.199	
7,500.0	6,150.0	7,384.0	6,150.0	48.2	40.0	-90.00	725.4	1,783.0	439.8	389.8	50.04	8.789	
7,600.0	6,150.0	7,484.0	6,150.0	48.5	40.5	-90.00	825.4	1,782.8	439.8	387.3	52.46	8.383	
7,700.0	6,150.0	7,584.0	6,150.0	48.8	41.0	-90.00	925.4	1,782.7	439.8	384.8	55.04	7.990	
7,800.0	6,150.0	7,684.0	6,150.0	49.2	41.6	-90.00	1,025.4	1,782.5	439.8	382.0	57.77	7.614	
7,900.0	6,150.0	7,784.0	6,150.0	49.7	42.3	-90.00	1,125.4	1,782.3	439.8	379.2	60.61	7.257	
8,000.0	6,150.0	7,884.0	6,150.0	50.3	43.1	-90.00	1,225.4	1,782.2	439.8	376.3	63.56	6.920	
8,100.0	6,150.0	7,984.0	6,150.0	50.9	43.9	-90.00	1,325.4	1,782.0	439.8	373.2	66.60	6.604	
8,200.0	6,150.0	8,084.0	6,150.0	51.6	44.9	-90.00	1,425.4	1,781.9	439.8	370.1	69.72	6.309	
8,300.0	6,150.0	8,184.0	6,150.0	52.4	46.0	-90.00	1,525.4	1,781.7	439.8	366.9	72.90	6.033	
8,400.0	6,150.0	8,284.0	6,150.0	53.3	47.1	-90.00	1,625.4	1,781.6	439.8	363.7	76.15	5.776	
8,500.0	6,150.0	8,384.0	6,150.0	54.2	48.3	-90.00	1,725.4	1,781.4	439.8	360.4	79.45	5.536	
8,600.0	6,150.0	8,484.0	6,150.0	55.2	49.5	-90.00	1,825.4	1,781.3	439.8	357.0	82.80	5.312	
8,700.0	6,150.0	8,584.0	6,150.0	56.2	50.8	-90.00	1,925.4	1,781.1	439.8	353.6	86.19	5.103	
8,800.0	6,150.0	8,684.0	6,150.0	57.4	52.2	-90.00	2,025.4	1,781.0	439.8	350.2	89.61	4.908	
8,900.0	6,150.0	8,784.0	6,150.0	58.5	53.6	-90.00	2,125.4	1,780.8	439.8	346.8	93.07	4.726	
9,000.0	6,150.0	8,884.0	6,150.0	59.8	55.1	-90.00	2,225.4	1,780.7	439.8	343.3	96.56	4.555	
9,100.0	6,150.0	8,984.0	6,150.0	61.0	56.5	-90.00	2,325.4	1,780.5	439.8	339.8	100.07	4.395	
9,200.0	6,150.0	9,084.0	6,150.0	62.4	58.1	-90.00	2,425.4	1,780.4	439.8	336.2	103.60	4.245	
9,300.0	6,150.0	9,184.0	6,150.0	63.7	59.6	-90.00	2,525.4	1,780.2	439.8	332.7	107.16	4.105	
9,400.0	6,150.0	9,284.0	6,150.0	65.1	61.2	-90.00	2,625.4	1,780.0	439.8	329.1	110.74	3.972	
9,500.0	6,150.0	9,384.0	6,150.0	66.6	62.8	-90.00	2,725.4	1,779.9	439.8	325.5	114.33	3.847	
9,600.0	6,150.0	9,484.0	6,150.0	68.1	64.4	-90.00	2,825.4	1,779.7	439.9	321.9	117.94	3.729	
9,700.0	6,150.0	9,584.0	6,150.0	69.6	66.1	-90.00	2,925.4	1,779.6	439.9	318.3	121.56	3.618	
9,800.0	6,150.0	9,684.0	6,150.0	71.1	67.7	-90.00	3,025.4	1,779.4	439.9	314.7	125.20	3.513	
9,900.0	6,150.0	9,784.0	6,150.0	72.6	69.4	-90.00	3,125.4	1,779.3	439.9	311.0	128.85	3.414	
10,000.0	6,150.0	9,884.0	6,150.0	74.2	71.1	-90.00	3,225.4	1,779.1	439.9	307.4	132.50	3.320	
10,100.0	6,150.0	9,984.0	6,150.0	75.8	72.8	-90.00	3,325.4	1,779.0	439.9	303.7	136.17	3.230	
10,200.0	6,150.0	10,084.0	6,150.0	77.4	74.5	-90.00	3,425.4	1,778.8	439.9	300.0	139.85	3.145	
10,300.0	6,150.0	10,184.0	6,150.0	79.1	76.2	-90.00	3,525.4	1,778.7	439.9	296.3	143.54	3.064	

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

Offset Design										SRC Markham Pad Sec.16-T4N-R68W - SRC Markham C-16-9NHZ - Wellbore #1 - Plan #1 (3-31-14)				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)					
10,400.0	6,150.0	10,284.0	6,150.0	80.7	78.0	-90.00	3,625.4	1,778.5	439.9	292.6	147.23	2.988				
10,500.0	6,150.0	10,384.0	6,150.0	82.4	79.7	-90.00	3,725.4	1,778.4	439.9	288.9	150.93	2.914				
10,600.0	6,150.0	10,484.0	6,150.0	84.1	81.4	-90.00	3,825.4	1,778.2	439.9	285.2	154.64	2.844				
10,700.0	6,150.0	10,584.0	6,150.0	85.7	83.2	-90.00	3,925.4	1,778.0	439.9	281.5	158.36	2.778				
10,800.0	6,150.0	10,684.0	6,150.0	87.4	85.0	-90.00	4,025.4	1,777.9	439.9	277.8	162.08	2.714				
10,900.0	6,150.0	10,784.0	6,150.0	89.2	86.8	-90.00	4,125.4	1,777.7	439.9	274.1	165.81	2.653				
11,000.0	6,150.0	10,884.0	6,150.0	90.9	88.5	-90.00	4,225.4	1,777.6	439.9	270.3	169.54	2.595				
11,100.0	6,150.0	10,984.0	6,150.0	92.6	90.3	-90.00	4,325.4	1,777.4	439.9	266.6	173.27	2.539				
11,200.0	6,150.0	11,084.0	6,150.0	94.3	92.1	-90.00	4,425.4	1,777.3	439.9	262.9	177.01	2.485				
11,300.0	6,150.0	11,184.0	6,150.0	96.1	93.9	-90.00	4,525.4	1,777.1	439.9	259.1	180.76	2.434				
11,400.0	6,150.0	11,284.0	6,150.0	97.8	95.7	-90.00	4,625.4	1,777.0	439.9	255.4	184.51	2.384				
11,500.0	6,150.0	11,384.0	6,150.0	99.6	97.5	-90.00	4,725.4	1,776.8	439.9	251.6	188.26	2.337				
11,600.0	6,150.0	11,484.0	6,150.0	101.4	99.3	-90.00	4,825.4	1,776.7	439.9	247.9	192.02	2.291				
11,700.0	6,150.0	11,584.0	6,150.0	103.1	101.2	-90.00	4,925.4	1,776.5	439.9	244.1	195.78	2.247				
11,800.0	6,150.0	11,684.0	6,150.0	104.9	103.0	-90.00	5,025.4	1,776.4	439.9	240.4	199.54	2.205				
11,900.0	6,150.0	11,784.0	6,150.0	106.7	104.8	-90.00	5,125.4	1,776.2	439.9	236.6	203.30	2.164				
12,000.0	6,150.0	11,884.0	6,150.0	108.5	106.6	-90.00	5,225.4	1,776.1	439.9	232.8	207.07	2.124				
12,100.0	6,150.0	11,984.0	6,150.0	110.3	108.5	-90.00	5,325.4	1,775.9	439.9	229.1	210.84	2.086				
12,200.0	6,150.0	12,084.0	6,150.0	112.1	110.3	-90.00	5,425.4	1,775.7	439.9	225.3	214.62	2.050				
12,300.0	6,150.0	12,184.0	6,150.0	113.9	112.1	-90.00	5,525.4	1,775.6	439.9	221.5	218.39	2.014				
12,400.0	6,150.0	12,284.0	6,150.0	115.7	114.0	-90.00	5,625.4	1,775.4	439.9	217.7	222.17	1.980				
12,500.0	6,150.0	12,384.0	6,150.0	117.5	115.8	-90.00	5,725.4	1,775.3	439.9	214.0	225.95	1.947				
12,600.0	6,150.0	12,484.0	6,150.0	119.3	117.7	-90.00	5,825.4	1,775.1	439.9	210.2	229.73	1.915				
12,700.0	6,150.0	12,584.0	6,150.0	121.2	119.5	-90.00	5,925.4	1,775.0	439.9	206.4	233.52	1.884				
12,800.0	6,150.0	12,684.0	6,150.0	123.0	121.4	-90.00	6,025.4	1,774.8	439.9	202.6	237.30	1.854				
12,900.0	6,150.0	12,784.0	6,150.0	124.8	123.2	-90.00	6,125.4	1,774.7	439.9	198.8	241.09	1.825				
13,000.0	6,150.0	12,884.0	6,150.0	126.6	125.1	-90.00	6,225.4	1,774.5	439.9	195.1	244.88	1.797				
13,100.0	6,150.0	12,984.0	6,150.0	128.5	126.9	-90.00	6,325.4	1,774.4	439.9	191.3	248.67	1.769				
13,200.0	6,150.0	13,084.0	6,150.0	130.3	128.8	-90.00	6,425.4	1,774.2	439.9	187.5	252.46	1.743				
13,300.0	6,150.0	13,184.0	6,150.0	132.1	130.7	-90.00	6,525.4	1,774.1	439.9	183.7	256.26	1.717				
13,400.0	6,150.0	13,284.0	6,150.0	134.0	132.5	-90.00	6,625.4	1,773.9	439.9	179.9	260.05	1.692				
13,500.0	6,150.0	13,384.0	6,150.0	135.8	134.4	-90.00	6,725.4	1,773.7	439.9	176.1	263.85	1.667				
13,600.0	6,150.0	13,484.0	6,150.0	137.7	136.2	-90.00	6,825.4	1,773.6	439.9	172.3	267.65	1.644				
13,700.0	6,150.0	13,584.0	6,150.0	139.5	138.1	-90.00	6,925.4	1,773.4	440.0	168.5	271.45	1.621				
13,800.0	6,150.0	13,684.0	6,150.0	141.4	140.0	-90.00	7,025.4	1,773.3	440.0	164.7	275.25	1.598				
13,900.0	6,150.0	13,784.0	6,150.0	143.2	141.9	-90.00	7,125.4	1,773.1	440.0	160.9	279.05	1.577				
14,000.0	6,150.0	13,884.0	6,150.0	145.1	143.7	-90.00	7,225.4	1,773.0	440.0	157.1	282.85	1.555				
14,058.1	6,150.0	13,942.1	6,150.0	146.1	144.8	-90.00	7,283.5	1,772.9	440.0	154.9	285.06	1.543				
14,099.1	6,150.0	13,976.5	6,150.0	146.9	145.5	-90.00	7,317.9	1,772.8	440.0	153.5	286.49	1.536 SF				

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Project:	Sec.16-T4N-R68W	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Reference Site:	SRC Markham Pad Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Markham R-16-9NHZ	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 #1 (3-31-14)	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	-90.97	-0.4	-22.3	22.3					
100.0	100.0	100.0	100.0	0.1	0.1	-90.97	-0.4	-22.3	22.3	22.1	0.22	99.273		
200.0	200.0	200.0	200.0	0.3	0.3	-90.97	-0.4	-22.3	22.3	21.6	0.67	33.091		
300.0	300.0	300.0	300.0	0.6	0.6	-90.97	-0.4	-22.3	22.3	21.2	1.12	19.855		
400.0	400.0	400.0	400.0	0.8	0.8	-90.97	-0.4	-22.3	22.3	20.7	1.57	14.182		
500.0	500.0	500.0	500.0	1.0	1.0	-90.97	-0.4	-22.3	22.3	20.3	2.02	11.030		
600.0	600.0	600.0	600.0	1.2	1.2	-90.97	-0.4	-22.3	22.3	19.8	2.47	9.025 CC		
700.0	700.0	700.0	700.0	1.4	1.5	166.82	-0.4	-22.3	24.0	21.1	2.91	8.260		
800.0	799.8	799.8	799.8	1.7	1.7	169.14	-0.4	-22.3	29.1	25.8	3.33	8.745		
900.0	899.5	900.7	900.7	1.9	1.9	171.17	-0.8	-20.6	36.0	32.3	3.74	9.623		
1,000.0	998.7	1,001.9	1,001.7	2.1	2.1	172.43	-2.2	-15.4	42.9	38.7	4.14	10.357		
1,100.0	1,097.5	1,103.2	1,102.7	2.4	2.3	173.24	-4.4	-6.8	49.7	45.2	4.55	10.932		
1,200.0	1,195.6	1,204.9	1,203.5	2.8	2.6	173.76	-7.6	5.3	56.6	51.6	4.97	11.378		
1,300.0	1,293.1	1,306.8	1,304.1	3.2	2.9	174.09	-11.6	21.0	63.4	57.9	5.41	11.716		
1,400.0	1,389.6	1,408.9	1,404.3	3.6	3.2	174.28	-16.6	40.1	70.1	64.2	5.86	11.961		
1,500.0	1,485.3	1,511.3	1,504.0	4.2	3.6	174.37	-22.5	62.7	76.7	70.4	6.33	12.124		
1,600.0	1,579.8	1,613.9	1,603.0	4.8	4.1	174.38	-29.3	88.8	83.3	76.5	6.82	12.214		
1,700.0	1,673.2	1,716.8	1,701.2	5.5	4.6	174.33	-36.9	118.5	89.8	82.4	7.34	12.232		
1,800.0	1,765.2	1,819.9	1,798.5	6.2	5.2	174.23	-45.5	151.6	96.2	88.3	7.87	12.214		
1,900.0	1,856.1	1,923.3	1,894.7	7.1	5.9	174.07	-55.0	188.1	102.0	93.5	8.49	12.015		
2,000.0	1,946.7	2,024.4	1,987.8	7.9	6.7	173.76	-65.0	226.4	105.4	96.2	9.15	11.511		
2,100.0	2,037.4	2,124.3	2,079.7	8.8	7.5	173.46	-74.9	264.4	108.6	98.8	9.84	11.036		
2,200.0	2,128.1	2,224.3	2,171.6	9.7	8.2	173.18	-84.7	302.4	111.9	101.3	10.54	10.608		
2,300.0	2,218.8	2,324.2	2,263.5	10.6	9.0	172.91	-94.6	340.4	115.1	103.8	11.26	10.221		
2,400.0	2,309.5	2,424.2	2,355.4	11.5	9.9	172.66	-104.5	378.4	118.3	106.3	11.99	9.870		
2,500.0	2,400.2	2,524.1	2,447.3	12.4	10.7	172.43	-114.3	416.4	121.6	108.8	12.73	9.553		
2,600.0	2,490.8	2,624.1	2,539.3	13.3	11.5	172.20	-124.2	454.4	124.8	111.3	13.47	9.264		
2,700.0	2,581.5	2,724.0	2,631.2	14.2	12.3	171.99	-134.1	492.4	128.1	113.8	14.23	9.000		
2,800.0	2,672.2	2,824.0	2,723.1	15.1	13.1	171.79	-144.0	530.4	131.3	116.3	14.99	8.758		
2,900.0	2,762.9	2,923.9	2,815.0	16.0	14.0	171.59	-153.8	568.4	134.6	118.8	15.76	8.537		
3,000.0	2,853.6	3,023.9	2,906.9	16.9	14.8	171.41	-163.7	606.4	137.8	121.3	16.54	8.333		
3,100.0	2,944.2	3,123.8	2,998.8	17.8	15.6	171.23	-173.6	644.4	141.1	123.8	17.32	8.145		
3,200.0	3,034.9	3,223.7	3,090.7	18.7	16.5	171.06	-183.5	682.4	144.3	126.2	18.11	7.971		
3,300.0	3,125.6	3,323.7	3,182.6	19.6	17.3	170.90	-193.3	720.4	147.6	128.7	18.90	7.810		
3,400.0	3,216.3	3,423.6	3,274.6	20.5	18.2	170.75	-203.2	758.3	150.8	131.2	19.69	7.660		
3,500.0	3,307.0	3,523.6	3,366.5	21.5	19.0	170.60	-213.1	796.3	154.1	133.6	20.49	7.521		
3,600.0	3,397.7	3,623.5	3,458.4	22.4	19.9	170.46	-222.9	834.3	157.4	136.1	21.29	7.390		
3,700.0	3,488.3	3,723.5	3,550.3	23.3	20.7	170.33	-232.8	872.3	160.6	138.5	22.10	7.268		
3,800.0	3,579.0	3,823.4	3,642.2	24.2	21.5	170.20	-242.7	910.3	163.9	141.0	22.91	7.154		
3,900.0	3,669.7	3,923.4	3,734.1	25.1	22.4	170.07	-252.6	948.3	167.1	143.4	23.72	7.047		
4,000.0	3,760.4	4,023.3	3,826.0	26.0	23.2	169.95	-262.4	986.3	170.4	145.9	24.53	6.946		
4,100.0	3,851.1	4,123.3	3,918.0	27.0	24.1	169.84	-272.3	1,024.3	173.7	148.3	25.35	6.851		
4,200.0	3,941.8	4,223.2	4,009.9	27.9	24.9	169.73	-282.2	1,062.3	176.9	150.8	26.17	6.761		
4,300.0	4,032.4	4,323.2	4,101.8	28.8	25.8	169.62	-292.0	1,100.3	180.2	153.2	26.99	6.676		
4,400.0	4,123.1	4,423.1	4,193.7	29.7	26.6	169.52	-301.9	1,138.3	183.5	155.7	27.82	6.596		
4,500.0	4,213.8	4,523.0	4,285.6	30.6	27.5	169.42	-311.8	1,176.3	186.7	158.1	28.64	6.519		
4,600.0	4,304.5	4,623.0	4,377.5	31.5	28.3	169.32	-321.7	1,214.3	190.0	160.5	29.47	6.447		
4,700.0	4,395.2	4,722.9	4,469.4	32.5	29.2	169.23	-331.5	1,252.3	193.3	163.0	30.30	6.378		
4,800.0	4,485.9	4,822.9	4,561.3	33.4	30.0	169.14	-341.4	1,290.3	196.5	165.4	31.13	6.313		
4,900.0	4,576.5	4,922.8	4,653.3	34.3	30.8	169.05	-351.3	1,328.3	199.8	167.8	31.96	6.251		
5,000.0	4,667.2	5,022.8	4,745.2	35.2	31.7	168.97	-361.1	1,366.3	203.1	170.3	32.80	6.191		
5,100.0	4,757.9	5,122.7	4,837.1	36.1	32.5	168.89	-371.0	1,404.3	206.3	172.7	33.63	6.135		

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

SRC Markham Pad Sec.16-T4N-R68W - SRC Markham R-16-9-CHZ - Wellbore #1 - Plan#1 (3-31-14)													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	
5,200.0	4,848.6	5,222.7	4,929.0	37.1	33.4	168.81	-380.9	1,442.3	209.6	175.1	34.47	6.081		
5,300.0	4,939.3	5,322.6	5,020.9	38.0	34.2	168.73	-390.8	1,480.3	212.9	177.6	35.31	6.029		
5,400.0	5,029.9	5,422.6	5,112.8	38.9	35.1	168.66	-400.6	1,518.3	216.2	180.0	36.15	5.979		
5,500.0	5,120.6	5,522.5	5,204.7	39.8	35.9	168.58	-410.5	1,556.3	219.4	182.4	36.99	5.932		
5,600.0	5,211.3	5,622.5	5,296.6	40.7	36.8	168.51	-420.4	1,594.3	222.7	184.9	37.83	5.886		
5,700.0	5,302.0	5,722.4	5,388.6	41.7	37.6	168.45	-430.2	1,632.3	226.0	187.3	38.68	5.842		
5,800.0	5,392.7	5,822.3	5,480.5	42.6	38.5	168.38	-440.1	1,670.3	229.2	189.7	39.52	5.800		
5,900.0	5,483.5	5,922.2	5,572.3	43.4	39.3	177.38	-449.9	1,708.3	232.5	192.0	40.51	5.739		
6,000.0	5,574.4	6,022.3	5,664.8	44.2	40.0	-166.56	-451.3	1,746.5	235.9	194.1	41.77	5.646		
6,100.0	5,663.9	6,123.4	5,757.3	44.8	40.7	-152.97	-438.5	1,784.7	239.3	196.5	42.78	5.595		
6,200.0	5,750.1	6,225.3	5,848.1	45.4	41.2	-142.96	-411.6	1,822.1	242.8	199.3	43.47	5.585		
6,300.0	5,831.3	6,328.1	5,935.1	45.9	41.7	-136.03	-370.5	1,858.0	246.2	202.4	43.85	5.615		
6,400.0	5,906.1	6,431.7	6,016.5	46.3	42.1	-131.32	-315.9	1,891.6	249.4	205.5	43.95	5.676		
6,500.0	5,972.9	6,536.1	6,090.2	46.7	42.4	-128.12	-248.7	1,922.0	252.4	208.5	43.88	5.752		
6,600.0	6,030.5	6,641.3	6,154.6	46.9	42.7	-125.93	-170.0	1,948.4	255.1	211.3	43.78	5.825		
6,700.0	6,077.7	6,747.0	6,207.9	47.1	42.9	-124.45	-81.4	1,970.3	257.2	213.4	43.81	5.872		
6,800.0	6,113.6	6,853.3	6,248.7	47.3	43.0	-123.46	15.1	1,987.0	258.9	214.8	44.13	5.868		
6,900.0	6,137.5	6,959.8	6,276.0	47.4	43.1	-122.85	117.4	1,998.1	260.0	215.2	44.86	5.796		
7,000.0	6,149.0	7,066.6	6,288.9	47.4	43.2	-122.55	223.2	2,003.3	260.5	214.5	46.07	5.655		
7,100.0	6,150.0	7,169.2	6,290.0	47.5	43.2	-122.50	325.8	2,003.6	260.6	213.1	47.47	5.490		
7,200.0	6,150.0	7,269.2	6,290.0	47.6	43.3	-122.50	425.8	2,003.5	260.6	211.6	49.01	5.317		
7,300.0	6,150.0	7,369.2	6,290.0	47.7	43.5	-122.50	525.8	2,003.3	260.6	209.9	50.72	5.137		
7,400.0	6,150.0	7,469.2	6,290.0	47.9	43.7	-122.50	625.8	2,003.1	260.6	208.0	52.59	4.955		
7,500.0	6,150.0	7,569.2	6,290.0	48.2	44.0	-122.50	725.8	2,003.0	260.6	206.0	54.60	4.773		
7,600.0	6,150.0	7,669.2	6,290.0	48.5	44.4	-122.50	825.8	2,002.8	260.6	203.9	56.73	4.594		
7,700.0	6,150.0	7,769.2	6,290.0	48.8	44.8	-122.50	925.8	2,002.7	260.6	201.6	58.97	4.419		
7,800.0	6,150.0	7,869.2	6,290.0	49.2	45.3	-122.49	1,025.8	2,002.5	260.6	199.3	61.32	4.250		
7,900.0	6,150.0	7,969.2	6,290.0	49.7	45.9	-122.49	1,125.8	2,002.4	260.6	196.9	63.75	4.088		
8,000.0	6,150.0	8,069.2	6,290.0	50.3	46.6	-122.49	1,225.8	2,002.2	260.6	194.3	66.26	3.933		
8,100.0	6,150.0	8,169.2	6,290.0	50.9	47.3	-122.49	1,325.8	2,002.0	260.6	191.8	68.84	3.786		
8,200.0	6,150.0	8,269.2	6,290.0	51.6	48.2	-122.49	1,425.8	2,001.9	260.6	189.1	71.49	3.646		
8,300.0	6,150.0	8,369.2	6,290.0	52.4	49.1	-122.49	1,525.8	2,001.7	260.6	186.4	74.19	3.513		
8,400.0	6,150.0	8,469.2	6,290.0	53.3	50.1	-122.49	1,625.8	2,001.6	260.6	183.7	76.94	3.388		
8,500.0	6,150.0	8,569.2	6,290.0	54.2	51.1	-122.49	1,725.8	2,001.4	260.6	180.9	79.73	3.269		
8,600.0	6,150.0	8,669.2	6,290.0	55.2	52.3	-122.49	1,825.8	2,001.3	260.6	178.1	82.57	3.157		
8,700.0	6,150.0	8,769.2	6,290.0	56.2	53.4	-122.49	1,925.8	2,001.1	260.6	175.2	85.44	3.051		
8,800.0	6,150.0	8,869.2	6,290.0	57.4	54.7	-122.49	2,025.8	2,000.9	260.6	172.3	88.34	2.950		
8,900.0	6,150.0	8,969.2	6,290.0	58.5	56.0	-122.49	2,125.8	2,000.8	260.7	169.4	91.28	2.856		
9,000.0	6,150.0	9,069.2	6,290.0	59.8	57.4	-122.49	2,225.8	2,000.6	260.7	166.4	94.24	2.766		
9,100.0	6,150.0	9,169.2	6,290.0	61.0	58.8	-122.49	2,325.8	2,000.5	260.7	163.4	97.22	2.681		
9,200.0	6,150.0	9,269.2	6,290.0	62.4	60.2	-122.49	2,425.8	2,000.3	260.7	160.4	100.23	2.601		
9,300.0	6,150.0	9,369.2	6,290.0	63.7	61.7	-122.48	2,525.8	2,000.2	260.7	157.4	103.25	2.525		
9,400.0	6,150.0	9,469.2	6,290.0	65.1	63.2	-122.48	2,625.8	2,000.0	260.7	154.4	106.30	2.452		
9,500.0	6,150.0	9,569.2	6,290.0	66.6	64.7	-122.48	2,725.8	1,999.8	260.7	151.3	109.36	2.384		
9,600.0	6,150.0	9,669.2	6,290.0	68.1	66.2	-122.48	2,825.8	1,999.7	260.7	148.2	112.44	2.318		
9,700.0	6,150.0	9,769.2	6,290.0	69.6	67.8	-122.48	2,925.8	1,999.5	260.7	145.2	115.53	2.256		
9,800.0	6,150.0	9,869.2	6,290.0	71.1	69.4	-122.48	3,025.8	1,999.4	260.7	142.1	118.64	2.197		
9,900.0	6,150.0	9,969.2	6,290.0	72.6	71.0	-122.48	3,125.8	1,999.2	260.7	138.9	121.76	2.141		
10,000.0	6,150.0	10,069.2	6,290.0	74.2	72.7	-122.48	3,225.8	1,999.1	260.7	135.8	124.89	2.088		
10,100.0	6,150.0	10,169.2	6,290.0	75.8	74.3	-122.48	3,325.8	1,998.9	260.7	132.7	128.03	2.036		
10,200.0	6,150.0	10,269.2	6,290.0	77.4	76.0	-122.48	3,425.8	1,998.7	260.7	129.5	131.18	1.988		
10,300.0	6,150.0	10,369.2	6,290.0	79.1	77.7	-122.48	3,525.8	1,998.6	260.7	126.4	134.33	1.941		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Markham R-16-9NHZ
Project:	Sec.16-T4N-R68W	TVD Reference:	WELL @ 4976.0ft (RKB - 13')
Reference Site:	SRC Markham Pad Sec.16-T4N-R68W	MD Reference:	WELL @ 4976.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Markham R-16-9NHZ	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 #1 (3-31-14)	Offset TVD Reference:	Offset Datum

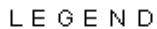
Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.0	6,150.0	10,469.2	6,290.0	80.7	79.4	-122.48	3,625.8	1,998.4	260.7	123.2	137.50	1.896	
10,500.0	6,150.0	10,569.2	6,290.0	82.4	81.1	-122.48	3,725.8	1,998.3	260.7	120.1	140.68	1.853	
10,600.0	6,150.0	10,669.2	6,290.0	84.1	82.8	-122.48	3,825.8	1,998.1	260.7	116.9	143.86	1.812	
10,700.0	6,150.0	10,769.2	6,290.0	85.7	84.5	-122.47	3,925.8	1,998.0	260.7	113.7	147.05	1.773	
10,800.0	6,150.0	10,869.2	6,290.0	87.4	86.3	-122.47	4,025.8	1,997.8	260.7	110.5	150.24	1.735	
10,900.0	6,150.0	10,969.2	6,290.0	89.2	88.0	-122.47	4,125.8	1,997.6	260.8	107.3	153.45	1.699	
11,000.0	6,150.0	11,069.2	6,290.0	90.9	89.8	-122.47	4,225.8	1,997.5	260.8	104.1	156.65	1.665	
11,100.0	6,150.0	11,169.2	6,290.0	92.6	91.5	-122.47	4,325.8	1,997.3	260.8	100.9	159.87	1.631	
11,200.0	6,150.0	11,269.2	6,290.0	94.3	93.3	-122.47	4,425.8	1,997.2	260.8	97.7	163.08	1.599	
11,300.0	6,150.0	11,369.2	6,290.0	96.1	95.1	-122.47	4,525.8	1,997.0	260.8	94.5	166.31	1.568	
11,400.0	6,150.0	11,469.2	6,290.0	97.8	96.9	-122.47	4,625.8	1,996.9	260.8	91.2	169.53	1.538	
11,500.0	6,150.0	11,569.2	6,290.0	99.6	98.7	-122.47	4,725.8	1,996.7	260.8	88.0	172.77	1.509	
11,600.0	6,150.0	11,669.2	6,290.0	101.4	100.4	-122.47	4,825.8	1,996.5	260.8	84.8	176.00	1.482 Level 3	
11,700.0	6,150.0	11,769.2	6,290.0	103.1	102.2	-122.47	4,925.8	1,996.4	260.8	81.6	179.24	1.455 Level 3	
11,800.0	6,150.0	11,869.2	6,290.0	104.9	104.0	-122.47	5,025.8	1,996.2	260.8	78.3	182.48	1.429 Level 3	
11,900.0	6,150.0	11,969.2	6,290.0	106.7	105.9	-122.47	5,125.8	1,996.1	260.8	75.1	185.73	1.404 Level 3	
12,000.0	6,150.0	12,069.2	6,290.0	108.5	107.7	-122.47	5,225.8	1,995.9	260.8	71.8	188.98	1.380 Level 3	
12,100.0	6,150.0	12,169.2	6,290.0	110.3	109.5	-122.46	5,325.8	1,995.8	260.8	68.6	192.23	1.357 Level 3	
12,200.0	6,150.0	12,269.2	6,290.0	112.1	111.3	-122.46	5,425.8	1,995.6	260.8	65.3	195.48	1.334 Level 3	
12,300.0	6,150.0	12,369.2	6,290.0	113.9	113.1	-122.46	5,525.8	1,995.4	260.8	62.1	198.74	1.312 Level 3	
12,400.0	6,150.0	12,469.2	6,290.0	115.7	114.9	-122.46	5,625.8	1,995.3	260.8	58.8	202.00	1.291 Level 3	
12,500.0	6,150.0	12,569.2	6,290.0	117.5	116.8	-122.46	5,725.8	1,995.1	260.8	55.6	205.27	1.271 Level 3	
12,600.0	6,150.0	12,669.2	6,290.0	119.3	118.6	-122.46	5,825.8	1,995.0	260.8	52.3	208.53	1.251 Level 3	
12,700.0	6,150.0	12,769.2	6,290.0	121.2	120.4	-122.46	5,925.8	1,994.8	260.8	49.0	211.80	1.232 Level 2	
12,800.0	6,150.0	12,869.2	6,290.0	123.0	122.3	-122.46	6,025.8	1,994.7	260.8	45.8	215.07	1.213 Level 2	
12,900.0	6,150.0	12,969.2	6,290.0	124.8	124.1	-122.46	6,125.8	1,994.5	260.9	42.5	218.34	1.195 Level 2	
13,000.0	6,150.0	13,069.2	6,290.0	126.6	126.0	-122.46	6,225.8	1,994.3	260.9	39.2	221.62	1.177 Level 2	
13,100.0	6,150.0	13,169.2	6,290.0	128.5	127.8	-122.46	6,325.8	1,994.2	260.9	36.0	224.89	1.160 Level 2	
13,200.0	6,150.0	13,269.2	6,290.0	130.3	129.6	-122.46	6,425.8	1,994.0	260.9	32.7	228.17	1.143 Level 2	
13,300.0	6,150.0	13,369.2	6,290.0	132.1	131.5	-122.46	6,525.8	1,993.9	260.9	29.4	231.45	1.127 Level 2	
13,400.0	6,150.0	13,469.2	6,290.0	134.0	133.3	-122.46	6,625.8	1,993.7	260.9	26.1	234.73	1.111 Level 2	
13,500.0	6,150.0	13,569.2	6,290.0	135.8	135.2	-122.46	6,725.8	1,993.6	260.9	22.9	238.01	1.096 Level 2	
13,600.0	6,150.0	13,669.2	6,290.0	137.7	137.1	-122.45	6,825.8	1,993.4	260.9	19.6	241.30	1.081 Level 2	
13,700.0	6,150.0	13,769.2	6,290.0	139.5	138.9	-122.45	6,925.8	1,993.2	260.9	16.3	244.58	1.067 Level 2	
13,800.0	6,150.0	13,869.2	6,290.0	141.4	140.8	-122.45	7,025.8	1,993.1	260.9	13.0	247.87	1.053 Level 2	
13,900.0	6,150.0	13,969.2	6,290.0	143.2	142.6	-122.45	7,125.8	1,992.9	260.9	9.7	251.16	1.039 Level 2	
14,000.0	6,150.0	14,069.2	6,290.0	145.1	144.5	-122.45	7,225.8	1,992.8	260.9	6.5	254.45	1.025 Level 2	
14,072.0	6,150.0	14,141.8	6,290.0	146.4	145.8	-122.47	7,298.4	1,992.8	260.8	4.0	256.80	1.016 Level 2	
14,099.1	6,150.0	14,165.0	6,290.0	146.9	146.3	-122.47	7,321.6	1,992.8	260.8	3.2	257.61	1.012 Level 2, ES, SF	

Reference Depths are relative to WELL @ 4976.0ft (RKB - 13')	Coordinates are relative to: SRC Markham R-16-9NHZ
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 @ 4976.0ft (RKB - 13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: SRC Markham R-16-9NHZ
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.32°



16-9NHZ, Wellbore #1, Plan #1 (3-31-14) V0 SRC Markham C-16-9CHZ, Wellbore #1, Plan #1 (3-31-14) V0 SRC Markham C-16-9NHZ, Wellbore #1, Plan #1 (3-31-14) V0
16-9NHZ, Wellbore #1, Plan #1 (3-31-14) V0 SRC Markham 31-16-9CHZ, Wellbore #1, Plan #1 (3-31-14) V0
16-9-CHZ, Wellbore #1, Plan #1 (3-31-14) V0 SRC Markham 41-16-9CHZ, Wellbore #1, Plan #1 (3-31-14) V0