

Captiva Energy Partners

Well Name: **Stillroven Farm 2**

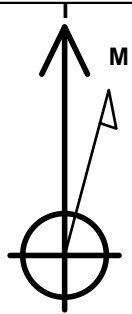
Surface Location: Stillroven Farm Pad Sec.5-T3N-R68W
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
Ground Elevation: 5074.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1338181.68	134292.38	40.260707	-105.018805	

Original Well Elev WELL @ 5097.0ft (Original Well Elev)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
SHL 580'FNL, 310'FEL	1.0	0.0	0.0	40.260707	105.018805
BHL 371'FNL, 460'FWL	2088.0	129.1	-4506.5	40.261061	105.034952
LP 371'FNL, 589'FEL	7196.0	206.4	-208.0	40.261274	105.019551



Azimuths to True North
Magnetic North: 8.19°

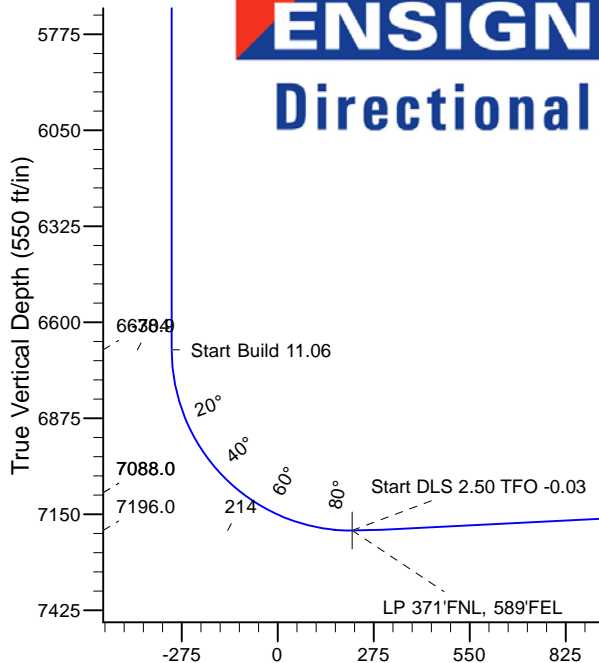
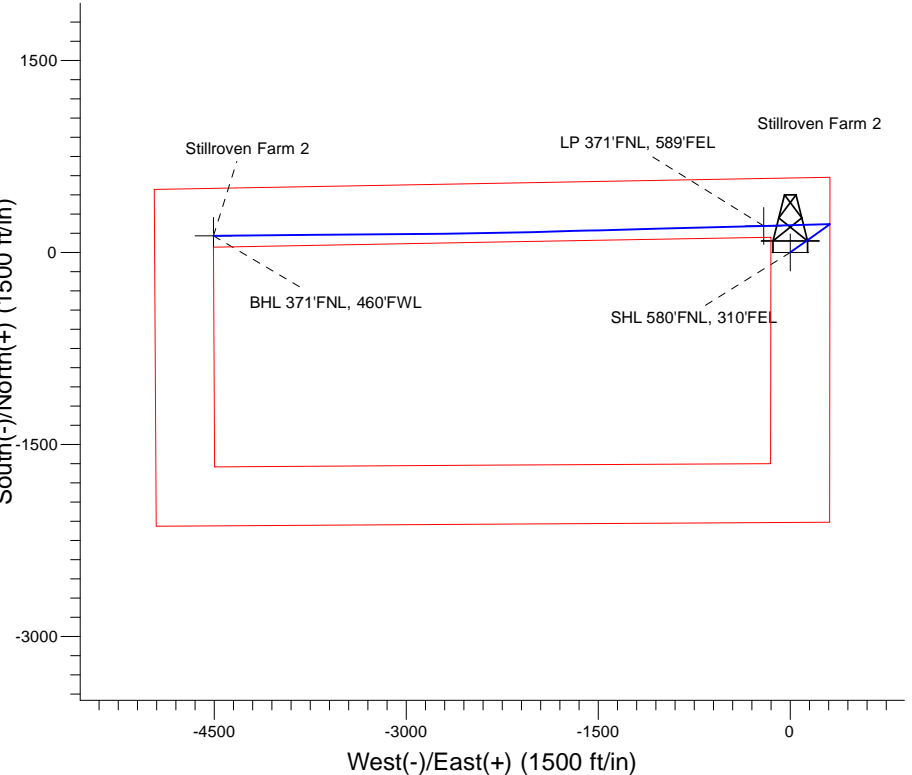
Magnetic Field
Strength: 52405.3nT
Dip Angle: 66.69°
Date: 5/23/2017
Model: IGRF2010

Stillroven Farm Pad Sec.5-T3N-R68W
Stillroven Farm 2
Plan #2 (6-5-17)
12:59, June 05 2017

ANNOTATIONS

TVD	MD	Annotation
1200.0	1200.0	Start Build 1.50
6678.9	6700.4	Start Build 11.06
7196.0	7515.3	Start DLS 2.50 TFO -0.03
7088.0	9769.2	Hold 90 inc
7088.0	11817.4	TD at 11817.4

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	
	21200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
	31650.9	6.76	54.64	1649.9	15.4	21.7	1.50	54.64	-21.2	
	44483.3	6.76	54.64	4462.6	208.5	293.7	0.00	0.00	-287.6	
	54821.5	0.00	0.00	4800.0	220.0	310.0	2.00	180.00	-303.6	
	66700.4	0.00	0.00	6678.8	220.0	310.0	0.00	0.00	-303.6	
	77514.3	90.00	268.49	7196.0	206.4	-207.0	11.06	268.49	212.8	
	87515.3	90.00	268.49	7196.0	206.4	-208.0	0.00	0.00	213.8	LP 371'FNL, 589'FEL
	97631.3	92.90	268.49	7193.1	203.3	-323.9	2.50	-0.03	329.6	
	109646.8	92.90	268.49	7091.1	150.3	-2336.1	0.00	0.00	2339.4	
	119769.2	90.00	269.47	7088.0	148.1	-2458.4	2.50	161.32	2461.7	
	1211817.4	90.00	269.47	7088.0	129.1	-4506.5	0.00	0.00	4508.4	BHL 371'FNL, 460'FWL

Vertical Section at 271.64° (550 ft/in)



Directional

Captiva Energy Partners

SEC.5-T3N-R68W

Stillroven Farm Pad Sec.5-T3N-R68W

Stillroven Farm 2

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 2
Company:	Captiva Energy Partners	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Project:	SEC.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site:	Stillroven Farm Pad Sec.5-T3N-R68W	North Reference:	True
Well:	Stillroven Farm 2	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 2					
Well Position	+N/-S	-15.0 ft	Northing:	1,338,181.61 usft	Latitude:	40.260707
	+E/-W	-0.1 ft	Easting:	3,134,292.38 usft	Longitude:	-105.018806
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	5,074.0 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	271.64

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,650.9	6.76	54.64	1,649.9	15.4	21.7	1.50	1.50	0.00	54.64	
4,483.3	6.76	54.64	4,462.6	208.5	293.7	0.00	0.00	0.00	0.00	
4,821.5	0.00	0.00	4,800.0	220.0	310.0	2.00	-2.00	0.00	180.00	
6,700.4	0.00	0.00	6,678.8	220.0	310.0	0.00	0.00	0.00	0.00	
7,514.3	90.00	268.49	7,196.0	206.4	-207.0	11.06	11.06	0.00	268.49	
7,515.3	90.00	268.49	7,196.0	206.4	-208.0	0.00	0.00	0.00	0.00	LP 371°FNL, 589°FEL
7,631.3	92.90	268.49	7,193.1	203.3	-323.9	2.50	2.50	0.00	-0.03	
9,646.8	92.90	268.49	7,091.1	150.3	-2,336.1	0.00	0.00	0.00	0.00	
9,769.2	90.00	269.47	7,088.0	148.1	-2,458.4	2.50	-2.37	0.80	161.32	
11,817.4	90.00	269.47	7,088.0	129.1	-4,506.5	0.00	0.00	0.00	0.00	BHL 371°FNL, 460°FV

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Company:	Captiva Energy Partners	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
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Site:	Stillroven Farm Pad Sec.5-T3N-R68W	North Reference:	True
Well:	Stillroven Farm 2	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 580'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
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.50									
1,300.0	1.50	54.64	1,300.0	0.8	1.1	-1.0	1.50	1.50	0.00
1,400.0	3.00	54.64	1,399.9	3.0	4.3	-4.2	1.50	1.50	0.00
1,500.0	4.50	54.64	1,499.7	6.8	9.6	-9.4	1.50	1.50	0.00
1,600.0	6.00	54.64	1,599.3	12.1	17.1	-16.7	1.50	1.50	0.00
1,650.9	6.76	54.64	1,649.9	15.4	21.7	-21.2	1.50	1.50	0.00
1,700.0	6.76	54.64	1,698.6	18.7	26.4	-25.8	0.00	0.00	0.00
1,800.0	6.76	54.64	1,797.9	25.5	36.0	-35.3	0.00	0.00	0.00
1,900.0	6.76	54.64	1,897.2	32.4	45.6	-44.7	0.00	0.00	0.00
2,000.0	6.76	54.64	1,996.5	39.2	55.2	-54.1	0.00	0.00	0.00
2,100.0	6.76	54.64	2,095.8	46.0	64.8	-63.5	0.00	0.00	0.00
2,200.0	6.76	54.64	2,195.1	52.8	74.4	-72.9	0.00	0.00	0.00
2,300.0	6.76	54.64	2,294.4	59.6	84.0	-82.3	0.00	0.00	0.00
2,400.0	6.76	54.64	2,393.7	66.4	93.6	-91.7	0.00	0.00	0.00
2,500.0	6.76	54.64	2,493.0	73.3	103.2	-101.1	0.00	0.00	0.00
2,600.0	6.76	54.64	2,592.3	80.1	112.8	-110.5	0.00	0.00	0.00
2,700.0	6.76	54.64	2,691.7	86.9	122.4	-119.9	0.00	0.00	0.00
2,800.0	6.76	54.64	2,791.0	93.7	132.1	-129.3	0.00	0.00	0.00
2,900.0	6.76	54.64	2,890.3	100.5	141.7	-138.7	0.00	0.00	0.00
3,000.0	6.76	54.64	2,989.6	107.3	151.3	-148.1	0.00	0.00	0.00
3,100.0	6.76	54.64	3,088.9	114.2	160.9	-157.5	0.00	0.00	0.00
3,200.0	6.76	54.64	3,188.2	121.0	170.5	-166.9	0.00	0.00	0.00
3,300.0	6.76	54.64	3,287.5	127.8	180.1	-176.3	0.00	0.00	0.00
3,400.0	6.76	54.64	3,386.8	134.6	189.7	-185.7	0.00	0.00	0.00
3,500.0	6.76	54.64	3,486.1	141.4	199.3	-195.2	0.00	0.00	0.00
3,600.0	6.76	54.64	3,585.4	148.2	208.9	-204.6	0.00	0.00	0.00
3,700.0	6.76	54.64	3,684.7	155.1	218.5	-214.0	0.00	0.00	0.00
3,800.0	6.76	54.64	3,784.0	161.9	228.1	-223.4	0.00	0.00	0.00
3,900.0	6.76	54.64	3,883.3	168.7	237.7	-232.8	0.00	0.00	0.00
4,000.0	6.76	54.64	3,982.6	175.5	247.3	-242.2	0.00	0.00	0.00
4,100.0	6.76	54.64	4,081.9	182.3	256.9	-251.6	0.00	0.00	0.00
4,200.0	6.76	54.64	4,181.2	189.1	266.5	-261.0	0.00	0.00	0.00
4,300.0	6.76	54.64	4,280.5	196.0	276.1	-270.4	0.00	0.00	0.00
4,400.0	6.76	54.64	4,379.8	202.8	285.7	-279.8	0.00	0.00	0.00
4,483.3	6.76	54.64	4,462.6	208.5	293.7	-287.6	0.00	0.00	0.00
4,500.0	6.43	54.64	4,479.1	209.6	295.3	-289.2	2.00	-2.00	0.00
4,600.0	4.43	54.64	4,578.7	215.0	303.0	-296.7	2.00	-2.00	0.00
4,700.0	2.43	54.64	4,678.5	218.5	307.9	-301.5	2.00	-2.00	0.00
4,800.0	0.43	54.64	4,778.5	220.0	309.9	-303.5	2.00	-2.00	0.00

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Project:	SEC.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site:	Stillroven Farm Pad Sec.5-T3N-R68W	North Reference:	True
Well:	Stillroven Farm 2	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)
4,821.5	0.00	0.00	4,800.0	220.0	310.0	-303.6	2.00	-2.00	0.00
4,900.0	0.00	0.00	4,878.5	220.0	310.0	-303.6	0.00	0.00	0.00
5,000.0	0.00	0.00	4,978.5	220.0	310.0	-303.6	0.00	0.00	0.00
5,100.0	0.00	0.00	5,078.5	220.0	310.0	-303.6	0.00	0.00	0.00
5,200.0	0.00	0.00	5,178.5	220.0	310.0	-303.6	0.00	0.00	0.00
5,300.0	0.00	0.00	5,278.5	220.0	310.0	-303.6	0.00	0.00	0.00
5,400.0	0.00	0.00	5,378.5	220.0	310.0	-303.6	0.00	0.00	0.00
5,500.0	0.00	0.00	5,478.5	220.0	310.0	-303.6	0.00	0.00	0.00
5,600.0	0.00	0.00	5,578.5	220.0	310.0	-303.6	0.00	0.00	0.00
5,700.0	0.00	0.00	5,678.5	220.0	310.0	-303.6	0.00	0.00	0.00
5,800.0	0.00	0.00	5,778.5	220.0	310.0	-303.6	0.00	0.00	0.00
5,900.0	0.00	0.00	5,878.5	220.0	310.0	-303.6	0.00	0.00	0.00
6,000.0	0.00	0.00	5,978.5	220.0	310.0	-303.6	0.00	0.00	0.00
6,100.0	0.00	0.00	6,078.5	220.0	310.0	-303.6	0.00	0.00	0.00
6,200.0	0.00	0.00	6,178.5	220.0	310.0	-303.6	0.00	0.00	0.00
6,300.0	0.00	0.00	6,278.5	220.0	310.0	-303.6	0.00	0.00	0.00
6,400.0	0.00	0.00	6,378.5	220.0	310.0	-303.6	0.00	0.00	0.00
6,500.0	0.00	0.00	6,478.5	220.0	310.0	-303.6	0.00	0.00	0.00
6,600.0	0.00	0.00	6,578.5	220.0	310.0	-303.6	0.00	0.00	0.00
6,700.0	0.00	0.00	6,678.5	220.0	310.0	-303.6	0.00	0.00	0.00
6,700.4	0.00	0.00	6,678.9	220.0	310.0	-303.6	0.00	0.00	0.00
Start Build 11.06									
6,800.0	11.02	268.49	6,777.8	219.7	300.5	-294.0	11.06	11.06	0.00
6,900.0	22.07	268.49	6,873.6	219.0	272.0	-265.6	11.06	11.06	0.00
7,000.0	33.13	268.49	6,962.0	217.8	225.8	-219.5	11.06	11.06	0.00
7,100.0	44.19	268.49	7,040.0	216.1	163.4	-157.2	11.06	11.06	0.00
7,200.0	55.25	268.49	7,104.6	214.1	87.3	-81.1	11.06	11.06	0.00
7,300.0	66.30	268.49	7,153.3	211.8	0.2	5.9	11.06	11.06	0.00
7,400.0	77.36	268.49	7,184.4	209.3	-94.6	100.6	11.06	11.06	0.00
7,500.0	88.42	268.49	7,196.8	206.7	-193.7	199.5	11.06	11.06	0.00
7,514.3	90.00	268.49	7,196.0	206.4	-207.0	212.8	11.06	11.06	0.00
7,515.3	90.00	268.49	7,196.0	206.4	-208.0	213.8	0.00	0.00	0.00
Start DLS 2.50 TFO -0.03 - LP 371°FNL, 589°FEL									
7,600.0	92.12	268.49	7,194.4	204.1	-292.6	298.4	2.50	2.50	0.00
7,631.3	92.90	268.49	7,193.1	203.3	-323.9	329.6	2.50	2.50	0.00
7,700.0	92.90	268.49	7,189.6	201.5	-392.5	398.1	0.00	0.00	0.00
7,800.0	92.90	268.49	7,184.5	198.9	-492.3	497.8	0.00	0.00	0.00
7,900.0	92.90	268.49	7,179.5	196.2	-592.2	597.5	0.00	0.00	0.00
8,000.0	92.90	268.49	7,174.4	193.6	-692.0	697.3	0.00	0.00	0.00
8,100.0	92.90	268.49	7,169.4	191.0	-791.8	797.0	0.00	0.00	0.00
8,200.0	92.90	268.49	7,164.3	188.3	-891.7	896.7	0.00	0.00	0.00
8,300.0	92.90	268.49	7,159.2	185.7	-991.5	996.4	0.00	0.00	0.00
8,400.0	92.90	268.49	7,154.2	183.1	-1,091.3	1,096.1	0.00	0.00	0.00
8,500.0	92.90	268.49	7,149.1	180.4	-1,191.2	1,195.9	0.00	0.00	0.00
8,600.0	92.90	268.49	7,144.1	177.8	-1,291.0	1,295.6	0.00	0.00	0.00
8,700.0	92.90	268.49	7,139.0	175.2	-1,390.8	1,395.3	0.00	0.00	0.00
8,800.0	92.90	268.49	7,133.9	172.5	-1,490.7	1,495.0	0.00	0.00	0.00
8,900.0	92.90	268.49	7,128.9	169.9	-1,590.5	1,594.7	0.00	0.00	0.00
9,000.0	92.90	268.49	7,123.8	167.3	-1,690.4	1,694.5	0.00	0.00	0.00
9,100.0	92.90	268.49	7,118.8	164.7	-1,790.2	1,794.2	0.00	0.00	0.00
9,200.0	92.90	268.49	7,113.7	162.0	-1,890.0	1,893.9	0.00	0.00	0.00
9,300.0	92.90	268.49	7,108.6	159.4	-1,989.9	1,993.6	0.00	0.00	0.00
9,400.0	92.90	268.49	7,103.6	156.8	-2,089.7	2,093.3	0.00	0.00	0.00
9,500.0	92.90	268.49	7,098.5	154.1	-2,189.5	2,193.1	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Stillroven Farm 2
Company:	Captiva Energy Partners	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Project:	SEC.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site:	Stillroven Farm Pad Sec.5-T3N-R68W	North Reference:	True
Well:	Stillroven Farm 2	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)	
9,600.0	92.90	268.49	7,093.5	151.5	-2,289.4	2,292.8	0.00	0.00	0.00	
9,646.8	92.90	268.49	7,091.1	150.3	-2,336.1	2,339.4	0.00	0.00	0.00	
9,700.0	91.64	268.92	7,089.0	149.1	-2,389.3	2,392.5	2.50	-2.37	0.80	
9,769.2	90.00	269.47	7,088.0	148.1	-2,458.4	2,461.7	2.50	-2.37	0.80	
Hold 90 inc										
9,800.0	90.00	269.47	7,088.0	147.8	-2,489.2	2,492.4	0.00	0.00	0.00	
9,900.0	90.00	269.47	7,088.0	146.9	-2,589.2	2,592.4	0.00	0.00	0.00	
10,000.0	90.00	269.47	7,088.0	145.9	-2,689.2	2,692.3	0.00	0.00	0.00	
10,100.0	90.00	269.47	7,088.0	145.0	-2,789.2	2,792.2	0.00	0.00	0.00	
10,200.0	90.00	269.47	7,088.0	144.1	-2,889.2	2,892.2	0.00	0.00	0.00	
10,300.0	90.00	269.47	7,088.0	143.2	-2,989.2	2,992.1	0.00	0.00	0.00	
10,400.0	90.00	269.47	7,088.0	142.2	-3,089.2	3,092.0	0.00	0.00	0.00	
10,500.0	90.00	269.47	7,088.0	141.3	-3,189.2	3,191.9	0.00	0.00	0.00	
10,600.0	90.00	269.47	7,088.0	140.4	-3,289.2	3,291.9	0.00	0.00	0.00	
10,700.0	90.00	269.47	7,088.0	139.5	-3,389.2	3,391.8	0.00	0.00	0.00	
10,800.0	90.00	269.47	7,088.0	138.5	-3,489.2	3,491.7	0.00	0.00	0.00	
10,900.0	90.00	269.47	7,088.0	137.6	-3,589.2	3,591.7	0.00	0.00	0.00	
11,000.0	90.00	269.47	7,088.0	136.7	-3,689.2	3,691.6	0.00	0.00	0.00	
11,100.0	90.00	269.47	7,088.0	135.8	-3,789.2	3,791.5	0.00	0.00	0.00	
11,200.0	90.00	269.47	7,088.0	134.8	-3,889.2	3,891.4	0.00	0.00	0.00	
11,300.0	90.00	269.47	7,088.0	133.9	-3,989.2	3,991.4	0.00	0.00	0.00	
11,400.0	90.00	269.47	7,088.0	133.0	-4,089.2	4,091.3	0.00	0.00	0.00	
11,500.0	90.00	269.47	7,088.0	132.1	-4,189.2	4,191.2	0.00	0.00	0.00	
11,600.0	90.00	269.47	7,088.0	131.1	-4,289.2	4,291.2	0.00	0.00	0.00	
11,700.0	90.00	269.47	7,088.0	130.2	-4,389.2	4,391.1	0.00	0.00	0.00	
11,800.0	90.00	269.47	7,088.0	129.3	-4,489.1	4,491.0	0.00	0.00	0.00	
11,817.4	90.00	269.47	7,088.0	129.1	-4,506.5	4,508.4	0.00	0.00	0.00	
TD at 11817.4 - BHL 371°FNL, 460°FWL										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL 580°FNL, 310°FEL - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,338,181.62	3,134,292.38	40.260707	-105.018806	
BHL 371°FNL, 460°FWL - plan hits target center - Point	0.00	0.00	7,088.0	129.1	-4,506.5	1,338,286.28	3,129,785.42	40.261061	-105.034953	
LP 371°FNL, 589°FEL - plan hits target center - Point	0.00	0.00	7,196.0	206.4	-208.0	1,338,386.83	3,134,083.27	40.261274	-105.019551	

Database:	US_EDM	Local Co-ordinate Reference:	Well Stillroven Farm 2
Company:	Captiva Energy Partners	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Project:	SEC.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site:	Stillroven Farm Pad Sec.5-T3N-R68W	North Reference:	True
Well:	Stillroven Farm 2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-5-17)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,200.0	1,200.0	0.0	0.0	Start Build 1.50
6,700.4	6,678.9	220.0	310.0	Start Build 11.06
7,515.3	7,196.0	206.4	-208.0	Start DLS 2.50 TFO -0.03
9,769.2	7,088.0	148.1	-2,458.4	Hold 90 inc
11,817.4	7,088.0	129.1	-4,506.5	TD at 11817.4



Directional

Captiva Energy Partners

SEC.5-T3N-R68W

Stillroven Farm Pad Sec.5-T3N-R68W

Stillroven Farm 2

Wellbore #1

Plan #2 (6-5-17)

Anticollision Report

05 June, 2017



Directional

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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	11,817.4	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	1,000.0	14.9	10.7	3.498	CC, ES
Stillroven Farm 1 - Wellbore #1 - Plan #2 (6-5-17)	11,817.4	11,935.3	237.7	120.3	2.025	SF
Stillroven Farm 10 - Wellbore #1 - Plan #2 (6-5-17)	566.3	567.3	120.0	117.6	51.634	CC
Stillroven Farm 10 - Wellbore #1 - Plan #2 (6-5-17)	600.0	600.0	120.0	117.5	48.521	ES
Stillroven Farm 10 - Wellbore #1 - Plan #2 (6-5-17)	1,200.0	1,178.8	164.5	159.4	32.640	SF
Stillroven Farm 11 - Wellbore #1 - Plan #2 (6-5-17)	366.3	367.3	135.0	133.6	94.786	CC
Stillroven Farm 11 - Wellbore #1 - Plan #2 (6-5-17)	400.0	400.0	135.0	133.4	85.805	ES
Stillroven Farm 11 - Wellbore #1 - Plan #2 (6-5-17)	1,200.0	1,164.1	213.9	208.7	41.130	SF
Stillroven Farm 12 - Wellbore #1 - Plan #2 (6-5-17)	166.3	167.3	150.0	149.5	285.696	CC
Stillroven Farm 12 - Wellbore #1 - Plan #2 (6-5-17)	200.0	200.0	150.0	149.4	222.524	ES
Stillroven Farm 12 - Wellbore #1 - Plan #2 (6-5-17)	1,200.0	1,144.3	272.8	267.3	49.180	SF
Stillroven Farm 3 - Wellbore #1 - Plan #2 (6-5-17)	1,200.0	1,200.0	15.0	9.9	2.910	CC, ES
Stillroven Farm 3 - Wellbore #1 - Plan #2 (6-5-17)	1,300.0	1,300.0	15.8	10.2	2.822	SF
Stillroven Farm 4 - Wellbore #1 - Plan #2 (6-5-17)	1,200.0	1,200.0	30.0	24.9	5.811	CC, ES
Stillroven Farm 4 - Wellbore #1 - Plan #2 (6-5-17)	11,817.4	11,850.5	325.2	90.9	1.388	Level 3, SF
Stillroven Farm 5 - Wellbore #1 - Plan #2 (6-5-17)	1,200.0	1,201.0	45.1	39.9	8.713	CC, ES
Stillroven Farm 5 - Wellbore #1 - Plan #2 (6-5-17)	1,400.0	1,400.9	48.3	42.2	7.972	SF
Stillroven Farm 6 - Wellbore #1 - Plan #2 (6-5-17)	1,200.0	1,201.0	60.1	54.9	11.614	CC, ES
Stillroven Farm 6 - Wellbore #1 - Plan #2 (6-5-17)	1,400.0	1,400.9	63.2	57.2	10.444	SF
Stillroven Farm 7 - Wellbore #1 - Plan #2 (6-5-17)	1,166.3	1,167.3	75.0	69.9	14.932	CC
Stillroven Farm 7 - Wellbore #1 - Plan #2 (6-5-17)	1,200.0	1,201.0	75.0	69.8	14.496	ES
Stillroven Farm 7 - Wellbore #1 - Plan #2 (6-5-17)	1,300.0	1,300.0	76.9	71.3	13.759	SF
Stillroven Farm 8 - Wellbore #1 - Plan #2 (6-5-17)	966.3	967.3	90.1	86.0	21.866	CC
Stillroven Farm 8 - Wellbore #1 - Plan #2 (6-5-17)	1,000.0	1,000.0	90.1	85.9	21.104	ES
Stillroven Farm 8 - Wellbore #1 - Plan #2 (6-5-17)	1,300.0	1,294.0	101.6	96.1	18.490	SF
Stillroven Farm 9 - Wellbore #1 - Plan #2(6-5-17)	766.3	767.3	104.9	101.7	32.568	CC
Stillroven Farm 9 - Wellbore #1 - Plan #2(6-5-17)	800.0	800.0	105.0	101.6	31.129	ES
Stillroven Farm 9 - Wellbore #1 - Plan #2(6-5-17)	1,200.0	1,189.3	124.8	119.7	24.855	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		Minimum Separation		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		

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 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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	0.43	14.9	0.1	14.9	14.9	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	0.43	14.9	0.1	14.9	14.7	0.22	66.455		
200.0	200.0	200.0	200.0	0.3	0.3	0.43	14.9	0.1	14.9	14.3	0.67	22.152		
300.0	300.0	300.0	300.0	0.6	0.6	0.43	14.9	0.1	14.9	13.8	1.12	13.291		
400.0	400.0	400.0	400.0	0.8	0.8	0.43	14.9	0.1	14.9	13.4	1.57	9.494		
500.0	500.0	500.0	500.0	1.0	1.0	0.43	14.9	0.1	14.9	12.9	2.02	7.384		
600.0	600.0	600.0	600.0	1.2	1.2	0.43	14.9	0.1	14.9	12.5	2.47	6.041		
700.0	700.0	700.0	700.0	1.5	1.5	0.43	14.9	0.1	14.9	12.0	2.92	5.112		
800.0	800.0	800.0	800.0	1.7	1.7	0.43	14.9	0.1	14.9	11.6	3.37	4.430		
900.0	900.0	900.0	900.0	1.9	1.9	0.43	14.9	0.1	14.9	11.1	3.82	3.909		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.43	14.9	0.1	14.9	10.7	4.27	3.498 CC, ES		
1,100.0	1,100.0	1,099.7	1,099.7	2.4	2.4	3.81	15.8	1.1	15.9	11.2	4.71	3.366		
1,200.0	1,200.0	1,199.3	1,199.2	2.6	2.6	11.83	18.5	3.9	18.9	13.8	5.16	3.672		
1,300.0	1,300.0	1,298.7	1,298.4	2.8	2.8	-35.92	23.0	8.6	23.5	17.9	5.60	4.198		
1,400.0	1,399.9	1,397.9	1,397.2	3.0	3.0	-32.00	29.2	15.1	28.5	22.4	6.04	4.715		
1,500.0	1,499.7	1,497.0	1,495.6	3.2	3.3	-29.82	37.2	23.5	33.7	27.2	6.48	5.194		
1,600.0	1,599.3	1,596.6	1,594.2	3.5	3.5	-28.97	46.6	33.5	38.6	31.6	6.93	5.565		
1,650.9	1,649.9	1,647.5	1,644.6	3.6	3.7	-29.25	51.5	38.6	40.3	33.1	7.16	5.624		
1,700.0	1,698.6	1,696.5	1,693.2	3.7	3.8	-29.74	56.3	43.6	41.7	34.3	7.39	5.634		
1,800.0	1,797.9	1,796.5	1,792.2	4.0	4.1	-30.63	65.9	53.7	44.5	36.6	7.87	5.649		
1,900.0	1,897.2	1,896.4	1,891.1	4.2	4.4	-31.41	75.5	63.9	47.3	38.9	8.36	5.657		
2,000.0	1,996.5	1,996.4	1,990.1	4.5	4.7	-32.11	85.2	74.0	50.1	41.3	8.85	5.660		
2,100.0	2,095.8	2,096.4	2,089.1	4.8	5.0	-32.73	94.8	84.2	52.9	43.6	9.35	5.660		
2,200.0	2,195.1	2,196.3	2,188.1	5.1	5.3	-33.29	104.5	94.3	55.8	45.9	9.86	5.658		
2,300.0	2,294.4	2,296.3	2,287.0	5.3	5.6	-33.79	114.1	104.4	58.6	48.3	10.37	5.653		
2,400.0	2,393.7	2,396.2	2,386.0	5.6	6.0	-34.25	123.7	114.6	61.5	50.6	10.89	5.647		
2,500.0	2,493.0	2,496.2	2,485.0	5.9	6.3	-34.67	133.4	124.7	64.3	52.9	11.41	5.640		
2,600.0	2,592.3	2,596.2	2,584.0	6.2	6.6	-35.05	143.0	134.9	67.2	55.3	11.93	5.632		
2,700.0	2,691.7	2,696.1	2,682.9	6.5	6.9	-35.40	152.6	145.0	70.0	57.6	12.46	5.624		
2,800.0	2,791.0	2,796.1	2,781.9	6.8	7.3	-35.72	162.3	155.1	72.9	59.9	12.98	5.615		
2,900.0	2,890.3	2,896.0	2,880.9	7.1	7.6	-36.02	171.9	165.3	75.8	62.3	13.52	5.606		
3,000.0	2,989.6	2,996.0	2,979.9	7.4	7.9	-36.30	181.5	175.4	78.6	64.6	14.05	5.597		
3,100.0	3,088.9	3,095.9	3,078.8	7.7	8.3	-36.55	191.2	185.6	81.5	66.9	14.58	5.588		
3,200.0	3,188.2	3,195.9	3,177.8	8.0	8.6	-36.79	200.8	195.7	84.4	69.2	15.12	5.579		
3,300.0	3,287.5	3,295.9	3,276.8	8.3	8.9	-37.02	210.5	205.8	87.2	71.6	15.66	5.571		
3,400.0	3,386.8	3,395.8	3,375.8	8.6	9.3	-37.23	220.1	216.0	90.1	73.9	16.20	5.562		
3,500.0	3,486.1	3,495.8	3,474.7	8.9	9.6	-37.42	229.7	226.1	93.0	76.2	16.74	5.553		
3,600.0	3,585.4	3,595.7	3,573.7	9.2	9.9	-37.61	239.4	236.3	95.9	78.6	17.29	5.545		
3,700.0	3,684.7	3,695.7	3,672.7	9.5	10.3	-37.78	249.0	246.4	98.7	80.9	17.83	5.537		
3,800.0	3,784.0	3,795.7	3,771.7	9.8	10.6	-37.95	258.6	256.5	101.6	83.2	18.38	5.529		
3,900.0	3,883.3	3,895.6	3,870.6	10.1	10.9	-38.10	268.3	266.7	104.5	85.6	18.92	5.521		
4,000.0	3,982.6	3,995.6	3,969.6	10.4	11.3	-38.25	277.9	276.8	107.4	87.9	19.47	5.514		
4,100.0	4,081.9	4,095.5	4,068.6	10.7	11.6	-38.39	287.5	287.0	110.2	90.2	20.02	5.506		
4,200.0	4,181.2	4,197.9	4,170.1	11.0	11.9	-38.76	296.8	296.7	112.4	91.8	20.56	5.464		
4,300.0	4,280.5	4,301.3	4,273.0	11.3	12.1	-40.05	303.7	304.0	111.6	90.4	21.12	5.283		
4,400.0	4,379.8	4,404.5	4,376.0	11.6	12.4	-42.44	308.1	308.6	107.8	86.1	21.74	4.960		
4,483.3	4,462.6	4,490.0	4,461.5	11.9	12.5	-45.49	309.8	310.3	102.7	80.3	22.32	4.599		
4,500.0	4,479.1	4,507.1	4,478.5	11.9	12.5	-46.20	309.9	310.5	101.5	79.0	22.44	4.521		
4,600.0	4,578.7	4,607.2	4,578.7	12.2	12.7	-50.21	309.9	310.5	95.2	72.1	23.09	4.123		
4,700.0	4,678.5	4,707.1	4,678.5	12.4	12.8	-53.02	309.9	310.5	91.5	67.8	23.64	3.868		
4,800.0	4,778.5	4,807.0	4,778.5	12.5	13.0	-54.27	309.9	310.5	90.0	65.9	24.07	3.739		
4,821.5	4,800.0	4,828.6	4,800.0	12.6	13.1	0.33	309.9	310.5	89.9	66.7	23.28	3.862		

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 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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		
4,900.0	4,878.5	4,907.0	4,878.5	12.7	13.2	0.33	309.9	310.5	89.9	66.4	23.58	3.815		
5,000.0	4,978.5	5,007.0	4,978.5	12.9	13.4	0.33	309.9	310.5	89.9	66.0	23.97	3.753		
5,100.0	5,078.5	5,107.0	5,078.5	13.1	13.6	0.33	309.9	310.5	89.9	65.6	24.36	3.692		
5,200.0	5,178.5	5,207.0	5,178.5	13.2	13.7	0.33	309.9	310.5	89.9	65.2	24.75	3.634		
5,300.0	5,278.5	5,307.0	5,278.5	13.4	13.9	0.33	309.9	310.5	89.9	64.8	25.15	3.577		
5,400.0	5,378.5	5,407.0	5,378.5	13.6	14.1	0.33	309.9	310.5	89.9	64.4	25.54	3.521		
5,500.0	5,478.5	5,507.0	5,478.5	13.8	14.3	0.33	309.9	310.5	89.9	64.0	25.94	3.467		
5,600.0	5,578.5	5,607.0	5,578.5	14.0	14.5	0.33	309.9	310.5	89.9	63.6	26.34	3.414		
5,700.0	5,678.5	5,707.0	5,678.5	14.2	14.6	0.33	309.9	310.5	89.9	63.2	26.74	3.363		
5,800.0	5,778.5	5,807.0	5,778.5	14.4	14.8	0.33	309.9	310.5	89.9	62.8	27.15	3.313		
5,900.0	5,878.5	5,907.0	5,878.5	14.6	15.0	0.33	309.9	310.5	89.9	62.4	27.55	3.264		
6,000.0	5,978.5	6,007.0	5,978.5	14.8	15.2	0.33	309.9	310.5	89.9	62.0	27.96	3.217		
6,100.0	6,078.5	6,107.0	6,078.5	15.0	15.4	0.33	309.9	310.5	89.9	61.6	28.36	3.171		
6,200.0	6,178.5	6,207.0	6,178.5	15.2	15.6	0.33	309.9	310.5	89.9	61.2	28.77	3.126		
6,300.0	6,278.5	6,307.0	6,278.5	15.4	15.8	0.33	309.9	310.5	89.9	60.8	29.18	3.082		
6,400.0	6,378.5	6,407.0	6,378.5	15.6	16.0	0.33	309.9	310.5	89.9	60.3	29.59	3.039		
6,500.0	6,478.5	6,507.0	6,478.5	15.8	16.2	0.33	309.9	310.5	89.9	59.9	30.01	2.997		
6,600.0	6,578.5	6,607.0	6,578.5	16.0	16.4	0.33	309.9	310.5	89.9	59.5	30.42	2.957		
6,700.4	6,678.8	6,707.4	6,678.8	16.2	16.6	0.33	309.9	310.5	89.9	59.1	30.84	2.917		
6,750.0	6,728.4	6,756.9	6,728.4	16.2	16.7	93.33	309.9	310.5	90.0	58.3	31.72	2.839		
6,800.0	6,777.8	6,806.4	6,777.8	16.3	16.8	97.73	309.9	310.5	90.7	59.1	31.62	2.870		
6,850.0	6,826.4	6,856.6	6,828.0	16.3	16.8	104.12	309.9	309.3	92.8	61.5	31.31	2.965		
6,900.0	6,873.6	6,908.2	6,879.3	16.3	16.9	110.27	309.7	303.2	96.1	65.2	30.86	3.114		
6,950.0	6,918.9	6,961.1	6,930.9	16.3	16.9	115.88	309.4	291.6	100.3	70.1	30.27	3.315		
7,000.0	6,962.0	7,015.3	6,982.2	16.3	16.9	120.87	309.0	274.4	105.3	75.8	29.51	3.568		
7,050.0	7,002.5	7,070.7	7,032.6	16.3	16.9	125.21	308.4	251.3	110.7	82.1	28.60	3.871		
7,100.0	7,040.0	7,127.5	7,081.3	16.3	16.9	128.94	307.6	222.2	116.3	88.8	27.55	4.221		
7,150.0	7,074.1	7,185.6	7,127.5	16.3	16.9	132.09	306.7	187.2	121.9	95.4	26.42	4.613		
7,200.0	7,104.6	7,244.9	7,170.3	16.4	16.9	134.70	305.6	146.2	127.1	101.9	25.26	5.032		
7,250.0	7,131.0	7,305.4	7,208.9	16.6	16.9	136.83	304.4	99.7	131.9	107.7	24.18	5.455		
7,300.0	7,153.3	7,366.9	7,242.2	16.9	17.0	138.50	303.0	48.0	136.1	112.8	23.28	5.844		
7,350.0	7,171.2	7,429.3	7,269.6	17.3	17.3	139.76	301.6	-8.0	139.4	116.7	22.67	6.150		
7,400.0	7,184.4	7,492.4	7,290.1	17.7	17.8	140.63	300.0	-67.6	141.8	119.4	22.44	6.320		
7,450.0	7,193.0	7,556.0	7,303.4	18.3	18.5	141.13	298.3	-129.8	143.3	120.6	22.69	6.315		
7,500.0	7,196.8	7,624.5	7,308.2	19.0	19.3	141.06	296.6	-197.9	143.1	119.5	23.58	6.069		
7,506.7	7,196.9	7,633.1	7,307.9	19.1	19.4	140.98	296.3	-206.5	142.9	119.1	23.76	6.014		
7,514.3	7,196.0	7,636.9	7,308.0	19.2	19.5	141.25	296.3	-209.3	143.6	119.9	23.73	6.052		
7,515.3	7,196.0	7,637.8	7,308.0	19.2	19.5	141.25	296.2	-210.3	143.6	119.9	23.75	6.047		
7,600.0	7,194.4	7,721.8	7,308.0	20.5	20.8	141.44	294.6	-294.2	145.2	119.8	25.41	5.712		
7,631.3	7,193.1	7,753.1	7,308.0	21.0	21.4	141.68	294.0	-325.5	146.4	120.4	26.01	5.630		
7,700.0	7,189.6	7,821.7	7,308.0	22.3	22.6	142.33	292.8	-394.1	149.5	122.2	27.27	5.483		
7,800.0	7,184.5	7,921.6	7,308.0	24.2	24.5	143.23	291.0	-494.0	154.1	124.8	29.29	5.260		
7,900.0	7,179.5	8,021.4	7,308.0	26.3	26.6	144.08	289.2	-593.8	158.6	127.2	31.45	5.044		
8,000.0	7,174.4	8,121.3	7,308.0	28.5	28.8	144.88	287.4	-693.7	163.2	129.5	33.70	4.844		
8,100.0	7,169.4	8,221.2	7,308.0	30.9	31.2	145.63	285.6	-793.5	167.9	131.9	36.00	4.663		
8,200.0	7,164.3	8,321.0	7,308.0	33.3	33.5	146.35	283.8	-893.4	172.6	134.2	38.33	4.502		
8,300.0	7,159.2	8,420.9	7,308.0	35.7	36.0	147.03	282.0	-993.2	177.2	136.6	40.68	4.357		
8,400.0	7,154.2	8,520.8	7,308.0	38.2	38.5	147.67	280.3	-1,093.1	182.0	138.9	43.02	4.230		
8,500.0	7,149.1	8,620.6	7,308.0	40.7	41.0	148.28	278.5	-1,192.9	186.7	141.3	45.36	4.116		
8,600.0	7,144.1	8,720.5	7,308.0	43.3	43.6	148.86	276.7	-1,292.8	191.5	143.8	47.68	4.015		
8,700.0	7,139.0	8,820.4	7,308.0	45.9	46.2	149.42	274.9	-1,392.6	196.2	146.2	49.99	3.926		
8,800.0	7,133.9	8,920.2	7,308.0	48.5	48.8	149.94	273.1	-1,492.5	201.0	148.8	52.28	3.846		

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 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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		
8,900.0	7,128.9	9,020.1	7,308.0	51.2	51.4	150.44	271.3	-1,592.3	205.8	151.3	54.54	3.774		
9,000.0	7,123.8	9,120.0	7,308.0	53.8	54.1	150.92	269.5	-1,692.2	210.7	153.9	56.79	3.710		
9,100.0	7,118.8	9,219.8	7,308.0	56.5	56.7	151.38	267.7	-1,792.0	215.5	156.5	59.01	3.652		
9,200.0	7,113.7	9,319.7	7,308.0	59.1	59.4	151.82	266.0	-1,891.9	220.4	159.1	61.21	3.600		
9,300.0	7,108.6	9,419.6	7,308.0	61.8	62.1	152.23	264.2	-1,991.7	225.2	161.8	63.39	3.553		
9,400.0	7,103.6	9,519.4	7,308.0	64.5	64.8	152.63	262.4	-2,091.6	230.1	164.5	65.55	3.510		
9,500.0	7,098.5	9,619.3	7,308.0	67.2	67.5	153.02	260.6	-2,191.5	235.0	167.3	67.70	3.471		
9,600.0	7,093.5	9,719.2	7,308.0	70.0	70.2	153.39	258.8	-2,291.3	239.9	170.1	69.82	3.436		
9,646.8	7,091.1	9,765.9	7,308.0	71.2	71.5	153.55	258.0	-2,338.0	242.2	171.4	70.80	3.421		
9,700.0	7,089.0	9,819.1	7,308.0	72.7	72.9	153.74	257.0	-2,391.2	244.2	172.2	72.01	3.391		
9,769.2	7,088.0	9,888.3	7,308.0	74.6	74.8	153.91	255.8	-2,460.4	245.0	171.3	73.65	3.326		
9,800.0	7,088.0	9,919.1	7,308.0	75.4	75.7	153.97	255.2	-2,491.2	244.8	170.4	74.39	3.291		
9,900.0	7,088.0	10,019.1	7,308.0	78.1	78.4	154.15	253.4	-2,591.1	244.5	167.7	76.76	3.185		
10,000.0	7,088.0	10,119.1	7,308.0	80.9	81.1	154.33	251.7	-2,691.1	244.1	165.0	79.11	3.085		
10,100.0	7,088.0	10,219.1	7,308.0	83.6	83.9	154.52	249.9	-2,791.1	243.7	162.3	81.44	2.993		
10,200.0	7,088.0	10,319.1	7,308.0	86.4	86.6	154.70	248.1	-2,891.1	243.3	159.6	83.74	2.906		
10,300.0	7,088.0	10,419.0	7,308.0	89.1	89.4	154.88	246.3	-2,991.1	243.0	157.0	86.01	2.825		
10,400.0	7,088.0	10,519.0	7,308.0	91.9	92.1	155.07	244.5	-3,091.0	242.6	154.3	88.26	2.749		
10,500.0	7,088.0	10,619.0	7,308.0	94.7	94.9	155.25	242.7	-3,191.0	242.2	151.8	90.49	2.677		
10,600.0	7,088.0	10,719.0	7,308.0	97.4	97.6	155.44	240.9	-3,291.0	241.9	149.2	92.69	2.610		
10,700.0	7,088.0	10,819.0	7,308.0	100.2	100.4	155.63	239.1	-3,391.0	241.5	146.7	94.87	2.546		
10,800.0	7,088.0	10,919.0	7,308.0	103.0	103.2	155.81	237.3	-3,491.0	241.2	144.2	97.02	2.486		
10,900.0	7,088.0	11,019.0	7,308.0	105.7	105.9	156.00	235.6	-3,590.9	240.8	141.7	99.14	2.429		
11,000.0	7,088.0	11,119.0	7,308.0	108.5	108.7	156.19	233.8	-3,690.9	240.5	139.2	101.24	2.375		
11,100.0	7,088.0	11,219.0	7,308.0	111.3	111.5	156.38	232.0	-3,790.9	240.1	136.8	103.31	2.324		
11,200.0	7,088.0	11,319.0	7,308.0	114.1	114.3	156.57	230.2	-3,890.9	239.8	134.4	105.35	2.276		
11,300.0	7,088.0	11,419.0	7,308.0	116.8	117.0	156.76	228.4	-3,990.9	239.4	132.1	107.37	2.230		
11,400.0	7,088.0	11,519.0	7,308.0	119.6	119.8	156.95	226.6	-4,090.8	239.1	129.7	109.36	2.186		
11,500.0	7,088.0	11,619.0	7,308.0	122.4	122.6	157.14	224.8	-4,190.8	238.8	127.4	111.33	2.145		
11,600.0	7,088.0	11,719.0	7,308.0	125.2	125.4	157.33	223.0	-4,290.8	238.4	125.2	113.26	2.105		
11,700.0	7,088.0	11,819.0	7,308.0	128.0	128.1	157.52	221.2	-4,390.8	238.1	122.9	115.17	2.067		
11,800.0	7,088.0	11,919.0	7,308.0	130.7	130.9	157.72	219.4	-4,490.8	237.8	120.7	117.05	2.031		
11,817.0	7,088.0	11,935.3	7,308.0	131.2	131.4	157.75	219.2	-4,507.0	237.7	120.3	117.37	2.025		
11,817.4	7,088.0	11,935.3	7,308.0	131.2	131.4	157.75	219.2	-4,507.0	237.7	120.3	117.37	2.025 SF		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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	1.0	1.0	0.0	0.0	-179.88	-120.0	-0.3	120.0	120.0	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-179.88	-120.0	-0.3	120.0	119.7	0.23	528.432		
200.0	200.0	201.0	201.0	0.3	0.3	-179.88	-120.0	-0.3	120.0	119.3	0.68	177.314		
300.0	300.0	301.0	301.0	0.6	0.6	-179.88	-120.0	-0.3	120.0	118.8	1.13	106.530		
400.0	400.0	401.0	401.0	0.8	0.8	-179.88	-120.0	-0.3	120.0	118.4	1.58	76.136		
500.0	500.0	501.0	501.0	1.0	1.0	-179.88	-120.0	-0.3	120.0	117.9	2.03	59.236		
566.3	566.3	567.3	567.3	1.2	1.2	-179.88	-120.0	-0.3	120.0	117.6	2.32	51.634 CC		
600.0	600.0	600.0	600.0	1.2	1.2	-179.88	-120.0	-0.3	120.0	117.5	2.47	48.521 ES		
700.0	700.0	698.0	698.0	1.5	1.4	179.97	-121.2	0.1	121.2	118.3	2.89	41.931		
800.0	800.0	794.9	794.8	1.7	1.6	179.53	-124.8	1.0	124.9	121.6	3.29	37.938		
900.0	900.0	891.6	891.3	1.9	1.8	178.87	-130.7	2.6	131.1	127.4	3.71	35.362		
1,000.0	1,000.0	987.8	987.2	2.1	2.0	178.04	-139.0	4.8	139.8	135.6	4.14	33.794		
1,100.0	1,100.0	1,083.6	1,082.3	2.4	2.2	177.11	-149.5	7.5	150.9	146.3	4.58	32.954		
1,200.0	1,200.0	1,178.8	1,176.6	2.6	2.5	176.15	-162.3	10.9	164.5	159.4	5.04	32.640 SF		
1,300.0	1,300.0	1,273.2	1,269.7	2.8	2.8	120.70	-177.2	14.8	181.2	175.8	5.43	33.351		
1,400.0	1,399.9	1,366.5	1,361.4	3.0	3.1	120.45	-194.1	19.3	201.6	195.7	5.87	34.341		
1,500.0	1,499.7	1,458.5	1,451.3	3.2	3.5	120.60	-212.9	24.2	225.6	219.3	6.32	35.724		
1,600.0	1,599.3	1,550.5	1,540.7	3.5	3.9	121.03	-233.6	29.7	253.2	246.4	6.78	37.362		
1,650.9	1,649.9	1,599.1	1,588.0	3.6	4.1	121.36	-244.9	32.7	268.0	261.0	7.02	38.204		
1,700.0	1,698.6	1,646.0	1,633.4	3.7	4.3	121.88	-255.8	35.6	282.6	275.3	7.25	38.955		
1,800.0	1,797.9	1,741.4	1,726.0	4.0	4.7	122.79	-277.9	41.4	312.2	304.4	7.74	40.311		
1,900.0	1,897.2	1,836.8	1,818.6	4.2	5.2	123.54	-300.1	47.2	341.8	333.6	8.25	41.456		
2,000.0	1,996.5	1,932.2	1,911.3	4.5	5.7	124.17	-322.2	53.1	371.6	362.8	8.76	42.429		
2,100.0	2,095.8	2,027.6	2,003.9	4.8	6.1	124.71	-344.4	58.9	401.3	392.0	9.28	43.260		
2,200.0	2,195.1	2,123.0	2,096.5	5.1	6.6	125.18	-366.5	64.8	431.1	421.3	9.80	43.976		
2,300.0	2,294.4	2,218.4	2,189.1	5.3	7.1	125.58	-388.6	70.6	460.9	450.6	10.33	44.597		
2,400.0	2,393.7	2,313.8	2,281.7	5.6	7.5	125.94	-410.8	76.4	490.7	479.9	10.87	45.139		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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 (6-15-17)		Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft		
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)						
0.0	0.0	1.0	1.0	0.0	0.0	-179.89	-135.0	-0.3	135.0							
100.0	100.0	101.0	101.0	0.1	0.1	-179.89	-135.0	-0.3	135.0	134.8	0.23	594.672				
200.0	200.0	201.0	201.0	0.3	0.3	-179.89	-135.0	-0.3	135.0	134.3	0.68	199.541				
300.0	300.0	301.0	301.0	0.6	0.6	-179.89	-135.0	-0.3	135.0	133.9	1.13	119.884				
366.3	366.3	367.3	367.3	0.7	0.7	-179.89	-135.0	-0.3	135.0	133.6	1.42	94.786 CC				
400.0	400.0	400.0	400.0	0.8	0.8	-179.89	-135.0	-0.3	135.0	133.4	1.57	85.805 ES				
500.0	500.0	497.6	497.6	1.0	1.0	179.98	-136.2	0.0	136.3	134.3	1.99	68.398				
600.0	600.0	594.2	594.1	1.2	1.2	179.62	-139.8	0.9	140.0	137.6	2.40	58.325				
700.0	700.0	690.5	690.2	1.5	1.4	179.07	-145.7	2.4	146.1	143.3	2.82	51.769				
800.0	800.0	786.4	785.7	1.7	1.6	178.37	-154.0	4.4	154.8	151.5	3.26	47.460				
900.0	900.0	881.8	880.5	1.9	1.8	177.59	-164.5	6.9	165.9	162.2	3.72	44.639				
1,000.0	1,000.0	976.6	974.4	2.1	2.1	176.76	-177.2	10.0	179.5	175.3	4.19	42.833				
1,100.0	1,100.0	1,070.8	1,067.3	2.4	2.4	175.93	-192.1	13.7	195.5	190.8	4.68	41.733				
1,200.0	1,200.0	1,164.1	1,159.0	2.6	2.8	175.14	-209.0	17.8	213.9	208.7	5.20	41.130 SF				
1,300.0	1,300.0	1,256.3	1,249.2	2.8	3.1	119.73	-227.9	22.4	235.4	229.9	5.48	42.934				
1,400.0	1,399.9	1,347.7	1,338.0	3.0	3.6	119.42	-248.6	27.4	260.4	254.5	5.94	43.876				
1,500.0	1,499.7	1,443.9	1,431.3	3.2	4.0	119.51	-271.4	33.0	287.7	281.3	6.40	44.965				
1,600.0	1,599.3	1,539.6	1,524.2	3.5	4.5	119.93	-294.1	38.5	316.3	309.4	6.87	46.032				
1,650.9	1,649.9	1,588.2	1,571.3	3.6	4.7	120.23	-305.6	41.3	331.3	324.2	7.11	46.569				
1,700.0	1,698.6	1,635.0	1,616.6	3.7	4.9	120.74	-316.7	44.0	346.0	338.7	7.36	47.030				
1,800.0	1,797.9	1,730.2	1,709.0	4.0	5.4	121.64	-339.3	49.5	376.0	368.1	7.86	47.841				
1,900.0	1,897.2	1,825.4	1,801.3	4.2	5.9	122.40	-361.9	55.0	406.1	397.7	8.37	48.506				
2,000.0	1,996.5	1,920.7	1,893.7	4.5	6.4	123.07	-384.4	60.5	436.2	427.3	8.89	49.054				
2,100.0	2,095.8	2,015.9	1,986.0	4.8	6.8	123.64	-407.0	66.0	466.3	456.9	9.42	49.512				
2,200.0	2,195.1	2,111.2	2,078.4	5.1	7.3	124.15	-429.6	71.5	496.6	486.6	9.95	49.895				

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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	1.0	1.0	0.0	0.0	-179.90	-150.0	-0.3	150.0					
100.0	100.0	101.0	101.0	0.1	0.1	-179.90	-150.0	-0.3	150.0	149.8	0.23	660.948		
166.3	166.3	167.3	167.3	0.3	0.3	-179.90	-150.0	-0.3	150.0	149.5	0.53	285.696 CC		
200.0	200.0	200.0	200.0	0.3	0.3	-179.90	-150.0	-0.3	150.0	149.4	0.67	222.524 ES		
300.0	300.0	297.2	297.2	0.6	0.5	180.00	-151.3	0.0	151.3	150.2	1.10	138.156		
400.0	400.0	393.4	393.3	0.8	0.7	179.71	-154.8	0.8	155.0	153.5	1.52	102.288		
500.0	500.0	489.3	489.0	1.0	0.9	179.27	-160.7	2.1	161.2	159.3	1.95	82.493		
600.0	600.0	584.9	584.2	1.2	1.2	178.70	-169.0	3.8	169.9	167.4	2.41	70.523		
700.0	700.0	679.9	678.7	1.5	1.5	178.05	-179.5	6.1	181.0	178.1	2.88	62.843		
800.0	800.0	774.4	772.3	1.7	1.8	177.36	-192.2	8.9	194.5	191.2	3.37	57.734		
900.0	900.0	868.2	864.8	1.9	2.1	176.67	-207.0	12.1	210.5	206.6	3.88	54.263		
1,000.0	1,000.0	961.2	956.1	2.1	2.4	175.99	-223.9	15.7	228.9	224.5	4.41	51.885		
1,100.0	1,100.0	1,053.2	1,046.1	2.4	2.8	175.34	-242.8	19.8	249.7	244.7	4.97	50.263		
1,200.0	1,200.0	1,144.3	1,134.7	2.6	3.3	174.74	-263.6	24.3	272.8	267.3	5.55	49.180 SF		
1,300.0	1,300.0	1,234.7	1,222.1	2.8	3.7	119.41	-286.2	29.2	298.9	293.3	5.60	53.400		
1,400.0	1,399.9	1,330.6	1,314.6	3.0	4.2	119.11	-311.1	34.5	327.2	321.1	6.07	53.942		
1,500.0	1,499.7	1,426.1	1,406.7	3.2	4.7	119.16	-335.9	39.9	356.6	350.1	6.54	54.563		
1,600.0	1,599.3	1,521.2	1,498.3	3.5	5.2	119.48	-360.6	45.2	387.4	380.4	7.02	55.217		
1,650.9	1,649.9	1,569.4	1,544.8	3.6	5.5	119.72	-373.1	47.9	403.5	396.3	7.26	55.553		
1,700.0	1,698.6	1,615.8	1,589.5	3.7	5.8	120.17	-385.1	50.5	419.3	411.8	7.51	55.824		
1,800.0	1,797.9	1,710.3	1,680.6	4.0	6.3	121.00	-409.6	55.8	451.4	443.4	8.02	56.274		
1,900.0	1,897.2	1,804.8	1,771.7	4.2	6.8	121.71	-434.2	61.1	483.6	475.1	8.54	56.617		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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	-179.68	-15.0	-0.1	15.0	15.0	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	-179.68	-15.0	-0.1	15.0	14.8	0.22	66.922		
200.0	200.0	200.0	200.0	0.3	0.3	-179.68	-15.0	-0.1	15.0	14.4	0.67	22.307		
300.0	300.0	300.0	300.0	0.6	0.6	-179.68	-15.0	-0.1	15.0	13.9	1.12	13.384		
400.0	400.0	400.0	400.0	0.8	0.8	-179.68	-15.0	-0.1	15.0	13.5	1.57	9.560		
500.0	500.0	500.0	500.0	1.0	1.0	-179.68	-15.0	-0.1	15.0	13.0	2.02	7.436		
600.0	600.0	600.0	600.0	1.2	1.2	-179.68	-15.0	-0.1	15.0	12.6	2.47	6.084		
700.0	700.0	700.0	700.0	1.5	1.5	-179.68	-15.0	-0.1	15.0	12.1	2.92	5.148		
800.0	800.0	800.0	800.0	1.7	1.7	-179.68	-15.0	-0.1	15.0	11.7	3.37	4.461		
900.0	900.0	900.0	900.0	1.9	1.9	-179.68	-15.0	-0.1	15.0	11.2	3.82	3.937		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.68	-15.0	-0.1	15.0	10.8	4.27	3.522		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-179.68	-15.0	-0.1	15.0	10.3	4.72	3.187		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-179.68	-15.0	-0.1	15.0	9.9	5.17	2.910 CC, ES		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	129.52	-15.0	-0.1	15.8	10.2	5.61	2.822 SF		
1,400.0	1,399.9	1,399.9	1,399.9	3.0	3.0	138.87	-15.0	-0.1	18.6	12.5	6.05	3.071		
1,500.0	1,499.7	1,500.1	1,500.1	3.2	3.3	146.95	-14.6	1.1	23.0	16.5	6.49	3.544		
1,600.0	1,599.3	1,600.5	1,600.4	3.5	3.5	151.32	-13.1	4.8	28.0	21.1	6.91	4.056		
1,650.9	1,649.9	1,651.6	1,651.4	3.6	3.6	152.62	-11.9	7.6	30.8	23.7	7.13	4.317		
1,700.0	1,698.6	1,700.9	1,700.6	3.7	3.7	153.22	-10.6	10.9	33.2	25.9	7.35	4.524		
1,800.0	1,797.9	1,801.6	1,800.8	4.0	3.9	152.25	-7.2	19.5	36.8	29.0	7.80	4.710		
1,900.0	1,897.2	1,902.0	1,900.6	4.2	4.2	148.94	-2.8	30.4	38.4	30.2	8.28	4.642		
2,000.0	1,996.5	2,002.0	1,999.8	4.5	4.4	145.23	1.9	41.8	39.8	31.0	8.78	4.534		
2,100.0	2,095.8	2,102.0	2,099.0	4.8	4.7	141.77	6.5	53.3	41.3	32.0	9.29	4.445		
2,200.0	2,195.1	2,201.9	2,198.2	5.1	4.9	138.57	11.1	64.7	42.9	33.1	9.82	4.373		
2,300.0	2,294.4	2,301.9	2,297.4	5.3	5.2	135.62	15.7	76.2	44.7	34.4	10.36	4.315		
2,400.0	2,393.7	2,401.8	2,396.6	5.6	5.5	132.89	20.3	87.6	46.6	35.7	10.92	4.267		
2,500.0	2,493.0	2,501.8	2,495.8	5.9	5.8	130.38	24.9	99.1	48.6	37.1	11.49	4.228		
2,600.0	2,592.3	2,601.8	2,595.0	6.2	6.1	128.08	29.6	110.5	50.6	38.6	12.07	4.197		
2,700.0	2,691.7	2,701.7	2,694.2	6.5	6.4	125.95	34.2	122.0	52.8	40.1	12.65	4.172		
2,800.0	2,791.0	2,801.7	2,793.4	6.8	6.6	124.00	38.8	133.4	55.0	41.7	13.25	4.152		
2,900.0	2,890.3	2,901.6	2,892.5	7.1	6.9	122.19	43.4	144.9	57.3	43.4	13.84	4.136		
3,000.0	2,989.6	3,001.6	2,991.7	7.4	7.2	120.53	48.0	156.3	59.6	45.1	14.45	4.124		
3,100.0	3,088.9	3,101.5	3,090.9	7.7	7.5	118.99	52.6	167.8	61.9	46.9	15.05	4.115		
3,200.0	3,188.2	3,201.5	3,190.1	8.0	7.8	117.57	57.3	179.2	64.3	48.7	15.66	4.108		
3,300.0	3,287.5	3,301.5	3,289.3	8.3	8.1	116.24	61.9	190.7	66.8	50.5	16.28	4.104		
3,400.0	3,386.8	3,401.4	3,388.5	8.6	8.5	115.02	66.5	202.1	69.3	52.4	16.89	4.101		
3,500.0	3,486.1	3,501.4	3,487.7	8.9	8.8	113.88	71.1	213.6	71.8	54.3	17.51	4.100		
3,600.0	3,585.4	3,601.3	3,586.9	9.2	9.1	112.81	75.7	225.0	74.3	56.2	18.13	4.100		
3,700.0	3,684.7	3,701.3	3,686.1	9.5	9.4	111.82	80.3	236.5	76.9	58.1	18.75	4.100		
3,800.0	3,784.0	3,801.3	3,785.3	9.8	9.7	110.89	85.0	247.9	79.4	60.1	19.37	4.102		
3,900.0	3,883.3	3,901.2	3,884.5	10.1	10.0	110.02	89.6	259.4	82.0	62.1	19.99	4.105		
4,000.0	3,982.6	4,001.2	3,983.7	10.4	10.3	109.20	94.2	270.8	84.7	64.0	20.61	4.107		
4,100.0	4,081.9	4,101.1	4,082.9	10.7	10.6	108.43	98.8	282.3	87.3	66.1	21.23	4.111		
4,200.0	4,181.2	4,201.0	4,182.0	11.0	10.9	107.85	103.3	293.5	90.0	68.1	21.84	4.119		
4,300.0	4,280.5	4,300.7	4,281.2	11.3	11.1	109.01	106.8	302.2	92.9	70.5	22.35	4.156		
4,400.0	4,379.8	4,400.0	4,380.4	11.6	11.3	112.13	109.0	307.6	96.3	73.5	22.78	4.226		
4,483.3	4,462.6	4,482.5	4,462.9	11.9	11.5	116.03	109.9	309.7	99.9	76.8	23.07	4.330		
4,500.0	4,479.1	4,499.0	4,479.3	11.9	11.5	116.92	109.9	309.8	100.7	77.6	23.11	4.356		
4,600.0	4,578.7	4,598.3	4,578.7	12.2	11.7	121.53	110.0	309.9	105.3	82.0	23.34	4.513		
4,700.0	4,678.5	4,698.2	4,678.5	12.4	11.9	124.27	110.0	309.9	108.6	85.0	23.60	4.600		
4,800.0	4,778.5	4,798.1	4,778.5	12.5	12.0	125.37	110.0	309.9	110.0	86.1	23.90	4.602		
4,821.5	4,800.0	4,819.7	4,800.0	12.6	12.1	-179.96	110.0	309.9	110.0	87.9	22.12	4.974		

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 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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		
4,900.0	4,878.5	4,898.1	4,878.5	12.7	12.2	-179.96	110.0	309.9	110.0	87.6	22.43	4.906		
5,000.0	4,978.5	4,998.1	4,978.5	12.9	12.4	-179.96	110.0	309.9	110.0	87.2	22.84	4.819		
5,100.0	5,078.5	5,098.1	5,078.5	13.1	12.6	-179.96	110.0	309.9	110.0	86.8	23.25	4.734		
5,200.0	5,178.5	5,198.1	5,178.5	13.2	12.8	-179.96	110.0	309.9	110.0	86.4	23.66	4.652		
5,300.0	5,278.5	5,298.1	5,278.5	13.4	13.0	-179.96	110.0	309.9	110.0	86.0	24.07	4.572		
5,400.0	5,378.5	5,398.1	5,378.5	13.6	13.2	-179.96	110.0	309.9	110.0	85.6	24.48	4.495		
5,500.0	5,478.5	5,498.1	5,478.5	13.8	13.4	-179.96	110.0	309.9	110.0	85.1	24.89	4.420		
5,600.0	5,578.5	5,598.1	5,578.5	14.0	13.6	-179.96	110.0	309.9	110.0	84.7	25.31	4.348		
5,700.0	5,678.5	5,698.1	5,678.5	14.2	13.8	-179.96	110.0	309.9	110.0	84.3	25.73	4.277		
5,800.0	5,778.5	5,798.1	5,778.5	14.4	14.0	-179.96	110.0	309.9	110.0	83.9	26.14	4.209		
5,900.0	5,878.5	5,898.1	5,878.5	14.6	14.2	-179.96	110.0	309.9	110.0	83.5	26.56	4.143		
6,000.0	5,978.5	5,998.1	5,978.5	14.8	14.4	-179.96	110.0	309.9	110.0	83.1	26.98	4.078		
6,100.0	6,078.5	6,098.1	6,078.5	15.0	14.6	-179.96	110.0	309.9	110.0	82.6	27.40	4.016		
6,200.0	6,178.5	6,198.1	6,178.5	15.2	14.8	-179.96	110.0	309.9	110.0	82.2	27.82	3.955		
6,300.0	6,278.5	6,298.1	6,278.5	15.4	15.0	-179.96	110.0	309.9	110.0	81.8	28.25	3.896		
6,400.0	6,378.5	6,398.1	6,378.5	15.6	15.2	-179.96	110.0	309.9	110.0	81.4	28.67	3.838		
6,500.0	6,478.5	6,498.1	6,478.5	15.8	15.4	-179.96	110.0	309.9	110.0	80.9	29.09	3.782		
6,600.0	6,578.5	6,598.1	6,578.5	16.0	15.6	-179.96	110.0	309.9	110.0	80.5	29.52	3.728		
6,700.4	6,678.8	6,698.5	6,678.8	16.2	15.8	-179.96	110.0	309.9	110.0	80.1	29.95	3.675		
6,750.0	6,728.4	6,748.0	6,728.4	16.2	15.9	-89.69	110.0	309.9	110.0	78.3	31.68	3.472		
6,756.0	6,734.3	6,754.0	6,734.3	16.2	15.9	-90.00	110.0	309.9	110.0	78.3	31.71	3.469		
6,800.0	6,777.8	6,797.5	6,777.8	16.3	16.0	-93.35	110.0	309.9	110.2	78.2	31.95	3.449		
6,850.0	6,826.4	6,846.0	6,826.4	16.3	16.1	-99.15	110.0	309.9	111.5	79.3	32.20	3.464		
6,900.0	6,873.6	6,893.2	6,873.6	16.3	16.2	-106.43	110.0	309.9	115.4	83.1	32.29	3.575		
6,950.0	6,918.9	6,938.6	6,918.9	16.3	16.3	-114.28	110.0	309.9	123.4	91.4	32.04	3.853		
7,000.0	6,962.0	6,986.4	6,962.0	16.3	16.4	-122.42	109.9	309.1	136.3	105.0	31.29	4.357		
7,050.0	7,002.5	7,039.4	7,019.4	16.3	16.4	-129.81	109.8	303.3	152.3	122.2	30.04	5.069		
7,100.0	7,040.0	7,095.9	7,074.6	16.3	16.5	-135.94	109.5	291.2	170.0	141.6	28.41	5.983		
7,150.0	7,074.1	7,156.7	7,132.1	16.3	16.5	-141.01	108.9	271.6	188.6	162.1	26.53	7.108		
7,200.0	7,104.6	7,222.3	7,191.1	16.4	16.5	-145.19	108.2	243.0	207.2	182.7	24.51	8.455		
7,250.0	7,131.0	7,293.4	7,250.4	16.6	16.5	-148.62	107.2	203.8	225.2	202.7	22.45	10.028		
7,300.0	7,153.3	7,370.7	7,308.0	16.9	16.6	-151.39	105.8	152.5	241.6	221.1	20.51	11.782		
7,350.0	7,171.2	7,454.2	7,360.9	17.3	16.8	-153.57	104.1	88.0	255.8	237.0	18.84	13.579		
7,400.0	7,184.4	7,543.9	7,405.4	17.7	17.3	-155.19	102.1	10.3	267.1	249.4	17.69	15.101		
7,450.0	7,193.0	7,638.8	7,437.1	18.3	18.1	-156.24	99.7	-78.9	274.8	257.5	17.29	15.898		
7,500.0	7,196.8	7,768.7	7,451.9	19.0	19.6	-156.62	96.3	-207.4	278.3	260.2	18.05	15.415		
7,508.0	7,197.0	7,767.3	7,452.0	19.1	19.6	-156.66	96.4	-205.1	277.8	259.7	18.09	15.360		
7,514.3	7,196.0	7,767.3	7,452.0	19.2	19.6	-156.74	96.4	-205.1	278.6	260.5	18.10	15.392		
7,515.3	7,196.0	7,767.3	7,452.0	19.2	19.6	-156.74	96.4	-205.1	278.6	260.5	18.11	15.386		
7,515.3	7,196.0	7,767.3	7,452.0	19.2	19.6	-156.74	96.4	-205.1	278.6	260.5	18.11	15.385		
7,600.0	7,194.4	7,852.9	7,452.0	20.5	20.9	-156.95	94.6	-290.7	279.9	260.5	19.42	14.410		
7,631.3	7,193.1	7,884.2	7,452.0	21.0	21.5	-157.10	94.1	-322.0	281.0	261.1	19.91	14.115		
7,700.0	7,189.6	7,952.8	7,452.0	22.3	22.7	-157.48	92.8	-390.5	284.0	263.1	20.90	13.588		
7,800.0	7,184.5	8,052.6	7,452.0	24.2	24.6	-158.02	91.0	-490.4	288.4	266.0	22.44	12.854		
7,900.0	7,179.5	8,152.5	7,452.0	26.3	26.7	-158.54	89.3	-590.2	292.8	268.7	24.05	12.175		
8,000.0	7,174.4	8,252.4	7,452.0	28.5	28.9	-159.05	87.5	-690.1	297.2	271.5	25.71	11.560		
8,100.0	7,169.4	8,352.2	7,452.0	30.9	31.2	-159.55	85.7	-789.9	301.6	274.2	27.40	11.010		
8,200.0	7,164.3	8,452.1	7,452.0	33.3	33.6	-160.02	83.9	-889.8	306.1	277.0	29.09	10.520		
8,300.0	7,159.2	8,552.0	7,452.0	35.7	36.0	-160.49	82.1	-989.6	310.6	279.8	30.80	10.085		
8,400.0	7,154.2	8,651.9	7,452.0	38.2	38.5	-160.94	80.3	-1,089.5	315.1	282.6	32.49	9.697		
8,500.0	7,149.1	8,751.7	7,452.0	40.7	41.0	-161.38	78.5	-1,189.4	319.6	285.4	34.17	9.352		
8,600.0	7,144.1	8,851.6	7,452.0	43.3	43.6	-161.81	76.7	-1,289.2	324.1	288.3	35.84	9.044		

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 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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 3 - 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)			
8,700.0	7,139.0	8,951.5	7,452.0	45.9	46.2	-162.22	75.0	-1,389.1	328.7	291.2	37.48	8.768		
8,800.0	7,133.9	9,051.3	7,452.0	48.5	48.8	-162.63	73.2	-1,488.9	333.2	294.1	39.11	8.521		
8,900.0	7,128.9	9,151.2	7,452.0	51.2	51.4	-163.02	71.4	-1,588.8	337.8	297.1	40.72	8.297		
9,000.0	7,123.8	9,251.1	7,452.0	53.8	54.1	-163.40	69.6	-1,688.6	342.4	300.1	42.30	8.095		
9,100.0	7,118.8	9,350.9	7,452.0	56.5	56.7	-163.77	67.8	-1,788.5	347.0	303.2	43.86	7.912		
9,200.0	7,113.7	9,450.8	7,452.0	59.1	59.4	-164.14	66.0	-1,888.3	351.7	306.3	45.41	7.745		
9,300.0	7,108.6	9,550.7	7,452.0	61.8	62.1	-164.49	64.2	-1,988.2	356.3	309.4	46.93	7.592		
9,400.0	7,103.6	9,650.5	7,452.0	64.5	64.8	-164.83	62.4	-2,088.0	361.0	312.5	48.43	7.453		
9,500.0	7,098.5	9,750.4	7,452.0	67.2	67.5	-165.17	60.7	-2,187.9	365.6	315.7	49.92	7.325		
9,600.0	7,093.5	9,850.3	7,452.0	70.0	70.2	-165.50	58.9	-2,287.7	370.3	318.9	51.38	7.207		
9,646.8	7,091.1	9,897.0	7,452.0	71.2	71.5	-165.65	58.0	-2,334.4	372.5	320.4	52.06	7.155		
9,700.0	7,089.0	9,950.2	7,452.0	72.7	72.9	-165.77	57.1	-2,387.6	374.5	321.7	52.81	7.092		
9,769.2	7,088.0	10,019.4	7,452.0	74.6	74.8	-165.78	55.8	-2,456.8	375.5	321.4	54.07	6.945		
9,800.0	7,088.0	10,050.2	7,452.0	75.4	75.7	-165.74	55.3	-2,487.6	375.6	320.8	54.73	6.862		
9,900.0	7,088.0	10,150.2	7,452.0	78.1	78.4	-165.61	53.5	-2,587.6	375.8	318.9	56.91	6.603		
10,000.0	7,088.0	10,250.2	7,452.0	80.9	81.1	-165.48	51.7	-2,687.5	376.0	316.9	59.10	6.362		
10,100.0	7,088.0	10,350.1	7,452.0	83.6	83.9	-165.36	49.9	-2,787.5	376.2	314.9	61.31	6.136		
10,200.0	7,088.0	10,450.1	7,452.0	86.4	86.6	-165.23	48.1	-2,887.5	376.4	312.9	63.54	5.924		
10,300.0	7,088.0	10,550.1	7,452.0	89.1	89.4	-165.10	46.3	-2,987.5	376.7	310.9	65.79	5.725		
10,400.0	7,088.0	10,650.1	7,452.0	91.9	92.1	-164.97	44.5	-3,087.5	376.9	308.8	68.06	5.538		
10,500.0	7,088.0	10,750.1	7,452.0	94.7	94.9	-164.85	42.8	-3,187.4	377.1	306.8	70.34	5.361		
10,600.0	7,088.0	10,850.1	7,452.0	97.4	97.6	-164.72	41.0	-3,287.4	377.3	304.7	72.64	5.194		
10,700.0	7,088.0	10,950.1	7,452.0	100.2	100.4	-164.59	39.2	-3,387.4	377.6	302.6	74.96	5.037		
10,800.0	7,088.0	11,050.1	7,452.0	103.0	103.2	-164.47	37.4	-3,487.4	377.8	300.5	77.30	4.887		
10,900.0	7,088.0	11,150.1	7,452.0	105.7	105.9	-164.34	35.6	-3,587.4	378.0	298.4	79.65	4.746		
11,000.0	7,088.0	11,250.1	7,452.0	108.5	108.7	-164.21	33.8	-3,687.3	378.3	296.2	82.03	4.612		
11,100.0	7,088.0	11,350.1	7,452.0	111.3	111.5	-164.09	32.0	-3,787.3	378.5	294.1	84.42	4.484		
11,200.0	7,088.0	11,450.1	7,452.0	114.1	114.2	-163.96	30.2	-3,887.3	378.7	291.9	86.82	4.362		
11,300.0	7,088.0	11,550.1	7,452.0	116.8	117.0	-163.84	28.4	-3,987.3	379.0	289.7	89.25	4.246		
11,400.0	7,088.0	11,650.1	7,452.0	119.6	119.8	-163.71	26.6	-4,087.3	379.2	287.5	91.69	4.136		
11,500.0	7,088.0	11,750.1	7,452.0	122.4	122.6	-163.59	24.9	-4,187.2	379.5	285.3	94.15	4.030		
11,600.0	7,088.0	11,850.1	7,452.0	125.2	125.3	-163.46	23.1	-4,287.2	379.7	283.1	96.63	3.930		
11,700.0	7,088.0	11,950.1	7,452.0	128.0	128.1	-163.34	21.3	-4,387.2	380.0	280.8	99.12	3.833		
11,800.0	7,088.0	12,050.1	7,452.0	130.7	130.9	-163.21	19.5	-4,487.2	380.2	278.6	101.63	3.741		
11,817.4	7,088.0	12,067.5	7,452.0	131.2	131.4	-163.19	19.2	-4,504.6	380.3	278.2	102.07	3.725		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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	-179.84	-30.0	-0.1	30.0					
100.0	100.0	100.0	100.0	0.1	0.1	-179.84	-30.0	-0.1	30.0	29.8	0.22	133.662		
200.0	200.0	200.0	200.0	0.3	0.3	-179.84	-30.0	-0.1	30.0	29.4	0.67	44.554		
300.0	300.0	300.0	300.0	0.6	0.6	-179.84	-30.0	-0.1	30.0	28.9	1.12	26.732		
400.0	400.0	400.0	400.0	0.8	0.8	-179.84	-30.0	-0.1	30.0	28.5	1.57	19.095		
500.0	500.0	500.0	500.0	1.0	1.0	-179.84	-30.0	-0.1	30.0	28.0	2.02	14.851		
600.0	600.0	600.0	600.0	1.2	1.2	-179.84	-30.0	-0.1	30.0	27.6	2.47	12.151		
700.0	700.0	700.0	700.0	1.5	1.5	-179.84	-30.0	-0.1	30.0	27.1	2.92	10.282		
800.0	800.0	800.0	800.0	1.7	1.7	-179.84	-30.0	-0.1	30.0	26.7	3.37	8.911		
900.0	900.0	900.0	900.0	1.9	1.9	-179.84	-30.0	-0.1	30.0	26.2	3.82	7.862		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.84	-30.0	-0.1	30.0	25.8	4.27	7.035		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-179.84	-30.0	-0.1	30.0	25.3	4.72	6.365		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-179.84	-30.0	-0.1	30.0	24.9	5.17	5.811 CC, ES		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	127.49	-30.0	-0.1	30.8	25.2	5.61	5.490		
1,400.0	1,399.9	1,399.9	1,399.9	3.0	3.0	132.82	-30.0	-0.1	33.4	27.3	6.05	5.510		
1,500.0	1,499.7	1,499.7	1,499.7	3.2	3.3	140.00	-30.0	-0.1	38.1	31.6	6.50	5.867		
1,600.0	1,599.3	1,599.3	1,599.3	3.5	3.5	147.36	-30.0	-0.1	45.5	38.6	6.94	6.561		
1,650.9	1,649.9	1,649.9	1,649.9	3.6	3.6	150.79	-30.0	-0.1	50.4	43.2	7.16	7.036		
1,700.0	1,698.6	1,698.6	1,698.6	3.7	3.7	153.70	-30.0	-0.1	55.5	48.1	7.38	7.522		
1,800.0	1,797.9	1,797.9	1,797.9	4.0	3.9	158.21	-30.0	-0.1	66.3	58.5	7.82	8.472		
1,900.0	1,897.2	1,898.2	1,898.2	4.2	4.1	160.65	-30.2	1.2	76.7	68.5	8.26	9.293		
2,000.0	1,996.5	1,998.8	1,998.7	4.5	4.3	160.98	-30.7	5.1	86.0	77.3	8.69	9.902		
2,100.0	2,095.8	2,099.6	2,099.3	4.8	4.5	159.83	-31.4	11.6	94.0	84.9	9.13	10.302		
2,200.0	2,195.1	2,200.4	2,199.7	5.1	4.8	157.51	-32.5	20.7	100.9	91.3	9.59	10.526		
2,300.0	2,294.4	2,300.3	2,299.0	5.3	5.0	154.64	-33.8	31.6	107.3	97.2	10.07	10.656		
2,400.0	2,393.7	2,399.9	2,398.0	5.6	5.2	152.09	-35.1	42.4	113.8	103.3	10.56	10.781		
2,500.0	2,493.0	2,499.6	2,497.1	5.9	5.5	149.81	-36.4	53.2	120.6	109.5	11.06	10.901		
2,600.0	2,592.3	2,599.3	2,596.1	6.2	5.7	147.78	-37.7	64.1	127.5	116.0	11.58	11.016		
2,700.0	2,691.7	2,698.9	2,695.2	6.5	6.0	145.96	-39.0	74.9	134.6	122.5	12.10	11.124		
2,800.0	2,791.0	2,798.6	2,794.3	6.8	6.2	144.32	-40.3	85.8	141.8	129.2	12.63	11.226		
2,900.0	2,890.3	2,898.3	2,893.3	7.1	6.5	142.85	-41.6	96.6	149.1	135.9	13.17	11.321		
3,000.0	2,989.6	2,997.9	2,992.4	7.4	6.7	141.51	-42.9	107.4	156.5	142.8	13.72	11.411		
3,100.0	3,088.9	3,097.6	3,091.5	7.7	7.0	140.29	-44.2	118.3	164.0	149.7	14.27	11.495		
3,200.0	3,188.2	3,197.2	3,190.5	8.0	7.3	139.18	-45.5	129.1	171.5	156.7	14.82	11.574		
3,300.0	3,287.5	3,296.9	3,289.6	8.3	7.6	138.16	-46.8	140.0	179.1	163.7	15.38	11.647		
3,400.0	3,386.8	3,396.6	3,388.6	8.6	7.8	137.22	-48.1	150.8	186.8	170.8	15.94	11.717		
3,500.0	3,486.1	3,496.2	3,487.7	8.9	8.1	136.36	-49.3	161.6	194.5	178.0	16.51	11.782		
3,600.0	3,585.4	3,595.9	3,586.8	9.2	8.4	135.57	-50.6	172.5	202.2	185.1	17.07	11.843		
3,700.0	3,684.7	3,695.6	3,685.8	9.5	8.7	134.83	-51.9	183.3	210.0	192.3	17.64	11.900		
3,800.0	3,784.0	3,795.2	3,784.9	9.8	9.0	134.15	-53.2	194.2	217.8	199.6	18.22	11.954		
3,900.0	3,883.3	3,894.9	3,884.0	10.1	9.2	133.51	-54.5	205.0	225.6	206.8	18.79	12.006		
4,000.0	3,982.6	3,994.6	3,983.0	10.4	9.5	132.92	-55.8	215.8	233.5	214.1	19.37	12.054		
4,100.0	4,081.9	4,094.2	4,082.1	10.7	9.8	132.36	-57.1	226.7	241.3	221.4	19.95	12.100		
4,200.0	4,181.2	4,193.9	4,181.2	11.0	10.1	131.84	-58.4	237.5	249.2	228.7	20.52	12.143		
4,300.0	4,280.5	4,293.5	4,280.2	11.3	10.4	131.35	-59.7	248.4	257.2	236.1	21.11	12.184		
4,400.0	4,379.8	4,393.2	4,379.3	11.6	10.7	130.90	-61.0	259.2	265.1	243.4	21.69	12.223		
4,483.3	4,462.6	4,476.3	4,461.8	11.9	10.9	130.53	-62.1	268.2	271.7	249.6	22.17	12.255		
4,500.0	4,479.1	4,492.9	4,478.3	11.9	11.0	130.48	-62.3	270.1	273.0	250.8	22.27	12.261		
4,600.0	4,578.7	4,592.6	4,577.5	12.2	11.3	129.80	-63.6	280.9	279.5	256.7	22.79	12.262		
4,700.0	4,678.5	4,692.3	4,676.6	12.4	11.6	128.59	-64.9	291.7	283.8	260.5	23.31	12.178		
4,800.0	4,778.5	4,792.7	4,776.5	12.5	11.8	127.10	-66.0	301.2	286.1	262.3	23.76	12.039		
4,821.5	4,800.0	4,814.4	4,798.1	12.6	11.9	-178.57	-66.2	302.8	286.3	264.4	21.90	13.074		

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 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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		
4,900.0	4,878.5	4,893.5	4,877.1	12.7	12.0	-179.46	-66.7	307.3	286.7	264.6	22.17	12.934		
5,000.0	4,978.5	4,994.6	4,978.2	12.9	12.2	-179.97	-67.0	309.8	287.0	264.5	22.54	12.732		
5,100.0	5,078.5	5,094.9	5,078.5	13.1	12.4	-179.98	-67.0	309.9	287.0	264.1	22.94	12.513		
5,200.0	5,178.5	5,194.9	5,178.5	13.2	12.6	-179.98	-67.0	309.9	287.0	263.7	23.35	12.294		
5,300.0	5,278.5	5,294.9	5,278.5	13.4	12.8	-179.98	-67.0	309.9	287.0	263.3	23.76	12.081		
5,400.0	5,378.5	5,394.9	5,378.5	13.6	13.0	-179.98	-67.0	309.9	287.0	262.9	24.17	11.875		
5,500.0	5,478.5	5,494.9	5,478.5	13.8	13.1	-179.98	-67.0	309.9	287.0	262.5	24.58	11.676		
5,600.0	5,578.5	5,594.9	5,578.5	14.0	13.3	-179.98	-67.0	309.9	287.0	262.0	25.00	11.482		
5,700.0	5,678.5	5,694.9	5,678.5	14.2	13.5	-179.98	-67.0	309.9	287.0	261.6	25.41	11.294		
5,800.0	5,778.5	5,794.9	5,778.5	14.4	13.7	-179.98	-67.0	309.9	287.0	261.2	25.83	11.112		
5,900.0	5,878.5	5,894.9	5,878.5	14.6	13.9	-179.98	-67.0	309.9	287.0	260.8	26.25	10.935		
6,000.0	5,978.5	5,994.9	5,978.5	14.8	14.1	-179.98	-67.0	309.9	287.0	260.4	26.67	10.764		
6,100.0	6,078.5	6,094.9	6,078.5	15.0	14.3	-179.98	-67.0	309.9	287.0	260.0	27.09	10.597		
6,200.0	6,178.5	6,194.9	6,178.5	15.2	14.5	-179.98	-67.0	309.9	287.0	259.5	27.51	10.435		
6,300.0	6,278.5	6,294.9	6,278.5	15.4	14.7	-179.98	-67.0	309.9	287.0	259.1	27.93	10.277		
6,400.0	6,378.5	6,394.9	6,378.5	15.6	14.9	-179.98	-67.0	309.9	287.0	258.7	28.35	10.124		
6,500.0	6,478.5	6,494.9	6,478.5	15.8	15.1	-179.98	-67.0	309.9	287.0	258.3	28.78	9.975		
6,600.0	6,578.5	6,594.9	6,578.5	16.0	15.3	-179.98	-67.0	309.9	287.0	257.8	29.20	9.830		
6,700.4	6,678.8	6,695.2	6,678.8	16.2	15.5	-179.98	-67.0	309.9	287.0	257.4	29.63	9.689		
6,750.0	6,728.4	6,744.8	6,728.4	16.2	15.6	-88.95	-67.0	309.9	287.0	255.5	31.48	9.116		
6,800.0	6,777.8	6,794.3	6,777.8	16.3	15.7	-89.88	-67.1	307.4	286.9	255.3	31.62	9.074		
6,806.4	6,784.1	6,800.7	6,784.1	16.3	15.7	-90.00	-67.1	306.7	286.9	255.3	31.64	9.070		
6,850.0	6,826.4	6,844.2	6,827.2	16.3	15.8	-90.80	-67.3	300.1	287.0	255.2	31.72	9.046		
6,900.0	6,873.6	6,894.6	6,876.0	16.3	15.8	-91.71	-67.6	287.8	287.1	255.3	31.79	9.032		
6,950.0	6,918.9	6,945.5	6,923.9	16.3	15.8	-92.61	-68.1	270.7	287.2	255.4	31.82	9.027		
7,000.0	6,962.0	6,996.8	6,970.3	16.3	15.8	-93.48	-68.7	248.8	287.5	255.6	31.84	9.028		
7,050.0	7,002.5	7,048.6	7,014.6	16.3	15.9	-94.31	-69.4	222.0	287.8	255.9	31.87	9.029		
7,100.0	7,040.0	7,100.9	7,056.4	16.3	15.9	-95.10	-70.2	190.7	288.1	256.2	31.94	9.021		
7,150.0	7,074.1	7,153.6	7,095.1	16.3	16.0	-95.83	-71.1	155.0	288.5	256.4	32.07	8.994		
7,200.0	7,104.6	7,206.6	7,130.2	16.4	16.1	-96.50	-72.2	115.2	288.8	256.5	32.31	8.938		
7,250.0	7,131.0	7,260.1	7,161.2	16.6	16.3	-97.11	-73.3	71.7	289.2	256.5	32.69	8.845		
7,300.0	7,153.3	7,313.9	7,187.7	16.9	16.6	-97.63	-74.6	25.0	289.5	256.3	33.25	8.708		
7,350.0	7,171.2	7,368.0	7,209.3	17.3	17.0	-98.08	-75.9	-24.6	289.8	255.8	34.00	8.525		
7,400.0	7,184.4	7,422.4	7,225.7	17.7	17.5	-98.44	-77.2	-76.4	290.1	255.2	34.95	8.300		
7,450.0	7,193.0	7,477.0	7,236.5	18.3	18.1	-98.70	-78.7	-129.9	290.3	254.2	36.11	8.040		
7,500.0	7,196.8	7,532.6	7,241.0	19.0	18.8	-98.76	-80.1	-185.3	290.4	252.9	37.46	7.751		
7,505.3	7,196.9	7,538.5	7,241.1	19.1	18.9	-98.75	-80.3	-191.1	290.4	252.7	37.62	7.719		
7,514.3	7,196.0	7,547.3	7,241.1	19.2	19.0	-98.92	-80.5	-199.9	290.5	252.6	37.84	7.676		
7,515.3	7,196.0	7,548.4	7,241.0	19.2	19.0	-98.92	-80.5	-201.0	290.5	252.6	37.87	7.670		
7,600.0	7,194.4	7,635.9	7,241.0	20.5	20.4	-99.24	-82.3	-287.5	290.3	249.8	40.49	7.169		
7,631.1	7,193.1	7,666.9	7,241.0	21.0	20.9	-99.52	-82.9	-318.5	290.2	248.7	41.50	6.994		
7,631.3	7,193.1	7,667.2	7,241.0	21.0	20.9	-99.52	-82.9	-318.8	290.2	248.7	41.51	6.992		
7,700.0	7,189.6	7,735.8	7,241.0	22.3	22.2	-100.21	-84.1	-387.4	290.2	246.4	43.86	6.617		
7,800.0	7,184.5	7,835.7	7,241.0	24.2	24.1	-101.22	-85.9	-487.2	290.4	242.8	47.58	6.103		
7,900.0	7,179.5	7,935.5	7,241.0	26.3	26.2	-102.23	-87.7	-587.1	290.6	239.0	51.56	5.636		
8,000.0	7,174.4	8,035.4	7,241.0	28.5	28.5	-103.24	-89.5	-686.9	290.8	235.1	55.72	5.219		
8,100.0	7,169.4	8,135.3	7,241.0	30.9	30.8	-104.25	-91.3	-786.8	291.2	231.2	60.03	4.852		
8,200.0	7,164.3	8,235.1	7,241.0	33.3	33.2	-105.25	-93.0	-886.6	291.7	227.3	64.42	4.528		
8,300.0	7,159.2	8,335.0	7,241.0	35.7	35.6	-106.25	-94.8	-986.5	292.3	223.4	68.87	4.244		
8,400.0	7,154.2	8,434.9	7,241.0	38.2	38.1	-107.25	-96.6	-1,086.3	292.9	219.6	73.34	3.994		
8,500.0	7,149.1	8,534.7	7,241.0	40.7	40.7	-108.24	-98.4	-1,186.2	293.6	215.8	77.83	3.773		
8,600.0	7,144.1	8,634.6	7,241.0	43.3	43.3	-109.22	-100.2	-1,286.0	294.5	212.2	82.31	3.578		

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 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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		
8,700.0	7,139.0	8,734.5	7,241.0	45.9	45.9	-110.20	-102.0	-1,385.9	295.4	208.6	86.76	3.404		
8,800.0	7,133.9	8,834.3	7,241.0	48.5	48.5	-111.17	-103.8	-1,485.7	296.4	205.2	91.18	3.250		
8,900.0	7,128.9	8,934.2	7,241.0	51.2	51.1	-112.14	-105.6	-1,585.6	297.5	201.9	95.56	3.113		
9,000.0	7,123.8	9,034.1	7,241.0	53.8	53.8	-113.10	-107.3	-1,685.4	298.6	198.7	99.88	2.990		
9,100.0	7,118.8	9,133.9	7,241.0	56.5	56.5	-114.05	-109.1	-1,785.3	299.9	195.7	104.15	2.879		
9,200.0	7,113.7	9,233.8	7,241.0	59.1	59.1	-114.99	-110.9	-1,885.2	301.2	192.8	108.35	2.780		
9,300.0	7,108.6	9,333.7	7,241.0	61.8	61.8	-115.93	-112.7	-1,985.0	302.6	190.1	112.49	2.690		
9,400.0	7,103.6	9,433.6	7,241.0	64.5	64.5	-116.85	-114.5	-2,084.9	304.1	187.6	116.55	2.609		
9,500.0	7,098.5	9,533.4	7,241.0	67.2	67.3	-117.77	-116.3	-2,184.7	305.7	185.1	120.53	2.536		
9,600.0	7,093.5	9,633.3	7,241.0	70.0	70.0	-118.68	-118.1	-2,284.6	307.3	182.9	124.44	2.470		
9,646.8	7,091.1	9,680.0	7,241.0	71.2	71.2	-119.10	-118.9	-2,331.3	308.1	181.9	126.24	2.441		
9,700.0	7,089.0	9,733.2	7,241.0	72.7	72.7	-119.47	-119.8	-2,384.4	308.9	180.6	128.36	2.407		
9,769.2	7,088.0	9,802.4	7,241.0	74.6	74.6	-119.61	-121.1	-2,453.6	309.7	178.1	131.51	2.355		
9,800.0	7,088.0	9,833.2	7,241.0	75.4	75.4	-119.59	-121.6	-2,484.4	309.9	176.9	133.02	2.330		
9,900.0	7,088.0	9,933.2	7,241.0	78.1	78.2	-119.51	-123.4	-2,584.4	310.6	172.7	137.93	2.252		
10,000.0	7,088.0	10,033.2	7,241.0	80.9	80.9	-119.43	-125.2	-2,684.4	311.4	168.5	142.87	2.180		
10,100.0	7,088.0	10,133.2	7,241.0	83.6	83.7	-119.35	-127.0	-2,784.4	312.1	164.3	147.81	2.112		
10,200.0	7,088.0	10,233.2	7,241.0	86.4	86.4	-119.27	-128.8	-2,884.3	312.9	160.1	152.77	2.048		
10,300.0	7,088.0	10,333.2	7,241.0	89.1	89.2	-119.20	-130.6	-2,984.3	313.6	155.9	157.74	1.988		
10,400.0	7,088.0	10,433.2	7,241.0	91.9	91.9	-119.12	-132.4	-3,084.3	314.4	151.7	162.72	1.932		
10,500.0	7,088.0	10,533.1	7,241.0	94.7	94.7	-119.04	-134.2	-3,184.3	315.2	147.4	167.71	1.879		
10,600.0	7,088.0	10,633.1	7,241.0	97.4	97.4	-118.97	-135.9	-3,284.3	315.9	143.2	172.72	1.829		
10,700.0	7,088.0	10,733.1	7,241.0	100.2	100.2	-118.89	-137.7	-3,384.2	316.7	138.9	177.73	1.782		
10,800.0	7,088.0	10,833.1	7,241.0	103.0	103.0	-118.82	-139.5	-3,484.2	317.4	134.7	182.75	1.737		
10,900.0	7,088.0	10,933.1	7,241.0	105.7	105.7	-118.74	-141.3	-3,584.2	318.2	130.4	187.78	1.694		
11,000.0	7,088.0	11,033.1	7,241.0	108.5	108.5	-118.67	-143.1	-3,684.2	318.9	126.1	192.82	1.654		
11,100.0	7,088.0	11,133.1	7,241.0	111.3	111.3	-118.59	-144.9	-3,784.2	319.7	121.8	197.87	1.616		
11,200.0	7,088.0	11,233.1	7,241.0	114.1	114.1	-118.52	-146.7	-3,884.1	320.5	117.5	202.92	1.579		
11,300.0	7,088.0	11,333.1	7,241.0	116.8	116.8	-118.45	-148.5	-3,984.1	321.2	113.2	207.99	1.544		
11,400.0	7,088.0	11,433.1	7,241.0	119.6	119.6	-118.37	-150.3	-4,084.1	322.0	108.9	213.06	1.511		
11,500.0	7,088.0	11,533.1	7,241.0	122.4	122.4	-118.30	-152.0	-4,184.1	322.7	104.6	218.14	1.480	Level 3	
11,600.0	7,088.0	11,633.1	7,241.0	125.2	125.2	-118.23	-153.8	-4,284.1	323.5	100.3	223.22	1.449	Level 3	
11,700.0	7,088.0	11,733.1	7,241.0	128.0	128.0	-118.15	-155.6	-4,384.0	324.3	95.9	228.32	1.420	Level 3	
11,800.0	7,088.0	11,833.1	7,241.0	130.7	130.7	-118.08	-157.4	-4,484.0	325.0	91.6	233.42	1.392	Level 3	
11,817.4	7,088.0	11,850.5	7,241.0	131.2	131.2	-118.07	-157.7	-4,501.4	325.2	90.9	234.30	1.388	Level 3, SF	

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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	1.0	1.0	0.0	0.0	-179.96	-45.1	0.0	45.1	45.1	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-179.96	-45.1	0.0	45.1	44.8	0.23	198.491		
200.0	200.0	201.0	201.0	0.3	0.3	-179.96	-45.1	0.0	45.1	44.4	0.68	66.603		
300.0	300.0	301.0	301.0	0.6	0.6	-179.96	-45.1	0.0	45.1	43.9	1.13	40.015		
400.0	400.0	401.0	401.0	0.8	0.8	-179.96	-45.1	0.0	45.1	43.5	1.58	28.599		
500.0	500.0	501.0	501.0	1.0	1.0	-179.96	-45.1	0.0	45.1	43.0	2.03	22.250		
600.0	600.0	601.0	601.0	1.2	1.2	-179.96	-45.1	0.0	45.1	42.6	2.47	18.209		
700.0	700.0	701.0	701.0	1.5	1.5	-179.96	-45.1	0.0	45.1	42.1	2.92	15.409		
800.0	800.0	801.0	801.0	1.7	1.7	-179.96	-45.1	0.0	45.1	41.7	3.37	13.356		
900.0	900.0	901.0	901.0	1.9	1.9	-179.96	-45.1	0.0	45.1	41.2	3.82	11.786		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-179.96	-45.1	0.0	45.1	40.8	4.27	10.546		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	-179.96	-45.1	0.0	45.1	40.3	4.72	9.542		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-179.96	-45.1	0.0	45.1	39.9	5.17	8.713 CC, ES		
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	126.72	-45.1	0.0	45.8	40.2	5.62	8.161		
1,400.0	1,399.9	1,400.9	1,400.9	3.0	3.0	130.43	-45.1	0.0	48.3	42.2	6.06	7.972 SF		
1,500.0	1,499.7	1,500.7	1,500.7	3.2	3.3	135.79	-45.1	0.0	52.8	46.3	6.50	8.119		
1,600.0	1,599.3	1,600.0	1,600.0	3.5	3.5	141.84	-45.1	0.0	59.7	52.7	6.94	8.597		
1,650.9	1,649.9	1,650.4	1,650.4	3.6	3.6	144.65	-45.3	0.2	64.4	57.3	7.15	9.003		
1,700.0	1,698.6	1,698.7	1,698.7	3.7	3.7	146.72	-46.1	0.8	69.7	62.3	7.36	9.467		
1,800.0	1,797.9	1,797.0	1,796.9	4.0	3.9	148.90	-49.1	3.1	81.6	73.8	7.77	10.501		
1,900.0	1,897.2	1,895.1	1,894.8	4.2	4.0	149.16	-54.1	6.9	94.7	86.6	8.19	11.569		
2,000.0	1,996.5	1,992.8	1,992.1	4.5	4.2	148.18	-61.0	12.3	109.1	100.5	8.62	12.652		
2,100.0	2,095.8	2,090.0	2,088.6	4.8	4.4	146.43	-69.9	19.2	124.8	115.7	9.08	13.747		
2,200.0	2,195.1	2,188.1	2,185.9	5.1	4.7	144.45	-80.2	27.2	141.5	132.0	9.55	14.816		
2,300.0	2,294.4	2,286.6	2,283.5	5.3	4.9	142.87	-90.5	35.2	158.4	148.3	10.03	15.784		
2,400.0	2,393.7	2,385.1	2,381.1	5.6	5.2	141.60	-100.9	43.2	175.3	164.8	10.53	16.657		
2,500.0	2,493.0	2,483.5	2,478.7	5.9	5.4	140.55	-111.3	51.3	192.4	181.3	11.03	17.445		
2,600.0	2,592.3	2,582.0	2,576.3	6.2	5.7	139.67	-121.7	59.3	209.4	197.9	11.53	18.159		
2,700.0	2,691.7	2,680.5	2,673.9	6.5	6.0	138.92	-132.1	67.3	226.6	214.5	12.05	18.807		
2,800.0	2,791.0	2,779.0	2,771.5	6.8	6.2	138.28	-142.4	75.4	243.7	231.1	12.56	19.397		
2,900.0	2,890.3	2,877.5	2,869.1	7.1	6.5	137.72	-152.8	83.4	260.9	247.8	13.09	19.935		
3,000.0	2,989.6	2,976.0	2,966.7	7.4	6.8	137.23	-163.2	91.5	278.1	264.5	13.61	20.428		
3,100.0	3,088.9	3,074.4	3,064.3	7.7	7.1	136.80	-173.6	99.5	295.3	281.2	14.14	20.880		
3,200.0	3,188.2	3,172.9	3,161.9	8.0	7.4	136.42	-183.9	107.5	312.5	297.9	14.68	21.296		
3,300.0	3,287.5	3,271.4	3,259.5	8.3	7.7	136.07	-194.3	115.6	329.8	314.6	15.21	21.679		
3,400.0	3,386.8	3,369.9	3,357.1	8.6	8.0	135.76	-204.7	123.6	347.0	331.3	15.75	22.033		
3,500.0	3,486.1	3,468.4	3,454.7	8.9	8.3	135.48	-215.1	131.6	364.3	348.0	16.29	22.362		
3,600.0	3,585.4	3,566.9	3,552.4	9.2	8.6	135.23	-225.5	139.7	381.6	364.7	16.83	22.667		
3,700.0	3,684.7	3,665.3	3,650.0	9.5	9.0	134.99	-235.8	147.7	398.9	381.5	17.38	22.951		
3,800.0	3,784.0	3,763.8	3,747.6	9.8	9.3	134.78	-246.2	155.8	416.1	398.2	17.92	23.216		
3,900.0	3,883.3	3,862.3	3,845.2	10.1	9.6	134.58	-256.6	163.8	433.4	415.0	18.47	23.464		
4,000.0	3,982.6	3,960.8	3,942.8	10.4	9.9	134.40	-267.0	171.8	450.7	431.7	19.02	23.696		
4,100.0	4,081.9	4,059.3	4,040.4	10.7	10.2	134.23	-277.4	179.9	468.0	448.5	19.57	23.914		
4,200.0	4,181.2	4,157.8	4,138.0	11.0	10.5	134.08	-287.7	187.9	485.3	465.2	20.12	24.118		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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	1.0	1.0	0.0	0.0	-179.87	-60.1	-0.1	60.1	60.1	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-179.87	-60.1	-0.1	60.1	59.8	0.23	264.590		
200.0	200.0	201.0	201.0	0.3	0.3	-179.87	-60.1	-0.1	60.1	59.4	0.68	88.783		
300.0	300.0	301.0	301.0	0.6	0.6	-179.87	-60.1	-0.1	60.1	58.9	1.13	53.340		
400.0	400.0	401.0	401.0	0.8	0.8	-179.87	-60.1	-0.1	60.1	58.5	1.58	38.122		
500.0	500.0	501.0	501.0	1.0	1.0	-179.87	-60.1	-0.1	60.1	58.0	2.03	29.660		
600.0	600.0	601.0	601.0	1.2	1.2	-179.87	-60.1	-0.1	60.1	57.6	2.47	24.272		
700.0	700.0	701.0	701.0	1.5	1.5	-179.87	-60.1	-0.1	60.1	57.1	2.92	20.541		
800.0	800.0	801.0	801.0	1.7	1.7	-179.87	-60.1	-0.1	60.1	56.7	3.37	17.804		
900.0	900.0	901.0	901.0	1.9	1.9	-179.87	-60.1	-0.1	60.1	56.2	3.82	15.711		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-179.87	-60.1	-0.1	60.1	55.8	4.27	14.058		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	-179.87	-60.1	-0.1	60.1	55.3	4.72	12.719		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-179.87	-60.1	-0.1	60.1	54.9	5.17	11.614 CC, ES		
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	126.49	-60.1	-0.1	60.8	55.2	5.62	10.833		
1,400.0	1,399.9	1,400.9	1,400.9	3.0	3.0	129.32	-60.1	-0.1	63.2	57.2	6.06	10.444 SF		
1,500.0	1,499.7	1,500.0	1,500.0	3.2	3.2	132.80	-61.2	0.6	68.6	62.1	6.47	10.595		
1,600.0	1,599.3	1,597.5	1,597.4	3.5	3.4	135.73	-64.3	2.6	77.9	71.0	6.87	11.329		
1,650.9	1,649.9	1,647.2	1,647.0	3.6	3.5	136.95	-66.8	4.2	84.1	77.0	7.08	11.874		
1,700.0	1,698.6	1,695.0	1,694.7	3.7	3.6	137.87	-69.6	6.1	90.8	83.5	7.29	12.460		
1,800.0	1,797.9	1,792.2	1,791.5	4.0	3.8	138.64	-76.9	10.8	105.8	98.1	7.71	13.709		
1,900.0	1,897.2	1,888.8	1,887.5	4.2	4.0	138.37	-86.2	16.9	122.5	114.3	8.16	15.011		
2,000.0	1,996.5	1,984.8	1,982.6	4.5	4.2	137.43	-97.5	24.3	140.9	132.3	8.62	16.347		
2,100.0	2,095.8	2,082.9	2,079.5	4.8	4.5	136.40	-109.9	32.4	160.2	151.1	9.10	17.606		
2,200.0	2,195.1	2,181.0	2,176.5	5.1	4.7	135.60	-122.4	40.5	179.6	170.0	9.59	18.725		
2,300.0	2,294.4	2,279.1	2,273.4	5.3	5.0	134.95	-134.9	48.6	198.9	188.8	10.09	19.719		
2,400.0	2,393.7	2,377.2	2,370.4	5.6	5.3	134.41	-147.3	56.7	218.3	207.7	10.59	20.608		
2,500.0	2,493.0	2,475.3	2,467.3	5.9	5.6	133.97	-159.8	64.9	237.7	226.6	11.10	21.403		
2,600.0	2,592.3	2,573.4	2,564.3	6.2	5.9	133.59	-172.2	73.0	257.1	245.4	11.62	22.118		
2,700.0	2,691.7	2,671.4	2,661.2	6.5	6.2	133.26	-184.7	81.1	276.5	264.3	12.15	22.762		
2,800.0	2,791.0	2,769.5	2,758.2	6.8	6.5	132.97	-197.1	89.2	295.9	283.2	12.67	23.346		
2,900.0	2,890.3	2,867.6	2,855.1	7.1	6.9	132.73	-209.6	97.3	315.3	302.1	13.21	23.877		
3,000.0	2,989.6	2,965.7	2,952.1	7.4	7.2	132.51	-222.0	105.4	334.8	321.0	13.74	24.360		
3,100.0	3,088.9	3,063.8	3,049.1	7.7	7.5	132.31	-234.5	113.6	354.2	339.9	14.28	24.802		
3,200.0	3,188.2	3,161.9	3,146.0	8.0	7.9	132.13	-246.9	121.7	373.6	358.8	14.82	25.208		
3,300.0	3,287.5	3,260.0	3,243.0	8.3	8.2	131.98	-259.4	129.8	393.1	377.7	15.37	25.581		
3,400.0	3,386.8	3,358.1	3,339.9	8.6	8.5	131.83	-271.8	137.9	412.5	396.6	15.91	25.925		
3,500.0	3,486.1	3,456.1	3,436.9	8.9	8.9	131.70	-284.3	146.0	432.0	415.5	16.46	26.243		
3,600.0	3,585.4	3,554.2	3,533.8	9.2	9.2	131.58	-296.7	154.1	451.4	434.4	17.01	26.538		
3,700.0	3,684.7	3,652.3	3,630.8	9.5	9.6	131.47	-309.2	162.3	470.9	453.3	17.56	26.812		
3,800.0	3,784.0	3,750.4	3,727.7	9.8	9.9	131.37	-321.6	170.4	490.3	472.2	18.11	27.068		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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	1.0	1.0	0.0	0.0	-179.87	-75.0	-0.2	75.0	75.0	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-179.87	-75.0	-0.2	75.0	74.7	0.23	330.225		
200.0	200.0	201.0	201.0	0.3	0.3	-179.87	-75.0	-0.2	75.0	74.3	0.68	110.806		
300.0	300.0	301.0	301.0	0.6	0.6	-179.87	-75.0	-0.2	75.0	73.8	1.13	66.572		
400.0	400.0	401.0	401.0	0.8	0.8	-179.87	-75.0	-0.2	75.0	73.4	1.58	47.579		
500.0	500.0	501.0	501.0	1.0	1.0	-179.87	-75.0	-0.2	75.0	72.9	2.03	37.017		
600.0	600.0	601.0	601.0	1.2	1.2	-179.87	-75.0	-0.2	75.0	72.5	2.47	30.293		
700.0	700.0	701.0	701.0	1.5	1.5	-179.87	-75.0	-0.2	75.0	72.0	2.92	25.636		
800.0	800.0	801.0	801.0	1.7	1.7	-179.87	-75.0	-0.2	75.0	71.6	3.37	22.220		
900.0	900.0	901.0	901.0	1.9	1.9	-179.87	-75.0	-0.2	75.0	71.1	3.82	19.608		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-179.87	-75.0	-0.2	75.0	70.7	4.27	17.545		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	-179.87	-75.0	-0.2	75.0	70.2	4.72	15.875		
1,166.3	1,166.3	1,167.3	1,167.3	2.5	2.5	-179.87	-75.0	-0.2	75.0	69.9	5.02	14.932 CC		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-179.87	-75.0	-0.2	75.0	69.8	5.17	14.496 ES		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	125.79	-76.1	0.5	76.9	71.3	5.59	13.759 SF		
1,400.0	1,399.9	1,397.3	1,397.2	3.0	3.0	126.61	-79.4	2.3	82.6	76.6	5.98	13.812		
1,500.0	1,499.7	1,494.9	1,494.6	3.2	3.1	127.75	-85.0	5.3	92.1	85.7	6.38	14.426		
1,600.0	1,599.3	1,591.9	1,591.2	3.5	3.3	128.99	-92.6	9.4	105.4	98.6	6.80	15.499		
1,650.9	1,649.9	1,640.9	1,639.9	3.6	3.4	129.60	-97.3	11.9	113.6	106.6	7.02	16.190		
1,700.0	1,698.6	1,688.0	1,686.7	3.7	3.5	130.15	-102.3	14.7	122.3	115.1	7.23	16.908		
1,800.0	1,797.9	1,783.4	1,781.1	4.0	3.8	130.64	-114.1	21.0	141.5	133.8	7.68	18.417		
1,900.0	1,897.2	1,880.6	1,877.2	4.2	4.0	130.68	-127.5	28.3	162.1	154.0	8.15	19.889		
2,000.0	1,996.5	1,978.5	1,973.8	4.5	4.3	130.70	-141.0	35.6	182.8	174.1	8.63	21.179		
2,100.0	2,095.8	2,076.3	2,070.4	4.8	4.6	130.71	-154.5	43.0	203.4	194.3	9.12	22.308		
2,200.0	2,195.1	2,174.2	2,167.0	5.1	4.9	130.73	-168.0	50.3	224.1	214.5	9.62	23.301		
2,300.0	2,294.4	2,272.0	2,263.7	5.3	5.2	130.74	-181.6	57.6	244.7	234.6	10.12	24.178		
2,400.0	2,393.7	2,369.9	2,360.3	5.6	5.5	130.75	-195.1	65.0	265.4	254.7	10.63	24.956		
2,500.0	2,493.0	2,467.7	2,456.9	5.9	5.9	130.76	-208.6	72.3	286.0	274.9	11.15	25.650		
2,600.0	2,592.3	2,565.5	2,553.6	6.2	6.2	130.76	-222.2	79.6	306.7	295.0	11.67	26.271		
2,700.0	2,691.7	2,663.4	2,650.2	6.5	6.5	130.77	-235.7	87.0	327.3	315.1	12.20	26.829		
2,800.0	2,791.0	2,761.2	2,746.8	6.8	6.9	130.78	-249.2	94.3	347.9	335.2	12.73	27.333		
2,900.0	2,890.3	2,859.1	2,843.4	7.1	7.2	130.78	-262.7	101.6	368.6	355.3	13.26	27.790		
3,000.0	2,989.6	2,956.9	2,940.1	7.4	7.6	130.78	-276.3	109.0	389.2	375.4	13.80	28.205		
3,100.0	3,088.9	3,054.8	3,036.7	7.7	7.9	130.79	-289.8	116.3	409.9	395.5	14.34	28.584		
3,200.0	3,188.2	3,152.6	3,133.3	8.0	8.3	130.79	-303.3	123.6	430.5	415.6	14.88	28.931		
3,300.0	3,287.5	3,250.5	3,229.9	8.3	8.6	130.80	-316.9	131.0	451.2	435.8	15.43	29.250		
3,400.0	3,386.8	3,348.3	3,326.6	8.6	9.0	130.80	-330.4	138.3	471.8	455.9	15.97	29.543		
3,500.0	3,486.1	3,446.2	3,423.2	8.9	9.3	130.80	-343.9	145.6	492.5	476.0	16.52	29.814		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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	1.0	1.0	0.0	0.0	-179.91	-90.1	-0.1	90.1	90.1	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-179.91	-90.1	-0.1	90.1	89.9	0.23	396.983		
200.0	200.0	201.0	201.0	0.3	0.3	-179.91	-90.1	-0.1	90.1	89.4	0.68	133.207		
300.0	300.0	301.0	301.0	0.6	0.6	-179.91	-90.1	-0.1	90.1	89.0	1.13	80.030		
400.0	400.0	401.0	401.0	0.8	0.8	-179.91	-90.1	-0.1	90.1	88.5	1.58	57.197		
500.0	500.0	501.0	501.0	1.0	1.0	-179.91	-90.1	-0.1	90.1	88.1	2.03	44.501		
600.0	600.0	601.0	601.0	1.2	1.2	-179.91	-90.1	-0.1	90.1	87.6	2.47	36.417		
700.0	700.0	701.0	701.0	1.5	1.5	-179.91	-90.1	-0.1	90.1	87.2	2.92	30.819		
800.0	800.0	801.0	801.0	1.7	1.7	-179.91	-90.1	-0.1	90.1	86.7	3.37	26.712		
900.0	900.0	901.0	901.0	1.9	1.9	-179.91	-90.1	-0.1	90.1	86.3	3.82	23.572		
966.3	966.3	967.3	967.3	2.1	2.1	-179.91	-90.1	-0.1	90.1	86.0	4.12	21.866 CC		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.91	-90.1	-0.1	90.1	85.9	4.27	21.104 ES		
1,100.0	1,100.0	1,098.8	1,098.8	2.4	2.3	179.78	-91.3	0.4	91.3	86.6	4.69	19.471		
1,200.0	1,200.0	1,196.6	1,196.5	2.6	2.5	178.89	-94.8	1.8	94.9	89.8	5.09	18.649		
1,300.0	1,300.0	1,294.0	1,293.7	2.8	2.7	123.46	-100.5	4.3	101.6	96.1	5.50	18.490 SF		
1,400.0	1,399.9	1,390.9	1,390.2	3.0	2.9	123.35	-108.5	7.6	112.1	106.2	5.90	18.992		
1,500.0	1,499.7	1,487.1	1,485.8	3.2	3.1	123.77	-118.7	11.9	126.4	120.1	6.32	19.991		
1,600.0	1,599.3	1,582.3	1,580.0	3.5	3.3	124.50	-130.9	17.1	144.5	137.7	6.76	21.382		
1,650.9	1,649.9	1,630.3	1,627.5	3.6	3.5	124.93	-137.9	20.1	155.1	148.1	6.98	22.211		
1,700.0	1,698.6	1,676.4	1,672.8	3.7	3.6	125.42	-145.1	23.1	166.1	158.9	7.21	23.049		
1,800.0	1,797.9	1,771.8	1,766.6	4.0	3.9	126.07	-161.4	30.0	189.8	182.1	7.67	24.730		
1,900.0	1,897.2	1,868.8	1,862.0	4.2	4.2	126.56	-178.1	37.0	213.7	205.6	8.15	26.213		
2,000.0	1,996.5	1,965.9	1,957.3	4.5	4.6	126.96	-194.8	44.1	237.7	229.0	8.64	27.492		
2,100.0	2,095.8	2,063.0	2,052.7	4.8	4.9	127.28	-211.5	51.2	261.6	252.5	9.14	28.610		
2,200.0	2,195.1	2,160.1	2,148.1	5.1	5.3	127.55	-228.2	58.2	285.6	275.9	9.65	29.585		
2,300.0	2,294.4	2,257.2	2,243.4	5.3	5.6	127.77	-245.0	65.3	309.6	299.4	10.17	30.442		
2,400.0	2,393.7	2,354.2	2,338.8	5.6	6.0	127.97	-261.7	72.4	333.5	322.8	10.69	31.199		
2,500.0	2,493.0	2,451.3	2,434.2	5.9	6.4	128.13	-278.4	79.4	357.5	346.3	11.22	31.871		
2,600.0	2,592.3	2,548.4	2,529.5	6.2	6.8	128.28	-295.1	86.5	381.5	369.7	11.75	32.471		
2,700.0	2,691.7	2,645.5	2,624.9	6.5	7.2	128.41	-311.8	93.6	405.5	393.2	12.28	33.008		
2,800.0	2,791.0	2,742.5	2,720.3	6.8	7.6	128.52	-328.6	100.6	429.5	416.6	12.82	33.492		
2,900.0	2,890.3	2,839.6	2,815.6	7.1	7.9	128.63	-345.3	107.7	453.4	440.1	13.36	33.929		
3,000.0	2,989.6	2,936.7	2,911.0	7.4	8.3	128.72	-362.0	114.8	477.4	463.5	13.91	34.325		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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	1.0	1.0	0.0	0.0	-179.95	-104.9	-0.1	104.9	104.9	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-179.95	-104.9	-0.1	104.9	104.7	0.23	462.296		
200.0	200.0	201.0	201.0	0.3	0.3	-179.95	-104.9	-0.1	104.9	104.3	0.68	155.123		
300.0	300.0	301.0	301.0	0.6	0.6	-179.95	-104.9	-0.1	104.9	103.8	1.13	93.197		
400.0	400.0	401.0	401.0	0.8	0.8	-179.95	-104.9	-0.1	104.9	103.4	1.58	66.608		
500.0	500.0	501.0	501.0	1.0	1.0	-179.95	-104.9	-0.1	104.9	102.9	2.03	51.822		
600.0	600.0	601.0	601.0	1.2	1.2	-179.95	-104.9	-0.1	104.9	102.5	2.47	42.409		
700.0	700.0	701.0	701.0	1.5	1.5	-179.95	-104.9	-0.1	104.9	102.0	2.92	35.889		
766.3	766.3	767.3	767.3	1.6	1.6	-179.95	-104.9	-0.1	104.9	101.7	3.22	32.568 CC		
800.0	800.0	800.0	800.0	1.7	1.7	-179.95	-104.9	-0.1	105.0	101.6	3.37	31.129 ES		
900.0	900.0	898.4	898.4	1.9	1.9	179.86	-106.2	0.3	106.2	102.4	3.79	28.020		
1,000.0	1,000.0	995.7	995.6	2.1	2.1	179.34	-109.8	1.3	109.9	105.7	4.19	26.237		
1,100.0	1,100.0	1,092.7	1,092.4	2.4	2.2	178.54	-115.7	3.0	116.1	111.5	4.60	25.246		
1,200.0	1,200.0	1,189.3	1,188.6	2.6	2.4	177.56	-124.0	5.3	124.8	119.7	5.02	24.855 SF		
1,300.0	1,300.0	1,285.4	1,284.1	2.8	2.7	122.16	-134.6	8.3	136.6	131.2	5.44	25.117		
1,400.0	1,399.9	1,380.7	1,378.4	3.0	2.9	122.06	-147.4	11.8	152.2	146.4	5.86	25.975		
1,500.0	1,499.7	1,474.8	1,471.3	3.2	3.2	122.45	-162.2	16.0	171.6	165.4	6.29	27.275		
1,600.0	1,599.3	1,567.7	1,562.6	3.5	3.5	123.12	-179.0	20.7	194.8	188.1	6.74	28.915		
1,650.9	1,649.9	1,614.5	1,608.4	3.6	3.7	123.53	-188.2	23.3	208.0	201.1	6.97	29.856		
1,700.0	1,698.6	1,659.2	1,652.0	3.7	3.8	124.05	-197.6	26.0	221.5	214.3	7.19	30.785		
1,800.0	1,797.9	1,752.2	1,742.4	4.0	4.2	124.87	-218.3	31.8	250.4	242.7	7.67	32.645		
1,900.0	1,897.2	1,847.8	1,835.3	4.2	4.6	125.52	-240.0	37.9	279.6	271.5	8.16	34.254		
2,000.0	1,996.5	1,943.4	1,928.2	4.5	5.0	126.05	-261.6	44.0	308.9	300.2	8.66	35.663		
2,100.0	2,095.8	2,038.9	2,021.1	4.8	5.5	126.48	-283.2	50.1	338.1	329.0	9.17	36.878		
2,200.0	2,195.1	2,134.5	2,114.1	5.1	5.9	126.85	-304.9	56.2	367.4	357.8	9.69	37.936		
2,300.0	2,294.4	2,230.1	2,207.0	5.3	6.4	127.16	-326.5	62.2	396.7	386.5	10.21	38.862		
2,400.0	2,393.7	2,325.7	2,299.9	5.6	6.8	127.43	-348.1	68.3	426.1	415.3	10.74	39.677		
2,500.0	2,493.0	2,421.3	2,392.8	5.9	7.3	127.67	-369.8	74.4	455.4	444.1	11.27	40.399		
2,600.0	2,592.3	2,516.9	2,485.7	6.2	7.7	127.87	-391.4	80.5	484.7	472.9	11.81	41.041		

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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 @ 5097.0ft (Original Well Elev)

Offset Depths are relative to Offset Datum

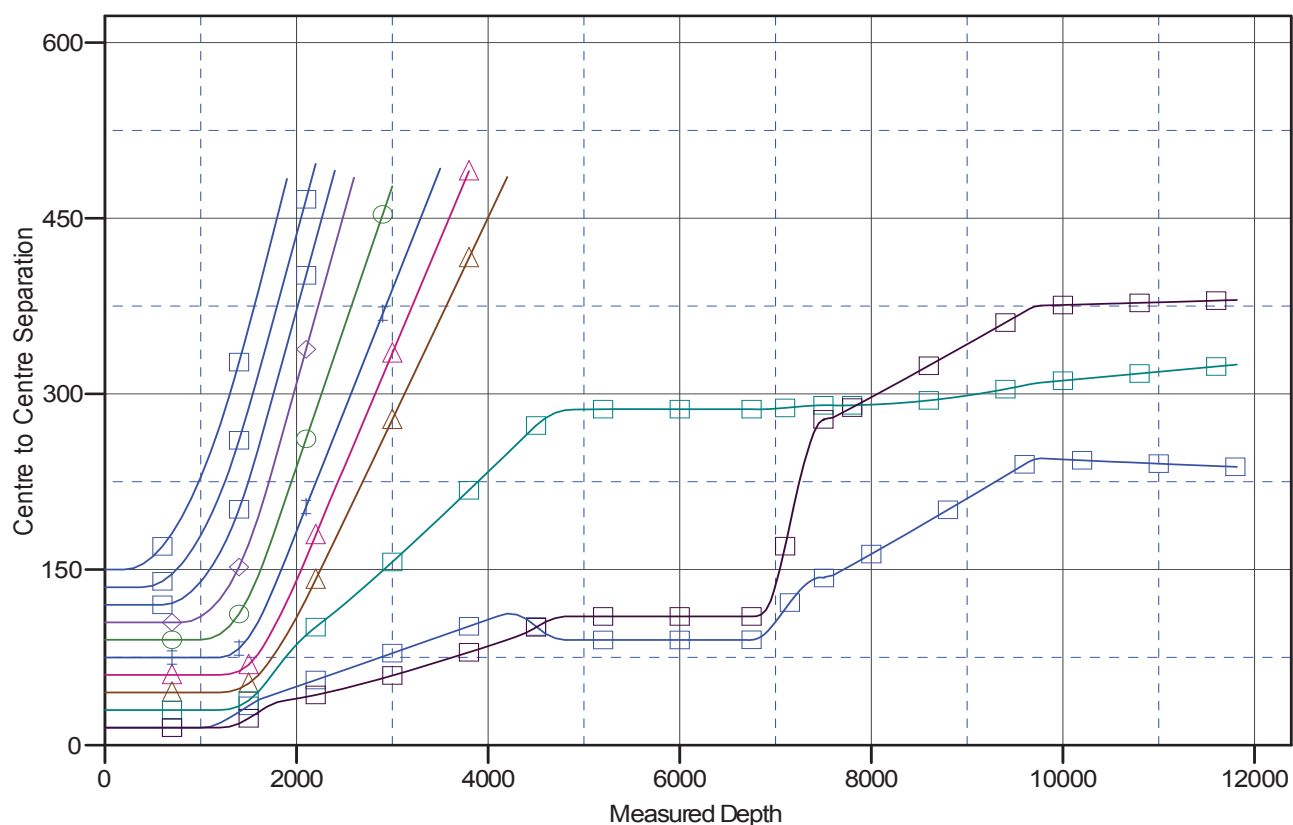
Central Meridian is -105.500000

Coordinates are relative to: Stillroven Farm 2

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.31°

Ladder Plot



LEGEND

Stillroven Farm9, Wellbore #1, Plan #2(6-5-17) V0	Stillroven Farm 1, Wellbore #1, Plan #2(6-5-17) V0	Stillroven Farm3, Wellbore #1, Plan #2(6-5-17)
Stillroven Farm6, Wellbore #1, Plan #2(6-5-17) V0	Stillroven Farm4, Wellbore #1, Plan #2(6-5-17) V0	Stillroven Farm11, Wellbore #1, Plan #2(6-5-17)
Stillroven Farm5, Wellbore #1, Plan #2(6-5-17) V0	Stillroven Farm7, Wellbore #1, Plan #2(6-5-17) V0	Stillroven Farm10, Wellbore #1, Plan #2(6-5-17)
Stillroven Farm12, Wellbore #1, Plan #2(6-5-17) V0	Stillroven Farm8, Wellbore #1, Plan #2(6-5-17) V0	

Company:	Captiva Energy Partners	Local Co-ordinate Reference:	Well Stillroven Farm 2
Project:	SEC.5-T3N-R68W	TVD Reference:	WELL @ 5097.0ft (Original Well Elev)
Reference Site:	Stillroven Farm Pad Sec.5-T3N-R68W	MD Reference:	WELL @ 5097.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Stillroven Farm 2	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 @ 5097.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Stillroven Farm 2
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.31°

