

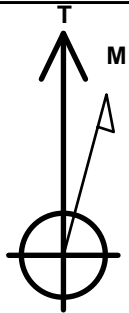
# Magpie Operating, Inc.

Well Name: **Campion 32-31 1H**

Surface Location: Campion Pad Sec.5-T4N-R68W  
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone  
 Ground Elevation: 5068.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1370042.19 3130728.88 40.348218 -105.030970  
 Original Well Elev WELL @ 5084.0ft (Original Well Elev)

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 386°FNL, 1850°FWL, SEC.5	1.0	0.0	0.0	Point
BHL 1320°FSL, 610°FWL, SEC.31	4737.0	1715.5	-7289.0	Point
LPL 1320°FSL, 610°FEL, SEC.32	5258.0	1701.8	2062.8	Point



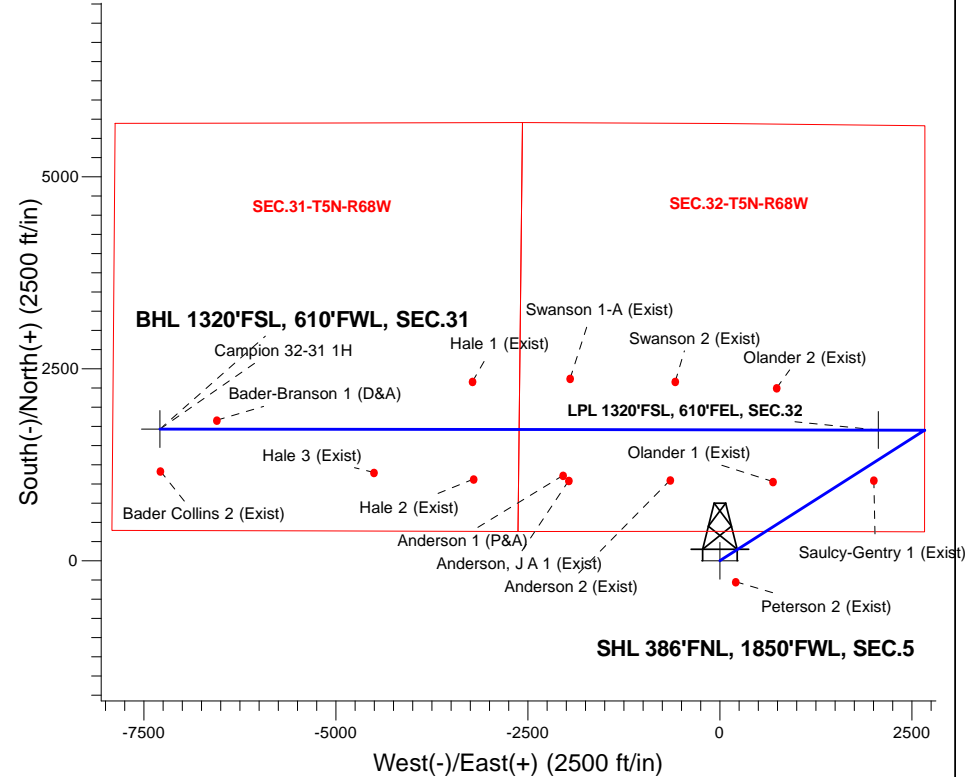
Azimuths to True North  
 Magnetic North: 8.47°

Magnetic Field  
 Strength: 52261.2snT  
 Dip Angle: 66.65°  
 Date: 3/2/2018  
 Model: HDGM

Campion Pad Sec.5-T4N-R68W  
 Campion 32-31 1H  
 Plan #1 (2-28-18)  
 10:54, March 02 2018

## ANNOTATIONS

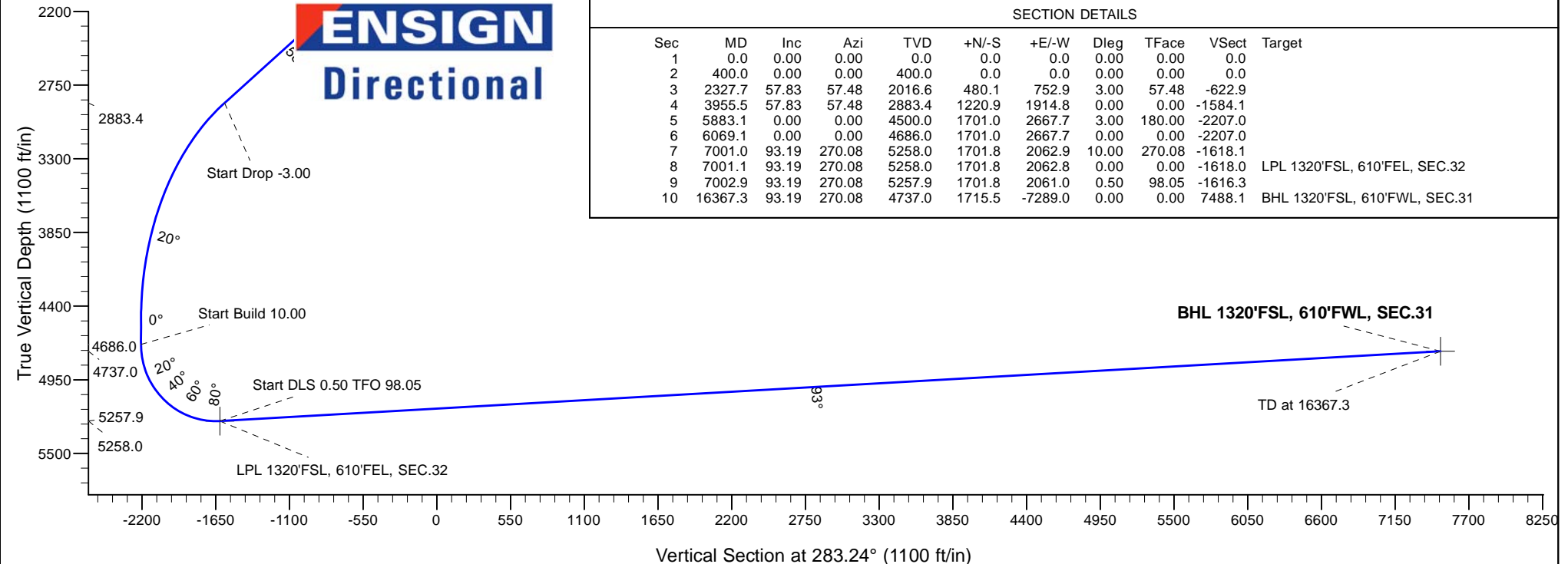
TVD	MD	Annotation
400.0	400.0	KOP - Start Build 3.00
2883.4	3955.5	Start Drop -3.00
4686.0	6069.1	Start Build 10.00
5258.0	7001.1	Start DLS 0.50 TFO 98.05
5257.9	7002.9	Start 9364.5 hold at 7002.9 MD
4737.0	16367.3	TD at 16367.3



**ENSIGN**  
 Directional

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	2327.7	57.83	57.48	2016.6	480.1	752.9	3.00	57.48	-622.9	
4	3955.5	57.83	57.48	2883.4	1220.9	1914.8	0.00	0.00	-1584.1	
5	5883.1	0.00	0.00	4500.0	1701.0	2667.7	3.00	180.00	-2207.0	
6	6069.1	0.00	0.00	4686.0	1701.0	2667.7	0.00	0.00	-2207.0	
7	7001.0	93.19	270.08	5258.0	1701.8	2062.9	10.00	270.08	-1618.1	
8	7001.1	93.19	270.08	5258.0	1701.8	2062.8	0.00	0.00	-1618.0	LPL 1320°FSL, 610°FEL, SEC.32
9	7002.9	93.19	270.08	5257.9	1701.8	2061.0	0.50	98.05	-1616.3	
10	16367.3	93.19	270.08	4737.0	1715.5	-7289.0	0.00	0.00	7488.1	BHL 1320°FSL, 610°FWL, SEC.31





## **Magpie Operating, Inc.**

**SEC.5-T4N-R68W**

**Campion Pad Sec.5-T4N-R68W**

**Campion 32-31 1H**

**Wellbore #1**

**Plan: Plan #1 (2-28-18)**

## **Standard Planning Report**

**02 March, 2018**

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Company:</b>	Magpie Operating, Inc.	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Project:</b>	SEC.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-28-18)		

<b>Project</b>	SEC.5-T4N-R68W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

<b>Site</b>	Campion Pad Sec.5-T4N-R68W				
<b>Site Position:</b>		<b>Northing:</b>	1,370,042.37 usft	<b>Latitude:</b>	40.348218
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,130,758.98 usft	<b>Longitude:</b>	-105.030862
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.30

Well	Campion 32-31 1H					
Well Position	+N/-S	0.0 ft	Northing:	1,370,042.19 usft	Latitude:	40.348218
	+E/-W	-30.1 ft	Easting:	3,130,728.88 usft	Longitude:	-105.030970
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	5,068.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	3/2/2018	8.47	66.65	52,261

Design	Plan #1 (2-28-18)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	283.24

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,327.7	57.83	57.48	2,016.6	480.1	752.9	3.00	3.00	0.00	57.48	
3,955.5	57.83	57.48	2,883.4	1,220.9	1,914.8	0.00	0.00	0.00	0.00	
5,883.1	0.00	0.00	4,500.0	1,701.0	2,667.7	3.00	-3.00	0.00	180.00	
6,069.1	0.00	0.00	4,686.0	1,701.0	2,667.7	0.00	0.00	0.00	0.00	
7,001.0	93.19	270.08	5,258.0	1,701.8	2,062.9	10.00	10.00	0.00	270.08	
7,001.1	93.19	270.08	5,258.0	1,701.8	2,062.8	0.00	0.00	0.00	0.00	LPL 1320'FSL, 610'F
7,002.9	93.19	270.08	5,257.9	1,701.8	2,061.0	0.50	-0.07	0.50	98.05	
16,367.3	93.19	270.08	4,737.0	1,715.5	-7,289.0	0.00	0.00	0.00	0.00	BHL 1320'FSL, 610'F

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Company:</b>	Magpie Operating, Inc.	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Project:</b>	SEC.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-28-18)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
<b>SHL 386'FNL, 1850'FWL, SEC.5</b>									
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
<b>KOP - Start Build 3.00</b>									
500.0	3.00	57.48	500.0	1.4	2.2	-1.8	3.00	3.00	0.00
600.0	6.00	57.48	599.6	5.6	8.8	-7.3	3.00	3.00	0.00
700.0	9.00	57.48	698.8	12.6	19.8	-16.4	3.00	3.00	0.00
800.0	12.00	57.48	797.1	22.4	35.2	-29.1	3.00	3.00	0.00
900.0	15.00	57.48	894.3	35.0	54.9	-45.4	3.00	3.00	0.00
1,000.0	18.00	57.48	990.2	50.3	78.8	-65.2	3.00	3.00	0.00
1,100.0	21.00	57.48	1,084.4	68.2	107.0	-88.5	3.00	3.00	0.00
1,200.0	24.00	57.48	1,176.8	88.8	139.2	-115.2	3.00	3.00	0.00
1,300.0	27.00	57.48	1,267.1	111.9	175.5	-145.2	3.00	3.00	0.00
1,400.0	30.00	57.48	1,354.9	137.6	215.7	-178.5	3.00	3.00	0.00
1,500.0	33.00	57.48	1,440.2	165.7	259.8	-214.9	3.00	3.00	0.00
1,600.0	36.00	57.48	1,522.6	196.1	307.5	-254.4	3.00	3.00	0.00
1,700.0	39.00	57.48	1,601.9	228.8	358.9	-296.9	3.00	3.00	0.00
1,800.0	42.00	57.48	1,677.9	263.7	413.6	-342.2	3.00	3.00	0.00
1,900.0	45.00	57.48	1,750.5	300.7	471.7	-390.2	3.00	3.00	0.00
2,000.0	48.00	57.48	1,819.3	339.7	532.8	-440.8	3.00	3.00	0.00
2,100.0	51.00	57.48	1,884.2	380.6	596.9	-493.8	3.00	3.00	0.00
2,200.0	54.00	57.48	1,945.1	423.3	663.8	-549.2	3.00	3.00	0.00
2,300.0	57.00	57.48	2,001.7	467.6	733.3	-606.7	3.00	3.00	0.00
2,327.7	57.83	57.48	2,016.6	480.1	752.9	-622.9	3.00	3.00	0.00
2,400.0	57.83	57.48	2,055.2	513.0	804.6	-665.6	0.00	0.00	0.00
2,500.0	57.83	57.48	2,108.4	558.5	875.9	-724.7	0.00	0.00	0.00
2,600.0	57.83	57.48	2,161.6	604.0	947.3	-783.7	0.00	0.00	0.00
2,700.0	57.83	57.48	2,214.9	649.5	1,018.7	-842.8	0.00	0.00	0.00
2,800.0	57.83	57.48	2,268.1	695.1	1,090.1	-901.8	0.00	0.00	0.00
2,900.0	57.83	57.48	2,321.4	740.6	1,161.4	-960.9	0.00	0.00	0.00
3,000.0	57.83	57.48	2,374.6	786.1	1,232.8	-1,019.9	0.00	0.00	0.00
3,100.0	57.83	57.48	2,427.9	831.6	1,304.2	-1,079.0	0.00	0.00	0.00
3,200.0	57.83	57.48	2,481.1	877.1	1,375.6	-1,138.0	0.00	0.00	0.00
3,300.0	57.83	57.48	2,534.4	922.6	1,446.9	-1,197.1	0.00	0.00	0.00
3,400.0	57.83	57.48	2,587.6	968.1	1,518.3	-1,256.1	0.00	0.00	0.00
3,500.0	57.83	57.48	2,640.8	1,013.6	1,589.7	-1,315.2	0.00	0.00	0.00
3,600.0	57.83	57.48	2,694.1	1,059.1	1,661.0	-1,374.2	0.00	0.00	0.00
3,700.0	57.83	57.48	2,747.3	1,104.6	1,732.4	-1,433.3	0.00	0.00	0.00
3,800.0	57.83	57.48	2,800.6	1,150.1	1,803.8	-1,492.3	0.00	0.00	0.00
3,900.0	57.83	57.48	2,853.8	1,195.7	1,875.2	-1,551.4	0.00	0.00	0.00
3,955.5	57.83	57.48	2,883.4	1,220.9	1,914.8	-1,584.1	0.00	0.00	0.00
<b>Start Drop -3.00</b>									
4,000.0	56.49	57.48	2,907.5	1,241.0	1,946.3	-1,610.2	3.00	-3.00	0.00
4,100.0	53.49	57.48	2,964.9	1,285.0	2,015.3	-1,667.3	3.00	-3.00	0.00
4,200.0	50.49	57.48	3,026.4	1,327.4	2,081.8	-1,722.3	3.00	-3.00	0.00
4,300.0	47.49	57.48	3,092.0	1,368.0	2,145.4	-1,774.9	3.00	-3.00	0.00
4,400.0	44.49	57.48	3,161.5	1,406.6	2,206.0	-1,825.1	3.00	-3.00	0.00
4,500.0	41.49	57.48	3,234.6	1,443.3	2,263.5	-1,872.7	3.00	-3.00	0.00
4,600.0	38.49	57.48	3,311.2	1,477.8	2,317.7	-1,917.5	3.00	-3.00	0.00

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
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<b>Project:</b>	SEC.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-28-18)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,700.0	35.49	57.48	3,391.1	1,510.2	2,368.5	-1,959.5	3.00	-3.00	0.00	
4,800.0	32.49	57.48	3,474.0	1,540.2	2,415.6	-1,998.5	3.00	-3.00	0.00	
4,900.0	29.49	57.48	3,559.7	1,567.9	2,459.0	-2,034.4	3.00	-3.00	0.00	
5,000.0	26.49	57.48	3,648.0	1,593.2	2,498.6	-2,067.1	3.00	-3.00	0.00	
5,100.0	23.49	57.48	3,738.6	1,615.9	2,534.2	-2,096.6	3.00	-3.00	0.00	
5,200.0	20.49	57.48	3,831.3	1,636.0	2,565.8	-2,122.7	3.00	-3.00	0.00	
5,300.0	17.49	57.48	3,925.9	1,653.5	2,593.2	-2,145.4	3.00	-3.00	0.00	
5,400.0	14.49	57.48	4,022.0	1,668.3	2,616.4	-2,164.6	3.00	-3.00	0.00	
5,500.0	11.49	57.48	4,119.4	1,680.4	2,635.4	-2,180.3	3.00	-3.00	0.00	
5,600.0	8.49	57.48	4,217.9	1,689.7	2,650.0	-2,192.4	3.00	-3.00	0.00	
5,700.0	5.49	57.48	4,317.1	1,696.3	2,660.3	-2,200.9	3.00	-3.00	0.00	
5,800.0	2.49	57.48	4,416.9	1,700.0	2,666.2	-2,205.8	3.00	-3.00	0.00	
5,883.1	0.00	0.00	4,500.0	1,701.0	2,667.7	-2,207.0	3.00	-3.00	0.00	
5,900.0	0.00	0.00	4,516.9	1,701.0	2,667.7	-2,207.0	0.00	0.00	0.00	
6,000.0	0.00	0.00	4,616.9	1,701.0	2,667.7	-2,207.0	0.00	0.00	0.00	
6,069.1	0.00	0.00	4,686.0	1,701.0	2,667.7	-2,207.0	0.00	0.00	0.00	
Start Build 10.00										
6,100.0	3.09	270.08	4,716.8	1,701.0	2,666.9	-2,206.2	10.00	10.00	0.00	
6,200.0	13.09	270.08	4,815.7	1,701.0	2,652.8	-2,192.6	10.00	10.00	0.00	
6,300.0	23.09	270.08	4,910.7	1,701.1	2,621.8	-2,162.4	10.00	10.00	0.00	
6,400.0	33.09	270.08	4,998.8	1,701.1	2,574.8	-2,116.6	10.00	10.00	0.00	
6,500.0	43.09	270.08	5,077.4	1,701.2	2,513.2	-2,056.6	10.00	10.00	0.00	
6,600.0	53.09	270.08	5,144.1	1,701.3	2,438.8	-1,984.2	10.00	10.00	0.00	
6,700.0	63.09	270.08	5,196.9	1,701.4	2,354.0	-1,901.6	10.00	10.00	0.00	
6,800.0	73.09	270.08	5,234.1	1,701.5	2,261.4	-1,811.4	10.00	10.00	0.00	
6,900.0	83.09	270.08	5,254.7	1,701.7	2,163.7	-1,716.3	10.00	10.00	0.00	
7,000.0	93.09	270.08	5,258.1	1,701.8	2,063.8	-1,619.1	10.00	10.00	0.00	
7,001.0	93.19	270.08	5,258.0	1,701.8	2,062.9	-1,618.1	10.00	10.00	0.00	
7,001.1	93.19	270.08	5,258.0	1,701.8	2,062.8	-1,618.0	0.00	0.00	0.00	
Start DLS 0.50 TFO 98.05 - LPL 1320'FSL, 610'FEL, SEC.32										
7,002.9	93.19	270.08	5,257.9	1,701.8	2,061.0	-1,616.3	0.50	-0.07	0.49	
Start 9364.5 hold at 7002.9 MD										
7,100.0	93.19	270.08	5,252.5	1,701.9	1,964.0	-1,521.9	0.00	0.00	0.00	
7,200.0	93.19	270.08	5,246.9	1,702.1	1,864.2	-1,424.6	0.00	0.00	0.00	
7,300.0	93.19	270.08	5,241.4	1,702.2	1,764.3	-1,327.4	0.00	0.00	0.00	
7,400.0	93.19	270.08	5,235.8	1,702.4	1,664.5	-1,230.2	0.00	0.00	0.00	
7,500.0	93.19	270.08	5,230.2	1,702.5	1,564.6	-1,133.0	0.00	0.00	0.00	
7,600.0	93.19	270.08	5,224.7	1,702.7	1,464.8	-1,035.7	0.00	0.00	0.00	
7,700.0	93.19	270.08	5,219.1	1,702.8	1,364.9	-938.5	0.00	0.00	0.00	
7,800.0	93.19	270.08	5,213.6	1,703.0	1,265.1	-841.3	0.00	0.00	0.00	
7,900.0	93.19	270.08	5,208.0	1,703.1	1,165.2	-744.1	0.00	0.00	0.00	
8,000.0	93.19	270.08	5,202.4	1,703.3	1,065.4	-646.8	0.00	0.00	0.00	
8,100.0	93.19	270.08	5,196.9	1,703.4	965.6	-549.6	0.00	0.00	0.00	
8,200.0	93.19	270.08	5,191.3	1,703.6	865.7	-452.4	0.00	0.00	0.00	
8,300.0	93.19	270.08	5,185.7	1,703.7	765.9	-355.2	0.00	0.00	0.00	
8,400.0	93.19	270.08	5,180.2	1,703.8	666.0	-258.0	0.00	0.00	0.00	
8,500.0	93.19	270.08	5,174.6	1,704.0	566.2	-160.7	0.00	0.00	0.00	
8,600.0	93.19	270.08	5,169.1	1,704.1	466.3	-63.5	0.00	0.00	0.00	
8,700.0	93.19	270.08	5,163.5	1,704.3	366.5	33.7	0.00	0.00	0.00	
8,800.0	93.19	270.08	5,157.9	1,704.4	266.6	130.9	0.00	0.00	0.00	
8,900.0	93.19	270.08	5,152.4	1,704.6	166.8	228.2	0.00	0.00	0.00	
9,000.0	93.19	270.08	5,146.8	1,704.7	66.9	325.4	0.00	0.00	0.00	
9,100.0	93.19	270.08	5,141.2	1,704.9	-32.9	422.6	0.00	0.00	0.00	

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Company:</b>	Magpie Operating, Inc.	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Project:</b>	SEC.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-28-18)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,200.0	93.19	270.08	5,135.7	1,705.0	-132.7	519.8	0.00	0.00	0.00
9,300.0	93.19	270.08	5,130.1	1,705.2	-232.6	617.1	0.00	0.00	0.00
9,400.0	93.19	270.08	5,124.6	1,705.3	-332.4	714.3	0.00	0.00	0.00
9,500.0	93.19	270.08	5,119.0	1,705.5	-432.3	811.5	0.00	0.00	0.00
9,600.0	93.19	270.08	5,113.4	1,705.6	-532.1	908.7	0.00	0.00	0.00
9,700.0	93.19	270.08	5,107.9	1,705.8	-632.0	1,005.9	0.00	0.00	0.00
9,800.0	93.19	270.08	5,102.3	1,705.9	-731.8	1,103.2	0.00	0.00	0.00
9,900.0	93.19	270.08	5,096.7	1,706.0	-831.7	1,200.4	0.00	0.00	0.00
10,000.0	93.19	270.08	5,091.2	1,706.2	-931.5	1,297.6	0.00	0.00	0.00
10,100.0	93.19	270.08	5,085.6	1,706.3	-1,031.3	1,394.8	0.00	0.00	0.00
10,200.0	93.19	270.08	5,080.1	1,706.5	-1,131.2	1,492.1	0.00	0.00	0.00
10,300.0	93.19	270.08	5,074.5	1,706.6	-1,231.0	1,589.3	0.00	0.00	0.00
10,400.0	93.19	270.08	5,068.9	1,706.8	-1,330.9	1,686.5	0.00	0.00	0.00
10,500.0	93.19	270.08	5,063.4	1,706.9	-1,430.7	1,783.7	0.00	0.00	0.00
10,600.0	93.19	270.08	5,057.8	1,707.1	-1,530.6	1,881.0	0.00	0.00	0.00
10,700.0	93.19	270.08	5,052.2	1,707.2	-1,630.4	1,978.2	0.00	0.00	0.00
10,800.0	93.19	270.08	5,046.7	1,707.4	-1,730.3	2,075.4	0.00	0.00	0.00
10,900.0	93.19	270.08	5,041.1	1,707.5	-1,830.1	2,172.6	0.00	0.00	0.00
11,000.0	93.19	270.08	5,035.6	1,707.7	-1,930.0	2,269.8	0.00	0.00	0.00
11,100.0	93.19	270.08	5,030.0	1,707.8	-2,029.8	2,367.1	0.00	0.00	0.00
11,200.0	93.19	270.08	5,024.4	1,708.0	-2,129.6	2,464.3	0.00	0.00	0.00
11,300.0	93.19	270.08	5,018.9	1,708.1	-2,229.5	2,561.5	0.00	0.00	0.00
11,400.0	93.19	270.08	5,013.3	1,708.2	-2,329.3	2,658.7	0.00	0.00	0.00
11,500.0	93.19	270.08	5,007.7	1,708.4	-2,429.2	2,756.0	0.00	0.00	0.00
11,600.0	93.19	270.08	5,002.2	1,708.5	-2,529.0	2,853.2	0.00	0.00	0.00
11,700.0	93.19	270.08	4,996.6	1,708.7	-2,628.9	2,950.4	0.00	0.00	0.00
11,800.0	93.19	270.08	4,991.1	1,708.8	-2,728.7	3,047.6	0.00	0.00	0.00
11,900.0	93.19	270.08	4,985.5	1,709.0	-2,828.6	3,144.9	0.00	0.00	0.00
12,000.0	93.19	270.08	4,979.9	1,709.1	-2,928.4	3,242.1	0.00	0.00	0.00
12,100.0	93.19	270.08	4,974.4	1,709.3	-3,028.3	3,339.3	0.00	0.00	0.00
12,200.0	93.19	270.08	4,968.8	1,709.4	-3,128.1	3,436.5	0.00	0.00	0.00
12,300.0	93.19	270.08	4,963.2	1,709.6	-3,227.9	3,533.7	0.00	0.00	0.00
12,400.0	93.19	270.08	4,957.7	1,709.7	-3,327.8	3,631.0	0.00	0.00	0.00
12,500.0	93.19	270.08	4,952.1	1,709.9	-3,427.6	3,728.2	0.00	0.00	0.00
12,600.0	93.19	270.08	4,946.6	1,710.0	-3,527.5	3,825.4	0.00	0.00	0.00
12,700.0	93.19	270.08	4,941.0	1,710.2	-3,627.3	3,922.6	0.00	0.00	0.00
12,800.0	93.19	270.08	4,935.4	1,710.3	-3,727.2	4,019.9	0.00	0.00	0.00
12,900.0	93.19	270.08	4,929.9	1,710.4	-3,827.0	4,117.1	0.00	0.00	0.00
13,000.0	93.19	270.08	4,924.3	1,710.6	-3,926.9	4,214.3	0.00	0.00	0.00
13,100.0	93.19	270.08	4,918.7	1,710.7	-4,026.7	4,311.5	0.00	0.00	0.00
13,200.0	93.19	270.08	4,913.2	1,710.9	-4,126.5	4,408.8	0.00	0.00	0.00
13,300.0	93.19	270.08	4,907.6	1,711.0	-4,226.4	4,506.0	0.00	0.00	0.00
13,400.0	93.19	270.08	4,902.1	1,711.2	-4,326.2	4,603.2	0.00	0.00	0.00
13,500.0	93.19	270.08	4,896.5	1,711.3	-4,426.1	4,700.4	0.00	0.00	0.00
13,600.0	93.19	270.08	4,890.9	1,711.5	-4,525.9	4,797.6	0.00	0.00	0.00
13,700.0	93.19	270.08	4,885.4	1,711.6	-4,625.8	4,894.9	0.00	0.00	0.00
13,800.0	93.19	270.08	4,879.8	1,711.8	-4,725.6	4,992.1	0.00	0.00	0.00
13,900.0	93.19	270.08	4,874.2	1,711.9	-4,825.5	5,089.3	0.00	0.00	0.00
14,000.0	93.19	270.08	4,868.7	1,712.1	-4,925.3	5,186.5	0.00	0.00	0.00
14,100.0	93.19	270.08	4,863.1	1,712.2	-5,025.2	5,283.8	0.00	0.00	0.00
14,200.0	93.19	270.08	4,857.6	1,712.4	-5,125.0	5,381.0	0.00	0.00	0.00
14,300.0	93.19	270.08	4,852.0	1,712.5	-5,224.8	5,478.2	0.00	0.00	0.00
14,400.0	93.19	270.08	4,846.4	1,712.6	-5,324.7	5,575.4	0.00	0.00	0.00
14,500.0	93.19	270.08	4,840.9	1,712.8	-5,424.5	5,672.7	0.00	0.00	0.00

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Company:</b>	Magpie Operating, Inc.	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Project:</b>	SEC.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-28-18)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,600.0	93.19	270.08	4,835.3	1,712.9	-5,524.4	5,769.9	0.00	0.00	0.00	
14,700.0	93.19	270.08	4,829.7	1,713.1	-5,624.2	5,867.1	0.00	0.00	0.00	
14,800.0	93.19	270.08	4,824.2	1,713.2	-5,724.1	5,964.3	0.00	0.00	0.00	
14,900.0	93.19	270.08	4,818.6	1,713.4	-5,823.9	6,061.5	0.00	0.00	0.00	
15,000.0	93.19	270.08	4,813.1	1,713.5	-5,923.8	6,158.8	0.00	0.00	0.00	
15,100.0	93.19	270.08	4,807.5	1,713.7	-6,023.6	6,256.0	0.00	0.00	0.00	
15,200.0	93.19	270.08	4,801.9	1,713.8	-6,123.4	6,353.2	0.00	0.00	0.00	
15,300.0	93.19	270.08	4,796.4	1,714.0	-6,223.3	6,450.4	0.00	0.00	0.00	
15,400.0	93.19	270.08	4,790.8	1,714.1	-6,323.1	6,547.7	0.00	0.00	0.00	
15,500.0	93.19	270.08	4,785.2	1,714.3	-6,423.0	6,644.9	0.00	0.00	0.00	
15,600.0	93.19	270.08	4,779.7	1,714.4	-6,522.8	6,742.1	0.00	0.00	0.00	
15,700.0	93.19	270.08	4,774.1	1,714.6	-6,622.7	6,839.3	0.00	0.00	0.00	
15,800.0	93.19	270.08	4,768.6	1,714.7	-6,722.5	6,936.6	0.00	0.00	0.00	
15,900.0	93.19	270.08	4,763.0	1,714.8	-6,822.4	7,033.8	0.00	0.00	0.00	
16,000.0	93.19	270.08	4,757.4	1,715.0	-6,922.2	7,131.0	0.00	0.00	0.00	
16,100.0	93.19	270.08	4,751.9	1,715.1	-7,022.1	7,228.2	0.00	0.00	0.00	
16,200.0	93.19	270.08	4,746.3	1,715.3	-7,121.9	7,325.4	0.00	0.00	0.00	
16,300.0	93.19	270.08	4,740.7	1,715.4	-7,221.7	7,422.7	0.00	0.00	0.00	
16,367.3	93.19	270.08	4,737.0	1,715.5	-7,288.9	7,488.1	0.00	0.00	0.00	
TD at 16367.3 - BHL 1320'FSL, 610'FWL, SEC.31										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL 386'FNL, 1850'FWL - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,370,042.21	3,130,728.88	40.348218	-105.030970	
BHL 1320'FSL, 610'FWL - plan hits target center - Point	0.00	0.00	4,737.0	1,715.5	-7,289.0	1,371,719.07	3,123,431.25	40.352924	-105.057122	
LPL 1320'FSL, 610'FEL, - plan hits target center - Point	0.00	0.00	5,258.0	1,701.8	2,062.8	1,371,754.80	3,132,782.54	40.352889	-105.023569	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
400.0	400.0	0.0	0.0	KOP - Start Build 3.00	
3,955.5	2,883.4	480.1	752.9	Start Drop -3.00	
6,069.1	4,686.0	1,220.9	1,914.8	Start Build 10.00	
7,001.1	5,258.0	1,701.0	2,667.7	Start DLS 0.50 TFO 98.05	
7,002.9	5,257.9	1,701.0	2,667.7	Start 9364.5 hold at 7002.9 MD	
16,367.3	4,737.0	1,701.8	2,062.8	TD at 16367.3	



## **Magpie Operating, Inc.**

**SEC.5-T4N-R68W**

**Campion Pad Sec.5-T4N-R68W**

**Campion 32-31 1H**

**Wellbore #1**

**Plan #1 (2-28-18)**

## **Anticollision Report**

**02 March, 2018**



<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1 (2-28-18)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 800.0 ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.45 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	3/2/2018		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	16,367.3	Plan #1 (2-28-18) (Wellbore #1)	MWD	MWD - Standard

<b>Summary</b>						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
<b>Offset Well - Wellbore - Design</b>						
Campion Pad Sec.5-T4N-R68W						
Campion 5-6 1H - Wellbore #1 - Plan #1 (2-28-18)	200.0	200.0	30.1	29.7	72.845	CC, ES
Campion 5-6 1H - Wellbore #1 - Plan #1 (2-28-18)	2,500.0	2,369.7	396.2	368.4	14.264	SF
Campion 5-6 2H - Wellbore #1 - Plan #1 (2-28-18)	400.0	400.0	30.1	29.1	31.230	CC, ES
Campion 5-6 2H - Wellbore #1 - Plan #1 (2-28-18)	600.0	599.6	39.3	37.8	25.808	SF
Existing Wells Sec.5, 6, 31, 32-T4N-R68W						
Anderson 1 (P&A) - Wellbore #1 - Wellbore #1	11,109.6	5,012.5	594.4	302.9	2.039	CC, ES, SF
Anderson 2 (Exist) - Wellbore #1 - Wellbore #1	9,715.0	5,014.0	654.8	406.3	2.635	CC, ES
Anderson 2 (Exist) - Wellbore #1 - Wellbore #1	9,800.0	5,014.0	660.3	409.4	2.632	SF
Anderson, J A 1 (Exist) - Wellbore #1 - Wellbore #1	11,033.8	5,016.7	662.1	372.8	2.289	CC, ES
Anderson, J A 1 (Exist) - Wellbore #1 - Wellbore #1	11,100.0	5,013.0	665.3	374.1	2.285	SF
Bader Collins 2 (Exist) - Wellbore #1 - Wellbore #1	16,360.8	4,759.4	547.2	89.9	1.197	Level 2, CC
Bader Collins 2 (Exist) - Wellbore #1 - Wellbore #1	16,367.3	4,759.0	547.2	89.7	1.196	Level 2, ES, SF
Bader-Branson 1 (D&A) - Wellbore #1 - Wellbore #1						Out of range
Hale 1 (Exist) - Wellbore #1 - Wellbore #1	12,293.5	4,960.6	626.6	298.8	1.912	CC
Hale 1 (Exist) - Wellbore #1 - Wellbore #1	12,300.0	4,960.2	626.6	298.7	1.911	ES, SF
Hale 2 (Exist) - Wellbore #1 - Wellbore #1	12,276.7	4,964.5	644.8	317.5	1.970	CC
Hale 2 (Exist) - Wellbore #1 - Wellbore #1	12,300.0	4,963.2	645.2	317.2	1.967	ES, SF
Hale 3 (Exist) - Wellbore #1 - Wellbore #1	13,576.2	4,902.3	561.6	193.5	1.526	CC
Hale 3 (Exist) - Wellbore #1 - Wellbore #1	13,600.0	4,900.9	562.1	193.2	1.524	ES, SF
Olander 1 (Exist) - Wellbore #1 - Wellbore #1	2,617.7	2,136.1	497.3	413.9	5.968	CC, ES
Olander 1 (Exist) - Wellbore #1 - Wellbore #1	8,400.0	5,145.2	673.0	453.7	3.070	SF
Olander 2 (Exist) - Wellbore #1 - Wellbore #1	8,325.3	5,132.3	549.2	331.8	2.527	CC, ES, SF
Peterson 2 (Exist) - Wellbore #1 - Wellbore #1	738.3	720.6	340.9	321.3	17.352	CC
Peterson 2 (Exist) - Wellbore #1 - Wellbore #1	900.0	878.3	342.7	318.5	14.129	ES
Peterson 2 (Exist) - Wellbore #1 - Wellbore #1	1,400.0	1,338.9	409.0	370.7	10.668	SF
Saulcy-Gentry 1 (Exist) - Wellbore #1 - Wellbore #1	3,938.5	2,828.3	192.2	59.1	1.444	Level 3, CC
Saulcy-Gentry 1 (Exist) - Wellbore #1 - Wellbore #1	3,955.5	2,837.4	192.7	59.0	1.442	Level 3, ES, SF
Swanson 1-A (Exist) - Wellbore #1 - Wellbore #1	11,020.1	5,017.4	666.6	377.7	2.308	CC, ES
Swanson 1-A (Exist) - Wellbore #1 - Wellbore #1	11,100.0	5,013.0	671.4	380.1	2.305	SF
Swanson 2 (Exist) - Wellbore #1 - Wellbore #1	9,654.9	4,955.0	639.4	395.6	2.623	CC, ES
Swanson 2 (Exist) - Wellbore #1 - Wellbore #1	9,700.0	4,955.0	641.0	396.0	2.616	SF

<b>Company:</b>	Magpie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Campion Pad Sec.5-T4N-R68W - Campion 5-6 1H - Wellbore #1 - Plan #1 (2-28-18)											Offset Site Error: 0.0 ft	
Survey Program: 0-													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0		89.97	0.0	30.1	30.1					
100.0	100.0	100.0	100.0	0.1		89.97	0.0	30.1	30.1					
200.0	200.0	200.0	200.0	0.4		89.97	0.0	30.1	30.1	30.0	0.14	218.276	CC, ES	
300.0	300.0	298.4	298.3	0.7		89.16	0.5	32.6	32.6	32.0	0.69	47.402		
400.0	400.0	396.3	395.9	1.0		87.36	1.8	40.0	40.3	39.3	0.96	41.769		
500.0	500.0	493.4	492.3	1.2		29.26	4.1	52.2	50.7	49.4	1.24	40.872		
600.0	599.6	590.0	587.3	1.5		30.54	7.2	69.1	61.6	60.1	1.52	40.453		
700.0	698.8	686.0	680.7	1.8		32.80	11.2	90.6	73.0	71.2	1.82	40.104		
800.0	797.1	781.3	772.4	2.2		35.59	15.9	116.4	85.2	83.0	2.15	39.573		
900.0	894.3	875.9	861.9	2.7		38.60	21.5	146.5	98.1	95.6	2.54	38.640		
1,000.0	990.2	969.9	949.2	3.4		41.67	27.8	180.7	112.1	109.0	3.01	37.212		
1,100.0	1,084.4	1,063.1	1,034.0	4.1		44.69	34.8	218.7	127.0	123.4	3.59	35.358		
1,200.0	1,176.8	1,155.6	1,116.3	5.0		47.59	42.4	260.4	143.1	138.8	4.30	33.253		
1,300.0	1,267.1	1,247.4	1,195.7	6.0		50.31	50.8	305.6	160.4	155.3	5.16	31.091		
1,400.0	1,354.9	1,338.5	1,272.2	7.1		52.85	59.7	354.0	179.0	172.8	6.17	29.018		
1,500.0	1,440.2	1,429.4	1,346.2	8.4		55.21	69.3	406.0	198.7	191.4	7.33	27.114		
1,600.0	1,522.6	1,526.8	1,424.4	9.8		58.07	79.8	463.2	217.7	209.0	8.69	25.052		
1,700.0	1,601.9	1,624.1	1,502.5	11.4		61.51	90.3	520.3	234.8	224.5	10.27	22.863		
1,800.0	1,677.9	1,721.1	1,580.3	13.0		65.49	100.8	577.2	250.7	238.6	12.07	20.765		
1,900.0	1,750.5	1,817.3	1,657.5	14.9		69.92	111.2	633.7	266.1	252.0	14.08	18.894		
2,000.0	1,819.3	1,912.7	1,734.0	16.8		74.71	121.5	689.6	281.9	265.7	16.27	17.324		
2,100.0	1,884.2	2,006.8	1,809.5	18.9		79.75	131.7	744.9	299.0	280.5	18.59	16.086		
2,200.0	1,945.1	2,099.5	1,883.9	21.1		84.90	141.7	799.3	318.4	297.4	20.97	15.180		
2,300.0	2,001.7	2,190.5	1,957.0	23.4		90.02	151.6	852.7	340.8	317.4	23.36	14.587		
2,327.7	2,016.6	2,215.4	1,976.9	24.0		91.41	154.3	867.3	347.6	323.6	24.01	14.475		
2,400.0	2,055.2	2,280.1	2,028.9	25.7		95.41	161.3	905.3	366.8	341.2	25.66	14.295		
2,500.0	2,108.4	2,369.7	2,100.7	28.1		100.34	170.9	957.9	396.2	368.4	27.78	14.264	SF	
2,600.0	2,161.6	2,459.2	2,172.5	30.6		104.63	180.6	1,010.4	428.2	398.5	29.73	14.402		
2,700.0	2,214.9	2,548.8	2,244.4	33.0		108.37	190.3	1,063.0	462.3	430.8	31.56	14.650		
2,800.0	2,268.1	2,638.3	2,316.2	35.4		111.63	200.0	1,115.5	498.0	464.8	33.28	14.966		
2,900.0	2,321.4	2,727.8	2,388.1	37.8		114.48	209.7	1,168.1	535.1	500.2	34.92	15.324		
3,000.0	2,374.6	2,817.4	2,459.9	40.2		116.97	219.4	1,220.6	573.2	536.7	36.50	15.706		
3,100.0	2,427.9	2,906.9	2,531.7	42.7		119.17	229.0	1,273.2	612.2	574.2	38.03	16.097		
3,200.0	2,481.1	2,996.4	2,603.6	45.1		121.12	238.7	1,325.8	651.9	612.4	39.53	16.491		
3,300.0	2,534.4	3,086.0	2,675.4	47.5		122.85	248.4	1,378.3	692.2	651.2	41.00	16.882		
3,400.0	2,587.6	3,175.5	2,747.3	50.0		124.39	258.1	1,430.9	733.0	690.5	42.45	17.265		
3,500.0	2,640.8	3,265.0	2,819.1	52.4		125.78	267.8	1,483.4	774.2	730.3	43.89	17.639		

<b>Company:</b>	Magpie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0		-89.98	0.0	-30.1	30.1					
100.0	100.0	100.0	100.0	0.1		-89.98	0.0	-30.1	30.1	30.0	0.14	218.276		
200.0	200.0	200.0	200.0	0.4		-89.98	0.0	-30.1	30.1	29.7	0.41	72.845		
300.0	300.0	300.0	300.0	0.7		-89.98	0.0	-30.1	30.1	29.4	0.69	43.717		
400.0	400.0	400.0	400.0	1.0		-89.98	0.0	-30.1	30.1	29.1	0.96	31.230	CC, ES	
500.0	500.0	500.0	500.0	1.2		-149.92	0.0	-30.1	32.3	31.1	1.24	26.086		
600.0	599.6	599.6	599.6	1.5		-155.57	0.0	-30.1	39.3	37.8	1.52	25.808	SF	
700.0	698.8	700.8	700.8	1.8		-163.47	-1.0	-27.7	49.5	47.6	1.82	27.176		
800.0	797.1	801.7	801.4	2.2		-173.06	-4.2	-20.3	61.7	59.6	2.12	29.072		
900.0	894.3	902.0	900.8	2.7		177.36	-9.4	-8.2	77.4	75.0	2.44	31.729		
1,000.0	990.2	1,001.3	998.3	3.4		168.74	-16.6	8.5	97.4	94.6	2.80	34.787		
1,100.0	1,084.4	1,099.2	1,093.6	4.1		161.40	-25.6	29.5	122.0	118.8	3.24	37.629		
1,200.0	1,176.8	1,195.6	1,186.0	5.0		155.30	-36.4	54.5	151.4	147.6	3.81	39.786		
1,300.0	1,267.1	1,290.1	1,275.1	6.0		150.23	-48.7	83.2	185.4	180.9	4.51	41.116		
1,400.0	1,354.9	1,382.5	1,360.8	7.1		145.96	-62.4	115.1	224.0	218.6	5.37	41.718		
1,500.0	1,440.2	1,472.7	1,442.6	8.4		142.29	-77.4	149.9	266.7	260.4	6.39	41.774		
1,600.0	1,522.6	1,560.5	1,520.5	9.8		139.07	-93.4	187.1	313.6	306.0	7.56	41.456		
1,700.0	1,601.9	1,645.9	1,594.4	11.4		136.17	-110.3	226.5	364.2	355.2	8.91	40.892		
1,800.0	1,677.9	1,728.8	1,664.2	13.0		133.50	-128.0	267.5	418.3	407.9	10.41	40.172		
1,900.0	1,750.5	1,809.1	1,730.0	14.9		130.98	-146.2	309.9	475.8	463.7	12.09	39.356		
2,000.0	1,819.3	1,887.0	1,791.7	16.8		128.56	-164.9	353.4	536.3	522.4	13.93	38.486		
2,100.0	1,884.2	1,962.3	1,849.7	18.9		126.19	-183.9	397.6	599.7	583.7	15.95	37.591		
2,200.0	1,945.1	2,035.2	1,903.9	21.1		123.84	-203.2	442.4	665.7	647.5	18.14	36.690		
2,300.0	2,001.7	2,107.2	1,955.8	23.4		121.52	-222.8	488.2	734.1	713.6	20.50	35.815		
2,327.7	2,016.6	2,127.0	1,970.1	24.0		120.92	-228.3	500.8	753.3	732.2	21.17	35.588		

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Anderson 1 (P&A) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 5698-UNKNOWN												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	
10,600.0	5,057.8	5,040.8	5,040.8	153.9	123.5	-92.73	1,113.4	-2,040.3	782.4	506.0	276.44	2.830	
10,700.0	5,052.2	5,035.2	5,035.2	156.9	123.4	-92.19	1,113.4	-2,040.3	721.5	442.1	279.41	2.582	
10,800.0	5,046.7	5,029.7	5,029.7	159.9	123.2	-91.66	1,113.4	-2,040.3	670.0	387.6	282.38	2.373	
10,900.0	5,041.1	5,024.1	5,024.1	162.9	123.1	-91.12	1,113.4	-2,040.3	630.2	344.8	285.34	2.208	
11,000.0	5,035.6	5,018.6	5,018.6	166.0	123.0	-90.59	1,113.4	-2,040.3	604.4	316.1	288.30	2.096	
11,100.0	5,030.0	5,013.0	5,013.0	169.0	122.8	-90.05	1,113.4	-2,040.3	594.5	303.2	291.24	2.041	
11,109.6	5,029.5	5,012.5	5,012.5	169.3	122.8	-90.00	1,113.4	-2,040.3	594.4	302.9	291.52	2.039	CC, ES, SF
11,200.0	5,024.4	5,007.4	5,007.4	172.1	122.7	-89.52	1,113.4	-2,040.3	601.2	307.0	294.18	2.044	
11,300.0	5,018.9	5,001.9	5,001.9	175.2	122.5	-88.98	1,113.4	-2,040.3	624.1	327.0	297.10	2.101	
11,400.0	5,013.3	4,996.3	4,996.3	178.3	122.4	-88.45	1,113.4	-2,040.3	661.3	361.3	300.01	2.204	
11,500.0	5,007.7	4,990.7	4,990.7	181.4	122.3	-87.91	1,113.4	-2,040.3	710.8	407.9	302.90	2.347	
11,600.0	5,002.2	4,985.2	4,985.2	184.5	122.1	-87.38	1,113.4	-2,040.3	770.1	464.3	305.78	2.519	

<b>Company:</b>	Magpie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Anderson 2 (Exist) - Wellbore #1 - Wellbore #1													Offset Well Error:	0.0 ft
Survey Program: 5014-UNKNOWN														
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
9,300.0	5,130.1	5,014.0	5,014.0	118.0	122.8	-84.55	1,054.0	-644.4	775.2	538.2	237.00	3.271		
9,400.0	5,124.6	5,014.0	5,014.0	120.5	122.8	-84.55	1,054.0	-644.4	726.6	486.9	239.70	3.031		
9,500.0	5,119.0	5,014.0	5,014.0	123.1	122.8	-84.55	1,054.0	-644.4	689.1	446.7	242.44	2.843		
9,600.0	5,113.4	5,014.0	5,014.0	125.7	122.8	-84.55	1,054.0	-644.4	664.8	419.6	245.21	2.711		
9,700.0	5,107.9	5,014.0	5,014.0	128.4	122.8	-84.55	1,054.0	-644.4	654.9	406.9	248.02	2.641		
9,715.0	5,107.0	5,014.0	5,014.0	128.8	122.8	-84.55	1,054.0	-644.4	654.8	406.3	248.44	2.635	CC, ES	
9,800.0	5,102.3	5,014.0	5,014.0	131.1	122.8	-84.55	1,054.0	-644.4	660.3	409.4	250.85	2.632	SF	
9,900.0	5,096.7	5,014.0	5,014.0	133.8	122.8	-84.55	1,054.0	-644.4	680.4	426.7	253.72	2.682		
10,000.0	5,091.2	5,014.0	5,014.0	136.6	122.8	-84.55	1,054.0	-644.4	714.1	457.5	256.60	2.783		
10,100.0	5,085.6	5,014.0	5,014.0	139.4	122.8	-84.55	1,054.0	-644.4	759.6	500.1	259.52	2.927		

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												Offset Site Error:	0.0 ft
Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Anderson, J A 1 (Exist) - Wellbore #1 - Wellbore #1												Offset Well Error:	0.0 ft
Survey Program: 6410-UNKNOWN													
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	
10,600.0	5,057.8	5,040.8	5,040.8	153.9	123.5	-92.08	1,045.7	-1,964.7	791.2	514.7	276.52	2.861	
10,700.0	5,052.2	5,035.2	5,035.2	156.9	123.4	-91.60	1,045.7	-1,964.7	741.2	461.8	279.46	2.652	
10,800.0	5,046.7	5,029.7	5,029.7	159.9	123.2	-91.12	1,045.7	-1,964.7	702.0	419.6	282.40	2.486	
10,900.0	5,041.1	5,024.1	5,024.1	162.9	123.1	-90.64	1,045.7	-1,964.7	675.4	390.1	285.35	2.367	
11,000.0	5,035.6	5,018.6	5,018.6	166.0	123.0	-90.16	1,045.7	-1,964.7	662.9	374.6	288.28	2.300	
11,033.8	5,033.7	5,016.7	5,016.7	167.0	122.9	-90.00	1,045.7	-1,964.7	662.1	372.8	289.28	2.289 CC, ES	
11,100.0	5,030.0	5,013.0	5,013.0	169.0	122.8	-89.68	1,045.7	-1,964.7	665.3	374.1	291.21	2.285 SF	
11,200.0	5,024.4	5,007.4	5,007.4	172.1	122.7	-89.20	1,045.7	-1,964.7	682.5	388.4	294.14	2.320	
11,300.0	5,018.9	5,001.9	5,001.9	175.2	122.5	-88.72	1,045.7	-1,964.7	713.4	416.3	297.06	2.402	
11,400.0	5,013.3	4,996.3	4,996.3	178.3	122.4	-88.24	1,045.7	-1,964.7	756.3	456.3	299.96	2.521	

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												Offset Site Error:	0.0 ft
Survey Program: 4961-UNKNOWN Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Bader Collins 2 (Exist) - Wellbore #1 - Wellbore #1												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
15,800.0	4,768.6	4,790.6	4,790.6	321.9	117.4	-93.26	1,168.3	-7,283.3	782.9	344.1	438.83	1.784	
15,900.0	4,763.0	4,785.0	4,785.0	325.3	117.2	-92.68	1,168.3	-7,283.3	714.9	272.7	442.21	1.617	
16,000.0	4,757.4	4,779.4	4,779.4	328.6	117.1	-92.10	1,168.3	-7,283.3	655.2	209.6	445.56	1.470	Level 3
16,100.0	4,751.9	4,773.9	4,773.9	332.0	117.0	-91.52	1,168.3	-7,283.3	606.0	157.1	448.86	1.350	Level 3
16,200.0	4,746.3	4,768.3	4,768.3	335.3	116.8	-90.94	1,168.3	-7,283.3	570.3	118.1	452.13	1.261	Level 3
16,300.0	4,740.7	4,762.7	4,762.7	338.7	116.7	-90.35	1,168.3	-7,283.3	550.6	95.2	455.35	1.209	Level 2
16,360.8	4,737.4	4,759.4	4,759.4	340.7	116.6	-90.00	1,168.3	-7,283.3	547.2	89.9	457.30	1.197	Level 2, CC
16,367.3	4,737.0	4,759.0	4,759.0	340.9	116.6	-89.96	1,168.3	-7,283.3	547.2	89.7	457.50	1.196	Level 2, ES, SF

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Hale 1 (Exist) - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 5618-UNKNOWN												<b>Offset Well Error:</b>	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	
11,800.0	4,991.1	4,988.1	4,988.1	190.8	122.2	92.50	2,336.2	-3,220.5	797.1	484.9	312.22	2.553	
11,900.0	4,985.5	4,982.5	4,982.5	194.0	122.1	92.00	2,336.2	-3,220.5	739.6	424.2	315.40	2.345	
12,000.0	4,979.9	4,976.9	4,976.9	197.2	121.9	91.49	2,336.2	-3,220.5	691.7	373.2	318.57	2.171	
12,100.0	4,974.4	4,971.4	4,971.4	200.4	121.8	90.98	2,336.2	-3,220.5	655.7	334.0	321.73	2.038	
12,200.0	4,968.8	4,965.8	4,965.8	203.5	121.7	90.47	2,336.2	-3,220.5	633.5	308.7	324.87	1.950	
12,293.5	4,963.6	4,960.6	4,960.6	206.5	121.5	90.00	2,336.2	-3,220.5	626.6	298.8	327.79	1.912 CC	
12,300.0	4,963.2	4,960.2	4,960.2	206.7	121.5	89.97	2,336.2	-3,220.5	626.6	298.7	327.99	1.911 ES, SF	
12,400.0	4,957.7	4,954.7	4,954.7	210.0	121.4	89.46	2,336.2	-3,220.5	635.6	304.5	331.10	1.920	
12,500.0	4,952.1	4,949.1	4,949.1	213.2	121.3	88.95	2,336.2	-3,220.5	659.7	325.5	334.19	1.974	
12,600.0	4,946.6	4,943.6	4,943.6	216.4	121.1	88.44	2,336.2	-3,220.5	697.4	360.1	337.26	2.068	
12,700.0	4,941.0	4,938.0	4,938.0	219.6	121.0	87.94	2,336.2	-3,220.5	746.6	406.3	340.31	2.194	



<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												Offset Site Error:	0.0 ft
Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Hale 2 (Exist) - Wellbore #1 - Wellbore #1												Offset Well Error:	0.0 ft
Survey Program: 5643-UNKNOWN													
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	
11,900.0	4,985.5	4,985.5	4,985.5	194.0	122.1	-91.86	1,064.7	-3,205.6	746.5	430.7	315.75	2.364	
12,000.0	4,979.9	4,979.9	4,979.9	197.2	122.0	-91.37	1,064.7	-3,205.6	701.5	382.6	318.85	2.200	
12,100.0	4,974.4	4,974.4	4,974.4	200.4	121.9	-90.87	1,064.7	-3,205.6	668.5	346.6	321.93	2.077	
12,200.0	4,968.8	4,968.8	4,968.8	203.5	121.7	-90.38	1,064.7	-3,205.6	649.3	324.3	325.00	1.998	
12,276.7	4,964.5	4,964.5	4,964.5	206.0	121.6	-90.00	1,064.7	-3,205.6	644.8	317.5	327.35	1.970 CC	
12,300.0	4,963.2	4,963.2	4,963.2	206.7	121.6	-89.88	1,064.7	-3,205.6	645.2	317.2	328.06	1.967 ES, SF	
12,400.0	4,957.7	4,957.7	4,957.7	210.0	121.5	-89.39	1,064.7	-3,205.6	656.5	325.4	331.09	1.983	
12,500.0	4,952.1	4,952.1	4,952.1	213.2	121.3	-88.90	1,064.7	-3,205.6	682.3	348.2	334.12	2.042	
12,600.0	4,946.6	4,946.6	4,946.6	216.4	121.2	-88.40	1,064.7	-3,205.6	721.1	384.0	337.12	2.139	
12,700.0	4,941.0	4,941.0	4,941.0	219.6	121.1	-87.91	1,064.7	-3,205.6	771.0	430.9	340.11	2.267	

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Hale 3 (Exist) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 4970-UNKNOWN												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	
13,100.0	4,918.7	4,928.7	4,928.7	232.6	120.8	-92.70	1,149.8	-4,503.0	735.9	382.9	353.00	2.085	
13,200.0	4,913.2	4,923.2	4,923.2	235.9	120.6	-92.13	1,149.8	-4,503.0	675.7	319.5	356.23	1.897	
13,300.0	4,907.6	4,917.6	4,917.6	239.1	120.5	-91.56	1,149.8	-4,503.0	625.7	266.3	359.43	1.741	
13,400.0	4,902.1	4,912.1	4,912.1	242.4	120.3	-91.00	1,149.8	-4,503.0	588.5	225.9	362.61	1.623	
13,500.0	4,896.5	4,906.5	4,906.5	245.7	120.2	-90.43	1,149.8	-4,503.0	566.8	201.0	365.76	1.550	
13,576.2	4,892.3	4,902.3	4,902.3	248.2	120.1	-90.00	1,149.8	-4,503.0	561.6	193.5	368.14	1.526 CC	
13,600.0	4,890.9	4,900.9	4,900.9	248.9	120.1	-89.87	1,149.8	-4,503.0	562.1	193.2	368.88	1.524 ES, SF	
13,700.0	4,885.4	4,895.4	4,895.4	252.2	119.9	-89.30	1,149.8	-4,503.0	575.1	203.1	371.97	1.546	
13,800.0	4,879.8	4,889.8	4,889.8	255.5	119.8	-88.73	1,149.8	-4,503.0	604.4	229.4	375.03	1.612	
13,900.0	4,874.2	4,884.2	4,884.2	258.8	119.7	-88.17	1,149.8	-4,503.0	648.0	269.9	378.06	1.714	
14,000.0	4,868.7	4,878.7	4,878.7	262.1	119.5	-87.60	1,149.8	-4,503.0	703.2	322.1	381.05	1.845	
14,100.0	4,863.1	4,873.1	4,873.1	265.4	119.4	-87.04	1,149.8	-4,503.0	767.4	383.4	384.02	1.998	

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Olander 1 (Exist) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 5645-UNKNOWN													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)			
1,900.0	1,750.5	1,715.5	1,715.5	14.9	42.0	-50.53	1,031.4	692.6	763.3	713.5	49.82	15.321		
2,000.0	1,819.3	1,784.3	1,784.3	16.8	43.7	-55.72	1,031.4	692.6	709.9	655.6	54.22	13.093		
2,100.0	1,884.2	1,849.2	1,849.2	18.9	45.3	-61.41	1,031.4	692.6	657.8	598.7	59.09	11.132		
2,200.0	1,945.1	1,910.1	1,910.1	21.1	46.8	-67.45	1,031.4	692.6	608.8	544.6	64.24	9.476		
2,300.0	2,001.7	1,966.7	1,966.7	23.4	48.2	-73.59	1,031.4	692.6	565.3	495.9	69.40	8.145		
2,327.7	2,016.6	1,981.6	1,981.6	24.0	48.6	-75.27	1,031.4	692.6	554.6	483.8	70.79	7.834		
2,400.0	2,055.2	2,020.2	2,020.2	25.7	49.5	-78.84	1,031.4	692.6	530.3	456.1	74.18	7.149		
2,500.0	2,108.4	2,073.4	2,073.4	28.1	50.8	-83.91	1,031.4	692.6	507.1	428.5	78.62	6.451		
2,600.0	2,161.6	2,126.6	2,126.6	30.6	52.1	-89.08	1,031.4	692.6	497.5	414.8	82.65	6.019		
2,617.7	2,171.1	2,136.1	2,136.1	31.0	52.3	-90.00	1,031.4	692.6	497.3	413.9	83.31	5.968	CC, ES	
2,700.0	2,214.9	2,179.9	2,179.9	33.0	53.4	-94.26	1,031.4	692.6	502.1	415.9	86.17	5.827		
2,800.0	2,268.1	2,233.1	2,233.1	35.4	54.7	-99.38	1,031.4	692.6	520.6	431.5	89.12	5.842		
2,900.0	2,321.4	2,286.4	2,286.4	37.8	56.0	-104.35	1,031.4	692.6	551.7	460.2	91.49	6.030		
3,000.0	2,374.6	2,339.6	2,339.6	40.2	57.3	-109.11	1,031.4	692.6	593.3	500.0	93.29	6.360		
3,100.0	2,427.9	2,392.9	2,392.9	42.7	58.6	-113.61	1,031.4	692.6	643.4	548.8	94.58	6.802		
3,200.0	2,481.1	2,446.1	2,446.1	45.1	59.9	-117.82	1,031.4	692.6	700.1	604.7	95.46	7.335		
3,300.0	2,534.4	2,499.4	2,499.4	47.5	61.2	-121.73	1,031.4	692.6	762.1	666.1	95.99	7.939		
8,000.0	5,202.4	5,167.4	5,167.4	92.3	126.6	-91.76	1,031.4	692.6	768.4	556.7	211.65	3.630		
8,100.0	5,196.9	5,161.9	5,161.9	93.7	126.5	-91.29	1,031.4	692.6	725.3	511.9	213.44	3.398		
8,200.0	5,191.3	5,156.3	5,156.3	95.2	126.3	-90.82	1,031.4	692.6	694.1	478.8	215.30	3.224		
8,300.0	5,185.7	5,150.7	5,150.7	96.8	126.2	-90.34	1,031.4	692.6	676.3	459.1	217.24	3.113		
8,372.4	5,181.7	5,146.7	5,146.7	98.1	126.1	-90.00	1,031.4	692.6	672.4	453.7	218.70	3.075		
8,400.0	5,180.2	5,145.2	5,145.2	98.6	126.1	-89.87	1,031.4	692.6	673.0	453.7	219.25	3.070	SF	
8,500.0	5,174.6	5,139.6	5,139.6	100.4	125.9	-89.40	1,031.4	692.6	684.4	463.1	221.31	3.092		
8,600.0	5,169.1	5,134.1	5,134.1	102.3	125.8	-88.92	1,031.4	692.6	709.8	486.4	223.43	3.177		
8,700.0	5,163.5	5,128.5	5,128.5	104.3	125.6	-88.45	1,031.4	692.6	747.8	522.2	225.60	3.315		
8,800.0	5,157.9	5,122.9	5,122.9	106.4	125.5	-87.98	1,031.4	692.6	796.5	568.7	227.81	3.496		

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Olander 2 (Exist) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 5609-UNKNOWN													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)			
7,800.0	5,213.6	5,161.6	5,161.6	89.8	126.5	93.04	2,252.9	741.4	759.4	551.9	207.56	3.659		
7,900.0	5,208.0	5,156.0	5,156.0	91.0	126.3	92.46	2,252.9	741.4	694.2	485.0	209.25	3.318		
8,000.0	5,202.4	5,150.4	5,150.4	92.3	126.2	91.88	2,252.9	741.4	638.1	427.0	211.02	3.024		
8,100.0	5,196.9	5,144.9	5,144.9	93.7	126.0	91.31	2,252.9	741.4	593.5	380.6	212.88	2.788		
8,200.0	5,191.3	5,139.3	5,139.3	95.2	125.9	90.73	2,252.9	741.4	563.3	348.4	214.81	2.622		
8,300.0	5,185.7	5,133.7	5,133.7	96.8	125.8	90.15	2,252.9	741.4	549.8	333.0	216.80	2.536		
8,325.3	5,184.3	5,132.3	5,132.3	97.3	125.7	90.00	2,252.9	741.4	549.2	331.8	217.33	2.527	CC, ES, SF	
8,400.0	5,180.2	5,128.2	5,128.2	98.6	125.6	89.57	2,252.9	741.4	554.2	335.4	218.86	2.532		
8,500.0	5,174.6	5,122.6	5,122.6	100.4	125.5	88.99	2,252.9	741.4	576.2	355.2	220.97	2.608		
8,600.0	5,169.1	5,117.1	5,117.1	102.3	125.4	88.41	2,252.9	741.4	613.8	390.7	223.13	2.751		
8,700.0	5,163.5	5,111.5	5,111.5	104.3	125.2	87.83	2,252.9	741.4	664.5	439.1	225.33	2.949		
8,800.0	5,157.9	5,105.9	5,105.9	106.4	125.1	87.25	2,252.9	741.4	725.4	497.8	227.57	3.188		
8,900.0	5,152.4	5,100.4	5,100.4	108.6	125.0	86.67	2,252.9	741.4	794.2	564.4	229.84	3.456		

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Peterson 2 (Exist) - Wellbore #1 - Wellbore #1													Offset Site Error:		0.0 ft
Survey Program: 5675-UNKNOWN													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	142.47	-271.4	208.5	342.6						
100.0	100.0	84.0	84.0	0.1	2.1	142.47	-271.4	208.5	342.2	340.0	2.20	155.852			
200.0	200.0	184.0	184.0	0.4	4.5	142.47	-271.4	208.5	342.2	337.3	4.92	69.543			
300.0	300.0	284.0	284.0	0.7	7.0	142.47	-271.4	208.5	342.2	334.6	7.65	44.757			
400.0	400.0	384.0	384.0	1.0	9.4	142.47	-271.4	208.5	342.2	331.9	10.37	32.997			
500.0	500.0	484.0	484.0	1.2	11.9	85.43	-271.4	208.5	342.0	328.9	13.09	26.128			
600.0	599.6	583.6	583.6	1.5	14.3	86.76	-271.4	208.5	341.5	325.7	15.81	21.594			
700.0	698.8	682.8	682.8	1.8	16.7	88.94	-271.4	208.5	341.0	322.4	18.57	18.362			
738.3	736.6	720.6	720.6	2.0	17.7	90.00	-271.4	208.5	340.9	321.3	19.65	17.352 CC			
800.0	797.1	781.1	781.1	2.2	19.1	91.95	-271.4	208.5	341.1	319.8	21.38	15.954			
900.0	894.3	878.3	878.3	2.7	21.5	95.69	-271.4	208.5	342.7	318.5	24.26	14.129 ES			
1,000.0	990.2	974.2	974.2	3.4	23.9	100.06	-271.4	208.5	346.8	319.6	27.19	12.757			
1,100.0	1,084.4	1,068.4	1,068.4	4.1	26.2	104.87	-271.4	208.5	354.5	324.3	30.13	11.766			
1,200.0	1,176.8	1,160.8	1,160.8	5.0	28.4	109.92	-271.4	208.5	366.8	333.8	33.01	11.110			
1,300.0	1,267.1	1,251.1	1,251.1	6.0	30.7	114.98	-271.4	208.5	384.7	349.0	35.77	10.754			
1,400.0	1,354.9	1,338.9	1,338.9	7.1	32.8	119.86	-271.4	208.5	409.0	370.7	38.34	10.668 SF			
1,500.0	1,440.2	1,424.2	1,424.2	8.4	34.9	124.39	-271.4	208.5	440.1	399.4	40.67	10.820			
1,600.0	1,522.6	1,506.6	1,506.6	9.8	36.9	128.47	-271.4	208.5	477.9	435.1	42.73	11.184			
1,700.0	1,601.9	1,585.9	1,585.9	11.4	38.9	132.05	-271.4	208.5	522.3	477.8	44.53	11.731			
1,800.0	1,677.9	1,661.9	1,661.9	13.0	40.7	135.12	-271.4	208.5	573.1	527.0	46.08	12.437			
1,900.0	1,750.5	1,734.5	1,734.5	14.9	42.5	137.68	-271.4	208.5	629.8	582.3	47.42	13.281			
2,000.0	1,819.3	1,803.3	1,803.3	16.8	44.2	139.76	-271.4	208.5	691.9	643.3	48.59	14.240			
2,100.0	1,884.2	1,868.2	1,868.2	18.9	45.8	141.38	-271.4	208.5	758.9	709.3	49.64	15.289			

<b>Company:</b>	Magpie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Campion 32-31 1H
<b>Project:</b>	SEC.5-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Reference Site:</b>	Campion Pad Sec.5-T4N-R68W	<b>MD Reference:</b>	WELL @ 5084.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Campion 32-31 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (2-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Saulcy-Gentry 1 (Exist) - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 ft	
Survey Program: 5550-UNKNOWN													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)			
3,100.0	2,427.9	2,381.9	2,381.9	42.7	59.1	26.96	1,051.1	2,006.0	735.3	673.5	61.82	11.894		
3,200.0	2,481.1	2,435.1	2,435.1	45.1	60.4	30.00	1,051.1	2,006.0	654.0	587.0	66.99	9.762		
3,300.0	2,534.4	2,488.4	2,488.4	47.5	61.7	33.74	1,051.1	2,006.0	573.6	500.5	73.17	7.840		
3,400.0	2,587.6	2,541.6	2,541.6	50.0	63.0	38.37	1,051.1	2,006.0	494.7	414.1	80.60	6.137		
3,500.0	2,640.8	2,594.8	2,594.8	52.4	64.3	44.20	1,051.1	2,006.0	418.0	328.5	89.54	4.668		
3,600.0	2,694.1	2,648.1	2,648.1	54.9	65.6	51.56	1,051.1	2,006.0	345.0	245.0	100.04	3.449		
3,700.0	2,747.3	2,701.3	2,701.3	57.3	66.9	60.78	1,051.1	2,006.0	278.7	167.1	111.64	2.497		
3,800.0	2,800.6	2,754.6	2,754.6	59.7	68.2	72.01	1,051.1	2,006.0	225.1	102.3	122.88	1.832		
3,900.0	2,853.8	2,807.8	2,807.8	62.2	69.5	84.84	1,051.1	2,006.0	194.9	63.7	131.23	1.485 Level 3		
3,938.5	2,874.3	2,828.3	2,828.3	63.1	70.0	90.00	1,051.1	2,006.0	192.2	59.1	133.13	1.444 Level 3, CC		
3,955.5	2,883.4	2,837.4	2,837.4	63.5	70.2	92.28	1,051.1	2,006.0	192.7	59.0	133.69	1.442 Level 3, ES, SF		
4,000.0	2,907.5	2,861.5	2,861.5	64.6	70.8	98.46	1,051.1	2,006.0	199.0	64.8	134.26	1.482 Level 3		
4,100.0	2,964.9	2,918.9	2,918.9	66.7	72.2	112.48	1,051.1	2,006.0	234.1	103.1	131.02	1.787		
4,200.0	3,026.4	2,980.4	2,980.4	68.7	73.7	125.12	1,051.1	2,006.0	286.5	162.5	123.96	2.311		
4,300.0	3,092.0	3,046.0	3,046.0	70.6	75.3	135.35	1,051.1	2,006.0	346.2	229.4	116.75	2.965		
4,400.0	3,161.5	3,115.5	3,115.5	72.4	77.0	143.18	1,051.1	2,006.0	407.9	296.4	111.56	3.657		
4,500.0	3,234.6	3,188.6	3,188.6	74.0	78.8	149.06	1,051.1	2,006.0	469.2	360.4	108.74	4.315		
4,600.0	3,311.2	3,265.2	3,265.2	75.6	80.7	153.49	1,051.1	2,006.0	528.5	420.6	107.89	4.898		
4,700.0	3,391.1	3,345.1	3,345.1	77.0	82.7	156.86	1,051.1	2,006.0	584.9	476.5	108.47	5.393		
4,800.0	3,474.0	3,428.0	3,428.0	78.3	84.7	159.47	1,051.1	2,006.0	638.0	528.0	110.01	5.799		
4,900.0	3,559.7	3,513.7	3,513.7	79.5	86.8	161.50	1,051.1	2,006.0	687.3	575.1	112.19	6.126		
5,000.0	3,648.0	3,602.0	3,602.0	80.6	89.0	163.10	1,051.1	2,006.0	732.4	617.7	114.75	6.383		
5,100.0	3,738.6	3,692.6	3,692.6	81.5	91.2	164.37	1,051.1	2,006.0	773.3	655.7	117.54	6.579		
6,600.0	5,144.1	5,098.1	5,098.1	83.8	125.6	-68.26	1,051.1	2,006.0	781.1	605.2	175.86	4.441		
6,650.0	5,172.3	5,126.3	5,126.3	83.8	126.3	-72.39	1,051.1	2,006.0	759.1	576.6	182.43	4.161		
6,700.0	5,196.9	5,150.9	5,150.9	83.8	126.9	-76.42	1,051.1	2,006.0	737.6	549.3	188.25	3.918		
6,750.0	5,217.5	5,171.5	5,171.5	83.8	127.4	-80.19	1,051.1	2,006.0	717.3	524.3	192.96	3.717		
6,800.0	5,234.1	5,188.1	5,188.1	83.8	127.8	-83.51	1,051.1	2,006.0	698.8	502.4	196.39	3.558		
6,850.0	5,246.6	5,200.6	5,200.6	83.9	128.1	-86.26	1,051.1	2,006.0	682.6	484.0	198.63	3.437		
6,900.0	5,254.7	5,208.7	5,208.7	84.0	128.3	-88.34	1,051.1	2,006.0	669.4	469.5	199.92	3.348		
6,950.0	5,258.6	5,212.6	5,212.6	84.1	128.4	-89.69	1,051.1	2,006.0	659.5	458.9	200.56	3.288		
7,001.0	5,258.0	5,212.0	5,212.0	84.2	128.4	-90.27	1,051.1	2,006.0	653.1	452.3	200.86	3.252		
7,001.1	5,258.0	5,212.0	5,212.0	84.2	128.4	-90.27	1,051.1	2,006.0	653.1	452.3	200.86	3.252		
7,002.9	5,257.9	5,211.9	5,211.9	84.2	128.4	-90.26	1,051.1	2,006.0	653.0	452.1	200.86	3.251		
7,057.0	5,254.9	5,208.9	5,208.9	84.4	128.3	-90.00	1,051.1	2,006.0	650.7	449.6	201.13	3.235		
7,100.0	5,252.5	5,206.5	5,206.5	84.5	128.3	-89.79	1,051.1	2,006.0	652.2	450.8	201.34	3.239		
7,200.0	5,246.9	5,200.9	5,200.9	85.0	128.1	-89.30	1,051.1	2,006.0	666.2	464.3	201.96	3.299		
7,300.0	5,241.4	5,195.4	5,195.4	85.5	128.0	-88.81	1,051.1	2,006.0	694.5	491.8	202.71	3.426		
7,400.0	5,235.8	5,189.8	5,189.8	86.1	127.9	-88.32	1,051.1	2,006.0	735.4	531.8	203.59	3.612		
7,500.0	5,230.2	5,184.2	5,184.2	86.9	127.7	-87.83	1,051.1	2,006.0	786.8	582.2	204.59	3.846		

Offset Design													Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Swanson 1-A (Exist) - Wellbore #1 - Wellbore #1		Offset Site Error:		0.0 ft	
Survey Program: 5665-UNKNOWN													Offset Well Error:		0.0 ft			
Reference		Offset		Semi Major Axis		Distance							Warning					
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor							
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)							
10,600.0	5,057.8	5,040.8	5,040.8	153.9	123.5	92.00	2,374.3	-1,949.0	787.6	511.3	276.26	2.851						
10,700.0	5,052.2	5,035.2	5,035.2	156.9	123.4	91.53	2,374.3	-1,949.0	739.2	460.0	279.27	2.647						
10,800.0	5,046.7	5,029.7	5,029.7	159.9	123.2	91.05	2,374.3	-1,949.0	701.9	419.6	282.27	2.487						
10,900.0	5,041.1	5,024.1	5,024.1	162.9	123.1	90.57	2,374.3	-1,949.0	677.3	392.0	285.27	2.374						
11,000.0	5,035.6	5,018.6	5,018.6	166.0	123.0	90.10	2,374.3	-1,949.0	666.9	378.6	288.27	2.314						
11,020.1	5,034.4	5,017.4	5,017.4	166.6	122.9	90.00	2,374.3	-1,949.0	666.6	377.7	288.87	2.308	CC, ES					
11,100.0	5,030.0	5,013.0	5,013.0	169.0	122.8	89.62	2,374.3	-1,949.0	671.4	380.1	291.26	2.305	SF					
11,200.0	5,024.4	5,007.4	5,007.4	172.1	122.7	89.14	2,374.3	-1,949.0	690.4	396.1	294.24	2.346						
11,300.0	5,018.9	5,001.9	5,001.9	175.2	122.5	88.66	2,374.3	-1,949.0	722.8	425.6	297.22	2.432						
11,400.0	5,013.3	4,996.3	4,996.3	178.3	122.4	88.19	2,374.3	-1,949.0	767.0	466.8	300.19	2.555						

Offset Design													Existing Wells Sec.5, 6, 31, 32-T4N-R68W - Swanson 2 (Exist) - Wellbore #1 - Wellbore #1		Offset Site Error:		0.0 ft
Survey Program:													4955-UNKNOWN		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)						
9,200.0	5,135.7	4,955.0	4,955.0	115.6	121.4	79.77	2,334.9	-579.7	784.7	553.3	231.40	3.391					
9,300.0	5,130.1	4,955.0	4,955.0	118.0	121.4	79.77	2,334.9	-579.7	731.3	497.2	234.04	3.125					
9,400.0	5,124.6	4,955.0	4,955.0	120.5	121.4	79.77	2,334.9	-579.7	688.3	451.6	236.72	2.908					
9,500.0	5,119.0	4,955.0	4,955.0	123.1	121.4	79.77	2,334.9	-579.7	657.9	418.4	239.44	2.748					
9,600.0	5,113.4	4,955.0	4,955.0	125.7	121.4	79.77	2,334.9	-579.7	641.7	399.5	242.19	2.650					
9,654.9	5,110.4	4,955.0	4,955.0	127.2	121.4	79.77	2,334.9	-579.7	639.4	395.6	243.71	2.623	CC, ES				
9,700.0	5,107.9	4,955.0	4,955.0	128.4	121.4	79.77	2,334.9	-579.7	641.0	396.0	244.97	2.616	SF				
9,800.0	5,102.3	4,955.0	4,955.0	131.1	121.4	79.77	2,334.9	-579.7	655.6	407.8	247.78	2.646					
9,900.0	5,096.7	4,955.0	4,955.0	133.8	121.4	79.77	2,334.9	-579.7	684.7	434.1	250.61	2.732					
10,000.0	5,091.2	4,955.0	4,955.0	136.6	121.4	79.77	2,334.9	-579.7	726.5	473.1	253.47	2.866					
10,100.0	5,085.6	4,955.0	4,955.0	139.4	121.4	79.77	2,334.9	-579.7	779.0	522.7	256.36	3.039					



Reference Depths are relative to WELL @ 5084.0ft (Original Well Elev)	Coordinates are relative to: Campion 32-31 1H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000	Grid Convergence at Surface is: 0.30°



Reference Depths are relative to WELL @ 5084.0ft (Original Well Elev)	Coordinates are relative to: Campion 32-31 1H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000	Grid Convergence at Surface is: 0.30°

