

Captiva Energy Partners

Well Name: **Stillroven Farm 8**

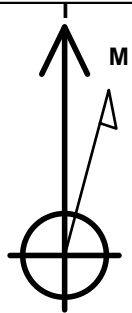
Surface Location: Stillroven Farm Pad Sec.5-T3N-R68W
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
Ground Elevation: 5075.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1338091.43	134292.73	40.260460	-105.018806	

Original Well Elev WELL @ 5098.0ft (Original Well Elev)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
SHL 670'FNL, 310'FEL	1.0	0.0	0.0	40.260460	105.018806
BHL 1412'FNL, 460'FWL	7241.0	-821.6	-4500.5	40.258204	105.034931
LP 1412'FNL, 510'FEL	7241.0	-744.5	-201.0	40.258416	105.019526



Azimuths to True North
Magnetic North: 8.19°

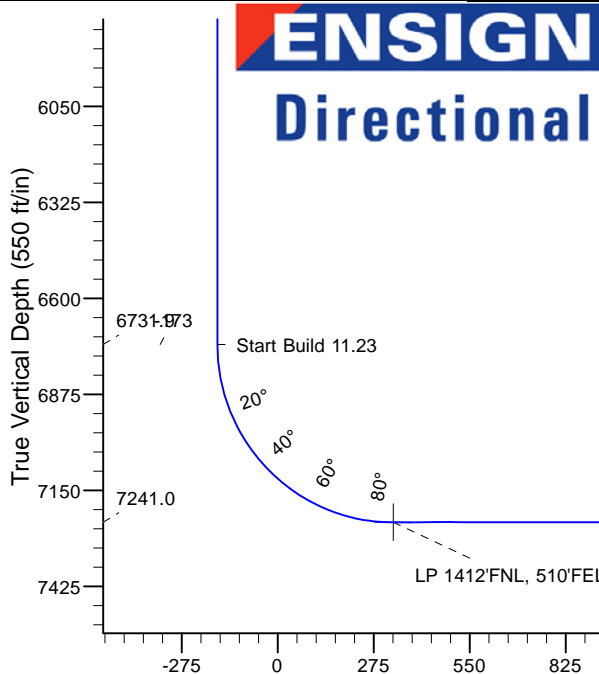
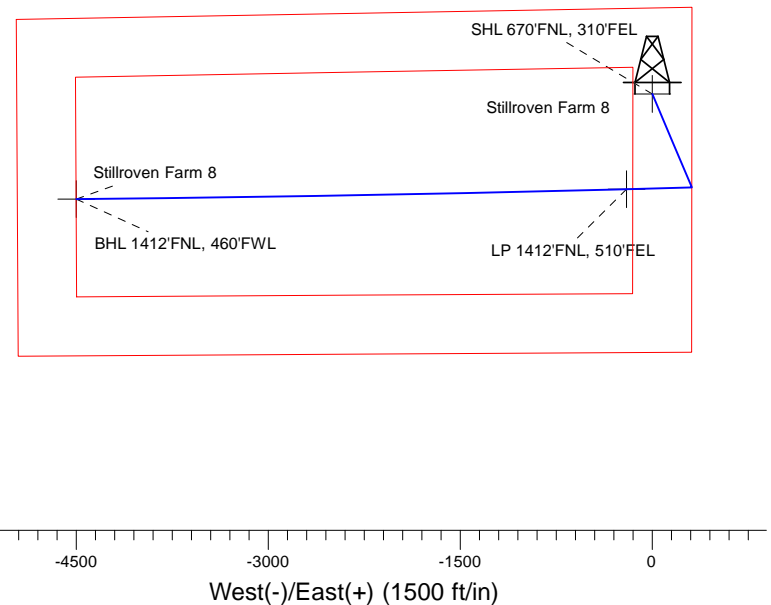
Magnetic Field
Strength: 52405.2nT
Dip Angle: 66.69°
Date: 5/23/2017
Model: IGRF2010

Stillroven Farm Pad Sec.5-T3N-R68W
Stillroven Farm 8
Plan #2 (6-5-17)
14:36, June 05 2017

ANNOTATIONS

TVD	MD	Annotation
1000.0	1000.0	Start Build 1.50
6731.8	6803.0	Start Build 11.23
7241.0	11905.6	TD at 11905.6

South(-)/North(+) (1500 ft/in)



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	
21	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
31	1718.5	10.78	157.09	1714.2	-62.1	26.2	1.50	157.09	-14.7	
45	332.3	10.78	157.09	5264.3	-684.5	289.3	0.00	0.00	-161.7	
55	871.1	0.00	0.00	5800.0	-731.0	309.0	2.00	180.00	-172.7	
66	803.0	0.00	0.00	6731.8	-731.0	309.0	0.00	0.00	-172.7	
77	604.3	90.00	268.49	7241.0	-744.5	-200.0	11.23	268.49	330.4	
87	605.3	90.00	268.49	7241.0	-744.5	-201.0	0.00	0.00	331.4	LP 1412'FNL, 510'FEL
91	1905.6	90.00	269.46	7241.0	-821.6	-4500.5	0.02	90.00	4574.9	BHL 1412'FNL, 460'FWL

Vertical Section at 259.65° (550 ft/in)



Directional

Captiva Energy Partners

SEC.5-T3N-R68W

Stillroven Farm Pad Sec.5-T3N-R68W

Stillroven Farm 8

Wellbore #1

Plan: Plan #2 (6-5-17)

Standard Planning Report

05 June, 2017



Directional

Database:	US_EDM	Local Co-ordinate Reference:	Well Stillroven Farm 8
Company:	Captiva Energy Partners	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Project:	SEC.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site:	Stillroven Farm Pad Sec.5-T3N-R68W	North Reference:	True
Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-5-17)		

Project	SEC.5-T3N-R68W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Stillroven Farm Pad Sec.5-T3N-R68W				
Site Position:		Northing:	1,338,196.56 usft	Latitude:	40.260749
From:	Lat/Long	Easting:	3,134,292.41 usft	Longitude:	-105.018805
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.31

Well	Stillroven Farm 8					
Well Position	+N/-S	-105.1 ft	Northing:	1,338,091.49 usft	Latitude:	40.260460
	+E/-W	-0.3 ft	Easting:	3,134,292.73 usft	Longitude:	-105.018806
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	5,075.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/23/2017	8.19	66.69	52,405

Design	Plan #2 (6-5-17)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	259.65

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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,718.5	10.78	157.09	1,714.2	-62.1	26.2	1.50	1.50	0.00	157.09	
5,332.3	10.78	157.09	5,264.3	-684.5	289.3	0.00	0.00	0.00	0.00	
5,871.1	0.00	0.00	5,800.0	-731.0	309.0	2.00	-2.00	0.00	180.00	
6,803.0	0.00	0.00	6,731.8	-731.0	309.0	0.00	0.00	0.00	0.00	
7,604.3	90.00	268.49	7,241.0	-744.5	-200.0	11.23	11.23	0.00	268.49	
7,605.3	90.00	268.49	7,241.0	-744.5	-201.0	0.00	0.00	0.00	0.00	LP 1412'FNL, 510'FEI
11,905.6	90.00	269.46	7,241.0	-821.6	-4,500.5	0.02	0.00	0.02	90.00	BHL 1412'FNL, 460'F

Database:	US_EDM	Local Co-ordinate Reference:	Well Stillroven Farm 8
Company:	Captiva Energy Partners	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Project:	SEC.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site:	Stillroven Farm Pad Sec.5-T3N-R68W	North Reference:	True
Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-5-17)		

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
SHL 670'FNL, 310'FEL									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.50									
1,100.0	1.50	157.09	1,100.0	-1.2	0.5	-0.3	1.50	1.50	0.00
1,200.0	3.00	157.09	1,199.9	-4.8	2.0	-1.1	1.50	1.50	0.00
1,300.0	4.50	157.09	1,299.7	-10.8	4.6	-2.6	1.50	1.50	0.00
1,400.0	6.00	157.09	1,399.3	-19.3	8.1	-4.6	1.50	1.50	0.00
1,500.0	7.50	157.09	1,498.6	-30.1	12.7	-7.1	1.50	1.50	0.00
1,600.0	9.00	157.09	1,597.5	-43.3	18.3	-10.2	1.50	1.50	0.00
1,700.0	10.50	157.09	1,696.1	-58.9	24.9	-13.9	1.50	1.50	0.00
1,718.5	10.78	157.09	1,714.2	-62.1	26.2	-14.7	1.50	1.50	0.00
1,800.0	10.78	157.09	1,794.3	-76.1	32.2	-18.0	0.00	0.00	0.00
1,900.0	10.78	157.09	1,892.6	-93.3	39.4	-22.0	0.00	0.00	0.00
2,000.0	10.78	157.09	1,990.8	-110.5	46.7	-26.1	0.00	0.00	0.00
2,100.0	10.78	157.09	2,089.0	-127.8	54.0	-30.2	0.00	0.00	0.00
2,200.0	10.78	157.09	2,187.3	-145.0	61.3	-34.3	0.00	0.00	0.00
2,300.0	10.78	157.09	2,285.5	-162.2	68.6	-38.3	0.00	0.00	0.00
2,400.0	10.78	157.09	2,383.8	-179.4	75.8	-42.4	0.00	0.00	0.00
2,500.0	10.78	157.09	2,482.0	-196.7	83.1	-46.5	0.00	0.00	0.00
2,600.0	10.78	157.09	2,580.2	-213.9	90.4	-50.5	0.00	0.00	0.00
2,700.0	10.78	157.09	2,678.5	-231.1	97.7	-54.6	0.00	0.00	0.00
2,800.0	10.78	157.09	2,776.7	-248.3	105.0	-58.7	0.00	0.00	0.00
2,900.0	10.78	157.09	2,874.9	-265.5	112.2	-62.7	0.00	0.00	0.00
3,000.0	10.78	157.09	2,973.2	-282.8	119.5	-66.8	0.00	0.00	0.00
3,100.0	10.78	157.09	3,071.4	-300.0	126.8	-70.9	0.00	0.00	0.00
3,200.0	10.78	157.09	3,169.6	-317.2	134.1	-74.9	0.00	0.00	0.00
3,300.0	10.78	157.09	3,267.9	-334.4	141.4	-79.0	0.00	0.00	0.00
3,400.0	10.78	157.09	3,366.1	-351.7	148.7	-83.1	0.00	0.00	0.00
3,500.0	10.78	157.09	3,464.3	-368.9	155.9	-87.2	0.00	0.00	0.00
3,600.0	10.78	157.09	3,562.6	-386.1	163.2	-91.2	0.00	0.00	0.00
3,700.0	10.78	157.09	3,660.8	-403.3	170.5	-95.3	0.00	0.00	0.00
3,800.0	10.78	157.09	3,759.1	-420.6	177.8	-99.4	0.00	0.00	0.00
3,900.0	10.78	157.09	3,857.3	-437.8	185.1	-103.4	0.00	0.00	0.00
4,000.0	10.78	157.09	3,955.5	-455.0	192.3	-107.5	0.00	0.00	0.00
4,100.0	10.78	157.09	4,053.8	-472.2	199.6	-111.6	0.00	0.00	0.00
4,200.0	10.78	157.09	4,152.0	-489.4	206.9	-115.6	0.00	0.00	0.00
4,300.0	10.78	157.09	4,250.2	-506.7	214.2	-119.7	0.00	0.00	0.00
4,400.0	10.78	157.09	4,348.5	-523.9	221.5	-123.8	0.00	0.00	0.00
4,500.0	10.78	157.09	4,446.7	-541.1	228.7	-127.8	0.00	0.00	0.00
4,600.0	10.78	157.09	4,544.9	-558.3	236.0	-131.9	0.00	0.00	0.00
4,700.0	10.78	157.09	4,643.2	-575.6	243.3	-136.0	0.00	0.00	0.00
4,800.0	10.78	157.09	4,741.4	-592.8	250.6	-140.0	0.00	0.00	0.00
4,900.0	10.78	157.09	4,839.7	-610.0	257.9	-144.1	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Stillroven Farm 8
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Project:	SEC.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site:	Stillroven Farm Pad Sec.5-T3N-R68W	North Reference:	True
Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-5-17)		

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)
5,000.0	10.78	157.09	4,937.9	-627.2	265.1	-148.2	0.00	0.00	0.00
5,100.0	10.78	157.09	5,036.1	-644.5	272.4	-152.3	0.00	0.00	0.00
5,200.0	10.78	157.09	5,134.4	-661.7	279.7	-156.3	0.00	0.00	0.00
5,300.0	10.78	157.09	5,232.6	-678.9	287.0	-160.4	0.00	0.00	0.00
5,332.3	10.78	157.09	5,264.3	-684.5	289.3	-161.7	0.00	0.00	0.00
5,400.0	9.42	157.09	5,331.0	-695.4	294.0	-164.3	2.00	-2.00	0.00
5,500.0	7.42	157.09	5,429.9	-708.9	299.7	-167.5	2.00	-2.00	0.00
5,600.0	5.42	157.09	5,529.3	-719.2	304.0	-169.9	2.00	-2.00	0.00
5,700.0	3.42	157.09	5,629.0	-726.3	307.0	-171.6	2.00	-2.00	0.00
5,800.0	1.42	157.09	5,728.9	-730.2	308.7	-172.5	2.00	-2.00	0.00
5,871.1	0.00	0.00	5,800.0	-731.0	309.0	-172.7	2.00	-2.00	0.00
5,900.0	0.00	0.00	5,828.9	-731.0	309.0	-172.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,928.9	-731.0	309.0	-172.7	0.00	0.00	0.00
6,100.0	0.00	0.00	6,028.9	-731.0	309.0	-172.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,128.9	-731.0	309.0	-172.7	0.00	0.00	0.00
6,300.0	0.00	0.00	6,228.9	-731.0	309.0	-172.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,328.9	-731.0	309.0	-172.7	0.00	0.00	0.00
6,500.0	0.00	0.00	6,428.9	-731.0	309.0	-172.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,528.9	-731.0	309.0	-172.7	0.00	0.00	0.00
6,700.0	0.00	0.00	6,628.9	-731.0	309.0	-172.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,728.9	-731.0	309.0	-172.7	0.00	0.00	0.00
6,803.0	0.00	0.00	6,731.9	-731.0	309.0	-172.7	0.00	0.00	0.00
Start Build 11.23									
6,900.0	10.90	268.49	6,828.3	-731.2	299.8	-163.6	11.24	11.24	0.00
7,000.0	22.13	268.49	6,924.0	-732.0	271.4	-135.6	11.23	11.23	0.00
7,100.0	33.36	268.49	7,012.4	-733.2	225.0	-89.6	11.23	11.23	0.00
7,200.0	44.59	268.49	7,090.0	-734.9	162.2	-27.6	11.23	11.23	0.00
7,300.0	55.82	268.49	7,153.9	-736.9	85.5	48.2	11.23	11.23	0.00
7,400.0	67.05	268.49	7,201.6	-739.2	-2.1	134.9	11.23	11.23	0.00
7,500.0	78.28	268.49	7,231.4	-741.7	-97.4	229.0	11.23	11.23	0.00
7,600.0	89.51	268.49	7,242.0	-744.4	-196.7	327.1	11.23	11.23	0.00
7,604.3	90.00	268.49	7,241.0	-744.5	-200.0	330.4	11.23	11.23	0.00
7,605.3	90.00	268.49	7,241.0	-744.5	-201.0	331.4	0.00	0.00	0.00
LP 1412'FNL, 510'FEL									
7,700.0	90.00	268.51	7,241.0	-747.0	-295.6	425.0	0.02	0.00	0.02
7,800.0	90.00	268.53	7,241.0	-749.6	-395.6	523.8	0.02	0.00	0.02
7,900.0	90.00	268.55	7,241.0	-752.1	-495.6	622.6	0.02	0.00	0.02
8,000.0	90.00	268.58	7,241.0	-754.6	-595.5	721.4	0.02	0.00	0.02
8,100.0	90.00	268.60	7,241.0	-757.1	-695.5	820.1	0.02	0.00	0.02
8,200.0	90.00	268.62	7,241.0	-759.5	-795.5	918.9	0.02	0.00	0.02
8,300.0	90.00	268.64	7,241.0	-761.9	-895.4	1,017.7	0.02	0.00	0.02
8,400.0	90.00	268.67	7,241.0	-764.2	-995.4	1,116.5	0.02	0.00	0.02
8,500.0	90.00	268.69	7,241.0	-766.5	-1,095.4	1,215.2	0.02	0.00	0.02
8,600.0	90.00	268.71	7,241.0	-768.8	-1,195.4	1,314.0	0.02	0.00	0.02
8,700.0	90.00	268.73	7,241.0	-771.0	-1,295.3	1,412.7	0.02	0.00	0.02
8,800.0	90.00	268.76	7,241.0	-773.2	-1,395.3	1,511.5	0.02	0.00	0.02
8,900.0	90.00	268.78	7,241.0	-775.4	-1,495.3	1,610.2	0.02	0.00	0.02
9,000.0	90.00	268.80	7,241.0	-777.5	-1,595.3	1,709.0	0.02	0.00	0.02
9,100.0	90.00	268.82	7,241.0	-779.6	-1,695.2	1,807.7	0.02	0.00	0.02
9,200.0	90.00	268.85	7,241.0	-781.6	-1,795.2	1,906.4	0.02	0.00	0.02
9,300.0	90.00	268.87	7,241.0	-783.6	-1,895.2	2,005.1	0.02	0.00	0.02
9,400.0	90.00	268.89	7,241.0	-785.5	-1,995.2	2,103.8	0.02	0.00	0.02
9,500.0	90.00	268.92	7,241.0	-787.5	-2,095.2	2,202.5	0.02	0.00	0.02
9,600.0	90.00	268.94	7,241.0	-789.3	-2,195.1	2,301.2	0.02	0.00	0.02

Database:	US_EDM	Local Co-ordinate Reference:	Well Stillroven Farm 8
Company:	Captiva Energy Partners	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Project:	SEC.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site:	Stillroven Farm Pad Sec.5-T3N-R68W	North Reference:	True
Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-5-17)		

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)	
9,700.0	90.00	268.96	7,241.0	-791.2	-2,295.1	2,399.9	0.02	0.00	0.02	
9,800.0	90.00	268.98	7,241.0	-793.0	-2,395.1	2,498.6	0.02	0.00	0.02	
9,900.0	90.00	269.01	7,241.0	-794.7	-2,495.1	2,597.2	0.02	0.00	0.02	
10,000.0	90.00	269.03	7,241.0	-796.4	-2,595.1	2,695.9	0.02	0.00	0.02	
10,100.0	90.00	269.05	7,241.0	-798.1	-2,695.1	2,794.6	0.02	0.00	0.02	
10,200.0	90.00	269.07	7,241.0	-799.7	-2,795.1	2,893.2	0.02	0.00	0.02	
10,300.0	90.00	269.10	7,241.0	-801.3	-2,895.0	2,991.9	0.02	0.00	0.02	
10,400.0	90.00	269.12	7,241.0	-802.9	-2,995.0	3,090.5	0.02	0.00	0.02	
10,500.0	90.00	269.14	7,241.0	-804.4	-3,095.0	3,189.2	0.02	0.00	0.02	
10,600.0	90.00	269.16	7,241.0	-805.9	-3,195.0	3,287.8	0.02	0.00	0.02	
10,700.0	90.00	269.19	7,241.0	-807.3	-3,295.0	3,386.4	0.02	0.00	0.02	
10,800.0	90.00	269.21	7,241.0	-808.7	-3,395.0	3,485.0	0.02	0.00	0.02	
10,900.0	90.00	269.23	7,241.0	-810.1	-3,495.0	3,583.6	0.02	0.00	0.02	
11,000.0	90.00	269.25	7,241.0	-811.4	-3,595.0	3,682.2	0.02	0.00	0.02	
11,100.0	90.00	269.28	7,241.0	-812.7	-3,695.0	3,780.8	0.02	0.00	0.02	
11,200.0	90.00	269.30	7,241.0	-813.9	-3,795.0	3,879.4	0.02	0.00	0.02	
11,300.0	90.00	269.32	7,241.0	-815.1	-3,894.9	3,978.0	0.02	0.00	0.02	
11,400.0	90.00	269.35	7,241.0	-816.3	-3,994.9	4,076.6	0.02	0.00	0.02	
11,500.0	90.00	269.37	7,241.0	-817.4	-4,094.9	4,175.2	0.02	0.00	0.02	
11,600.0	90.00	269.39	7,241.0	-818.5	-4,194.9	4,273.7	0.02	0.00	0.02	
11,700.0	90.00	269.41	7,241.0	-819.5	-4,294.9	4,372.3	0.02	0.00	0.02	
11,800.0	90.00	269.44	7,241.0	-820.5	-4,394.9	4,470.8	0.02	0.00	0.02	
11,900.0	90.00	269.46	7,241.0	-821.5	-4,494.9	4,569.4	0.02	0.00	0.02	
11,905.6	90.00	269.46	7,241.0	-821.6	-4,500.5	4,574.9	0.02	0.00	0.02	
TD at 11905.6 - BHL 1412'FNL, 460'FWL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude		Longitude
SHL 670'FNL, 310'FEL - hit/miss target - Shape - Point	0.00	0.00	1.0	0.0	0.0	1,338,091.50	3,134,292.73	40.260460		-105.018806
LP 1412'FNL, 510'FEL - plan hits target center - Point	0.00	0.00	7,241.0	-744.5	-201.0	1,337,345.96	3,134,095.78	40.258416		-105.019526
BHL 1412'FNL, 460'FWL - plan hits target center - Point	0.00	0.00	7,241.0	-821.6	-4,500.5	1,337,245.56	3,129,796.96	40.258204		-105.034931

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,000.0	1,000.0	0.0	0.0	Start Build 1.50	
6,803.0	6,731.8	-62.1	26.2	Start Build 11.23	
11,905.6	7,241.0	-684.5	289.3	TD at 11905.6	



Directional

Captiva Energy Partners

SEC.5-T3N-R68W

Stillroven Farm Pad Sec.5-T3N-R68W

Stillroven Farm 8

Wellbore #1

Plan #2 (6-5-17)

Anticollision Report

05 June, 2017



Directional

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	Offset TVD Reference:	Offset Datum

Reference	Plan #2 (6-5-17)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0 ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 6/5/2017			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,905.6	Plan #2 (6-5-17) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Stillroven Farm Pad Sec.5-T3N-R68W						
Stillroven Farm 1 - Wellbore #1 - Plan #2 (6-5-17)	1,000.0	999.0	105.1	100.8	24.613	CC, ES
Stillroven Farm 1 - Wellbore #1 - Plan #2 (6-5-17)	1,200.0	1,194.9	113.4	108.3	22.326	SF
Stillroven Farm 10 - Wellbore #1 - Plan #2 (6-5-17)	600.0	600.0	29.8	27.4	12.069	CC, ES
Stillroven Farm 10 - Wellbore #1 - Plan #2 (6-5-17)	11,905.6	11,927.4	491.4	240.0	1.954	SF
Stillroven Farm 11 - Wellbore #1 - Plan #2 (6-5-17)	400.0	400.0	44.9	43.3	28.524	CC, ES
Stillroven Farm 11 - Wellbore #1 - Plan #2 (6-5-17)	5,400.0	5,362.7	427.8	398.5	14.627	SF
Stillroven Farm 12 - Wellbore #1 - Plan #2 (6-5-17)	200.0	200.0	59.9	59.2	88.869	CC, ES
Stillroven Farm 12 - Wellbore #1 - Plan #2 (6-5-17)	4,400.0	4,344.7	496.6	473.3	21.330	SF
Stillroven Farm 2 - Wellbore #1 - Plan #2 (6-5-17)	1,000.0	999.0	90.1	85.9	21.114	CC, ES
Stillroven Farm 2 - Wellbore #1 - Plan #2 (6-5-17)	1,300.0	1,297.3	101.8	96.3	18.514	SF
Stillroven Farm 3 - Wellbore #1 - Plan #2 (6-5-17)	1,000.0	999.0	75.1	70.8	17.590	CC, ES
Stillroven Farm 3 - Wellbore #1 - Plan #2 (6-5-17)	1,300.0	1,298.7	86.0	80.5	15.635	SF
Stillroven Farm 4 - Wellbore #1 - Plan #2 (6-5-17)	1,000.0	999.0	60.1	55.8	14.075	CC, ES
Stillroven Farm 4 - Wellbore #1 - Plan #2 (6-5-17)	1,200.0	1,198.9	64.9	59.8	12.746	SF
Stillroven Farm 5 - Wellbore #1 - Plan #2 (6-5-17)	1,000.0	1,000.0	45.1	40.8	10.551	CC, ES
Stillroven Farm 5 - Wellbore #1 - Plan #2 (6-5-17)	11,905.6	11,935.2	382.9	123.9	1.479	Level 3, SF
Stillroven Farm 6 - Wellbore #1 - Plan #2 (6-5-17)	1,000.0	1,000.0	30.1	25.8	7.038	CC, ES
Stillroven Farm 6 - Wellbore #1 - Plan #2 (6-5-17)	11,905.6	11,833.8	325.2	92.4	1.397	Level 3, SF
Stillroven Farm 7 - Wellbore #1 - Plan #2 (6-5-17)	1,000.0	1,000.0	15.2	10.9	3.549	CC, ES
Stillroven Farm 7 - Wellbore #1 - Plan #2 (6-5-17)	11,905.6	12,095.0	275.4	96.6	1.540	SF
Stillroven Farm 9 - Wellbore #1 - Plan #2(6-5-17)	800.0	800.0	14.8	11.5	4.398	CC, ES
Stillroven Farm 9 - Wellbore #1 - Plan #2(6-5-17)	11,905.6	12,023.1	383.8	125.9	1.488	Level 3, SF

Offset Design		Stillroven Farm Pad Sec.5-T3N-R68W - Stillroven Farm 1 - Wellbore #1 - Plan #2 (6-5-17)										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				
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	Centres (ft)	Ellipses (ft)	(ft)						
0.0	0.0	0.0	0.0	0.0	0.0	0.14	105.1	0.3	105.1								
100.0	100.0	99.0	99.0	0.1	0.1	0.14	105.1	0.3	105.1	104.8	0.22	469.751					
200.0	200.0	199.0	199.0	0.3	0.3	0.14	105.1	0.3	105.1	104.4	0.67	156.323					
300.0	300.0	299.0	299.0	0.6	0.6	0.14	105.1	0.3	105.1	103.9	1.12	93.669					
400.0	400.0	399.0	399.0	0.8	0.8	0.14	105.1	0.3	105.1	103.5	1.57	66.868					
500.0	500.0	499.0	499.0	1.0	1.0	0.14	105.1	0.3	105.1	103.0	2.02	51.992					

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

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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		
600.0	600.0	599.0	599.0	1.2	1.2	0.14	105.1	0.3	105.1	102.6	2.47	42.530		
700.0	700.0	699.0	699.0	1.5	1.5	0.14	105.1	0.3	105.1	102.1	2.92	35.982		
800.0	800.0	799.0	799.0	1.7	1.7	0.14	105.1	0.3	105.1	101.7	3.37	31.181		
900.0	900.0	899.0	899.0	1.9	1.9	0.14	105.1	0.3	105.1	101.2	3.82	27.511		
1,000.0	1,000.0	999.0	999.0	2.1	2.1	0.14	105.1	0.3	105.1	100.8	4.27	24.613 CC, ES		
1,100.0	1,100.0	1,097.1	1,097.1	2.3	2.3	-156.73	105.9	1.1	107.1	102.4	4.68	22.872		
1,200.0	1,199.9	1,194.9	1,194.9	2.5	2.6	-156.09	108.5	3.9	113.4	108.3	5.08	22.326 SF		
1,300.0	1,299.7	1,292.2	1,292.0	2.7	2.8	-155.17	112.8	8.4	123.8	118.4	5.49	22.578		
1,400.0	1,399.3	1,388.8	1,388.1	2.9	3.0	-154.10	118.7	14.6	138.5	132.6	5.90	23.461		
1,500.0	1,498.6	1,484.2	1,483.0	3.1	3.2	-153.00	126.2	22.5	157.3	150.9	6.33	24.838		
1,600.0	1,597.5	1,580.0	1,577.8	3.4	3.5	-151.99	135.2	31.9	180.0	173.2	6.78	26.558		
1,700.0	1,696.1	1,676.7	1,673.6	3.7	3.8	-151.42	144.5	41.7	205.2	198.0	7.23	28.375		
1,718.5	1,714.2	1,694.5	1,691.2	3.7	3.8	-151.36	146.2	43.5	210.1	202.8	7.32	28.715		
1,800.0	1,794.3	1,773.1	1,769.0	4.0	4.0	-151.30	153.8	51.5	232.0	224.3	7.71	30.089		
1,900.0	1,892.6	1,869.4	1,864.4	4.3	4.3	-151.24	163.1	61.3	258.7	250.5	8.20	31.542		
2,000.0	1,990.8	1,965.8	1,959.8	4.7	4.6	-151.19	172.4	71.1	285.5	276.8	8.71	32.796		
2,100.0	2,089.0	2,062.1	2,055.2	5.1	4.9	-151.15	181.6	80.8	312.3	303.1	9.22	33.878		
2,200.0	2,187.3	2,158.5	2,150.6	5.4	5.2	-151.12	190.9	90.6	339.1	329.3	9.74	34.818		
2,300.0	2,285.5	2,254.8	2,246.0	5.8	5.5	-151.09	200.2	100.4	365.9	355.6	10.27	35.641		
2,400.0	2,383.8	2,351.1	2,341.4	6.2	5.8	-151.06	209.5	110.2	392.6	381.8	10.80	36.365		
2,500.0	2,482.0	2,447.5	2,436.8	6.6	6.1	-151.04	218.8	119.9	419.4	408.1	11.33	37.005		
2,600.0	2,580.2	2,543.8	2,532.2	7.0	6.4	-151.02	228.1	129.7	446.2	434.3	11.87	37.575		
2,700.0	2,678.5	2,640.2	2,627.6	7.4	6.8	-151.01	237.4	139.5	473.0	460.5	12.42	38.084		
2,800.0	2,776.7	2,736.5	2,723.0	7.8	7.1	-150.99	246.7	149.2	499.7	486.8	12.97	38.541		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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	-179.79	-29.8	-0.1	29.8					
100.0	100.0	100.0	100.0	0.1	0.1	-179.79	-29.8	-0.1	29.8	29.6	0.22	132.764		
200.0	200.0	200.0	200.0	0.3	0.3	-179.79	-29.8	-0.1	29.8	29.2	0.67	44.255		
300.0	300.0	300.0	300.0	0.6	0.6	-179.79	-29.8	-0.1	29.8	28.7	1.12	26.553		
400.0	400.0	400.0	400.0	0.8	0.8	-179.79	-29.8	-0.1	29.8	28.3	1.57	18.966		
500.0	500.0	500.0	500.0	1.0	1.0	-179.79	-29.8	-0.1	29.8	27.8	2.02	14.752		
600.0	600.0	600.0	600.0	1.2	1.2	-179.79	-29.8	-0.1	29.8	27.4	2.47	12.069 CC, ES		
700.0	700.0	699.2	699.2	1.5	1.4	179.60	-31.1	0.2	31.1	28.2	2.89	10.746		
800.0	800.0	798.3	798.2	1.7	1.6	178.02	-34.8	1.2	34.9	31.6	3.30	10.568		
900.0	900.0	897.2	896.9	1.9	1.8	176.05	-41.0	2.8	41.2	37.5	3.72	11.081		
1,000.0	1,000.0	995.6	994.9	2.1	2.0	174.13	-49.6	5.1	50.2	46.0	4.15	12.079		
1,100.0	1,100.0	1,093.6	1,092.3	2.3	2.3	15.67	-60.6	8.0	60.4	55.9	4.55	13.277		
1,200.0	1,199.9	1,191.4	1,189.1	2.5	2.5	15.00	-74.0	11.5	70.7	65.8	4.94	14.313		
1,300.0	1,299.7	1,289.0	1,285.3	2.7	2.9	14.74	-89.8	15.7	81.0	75.6	5.34	15.160		
1,400.0	1,399.3	1,386.3	1,380.7	2.9	3.2	14.76	-107.8	20.5	91.3	85.5	5.76	15.850		
1,500.0	1,498.6	1,483.3	1,475.5	3.1	3.6	14.98	-128.2	25.8	101.6	95.4	6.19	16.409		
1,600.0	1,597.5	1,581.7	1,571.0	3.4	4.0	15.37	-150.8	31.8	111.5	104.8	6.64	16.789		
1,700.0	1,696.1	1,681.4	1,667.8	3.7	4.5	16.03	-173.9	37.9	119.1	112.0	7.10	16.771		
1,718.5	1,714.2	1,699.8	1,685.7	3.7	4.5	16.18	-178.2	39.0	120.3	113.1	7.19	16.720		
1,800.0	1,794.3	1,781.2	1,764.7	4.0	4.9	16.86	-197.1	44.0	125.1	117.5	7.60	16.468		
1,900.0	1,892.6	1,881.0	1,861.6	4.3	5.4	17.62	-220.2	50.1	131.1	123.0	8.11	16.171		
2,000.0	1,990.8	1,980.8	1,958.5	4.7	5.9	18.32	-243.4	56.2	137.1	128.4	8.63	15.890		
2,100.0	2,089.0	2,080.6	2,055.3	5.1	6.4	18.96	-266.5	62.3	143.1	133.9	9.16	15.624		
2,200.0	2,187.3	2,180.4	2,152.2	5.4	6.9	19.55	-289.7	68.4	149.1	139.4	9.70	15.374		
2,300.0	2,285.5	2,280.2	2,249.1	5.8	7.4	20.09	-312.9	74.5	155.1	144.9	10.25	15.139		
2,400.0	2,383.8	2,380.0	2,346.0	6.2	7.9	20.59	-336.0	80.6	161.2	150.3	10.80	14.918		
2,500.0	2,482.0	2,479.8	2,442.9	6.6	8.4	21.05	-359.2	86.7	167.2	155.8	11.37	14.711		
2,600.0	2,580.2	2,579.6	2,539.8	7.0	8.9	21.49	-382.4	92.8	173.3	161.3	11.94	14.517		
2,700.0	2,678.5	2,679.4	2,636.7	7.4	9.4	21.89	-405.5	99.0	179.4	166.8	12.51	14.335		
2,800.0	2,776.7	2,779.2	2,733.6	7.8	9.9	22.27	-428.7	105.1	185.4	172.3	13.09	14.164		
2,900.0	2,874.9	2,879.1	2,830.5	8.2	10.4	22.62	-451.8	111.2	191.5	177.9	13.68	14.004		
3,000.0	2,973.2	2,978.9	2,927.4	8.6	10.9	22.95	-475.0	117.3	197.6	183.4	14.27	13.853		
3,100.0	3,071.4	3,078.7	3,024.2	9.0	11.4	23.26	-498.2	123.4	203.7	188.9	14.86	13.710		
3,200.0	3,169.6	3,178.5	3,121.1	9.4	11.9	23.56	-521.3	129.5	209.8	194.4	15.46	13.577		
3,300.0	3,267.9	3,278.3	3,218.0	9.8	12.4	23.83	-544.5	135.6	216.0	199.9	16.06	13.450		
3,400.0	3,366.1	3,378.1	3,314.9	10.2	12.9	24.09	-567.6	141.7	222.1	205.4	16.66	13.331		
3,500.0	3,464.3	3,477.9	3,411.8	10.7	13.4	24.34	-590.8	147.8	228.2	210.9	17.26	13.218		
3,600.0	3,562.6	3,577.7	3,508.7	11.1	13.9	24.58	-614.0	153.9	234.3	216.5	17.87	13.111		
3,700.0	3,660.8	3,677.5	3,605.6	11.5	14.4	24.80	-637.1	160.0	240.5	222.0	18.48	13.010		
3,800.0	3,759.1	3,777.3	3,702.5	11.9	14.9	25.01	-660.3	166.1	246.6	227.5	19.10	12.914		
3,900.0	3,857.3	3,877.1	3,799.4	12.3	15.4	25.21	-683.5	172.2	252.7	233.0	19.71	12.823		
4,000.0	3,955.5	3,976.9	3,896.3	12.7	16.0	25.40	-706.6	178.4	258.9	238.6	20.33	12.737		
4,100.0	4,053.8	4,076.7	3,993.2	13.2	16.5	25.59	-729.8	184.5	265.0	244.1	20.94	12.654		
4,200.0	4,152.0	4,176.6	4,090.0	13.6	17.0	25.76	-752.9	190.6	271.2	249.6	21.56	12.576		
4,300.0	4,250.2	4,276.4	4,186.9	14.0	17.5	25.93	-776.1	196.7	277.3	255.1	22.18	12.501		
4,400.0	4,348.5	4,376.2	4,283.8	14.4	18.0	26.09	-799.3	202.8	283.5	260.7	22.81	12.430		
4,500.0	4,446.7	4,476.0	4,380.7	14.8	18.5	26.24	-822.4	208.9	289.6	266.2	23.43	12.361		
4,600.0	4,544.9	4,575.8	4,477.6	15.3	19.0	26.38	-845.6	215.0	295.8	271.7	24.06	12.296		
4,700.0	4,643.2	4,675.6	4,574.5	15.7	19.5	26.53	-868.8	221.1	301.9	277.3	24.68	12.234		
4,800.0	4,741.4	4,775.4	4,671.4	16.1	20.0	26.66	-891.9	227.2	308.1	282.8	25.31	12.174		
4,900.0	4,839.7	4,875.2	4,768.3	16.5	20.6	26.79	-915.1	233.3	314.3	288.3	25.94	12.117		
5,000.0	4,937.9	4,975.0	4,865.2	17.0	21.1	26.91	-938.2	239.4	320.4	293.9	26.57	12.062		

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

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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		
5,100.0	5,036.1	5,074.8	4,962.1	17.4	21.6	27.03	-961.4	245.5	326.6	299.4	27.20	12.009		
5,200.0	5,134.4	5,174.6	5,058.9	17.8	22.1	27.15	-984.6	251.6	332.8	304.9	27.83	11.959		
5,300.0	5,232.6	5,274.4	5,155.8	18.2	22.6	27.26	-1,007.7	257.8	338.9	310.5	28.46	11.910		
5,332.3	5,264.3	5,306.7	5,187.1	18.4	22.8	27.30	-1,015.2	259.7	340.9	312.3	28.66	11.895		
5,400.0	5,331.0	5,374.2	5,252.7	18.6	23.1	27.35	-1,030.9	263.9	345.8	316.8	29.06	11.901		
5,500.0	5,429.9	5,473.7	5,349.3	18.9	23.6	27.24	-1,054.0	269.9	355.6	326.1	29.54	12.040		
5,600.0	5,529.3	5,572.8	5,445.5	19.1	24.1	26.92	-1,077.0	276.0	368.5	338.6	29.93	12.313		
5,700.0	5,629.0	5,671.4	5,541.2	19.3	24.7	26.42	-1,099.9	282.0	384.5	354.3	30.24	12.718		
5,800.0	5,728.9	5,773.3	5,640.1	19.5	25.1	25.75	-1,123.4	288.2	403.6	373.1	30.46	13.249		
5,871.1	5,800.0	5,853.9	5,718.9	19.6	25.4	-177.72	-1,140.3	292.7	417.5	374.4	43.12	9.683		
5,900.0	5,828.9	5,886.9	5,751.2	19.6	25.5	-177.98	-1,146.5	294.4	423.0	379.7	43.31	9.768		
6,000.0	5,928.9	6,002.0	5,864.6	19.7	25.9	-178.74	-1,165.7	299.4	439.5	395.6	43.87	10.017		
6,100.0	6,028.9	6,118.7	5,980.2	19.8	26.2	-179.28	-1,180.5	303.3	452.2	407.8	44.36	10.195		
6,200.0	6,128.9	6,236.3	6,097.4	20.0	26.4	-179.63	-1,190.9	306.1	461.0	416.2	44.76	10.299		
6,300.0	6,228.9	6,354.7	6,215.6	20.1	26.6	-179.82	-1,196.6	307.6	465.8	420.7	45.09	10.331		
6,400.0	6,328.9	6,468.0	6,328.9	20.2	26.7	-179.86	-1,197.8	307.9	466.8	421.5	45.36	10.293		
6,500.0	6,428.9	6,568.0	6,428.9	20.3	26.8	-179.86	-1,197.8	307.9	466.8	421.3	45.58	10.241		
6,600.0	6,528.9	6,668.0	6,528.9	20.5	26.9	-179.86	-1,197.8	307.9	466.8	421.0	45.81	10.191		
6,700.0	6,628.9	6,768.0	6,628.9	20.6	27.0	-179.86	-1,197.8	307.9	466.8	420.8	46.04	10.140		
6,747.0	6,675.9	6,815.0	6,675.9	20.7	27.0	-179.86	-1,197.8	307.9	466.8	420.7	46.15	10.116		
6,803.0	6,731.8	6,869.8	6,730.6	20.7	27.1	-179.66	-1,197.9	306.2	466.9	420.6	46.25	10.094		
6,850.0	6,778.8	6,915.1	6,775.6	20.8	27.1	-87.69	-1,198.0	300.6	467.0	433.3	33.71	13.853		
6,900.0	6,828.3	6,963.0	6,822.3	20.8	27.1	-87.23	-1,198.3	290.3	467.2	433.3	33.89	13.787		
6,950.0	6,876.8	7,010.5	6,867.6	20.8	27.1	-86.79	-1,198.7	275.7	467.4	433.4	34.01	13.745		
7,000.0	6,924.0	7,057.8	6,911.0	20.9	27.1	-86.37	-1,199.2	257.1	467.6	433.5	34.08	13.722		
7,050.0	6,969.3	7,104.8	6,952.3	20.9	27.1	-85.99	-1,199.8	234.7	467.8	433.7	34.11	13.715		
7,100.0	7,012.4	7,150.0	6,989.9	20.8	27.1	-85.65	-1,200.5	209.7	468.1	433.9	34.13	13.715		
7,150.0	7,052.7	7,198.1	7,027.2	20.8	27.1	-85.33	-1,201.3	179.4	468.3	434.1	34.15	13.712		
7,200.0	7,090.0	7,244.4	7,060.4	20.8	27.1	-85.06	-1,202.2	147.1	468.5	434.3	34.21	13.694		
7,250.0	7,123.8	7,290.6	7,090.3	20.8	27.1	-84.83	-1,203.1	112.0	468.7	434.3	34.34	13.647		
7,300.0	7,153.9	7,336.7	7,116.9	20.7	27.0	-84.64	-1,204.1	74.4	468.8	434.2	34.58	13.559		
7,350.0	7,179.9	7,382.6	7,139.9	20.7	27.0	-84.50	-1,205.2	34.6	468.9	434.0	34.95	13.418		
7,400.0	7,201.6	7,428.5	7,159.2	20.7	27.0	-84.40	-1,206.3	-7.0	469.0	433.6	35.49	13.218		
7,450.0	7,218.8	7,474.3	7,174.6	20.7	27.0	-84.35	-1,207.5	-50.1	469.1	432.9	36.20	12.958		
7,500.0	7,231.4	7,520.1	7,186.1	20.7	27.0	-84.34	-1,208.7	-94.4	469.1	432.0	37.10	12.645		
7,550.0	7,239.1	7,566.0	7,193.5	20.7	27.1	-84.38	-1,209.9	-139.6	469.1	430.9	38.18	12.287		
7,597.2	7,242.0	7,607.6	7,196.4	20.8	27.1	-84.43	-1,211.0	-181.1	469.1	429.8	39.32	11.929		
7,604.3	7,241.0	7,613.2	7,196.3	20.8	27.1	-84.53	-1,211.1	-186.7	469.0	429.5	39.49	11.876		
7,605.3	7,241.0	7,614.1	7,196.3	20.8	27.1	-84.53	-1,211.2	-187.6	469.0	429.5	39.52	11.869		
7,700.0	7,241.0	7,709.3	7,194.8	21.6	27.4	-84.35	-1,213.7	-281.7	469.2	426.9	42.35	11.079		
7,800.0	7,241.0	7,808.1	7,190.4	23.1	27.8	-83.82	-1,216.4	-380.4	469.8	424.0	45.79	10.258		
7,900.0	7,241.0	7,907.9	7,185.2	25.0	28.7	-83.19	-1,219.0	-480.1	470.5	420.9	49.63	9.481		
8,000.0	7,241.0	8,007.8	7,180.0	27.1	29.9	-82.56	-1,221.7	-579.8	471.3	417.6	53.75	8.770		
8,100.0	7,241.0	8,107.7	7,174.7	29.3	31.6	-81.94	-1,224.4	-679.5	472.3	414.2	58.09	8.131		
8,200.0	7,241.0	8,207.5	7,169.5	31.6	33.5	-81.31	-1,227.1	-779.1	473.3	410.7	62.59	7.562		
8,300.0	7,241.0	8,307.4	7,164.3	34.0	35.6	-80.69	-1,229.8	-878.8	474.4	407.2	67.22	7.057		
8,400.0	7,241.0	8,407.2	7,159.1	36.5	37.8	-80.08	-1,232.4	-978.5	475.6	403.7	71.95	6.610		
8,500.0	7,241.0	8,507.1	7,153.8	38.9	40.1	-79.47	-1,235.1	-1,078.2	476.9	400.2	76.75	6.214		
8,600.0	7,241.0	8,607.0	7,148.6	41.5	42.5	-78.86	-1,237.8	-1,177.9	478.3	396.7	81.60	5.862		
8,700.0	7,241.0	8,706.8	7,143.4	44.0	44.9	-78.26	-1,240.5	-1,277.6	479.8	393.3	86.49	5.547		
8,800.0	7,241.0	8,806.7	7,138.2	46.6	47.4	-77.66	-1,243.2	-1,377.3	481.4	390.0	91.41	5.266		
8,900.0	7,241.0	8,906.6	7,132.9	49.2	49.9	-77.07	-1,245.8	-1,477.0	483.1	386.7	96.34	5.014		

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

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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		
9,000.0	7,241.0	9,006.4	7,127.7	51.9	52.5	-76.48	-1,248.5	-1,576.7	484.8	383.5	101.28	4.787		
9,100.0	7,241.0	9,106.3	7,122.5	54.5	55.1	-75.90	-1,251.2	-1,676.3	486.7	380.4	106.22	4.582		
9,200.0	7,241.0	9,206.1	7,117.3	57.2	57.7	-75.33	-1,253.9	-1,776.0	488.6	377.4	111.16	4.395		
9,300.0	7,241.0	9,306.0	7,112.0	59.8	60.3	-74.76	-1,256.6	-1,875.7	490.6	374.5	116.09	4.226		
9,400.0	7,241.0	9,405.9	7,106.8	62.5	62.9	-74.19	-1,259.2	-1,975.4	492.7	371.7	121.00	4.072		
9,500.0	7,241.0	9,505.7	7,101.6	65.2	65.6	-73.63	-1,261.9	-2,075.1	494.9	369.0	125.91	3.931		
9,600.0	7,241.0	9,605.6	7,096.4	67.9	68.2	-73.08	-1,264.6	-2,174.8	497.2	366.4	130.79	3.802		
9,700.0	7,241.0	9,707.7	7,091.1	70.6	70.9	-72.53	-1,267.3	-2,276.7	499.5	363.8	135.70	3.681		
9,900.0	7,241.0	9,921.8	7,088.0	76.1	76.7	-72.17	-1,270.3	-2,490.8	499.6	353.4	146.21	3.417		
10,000.0	7,241.0	10,021.8	7,088.0	78.8	79.4	-72.14	-1,271.2	-2,590.8	498.8	347.4	151.40	3.295		
10,100.0	7,241.0	10,121.8	7,088.0	81.5	82.1	-72.11	-1,272.1	-2,690.8	498.1	341.5	156.60	3.181		
10,200.0	7,241.0	10,221.8	7,088.0	84.3	84.8	-72.09	-1,273.0	-2,790.8	497.4	335.6	161.80	3.074		
10,300.0	7,241.0	10,321.8	7,088.0	87.0	87.5	-72.06	-1,273.9	-2,890.8	496.8	329.7	167.01	2.974		
10,400.0	7,241.0	10,421.8	7,088.0	89.8	90.2	-72.04	-1,274.8	-2,990.8	496.1	323.9	172.23	2.881		
10,500.0	7,241.0	10,521.8	7,088.0	92.5	93.0	-72.02	-1,275.7	-3,090.7	495.6	318.1	177.45	2.793		
10,600.0	7,241.0	10,621.8	7,088.0	95.3	95.7	-72.00	-1,276.6	-3,190.7	495.0	312.3	182.68	2.710		
10,700.0	7,241.0	10,721.8	7,088.0	98.0	98.4	-71.98	-1,277.5	-3,290.7	494.5	306.6	187.92	2.631		
10,800.0	7,241.0	10,821.8	7,088.0	100.8	101.2	-71.96	-1,278.5	-3,390.7	494.0	300.9	193.16	2.558		
10,900.0	7,241.0	10,921.8	7,088.0	103.6	103.9	-71.94	-1,279.4	-3,490.7	493.6	295.2	198.41	2.488		
11,000.0	7,241.0	11,021.8	7,088.0	106.3	106.7	-71.93	-1,280.3	-3,590.7	493.2	289.6	203.66	2.422		
11,100.0	7,241.0	11,121.8	7,088.0	109.1	109.4	-71.91	-1,281.2	-3,690.7	492.9	283.9	208.91	2.359		
11,200.0	7,241.0	11,221.8	7,088.0	111.9	112.2	-71.90	-1,282.1	-3,790.7	492.5	278.4	214.17	2.300		
11,300.0	7,241.0	11,321.8	7,088.0	114.6	114.9	-71.89	-1,283.0	-3,890.7	492.3	272.8	219.44	2.243		
11,400.0	7,241.0	11,421.8	7,088.0	117.4	117.7	-71.88	-1,283.9	-3,990.7	492.0	267.3	224.71	2.190		
11,500.0	7,241.0	11,521.8	7,088.0	120.2	120.4	-71.87	-1,284.8	-4,090.7	491.8	261.8	229.98	2.138		
11,600.0	7,241.0	11,621.8	7,088.0	122.9	123.2	-71.87	-1,285.7	-4,190.7	491.6	256.4	235.26	2.090		
11,700.0	7,241.0	11,721.8	7,088.0	125.7	126.0	-71.86	-1,286.6	-4,290.7	491.5	251.0	240.54	2.043		
11,800.0	7,241.0	11,821.8	7,088.0	128.5	128.7	-71.86	-1,287.5	-4,390.7	491.4	245.6	245.82	1.999		
11,905.6	7,241.0	11,927.4	7,088.0	131.4	131.7	-71.86	-1,288.5	-4,496.3	491.4	240.0	251.41	1.954 SF		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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	-179.86	-44.9	-0.1	44.9					
100.0	100.0	100.0	100.0	0.1	0.1	-179.86	-44.9	-0.1	44.9	44.7	0.22	199.666		
200.0	200.0	200.0	200.0	0.3	0.3	-179.86	-44.9	-0.1	44.9	44.2	0.67	66.555		
300.0	300.0	300.0	300.0	0.6	0.6	-179.86	-44.9	-0.1	44.9	43.8	1.12	39.933		
400.0	400.0	400.0	400.0	0.8	0.8	-179.86	-44.9	-0.1	44.9	43.3	1.57	28.524	CC, ES	
500.0	500.0	498.8	498.8	1.0	1.0	179.76	-46.1	0.2	46.1	44.1	2.00	23.125		
600.0	600.0	597.6	597.5	1.2	1.2	178.74	-49.8	1.1	49.9	47.5	2.41	20.733		
700.0	700.0	696.0	695.7	1.5	1.4	177.34	-56.0	2.6	56.2	53.4	2.84	19.834		
800.0	800.0	794.1	793.4	1.7	1.6	175.84	-64.6	4.7	65.1	61.8	3.28	19.876		
900.0	900.0	891.6	890.3	1.9	1.9	174.43	-75.6	7.4	76.6	72.8	3.73	20.535		
1,000.0	1,000.0	988.5	986.2	2.1	2.2	173.20	-88.8	10.6	90.5	86.3	4.19	21.606		
1,100.0	1,100.0	1,084.9	1,081.2	2.3	2.5	15.19	-104.4	14.4	105.8	101.2	4.58	23.105		
1,200.0	1,199.9	1,180.9	1,175.5	2.5	2.8	14.69	-122.2	18.7	121.0	116.0	4.99	24.275		
1,300.0	1,299.7	1,276.5	1,268.8	2.7	3.2	14.46	-142.2	23.6	136.2	130.8	5.41	25.194		
1,400.0	1,399.3	1,373.0	1,362.5	2.9	3.7	14.43	-164.5	29.0	151.3	145.4	5.85	25.875		
1,500.0	1,498.6	1,472.1	1,458.7	3.1	4.1	14.62	-188.0	34.8	164.3	158.0	6.30	26.092		
1,600.0	1,597.5	1,571.6	1,555.1	3.4	4.6	15.00	-211.6	40.5	174.9	168.2	6.76	25.863		
1,700.0	1,696.1	1,671.2	1,651.7	3.7	5.1	15.55	-235.2	46.3	183.0	175.8	7.24	25.261		
1,718.5	1,714.2	1,689.6	1,669.6	3.7	5.2	15.68	-239.5	47.3	184.2	176.9	7.34	25.116		
1,800.0	1,794.3	1,771.0	1,748.5	4.0	5.6	16.24	-258.8	52.0	189.4	181.7	7.75	24.452		
1,900.0	1,892.6	1,870.7	1,845.3	4.3	6.1	16.88	-282.5	57.8	195.8	187.6	8.26	23.702		
2,000.0	1,990.8	1,970.5	1,942.0	4.7	6.6	17.49	-306.1	63.5	202.3	193.5	8.79	23.015		
2,100.0	2,089.0	2,070.3	2,038.8	5.1	7.1	18.06	-329.8	69.3	208.7	199.4	9.32	22.386		
2,200.0	2,187.3	2,170.1	2,135.5	5.4	7.6	18.59	-353.4	75.1	215.2	205.3	9.87	21.809		
2,300.0	2,285.5	2,269.8	2,232.3	5.8	8.1	19.09	-377.1	80.8	221.7	211.3	10.42	21.279		
2,400.0	2,383.8	2,369.6	2,329.0	6.2	8.7	19.57	-400.7	86.6	228.2	217.2	10.98	20.791		
2,500.0	2,482.0	2,469.4	2,425.8	6.6	9.2	20.01	-424.3	92.4	234.7	223.2	11.54	20.339		
2,600.0	2,580.2	2,569.1	2,522.6	7.0	9.7	20.44	-448.0	98.1	241.2	229.1	12.11	19.922		
2,700.0	2,678.5	2,668.9	2,619.3	7.4	10.2	20.84	-471.6	103.9	247.8	235.1	12.68	19.535		
2,800.0	2,776.7	2,768.7	2,716.1	7.8	10.7	21.22	-495.3	109.6	254.3	241.1	13.26	19.176		
2,900.0	2,874.9	2,868.5	2,812.8	8.2	11.2	21.58	-518.9	115.4	260.9	247.1	13.85	18.841		
3,000.0	2,973.2	2,968.2	2,909.6	8.6	11.7	21.92	-542.6	121.2	267.5	253.0	14.44	18.529		
3,100.0	3,071.4	3,068.0	3,006.3	9.0	12.3	22.25	-566.2	126.9	274.1	259.0	15.03	18.238		
3,200.0	3,169.6	3,167.8	3,103.1	9.4	12.8	22.56	-589.9	132.7	280.7	265.0	15.62	17.964		
3,300.0	3,267.9	3,267.5	3,199.9	9.8	13.3	22.86	-613.5	138.4	287.3	271.0	16.22	17.708		
3,400.0	3,366.1	3,367.3	3,296.6	10.2	13.8	23.14	-637.2	144.2	293.9	277.0	16.82	17.468		
3,500.0	3,464.3	3,467.1	3,393.4	10.7	14.3	23.42	-660.8	150.0	300.5	283.1	17.43	17.241		
3,600.0	3,562.6	3,566.9	3,490.1	11.1	14.8	23.68	-684.5	155.7	307.1	289.1	18.04	17.028		
3,700.0	3,660.8	3,666.6	3,586.9	11.5	15.4	23.92	-708.1	161.5	313.7	295.1	18.65	16.826		
3,800.0	3,759.1	3,766.4	3,683.6	11.9	15.9	24.16	-731.7	167.3	320.4	301.1	19.26	16.636		
3,900.0	3,857.3	3,866.2	3,780.4	12.3	16.4	24.39	-755.4	173.0	327.0	307.1	19.87	16.456		
4,000.0	3,955.5	3,965.9	3,877.1	12.7	16.9	24.61	-779.0	178.8	333.7	313.2	20.49	16.285		
4,100.0	4,053.8	4,065.7	3,973.9	13.2	17.4	24.82	-802.7	184.5	340.3	319.2	21.11	16.123		
4,200.0	4,152.0	4,165.5	4,070.7	13.6	18.0	25.03	-826.3	190.3	347.0	325.2	21.73	15.969		
4,300.0	4,250.2	4,265.2	4,167.4	14.0	18.5	25.22	-850.0	196.1	353.6	331.3	22.35	15.822		
4,400.0	4,348.5	4,365.0	4,264.2	14.4	19.0	25.41	-873.6	201.8	360.3	337.3	22.97	15.683		
4,500.0	4,446.7	4,464.8	4,360.9	14.8	19.5	25.59	-897.3	207.6	366.9	343.3	23.60	15.550		
4,600.0	4,544.9	4,564.6	4,457.7	15.3	20.0	25.77	-920.9	213.4	373.6	349.4	24.22	15.423		
4,700.0	4,643.2	4,664.3	4,554.4	15.7	20.5	25.93	-944.6	219.1	380.3	355.4	24.85	15.302		
4,800.0	4,741.4	4,764.1	4,651.2	16.1	21.1	26.10	-968.2	224.9	387.0	361.5	25.48	15.186		
4,900.0	4,839.7	4,863.9	4,748.0	16.5	21.6	26.25	-991.8	230.6	393.6	367.5	26.11	15.075		
5,000.0	4,937.9	4,963.6	4,844.7	17.0	22.1	26.41	-1,015.5	236.4	400.3	373.6	26.74	14.969		

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

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	Offset TVD Reference:	Offset Datum

Offset Design Stillroven Farm Pad Sec.5-T3N-R68W - Stillroven Farm 11 - Wellbore #1 - Plan #2 (6-5-17)												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	
5,100.0	5,036.1	5,063.4	4,941.5	17.4	22.6	26.55	-1,039.1	242.2	407.0	379.6	27.38	14.867	
5,200.0	5,134.4	5,163.2	5,038.2	17.8	23.1	26.70	-1,062.8	247.9	413.7	385.7	28.01	14.770	
5,300.0	5,232.6	5,263.0	5,135.0	18.2	23.7	26.83	-1,086.4	253.7	420.4	391.7	28.64	14.676	
5,332.3	5,264.3	5,295.2	5,166.2	18.4	23.8	26.88	-1,094.1	255.5	422.5	393.7	28.85	14.646	
5,400.0	5,331.0	5,362.7	5,231.7	18.6	24.2	26.97	-1,110.1	259.4	427.8	398.5	29.25	14.627 SF	
5,500.0	5,429.9	5,462.1	5,328.2	18.9	24.7	26.95	-1,133.6	265.2	438.1	408.4	29.74	14.732	
5,600.0	5,529.3	5,561.2	5,424.2	19.1	25.2	26.76	-1,157.1	270.9	451.6	421.4	30.15	14.976	
5,700.0	5,629.0	5,659.7	5,519.8	19.3	25.7	26.42	-1,180.5	276.6	468.1	437.6	30.49	15.354	
5,800.0	5,728.9	5,757.6	5,614.7	19.5	26.2	25.96	-1,203.7	282.3	487.8	457.0	30.75	15.864	

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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	-179.89	-59.9	-0.1	59.9					
100.0	100.0	100.0	100.0	0.1	0.1	-179.89	-59.9	-0.1	59.9	59.7	0.22	266.606		
200.0	200.0	200.0	200.0	0.3	0.3	-179.89	-59.9	-0.1	59.9	59.2	0.67	88.869 CC, ES		
300.0	300.0	298.5	298.5	0.6	0.5	179.85	-61.2	0.2	61.2	60.1	1.10	55.716		
400.0	400.0	396.8	396.7	0.8	0.7	179.15	-64.9	1.0	65.0	63.4	1.52	42.645		
500.0	500.0	494.9	494.6	1.0	1.0	178.15	-71.0	2.3	71.3	69.3	1.97	36.269		
600.0	600.0	592.6	591.9	1.2	1.2	177.02	-79.6	4.1	80.1	77.7	2.42	33.123		
700.0	700.0	689.8	688.4	1.5	1.5	175.89	-90.6	6.5	91.5	88.7	2.88	31.743		
800.0	800.0	786.3	784.0	1.7	1.8	174.84	-103.8	9.4	105.5	102.1	3.36	31.411		
900.0	900.0	882.1	878.5	1.9	2.1	173.92	-119.3	12.7	121.9	118.0	3.84	31.738		
1,000.0	1,000.0	977.0	971.7	2.1	2.5	173.12	-136.9	16.5	140.8	136.4	4.33	32.496		
1,100.0	1,100.0	1,071.3	1,063.7	2.3	2.9	15.40	-156.6	20.8	160.9	156.2	4.68	34.400		
1,200.0	1,199.9	1,165.0	1,154.8	2.5	3.4	15.04	-178.5	25.5	180.9	175.8	5.10	35.475		
1,300.0	1,299.7	1,260.0	1,246.5	2.7	3.8	14.88	-202.6	30.7	200.7	195.2	5.54	36.215		
1,400.0	1,399.3	1,358.4	1,341.4	2.9	4.4	14.91	-228.2	36.2	218.6	212.6	6.00	36.449		
1,500.0	1,498.6	1,457.2	1,436.6	3.1	4.9	15.11	-253.8	41.8	234.0	227.5	6.47	36.160		
1,600.0	1,597.5	1,556.4	1,532.2	3.4	5.4	15.44	-279.6	47.3	246.8	239.9	6.95	35.492		
1,700.0	1,696.1	1,655.8	1,628.1	3.7	6.0	15.90	-305.4	52.9	257.2	249.7	7.45	34.514		
1,718.5	1,714.2	1,674.2	1,645.8	3.7	6.1	16.00	-310.2	53.9	258.8	251.3	7.55	34.305		
1,800.0	1,794.3	1,755.4	1,724.1	4.0	6.5	16.47	-331.2	58.5	265.9	258.0	7.97	33.375		
1,900.0	1,892.6	1,855.0	1,820.1	4.3	7.1	17.01	-357.1	64.1	274.6	266.1	8.50	32.327		
2,000.0	1,990.8	1,954.6	1,916.1	4.7	7.6	17.51	-382.9	69.7	283.4	274.3	9.03	31.373		
2,100.0	2,089.0	2,054.2	2,012.1	5.1	8.2	17.99	-408.8	75.2	292.1	282.5	9.58	30.502		
2,200.0	2,187.3	2,153.8	2,108.2	5.4	8.7	18.43	-434.6	80.8	300.9	290.8	10.13	29.705		
2,300.0	2,285.5	2,253.3	2,204.2	5.8	9.3	18.86	-460.5	86.4	309.7	299.0	10.69	28.974		
2,400.0	2,383.8	2,352.9	2,300.2	6.2	9.8	19.26	-486.3	92.0	318.5	307.2	11.25	28.303		
2,500.0	2,482.0	2,452.5	2,396.2	6.6	10.4	19.63	-512.2	97.6	327.3	315.5	11.82	27.684		
2,600.0	2,580.2	2,552.1	2,492.2	7.0	10.9	19.99	-538.0	103.2	336.1	323.7	12.40	27.112		
2,700.0	2,678.5	2,651.7	2,588.2	7.4	11.5	20.33	-563.9	108.7	345.0	332.0	12.98	26.582		
2,800.0	2,776.7	2,751.3	2,684.2	7.8	12.0	20.65	-589.7	114.3	353.8	340.3	13.56	26.091		
2,900.0	2,874.9	2,850.9	2,780.2	8.2	12.6	20.96	-615.6	119.9	362.7	348.6	14.15	25.633		
3,000.0	2,973.2	2,950.5	2,876.2	8.6	13.1	21.25	-641.4	125.5	371.6	356.8	14.74	25.207		
3,100.0	3,071.4	3,050.1	2,972.3	9.0	13.7	21.53	-667.3	131.1	380.5	365.1	15.34	24.809		
3,200.0	3,169.6	3,149.6	3,068.3	9.4	14.2	21.80	-693.1	136.7	389.4	373.4	15.93	24.437		
3,300.0	3,267.9	3,249.2	3,164.3	9.8	14.8	22.05	-719.0	142.2	398.3	381.7	16.53	24.088		
3,400.0	3,366.1	3,348.8	3,260.3	10.2	15.4	22.29	-744.9	147.8	407.2	390.0	17.14	23.760		
3,500.0	3,464.3	3,448.4	3,356.3	10.7	15.9	22.53	-770.7	153.4	416.1	398.4	17.74	23.452		
3,600.0	3,562.6	3,548.0	3,452.3	11.1	16.5	22.75	-796.6	159.0	425.0	406.7	18.35	23.161		
3,700.0	3,660.8	3,647.6	3,548.3	11.5	17.0	22.96	-822.4	164.6	433.9	415.0	18.96	22.887		
3,800.0	3,759.1	3,747.2	3,644.3	11.9	17.6	23.17	-848.3	170.2	442.9	423.3	19.57	22.628		
3,900.0	3,857.3	3,846.8	3,740.4	12.3	18.1	23.36	-874.1	175.7	451.8	431.6	20.19	22.382		
4,000.0	3,955.5	3,946.3	3,836.4	12.7	18.7	23.55	-900.0	181.3	460.8	440.0	20.80	22.150		
4,100.0	4,053.8	4,045.9	3,932.4	13.2	19.2	23.73	-925.8	186.9	469.7	448.3	21.42	21.929		
4,200.0	4,152.0	4,145.5	4,028.4	13.6	19.8	23.91	-951.7	192.5	478.7	456.6	22.04	21.720		
4,300.0	4,250.2	4,245.1	4,124.4	14.0	20.4	24.08	-977.5	198.1	487.6	465.0	22.66	21.520		
4,400.0	4,348.5	4,344.7	4,220.4	14.4	20.9	24.24	-1,003.4	203.7	496.6	473.3	23.28	21.330 SF		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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	0.09	90.1	0.1	90.1					
100.0	100.0	99.0	99.0	0.1	0.1	0.09	90.1	0.1	90.1	89.9	0.22	402.964		
200.0	200.0	199.0	199.0	0.3	0.3	0.09	90.1	0.1	90.1	89.4	0.67	134.098		
300.0	300.0	299.0	299.0	0.6	0.6	0.09	90.1	0.1	90.1	89.0	1.12	80.351		
400.0	400.0	399.0	399.0	0.8	0.8	0.09	90.1	0.1	90.1	88.5	1.57	57.361		
500.0	500.0	499.0	499.0	1.0	1.0	0.09	90.1	0.1	90.1	88.1	2.02	44.600		
600.0	600.0	599.0	599.0	1.2	1.2	0.09	90.1	0.1	90.1	87.7	2.47	36.483		
700.0	700.0	699.0	699.0	1.5	1.5	0.09	90.1	0.1	90.1	87.2	2.92	30.866		
800.0	800.0	799.0	799.0	1.7	1.7	0.09	90.1	0.1	90.1	86.8	3.37	26.748		
900.0	900.0	899.0	899.0	1.9	1.9	0.09	90.1	0.1	90.1	86.3	3.82	23.599		
1,000.0	1,000.0	999.0	999.0	2.1	2.1	0.09	90.1	0.1	90.1	85.9	4.27	21.114 CC, ES		
1,100.0	1,100.0	1,099.0	1,099.0	2.3	2.4	-157.31	90.1	0.1	91.3	86.6	4.69	19.467		
1,200.0	1,199.9	1,198.9	1,198.9	2.5	2.6	-158.20	90.1	0.1	95.0	89.9	5.09	18.641		
1,300.0	1,299.7	1,297.3	1,297.3	2.7	2.8	-158.94	90.8	1.1	101.8	96.3	5.50	18.514 SF		
1,400.0	1,399.3	1,395.2	1,395.1	2.9	3.0	-158.93	93.0	4.2	112.4	106.5	5.90	19.047		
1,500.0	1,498.6	1,492.5	1,492.2	3.1	3.2	-158.36	96.6	9.3	126.9	120.5	6.32	20.087		
1,600.0	1,597.5	1,588.8	1,588.1	3.4	3.4	-157.45	101.6	16.3	145.1	138.4	6.74	21.529		
1,700.0	1,696.1	1,684.9	1,683.6	3.7	3.7	-156.38	107.8	25.1	167.1	159.9	7.18	23.267		
1,718.5	1,714.2	1,702.8	1,701.4	3.7	3.7	-156.22	109.0	26.8	171.5	164.2	7.27	23.603		
1,800.0	1,794.3	1,782.0	1,780.0	4.0	3.9	-155.72	114.4	34.4	191.0	183.4	7.65	24.977		
1,900.0	1,892.6	1,879.1	1,876.4	4.3	4.2	-155.24	121.1	43.7	215.0	206.8	8.13	26.449		
2,000.0	1,990.8	1,976.2	1,972.8	4.7	4.4	-154.85	127.7	53.1	238.9	230.3	8.62	27.715		
2,100.0	2,089.0	2,073.2	2,069.2	5.1	4.7	-154.53	134.3	62.4	262.9	253.7	9.12	28.820		
2,200.0	2,187.3	2,170.3	2,165.6	5.4	5.0	-154.27	140.9	71.7	286.8	277.2	9.63	29.783		
2,300.0	2,285.5	2,267.4	2,262.0	5.8	5.2	-154.04	147.5	81.0	310.8	300.7	10.15	30.629		
2,400.0	2,383.8	2,364.5	2,358.4	6.2	5.5	-153.85	154.1	90.4	334.8	324.1	10.67	31.375		
2,500.0	2,482.0	2,461.5	2,454.9	6.6	5.8	-153.68	160.8	99.7	358.8	347.6	11.20	32.036		
2,600.0	2,580.2	2,558.6	2,551.3	7.0	6.1	-153.54	167.4	109.0	382.7	371.0	11.73	32.626		
2,700.0	2,678.5	2,655.7	2,647.7	7.4	6.4	-153.41	174.0	118.3	406.7	394.5	12.27	33.154		
2,800.0	2,776.7	2,752.8	2,744.1	7.8	6.7	-153.30	180.6	127.7	430.7	417.9	12.81	33.629		
2,900.0	2,874.9	2,849.9	2,840.5	8.2	6.9	-153.19	187.2	137.0	454.7	441.3	13.35	34.058		
3,000.0	2,973.2	2,946.9	2,936.9	8.6	7.2	-153.10	193.8	146.3	478.7	464.8	13.90	34.447		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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	0.04	75.1	0.1	75.1					
100.0	100.0	99.0	99.0	0.1	0.1	0.04	75.1	0.1	75.1	74.9	0.22	335.706		
200.0	200.0	199.0	199.0	0.3	0.3	0.04	75.1	0.1	75.1	74.4	0.67	111.716		
300.0	300.0	299.0	299.0	0.6	0.6	0.04	75.1	0.1	75.1	74.0	1.12	66.940		
400.0	400.0	399.0	399.0	0.8	0.8	0.04	75.1	0.1	75.1	73.5	1.57	47.787		
500.0	500.0	499.0	499.0	1.0	1.0	0.04	75.1	0.1	75.1	73.1	2.02	37.156		
600.0	600.0	599.0	599.0	1.2	1.2	0.04	75.1	0.1	75.1	72.6	2.47	30.394		
700.0	700.0	699.0	699.0	1.5	1.5	0.04	75.1	0.1	75.1	72.2	2.92	25.714		
800.0	800.0	799.0	799.0	1.7	1.7	0.04	75.1	0.1	75.1	71.7	3.37	22.284		
900.0	900.0	899.0	899.0	1.9	1.9	0.04	75.1	0.1	75.1	71.3	3.82	19.660		
1,000.0	1,000.0	999.0	999.0	2.1	2.1	0.04	75.1	0.1	75.1	70.8	4.27	17.590 CC, ES		
1,100.0	1,100.0	1,099.0	1,099.0	2.3	2.4	-157.42	75.1	0.1	76.3	71.6	4.69	16.261		
1,200.0	1,199.9	1,198.9	1,198.9	2.5	2.6	-158.48	75.1	0.1	79.9	74.8	5.09	15.690		
1,300.0	1,299.7	1,298.7	1,298.7	2.7	2.8	-160.05	75.1	0.1	86.0	80.5	5.50	15.635 SF		
1,400.0	1,399.3	1,398.3	1,398.3	2.9	3.0	-161.89	75.1	0.1	94.7	88.8	5.92	16.005		
1,500.0	1,498.6	1,496.9	1,496.8	3.1	3.2	-163.16	75.5	1.2	106.3	99.9	6.32	16.802		
1,600.0	1,597.5	1,595.0	1,594.9	3.4	3.5	-163.33	76.9	4.7	121.0	114.3	6.73	17.981		
1,700.0	1,696.1	1,692.4	1,692.2	3.7	3.7	-162.73	79.3	10.4	139.0	131.8	7.15	19.440		
1,718.5	1,714.2	1,710.3	1,710.0	3.7	3.7	-162.56	79.8	11.7	142.6	135.4	7.23	19.735		
1,800.0	1,794.3	1,789.2	1,788.6	4.0	3.9	-161.63	82.5	18.4	159.3	151.7	7.59	20.978		
1,900.0	1,892.6	1,885.7	1,884.4	4.3	4.1	-160.05	86.6	28.6	180.4	172.3	8.06	22.383		
2,000.0	1,990.8	1,983.3	1,981.2	4.7	4.4	-158.54	91.1	39.8	202.0	193.4	8.55	23.625		
2,100.0	2,089.0	2,080.8	2,078.0	5.1	4.6	-157.31	95.6	51.0	223.6	214.6	9.05	24.705		
2,200.0	2,187.3	2,178.3	2,174.8	5.4	4.9	-156.31	100.1	62.2	245.4	235.8	9.57	25.648		
2,300.0	2,285.5	2,275.8	2,271.5	5.8	5.1	-155.46	104.6	73.3	267.2	257.1	10.09	26.473		
2,400.0	2,383.8	2,373.4	2,368.3	6.2	5.4	-154.75	109.1	84.5	289.1	278.4	10.63	27.198		
2,500.0	2,482.0	2,470.9	2,465.1	6.6	5.7	-154.13	113.6	95.7	310.9	299.8	11.17	27.837		
2,600.0	2,580.2	2,568.4	2,561.9	7.0	6.0	-153.60	118.1	106.8	332.9	321.2	11.72	28.404		
2,700.0	2,678.5	2,665.9	2,658.6	7.4	6.2	-153.13	122.6	118.0	354.8	342.6	12.27	28.909		
2,800.0	2,776.7	2,763.5	2,755.4	7.8	6.5	-152.72	127.1	129.2	376.8	364.0	12.83	29.360		
2,900.0	2,874.9	2,861.0	2,852.2	8.2	6.8	-152.35	131.6	140.4	398.8	385.4	13.40	29.765		
3,000.0	2,973.2	2,958.5	2,949.0	8.6	7.1	-152.02	136.2	151.5	420.8	406.8	13.97	30.131		
3,100.0	3,071.4	3,056.0	3,045.8	9.0	7.4	-151.72	140.7	162.7	442.8	428.3	14.54	30.461		
3,200.0	3,169.6	3,153.5	3,142.5	9.4	7.7	-151.45	145.2	173.9	464.8	449.7	15.11	30.761		
3,300.0	3,267.9	3,251.1	3,239.3	9.8	8.0	-151.21	149.7	185.0	486.9	471.2	15.69	31.035		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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	0.05	60.1	0.1	60.1					
100.0	100.0	99.0	99.0	0.1	0.1	0.05	60.1	0.1	60.1	59.9	0.22	268.631		
200.0	200.0	199.0	199.0	0.3	0.3	0.05	60.1	0.1	60.1	59.4	0.67	89.395		
300.0	300.0	299.0	299.0	0.6	0.6	0.05	60.1	0.1	60.1	59.0	1.12	53.565		
400.0	400.0	399.0	399.0	0.8	0.8	0.05	60.1	0.1	60.1	58.5	1.57	38.239		
500.0	500.0	499.0	499.0	1.0	1.0	0.05	60.1	0.1	60.1	58.1	2.02	29.732		
600.0	600.0	599.0	599.0	1.2	1.2	0.05	60.1	0.1	60.1	57.6	2.47	24.321		
700.0	700.0	699.0	699.0	1.5	1.5	0.05	60.1	0.1	60.1	57.2	2.92	20.577		
800.0	800.0	799.0	799.0	1.7	1.7	0.05	60.1	0.1	60.1	56.7	3.37	17.831		
900.0	900.0	899.0	899.0	1.9	1.9	0.05	60.1	0.1	60.1	56.3	3.82	15.732		
1,000.0	1,000.0	999.0	999.0	2.1	2.1	0.05	60.1	0.1	60.1	55.8	4.27	14.075 CC, ES		
1,100.0	1,100.0	1,099.0	1,099.0	2.3	2.4	-157.50	60.1	0.1	61.3	56.6	4.69	13.063		
1,200.0	1,199.9	1,198.9	1,198.9	2.5	2.6	-158.81	60.1	0.1	64.9	59.8	5.09	12.746 SF		
1,300.0	1,299.7	1,298.7	1,298.7	2.7	2.8	-160.68	60.1	0.1	71.1	65.6	5.50	12.914		
1,400.0	1,399.3	1,398.3	1,398.3	2.9	3.0	-162.82	60.1	0.1	79.8	73.8	5.92	13.482		
1,500.0	1,498.6	1,497.6	1,497.6	3.1	3.3	-164.96	60.1	0.1	91.1	84.7	6.33	14.381		
1,600.0	1,597.5	1,596.5	1,596.5	3.4	3.5	-166.94	60.1	0.1	105.0	98.2	6.75	15.556		
1,700.0	1,696.1	1,695.1	1,695.1	3.7	3.7	-168.70	60.1	0.1	121.6	114.4	7.17	16.963		
1,718.5	1,714.2	1,713.2	1,713.2	3.7	3.7	-168.99	60.1	0.1	124.9	117.7	7.24	17.244		
1,800.0	1,794.3	1,793.3	1,793.3	4.0	3.9	-170.18	60.1	0.1	139.9	132.3	7.60	18.416		
1,900.0	1,892.6	1,892.9	1,892.9	4.3	4.1	-170.96	59.9	1.2	158.0	149.9	8.02	19.685		
2,000.0	1,990.8	1,993.0	1,992.9	4.7	4.3	-170.78	59.5	4.9	175.1	166.7	8.45	20.730		
2,100.0	2,089.0	2,093.3	2,093.0	5.1	4.5	-169.88	58.7	11.2	191.4	182.5	8.89	21.541		
2,200.0	2,187.3	2,193.7	2,193.0	5.4	4.7	-168.42	57.7	20.2	206.9	197.6	9.34	22.146		
2,300.0	2,285.5	2,292.8	2,291.5	5.8	5.0	-166.72	56.4	30.9	221.9	212.1	9.82	22.608		
2,400.0	2,383.8	2,391.4	2,389.6	6.2	5.2	-165.22	55.1	41.6	237.1	226.8	10.31	23.008		
2,500.0	2,482.0	2,490.1	2,487.6	6.6	5.4	-163.90	53.8	52.3	252.5	241.7	10.81	23.359		
2,600.0	2,580.2	2,588.8	2,585.7	7.0	5.7	-162.73	52.6	63.1	267.9	256.6	11.32	23.664		
2,700.0	2,678.5	2,687.4	2,683.8	7.4	5.9	-161.69	51.3	73.8	283.5	271.6	11.84	23.932		
2,800.0	2,776.7	2,786.1	2,781.8	7.8	6.2	-160.76	50.0	84.5	299.1	286.7	12.38	24.166		
2,900.0	2,874.9	2,884.7	2,879.9	8.2	6.4	-159.92	48.7	95.3	314.8	301.9	12.92	24.371		
3,000.0	2,973.2	2,983.4	2,978.0	8.6	6.7	-159.16	47.4	106.0	330.5	317.1	13.46	24.552		
3,100.0	3,071.4	3,082.1	3,076.0	9.0	7.0	-158.47	46.2	116.7	346.3	332.3	14.02	24.711		
3,200.0	3,169.6	3,180.7	3,174.1	9.4	7.2	-157.84	44.9	127.5	362.2	347.6	14.57	24.851		
3,300.0	3,267.9	3,279.4	3,272.2	9.8	7.5	-157.26	43.6	138.2	378.1	362.9	15.14	24.976		
3,400.0	3,366.1	3,378.0	3,370.2	10.2	7.8	-156.73	42.3	148.9	394.0	378.3	15.71	25.087		
3,500.0	3,464.3	3,476.7	3,468.3	10.7	8.1	-156.24	41.0	159.7	410.0	393.7	16.28	25.186		
3,600.0	3,562.6	3,575.4	3,566.4	11.1	8.3	-155.79	39.7	170.4	425.9	409.1	16.85	25.274		
3,700.0	3,660.8	3,674.0	3,664.4	11.5	8.6	-155.37	38.5	181.1	442.0	424.5	17.43	25.353		
3,800.0	3,759.1	3,772.7	3,762.5	11.9	8.9	-154.98	37.2	191.9	458.0	440.0	18.01	25.425		
3,900.0	3,857.3	3,871.3	3,860.6	12.3	9.2	-154.61	35.9	202.6	474.0	455.4	18.60	25.489		
4,000.0	3,955.5	3,970.0	3,958.6	12.7	9.5	-154.27	34.6	213.3	490.1	470.9	19.18	25.547		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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	0.14	45.1	0.1	45.1					
100.0	100.0	100.0	100.0	0.1	0.1	0.14	45.1	0.1	45.1	44.8	0.22	200.477		
200.0	200.0	200.0	200.0	0.3	0.3	0.14	45.1	0.1	45.1	44.4	0.67	66.826		
300.0	300.0	300.0	300.0	0.6	0.6	0.14	45.1	0.1	45.1	43.9	1.12	40.095		
400.0	400.0	400.0	400.0	0.8	0.8	0.14	45.1	0.1	45.1	43.5	1.57	28.640		
500.0	500.0	500.0	500.0	1.0	1.0	0.14	45.1	0.1	45.1	43.0	2.02	22.275		
600.0	600.0	600.0	600.0	1.2	1.2	0.14	45.1	0.1	45.1	42.6	2.47	18.225		
700.0	700.0	700.0	700.0	1.5	1.5	0.14	45.1	0.1	45.1	42.1	2.92	15.421		
800.0	800.0	800.0	800.0	1.7	1.7	0.14	45.1	0.1	45.1	41.7	3.37	13.365		
900.0	900.0	900.0	900.0	1.9	1.9	0.14	45.1	0.1	45.1	41.2	3.82	11.793		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.14	45.1	0.1	45.1	40.8	4.27	10.551 CC, ES		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.4	-157.57	45.1	0.1	46.3	41.6	4.69	9.857		
1,200.0	1,199.9	1,199.9	1,199.9	2.5	2.6	-159.27	45.1	0.1	49.9	44.8	5.10	9.795		
1,300.0	1,299.7	1,299.7	1,299.7	2.7	2.8	-161.61	45.1	0.1	56.1	50.6	5.51	10.187		
1,400.0	1,399.3	1,399.3	1,399.3	2.9	3.0	-164.12	45.1	0.1	64.8	58.9	5.92	10.955		
1,500.0	1,498.6	1,498.6	1,498.6	3.1	3.3	-166.50	45.1	0.1	76.2	69.9	6.33	12.033		
1,600.0	1,597.5	1,597.5	1,597.5	3.4	3.5	-168.58	45.1	0.1	90.2	83.5	6.75	13.368		
1,700.0	1,696.1	1,696.6	1,698.6	3.7	3.7	-170.09	44.1	0.9	105.8	98.6	7.14	14.802		
1,718.5	1,714.2	1,717.3	1,717.3	3.7	3.7	-170.28	43.6	1.2	108.7	101.4	7.21	15.061		
1,800.0	1,794.3	1,800.2	1,800.1	4.0	3.9	-170.86	40.9	3.3	120.7	113.1	7.53	16.014		
1,900.0	1,892.6	1,902.5	1,902.2	4.3	4.1	-170.99	35.6	7.4	133.2	125.2	7.94	16.769		
2,000.0	1,990.8	2,005.4	2,004.7	4.7	4.3	-170.66	28.1	13.3	143.3	134.9	8.37	17.125		
2,100.0	2,089.0	2,108.7	2,107.2	5.1	4.5	-169.94	18.3	20.8	150.9	142.1	8.80	17.140		
2,200.0	2,187.3	2,208.6	2,206.2	5.4	4.7	-169.09	7.8	29.0	157.3	148.0	9.25	16.999		
2,300.0	2,285.5	2,308.3	2,305.1	5.8	5.0	-168.30	-2.7	37.1	163.7	154.0	9.71	16.856		
2,400.0	2,383.8	2,408.1	2,403.9	6.2	5.2	-167.58	-13.2	45.3	170.2	160.0	10.18	16.713		
2,500.0	2,482.0	2,507.9	2,502.8	6.6	5.5	-166.91	-23.7	53.4	176.7	166.0	10.66	16.570		
2,600.0	2,580.2	2,607.7	2,601.7	7.0	5.8	-166.28	-34.3	61.5	183.2	172.0	11.15	16.430		
2,700.0	2,678.5	2,707.4	2,700.6	7.4	6.0	-165.70	-44.8	69.7	189.7	178.1	11.64	16.292		
2,800.0	2,776.7	2,807.2	2,799.5	7.8	6.3	-165.16	-55.3	77.8	196.3	184.1	12.15	16.157		
2,900.0	2,874.9	2,907.0	2,898.3	8.2	6.6	-164.65	-65.8	86.0	202.8	190.2	12.66	16.027		
3,000.0	2,973.2	3,006.7	2,997.2	8.6	6.9	-164.18	-76.3	94.1	209.4	196.2	13.17	15.900		
3,100.0	3,071.4	3,106.5	3,096.1	9.0	7.2	-163.73	-86.8	102.3	216.0	202.3	13.69	15.778		
3,200.0	3,169.6	3,206.3	3,195.0	9.4	7.5	-163.31	-97.3	110.4	222.6	208.4	14.21	15.660		
3,300.0	3,267.9	3,306.0	3,293.9	9.8	7.8	-162.92	-107.9	118.5	229.2	214.5	14.74	15.547		
3,400.0	3,366.1	3,405.8	3,392.7	10.2	8.1	-162.54	-118.4	126.7	235.8	220.6	15.28	15.437		
3,500.0	3,464.3	3,505.6	3,491.6	10.7	8.5	-162.19	-128.9	134.8	242.5	226.7	15.81	15.332		
3,600.0	3,562.6	3,605.3	3,590.5	11.1	8.8	-161.86	-139.4	143.0	249.1	232.8	16.36	15.231		
3,700.0	3,660.8	3,705.1	3,689.4	11.5	9.1	-161.54	-149.9	151.1	255.8	238.9	16.90	15.134		
3,800.0	3,759.1	3,804.9	3,788.2	11.9	9.4	-161.24	-160.4	159.2	262.4	245.0	17.45	15.041		
3,900.0	3,857.3	3,904.6	3,887.1	12.3	9.7	-160.95	-170.9	167.4	269.1	251.1	18.00	14.952		
4,000.0	3,955.5	4,004.4	3,986.0	12.7	10.1	-160.68	-181.5	175.5	275.8	257.2	18.55	14.866		
4,100.0	4,053.8	4,104.2	4,084.9	13.2	10.4	-160.42	-192.0	183.7	282.4	263.3	19.10	14.783		
4,200.0	4,152.0	4,204.0	4,183.8	13.6	10.7	-160.17	-202.5	191.8	289.1	269.5	19.66	14.704		
4,300.0	4,250.2	4,303.7	4,282.6	14.0	11.0	-159.94	-213.0	200.0	295.8	275.6	20.22	14.628		
4,400.0	4,348.5	4,403.5	4,381.5	14.4	11.4	-159.71	-223.5	208.1	302.5	281.7	20.78	14.554		
4,500.0	4,446.7	4,503.3	4,480.4	14.8	11.7	-159.50	-234.0	216.2	309.2	287.8	21.35	14.484		
4,600.0	4,544.9	4,603.0	4,579.3	15.3	12.0	-159.29	-244.5	224.4	315.9	294.0	21.91	14.416		
4,700.0	4,643.2	4,702.8	4,678.2	15.7	12.3	-159.09	-255.0	232.5	322.6	300.1	22.48	14.351		
4,800.0	4,741.4	4,802.6	4,777.0	16.1	12.7	-158.90	-265.6	240.7	329.3	306.3	23.05	14.288		
4,900.0	4,839.7	4,902.3	4,875.9	16.5	13.0	-158.72	-276.1	248.8	336.0	312.4	23.62	14.227		
5,000.0	4,937.9	5,002.1	4,974.8	17.0	13.3	-158.54	-286.6	257.0	342.7	318.5	24.19	14.169		

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

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	Offset TVD Reference:	Offset Datum

Offset Design		Stillroven Farm Pad Sec.5-T3N-R68W - Stillroven Farm 5 - Wellbore #1 - Plan #2 (6-5-17)											Offset Site Error:		0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor				
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)					
5,100.0	5,036.1	5,101.9	5,073.7	17.4	13.7	-158.37	-297.1	265.1	349.5	324.7	24.76	14.113				
5,200.0	5,134.4	5,201.6	5,172.5	17.8	14.0	-158.21	-307.6	273.2	356.2	330.8	25.34	14.058				
5,300.0	5,232.6	5,301.4	5,271.4	18.2	14.3	-158.06	-318.1	281.4	362.9	337.0	25.91	14.006				
5,332.3	5,264.3	5,333.6	5,303.4	18.4	14.4	-158.01	-321.5	284.0	365.1	339.0	26.10	13.989				
5,400.0	5,331.0	5,401.2	5,370.3	18.6	14.7	-157.89	-328.6	289.5	368.9	342.4	26.50	13.920				
5,500.0	5,429.9	5,496.3	5,464.6	18.9	15.0	-157.58	-338.4	297.0	372.2	345.1	27.04	13.765				
5,600.0	5,529.3	5,586.9	5,554.7	19.1	15.2	-157.34	-345.6	302.7	374.4	347.0	27.47	13.629				
5,700.0	5,629.0	5,677.4	5,645.1	19.3	15.4	-157.18	-350.6	306.5	376.0	348.2	27.85	13.502				
5,800.0	5,728.9	5,768.0	5,735.6	19.5	15.5	-157.09	-353.4	308.7	376.9	348.7	28.16	13.383				
5,871.1	5,800.0	5,832.4	5,800.0	19.6	15.6	0.02	-353.9	309.1	377.1	343.8	33.23	11.346				
5,900.0	5,828.9	5,861.3	5,828.9	19.6	15.7	0.02	-353.9	309.1	377.1	343.7	33.32	11.316				
6,000.0	5,928.9	5,961.3	5,928.9	19.7	15.8	0.02	-353.9	309.1	377.1	343.4	33.61	11.218				
6,100.0	6,028.9	6,061.3	6,028.9	19.8	16.0	0.02	-353.9	309.1	377.1	343.2	33.90	11.121				
6,200.0	6,128.9	6,161.3	6,128.9	20.0	16.2	0.02	-353.9	309.1	377.1	342.9	34.20	11.025				
6,300.0	6,228.9	6,261.3	6,228.9	20.1	16.3	0.02	-353.9	309.1	377.1	342.6	34.50	10.930				
6,400.0	6,328.9	6,361.3	6,328.9	20.2	16.5	0.02	-353.9	309.1	377.1	342.3	34.80	10.835				
6,500.0	6,428.9	6,461.3	6,428.9	20.3	16.6	0.02	-353.9	309.1	377.1	342.0	35.10	10.741				
6,600.0	6,528.9	6,561.3	6,528.9	20.5	16.8	0.02	-353.9	309.1	377.1	341.6	35.41	10.648				
6,700.0	6,628.9	6,661.3	6,628.9	20.6	17.0	0.02	-353.9	309.1	377.1	341.3	35.72	10.555				
6,803.0	6,731.8	6,764.3	6,731.8	20.7	17.1	0.02	-353.9	309.1	377.1	341.0	36.04	10.461				
6,850.0	6,778.8	6,811.2	6,778.8	20.8	17.2	91.85	-353.9	309.1	377.1	345.3	31.85	11.840				
6,900.0	6,828.3	6,861.9	6,829.4	20.8	17.3	92.75	-354.0	308.1	377.4	345.3	32.10	11.755				
6,950.0	6,876.8	6,913.7	6,880.9	20.8	17.4	93.69	-354.1	302.2	377.7	345.4	32.30	11.693				
7,000.0	6,924.0	6,966.1	6,932.1	20.9	17.4	94.60	-354.4	290.9	378.2	345.7	32.44	11.656				
7,050.0	6,969.3	7,019.3	6,982.5	20.9	17.4	95.47	-354.9	274.3	378.7	346.1	32.53	11.641				
7,100.0	7,012.4	7,073.1	7,031.5	20.8	17.4	96.30	-355.4	252.2	379.2	346.7	32.57	11.644				
7,150.0	7,052.7	7,127.6	7,078.5	20.8	17.4	97.06	-356.2	224.7	379.8	347.2	32.59	11.655				
7,200.0	7,090.0	7,182.7	7,122.8	20.8	17.4	97.76	-357.0	192.0	380.4	347.8	32.62	11.663				
7,250.0	7,123.8	7,238.3	7,163.8	20.8	17.4	98.39	-358.0	154.3	381.0	348.3	32.70	11.653				
7,300.0	7,153.9	7,294.5	7,200.7	20.7	17.3	98.93	-359.2	112.0	381.6	348.7	32.87	11.606				
7,350.0	7,179.9	7,351.2	7,233.0	20.7	17.3	99.37	-360.4	65.5	382.0	348.8	33.20	11.507				
7,400.0	7,201.6	7,408.2	7,260.1	20.7	17.3	99.72	-361.7	15.4	382.4	348.7	33.73	11.338				
7,450.0	7,218.8	7,465.5	7,281.6	20.7	17.3	99.97	-363.1	-37.6	382.7	348.2	34.48	11.099				
7,500.0	7,231.4	7,523.0	7,297.1	20.7	17.6	100.12	-364.6	-93.0	382.9	347.4	35.47	10.793				
7,550.0	7,239.1	7,580.5	7,306.2	20.7	18.2	100.15	-366.1	-149.8	382.9	346.2	36.70	10.434				
7,601.8	7,242.0	7,640.0	7,308.0	20.8	19.0	99.93	-367.6	-208.1	382.6	344.4	38.19	10.019				
7,604.3	7,241.0	7,641.5	7,308.0	20.8	19.1	100.08	-367.7	-209.5	382.8	344.6	38.24	10.011				
7,605.3	7,241.0	7,642.4	7,308.0	20.8	19.1	100.08	-367.7	-210.5	382.8	344.5	38.27	10.004				
7,700.0	7,241.0	7,734.3	7,308.0	21.6	20.6	100.06	-369.5	-302.4	383.4	342.3	41.16	9.315				
7,800.0	7,241.0	7,834.3	7,308.0	23.1	22.4	100.04	-371.3	-402.4	384.2	339.5	44.70	8.595				
7,900.0	7,241.0	7,934.3	7,308.0	25.0	24.4	100.02	-373.1	-502.3	385.0	336.4	48.61	7.920				
8,000.0	7,241.0	8,034.3	7,308.0	27.1	26.6	100.00	-374.9	-602.3	385.7	332.9	52.81	7.304				
8,100.0	7,241.0	8,134.3	7,308.0	29.3	28.8	99.99	-376.6	-702.3	386.3	329.1	57.23	6.751				
8,200.0	7,241.0	8,234.3	7,308.0	31.6	31.2	99.97	-378.4	-802.3	387.0	325.1	61.83	6.259				
8,300.0	7,241.0	8,334.3	7,308.0	34.0	33.6	99.96	-380.2	-902.3	387.6	321.0	66.57	5.822				
8,400.0	7,241.0	8,434.3	7,308.0	36.5	36.1	99.94	-382.0	-1,002.2	388.1	316.7	71.43	5.434				
8,500.0	7,241.0	8,534.3	7,308.0	38.9	38.6	99.93	-383.8	-1,102.2	388.6	312.2	76.38	5.088				
8,600.0	7,241.0	8,634.3	7,308.0	41.5	41.1	99.92	-385.6	-1,202.2	389.1	307.7	81.40	4.780				
8,700.0	7,241.0	8,734.3	7,308.0	44.0	43.7	99.90	-387.4	-1,302.2	389.5	303.1	86.48	4.504				
8,800.0	7,241.0	8,834.3	7,308.0	46.6	46.3	99.89	-389.2	-1,402.2	389.9	298.3	91.62	4.256				
8,900.0	7,241.0	8,934.3	7,308.0	49.2	48.9	99.88	-391.0	-1,502.2	390.3	293.5	96.79	4.032				
9,000.0	7,241.0	9,034.3	7,308.0	51.9	51.6	99.88	-392.7	-1,602.1	390.6	288.6	102.01	3.829				

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

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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		
9,100.0	7,241.0	9,134.3	7,308.0	54.5	54.2	99.87	-394.5	-1,702.1	390.9	283.6	107.25	3.644		
9,200.0	7,241.0	9,234.3	7,308.0	57.2	56.9	99.86	-396.3	-1,802.1	391.1	278.6	112.53	3.476		
9,300.0	7,241.0	9,334.3	7,308.0	59.8	59.6	99.86	-398.1	-1,902.1	391.3	273.5	117.82	3.321		
9,400.0	7,241.0	9,434.3	7,308.0	62.5	62.3	99.85	-399.9	-2,002.1	391.5	268.3	123.14	3.179		
9,500.0	7,241.0	9,534.3	7,308.0	65.2	65.0	99.85	-401.7	-2,102.1	391.6	263.1	128.47	3.048		
9,600.0	7,241.0	9,634.3	7,308.0	67.9	67.7	99.85	-403.5	-2,202.0	391.7	257.9	133.82	2.927		
9,700.0	7,241.0	9,734.3	7,308.0	70.6	70.4	99.85	-405.3	-2,302.0	391.7	252.6	139.19	2.814		
9,800.0	7,241.0	9,834.3	7,308.0	73.4	73.2	99.85	-407.0	-2,402.0	391.7	247.2	144.56	2.710		
9,900.0	7,241.0	9,934.3	7,308.0	76.1	75.9	99.85	-408.8	-2,502.0	391.7	241.8	149.95	2.612		
10,000.0	7,241.0	10,034.3	7,308.0	78.8	78.6	99.85	-410.6	-2,602.0	391.6	236.3	155.34	2.521		
10,100.0	7,241.0	10,134.3	7,308.0	81.5	81.4	99.85	-412.4	-2,702.0	391.5	230.8	160.74	2.436		
10,200.0	7,241.0	10,234.3	7,308.0	84.3	84.1	99.86	-414.2	-2,801.9	391.4	225.2	166.16	2.355		
10,300.0	7,241.0	10,334.3	7,308.0	87.0	86.9	99.86	-416.0	-2,901.9	391.2	219.6	171.57	2.280		
10,400.0	7,241.0	10,434.3	7,308.0	89.8	89.6	99.87	-417.8	-3,001.9	391.0	214.0	177.00	2.209		
10,500.0	7,241.0	10,534.3	7,308.0	92.5	92.4	99.87	-419.6	-3,101.9	390.7	208.3	182.43	2.142		
10,600.0	7,241.0	10,634.3	7,308.0	95.3	95.2	99.88	-421.4	-3,201.9	390.4	202.5	187.86	2.078		
10,700.0	7,241.0	10,734.3	7,308.0	98.0	97.9	99.89	-423.1	-3,301.9	390.0	196.7	193.30	2.018		
10,800.0	7,241.0	10,834.3	7,308.0	100.8	100.7	99.90	-424.9	-3,401.9	389.7	190.9	198.74	1.961		
10,900.0	7,241.0	10,934.3	7,308.0	103.6	103.4	99.91	-426.7	-3,501.8	389.2	185.1	204.18	1.906		
11,000.0	7,241.0	11,034.3	7,308.0	106.3	106.2	99.92	-428.5	-3,601.8	388.8	179.1	209.63	1.855		
11,100.0	7,241.0	11,134.3	7,308.0	109.1	109.0	99.94	-430.3	-3,701.8	388.3	173.2	215.08	1.805		
11,200.0	7,241.0	11,234.3	7,308.0	111.9	111.8	99.95	-432.1	-3,801.8	387.7	167.2	220.54	1.758		
11,300.0	7,241.0	11,334.3	7,308.0	114.6	114.5	99.97	-433.9	-3,901.8	387.2	161.2	225.99	1.713		
11,400.0	7,241.0	11,434.3	7,308.0	117.4	117.3	99.98	-435.7	-4,001.7	386.5	155.1	231.45	1.670		
11,500.0	7,241.0	11,534.3	7,308.0	120.2	120.1	100.00	-437.4	-4,101.7	385.9	149.0	236.91	1.629		
11,600.0	7,241.0	11,634.3	7,308.0	122.9	122.9	100.02	-439.2	-4,201.7	385.2	142.8	242.37	1.589		
11,700.0	7,241.0	11,734.3	7,308.0	125.7	125.6	100.04	-441.0	-4,301.7	384.5	136.6	247.83	1.551		
11,800.0	7,241.0	11,834.3	7,308.0	128.5	128.4	100.06	-442.8	-4,401.7	383.7	130.4	253.29	1.515		
11,896.5	7,241.0	11,930.8	7,308.0	131.2	131.1	100.08	-444.5	-4,498.2	382.9	124.3	258.56	1.481 Level 3		
11,905.6	7,241.0	11,935.2	7,308.0	131.4	131.2	100.08	-444.6	-4,502.6	382.9	123.9	258.93	1.479 Level 3, SF		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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	0.00	30.1	0.0	30.1					
100.0	100.0	100.0	100.0	0.1	0.1	0.00	30.1	0.0	30.1	29.8	0.22	133.717		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	30.1	0.0	30.1	29.4	0.67	44.572		
300.0	300.0	300.0	300.0	0.6	0.6	0.00	30.1	0.0	30.1	28.9	1.12	26.743		
400.0	400.0	400.0	400.0	0.8	0.8	0.00	30.1	0.0	30.1	28.5	1.57	19.102		
500.0	500.0	500.0	500.0	1.0	1.0	0.00	30.1	0.0	30.1	28.0	2.02	14.857		
600.0	600.0	600.0	600.0	1.2	1.2	0.00	30.1	0.0	30.1	27.6	2.47	12.156		
700.0	700.0	700.0	700.0	1.5	1.5	0.00	30.1	0.0	30.1	27.1	2.92	10.286		
800.0	800.0	800.0	800.0	1.7	1.7	0.00	30.1	0.0	30.1	26.7	3.37	8.914		
900.0	900.0	900.0	900.0	1.9	1.9	0.00	30.1	0.0	30.1	26.2	3.82	7.866		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.00	30.1	0.0	30.1	25.8	4.27	7.038 CC, ES		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.4	-158.01	30.1	0.0	31.3	26.6	4.69	6.661		
1,200.0	1,199.9	1,199.9	1,199.9	2.5	2.6	-160.41	30.1	0.0	34.9	29.8	5.10	6.855		
1,300.0	1,299.7	1,299.7	1,299.7	2.7	2.8	-163.43	30.1	0.0	41.2	35.7	5.51	7.476		
1,400.0	1,399.3	1,399.3	1,399.3	2.9	3.0	-166.39	30.1	0.0	50.0	44.1	5.92	8.449		
1,500.0	1,498.6	1,500.1	1,500.0	3.1	3.2	-168.52	29.0	0.7	60.3	54.0	6.31	9.557		
1,600.0	1,597.5	1,601.1	1,601.0	3.4	3.4	-169.65	25.6	2.9	70.7	64.0	6.68	10.591		
1,700.0	1,696.1	1,702.4	1,702.1	3.7	3.6	-170.16	20.0	6.5	81.3	74.2	7.06	11.514		
1,718.5	1,714.2	1,721.2	1,720.8	3.7	3.6	-170.20	18.7	7.4	83.2	76.1	7.13	11.672		
1,800.0	1,794.3	1,804.1	1,803.4	4.0	3.8	-170.18	12.2	11.7	91.1	83.6	7.47	12.197		
1,900.0	1,892.6	1,906.2	1,904.8	4.3	4.0	-169.66	2.0	18.3	98.4	90.5	7.89	12.466		
2,000.0	1,990.8	2,007.9	2,005.4	4.7	4.3	-168.70	-10.3	26.3	103.3	95.0	8.34	12.394		
2,100.0	2,089.0	2,107.8	2,104.1	5.1	4.5	-167.70	-23.0	34.6	107.6	98.8	8.79	12.239		
2,200.0	2,187.3	2,207.7	2,202.9	5.4	4.8	-166.78	-35.7	42.8	112.0	102.7	9.26	12.086		
2,300.0	2,285.5	2,307.6	2,301.6	5.8	5.1	-165.93	-48.4	51.1	116.3	106.6	9.74	11.936		
2,400.0	2,383.8	2,407.5	2,400.3	6.2	5.4	-165.13	-61.0	59.4	120.7	110.4	10.24	11.791		
2,500.0	2,482.0	2,507.4	2,499.1	6.6	5.7	-164.40	-73.7	67.6	125.1	114.3	10.74	11.650		
2,600.0	2,580.2	2,607.3	2,597.8	7.0	6.0	-163.71	-86.4	75.9	129.5	118.3	11.25	11.514		
2,700.0	2,678.5	2,707.2	2,696.5	7.4	6.3	-163.07	-99.1	84.2	133.9	122.2	11.77	11.384		
2,800.0	2,776.7	2,807.1	2,795.3	7.8	6.7	-162.47	-111.8	92.4	138.4	126.1	12.29	11.259		
2,900.0	2,874.9	2,907.0	2,894.0	8.2	7.0	-161.91	-124.4	100.7	142.9	130.0	12.82	11.140		
3,000.0	2,973.2	3,006.8	2,992.8	8.6	7.3	-161.38	-137.1	109.0	147.3	134.0	13.36	11.025		
3,100.0	3,071.4	3,106.7	3,091.5	9.0	7.7	-160.88	-149.8	117.3	151.8	137.9	13.91	10.916		
3,200.0	3,169.6	3,206.6	3,190.2	9.4	8.0	-160.42	-162.5	125.5	156.3	141.9	14.46	10.812		
3,300.0	3,267.9	3,306.5	3,289.0	9.8	8.3	-159.97	-175.2	133.8	160.8	145.8	15.01	10.713		
3,400.0	3,366.1	3,406.4	3,387.7	10.2	8.7	-159.56	-187.8	142.1	165.4	149.8	15.57	10.618		
3,500.0	3,464.3	3,506.3	3,486.4	10.7	9.0	-159.16	-200.5	150.3	169.9	153.8	16.14	10.527		
3,600.0	3,562.6	3,606.2	3,585.2	11.1	9.4	-158.78	-213.2	158.6	174.4	157.7	16.71	10.441		
3,700.0	3,660.8	3,706.1	3,683.9	11.5	9.7	-158.43	-225.9	166.9	179.0	161.7	17.28	10.359		
3,800.0	3,759.1	3,806.0	3,782.7	11.9	10.1	-158.09	-238.6	175.1	183.5	165.7	17.85	10.280		
3,900.0	3,857.3	3,905.9	3,881.4	12.3	10.4	-157.77	-251.3	183.4	188.1	169.6	18.43	10.205		
4,000.0	3,955.5	4,005.8	3,980.1	12.7	10.8	-157.46	-263.9	191.7	192.6	173.6	19.01	10.133		
4,100.0	4,053.8	4,105.6	4,078.9	13.2	11.2	-157.17	-276.6	199.9	197.2	177.6	19.60	10.064		
4,200.0	4,152.0	4,205.5	4,177.6	13.6	11.5	-156.89	-289.3	208.2	201.8	181.6	20.18	9.998		
4,300.0	4,250.2	4,305.4	4,276.3	14.0	11.9	-156.62	-302.0	216.5	206.4	185.6	20.77	9.936		
4,400.0	4,348.5	4,405.3	4,375.1	14.4	12.2	-156.37	-314.7	224.7	210.9	189.6	21.36	9.875		
4,500.0	4,446.7	4,505.2	4,473.8	14.8	12.6	-156.12	-327.3	233.0	215.5	193.6	21.95	9.818		
4,600.0	4,544.9	4,605.1	4,572.5	15.3	12.9	-155.89	-340.0	241.3	220.1	197.6	22.55	9.762		
4,700.0	4,643.2	4,705.0	4,671.3	15.7	13.3	-155.66	-352.7	249.5	224.7	201.6	23.14	9.709		
4,800.0	4,741.4	4,804.9	4,770.0	16.1	13.7	-155.45	-365.4	257.8	229.3	205.6	23.74	9.658		
4,900.0	4,839.7	4,904.8	4,868.8	16.5	14.0	-155.24	-378.1	266.1	233.9	209.6	24.34	9.609		
5,000.0	4,937.9	5,004.7	4,967.5	17.0	14.4	-155.04	-390.8	274.3	238.5	213.6	24.94	9.562		

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

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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		
5,100.0	5,036.1	5,104.5	5,066.2	17.4	14.8	-154.85	-403.4	282.6	243.1	217.6	25.55	9.517		
5,200.0	5,134.4	5,204.4	5,165.0	17.8	15.1	-154.66	-416.1	290.9	247.7	221.6	26.15	9.473		
5,300.0	5,232.6	5,300.0	5,259.6	18.2	15.4	-154.70	-426.9	297.9	253.6	227.0	26.68	9.506		
5,332.3	5,264.3	5,327.7	5,287.2	18.4	15.5	-154.79	-429.6	299.6	256.1	229.3	26.82	9.548		
5,400.0	5,331.0	5,390.5	5,349.7	18.6	15.6	-155.08	-434.8	303.0	261.5	234.3	27.11	9.643		
5,500.0	5,429.9	5,483.2	5,442.1	18.9	15.8	-155.56	-440.3	306.6	269.0	241.5	27.47	9.791		
5,600.0	5,529.3	5,575.6	5,534.5	19.1	16.0	-156.08	-443.3	308.6	276.0	248.2	27.77	9.938		
5,700.0	5,629.0	5,670.1	5,629.0	19.3	16.1	-156.64	-443.9	309.0	282.4	254.3	28.02	10.078		
5,800.0	5,728.9	5,770.0	5,728.9	19.5	16.3	-157.01	-443.9	309.0	286.2	258.0	28.26	10.128		
5,871.1	5,800.0	5,841.2	5,800.0	19.6	16.4	0.00	-443.9	309.0	287.1	253.0	34.01	8.440		
5,900.0	5,828.9	5,870.0	5,828.9	19.6	16.4	0.00	-443.9	309.0	287.1	253.0	34.10	8.419		
6,000.0	5,928.9	5,970.0	5,928.9	19.7	16.6	0.00	-443.9	309.0	287.1	252.7	34.38	8.351		
6,100.0	6,028.9	6,070.0	6,028.9	19.8	16.7	0.00	-443.9	309.0	287.1	252.4	34.66	8.283		
6,200.0	6,128.9	6,170.0	6,128.9	20.0	16.9	0.00	-443.9	309.0	287.1	252.1	34.94	8.215		
6,300.0	6,228.9	6,270.0	6,228.9	20.1	17.0	0.00	-443.9	309.0	287.1	251.8	35.23	8.147		
6,400.0	6,328.9	6,370.0	6,328.9	20.2	17.2	0.00	-443.9	309.0	287.1	251.5	35.53	8.080		
6,500.0	6,428.9	6,470.0	6,428.9	20.3	17.3	0.00	-443.9	309.0	287.1	251.2	35.82	8.014		
6,600.0	6,528.9	6,570.0	6,528.9	20.5	17.5	0.00	-443.9	309.0	287.1	250.9	36.12	7.947		
6,700.0	6,628.9	6,670.0	6,628.9	20.6	17.6	0.00	-443.9	309.0	287.1	250.6	36.42	7.881		
6,803.0	6,731.8	6,773.6	6,732.3	20.7	17.8	-0.46	-444.0	306.7	287.0	250.2	36.79	7.802		
6,850.0	6,778.8	6,820.7	6,779.0	20.8	17.8	90.17	-444.2	300.1	287.0	255.3	31.65	9.067		
6,859.5	6,788.2	6,830.1	6,788.2	20.8	17.8	90.00	-444.2	298.3	287.0	255.3	31.64	9.069		
6,900.0	6,828.3	6,870.3	6,827.2	20.8	17.9	89.24	-444.5	288.6	287.0	255.4	31.61	9.078		
6,950.0	6,876.8	6,919.5	6,873.7	20.8	17.9	88.33	-444.9	272.6	287.1	255.5	31.54	9.101		
7,000.0	6,924.0	6,968.3	6,918.1	20.9	17.9	87.44	-445.4	252.4	287.2	255.8	31.46	9.130		
7,050.0	6,969.3	7,016.7	6,960.1	20.9	17.9	86.59	-446.1	228.3	287.5	256.1	31.38	9.161		
7,100.0	7,012.4	7,064.7	6,999.3	20.8	17.9	85.77	-446.8	200.6	287.7	256.4	31.33	9.186		
7,150.0	7,052.7	7,112.4	7,035.5	20.8	17.8	85.01	-447.6	169.6	288.0	256.7	31.32	9.198		
7,200.0	7,090.0	7,159.8	7,068.5	20.8	17.8	84.30	-448.5	135.6	288.4	257.0	31.38	9.189		
7,250.0	7,123.8	7,206.9	7,098.0	20.8	17.8	83.64	-449.5	98.9	288.7	257.2	31.55	9.153		
7,300.0	7,153.9	7,253.8	7,123.9	20.7	17.7	83.06	-450.5	59.9	289.1	257.2	31.84	9.080		
7,350.0	7,179.9	7,300.0	7,145.8	20.7	17.7	82.54	-451.6	19.3	289.4	257.1	32.27	8.969		
7,400.0	7,201.6	7,346.8	7,164.3	20.7	17.7	82.09	-452.7	-23.7	289.7	256.8	32.87	8.813		
7,450.0	7,218.8	7,393.1	7,178.6	20.7	17.7	81.72	-453.9	-67.7	290.0	256.3	33.65	8.618		
7,500.0	7,231.4	7,439.3	7,188.8	20.7	17.6	81.43	-455.1	-112.7	290.2	255.6	34.59	8.389		
7,550.0	7,239.1	7,485.3	7,195.0	20.7	18.2	81.22	-456.3	-158.3	290.3	254.7	35.68	8.137		
7,604.3	7,241.0	7,535.6	7,196.0	20.8	18.9	81.09	-457.6	-207.5	290.4	253.4	37.03	7.843		
7,605.3	7,241.0	7,536.6	7,196.0	20.8	19.0	81.09	-457.6	-208.5	290.4	253.4	37.06	7.836		
7,700.0	7,241.0	7,629.8	7,194.3	21.6	20.5	80.76	-460.1	-301.6	290.7	250.8	39.92	7.282		
7,800.0	7,241.0	7,728.8	7,189.6	23.1	22.3	79.85	-462.7	-400.5	291.4	248.1	43.29	6.732		
7,900.0	7,241.0	7,828.6	7,184.4	25.0	24.3	78.83	-465.4	-500.2	292.3	245.3	47.00	6.219		
8,000.0	7,241.0	7,928.5	7,179.2	27.1	26.5	77.83	-468.0	-599.9	293.2	242.2	50.97	5.753		
8,100.0	7,241.0	8,028.4	7,174.0	29.3	28.7	76.82	-470.7	-699.6	294.2	239.1	55.12	5.337		
8,200.0	7,241.0	8,128.2	7,168.7	31.6	31.1	75.83	-473.3	-799.3	295.2	235.8	59.40	4.969		
8,300.0	7,241.0	8,228.1	7,163.5	34.0	33.5	74.83	-476.0	-899.0	296.3	232.5	63.77	4.646		
8,400.0	7,241.0	8,328.0	7,158.3	36.5	35.9	73.85	-478.6	-998.7	297.4	229.2	68.20	4.360		
8,500.0	7,241.0	8,427.8	7,153.0	38.9	38.5	72.87	-481.2	-1,098.3	298.6	225.9	72.66	4.109		
8,600.0	7,241.0	8,527.7	7,147.8	41.5	41.0	71.89	-483.9	-1,198.0	299.8	222.7	77.12	3.887		
8,700.0	7,241.0	8,627.5	7,142.6	44.0	43.6	70.92	-486.5	-1,297.7	301.1	219.5	81.58	3.690		
8,800.0	7,241.0	8,727.4	7,137.4	46.6	46.2	69.95	-489.2	-1,397.4	302.4	216.4	86.01	3.515		
8,900.0	7,241.0	8,827.3	7,132.1	49.2	48.8	69.00	-491.8	-1,497.1	303.7	213.3	90.41	3.359		
9,000.0	7,241.0	8,927.1	7,126.9	51.9	51.4	68.04	-494.5	-1,596.8	305.2	210.4	94.77	3.220		

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

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	Offset TVD Reference:	Offset Datum

Offset Design Stillroven Farm Pad Sec.5-T3N-R68W - Stillroven Farm 6 - Wellbore #1 - Plan #2 (6-5-17)												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	
9,100.0	7,241.0	9,027.0	7,121.7	54.5	54.1	67.10	-497.1	-1,696.5	306.6	207.5	99.08	3.095	
9,200.0	7,241.0	9,126.9	7,116.5	57.2	56.7	66.16	-499.8	-1,796.2	308.1	204.8	103.33	2.982	
9,300.0	7,241.0	9,226.7	7,111.2	59.8	59.4	65.22	-502.4	-1,895.9	309.7	202.2	107.52	2.880	
9,400.0	7,241.0	9,326.6	7,106.0	62.5	62.1	64.30	-505.1	-1,995.5	311.3	199.6	111.64	2.788	
9,500.0	7,241.0	9,426.4	7,100.8	65.2	64.8	63.37	-507.7	-2,095.2	312.9	197.2	115.69	2.705	
9,600.0	7,241.0	9,526.3	7,095.6	67.9	67.5	62.46	-510.3	-2,194.9	314.6	195.0	119.66	2.629	
9,700.0	7,241.0	9,626.9	7,090.5	70.6	70.2	61.58	-512.9	-2,295.3	316.3	192.7	123.60	2.559	
9,800.0	7,241.0	9,728.9	7,088.1	73.4	73.0	61.21	-514.7	-2,397.3	317.5	189.5	128.07	2.479	
9,900.0	7,241.0	9,829.3	7,088.0	76.1	75.8	61.26	-515.7	-2,497.7	318.2	185.2	133.00	2.393	
10,000.0	7,241.0	9,929.3	7,088.0	78.8	78.5	61.33	-516.6	-2,597.7	318.9	181.0	137.96	2.312	
10,100.0	7,241.0	10,029.3	7,088.0	81.5	81.2	61.39	-517.6	-2,697.7	319.6	176.6	142.91	2.236	
10,200.0	7,241.0	10,129.3	7,088.0	84.3	84.0	61.45	-518.5	-2,797.7	320.2	172.3	147.88	2.165	
10,300.0	7,241.0	10,229.3	7,088.0	87.0	86.7	61.51	-519.4	-2,897.7	320.7	167.9	152.85	2.098	
10,400.0	7,241.0	10,329.3	7,088.0	89.8	89.5	61.56	-520.4	-2,997.7	321.3	163.5	157.83	2.036	
10,500.0	7,241.0	10,429.3	7,088.0	92.5	92.2	61.61	-521.3	-3,097.7	321.8	159.0	162.81	1.976	
10,600.0	7,241.0	10,529.3	7,088.0	95.3	95.0	61.66	-522.3	-3,197.7	322.3	154.5	167.79	1.921	
10,700.0	7,241.0	10,629.3	7,088.0	98.0	97.8	61.70	-523.2	-3,297.7	322.7	149.9	172.78	1.868	
10,800.0	7,241.0	10,729.3	7,088.0	100.8	100.5	61.74	-524.2	-3,397.7	323.1	145.3	177.77	1.818	
10,900.0	7,241.0	10,829.3	7,088.0	103.6	103.3	61.77	-525.1	-3,497.7	323.5	140.7	182.76	1.770	
11,000.0	7,241.0	10,929.3	7,088.0	106.3	106.1	61.80	-526.1	-3,597.7	323.8	136.0	187.75	1.725	
11,100.0	7,241.0	11,029.3	7,088.0	109.1	108.8	61.83	-527.0	-3,697.7	324.1	131.4	192.73	1.682	
11,200.0	7,241.0	11,129.3	7,088.0	111.9	111.6	61.85	-527.9	-3,797.7	324.3	126.6	197.72	1.640	
11,300.0	7,241.0	11,229.3	7,088.0	114.6	114.4	61.88	-528.9	-3,897.6	324.6	121.9	202.71	1.601	
11,400.0	7,241.0	11,329.3	7,088.0	117.4	117.2	61.89	-529.8	-3,997.6	324.8	117.1	207.70	1.564	
11,500.0	7,241.0	11,429.3	7,088.0	120.2	119.9	61.91	-530.8	-4,097.6	324.9	112.2	212.68	1.528	
11,600.0	7,241.0	11,529.3	7,088.0	122.9	122.7	61.92	-531.7	-4,197.6	325.0	107.4	217.66	1.493 Level 3	
11,700.0	7,241.0	11,629.3	7,088.0	125.7	125.5	61.93	-532.7	-4,297.6	325.1	102.5	222.64	1.460 Level 3	
11,800.0	7,241.0	11,729.3	7,088.0	128.5	128.3	61.93	-533.6	-4,397.6	325.2	97.6	227.61	1.429 Level 3	
11,862.6	7,241.0	11,791.9	7,088.0	130.2	130.0	61.93	-534.2	-4,460.3	325.2	94.5	230.72	1.410 Level 3	
11,905.6	7,241.0	11,833.8	7,088.0	131.4	131.2	61.93	-534.6	-4,502.1	325.2	92.4	232.83	1.397 Level 3, SF	

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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	-0.11	15.2	0.0	15.2	15.2	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	-0.11	15.2	0.0	15.2	14.9	0.22	67.426		
200.0	200.0	200.0	200.0	0.3	0.3	-0.11	15.2	0.0	15.2	14.5	0.67	22.475		
300.0	300.0	300.0	300.0	0.6	0.6	-0.11	15.2	0.0	15.2	14.0	1.12	13.485		
400.0	400.0	400.0	400.0	0.8	0.8	-0.11	15.2	0.0	15.2	13.6	1.57	9.632		
500.0	500.0	500.0	500.0	1.0	1.0	-0.11	15.2	0.0	15.2	13.1	2.02	7.492		
600.0	600.0	600.0	600.0	1.2	1.2	-0.11	15.2	0.0	15.2	12.7	2.47	6.130		
700.0	700.0	700.0	700.0	1.5	1.5	-0.11	15.2	0.0	15.2	12.2	2.92	5.187		
800.0	800.0	800.0	800.0	1.7	1.7	-0.11	15.2	0.0	15.2	11.8	3.37	4.495		
900.0	900.0	900.0	900.0	1.9	1.9	-0.11	15.2	0.0	15.2	11.3	3.82	3.966		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-0.11	15.2	0.0	15.2	10.9	4.27	3.549 CC, ES		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.4	-158.96	15.2	0.0	16.4	11.7	4.69	3.488		
1,200.0	1,199.9	1,199.9	1,199.9	2.5	2.6	-162.97	15.2	0.0	20.1	15.0	5.10	3.941		
1,300.0	1,299.7	1,300.3	1,300.3	2.7	2.8	-166.18	14.0	0.6	25.2	19.7	5.48	4.594		
1,400.0	1,399.3	1,400.9	1,400.8	2.9	3.0	-167.84	10.5	2.5	30.4	24.5	5.84	5.195		
1,500.0	1,498.6	1,501.6	1,501.3	3.1	3.2	-168.61	4.7	5.6	35.6	29.4	6.22	5.726		
1,600.0	1,597.5	1,602.4	1,601.7	3.4	3.4	-168.82	-3.5	10.1	40.9	34.3	6.61	6.192		
1,700.0	1,696.1	1,703.4	1,701.9	3.7	3.6	-168.66	-14.0	15.8	46.2	39.2	7.01	6.601		
1,718.5	1,714.2	1,722.0	1,720.4	3.7	3.6	-168.61	-16.2	16.9	47.2	40.2	7.08	6.670		
1,800.0	1,794.3	1,804.5	1,802.0	4.0	3.8	-168.07	-26.8	22.7	50.8	43.3	7.43	6.830		
1,900.0	1,892.6	1,904.4	1,900.6	4.3	4.1	-167.17	-40.6	30.2	54.1	46.2	7.88	6.867		
2,000.0	1,990.8	2,004.4	1,999.3	4.7	4.4	-166.37	-54.4	37.7	57.5	49.1	8.34	6.889		
2,100.0	2,089.0	2,104.3	2,098.0	5.1	4.7	-165.67	-68.3	45.2	60.8	52.0	8.81	6.902		
2,200.0	2,187.3	2,204.2	2,196.7	5.4	5.0	-165.03	-82.1	52.7	64.2	54.9	9.29	6.906		
2,300.0	2,285.5	2,304.2	2,295.4	5.8	5.3	-164.46	-95.9	60.2	67.6	57.8	9.79	6.904		
2,400.0	2,383.8	2,404.1	2,394.1	6.2	5.7	-163.95	-109.7	67.7	71.0	60.7	10.29	6.898		
2,500.0	2,482.0	2,504.1	2,492.8	6.6	6.0	-163.48	-123.5	75.2	74.3	63.6	10.79	6.888		
2,600.0	2,580.2	2,604.0	2,591.5	7.0	6.3	-163.05	-137.4	82.6	77.7	66.4	11.31	6.875		
2,700.0	2,678.5	2,703.9	2,690.2	7.4	6.7	-162.66	-151.2	90.1	81.1	69.3	11.83	6.860		
2,800.0	2,776.7	2,803.9	2,788.9	7.8	7.0	-162.30	-165.0	97.6	84.5	72.2	12.35	6.844		
2,900.0	2,874.9	2,903.8	2,887.6	8.2	7.4	-161.97	-178.8	105.1	87.9	75.1	12.88	6.827		
3,000.0	2,973.2	3,003.8	2,986.3	8.6	7.7	-161.66	-192.6	112.6	91.4	77.9	13.42	6.809		
3,100.0	3,071.4	3,103.7	3,085.0	9.0	8.1	-161.38	-206.5	120.1	94.8	80.8	13.95	6.791		
3,200.0	3,169.6	3,203.6	3,183.7	9.4	8.4	-161.11	-220.3	127.6	98.2	83.7	14.50	6.773		
3,300.0	3,267.9	3,303.6	3,282.4	9.8	8.8	-160.86	-234.1	135.1	101.6	86.6	15.04	6.755		
3,400.0	3,366.1	3,403.5	3,381.1	10.2	9.2	-160.63	-247.9	142.6	105.0	89.4	15.59	6.737		
3,500.0	3,464.3	3,503.5	3,479.8	10.7	9.5	-160.41	-261.7	150.1	108.4	92.3	16.14	6.720		
3,600.0	3,562.6	3,603.4	3,578.5	11.1	9.9	-160.21	-275.5	157.6	111.8	95.2	16.69	6.702		
3,700.0	3,660.8	3,703.3	3,677.2	11.5	10.2	-160.02	-289.4	165.1	115.3	98.0	17.24	6.685		
3,800.0	3,759.1	3,803.3	3,775.9	11.9	10.6	-159.84	-303.2	172.5	118.7	100.9	17.80	6.669		
3,900.0	3,857.3	3,903.2	3,874.6	12.3	11.0	-159.67	-317.0	180.0	122.1	103.8	18.35	6.653		
4,000.0	3,955.5	4,003.2	3,973.3	12.7	11.4	-159.51	-330.8	187.5	125.5	106.6	18.91	6.637		
4,100.0	4,053.8	4,103.1	4,072.0	13.2	11.7	-159.35	-344.6	195.0	129.0	109.5	19.48	6.622		
4,200.0	4,152.0	4,203.0	4,170.7	13.6	12.1	-159.21	-358.5	202.5	132.4	112.3	20.04	6.607		
4,300.0	4,250.2	4,303.0	4,269.4	14.0	12.5	-159.07	-372.3	210.0	135.8	115.2	20.60	6.592		
4,400.0	4,348.5	4,402.9	4,368.1	14.4	12.8	-158.94	-386.1	217.5	139.2	118.1	21.17	6.578		
4,500.0	4,446.7	4,502.9	4,466.8	14.8	13.2	-158.82	-399.9	225.0	142.7	120.9	21.73	6.565		
4,600.0	4,544.9	4,602.8	4,565.5	15.3	13.6	-158.70	-413.7	232.5	146.1	123.8	22.30	6.551		
4,700.0	4,643.2	4,702.8	4,664.2	15.7	13.9	-158.59	-427.6	240.0	149.5	126.7	22.87	6.539		
4,800.0	4,741.4	4,802.7	4,762.9	16.1	14.3	-158.48	-441.4	247.5	153.0	129.5	23.44	6.526		
4,900.0	4,839.7	4,902.6	4,861.6	16.5	14.7	-158.37	-455.2	254.9	156.4	132.4	24.01	6.514		
5,000.0	4,937.9	5,002.6	4,960.3	17.0	15.1	-158.27	-469.0	262.4	159.8	135.2	24.58	6.502		

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

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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		
5,100.0	5,036.1	5,102.5	5,058.9	17.4	15.4	-158.18	-482.8	269.9	163.2	138.1	25.15	6.491		
5,200.0	5,134.4	5,202.5	5,157.6	17.8	15.8	-158.09	-496.6	277.4	166.7	141.0	25.72	6.480		
5,300.0	5,232.6	5,302.4	5,256.3	18.2	16.2	-158.00	-510.5	284.9	170.1	143.8	26.29	6.470		
5,332.3	5,264.3	5,334.7	5,288.2	18.4	16.3	-157.97	-514.9	287.3	171.2	144.7	26.48	6.466		
5,400.0	5,331.0	5,400.0	5,352.7	18.6	16.6	-157.84	-524.0	292.2	172.8	145.9	26.87	6.431		
5,500.0	5,429.9	5,497.0	5,448.8	18.9	16.8	-157.55	-535.8	298.7	174.1	146.7	27.37	6.360		
5,600.0	5,529.3	5,591.9	5,543.1	19.1	17.0	-157.34	-544.7	303.5	175.0	147.2	27.80	6.297		
5,700.0	5,629.0	5,686.7	5,637.7	19.3	17.2	-157.19	-550.8	306.8	175.7	147.5	28.16	6.239		
5,800.0	5,728.9	5,781.6	5,732.5	19.5	17.4	-157.11	-554.1	308.6	176.1	147.6	28.46	6.186		
5,871.1	5,800.0	5,849.1	5,800.0	19.6	17.5	-0.01	-554.8	309.0	176.2	141.0	35.20	5.005		
5,900.0	5,828.9	5,878.0	5,828.9	19.6	17.5	-0.01	-554.8	309.0	176.2	140.9	35.28	4.993		
6,000.0	5,928.9	5,978.0	5,928.9	19.7	17.7	-0.01	-554.8	309.0	176.2	140.6	35.55	4.956		
6,100.0	6,028.9	6,078.0	6,028.9	19.8	17.8	-0.01	-554.8	309.0	176.2	140.3	35.81	4.919		
6,200.0	6,128.9	6,178.0	6,128.9	20.0	17.9	-0.01	-554.8	309.0	176.2	140.1	36.09	4.882		
6,300.0	6,228.9	6,278.0	6,228.9	20.1	18.1	-0.01	-554.8	309.0	176.2	139.8	36.36	4.845		
6,400.0	6,328.9	6,378.0	6,328.9	20.2	18.2	-0.01	-554.8	309.0	176.2	139.5	36.64	4.808		
6,500.0	6,428.9	6,478.0	6,428.9	20.3	18.4	-0.01	-554.8	309.0	176.2	139.2	36.92	4.771		
6,600.0	6,528.9	6,578.0	6,528.9	20.5	18.5	-0.01	-554.8	309.0	176.2	138.9	37.21	4.735		
6,700.0	6,628.9	6,678.0	6,628.9	20.6	18.7	-0.01	-554.8	309.0	176.2	138.7	37.49	4.698		
6,803.0	6,731.8	6,780.9	6,731.8	20.7	18.8	-0.01	-554.8	309.0	176.2	138.4	37.79	4.661		
6,850.0	6,778.8	6,827.9	6,778.8	20.8	18.9	92.20	-554.8	309.0	176.2	144.1	32.13	5.485		
6,900.0	6,828.3	6,877.4	6,828.3	20.8	18.9	94.41	-554.8	309.0	176.6	144.0	32.60	5.418		
6,950.0	6,876.8	6,925.9	6,876.8	20.8	19.0	97.96	-554.8	309.0	178.0	144.7	33.24	5.354		
7,000.0	6,924.0	6,973.1	6,924.0	20.9	19.1	102.52	-554.8	309.0	181.1	147.1	33.94	5.336		
7,050.0	6,969.3	7,022.3	6,973.1	20.9	19.2	107.91	-554.9	308.0	186.8	152.3	34.55	5.408		
7,100.0	7,012.4	7,075.4	7,025.9	20.8	19.2	113.27	-555.0	302.0	194.6	159.8	34.81	5.590		
7,150.0	7,052.7	7,131.4	7,080.5	20.8	19.3	118.21	-555.3	289.8	204.0	169.3	34.61	5.892		
7,200.0	7,090.0	7,190.5	7,136.4	20.8	19.3	122.69	-555.8	270.5	214.4	180.4	33.96	6.313		
7,250.0	7,123.8	7,253.1	7,192.6	20.8	19.3	126.69	-556.5	243.2	225.4	192.5	32.91	6.848		
7,300.0	7,153.9	7,319.4	7,248.2	20.7	19.2	130.19	-557.4	207.1	236.4	204.8	31.58	7.486		
7,350.0	7,179.9	7,389.7	7,301.4	20.7	19.2	133.19	-558.5	161.2	247.0	216.8	30.13	8.197		
7,400.0	7,201.6	7,464.0	7,350.2	20.7	19.2	135.66	-559.9	105.3	256.5	227.7	28.75	8.920		
7,450.0	7,218.8	7,542.1	7,392.2	20.7	19.1	137.60	-561.5	39.6	264.5	236.8	27.69	9.553		
7,500.0	7,231.4	7,623.5	7,424.9	20.7	19.1	138.99	-563.4	-34.8	270.5	243.3	27.17	9.955		
7,550.0	7,239.1	7,707.2	7,445.7	20.7	19.0	139.80	-565.4	-115.8	274.2	246.8	27.41	10.003		
7,604.3	7,241.0	7,797.2	7,452.0	20.8	19.6	140.02	-567.6	-204.3	275.4	246.8	28.60	9.628		
7,605.3	7,241.0	7,798.1	7,452.0	20.8	19.6	140.02	-567.6	-205.3	275.4	246.8	28.62	9.622		
7,700.0	7,241.0	7,891.7	7,452.0	21.6	21.0	139.91	-569.4	-298.8	275.8	245.1	30.73	8.976		
7,800.0	7,241.0	7,991.7	7,452.0	23.1	22.8	139.78	-571.2	-398.8	276.3	243.1	33.25	8.310		
7,900.0	7,241.0	8,091.7	7,452.0	25.0	24.8	139.66	-572.9	-498.8	276.8	240.8	36.01	7.687		
8,000.0	7,241.0	8,191.7	7,452.0	27.1	26.9	139.55	-574.7	-598.7	277.3	238.3	38.96	7.117		
8,100.0	7,241.0	8,291.7	7,452.0	29.3	29.2	139.44	-576.5	-698.7	277.7	235.7	42.06	6.603		
8,200.0	7,241.0	8,391.7	7,452.0	31.6	31.5	139.34	-578.3	-798.7	278.1	232.9	45.28	6.143		
8,300.0	7,241.0	8,491.6	7,452.0	34.0	33.9	139.25	-580.1	-898.7	278.5	229.9	48.60	5.731		
8,400.0	7,241.0	8,591.6	7,452.0	36.5	36.3	139.16	-581.9	-998.7	278.9	226.9	52.00	5.363		
8,500.0	7,241.0	8,691.6	7,452.0	38.9	38.8	139.08	-583.7	-1,098.7	279.2	223.8	55.47	5.034		
8,600.0	7,241.0	8,791.6	7,452.0	41.5	41.3	139.01	-585.5	-1,198.6	279.5	220.5	59.00	4.738		
8,700.0	7,241.0	8,891.6	7,452.0	44.0	43.9	138.94	-587.3	-1,298.6	279.8	217.3	62.57	4.472		
8,800.0	7,241.0	8,991.6	7,452.0	46.6	46.5	138.88	-589.1	-1,398.6	280.1	213.9	66.18	4.232		
8,900.0	7,241.0	9,091.6	7,452.0	49.2	49.1	138.82	-590.8	-1,498.6	280.3	210.5	69.82	4.015		
9,000.0	7,241.0	9,191.6	7,452.0	51.9	51.7	138.77	-592.6	-1,598.6	280.5	207.1	73.48	3.818		
9,100.0	7,241.0	9,291.6	7,452.0	54.5	54.4	138.73	-594.4	-1,698.6	280.7	203.6	77.17	3.638		

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

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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		
9,200.0	7,241.0	9,391.6	7,452.0	57.2	57.1	138.69	-596.2	-1,798.5	280.9	200.0	80.88	3.473		
9,300.0	7,241.0	9,491.6	7,452.0	59.8	59.7	138.66	-598.0	-1,898.5	281.0	196.4	84.59	3.322		
9,400.0	7,241.0	9,591.6	7,452.0	62.5	62.4	138.64	-599.8	-1,998.5	281.1	192.8	88.32	3.183		
9,500.0	7,241.0	9,691.6	7,452.0	65.2	65.1	138.62	-601.6	-2,098.5	281.2	189.2	92.06	3.055		
9,600.0	7,241.0	9,791.6	7,452.0	67.9	67.8	138.61	-603.4	-2,198.5	281.3	185.5	95.80	2.936		
9,700.0	7,241.0	9,891.6	7,452.0	70.6	70.5	138.60	-605.2	-2,298.5	281.3	181.8	99.54	2.826		
9,800.0	7,241.0	9,991.6	7,452.0	73.4	73.3	138.60	-606.9	-2,398.4	281.3	178.0	103.29	2.724		
9,900.0	7,241.0	10,091.6	7,452.0	76.1	76.0	138.60	-608.7	-2,498.4	281.3	174.3	107.03	2.628		
10,000.0	7,241.0	10,191.6	7,452.0	78.8	78.7	138.61	-610.5	-2,598.4	281.2	170.5	110.76	2.539		
10,100.0	7,241.0	10,291.6	7,452.0	81.5	81.5	138.63	-612.3	-2,698.4	281.2	166.7	114.49	2.456		
10,200.0	7,241.0	10,391.6	7,452.0	84.3	84.2	138.65	-614.1	-2,798.4	281.1	162.8	118.22	2.377		
10,300.0	7,241.0	10,491.6	7,452.0	87.0	87.0	138.68	-615.9	-2,898.4	280.9	159.0	121.93	2.304		
10,400.0	7,241.0	10,591.6	7,452.0	89.8	89.7	138.72	-617.7	-2,998.3	280.8	155.1	125.63	2.235		
10,500.0	7,241.0	10,691.6	7,452.0	92.5	92.5	138.76	-619.5	-3,098.3	280.6	151.3	129.32	2.170		
10,600.0	7,241.0	10,791.6	7,452.0	95.3	95.2	138.81	-621.3	-3,198.3	280.4	147.4	133.00	2.108		
10,700.0	7,241.0	10,891.6	7,452.0	98.0	98.0	138.86	-623.0	-3,298.3	280.2	143.5	136.66	2.050		
10,800.0	7,241.0	10,991.6	7,452.0	100.8	100.7	138.92	-624.8	-3,398.3	279.9	139.6	140.30	1.995		
10,900.0	7,241.0	11,091.6	7,452.0	103.6	103.5	138.99	-626.6	-3,498.3	279.6	135.7	143.92	1.943		
11,000.0	7,241.0	11,191.6	7,452.0	106.3	106.3	139.06	-628.4	-3,598.2	279.3	131.8	147.52	1.893		
11,100.0	7,241.0	11,291.6	7,452.0	109.1	109.0	139.14	-630.2	-3,698.2	279.0	127.9	151.09	1.846		
11,200.0	7,241.0	11,391.6	7,452.0	111.9	111.8	139.23	-632.0	-3,798.2	278.6	124.0	154.65	1.802		
11,300.0	7,241.0	11,491.6	7,452.0	114.6	114.6	139.32	-633.8	-3,898.2	278.2	120.1	158.17	1.759		
11,400.0	7,241.0	11,591.6	7,452.0	117.4	117.3	139.42	-635.6	-3,998.2	277.8	116.2	161.67	1.718		
11,500.0	7,241.0	11,691.6	7,452.0	120.2	120.1	139.52	-637.4	-4,098.2	277.4	112.3	165.14	1.680		
11,600.0	7,241.0	11,791.6	7,452.0	122.9	122.9	139.63	-639.2	-4,198.1	276.9	108.4	168.58	1.643		
11,700.0	7,241.0	11,891.6	7,452.0	125.7	125.7	139.75	-640.9	-4,298.1	276.5	104.5	171.99	1.607		
11,800.0	7,241.0	11,991.6	7,452.0	128.5	128.4	139.88	-642.7	-4,398.1	275.9	100.6	175.36	1.574		
11,896.7	7,241.0	12,088.3	7,452.0	131.2	131.1	140.00	-644.5	-4,494.8	275.4	96.9	178.58	1.542		
11,905.6	7,241.0	12,095.0	7,452.0	131.4	131.3	140.01	-644.6	-4,501.5	275.4	96.6	178.85	1.540 SF		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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	179.78	-14.8	0.1	14.8	14.8	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	179.78	-14.8	0.1	14.8	14.6	0.22	65.967		
200.0	200.0	200.0	200.0	0.3	0.3	179.78	-14.8	0.1	14.8	14.2	0.67	21.989		
300.0	300.0	300.0	300.0	0.6	0.6	179.78	-14.8	0.1	14.8	13.7	1.12	13.193		
400.0	400.0	400.0	400.0	0.8	0.8	179.78	-14.8	0.1	14.8	13.3	1.57	9.424		
500.0	500.0	500.0	500.0	1.0	1.0	179.78	-14.8	0.1	14.8	12.8	2.02	7.330		
600.0	600.0	600.0	600.0	1.2	1.2	179.78	-14.8	0.1	14.8	12.4	2.47	5.997		
700.0	700.0	700.0	700.0	1.5	1.5	179.78	-14.8	0.1	14.8	11.9	2.92	5.074		
800.0	800.0	800.0	800.0	1.7	1.7	179.78	-14.8	0.1	14.8	11.5	3.37	4.398 CC, ES		
900.0	900.0	899.6	899.6	1.9	1.9	178.55	-16.1	0.4	16.1	12.3	3.79	4.241		
1,000.0	1,000.0	999.1	999.0	2.1	2.1	175.79	-19.8	1.5	19.9	15.7	4.20	4.741		
1,100.0	1,100.0	1,098.4	1,098.1	2.3	2.3	16.68	-26.0	3.2	25.1	20.5	4.58	5.468		
1,200.0	1,199.9	1,197.5	1,196.8	2.5	2.5	15.96	-34.7	5.7	30.3	25.3	4.95	6.112		
1,300.0	1,299.7	1,296.5	1,295.1	2.7	2.7	15.96	-45.9	8.8	35.5	30.2	5.34	6.658		
1,400.0	1,399.3	1,395.4	1,393.0	2.9	3.0	16.41	-59.4	12.6	40.9	35.1	5.74	7.121		
1,500.0	1,498.6	1,494.2	1,490.3	3.1	3.3	17.15	-75.4	17.1	46.2	40.1	6.15	7.514		
1,600.0	1,597.5	1,592.8	1,587.1	3.4	3.6	18.08	-93.7	22.3	51.6	45.1	6.58	7.846		
1,700.0	1,696.1	1,691.2	1,683.2	3.7	4.0	19.14	-114.5	28.1	57.1	50.1	7.03	8.122		
1,718.5	1,714.2	1,709.4	1,700.9	3.7	4.0	19.35	-118.6	29.2	58.1	51.0	7.12	8.168		
1,800.0	1,794.3	1,790.9	1,780.0	4.0	4.4	20.25	-137.0	34.4	62.6	55.1	7.52	8.325		
1,900.0	1,892.6	1,890.7	1,877.1	4.3	4.8	21.20	-159.6	40.8	68.1	60.0	8.02	8.484		
2,000.0	1,990.8	1,990.5	1,974.1	4.7	5.3	22.01	-182.2	47.1	73.5	65.0	8.54	8.609		
2,100.0	2,089.0	2,090.4	2,071.1	5.1	5.7	22.70	-204.8	53.5	79.1	70.0	9.08	8.708		
2,200.0	2,187.3	2,190.2	2,168.2	5.4	6.2	23.31	-227.4	59.8	84.6	74.9	9.62	8.787		
2,300.0	2,285.5	2,290.1	2,265.2	5.8	6.6	23.84	-250.0	66.2	90.1	79.9	10.18	8.850		
2,400.0	2,383.8	2,389.9	2,362.3	6.2	7.1	24.31	-272.5	72.5	95.6	84.9	10.74	8.900		
2,500.0	2,482.0	2,489.8	2,459.3	6.6	7.6	24.72	-295.1	78.9	101.1	89.8	11.31	8.939		
2,600.0	2,580.2	2,589.6	2,556.4	7.0	8.1	25.10	-317.7	85.3	106.7	94.8	11.89	8.970		
2,700.0	2,678.5	2,689.5	2,653.4	7.4	8.6	25.43	-340.3	91.6	112.2	99.7	12.48	8.995		
2,800.0	2,776.7	2,789.3	2,750.5	7.8	9.1	25.74	-362.9	98.0	117.8	104.7	13.07	9.014		
2,900.0	2,874.9	2,889.1	2,847.5	8.2	9.5	26.02	-385.5	104.3	123.3	109.7	13.66	9.028		
3,000.0	2,973.2	2,989.0	2,944.6	8.6	10.0	26.27	-408.1	110.7	128.9	114.6	14.26	9.039		
3,100.0	3,071.4	3,088.8	3,041.6	9.0	10.5	26.51	-430.7	117.0	134.4	119.6	14.86	9.048		
3,200.0	3,169.6	3,188.7	3,138.7	9.4	11.0	26.72	-453.3	123.4	140.0	124.5	15.46	9.053		
3,300.0	3,267.9	3,288.5	3,235.7	9.8	11.5	26.92	-475.9	129.7	145.5	129.5	16.07	9.057		
3,400.0	3,366.1	3,388.4	3,332.7	10.2	12.0	27.10	-498.5	136.1	151.1	134.4	16.68	9.060		
3,500.0	3,464.3	3,488.2	3,429.8	10.7	12.5	27.27	-521.1	142.5	156.7	139.4	17.29	9.061		
3,600.0	3,562.6	3,588.1	3,526.8	11.1	13.0	27.43	-543.7	148.8	162.2	144.3	17.90	9.061		
3,700.0	3,660.8	3,687.9	3,623.9	11.5	13.5	27.58	-566.3	155.2	167.8	149.3	18.52	9.060		
3,800.0	3,759.1	3,787.7	3,720.9	11.9	14.0	27.72	-588.9	161.5	173.3	154.2	19.14	9.059		
3,900.0	3,857.3	3,887.6	3,818.0	12.3	14.5	27.85	-611.5	167.9	178.9	159.2	19.75	9.056		
4,000.0	3,955.5	3,987.4	3,915.0	12.7	15.0	27.97	-634.1	174.2	184.5	164.1	20.38	9.054		
4,100.0	4,053.8	4,087.3	4,012.1	13.2	15.5	28.09	-656.7	180.6	190.0	169.0	21.00	9.051		
4,200.0	4,152.0	4,187.1	4,109.1	13.6	16.0	28.19	-679.3	186.9	195.6	174.0	21.62	9.048		
4,300.0	4,250.2	4,287.0	4,206.2	14.0	16.5	28.30	-701.8	193.3	201.2	178.9	22.24	9.044		
4,400.0	4,348.5	4,386.8	4,303.2	14.4	17.0	28.39	-724.4	199.7	206.7	183.9	22.87	9.041		
4,500.0	4,446.7	4,486.7	4,400.3	14.8	17.5	28.49	-747.0	206.0	212.3	188.8	23.49	9.037		
4,600.0	4,544.9	4,586.5	4,497.3	15.3	18.0	28.57	-769.6	212.4	217.9	193.8	24.12	9.033		
4,700.0	4,643.2	4,686.3	4,594.4	15.7	18.5	28.66	-792.2	218.7	223.5	198.7	24.75	9.029		
4,800.0	4,741.4	4,786.2	4,691.4	16.1	19.0	28.74	-814.8	225.1	229.0	203.6	25.38	9.025		
4,900.0	4,839.7	4,886.0	4,788.4	16.5	19.5	28.81	-837.4	231.4	234.6	208.6	26.01	9.021		
5,000.0	4,937.9	4,985.9	4,885.5	17.0	20.0	28.88	-860.0	237.8	240.2	213.5	26.64	9.017		

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

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	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		
5,100.0	5,036.1	5,085.7	4,982.5	17.4	20.5	28.95	-882.6	244.1	245.7	218.5	27.27	9.013		
5,200.0	5,134.4	5,185.6	5,079.6	17.8	21.0	29.02	-905.2	250.5	251.3	223.4	27.90	9.009		
5,300.0	5,232.6	5,285.4	5,176.6	18.2	21.5	29.08	-927.8	256.9	256.9	228.4	28.53	9.005		
5,332.3	5,264.3	5,317.7	5,208.0	18.4	21.7	29.10	-935.1	258.9	258.7	230.0	28.73	9.003		
5,400.0	5,331.0	5,385.2	5,273.6	18.6	22.0	29.10	-950.4	263.2	263.2	234.0	29.12	9.036		
5,500.0	5,429.9	5,484.8	5,370.4	18.9	22.5	28.82	-972.9	269.5	272.3	242.7	29.58	9.206		
5,600.0	5,529.3	5,584.0	5,466.8	19.1	23.0	28.26	-995.4	275.9	284.5	254.6	29.93	9.507		
5,700.0	5,629.0	5,682.7	5,562.7	19.3	23.5	27.48	-1,017.7	282.1	299.9	269.7	30.18	9.934		
5,800.0	5,728.9	5,784.6	5,661.8	19.5	24.0	26.49	-1,040.5	288.6	318.1	287.8	30.35	10.483		
5,871.1	5,800.0	5,862.7	5,738.2	19.6	24.3	-177.18	-1,056.3	293.0	331.5	289.6	41.86	7.918		
5,900.0	5,828.9	5,894.6	5,769.5	19.6	24.4	-177.52	-1,062.1	294.6	336.7	294.7	42.06	8.006		
6,000.0	5,928.9	6,006.0	5,879.4	19.7	24.7	-178.46	-1,079.9	299.6	352.6	309.9	42.64	8.269		
6,100.0	6,028.9	6,118.7	5,991.2	19.8	25.0	-179.14	-1,093.8	303.5	364.7	321.6	43.13	8.457		
6,200.0	6,128.9	6,232.3	6,104.4	20.0	25.2	-179.58	-1,103.4	306.2	373.2	329.7	43.54	8.571		
6,300.0	6,228.9	6,346.6	6,218.5	20.1	25.4	-179.81	-1,108.7	307.7	377.9	334.0	43.87	8.612		
6,400.0	6,328.9	6,457.0	6,328.9	20.2	25.5	-179.86	-1,109.8	308.1	378.8	334.7	44.14	8.582		
6,500.0	6,428.9	6,557.0	6,428.9	20.3	25.6	-179.86	-1,109.8	308.1	378.8	334.5	44.38	8.537		
6,600.0	6,528.9	6,657.0	6,528.9	20.5	25.7	-179.86	-1,109.8	308.1	378.8	334.2	44.61	8.492		
6,700.0	6,628.9	6,757.0	6,628.9	20.6	25.8	-179.86	-1,109.8	308.1	378.8	334.0	44.84	8.448		
6,803.0	6,731.8	6,859.9	6,731.8	20.7	25.9	-179.86	-1,109.8	308.1	378.8	333.7	45.09	8.401		
6,850.0	6,778.8	6,906.9	6,778.8	20.8	25.9	-88.68	-1,109.8	308.1	378.8	345.5	33.30	11.375		
6,900.0	6,828.3	6,956.3	6,828.2	20.8	26.0	-89.64	-1,109.8	307.4	378.7	345.4	33.25	11.389		
6,920.3	6,848.2	6,976.4	6,848.2	20.8	26.0	-90.06	-1,109.9	305.9	378.7	345.5	33.21	11.403		
6,950.0	6,876.8	7,006.0	6,877.6	20.8	26.0	-90.67	-1,110.0	302.4	378.7	345.5	33.15	11.424		
7,000.0	6,924.0	7,056.3	6,926.9	20.9	26.1	-91.70	-1,110.2	292.4	378.8	345.8	33.02	11.472		
7,050.0	6,969.3	7,107.4	6,975.7	20.9	26.1	-92.72	-1,110.6	277.3	379.1	346.2	32.88	11.528		
7,100.0	7,012.4	7,159.2	7,023.4	20.8	26.1	-93.71	-1,111.1	257.1	379.4	346.7	32.75	11.585		
7,150.0	7,052.7	7,211.8	7,069.4	20.8	26.1	-94.67	-1,111.7	231.8	379.8	347.2	32.65	11.634		
7,200.0	7,090.0	7,265.1	7,113.1	20.8	26.1	-95.58	-1,112.5	201.4	380.3	347.7	32.60	11.668		
7,250.0	7,123.8	7,319.0	7,153.9	20.8	26.0	-96.44	-1,113.4	166.0	380.9	348.3	32.63	11.673		
7,300.0	7,153.9	7,373.7	7,191.1	20.7	26.0	-97.22	-1,114.4	126.0	381.5	348.7	32.78	11.639		
7,350.0	7,179.9	7,429.1	7,224.2	20.7	26.0	-97.93	-1,115.5	81.7	382.0	348.9	33.07	11.553		
7,400.0	7,201.6	7,485.0	7,252.5	20.7	26.0	-98.56	-1,116.7	33.6	382.5	349.0	33.53	11.409		
7,450.0	7,218.8	7,541.4	7,275.6	20.7	26.0	-99.08	-1,118.0	-17.9	383.0	348.8	34.19	11.203		
7,500.0	7,231.4	7,598.3	7,292.9	20.7	26.0	-99.51	-1,119.3	-72.1	383.4	348.3	35.05	10.938		
7,550.0	7,239.1	7,655.6	7,304.0	20.7	26.0	-99.83	-1,120.7	-128.2	383.7	347.5	36.12	10.621		
7,604.3	7,241.0	7,720.0	7,308.2	20.8	26.1	-100.08	-1,122.3	-192.4	383.9	346.4	37.51	10.234		
7,605.3	7,241.0	7,721.2	7,308.1	20.8	26.1	-100.07	-1,122.3	-193.5	383.9	346.3	37.54	10.225		
7,700.0	7,241.0	7,817.5	7,308.0	21.6	26.3	-100.07	-1,124.2	-288.9	383.2	342.8	40.39	9.489		
7,800.0	7,241.0	7,917.5	7,308.0	23.1	26.9	-100.09	-1,126.0	-388.9	382.4	338.6	43.83	8.725		
7,900.0	7,241.0	8,017.5	7,308.0	25.0	27.9	-100.11	-1,127.8	-488.8	381.7	334.0	47.67	8.007		
8,000.0	7,241.0	8,117.5	7,308.0	27.1	29.3	-100.13	-1,129.6	-588.8	381.0	329.2	51.81	7.354		
8,100.0	7,241.0	8,217.5	7,308.0	29.3	31.1	-100.15	-1,131.4	-688.8	380.3	324.1	56.19	6.769		
8,200.0	7,241.0	8,317.5	7,308.0	31.6	33.2	-100.16	-1,133.2	-788.8	379.7	318.9	60.75	6.250		
8,300.0	7,241.0	8,417.5	7,308.0	34.0	35.3	-100.18	-1,135.0	-888.8	379.1	313.6	65.46	5.791		
8,400.0	7,241.0	8,517.5	7,308.0	36.5	37.6	-100.19	-1,136.7	-988.7	378.5	308.3	70.29	5.386		
8,500.0	7,241.0	8,617.5	7,308.0	38.9	40.0	-100.21	-1,138.5	-1,088.7	378.0	302.8	75.21	5.026		
8,600.0	7,241.0	8,717.5	7,308.0	41.5	42.4	-100.22	-1,140.3	-1,188.7	377.6	297.4	80.21	4.707		
8,700.0	7,241.0	8,817.5	7,308.0	44.0	44.9	-100.23	-1,142.1	-1,288.7	377.1	291.9	85.28	4.422		
8,800.0	7,241.0	8,917.5	7,308.0	46.6	47.4	-100.24	-1,143.9	-1,388.7	376.7	286.3	90.39	4.168		
8,900.0	7,241.0	9,017.5	7,308.0	49.2	50.0	-100.25	-1,145.7	-1,488.7	376.4	280.8	95.56	3.939		
9,000.0	7,241.0	9,117.5	7,308.0	51.9	52.6	-100.26	-1,147.5	-1,588.6	376.1	275.3	100.75	3.732		

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

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	Offset TVD Reference:	Offset Datum

Offset Design		Stillroven Farm Pad Sec.5-T3N-R68W - Stillroven Farm 9 - Wellbore #1 - Plan #2(6-5-17)											Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
9,100.0	7,241.0	9,217.5	7,308.0	54.5	55.2	-100.27	-1,149.3	-1,688.6	375.8	269.8	105.99	3.546		
9,200.0	7,241.0	9,317.5	7,308.0	57.2	57.8	-100.28	-1,151.0	-1,788.6	375.5	264.3	111.25	3.376		
9,300.0	7,241.0	9,417.5	7,308.0	59.8	60.4	-100.28	-1,152.8	-1,888.6	375.3	258.8	116.53	3.221		
9,400.0	7,241.0	9,517.5	7,308.0	62.5	63.1	-100.29	-1,154.6	-1,988.6	375.2	253.3	121.83	3.079		
9,500.0	7,241.0	9,617.5	7,308.0	65.2	65.7	-100.29	-1,156.4	-2,088.6	375.0	247.9	127.16	2.949		
9,600.0	7,241.0	9,717.5	7,308.0	67.9	68.4	-100.29	-1,158.2	-2,188.6	375.0	242.5	132.50	2.830		
9,700.0	7,241.0	9,817.5	7,308.0	70.6	71.1	-100.29	-1,160.0	-2,288.5	374.9	237.1	137.85	2.720		
9,768.1	7,241.0	9,885.6	7,308.0	72.5	72.9	-100.29	-1,161.2	-2,356.6	374.9	233.4	141.51	2.649		
9,800.0	7,241.0	9,917.5	7,308.0	73.4	73.8	-100.29	-1,161.8	-2,388.5	374.9	231.7	143.22	2.618		
9,900.0	7,241.0	10,017.5	7,308.0	76.1	76.5	-100.29	-1,163.6	-2,488.5	374.9	226.3	148.60	2.523		
10,000.0	7,241.0	10,117.5	7,308.0	78.8	79.2	-100.29	-1,165.3	-2,588.5	375.0	221.0	153.99	2.435		
10,100.0	7,241.0	10,217.5	7,308.0	81.5	81.9	-100.29	-1,167.1	-2,688.5	375.1	215.7	159.39	2.354		
10,200.0	7,241.0	10,317.5	7,308.0	84.3	84.6	-100.28	-1,168.9	-2,788.5	375.3	210.5	164.80	2.277		
10,300.0	7,241.0	10,417.5	7,308.0	87.0	87.3	-100.28	-1,170.7	-2,888.4	375.5	205.2	170.21	2.206		
10,400.0	7,241.0	10,517.5	7,308.0	89.8	90.1	-100.27	-1,172.5	-2,988.4	375.7	200.0	175.64	2.139		
10,500.0	7,241.0	10,617.5	7,308.0	92.5	92.8	-100.27	-1,174.3	-3,088.4	376.0	194.9	181.07	2.076		
10,600.0	7,241.0	10,717.5	7,308.0	95.3	95.6	-100.26	-1,176.1	-3,188.4	376.3	189.8	186.50	2.017		
10,700.0	7,241.0	10,817.5	7,308.0	98.0	98.3	-100.25	-1,177.9	-3,288.4	376.6	184.7	191.95	1.962		
10,800.0	7,241.0	10,917.5	7,308.0	100.8	101.0	-100.24	-1,179.6	-3,388.4	377.0	179.6	197.40	1.910		
10,900.0	7,241.0	11,017.5	7,308.0	103.6	103.8	-100.23	-1,181.4	-3,488.3	377.4	174.6	202.85	1.860		
11,000.0	7,241.0	11,117.5	7,308.0	106.3	106.5	-100.21	-1,183.2	-3,588.3	377.9	169.6	208.31	1.814		
11,100.0	7,241.0	11,217.5	7,308.0	109.1	109.3	-100.20	-1,185.0	-3,688.3	378.4	164.6	213.77	1.770		
11,200.0	7,241.0	11,317.5	7,308.0	111.9	112.1	-100.19	-1,186.8	-3,788.3	378.9	159.7	219.24	1.728		
11,300.0	7,241.0	11,417.5	7,308.0	114.6	114.8	-100.17	-1,188.6	-3,888.3	379.5	154.8	224.71	1.689		
11,400.0	7,241.0	11,517.5	7,308.0	117.4	117.6	-100.15	-1,190.4	-3,988.3	380.1	149.9	230.19	1.651		
11,500.0	7,241.0	11,617.5	7,308.0	120.2	120.3	-100.14	-1,192.2	-4,088.2	380.7	145.1	235.67	1.616		
11,600.0	7,241.0	11,717.5	7,308.0	122.9	123.1	-100.12	-1,193.9	-4,188.2	381.4	140.3	241.15	1.582		
11,700.0	7,241.0	11,817.5	7,308.0	125.7	125.9	-100.10	-1,195.7	-4,288.2	382.2	135.5	246.64	1.549		
11,800.0	7,241.0	11,917.5	7,308.0	128.5	128.6	-100.08	-1,197.5	-4,388.2	382.9	130.8	252.13	1.519		
11,905.6	7,241.0	12,023.1	7,308.0	131.4	131.6	-100.05	-1,199.4	-4,493.7	383.8	125.9	257.94	1.488	Level 3, SF	

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5098.0ft (Original Well Elev)

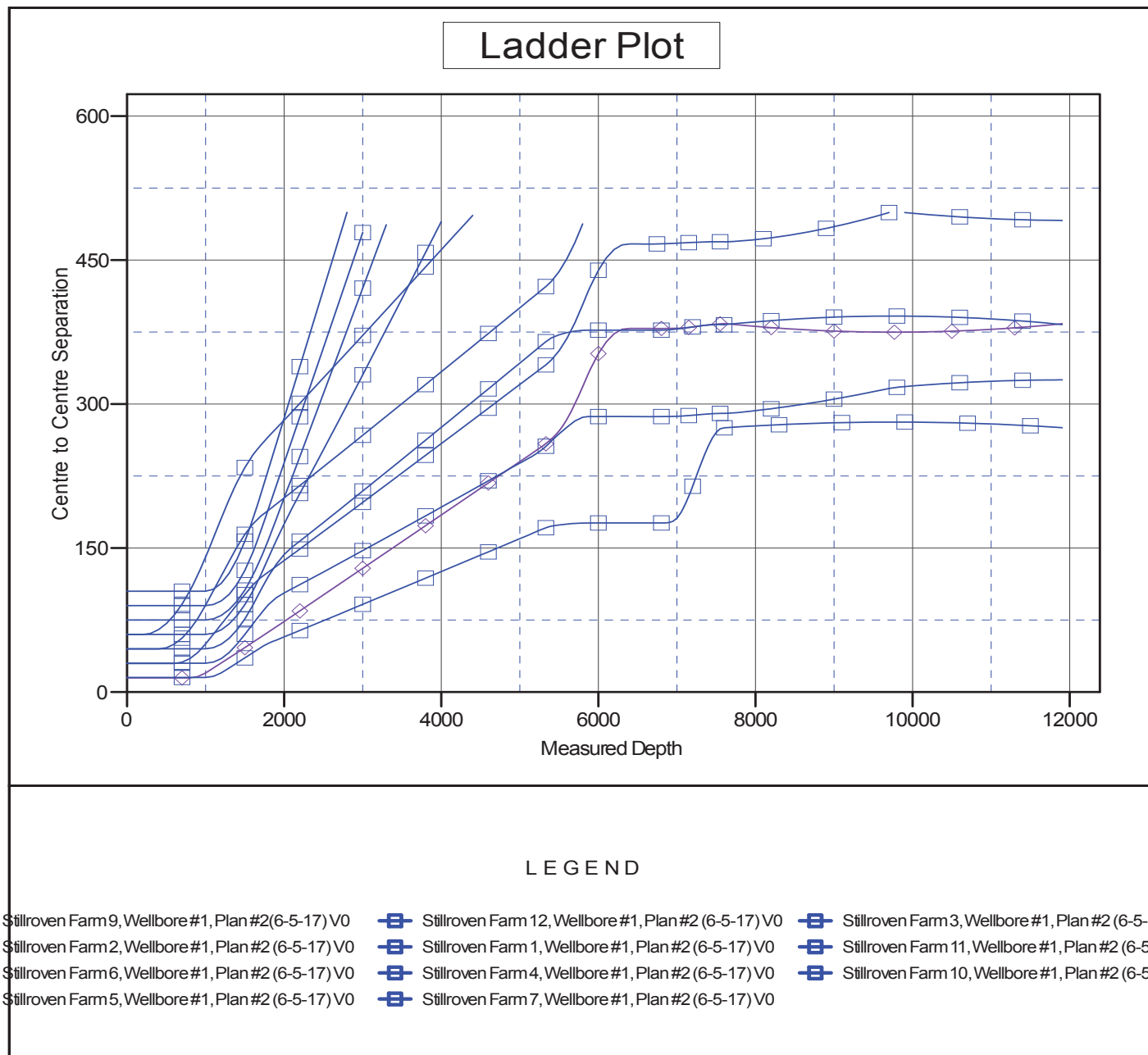
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: Stillroven Farm 8

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.31°



Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 8
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5098.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5098.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #2 (6-5-17)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5098.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Stillroven Farm 8
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.31°

