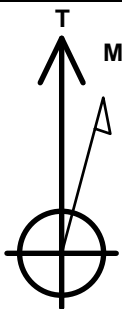


Fifth Creek Energy Company, LLC

Well Name: **Critter Creek 512-1510H**
 Surface Location: Critter Creek Pad 15-11N-63W
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
 Ground Elevation: 5228.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1578365.83 3299680.60 40.915953 -104.415708
 Original Well Elev WELL @ 5241.0ft (Original Well Elev)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 279'FSL & 1715'FEL, SEC.15	1.0	0.0	0.0	Point
BHL 300'FNL & 2220'FEL, SEC.10	7582.0	9967.8	-538.2	Point
LP 300'FSL & 2170'FEL, SEC.15	7582.0	17.2	-455.2	Point



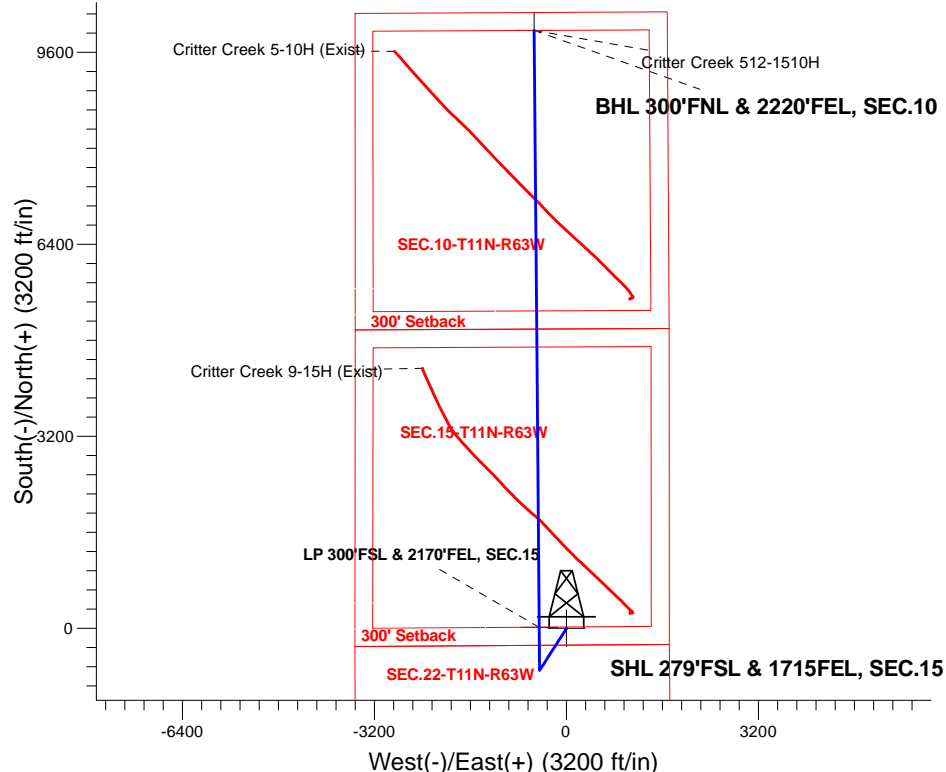
Azimuths to True North
 Magnetic North: 7.94°

Magnetic Field
 Strength: 52830.9snT
 Dip Angle: 67.32°
 Date: 2/21/2017
 Model: IGRF2010

Critter Creek Pad 15-11N-63W
 Critter Creek 512-1510H
 Plan 1 (Feb 14, 2017)
 12:55, February 21 2017

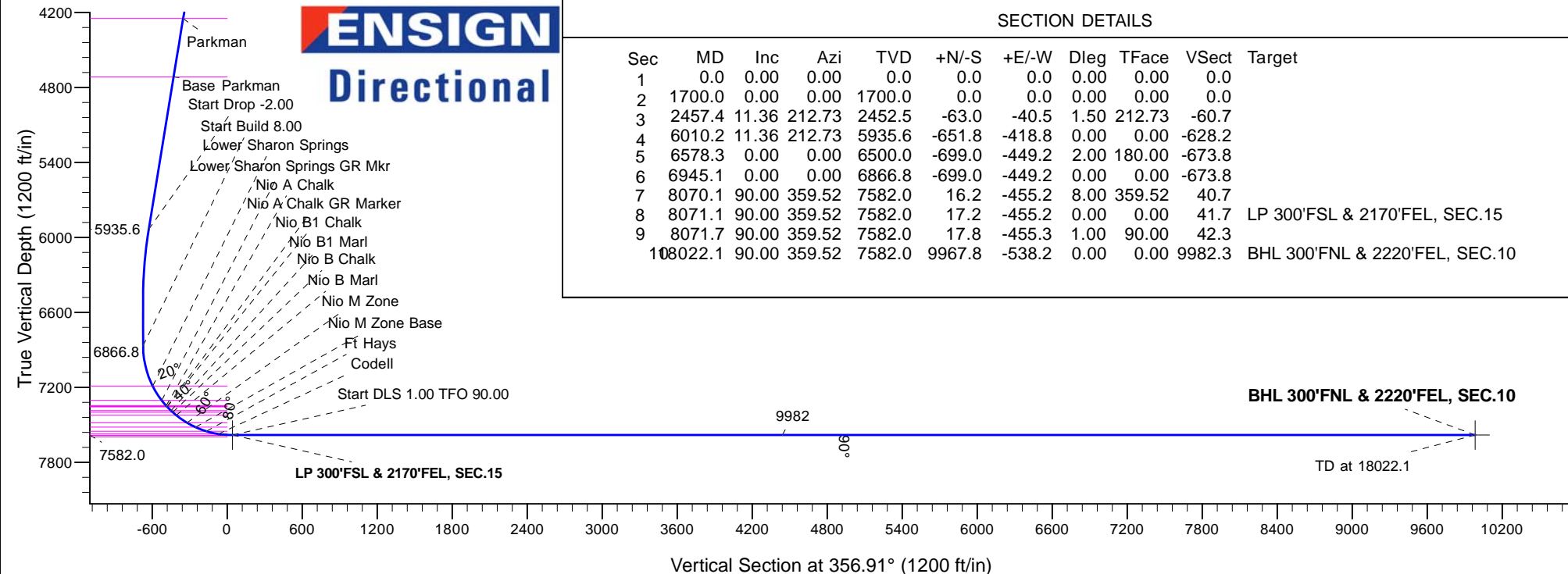
ANNOTATIONS

TVD	MD	Annotation
1700.0	1700.0	KOP - Start Build 1.50
5935.6	6010.2	Start Drop -2.00
6866.8	6945.1	Start Build 8.00
7582.0	8071.1	Start DLS 1.00 TFO 90.00
7582.0	8071.7	Start 9950.4 hold at 8071.7 MD
7582.0	18022.1	TD at 18022.1



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1700.0	0.00	0.00	1700.0	0.0	0.0	0.00	0.00	0.0	
3	2457.4	11.36	212.73	2452.5	-63.0	-40.5	1.50	212.73	-60.7	
4	6010.2	11.36	212.73	5935.6	-651.8	-418.8	0.00	0.00	-628.2	
5	6578.3	0.00	0.00	6500.0	-699.0	-449.2	2.00	180.00	-673.8	
6	6945.1	0.00	0.00	6866.8	-699.0	-449.2	0.00	0.00	-673.8	
7	8070.1	90.00	359.52	7582.0	16.2	-455.2	8.00	359.52	40.7	
8	8071.1	90.00	359.52	7582.0	17.2	-455.2	0.00	0.00	41.7	LP 300'FSL & 2170'FEL, SEC.15
9	8071.7	90.00	359.52	7582.0	17.8	-455.3	1.00	90.00	42.3	
10	18022.1	90.00	359.52	7582.0	9967.8	-538.2	0.00	0.00	9982.3	BHL 300'FNL & 2220'FEL, SEC.10





Fifth Creek Energy Company, LLC

Sec.15-T11N-R63W

Critter Creek Pad 15-11N-63W

Critter Creek 512-1510H

Wellbore #1

Plan: Plan 1 (Feb 14, 2017)

Standard Planning Report

21 February, 2017

Database:	US_EDM	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Company:	Fifth Creek Energy Company, LLC	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Project:	Sec.15-T11N-R63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site:	Critter Creek Pad 15-11N-63W	North Reference:	True
Well:	Critter Creek 512-1510H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1 (Feb 14, 2017)		

Project	Sec.15-T11N-R63W		
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	Critter Creek Pad 15-11N-63W				
Site Position:		Northing:	1,578,381.47 usft	Latitude:	40.915969
From:	Lat/Long	Easting:	3,300,480.34 usft	Longitude:	-104.412814
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.70

Well	Critter Creek 512-1510H					
Well Position	+N/-S	-5.8 ft	Northing:	1,578,365.83 usft	Latitude:	40.915953
	+E/-W	-799.9 ft	Easting:	3,299,680.60 usft	Longitude:	-104.415708
Position Uncertainty		0.0 ft	Wellhead Elevation:	5,239.0 ft	Ground Level:	5,228.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/21/2017	7.94	67.32	52,831

Design	Plan 1 (Feb 14, 2017)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	356.91

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	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,457.4	11.36	212.73	2,452.5	-63.0	-40.5	1.50	1.50	0.00	212.73	
6,010.2	11.36	212.73	5,935.6	-651.8	-418.8	0.00	0.00	0.00	0.00	
6,578.3	0.00	0.00	6,500.0	-699.0	-449.2	2.00	-2.00	0.00	180.00	
6,945.1	0.00	0.00	6,866.8	-699.0	-449.2	0.00	0.00	0.00	0.00	
8,070.1	90.00	359.52	7,582.0	16.2	-455.2	8.00	8.00	0.00	359.52	
8,071.1	90.00	359.52	7,582.0	17.2	-455.2	0.00	0.00	0.00	0.00	LP 300'FSL & 2170'FI
8,071.7	90.00	359.52	7,582.0	17.8	-455.3	1.00	0.00	1.00	90.00	
18,022.1	90.00	359.52	7,582.0	9,967.8	-538.2	0.00	0.00	0.00	0.00	BHL 300'FNL & 2220'

Database:	US_EDM	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Company:	Fifth Creek Energy Company, LLC	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Project:	Sec.15-T11N-R63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site:	Critter Creek Pad 15-11N-63W	North Reference:	True
Well:	Critter Creek 512-1510H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1 (Feb 14, 2017)		

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
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
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.50									
1,800.0	1.50	212.73	1,800.0	-1.1	-0.7	-1.1	1.50	1.50	0.00
1,900.0	3.00	212.73	1,899.9	-4.4	-2.8	-4.2	1.50	1.50	0.00
2,000.0	4.50	212.73	1,999.7	-9.9	-6.4	-9.5	1.50	1.50	0.00
2,100.0	6.00	212.73	2,099.3	-17.6	-11.3	-17.0	1.50	1.50	0.00
2,200.0	7.50	212.73	2,198.6	-27.5	-17.7	-26.5	1.50	1.50	0.00
2,300.0	9.00	212.73	2,297.5	-39.6	-25.4	-38.1	1.50	1.50	0.00
2,400.0	10.50	212.73	2,396.1	-53.8	-34.6	-51.9	1.50	1.50	0.00
2,457.4	11.36	212.73	2,452.5	-63.0	-40.5	-60.7	1.50	1.50	0.00
2,500.0	11.36	212.73	2,494.2	-70.0	-45.0	-67.5	0.00	0.00	0.00
2,600.0	11.36	212.73	2,592.3	-86.6	-55.7	-83.5	0.00	0.00	0.00
2,700.0	11.36	212.73	2,690.3	-103.2	-66.3	-99.4	0.00	0.00	0.00
2,800.0	11.36	212.73	2,788.3	-119.7	-77.0	-115.4	0.00	0.00	0.00
2,900.0	11.36	212.73	2,886.4	-136.3	-87.6	-131.4	0.00	0.00	0.00
3,000.0	11.36	212.73	2,984.4	-152.9	-98.3	-147.4	0.00	0.00	0.00
3,100.0	11.36	212.73	3,082.5	-169.5	-108.9	-163.3	0.00	0.00	0.00
3,200.0	11.36	212.73	3,180.5	-186.0	-119.6	-179.3	0.00	0.00	0.00
3,300.0	11.36	212.73	3,278.5	-202.6	-130.2	-195.3	0.00	0.00	0.00
3,400.0	11.36	212.73	3,376.6	-219.2	-140.9	-211.3	0.00	0.00	0.00
3,500.0	11.36	212.73	3,474.6	-235.8	-151.5	-227.2	0.00	0.00	0.00
3,600.0	11.36	212.73	3,572.7	-252.3	-162.2	-243.2	0.00	0.00	0.00
3,700.0	11.36	212.73	3,670.7	-268.9	-172.8	-259.2	0.00	0.00	0.00
3,800.0	11.36	212.73	3,768.7	-285.5	-183.5	-275.2	0.00	0.00	0.00
3,900.0	11.36	212.73	3,866.8	-302.0	-194.1	-291.1	0.00	0.00	0.00
4,000.0	11.36	212.73	3,964.8	-318.6	-204.8	-307.1	0.00	0.00	0.00
4,100.0	11.36	212.73	4,062.9	-335.2	-215.4	-323.1	0.00	0.00	0.00
4,200.0	11.36	212.73	4,160.9	-351.8	-226.1	-339.1	0.00	0.00	0.00
4,288.8	11.36	212.73	4,248.0	-366.5	-235.5	-353.3	0.00	0.00	0.00
Parkman									
4,300.0	11.36	212.73	4,258.9	-368.3	-236.7	-355.0	0.00	0.00	0.00
4,400.0	11.36	212.73	4,357.0	-384.9	-247.4	-371.0	0.00	0.00	0.00
4,500.0	11.36	212.73	4,455.0	-401.5	-258.0	-387.0	0.00	0.00	0.00
4,600.0	11.36	212.73	4,553.1	-418.1	-268.7	-403.0	0.00	0.00	0.00
4,700.0	11.36	212.73	4,651.1	-434.6	-279.3	-418.9	0.00	0.00	0.00
4,765.2	11.36	212.73	4,715.0	-445.4	-286.2	-429.4	0.00	0.00	0.00

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Project:	Sec.15-T11N-R63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site:	Critter Creek Pad 15-11N-63W	North Reference:	True
Well:	Critter Creek 512-1510H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1 (Feb 14, 2017)		

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)
Base Parkman									
4,800.0	11.36	212.73	4,749.1	-451.2	-290.0	-434.9	0.00	0.00	0.00
4,900.0	11.36	212.73	4,847.2	-467.8	-300.6	-450.9	0.00	0.00	0.00
5,000.0	11.36	212.73	4,945.2	-484.3	-311.3	-466.9	0.00	0.00	0.00
5,100.0	11.36	212.73	5,043.3	-500.9	-321.9	-482.8	0.00	0.00	0.00
5,200.0	11.36	212.73	5,141.3	-517.5	-332.6	-498.8	0.00	0.00	0.00
5,300.0	11.36	212.73	5,239.3	-534.1	-343.2	-514.8	0.00	0.00	0.00
5,400.0	11.36	212.73	5,337.4	-550.6	-353.9	-530.8	0.00	0.00	0.00
5,500.0	11.36	212.73	5,435.4	-567.2	-364.5	-546.7	0.00	0.00	0.00
5,600.0	11.36	212.73	5,533.5	-583.8	-375.2	-562.7	0.00	0.00	0.00
5,700.0	11.36	212.73	5,631.5	-600.4	-385.8	-578.7	0.00	0.00	0.00
5,800.0	11.36	212.73	5,729.5	-616.9	-396.5	-594.7	0.00	0.00	0.00
5,900.0	11.36	212.73	5,827.6	-633.5	-407.1	-610.6	0.00	0.00	0.00
6,000.0	11.36	212.73	5,925.6	-650.1	-417.8	-626.6	0.00	0.00	0.00
6,010.2	11.36	212.73	5,935.6	-651.8	-418.8	-628.2	0.00	0.00	0.00
Start Drop -2.00									
6,100.0	9.57	212.73	6,023.9	-665.5	-427.7	-641.5	2.00	-2.00	0.00
6,200.0	7.57	212.73	6,122.8	-678.0	-435.7	-653.5	2.00	-2.00	0.00
6,300.0	5.57	212.73	6,222.1	-687.6	-441.9	-662.8	2.00	-2.00	0.00
6,400.0	3.57	212.73	6,321.8	-694.3	-446.2	-669.3	2.00	-2.00	0.00
6,500.0	1.57	212.73	6,421.7	-698.1	-448.6	-672.9	2.00	-2.00	0.00
6,578.3	0.00	0.00	6,500.0	-699.0	-449.2	-673.8	2.00	-2.00	0.00
6,600.0	0.00	0.00	6,521.7	-699.0	-449.2	-673.8	0.00	0.00	0.00
6,700.0	0.00	0.00	6,621.7	-699.0	-449.2	-673.8	0.00	0.00	0.00
6,800.0	0.00	0.00	6,721.7	-699.0	-449.2	-673.8	0.00	0.00	0.00
6,900.0	0.00	0.00	6,821.7	-699.0	-449.2	-673.8	0.00	0.00	0.00
6,945.1	0.00	0.00	6,866.8	-699.0	-449.2	-673.8	0.00	0.00	0.00
Start Build 8.00									
7,000.0	4.39	359.52	6,921.7	-696.9	-449.2	-671.7	8.00	8.00	0.00
7,100.0	12.39	359.52	7,020.5	-682.3	-449.3	-657.1	8.00	8.00	0.00
7,200.0	20.39	359.52	7,116.4	-654.1	-449.6	-628.9	8.00	8.00	0.00
7,280.4	26.82	359.52	7,190.0	-621.9	-449.9	-596.8	8.00	8.00	0.00
Lower Sharon Springs									
7,300.0	28.39	359.52	7,207.4	-612.9	-449.9	-587.7	8.00	8.00	0.00
7,400.0	36.39	359.52	7,291.7	-559.3	-450.4	-534.2	8.00	8.00	0.00
7,416.6	37.72	359.52	7,305.0	-549.3	-450.5	-524.2	8.00	8.00	0.00
Lower Sharon Springs GR Mkr									
7,471.4	42.10	359.52	7,347.0	-514.2	-450.8	-489.1	8.00	8.00	0.00
Nio A Chalk									
7,480.9	42.86	359.52	7,354.0	-507.8	-450.8	-482.7	8.00	8.00	0.00
Nio A Chalk GR Marker									
7,483.6	43.08	359.52	7,356.0	-505.9	-450.8	-480.9	8.00	8.00	0.00
Nio B1 Chalk									
7,500.0	44.39	359.52	7,367.8	-494.6	-450.9	-469.6	8.00	8.00	0.00
7,527.3	46.58	359.52	7,387.0	-475.1	-451.1	-450.1	8.00	8.00	0.00
Nio B1 Marl									
7,546.5	48.11	359.52	7,400.0	-461.0	-451.2	-436.0	8.00	8.00	0.00
Nio B Chalk									
7,583.6	51.08	359.52	7,424.0	-432.8	-451.4	-407.8	8.00	8.00	0.00
Nio B Marl									
7,600.0	52.39	359.52	7,434.2	-419.9	-451.6	-394.9	8.00	8.00	0.00
7,689.0	59.52	359.52	7,484.0	-346.2	-452.2	-321.3	8.00	8.00	0.00

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Project:	Sec.15-T11N-R63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site:	Critter Creek Pad 15-11N-63W	North Reference:	True
Well:	Critter Creek 512-1510H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1 (Feb 14, 2017)		

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)
Nio M Zone									
7,700.0	60.39	359.52	7,489.5	-336.7	-452.3	-311.8	8.00	8.00	0.00
7,765.0	65.59	359.52	7,519.0	-278.8	-452.7	-254.0	8.00	8.00	0.00
Nio M Zone Base									
7,800.0	68.39	359.52	7,532.7	-246.6	-453.0	-221.8	8.00	8.00	0.00
7,858.6	73.08	359.52	7,552.0	-191.3	-453.5	-166.5	8.00	8.00	0.00
Ft Hays									
7,900.0	76.39	359.52	7,562.9	-151.3	-453.8	-126.6	8.00	8.00	0.00
7,956.4	80.91	359.52	7,574.0	-96.0	-454.3	-71.4	8.00	8.00	0.00
Codell									
8,000.0	84.39	359.52	7,579.6	-52.8	-454.7	-28.2	8.00	8.00	0.00
8,070.1	90.00	359.52	7,582.0	16.2	-455.2	40.7	8.00	8.00	0.00
8,071.1	90.00	359.52	7,582.0	17.2	-455.2	41.7	0.00	0.00	0.00
Start DLS 1.00 TFO 90.00									
8,071.7	90.00	359.52	7,582.0	17.8	-455.3	42.3	1.03	0.00	1.03
Start 9950.4 hold at 8071.7 MD									
8,100.0	90.00	359.52	7,582.0	46.1	-455.5	70.6	0.00	0.00	0.00
8,200.0	90.00	359.52	7,582.0	146.1	-456.3	170.5	0.00	0.00	0.00
8,300.0	90.00	359.52	7,582.0	246.1	-457.2	270.3	0.00	0.00	0.00
8,400.0	90.00	359.52	7,582.0	346.1	-458.0	370.2	0.00	0.00	0.00
8,500.0	90.00	359.52	7,582.0	446.1	-458.8	470.1	0.00	0.00	0.00
8,600.0	90.00	359.52	7,582.0	546.0	-459.7	570.0	0.00	0.00	0.00
8,700.0	90.00	359.52	7,582.0	646.0	-460.5	669.9	0.00	0.00	0.00
8,800.0	90.00	359.52	7,582.0	746.0	-461.3	769.8	0.00	0.00	0.00
8,900.0	90.00	359.52	7,582.0	846.0	-462.2	869.7	0.00	0.00	0.00
9,000.0	90.00	359.52	7,582.0	946.0	-463.0	969.6	0.00	0.00	0.00
9,100.0	90.00	359.52	7,582.0	1,046.0	-463.8	1,069.5	0.00	0.00	0.00
9,200.0	90.00	359.52	7,582.0	1,146.0	-464.7	1,169.4	0.00	0.00	0.00
9,300.0	90.00	359.52	7,582.0	1,246.0	-465.5	1,269.3	0.00	0.00	0.00
9,400.0	90.00	359.52	7,582.0	1,346.0	-466.3	1,369.2	0.00	0.00	0.00
9,500.0	90.00	359.52	7,582.0	1,446.0	-467.2	1,469.1	0.00	0.00	0.00
9,600.0	90.00	359.52	7,582.0	1,546.0	-468.0	1,569.0	0.00	0.00	0.00
9,700.0	90.00	359.52	7,582.0	1,646.0	-468.8	1,668.9	0.00	0.00	0.00
9,800.0	90.00	359.52	7,582.0	1,746.0	-469.7	1,768.8	0.00	0.00	0.00
9,900.0	90.00	359.52	7,582.0	1,846.0	-470.5	1,868.7	0.00	0.00	0.00
10,000.0	90.00	359.52	7,582.0	1,946.0	-471.3	1,968.6	0.00	0.00	0.00
10,100.0	90.00	359.52	7,582.0	2,046.0	-472.2	2,068.5	0.00	0.00	0.00
10,200.0	90.00	359.52	7,582.0	2,146.0	-473.0	2,168.4	0.00	0.00	0.00
10,300.0	90.00	359.52	7,582.0	2,246.0	-473.8	2,268.3	0.00	0.00	0.00
10,400.0	90.00	359.52	7,582.0	2,346.0	-474.7	2,368.2	0.00	0.00	0.00
10,500.0	90.00	359.52	7,582.0	2,446.0	-475.5	2,468.1	0.00	0.00	0.00
10,600.0	90.00	359.52	7,582.0	2,546.0	-476.3	2,568.0	0.00	0.00	0.00
10,700.0	90.00	359.52	7,582.0	2,646.0	-477.2	2,667.9	0.00	0.00	0.00
10,800.0	90.00	359.52	7,582.0	2,746.0	-478.0	2,767.7	0.00	0.00	0.00
10,900.0	90.00	359.52	7,582.0	2,846.0	-478.8	2,867.6	0.00	0.00	0.00
11,000.0	90.00	359.52	7,582.0	2,946.0	-479.7	2,967.5	0.00	0.00	0.00
11,100.0	90.00	359.52	7,582.0	3,046.0	-480.5	3,067.4	0.00	0.00	0.00
11,200.0	90.00	359.52	7,582.0	3,146.0	-481.3	3,167.3	0.00	0.00	0.00
11,300.0	90.00	359.52	7,582.0	3,246.0	-482.2	3,267.2	0.00	0.00	0.00
11,400.0	90.00	359.52	7,582.0	3,346.0	-483.0	3,367.1	0.00	0.00	0.00
11,500.0	90.00	359.52	7,582.0	3,445.9	-483.8	3,467.0	0.00	0.00	0.00
11,600.0	90.00	359.52	7,582.0	3,545.9	-484.7	3,566.9	0.00	0.00	0.00
11,700.0	90.00	359.52	7,582.0	3,645.9	-485.5	3,666.8	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Company:	Fifth Creek Energy Company, LLC	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Project:	Sec.15-T11N-R63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site:	Critter Creek Pad 15-11N-63W	North Reference:	True
Well:	Critter Creek 512-1510H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1 (Feb 14, 2017)		

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)
11,800.0	90.00	359.52	7,582.0	3,745.9	-486.3	3,766.7	0.00	0.00	0.00
11,900.0	90.00	359.52	7,582.0	3,845.9	-487.2	3,866.6	0.00	0.00	0.00
12,000.0	90.00	359.52	7,582.0	3,945.9	-488.0	3,966.5	0.00	0.00	0.00
12,100.0	90.00	359.52	7,582.0	4,045.9	-488.8	4,066.4	0.00	0.00	0.00
12,200.0	90.00	359.52	7,582.0	4,145.9	-489.7	4,166.3	0.00	0.00	0.00
12,300.0	90.00	359.52	7,582.0	4,245.9	-490.5	4,266.2	0.00	0.00	0.00
12,400.0	90.00	359.52	7,582.0	4,345.9	-491.3	4,366.1	0.00	0.00	0.00
12,500.0	90.00	359.52	7,582.0	4,445.9	-492.2	4,466.0	0.00	0.00	0.00
12,600.0	90.00	359.52	7,582.0	4,545.9	-493.0	4,565.9	0.00	0.00	0.00
12,700.0	90.00	359.52	7,582.0	4,645.9	-493.8	4,665.8	0.00	0.00	0.00
12,800.0	90.00	359.52	7,582.0	4,745.9	-494.7	4,765.7	0.00	0.00	0.00
12,900.0	90.00	359.52	7,582.0	4,845.9	-495.5	4,865.6	0.00	0.00	0.00
13,000.0	90.00	359.52	7,582.0	4,945.9	-496.3	4,965.5	0.00	0.00	0.00
13,100.0	90.00	359.52	7,582.0	5,045.9	-497.2	5,065.4	0.00	0.00	0.00
13,200.0	90.00	359.52	7,582.0	5,145.9	-498.0	5,165.3	0.00	0.00	0.00
13,300.0	90.00	359.52	7,582.0	5,245.9	-498.8	5,265.1	0.00	0.00	0.00
13,400.0	90.00	359.52	7,582.0	5,345.9	-499.7	5,365.0	0.00	0.00	0.00
13,500.0	90.00	359.52	7,582.0	5,445.9	-500.5	5,464.9	0.00	0.00	0.00
13,600.0	90.00	359.52	7,582.0	5,545.9	-501.3	5,564.8	0.00	0.00	0.00
13,700.0	90.00	359.52	7,582.0	5,645.9	-502.2	5,664.7	0.00	0.00	0.00
13,800.0	90.00	359.52	7,582.0	5,745.9	-503.0	5,764.6	0.00	0.00	0.00
13,900.0	90.00	359.52	7,582.0	5,845.9	-503.8	5,864.5	0.00	0.00	0.00
14,000.0	90.00	359.52	7,582.0	5,945.9	-504.7	5,964.4	0.00	0.00	0.00
14,100.0	90.00	359.52	7,582.0	6,045.9	-505.5	6,064.3	0.00	0.00	0.00
14,200.0	90.00	359.52	7,582.0	6,145.9	-506.3	6,164.2	0.00	0.00	0.00
14,300.0	90.00	359.52	7,582.0	6,245.9	-507.2	6,264.1	0.00	0.00	0.00
14,400.0	90.00	359.52	7,582.0	6,345.8	-508.0	6,364.0	0.00	0.00	0.00
14,500.0	90.00	359.52	7,582.0	6,445.8	-508.8	6,463.9	0.00	0.00	0.00
14,600.0	90.00	359.52	7,582.0	6,545.8	-509.7	6,563.8	0.00	0.00	0.00
14,700.0	90.00	359.52	7,582.0	6,645.8	-510.5	6,663.7	0.00	0.00	0.00
14,800.0	90.00	359.52	7,582.0	6,745.8	-511.3	6,763.6	0.00	0.00	0.00
14,900.0	90.00	359.52	7,582.0	6,845.8	-512.2	6,863.5	0.00	0.00	0.00
15,000.0	90.00	359.52	7,582.0	6,945.8	-513.0	6,963.4	0.00	0.00	0.00
15,100.0	90.00	359.52	7,582.0	7,045.8	-513.8	7,063.3	0.00	0.00	0.00
15,200.0	90.00	359.52	7,582.0	7,145.8	-514.7	7,163.2	0.00	0.00	0.00
15,300.0	90.00	359.52	7,582.0	7,245.8	-515.5	7,263.1	0.00	0.00	0.00
15,400.0	90.00	359.52	7,582.0	7,345.8	-516.3	7,363.0	0.00	0.00	0.00
15,500.0	90.00	359.52	7,582.0	7,445.8	-517.2	7,462.9	0.00	0.00	0.00
15,600.0	90.00	359.52	7,582.0	7,545.8	-518.0	7,562.8	0.00	0.00	0.00
15,700.0	90.00	359.52	7,582.0	7,645.8	-518.8	7,662.7	0.00	0.00	0.00
15,800.0	90.00	359.52	7,582.0	7,745.8	-519.7	7,762.6	0.00	0.00	0.00
15,900.0	90.00	359.52	7,582.0	7,845.8	-520.5	7,862.4	0.00	0.00	0.00
16,000.0	90.00	359.52	7,582.0	7,945.8	-521.3	7,962.3	0.00	0.00	0.00
16,100.0	90.00	359.52	7,582.0	8,045.8	-522.2	8,062.2	0.00	0.00	0.00
16,200.0	90.00	359.52	7,582.0	8,145.8	-523.0	8,162.1	0.00	0.00	0.00
16,300.0	90.00	359.52	7,582.0	8,245.8	-523.8	8,262.0	0.00	0.00	0.00
16,400.0	90.00	359.52	7,582.0	8,345.8	-524.7	8,361.9	0.00	0.00	0.00
16,500.0	90.00	359.52	7,582.0	8,445.8	-525.5	8,461.8	0.00	0.00	0.00
16,600.0	90.00	359.52	7,582.0	8,545.8	-526.3	8,561.7	0.00	0.00	0.00
16,700.0	90.00	359.52	7,582.0	8,645.8	-527.2	8,661.6	0.00	0.00	0.00
16,800.0	90.00	359.52	7,582.0	8,745.8	-528.0	8,761.5	0.00	0.00	0.00
16,900.0	90.00	359.52	7,582.0	8,845.8	-528.8	8,861.4	0.00	0.00	0.00
17,000.0	90.00	359.52	7,582.0	8,945.8	-529.7	8,961.3	0.00	0.00	0.00
17,100.0	90.00	359.52	7,582.0	9,045.8	-530.5	9,061.2	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Company:	Fifth Creek Energy Company, LLC	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Project:	Sec.15-T11N-R63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site:	Critter Creek Pad 15-11N-63W	North Reference:	True
Well:	Critter Creek 512-1510H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1 (Feb 14, 2017)		

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)	
17,200.0	90.00	359.52	7,582.0	9,145.8	-531.3	9,161.1	0.00	0.00	0.00	
17,300.0	90.00	359.52	7,582.0	9,245.7	-532.2	9,261.0	0.00	0.00	0.00	
17,400.0	90.00	359.52	7,582.0	9,345.7	-533.0	9,360.9	0.00	0.00	0.00	
17,500.0	90.00	359.52	7,582.0	9,445.7	-533.8	9,460.8	0.00	0.00	0.00	
17,600.0	90.00	359.52	7,582.0	9,545.7	-534.7	9,560.7	0.00	0.00	0.00	
17,700.0	90.00	359.52	7,582.0	9,645.7	-535.5	9,660.6	0.00	0.00	0.00	
17,800.0	90.00	359.52	7,582.0	9,745.7	-536.3	9,760.5	0.00	0.00	0.00	
17,900.0	90.00	359.52	7,582.0	9,845.7	-537.2	9,860.4	0.00	0.00	0.00	
18,000.0	90.00	359.52	7,582.0	9,945.7	-538.0	9,960.3	0.00	0.00	0.00	
18,022.1	90.00	359.52	7,582.0	9,967.8	-538.2	9,982.3	0.00	0.00	0.00	
TD at 18022.1										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
SHL 279'FSL & 1715FEI	0.00	0.00	1.0	0.0	0.0	1,578,365.85	3,299,680.60	40.915953	-104.415708	
- plan hits target center										
- Point										
LP 300'FSL & 2170'FEL,	0.00	0.00	7,582.0	17.2	-455.2	1,578,377.41	3,299,225.17	40.916000	-104.417355	
- plan hits target center										
- Point										
BHL 300'FNL & 2220'FE	0.00	0.00	7,582.0	9,967.8	-538.2	1,588,326.55	3,299,020.57	40.943311	-104.417656	
- plan hits target center										
- Point										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,400.0	1,400.0	9 5/8"	9-5/8	12-1/4	

Database:	US_EDM	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Company:	Fifth Creek Energy Company, LLC	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Project:	Sec.15-T11N-R63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site:	Critter Creek Pad 15-11N-63W	North Reference:	True
Well:	Critter Creek 512-1510H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1 (Feb 14, 2017)		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,288.8	4,248.0	Parkman		0.00	
4,765.2	4,715.0	Base Parkman		0.00	
7,280.4	7,190.0	Lower Sharon Springs		0.00	
7,416.6	7,305.0	Lower Sharon Springs GR Mkr		0.00	
7,471.4	7,347.0	Nio A Chalk		0.00	
7,480.9	7,354.0	Nio A Chalk GR Marker		0.00	
7,483.6	7,356.0	Nio B1 Chalk		0.00	
7,527.3	7,387.0	Nio B1 Marl		0.00	
7,546.5	7,400.0	Nio B Chalk		0.00	
7,583.6	7,424.0	Nio B Marl		0.00	
7,689.0	7,484.0	Nio M Zone		0.00	
7,765.0	7,519.0	Nio M Zone Base		0.00	
7,858.6	7,552.0	Ft Hays		0.00	
7,956.4	7,574.0	Codell		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,700.0	1,700.0	0.0	0.0	KOP - Start Build 1.50	
6,010.2	5,935.6	-63.0	-40.5	Start Drop -2.00	
6,945.1	6,866.8	-651.8	-418.8	Start Build 8.00	
8,071.1	7,582.0	-699.0	-449.2	Start DLS 1.00 TFO 90.00	
8,071.7	7,582.0	-699.0	-449.2	Start 9950.4 hold at 8071.7 MD	
18,022.1	7,582.0	16.2	-455.2	TD at 18022.1	



Fifth Creek Energy Company, LLC

Sec.15-T11N-R63W

Critter Creek Pad 15-11N-63W

Critter Creek 512-1510H

Wellbore #1

Plan 1 (Feb 14, 2017)

Anticollision Report

21 February, 2017

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Reference	Plan 1 (Feb 14, 2017)		
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 800.0 ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 2/21/2017			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	18,022.1	Plan 1 (Feb 14, 2017) (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						
Critter Creek Pad 15-11N-63W						
Critter Creek 230-1510H - Wellbore #1 - Plan 1 (Feb 14,	1,700.0	1,699.0	49.7	42.3	6.709	CC, ES
Critter Creek 230-1510H - Wellbore #1 - Plan 1 (Feb 14,	18,022.1	17,913.5	586.7	203.1	1.530	SF
Critter Creek 231-1510H - Wellbore #1 - Plan 1 (Feb 14,	1,700.0	1,698.0	699.3	691.9	94.333	CC, ES
Critter Creek 231-1510H - Wellbore #1 - Plan 1 (Feb 14,	3,000.0	3,011.5	799.8	786.6	60.717	SF
Critter Creek 232-1510H - Wellbore #1 - Plan 1 (Feb 13,	1,500.0	1,498.0	799.9	793.4	122.799	CC, ES, SF
Critter Creek 278-1527H - Wellbore #1 - Plan 1 (Feb 14,	1,700.0	1,699.0	25.2	17.7	3.392	CC, ES
Critter Creek 278-1527H - Wellbore #1 - Plan 1 (Feb 14,	1,800.0	1,799.0	25.9	18.0	3.303	SF
Critter Creek 279-1527H - Wellbore #1 - Plan 1 (Feb 14,	1,700.0	1,698.0	674.7	667.3	91.015	CC, ES
Critter Creek 279-1527H - Wellbore #1 - Plan 1 (Feb 14,	2,900.0	2,859.1	784.4	771.7	61.906	SF
Critter Creek 280-1527H - Wellbore #1 - Plan 1 (Feb 14,2	1,700.0	1,698.0	774.5	767.0	104.475	CC, ES
Critter Creek 280-1527H - Wellbore #1 - Plan 1 (Feb 14,2	2,000.0	1,947.8	790.4	781.9	93.137	SF
Critter Creek 510-1510H - Wellbore #1 - Plan 1 (Feb 14,	1,700.0	1,698.0	750.1	742.7	101.193	CC, ES
Critter Creek 510-1510H - Wellbore #1 - Plan 1 (Feb 14,	2,400.0	2,370.2	794.2	784.1	78.630	SF
Critter Creek 511-1510H - Wellbore #1 - Plan 1 (Feb 14,	1,700.0	1,698.0	99.8	92.4	13.461	CC, ES
Critter Creek 511-1510H - Wellbore #1 - Plan 1 (Feb 14,	18,022.1	17,991.2	759.6	366.1	1.930	SF
Critter Creek 562-1527H - Wellbore #1 - Plan 1 (Feb 14,	1,500.0	1,500.0	25.4	18.9	3.901	CC, ES
Critter Creek 562-1527H - Wellbore #1 - Plan 1 (Feb 14,	7,760.1	7,719.4	103.8	68.0	2.902	SF
Critter Creek 563-1527H - Wellbore #1 - Plan 1 (Feb 14,	1,500.0	1,499.0	75.2	68.7	11.539	CC, ES
Critter Creek 563-1527H - Wellbore #1 - Plan 1 (Feb 14,	1,700.0	1,695.5	79.6	72.2	10.776	SF
Critter Creek 564-1527H - Wellbore #1 - Plan 1 (Feb 14,	1,700.0	1,698.0	724.7	717.3	97.763	CC, ES
Critter Creek 564-1527H - Wellbore #1 - Plan 1 (Feb 14,	2,500.0	2,427.7	789.5	778.9	74.422	SF
Existing Wells Sec.15 (Fifth Creek)						
Critter Creek 5-10H (Exist) - Wellbore #1 - Wellbore #1	15,216.0	9,401.6	287.6	212.6	3.836	CC
Critter Creek 5-10H (Exist) - Wellbore #1 - Wellbore #1	15,300.0	9,462.2	293.4	210.0	3.519	ES
Critter Creek 5-10H (Exist) - Wellbore #1 - Wellbore #1	15,600.0	9,670.7	395.7	261.7	2.952	SF
Critter Creek 9-15H (Exist) - Wellbore #1 - Wellbore #1	9,885.6	9,298.6	288.2	253.5	8.308	CC
Critter Creek 9-15H (Exist) - Wellbore #1 - Wellbore #1	9,900.0	9,308.2	288.4	253.3	8.221	ES
Critter Creek 9-15H (Exist) - Wellbore #1 - Wellbore #1	10,300.0	9,587.3	425.9	358.3	6.297	SF

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 230-1510H - Wellbore #1 - Plan 1 (Feb 14, 2017)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	89.99	0.0	49.7	49.8					
100.0	100.0	99.0	99.0	0.1	0.1	89.99	0.0	49.7	49.7	49.5	0.22	222.448		
200.0	200.0	199.0	199.0	0.3	0.3	89.99	0.0	49.7	49.7	49.1	0.67	74.026		
300.0	300.0	299.0	299.0	0.6	0.6	89.99	0.0	49.7	49.7	48.6	1.12	44.356		
400.0	400.0	399.0	399.0	0.8	0.8	89.99	0.0	49.7	49.7	48.2	1.57	31.665		
500.0	500.0	499.0	499.0	1.0	1.0	89.99	0.0	49.7	49.7	47.7	2.02	24.620		
600.0	600.0	599.0	599.0	1.2	1.2	89.99	0.0	49.7	49.7	47.3	2.47	20.140		
700.0	700.0	699.0	699.0	1.5	1.5	89.99	0.0	49.7	49.7	46.8	2.92	17.039		
800.0	800.0	799.0	799.0	1.7	1.7	89.99	0.0	49.7	49.7	46.4	3.37	14.766		
900.0	900.0	899.0	899.0	1.9	1.9	89.99	0.0	49.7	49.7	45.9	3.82	13.028		
1,000.0	1,000.0	999.0	999.0	2.1	2.1	89.99	0.0	49.7	49.7	45.5	4.27	11.655		
1,100.0	1,100.0	1,099.0	1,099.0	2.4	2.4	89.99	0.0	49.7	49.7	45.0	4.72	10.545		
1,200.0	1,200.0	1,199.0	1,199.0	2.6	2.6	89.99	0.0	49.7	49.7	44.6	5.17	9.628		
1,300.0	1,300.0	1,299.0	1,299.0	2.8	2.8	89.99	0.0	49.7	49.7	44.1	5.62	8.857		
1,400.0	1,400.0	1,399.0	1,399.0	3.0	3.0	89.99	0.0	49.7	49.7	43.7	6.07	8.201		
1,500.0	1,500.0	1,499.0	1,499.0	3.3	3.3	89.99	0.0	49.7	49.7	43.2	6.52	7.635		
1,600.0	1,600.0	1,599.0	1,599.0	3.5	3.5	89.99	0.0	49.7	49.7	42.8	6.97	7.142		
1,700.0	1,700.0	1,699.0	1,699.0	3.7	3.7	89.99	0.0	49.7	49.7	42.3	7.42	6.709 CC, ES		
1,800.0	1,800.0	1,799.0	1,799.0	3.9	3.9	-123.98	0.0	49.7	50.5	42.6	7.84	6.440		
1,900.0	1,899.9	1,898.9	1,898.9	4.1	4.2	-127.49	0.0	49.7	52.8	44.5	8.23	6.408		
2,000.0	1,999.7	1,998.7	1,998.7	4.3	4.4	-132.66	0.0	49.7	57.0	48.4	8.63	6.600		
2,100.0	2,099.3	2,098.3	2,098.3	4.5	4.6	-138.66	0.0	49.7	63.6	54.5	9.03	7.035		
2,200.0	2,198.6	2,197.6	2,197.6	4.7	4.8	-144.69	0.0	49.7	72.8	63.4	9.43	7.718		
2,300.0	2,297.5	2,296.5	2,296.5	4.9	5.0	-150.18	0.0	49.7	85.0	75.1	9.83	8.643		
2,400.0	2,396.1	2,396.1	2,396.1	5.2	5.2	-154.55	-0.8	49.7	99.6	89.4	10.20	9.764		
2,457.4	2,452.5	2,453.4	2,453.3	5.3	5.3	-156.41	-2.1	49.6	108.7	98.3	10.39	10.463		
2,500.0	2,494.2	2,495.8	2,495.8	5.4	5.4	-157.55	-3.5	49.6	115.6	105.1	10.55	10.961		
2,600.0	2,592.3	2,596.0	2,595.8	5.7	5.6	-159.32	-8.0	49.3	131.2	120.3	10.94	11.999		
2,700.0	2,690.3	2,696.5	2,696.2	6.1	5.8	-160.15	-14.4	49.0	145.7	134.4	11.33	12.853		
2,800.0	2,788.3	2,797.5	2,796.8	6.4	6.0	-160.33	-22.6	48.5	159.0	147.2	11.75	13.531		
2,900.0	2,886.4	2,898.8	2,897.6	6.8	6.2	-160.01	-32.8	48.0	171.1	158.9	12.18	14.044		
3,000.0	2,984.4	3,000.3	2,998.3	7.1	6.4	-159.27	-44.8	47.4	182.0	169.3	12.63	14.405		
3,100.0	3,082.5	3,101.9	3,099.0	7.5	6.6	-158.17	-58.7	46.6	191.7	178.6	13.11	14.628		
3,200.0	3,180.5	3,203.7	3,199.6	7.9	6.8	-156.76	-74.5	45.8	200.4	186.8	13.61	14.726		
3,300.0	3,278.5	3,305.5	3,299.8	8.3	7.1	-155.04	-92.2	44.9	208.1	194.0	14.15	14.712		
3,400.0	3,376.6	3,407.2	3,399.7	8.6	7.4	-153.03	-111.8	43.8	215.0	200.3	14.73	14.598		
3,500.0	3,474.6	3,508.9	3,499.0	9.0	7.7	-150.73	-133.2	42.7	221.1	205.7	15.35	14.400		
3,600.0	3,572.7	3,609.8	3,597.3	9.4	8.0	-148.18	-156.1	41.5	226.6	210.6	16.03	14.137		
3,700.0	3,670.7	3,709.1	3,693.8	9.8	8.4	-145.69	-179.3	40.2	232.4	215.7	16.75	13.876		
3,800.0	3,768.7	3,808.4	3,790.4	10.3	8.7	-143.31	-202.4	39.0	238.6	221.1	17.50	13.635		
3,900.0	3,866.8	3,907.8	3,887.0	10.7	9.1	-141.06	-225.5	37.8	245.1	226.9	18.28	13.414		
4,000.0	3,964.8	4,007.1	3,983.6	11.1	9.5	-138.93	-248.6	36.6	252.1	233.0	19.08	13.211		
4,100.0	4,062.9	4,106.4	4,080.2	11.5	9.9	-136.92	-271.7	35.3	259.3	239.4	19.91	13.027		
4,200.0	4,160.9	4,205.8	4,176.8	11.9	10.3	-135.01	-294.8	34.1	266.9	246.1	20.75	12.861		
4,300.0	4,258.9	4,305.1	4,273.4	12.3	10.7	-133.22	-318.0	32.9	274.7	253.1	21.61	12.712		
4,400.0	4,357.0	4,404.4	4,370.0	12.7	11.1	-131.52	-341.1	31.7	282.8	260.3	22.48	12.578		
4,500.0	4,455.0	4,503.7	4,466.6	13.2	11.6	-129.91	-364.2	30.4	291.1	267.8	23.37	12.458		
4,600.0	4,553.1	4,603.1	4,563.2	13.6	12.0	-128.40	-387.3	29.2	299.7	275.4	24.26	12.352		
4,700.0	4,651.1	4,702.4	4,659.8	14.0	12.4	-126.97	-410.4	28.0	308.4	283.2	25.16	12.257		
4,800.0	4,749.1	4,801.7	4,756.4	14.4	12.9	-125.62	-433.5	26.8	317.3	291.3	26.07	12.173		
4,900.0	4,847.2	4,901.1	4,853.0	14.9	13.3	-124.35	-456.6	25.5	326.4	299.4	26.98	12.099		
5,000.0	4,945.2	5,000.4	4,949.6	15.3	13.8	-123.14	-479.8	24.3	335.7	307.8	27.89	12.034		

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

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 230-1510H - Wellbore #1 - Plan 1 (Feb 14, 2017)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,043.3	5,099.7	5,046.2	15.7	14.2	-122.00	-502.9	23.1	345.0	316.2	28.81	11.977		
5,200.0	5,141.3	5,199.0	5,142.8	16.2	14.7	-120.92	-526.0	21.9	354.5	324.8	29.73	11.927		
5,300.0	5,239.3	5,298.4	5,239.4	16.6	15.1	-119.90	-549.1	20.6	364.2	333.5	30.65	11.883		
5,400.0	5,337.4	5,397.7	5,336.0	17.0	15.6	-118.92	-572.2	19.4	373.9	342.3	31.57	11.845		
5,500.0	5,435.4	5,497.0	5,432.5	17.5	16.1	-118.00	-595.3	18.2	383.7	351.3	32.49	11.812		
5,600.0	5,533.5	5,596.4	5,529.1	17.9	16.5	-117.13	-618.4	17.0	393.7	360.3	33.41	11.784		
5,700.0	5,631.5	5,696.3	5,626.7	18.3	16.9	-116.52	-640.1	15.8	403.6	369.4	34.25	11.785		
5,800.0	5,729.5	5,796.5	5,725.2	18.8	17.2	-116.43	-658.4	14.8	413.4	378.4	34.98	11.819		
5,900.0	5,827.6	5,896.7	5,824.3	19.2	17.5	-116.82	-673.3	14.1	423.1	387.4	35.64	11.869		
6,000.0	5,925.6	5,996.6	5,923.5	19.6	17.8	-117.65	-684.6	13.5	432.6	396.4	36.24	11.937		
6,010.2	5,935.6	6,006.7	5,933.6	19.7	17.8	-117.76	-685.6	13.4	433.6	397.3	36.30	11.945		
6,100.0	6,023.9	6,096.1	6,022.7	20.0	18.0	-118.87	-692.5	13.0	441.5	404.8	36.74	12.019		
6,200.0	6,122.8	6,195.4	6,121.9	20.3	18.2	-120.10	-696.9	12.8	448.9	411.8	37.10	12.100		
6,300.0	6,222.1	6,294.7	6,221.1	20.5	18.3	-121.30	-698.0	12.8	454.8	417.4	37.39	12.161		
6,400.0	6,321.8	6,394.3	6,320.8	20.7	18.5	-122.22	-698.0	12.8	459.0	421.3	37.66	12.188		
6,500.0	6,421.7	6,494.2	6,420.7	20.9	18.6	-122.73	-698.0	12.8	461.4	423.5	37.92	12.168		
6,578.3	6,500.0	6,572.5	6,499.0	21.0	18.7	89.87	-698.0	12.8	462.0	423.8	38.18	12.101		
6,600.0	6,521.7	6,594.2	6,520.7	21.0	18.8	89.87	-698.0	12.8	462.0	423.7	38.24	12.081		
6,700.0	6,621.7	6,694.2	6,620.7	21.2	18.9	89.87	-698.0	12.8	462.0	423.4	38.52	11.992		
6,800.0	6,721.7	6,794.2	6,720.7	21.3	19.1	89.87	-698.0	12.8	462.0	423.1	38.81	11.903		
6,838.9	6,760.6	6,833.2	6,759.6	21.3	19.1	89.87	-698.0	12.8	462.0	423.0	38.92	11.869		
6,900.0	6,821.7	6,894.0	6,820.4	21.4	19.2	89.63	-696.0	12.8	462.0	422.9	39.05	11.829		
6,945.1	6,866.8	6,938.4	6,864.6	21.5	19.2	89.04	-691.3	12.8	462.0	423.0	39.08	11.823		
6,950.0	6,871.7	6,943.2	6,869.3	21.5	19.2	89.44	-690.6	12.8	462.0	423.0	39.03	11.838		
7,000.0	6,921.7	6,991.9	6,917.2	21.5	19.2	88.61	-682.0	12.8	462.3	423.3	38.99	11.856		
7,050.0	6,971.3	7,040.1	6,964.0	21.5	19.2	87.79	-670.3	12.8	462.6	423.7	38.88	11.897		
7,100.0	7,020.5	7,087.9	7,009.5	21.5	19.1	86.98	-655.6	12.8	463.1	424.3	38.72	11.960		
7,150.0	7,068.9	7,135.4	7,053.6	21.5	19.0	86.19	-638.1	12.9	463.6	425.1	38.50	12.042		
7,200.0	7,116.4	7,182.4	7,096.0	21.4	18.9	85.42	-617.8	12.9	464.3	426.1	38.24	12.142		
7,250.0	7,162.6	7,229.1	7,136.8	21.3	18.8	84.67	-595.0	13.0	465.1	427.2	37.95	12.257		
7,300.0	7,207.4	7,275.5	7,175.7	21.2	18.7	83.96	-569.8	13.0	466.0	428.4	37.62	12.387		
7,350.0	7,250.5	7,321.6	7,212.6	21.1	18.5	83.28	-542.3	13.1	466.9	429.6	37.27	12.527		
7,400.0	7,291.7	7,367.3	7,247.5	21.0	18.4	82.63	-512.7	13.2	467.9	431.0	36.91	12.676		
7,450.0	7,330.9	7,412.9	7,280.3	20.8	18.2	82.01	-481.1	13.2	468.9	432.4	36.55	12.830		
7,500.0	7,367.8	7,458.1	7,310.8	20.6	18.1	81.44	-447.6	13.3	470.0	433.8	36.19	12.984		
7,550.0	7,402.3	7,503.2	7,339.0	20.5	18.0	80.90	-412.5	13.4	471.0	435.2	35.86	13.136		
7,600.0	7,434.2	7,550.0	7,365.9	20.3	17.8	80.40	-374.2	13.5	472.1	436.5	35.54	13.282		
7,650.0	7,463.3	7,592.7	7,388.2	20.1	17.7	79.97	-337.8	13.6	473.1	437.8	35.28	13.409		
7,700.0	7,489.5	7,637.2	7,409.1	19.9	17.7	79.56	-298.6	13.6	474.1	439.1	35.07	13.521		
7,750.0	7,512.7	7,681.5	7,427.5	19.8	17.6	79.21	-258.2	13.7	475.1	440.2	34.91	13.610		
7,800.0	7,532.7	7,725.8	7,443.3	19.6	17.6	78.90	-216.9	13.8	476.1	441.2	34.82	13.672		
7,850.0	7,549.4	7,769.9	7,456.5	19.5	17.6	78.64	-174.8	13.9	476.9	442.1	34.80	13.704		
7,900.0	7,562.9	7,814.0	7,467.1	19.3	17.7	78.43	-132.0	14.0	477.7	442.9	34.87	13.702		
7,950.0	7,573.0	7,857.9	7,475.0	19.2	17.7	78.27	-88.8	14.1	478.5	443.5	35.01	13.666		
8,000.0	7,579.6	7,900.0	7,480.0	19.1	17.8	78.17	-47.0	14.2	479.1	443.9	35.24	13.598		
8,050.0	7,582.7	7,945.8	7,482.7	19.1	18.0	78.10	-1.3	14.3	479.7	444.1	35.56	13.490		
8,066.2	7,583.0	7,960.1	7,483.0	19.1	18.1	78.10	13.0	14.3	479.9	444.2	35.68	13.449		
8,070.1	7,582.0	7,962.6	7,483.0	19.1	18.1	78.21	15.5	14.3	479.7	444.0	35.72	13.428		
8,071.1	7,582.0	7,963.5	7,483.0	19.1	18.1	78.21	16.4	14.3	479.7	444.0	35.73	13.426		
8,071.7	7,582.0	7,964.0	7,483.0	19.1	18.1	78.21	16.9	14.3	479.7	444.0	35.73	13.424		
8,100.0	7,582.0	7,991.9	7,482.9	19.1	18.2	78.21	44.8	14.4	480.0	444.1	35.89	13.373		
8,200.0	7,582.0	8,091.9	7,482.5	19.4	18.7	78.19	144.8	14.6	481.1	444.1	36.95	13.018		

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

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design		Crittter Creek Pad 15-11N-63W - Crittter Creek 230-1510H - Wellbore #1 - Plan 1 (Feb 14, 2017)											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)			
8,300.0	7,582.0	8,191.9	7,482.1	20.1	19.4	78.16	244.8	14.7	482.2	443.8	38.37	12.567		
8,400.0	7,582.0	8,291.9	7,481.7	21.0	20.3	78.14	344.8	14.9	483.2	443.1	40.09	12.054		
8,500.0	7,582.0	8,391.9	7,481.3	22.1	21.4	78.12	444.8	15.1	484.3	442.2	42.08	11.508		
8,600.0	7,582.0	8,491.9	7,480.9	23.2	22.5	78.10	544.8	15.3	485.4	441.1	44.31	10.954		
8,700.0	7,582.0	8,591.9	7,480.5	24.5	23.7	78.08	644.8	15.5	486.4	439.7	46.74	10.408		
8,800.0	7,582.0	8,691.9	7,480.1	25.8	25.1	78.05	744.8	15.6	487.5	438.2	49.33	9.882		
8,900.0	7,582.0	8,791.9	7,479.7	27.3	26.5	78.03	844.8	15.8	488.6	436.5	52.08	9.382		
9,000.0	7,582.0	8,891.9	7,479.3	28.7	27.9	78.01	944.8	16.0	489.7	434.7	54.95	8.912		
9,100.0	7,582.0	8,991.9	7,478.9	30.2	29.5	77.99	1,044.8	16.2	490.7	432.8	57.92	8.473		
9,200.0	7,582.0	9,091.9	7,478.5	31.8	31.0	77.97	1,144.8	16.3	491.8	430.8	60.98	8.065		
9,300.0	7,582.0	9,191.9	7,478.1	33.4	32.6	77.95	1,244.8	16.5	492.9	428.8	64.12	7.687		
9,400.0	7,582.0	9,291.9	7,477.7	35.0	34.3	77.93	1,344.7	16.7	494.0	426.6	67.32	7.337		
9,500.0	7,582.0	9,391.9	7,477.3	36.7	35.9	77.90	1,444.7	16.9	495.0	424.4	70.58	7.014		
9,600.0	7,582.0	9,491.9	7,476.9	38.3	37.6	77.88	1,544.7	17.1	496.1	422.2	73.89	6.714		
9,700.0	7,582.0	9,591.9	7,476.5	40.0	39.4	77.86	1,644.7	17.2	497.2	419.9	77.24	6.436		
9,800.0	7,582.0	9,691.8	7,476.1	41.7	41.1	77.84	1,744.7	17.4	498.2	417.6	80.63	6.179		
9,900.0	7,582.0	9,791.8	7,475.7	43.5	42.8	77.82	1,844.7	17.6	499.3	415.3	84.06	5.940		
10,000.0	7,582.0	9,891.8	7,475.3	45.2	44.6	77.80	1,944.7	17.8	500.4	412.9	87.51	5.718		
10,100.0	7,582.0	9,991.8	7,474.9	47.0	46.4	77.78	2,044.7	17.9	501.5	410.5	90.99	5.512		
10,200.0	7,582.0	10,091.8	7,474.5	48.8	48.2	77.76	2,144.7	18.1	502.5	408.1	94.49	5.319		
10,300.0	7,582.0	10,191.8	7,474.1	50.6	50.0	77.74	2,244.7	18.3	503.6	405.6	98.01	5.139		
10,400.0	7,582.0	10,291.8	7,473.7	52.4	51.8	77.72	2,344.7	18.5	504.7	403.1	101.54	4.970		
10,500.0	7,582.0	10,391.8	7,473.3	54.2	53.6	77.70	2,444.7	18.7	505.8	400.7	105.10	4.812		
10,600.0	7,582.0	10,491.8	7,472.9	56.0	55.4	77.68	2,544.7	18.8	506.8	398.2	108.67	4.664		
10,700.0	7,582.0	10,591.8	7,472.5	57.8	57.2	77.66	2,644.7	19.0	507.9	395.7	112.25	4.525		
10,800.0	7,582.0	10,691.8	7,472.0	59.6	59.1	77.64	2,744.7	19.2	509.0	393.1	115.84	4.394		
10,900.0	7,582.0	10,791.8	7,471.6	61.5	60.9	77.62	2,844.6	19.4	510.1	390.6	119.45	4.270		
11,000.0	7,582.0	10,891.8	7,471.2	63.3	62.8	77.60	2,944.6	19.6	511.1	388.1	123.06	4.153		
11,100.0	7,582.0	10,991.8	7,470.8	65.1	64.6	77.58	3,044.6	19.7	512.2	385.5	126.68	4.043		
11,200.0	7,582.0	11,091.8	7,470.4	67.0	66.5	77.56	3,144.6	19.9	513.3	383.0	130.32	3.939		
11,300.0	7,582.0	11,191.8	7,470.0	68.9	68.3	77.54	3,244.6	20.1	514.4	380.4	133.95	3.840		
11,400.0	7,582.0	11,291.8	7,469.6	70.7	70.2	77.52	3,344.6	20.3	515.4	377.8	137.60	3.746		
11,500.0	7,582.0	11,391.7	7,469.2	72.6	72.1	77.50	3,444.6	20.4	516.5	375.3	141.25	3.657		
11,600.0	7,582.0	11,491.7	7,468.8	74.4	73.9	77.48	3,544.6	20.6	517.6	372.7	144.91	3.572		
11,700.0	7,582.0	11,591.7	7,468.4	76.3	75.8	77.46	3,644.6	20.8	518.7	370.1	148.57	3.491		
11,800.0	7,582.0	11,691.7	7,468.0	78.2	77.7	77.44	3,744.6	21.0	519.7	367.5	152.24	3.414		
11,900.0	7,582.0	11,791.7	7,467.6	80.0	79.6	77.43	3,844.6	21.2	520.8	364.9	155.91	3.340		
12,000.0	7,582.0	11,891.7	7,467.2	81.9	81.4	77.41	3,944.6	21.3	521.9	362.3	159.59	3.270		
12,100.0	7,582.0	11,991.7	7,466.8	83.8	83.3	77.39	4,044.6	21.5	522.9	359.7	163.27	3.203		
12,200.0	7,582.0	12,091.7	7,466.4	85.7	85.2	77.37	4,144.6	21.7	524.0	357.1	166.95	3.139		
12,300.0	7,582.0	12,191.7	7,466.0	87.6	87.1	77.35	4,244.5	21.9	525.1	354.5	170.64	3.077		
12,400.0	7,582.0	12,291.7	7,465.6	89.5	89.0	77.33	4,344.5	22.0	526.2	351.8	174.33	3.018		
12,500.0	7,582.0	12,391.7	7,465.2	91.3	90.9	77.31	4,444.5	22.2	527.2	349.2	178.02	2.962		
12,600.0	7,582.0	12,491.7	7,464.8	93.2	92.8	77.30	4,544.5	22.4	528.3	346.6	181.71	2.907		
12,700.0	7,582.0	12,591.7	7,464.4	95.1	94.7	77.28	4,644.5	22.6	529.4	344.0	185.41	2.855		
12,800.0	7,582.0	12,691.7	7,464.0	97.0	96.5	77.26	4,744.5	22.8	530.5	341.4	189.11	2.805		
12,900.0	7,582.0	12,791.7	7,463.6	98.9	98.4	77.24	4,844.5	22.9	531.5	338.7	192.81	2.757		
13,000.0	7,582.0	12,891.7	7,463.2	100.8	100.3	77.22	4,944.5	23.1	532.6	336.1	196.52	2.710		
13,100.0	7,582.0	12,991.6	7,462.8	102.7	102.2	77.20	5,044.5	23.3	533.7	333.5	200.22	2.666		
13,200.0	7,582.0	13,091.6	7,462.4	104.6	104.1	77.19	5,144.5	23.5	534.8	330.8	203.93	2.622		
13,300.0	7,582.0	13,191.6	7,462.0	106.5	106.0	77.17	5,244.5	23.6	535.8	328.2	207.64	2.581		
13,400.0	7,582.0	13,291.6	7,461.6	108.4	107.9	77.15	5,344.5	23.8	536.9	325.6	211.35	2.540		

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

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 230-1510H - Wellbore #1 - Plan 1 (Feb 14, 2017)													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		
13,500.0	7,582.0	13,391.6	7,461.2	110.3	109.8	77.13	5,444.5	24.0	538.0	322.9	215.06	2.502		
13,600.0	7,582.0	13,491.6	7,460.8	112.2	111.7	77.11	5,544.5	24.2	539.1	320.3	218.78	2.464		
13,700.0	7,582.0	13,591.6	7,460.4	114.1	113.6	77.10	5,644.5	24.4	540.2	317.7	222.49	2.428		
13,800.0	7,582.0	13,691.6	7,460.0	116.0	115.5	77.08	5,744.4	24.5	541.2	315.0	226.21	2.393		
13,900.0	7,582.0	13,791.6	7,459.6	117.9	117.5	77.06	5,844.4	24.7	542.3	312.4	229.92	2.359		
14,000.0	7,582.0	13,891.6	7,459.2	119.8	119.4	77.04	5,944.4	24.9	543.4	309.7	233.64	2.326		
14,100.0	7,582.0	13,991.6	7,458.8	121.7	121.3	77.03	6,044.4	25.1	544.5	307.1	237.36	2.294		
14,200.0	7,582.0	14,091.6	7,458.4	123.6	123.2	77.01	6,144.4	25.2	545.5	304.4	241.08	2.263		
14,300.0	7,582.0	14,191.6	7,458.0	125.5	125.1	76.99	6,244.4	25.4	546.6	301.8	244.80	2.233		
14,400.0	7,582.0	14,291.6	7,457.6	127.4	127.0	76.98	6,344.4	25.6	547.7	299.2	248.52	2.204		
14,500.0	7,582.0	14,391.6	7,457.2	129.4	128.9	76.96	6,444.4	25.8	548.8	296.5	252.24	2.175		
14,600.0	7,582.0	14,491.6	7,456.8	131.3	130.8	76.94	6,544.4	26.0	549.8	293.9	255.97	2.148		
14,700.0	7,582.0	14,591.6	7,456.4	133.2	132.7	76.92	6,644.4	26.1	550.9	291.2	259.69	2.121		
14,800.0	7,582.0	14,691.5	7,456.0	135.1	134.6	76.91	6,744.4	26.3	552.0	288.6	263.41	2.095		
14,900.0	7,582.0	14,791.5	7,455.6	137.0	136.5	76.89	6,844.4	26.5	553.1	285.9	267.14	2.070		
15,000.0	7,582.0	14,891.5	7,455.2	138.9	138.4	76.87	6,944.4	26.7	554.1	283.3	270.86	2.046		
15,100.0	7,582.0	14,991.5	7,454.8	140.8	140.4	76.86	7,044.4	26.8	555.2	280.6	274.59	2.022		
15,200.0	7,582.0	15,091.5	7,454.4	142.7	142.3	76.84	7,144.3	27.0	556.3	278.0	278.32	1.999		
15,300.0	7,582.0	15,191.5	7,454.0	144.6	144.2	76.82	7,244.3	27.2	557.4	275.3	282.04	1.976		
15,400.0	7,582.0	15,291.5	7,453.6	146.6	146.1	76.81	7,344.3	27.4	558.4	272.7	285.77	1.954		
15,500.0	7,582.0	15,391.5	7,453.2	148.5	148.0	76.79	7,444.3	27.6	559.5	270.0	289.50	1.933		
15,600.0	7,582.0	15,491.5	7,452.8	150.4	149.9	76.77	7,544.3	27.7	560.6	267.4	293.22	1.912		
15,700.0	7,582.0	15,591.5	7,452.4	152.3	151.8	76.76	7,644.3	27.9	561.7	264.7	296.95	1.891		
15,800.0	7,582.0	15,691.5	7,451.9	154.2	153.8	76.74	7,744.3	28.1	562.7	262.1	300.68	1.872		
15,900.0	7,582.0	15,791.5	7,451.5	156.1	155.7	76.73	7,844.3	28.3	563.8	259.4	304.41	1.852		
16,000.0	7,582.0	15,891.5	7,451.1	158.0	157.6	76.71	7,944.3	28.4	564.9	256.8	308.14	1.833		
16,100.0	7,582.0	15,991.5	7,450.7	160.0	159.5	76.69	8,044.3	28.6	566.0	254.1	311.86	1.815		
16,200.0	7,582.0	16,091.5	7,450.3	161.9	161.4	76.68	8,144.3	28.8	567.1	251.5	315.59	1.797		
16,300.0	7,582.0	16,191.5	7,449.9	163.8	163.3	76.66	8,244.3	29.0	568.1	248.8	319.32	1.779		
16,400.0	7,582.0	16,291.5	7,449.5	165.7	165.2	76.65	8,344.3	29.2	569.2	246.2	323.05	1.762		
16,500.0	7,582.0	16,391.4	7,449.1	167.6	167.2	76.63	8,444.3	29.3	570.3	243.5	326.78	1.745		
16,600.0	7,582.0	16,491.4	7,448.7	169.6	169.1	76.61	8,544.3	29.5	571.4	240.9	330.51	1.729		
16,700.0	7,582.0	16,591.4	7,448.3	171.5	171.0	76.60	8,644.2	29.7	572.4	238.2	334.24	1.713		
16,800.0	7,582.0	16,691.4	7,447.9	173.4	172.9	76.58	8,744.2	29.9	573.5	235.5	337.97	1.697		
16,900.0	7,582.0	16,791.4	7,447.5	175.3	174.8	76.57	8,844.2	30.0	574.6	232.9	341.70	1.682		
17,000.0	7,582.0	16,891.4	7,447.1	177.2	176.7	76.55	8,944.2	30.2	575.7	230.2	345.43	1.667		
17,100.0	7,582.0	16,991.4	7,446.7	179.1	178.7	76.54	9,044.2	30.4	576.7	227.6	349.16	1.652		
17,200.0	7,582.0	17,091.4	7,446.3	181.1	180.6	76.52	9,144.2	30.6	577.8	224.9	352.89	1.637		
17,300.0	7,582.0	17,191.4	7,445.9	183.0	182.5	76.51	9,244.2	30.8	578.9	222.3	356.62	1.623		
17,400.0	7,582.0	17,291.4	7,445.5	184.9	184.4	76.49	9,344.2	30.9	580.0	219.6	360.35	1.609		
17,500.0	7,582.0	17,391.4	7,445.1	186.8	186.3	76.47	9,444.2	31.1	581.1	217.0	364.08	1.596		
17,600.0	7,582.0	17,491.4	7,444.7	188.7	188.3	76.46	9,544.2	31.3	582.1	214.3	367.81	1.583		
17,700.0	7,582.0	17,591.4	7,444.3	190.7	190.2	76.44	9,644.2	31.5	583.2	211.7	371.54	1.570		
17,800.0	7,582.0	17,691.4	7,443.9	192.6	192.1	76.43	9,744.2	31.6	584.3	209.0	375.27	1.557		
17,900.0	7,582.0	17,791.4	7,443.5	194.5	194.0	76.41	9,844.2	31.8	585.4	206.4	379.00	1.544		
18,000.0	7,582.0	17,891.4	7,443.1	196.4	195.9	76.40	9,944.2	32.0	586.4	203.7	382.73	1.532		
18,022.1	7,582.0	17,913.5	7,443.0	196.9	196.4	76.40	9,966.3	32.0	586.7	203.1	383.55	1.530 SF		

Criticr Creek Pad 15-11N-63W - Critter Creek 231-1510H - Wellbore #1 - Plan 1 (Feb 14, 2017)													Offset Site Error:	
Survey Program: 0-MWD													Offset Well Error:	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	89.58	5.1	699.3	699.3					
100.0	100.0	98.0	98.0	0.1	0.1	89.58	5.1	699.3	699.3	699.0	0.22	3,142.476		
200.0	200.0	198.0	198.0	0.3	0.3	89.58	5.1	699.3	699.3	698.6	0.67	1,043.996		
300.0	300.0	298.0	298.0	0.6	0.6	89.58	5.1	699.3	699.3	698.2	1.12	624.720		
400.0	400.0	398.0	398.0	0.8	0.8	89.58	5.1	699.3	699.3	697.7	1.57	445.717		
500.0	500.0	498.0	498.0	1.0	1.0	89.58	5.1	699.3	699.3	697.3	2.02	346.448		
600.0	600.0	598.0	598.0	1.2	1.2	89.58	5.1	699.3	699.3	696.8	2.47	283.343		
700.0	700.0	698.0	698.0	1.5	1.5	89.58	5.1	699.3	699.3	696.4	2.92	239.685		
800.0	800.0	798.0	798.0	1.7	1.7	89.58	5.1	699.3	699.3	695.9	3.37	207.684		
900.0	900.0	898.0	898.0	1.9	1.9	89.58	5.1	699.3	699.3	695.5	3.82	183.222		
1,000.0	1,000.0	998.0	998.0	2.1	2.1	89.58	5.1	699.3	699.3	695.0	4.27	163.915		
1,100.0	1,100.0	1,098.0	1,098.0	2.4	2.4	89.58	5.1	699.3	699.3	694.6	4.72	148.289		
1,200.0	1,200.0	1,198.0	1,198.0	2.6	2.6	89.58	5.1	699.3	699.3	694.1	5.17	135.383		
1,300.0	1,300.0	1,298.0	1,298.0	2.8	2.8	89.58	5.1	699.3	699.3	693.7	5.61	124.544		
1,400.0	1,400.0	1,398.0	1,398.0	3.0	3.0	89.58	5.1	699.3	699.3	693.2	6.06	115.312		
1,500.0	1,500.0	1,498.0	1,498.0	3.3	3.3	89.58	5.1	699.3	699.3	692.8	6.51	107.354		
1,600.0	1,600.0	1,598.0	1,598.0	3.5	3.5	89.58	5.1	699.3	699.3	692.3	6.96	100.423		
1,700.0	1,700.0	1,698.0	1,698.0	3.7	3.7	89.58	5.1	699.3	699.3	691.9	7.41	94.333 CC, ES		
1,800.0	1,800.0	1,798.0	1,798.0	3.9	3.9	-123.23	5.1	699.3	700.0	692.2	7.83	89.345		
1,900.0	1,899.9	1,897.9	1,897.9	4.1	4.2	-123.47	5.1	699.3	702.1	693.9	8.23	85.292		
2,000.0	1,999.7	1,997.7	1,997.7	4.3	4.4	-123.86	5.1	699.3	705.8	697.1	8.63	81.741		
2,100.0	2,099.3	2,097.3	2,097.3	4.5	4.6	-124.41	5.1	699.3	710.9	701.9	9.04	78.620		
2,200.0	2,198.6	2,196.6	2,196.6	4.7	4.8	-125.10	5.1	699.3	717.7	708.2	9.46	75.869		
2,300.0	2,297.5	2,295.5	2,295.5	4.9	5.0	-125.92	5.1	699.3	726.1	716.2	9.89	73.438		
2,400.0	2,396.1	2,396.5	2,396.5	5.2	5.2	-126.79	3.9	699.2	736.0	725.7	10.30	71.435		
2,457.4	2,452.5	2,454.7	2,454.7	5.3	5.3	-127.25	2.0	699.1	742.4	731.9	10.54	70.467		
2,500.0	2,494.2	2,497.9	2,497.8	5.4	5.4	-127.62	0.0	699.0	747.3	736.6	10.72	69.734		
2,600.0	2,592.3	2,599.9	2,599.6	5.7	5.6	-128.33	-6.6	698.6	758.6	747.4	11.16	67.994		
2,700.0	2,690.3	2,702.4	2,701.6	6.1	5.8	-128.83	-16.0	698.2	769.5	757.9	11.62	66.229		
2,800.0	2,788.3	2,805.3	2,803.8	6.4	6.0	-129.11	-28.2	697.5	780.1	768.0	12.11	64.434		
2,900.0	2,886.4	2,908.4	2,905.8	6.8	6.2	-129.18	-43.2	696.8	790.2	777.5	12.62	62.599		
3,000.0	2,984.4	3,011.5	3,007.4	7.1	6.4	-129.06	-60.9	695.9	799.8	786.6	13.17	60.717 SF		

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design		Crittter Creek Pad 15-11N-63W - Crittter Creek 232-1510H - Wellbore #1 - Plan 1 (Feb 13, 2017)										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)			
0.0	0.0	0.0	0.0	0.0	0.0	89.58	5.9	799.9	799.9					
100.0	100.0	98.0	98.0	0.1	0.1	89.58	5.9	799.9	799.9	799.7	0.22	3,594.595		
200.0	200.0	198.0	198.0	0.3	0.3	89.58	5.9	799.9	799.9	799.2	0.67	1,194.199		
300.0	300.0	298.0	298.0	0.6	0.6	89.58	5.9	799.9	799.9	798.8	1.12	714.601		
400.0	400.0	398.0	398.0	0.8	0.8	89.58	5.9	799.9	799.9	798.3	1.57	509.844		
500.0	500.0	498.0	498.0	1.0	1.0	89.58	5.9	799.9	799.9	797.9	2.02	396.293		
600.0	600.0	598.0	598.0	1.2	1.2	89.58	5.9	799.9	799.9	797.4	2.47	324.109		
700.0	700.0	698.0	698.0	1.5	1.5	89.58	5.9	799.9	799.9	797.0	2.92	274.169		
800.0	800.0	798.0	798.0	1.7	1.7	89.58	5.9	799.9	799.9	796.5	3.37	237.564		
900.0	900.0	898.0	898.0	1.9	1.9	89.58	5.9	799.9	799.9	796.1	3.82	209.583		
1,000.0	1,000.0	998.0	998.0	2.1	2.1	89.58	5.9	799.9	799.9	795.6	4.27	187.498		
1,100.0	1,100.0	1,098.0	1,098.0	2.4	2.4	89.58	5.9	799.9	799.9	795.2	4.72	169.624		
1,200.0	1,200.0	1,198.0	1,198.0	2.6	2.6	89.58	5.9	799.9	799.9	794.7	5.17	154.861		
1,300.0	1,300.0	1,298.0	1,298.0	2.8	2.8	89.58	5.9	799.9	799.9	794.3	5.61	142.462		
1,400.0	1,400.0	1,398.0	1,398.0	3.0	3.0	89.58	5.9	799.9	799.9	793.8	6.06	131.902		
1,500.0	1,500.0	1,498.0	1,498.0	3.3	3.3	89.58	5.9	799.9	799.9	793.4	6.51	122.799	CC, ES, SF	

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 278-1527H - Wellbore #1 - Plan 1 (Feb 14, 2017)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.99	0.0	25.2	25.2					
100.0	100.0	99.0	99.0	0.1	0.1	89.99	0.0	25.2	25.2	24.9	0.22	112.460		
200.0	200.0	199.0	199.0	0.3	0.3	89.99	0.0	25.2	25.2	24.5	0.67	37.424		
300.0	300.0	299.0	299.0	0.6	0.6	89.99	0.0	25.2	25.2	24.0	1.12	22.425		
400.0	400.0	399.0	399.0	0.8	0.8	89.99	0.0	25.2	25.2	23.6	1.57	16.008		
500.0	500.0	499.0	499.0	1.0	1.0	89.99	0.0	25.2	25.2	23.1	2.02	12.447		
600.0	600.0	599.0	599.0	1.2	1.2	89.99	0.0	25.2	25.2	22.7	2.47	10.182		
700.0	700.0	699.0	699.0	1.5	1.5	89.99	0.0	25.2	25.2	22.2	2.92	8.614		
800.0	800.0	799.0	799.0	1.7	1.7	89.99	0.0	25.2	25.2	21.8	3.37	7.465		
900.0	900.0	899.0	899.0	1.9	1.9	89.99	0.0	25.2	25.2	21.3	3.82	6.586		
1,000.0	1,000.0	999.0	999.0	2.1	2.1	89.99	0.0	25.2	25.2	20.9	4.27	5.892		
1,100.0	1,100.0	1,099.0	1,099.0	2.4	2.4	89.99	0.0	25.2	25.2	20.4	4.72	5.331		
1,200.0	1,200.0	1,199.0	1,199.0	2.6	2.6	89.99	0.0	25.2	25.2	20.0	5.17	4.867		
1,300.0	1,300.0	1,299.0	1,299.0	2.8	2.8	89.99	0.0	25.2	25.2	19.5	5.62	4.478		
1,400.0	1,400.0	1,399.0	1,399.0	3.0	3.0	89.99	0.0	25.2	25.2	19.1	6.07	4.146		
1,500.0	1,500.0	1,499.0	1,499.0	3.3	3.3	89.99	0.0	25.2	25.2	18.6	6.52	3.860		
1,600.0	1,600.0	1,599.0	1,599.0	3.5	3.5	89.99	0.0	25.2	25.2	18.2	6.97	3.611		
1,700.0	1,700.0	1,699.0	1,699.0	3.7	3.7	89.99	0.0	25.2	25.2	17.7	7.42	3.392 CC, ES		
1,800.0	1,800.0	1,799.0	1,799.0	3.9	3.9	-125.16	0.0	25.2	25.9	18.0	7.84	3.303 SF		
1,900.0	1,899.9	1,898.9	1,898.9	4.1	4.2	-131.64	0.0	25.2	28.3	20.1	8.23	3.440		
2,000.0	1,999.7	1,998.7	1,998.7	4.3	4.4	-140.09	0.0	25.2	33.0	24.4	8.63	3.828		
2,100.0	2,099.3	2,098.3	2,098.3	4.5	4.6	-148.36	0.0	25.2	40.5	31.5	9.03	4.485		
2,200.0	2,198.6	2,197.6	2,197.6	4.7	4.8	-155.25	0.0	25.2	50.9	41.5	9.42	5.401		
2,300.0	2,297.5	2,296.5	2,296.5	4.9	5.0	-160.54	0.0	25.2	64.2	54.4	9.81	6.545		
2,400.0	2,396.1	2,393.2	2,393.2	5.2	5.3	-164.65	1.0	25.8	81.5	71.3	10.19	7.997		
2,457.4	2,452.5	2,448.0	2,448.0	5.3	5.4	-166.62	2.4	26.7	93.8	83.4	10.41	9.012		
2,500.0	2,494.2	2,488.3	2,488.2	5.4	5.5	-167.89	3.9	27.6	103.8	93.2	10.58	9.805		
2,600.0	2,592.3	2,584.4	2,584.2	5.7	5.7	-170.24	8.4	30.5	128.4	117.4	11.00	11.670		
2,700.0	2,690.3	2,681.2	2,680.8	6.1	5.9	-171.84	12.9	33.3	153.2	141.8	11.42	13.415		
2,800.0	2,788.3	2,778.0	2,777.5	6.4	6.1	-173.00	17.5	36.2	178.2	166.3	11.85	15.036		
2,900.0	2,886.4	2,874.8	2,874.1	6.8	6.3	-173.87	22.0	39.1	203.1	190.8	12.28	16.543		
3,000.0	2,984.4	2,971.6	2,970.8	7.1	6.6	-174.56	26.6	42.0	228.1	215.4	12.71	17.946		
3,100.0	3,082.5	3,068.4	3,067.4	7.5	6.8	-175.10	31.1	44.9	253.2	240.0	13.15	19.253		
3,200.0	3,180.5	3,165.2	3,164.0	7.9	7.0	-175.55	35.7	47.8	278.2	264.6	13.59	20.472		
3,300.0	3,278.5	3,262.0	3,260.7	8.3	7.2	-175.93	40.3	50.7	303.3	289.2	14.03	21.612		
3,400.0	3,376.6	3,358.8	3,357.3	8.6	7.5	-176.24	44.8	53.5	328.4	313.9	14.48	22.679		
3,500.0	3,474.6	3,455.5	3,454.0	9.0	7.7	-176.52	49.4	56.4	353.4	338.5	14.93	23.679		
3,600.0	3,572.7	3,552.3	3,550.6	9.4	7.9	-176.75	53.9	59.3	378.5	363.1	15.38	24.619		
3,700.0	3,670.7	3,649.1	3,647.3	9.8	8.1	-176.96	58.5	62.2	403.6	387.8	15.83	25.502		
3,800.0	3,768.7	3,745.9	3,743.9	10.3	8.4	-177.14	63.0	65.1	428.7	412.4	16.28	26.334		
3,900.0	3,866.8	3,842.7	3,840.5	10.7	8.6	-177.31	67.6	68.0	453.8	437.1	16.73	27.118		
4,000.0	3,964.8	3,939.5	3,937.2	11.1	8.8	-177.45	72.1	70.9	478.9	461.7	17.19	27.859		
4,100.0	4,062.9	4,036.3	4,033.8	11.5	9.0	-177.58	76.7	73.7	504.0	486.4	17.65	28.560		
4,200.0	4,160.9	4,133.1	4,130.5	11.9	9.3	-177.70	81.2	76.6	529.1	511.0	18.11	29.223		
4,300.0	4,258.9	4,229.9	4,227.1	12.3	9.5	-177.81	85.8	79.5	554.2	535.7	18.57	29.852		
4,400.0	4,357.0	4,326.7	4,323.7	12.7	9.7	-177.91	90.3	82.4	579.4	560.3	19.03	30.449		
4,500.0	4,455.0	4,423.5	4,420.4	13.2	10.0	-178.00	94.9	85.3	604.5	585.0	19.49	31.017		
4,600.0	4,553.1	4,520.2	4,517.0	13.6	10.2	-178.08	99.4	88.2	629.6	609.6	19.95	31.557		
4,700.0	4,651.1	4,617.0	4,613.7	14.0	10.4	-178.16	104.0	91.1	654.7	634.3	20.41	32.071		
4,800.0	4,749.1	4,713.8	4,710.3	14.4	10.6	-178.23	108.6	94.0	679.8	658.9	20.88	32.561		
4,900.0	4,847.2	4,810.6	4,806.9	14.9	10.9	-178.29	113.1	96.8	704.9	683.6	21.34	33.029		
5,000.0	4,945.2	4,907.4	4,903.6	15.3	11.1	-178.36	117.7	99.7	730.1	708.2	21.81	33.476		

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

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 278-1527H - Wellbore #1 - Plan 1 (Feb 14, 2017)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,043.3	5,004.2	5,000.2	15.7	11.3	-178.41	122.2	102.6	755.2	732.9	22.27	33.903		
5,200.0	5,141.3	5,101.0	5,096.9	16.2	11.6	-178.47	126.8	105.5	780.3	757.6	22.74	34.312		
7,000.0	6,921.7	8,019.0	7,482.5	21.5	21.2	94.80	-696.8	118.7	798.9	757.6	41.36	19.316		
7,050.0	6,971.3	8,013.3	7,482.5	21.5	21.1	97.94	-691.0	118.7	764.8	723.4	41.44	18.455		
7,100.0	7,020.5	8,004.0	7,482.6	21.5	21.0	100.33	-681.8	118.7	732.9	691.5	41.37	17.716		
7,150.0	7,068.9	7,991.4	7,482.6	21.5	20.8	102.02	-669.2	118.6	703.3	662.2	41.18	17.079		
7,200.0	7,116.4	7,975.5	7,482.7	21.4	20.7	103.05	-653.2	118.6	676.6	635.6	40.91	16.539		
7,250.0	7,162.6	7,956.2	7,482.8	21.3	20.4	103.46	-634.0	118.5	652.7	612.2	40.55	16.097		
7,300.0	7,207.4	7,933.8	7,482.9	21.2	20.2	103.32	-611.6	118.4	632.0	591.9	40.13	15.747		
7,350.0	7,250.5	7,908.4	7,483.0	21.1	19.9	102.68	-586.2	118.3	614.5	574.8	39.67	15.490		
7,400.0	7,291.7	7,872.8	7,482.6	21.0	19.5	101.01	-550.6	118.1	600.1	561.0	39.11	15.344		
7,450.0	7,330.9	7,835.1	7,480.4	20.8	19.1	98.94	-512.9	118.0	588.4	549.9	38.52	15.274		
7,500.0	7,367.8	7,799.1	7,476.4	20.6	18.8	96.78	-477.2	117.8	579.5	541.5	37.96	15.267		
7,550.0	7,402.3	7,764.4	7,470.9	20.5	18.4	94.52	-443.0	117.7	573.3	535.9	37.42	15.323		
7,600.0	7,434.2	7,730.9	7,464.0	20.3	18.1	92.15	-410.2	117.5	570.0	533.1	36.89	15.450		
7,637.8	7,456.5	7,706.2	7,457.9	20.2	17.9	90.30	-386.2	117.4	569.3	532.8	36.50	15.594		
7,650.0	7,463.3	7,698.3	7,455.8	20.1	17.9	89.69	-378.6	117.4	569.3	533.0	36.38	15.651		
7,700.0	7,489.5	7,666.5	7,446.4	19.9	17.6	87.13	-348.2	117.3	571.2	535.3	35.87	15.923		
7,750.0	7,512.7	7,635.3	7,435.9	19.8	17.4	84.51	-318.8	117.1	575.4	540.0	35.36	16.273		
7,800.0	7,532.7	7,604.6	7,424.4	19.6	17.2	81.83	-290.4	117.0	581.7	546.9	34.84	16.698		
7,850.0	7,549.4	7,574.4	7,411.8	19.5	17.0	79.12	-262.9	116.9	589.9	555.6	34.31	17.194		
7,900.0	7,562.9	7,544.6	7,398.3	19.3	16.8	76.40	-236.4	116.8	599.6	565.9	33.76	17.763		
7,950.0	7,573.0	7,515.1	7,383.9	19.2	16.6	73.71	-210.7	116.7	610.8	577.6	33.21	18.390		
8,000.0	7,579.6	7,486.0	7,368.6	19.1	16.5	71.07	-185.9	116.6	623.0	590.3	32.67	19.070		
8,050.0	7,582.7	7,457.1	7,352.4	19.1	16.3	68.50	-161.9	116.5	636.0	603.9	32.14	19.788		
8,070.1	7,582.0	7,450.0	7,348.3	19.1	16.3	67.80	-156.1	116.4	640.8	608.8	32.03	20.006		
8,071.1	7,582.0	7,450.0	7,348.3	19.1	16.3	67.80	-156.1	116.4	641.1	609.0	32.03	20.013		
8,071.7	7,582.0	7,450.0	7,348.3	19.1	16.3	67.80	-156.1	116.4	641.3	609.2	32.04	20.017		
8,100.0	7,582.0	7,428.8	7,335.7	19.1	16.2	66.73	-139.1	116.4	649.2	617.4	31.77	20.436		
8,200.0	7,582.0	7,376.5	7,302.4	19.4	16.1	63.97	-98.7	116.2	682.1	650.8	31.38	21.740		
8,300.0	7,582.0	7,330.2	7,270.6	20.1	15.9	61.45	-65.1	116.0	722.3	691.1	31.20	23.154		
8,400.0	7,582.0	7,289.2	7,240.7	21.0	15.9	59.19	-37.2	115.9	769.5	738.2	31.21	24.653		

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 279-1527H - Wellbore #1 - Plan 1 (Feb 14, 2017)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.57	5.1	674.7	674.7					
100.0	100.0	98.0	98.0	0.1	0.1	89.57	5.1	674.7	674.7	674.5	0.22	3,031.936		
200.0	200.0	198.0	198.0	0.3	0.3	89.57	5.1	674.7	674.7	674.0	0.67	1,007.272		
300.0	300.0	298.0	298.0	0.6	0.6	89.57	5.1	674.7	674.7	673.6	1.12	602.745		
400.0	400.0	398.0	398.0	0.8	0.8	89.57	5.1	674.7	674.7	673.1	1.57	430.039		
500.0	500.0	498.0	498.0	1.0	1.0	89.57	5.1	674.7	674.7	672.7	2.02	334.262		
600.0	600.0	598.0	598.0	1.2	1.2	89.57	5.1	674.7	674.7	672.2	2.47	273.376		
700.0	700.0	698.0	698.0	1.5	1.5	89.57	5.1	674.7	674.7	671.8	2.92	231.254		
800.0	800.0	798.0	798.0	1.7	1.7	89.57	5.1	674.7	674.7	671.3	3.37	200.379		
900.0	900.0	898.0	898.0	1.9	1.9	89.57	5.1	674.7	674.7	670.9	3.82	176.777		
1,000.0	1,000.0	998.0	998.0	2.1	2.1	89.57	5.1	674.7	674.7	670.4	4.27	158.149		
1,100.0	1,100.0	1,098.0	1,098.0	2.4	2.4	89.57	5.1	674.7	674.7	670.0	4.72	143.073		
1,200.0	1,200.0	1,198.0	1,198.0	2.6	2.6	89.57	5.1	674.7	674.7	669.5	5.17	130.621		
1,300.0	1,300.0	1,298.0	1,298.0	2.8	2.8	89.57	5.1	674.7	674.7	669.1	5.61	120.163		
1,400.0	1,400.0	1,398.0	1,398.0	3.0	3.0	89.57	5.1	674.7	674.7	668.6	6.06	111.255		
1,500.0	1,500.0	1,498.0	1,498.0	3.3	3.3	89.57	5.1	674.7	674.7	668.2	6.51	103.577		
1,600.0	1,600.0	1,598.0	1,598.0	3.5	3.5	89.57	5.1	674.7	674.7	667.7	6.96	96.891		
1,700.0	1,700.0	1,698.0	1,698.0	3.7	3.7	89.57	5.1	674.7	674.7	667.3	7.41	91.015 CC, ES		
1,800.0	1,800.0	1,798.0	1,798.0	3.9	3.9	-123.24	5.1	674.7	675.4	667.6	7.83	86.205		
1,900.0	1,899.9	1,897.9	1,897.9	4.1	4.2	-123.49	5.1	674.7	677.6	669.3	8.23	82.305		
2,000.0	1,999.7	1,997.7	1,997.7	4.3	4.4	-123.91	5.1	674.7	681.2	672.6	8.63	78.893		
2,100.0	2,099.3	2,097.3	2,097.3	4.5	4.6	-124.48	5.1	674.7	686.3	677.3	9.04	75.902		
2,200.0	2,198.6	2,196.6	2,196.6	4.7	4.8	-125.19	5.1	674.7	693.1	683.6	9.46	73.272		
2,300.0	2,297.5	2,295.5	2,295.5	4.9	5.0	-126.04	5.1	674.7	701.5	691.6	9.89	70.958		
2,400.0	2,396.1	2,394.1	2,394.1	5.2	5.3	-127.01	5.1	674.7	711.7	701.4	10.33	68.921		
2,457.4	2,452.5	2,450.5	2,450.5	5.3	5.4	-127.61	5.1	674.7	718.4	707.8	10.58	67.865		
2,500.0	2,494.2	2,492.2	2,492.2	5.4	5.5	-128.13	5.1	674.7	723.6	712.8	10.79	67.087		
2,600.0	2,592.3	2,580.3	2,580.3	5.7	5.7	-129.26	5.8	675.1	736.6	725.4	11.24	65.530		
2,700.0	2,690.3	2,666.7	2,666.7	6.1	5.9	-130.44	8.2	676.6	751.5	739.8	11.70	64.230		
2,800.0	2,788.3	2,762.1	2,761.9	6.4	6.1	-131.77	11.9	679.0	767.7	755.6	12.18	63.022		
2,900.0	2,886.4	2,859.1	2,858.8	6.8	6.3	-133.07	15.7	681.5	784.4	771.7	12.67	61.906 SF		

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Criticr Creek Pad 15-11N-63W - Critter Creek 280-1527H - Wellbore #1 - Plan 1 (Feb 14,2017)														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)				
0.0	0.0	0.0	0.0	0.0	0.0	89.57	5.9	774.4	774.5						
100.0	100.0	98.0	98.0	0.1	0.1	89.57	5.9	774.4	774.5	774.2	0.22	3,480.329			
200.0	200.0	198.0	198.0	0.3	0.3	89.57	5.9	774.4	774.5	773.8	0.67	1,156.238			
300.0	300.0	298.0	298.0	0.6	0.6	89.57	5.9	774.4	774.5	773.3	1.12	691.885			
400.0	400.0	398.0	398.0	0.8	0.8	89.57	5.9	774.4	774.5	772.9	1.57	493.637			
500.0	500.0	498.0	498.0	1.0	1.0	89.57	5.9	774.4	774.5	772.4	2.02	383.696			
600.0	600.0	598.0	598.0	1.2	1.2	89.57	5.9	774.4	774.5	772.0	2.47	313.806			
700.0	700.0	698.0	698.0	1.5	1.5	89.57	5.9	774.4	774.5	771.5	2.92	265.454			
800.0	800.0	798.0	798.0	1.7	1.7	89.57	5.9	774.4	774.5	771.1	3.37	230.013			
900.0	900.0	898.0	898.0	1.9	1.9	89.57	5.9	774.4	774.5	770.6	3.82	202.920			
1,000.0	1,000.0	998.0	998.0	2.1	2.1	89.57	5.9	774.4	774.5	770.2	4.27	181.538			
1,100.0	1,100.0	1,098.0	1,098.0	2.4	2.4	89.57	5.9	774.4	774.5	769.7	4.72	164.232			
1,200.0	1,200.0	1,198.0	1,198.0	2.6	2.6	89.57	5.9	774.4	774.5	769.3	5.17	149.939			
1,300.0	1,300.0	1,298.0	1,298.0	2.8	2.8	89.57	5.9	774.4	774.5	768.8	5.61	137.934			
1,400.0	1,400.0	1,398.0	1,398.0	3.0	3.0	89.57	5.9	774.4	774.5	768.4	6.06	127.709			
1,500.0	1,500.0	1,498.0	1,498.0	3.3	3.3	89.57	5.9	774.4	774.5	767.9	6.51	118.895			
1,600.0	1,600.0	1,598.0	1,598.0	3.5	3.5	89.57	5.9	774.4	774.5	767.5	6.96	111.220			
1,700.0	1,700.0	1,698.0	1,698.0	3.7	3.7	89.57	5.9	774.4	774.5	767.0	7.41	104.475 CC, ES			
1,800.0	1,800.0	1,781.8	1,781.8	3.9	3.9	-123.22	6.1	775.3	776.2	768.4	7.79	99.644			
1,900.0	1,899.9	1,865.1	1,865.0	4.1	4.1	-123.40	6.7	777.9	781.5	773.4	8.14	96.055			
2,000.0	1,999.7	1,947.8	1,947.7	4.3	4.2	-123.69	7.8	782.2	790.4	781.9	8.49	93.137 SF			

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 510-1510H - Wellbore #1 - Plan 1 (Feb 14, 2017)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	89.61	5.1	750.1	750.1					
100.0	100.0	98.0	98.0	0.1	0.1	89.61	5.1	750.1	750.1	749.9	0.22	3,371.008		
200.0	200.0	198.0	198.0	0.3	0.3	89.61	5.1	750.1	750.1	749.5	0.67	1,119.919		
300.0	300.0	298.0	298.0	0.6	0.6	89.61	5.1	750.1	750.1	749.0	1.12	670.152		
400.0	400.0	398.0	398.0	0.8	0.8	89.61	5.1	750.1	750.1	748.6	1.57	478.131		
500.0	500.0	498.0	498.0	1.0	1.0	89.61	5.1	750.1	750.1	748.1	2.02	371.643		
600.0	600.0	598.0	598.0	1.2	1.2	89.61	5.1	750.1	750.1	747.7	2.47	303.949		
700.0	700.0	698.0	698.0	1.5	1.5	89.61	5.1	750.1	750.1	747.2	2.92	257.115		
800.0	800.0	798.0	798.0	1.7	1.7	89.61	5.1	750.1	750.1	746.8	3.37	222.788		
900.0	900.0	898.0	898.0	1.9	1.9	89.61	5.1	750.1	750.1	746.3	3.82	196.546		
1,000.0	1,000.0	998.0	998.0	2.1	2.1	89.61	5.1	750.1	750.1	745.9	4.27	175.836		
1,100.0	1,100.0	1,098.0	1,098.0	2.4	2.4	89.61	5.1	750.1	750.1	745.4	4.72	159.073		
1,200.0	1,200.0	1,198.0	1,198.0	2.6	2.6	89.61	5.1	750.1	750.1	745.0	5.17	145.229		
1,300.0	1,300.0	1,298.0	1,298.0	2.8	2.8	89.61	5.1	750.1	750.1	744.5	5.61	133.601		
1,400.0	1,400.0	1,398.0	1,398.0	3.0	3.0	89.61	5.1	750.1	750.1	744.1	6.06	123.697		
1,500.0	1,500.0	1,498.0	1,498.0	3.3	3.3	89.61	5.1	750.1	750.1	743.6	6.51	115.161		
1,600.0	1,600.0	1,598.0	1,598.0	3.5	3.5	89.61	5.1	750.1	750.1	743.2	6.96	107.726		
1,700.0	1,700.0	1,698.0	1,698.0	3.7	3.7	89.61	5.1	750.1	750.1	742.7	7.41	101.193 CC, ES		
1,800.0	1,800.0	1,798.0	1,798.0	3.9	3.9	-123.19	5.1	750.1	750.8	743.0	7.83	95.836		
1,900.0	1,899.9	1,897.9	1,897.9	4.1	4.2	-123.42	5.1	750.1	753.0	744.8	8.23	91.469		
2,000.0	1,999.7	1,992.6	1,992.6	4.3	4.3	-123.68	4.1	750.4	756.9	748.4	8.60	88.055		
2,100.0	2,099.3	2,087.2	2,087.2	4.5	4.5	-123.89	0.7	751.5	763.1	754.1	8.94	85.305		
2,200.0	2,198.6	2,181.7	2,181.5	4.7	4.7	-124.06	-4.8	753.2	771.3	762.0	9.31	82.874		
2,300.0	2,297.5	2,276.1	2,275.5	4.9	4.8	-124.18	-12.6	755.5	781.7	772.0	9.69	80.671		
2,400.0	2,396.1	2,370.2	2,369.0	5.2	5.0	-124.26	-22.5	758.6	794.2	784.1	10.10	78.630 SF		

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design		Crittter Creek Pad 15-11N-63W - Crittter Creek 511-1510H - Wellbore #1 - Plan 1 (Feb 14, 2017)											Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	89.37	1.1	99.8	99.8					
100.0	100.0	98.0	98.0	0.1	0.1	89.37	1.1	99.8	99.8	99.6	0.22	448.408		
200.0	200.0	198.0	198.0	0.3	0.3	89.37	1.1	99.8	99.8	99.1	0.67	148.971		
300.0	300.0	298.0	298.0	0.6	0.6	89.37	1.1	99.8	99.8	98.7	1.12	89.143		
400.0	400.0	398.0	398.0	0.8	0.8	89.37	1.1	99.8	99.8	98.2	1.57	63.601		
500.0	500.0	498.0	498.0	1.0	1.0	89.37	1.1	99.8	99.8	97.8	2.02	49.436		
600.0	600.0	598.0	598.0	1.2	1.2	89.37	1.1	99.8	99.8	97.3	2.47	40.431		
700.0	700.0	698.0	698.0	1.5	1.5	89.37	1.1	99.8	99.8	96.9	2.92	34.201		
800.0	800.0	798.0	798.0	1.7	1.7	89.37	1.1	99.8	99.8	96.4	3.37	29.635		
900.0	900.0	898.0	898.0	1.9	1.9	89.37	1.1	99.8	99.8	96.0	3.82	26.144		
1,000.0	1,000.0	998.0	998.0	2.1	2.1	89.37	1.1	99.8	99.8	95.5	4.27	23.389		
1,100.0	1,100.0	1,098.0	1,098.0	2.4	2.4	89.37	1.1	99.8	99.8	95.1	4.72	21.160		
1,200.0	1,200.0	1,198.0	1,198.0	2.6	2.6	89.37	1.1	99.8	99.8	94.6	5.17	19.318		
1,300.0	1,300.0	1,298.0	1,298.0	2.8	2.8	89.37	1.1	99.8	99.8	94.2	5.61	17.772		
1,400.0	1,400.0	1,398.0	1,398.0	3.0	3.0	89.37	1.1	99.8	99.8	93.7	6.06	16.454		
1,500.0	1,500.0	1,498.0	1,498.0	3.3	3.3	89.37	1.1	99.8	99.8	93.3	6.51	15.319		
1,600.0	1,600.0	1,598.0	1,598.0	3.5	3.5	89.37	1.1	99.8	99.8	92.8	6.96	14.330		
1,700.0	1,700.0	1,698.0	1,698.0	3.7	3.7	89.37	1.1	99.8	99.8	92.4	7.41	13.461 CC, ES		
1,800.0	1,800.0	1,797.6	1,797.6	3.9	3.9	-123.24	-0.2	100.0	100.7	92.9	7.81	12.899		
1,900.0	1,899.9	1,897.2	1,897.1	4.1	4.1	-122.82	-4.1	100.6	103.4	95.2	8.15	12.688		
2,000.0	1,999.7	1,996.7	1,996.3	4.3	4.3	-122.16	-10.7	101.5	107.9	99.4	8.50	12.691		
2,100.0	2,099.3	2,096.0	2,095.2	4.5	4.4	-121.30	-20.0	102.9	114.3	105.4	8.88	12.872		
2,200.0	2,198.6	2,195.0	2,193.5	4.7	4.6	-120.31	-31.8	104.7	122.5	113.2	9.28	13.200		
2,300.0	2,297.5	2,293.9	2,291.3	4.9	4.9	-119.26	-46.3	106.8	132.5	122.8	9.71	13.640		
2,400.0	2,396.1	2,393.2	2,389.4	5.2	5.1	-118.79	-61.9	109.2	144.0	133.9	10.19	14.137		
2,457.4	2,452.5	2,450.2	2,445.7	5.3	5.3	-118.93	-70.9	110.5	151.3	140.8	10.48	14.433		
2,500.0	2,494.2	2,492.4	2,487.3	5.4	5.4	-119.20	-77.5	111.5	156.7	146.0	10.70	14.645		
2,600.0	2,592.3	2,591.6	2,585.2	5.7	5.6	-119.75	-93.1	113.8	169.7	158.4	11.25	15.079		
2,700.0	2,690.3	2,690.7	2,683.1	6.1	5.9	-120.22	-108.7	116.1	182.6	170.8	11.83	15.440		
2,800.0	2,788.3	2,789.9	2,781.0	6.4	6.2	-120.64	-124.2	118.5	195.5	183.1	12.42	15.741		
2,900.0	2,886.4	2,889.0	2,878.9	6.8	6.5	-121.00	-139.8	120.8	208.5	195.5	13.04	15.993		
3,000.0	2,984.4	2,988.2	2,976.8	7.1	6.8	-121.31	-155.4	123.1	221.4	207.8	13.67	16.203		
3,100.0	3,082.5	3,087.3	3,074.6	7.5	7.2	-121.60	-171.0	125.4	234.4	220.1	14.31	16.379		
3,200.0	3,180.5	3,186.5	3,172.5	7.9	7.5	-121.85	-186.6	127.8	247.4	232.4	14.97	16.527		
3,300.0	3,278.5	3,285.6	3,270.4	8.3	7.8	-122.08	-202.2	130.1	260.4	244.7	15.64	16.651		
3,400.0	3,376.6	3,384.8	3,368.3	8.6	8.1	-122.29	-217.8	132.4	273.3	257.0	16.31	16.756		
3,500.0	3,474.6	3,483.9	3,466.2	9.0	8.5	-122.47	-233.4	134.7	286.3	269.3	17.00	16.846		
3,600.0	3,572.7	3,583.1	3,564.1	9.4	8.8	-122.64	-249.0	137.1	299.3	281.6	17.69	16.921		
3,700.0	3,670.7	3,682.2	3,662.0	9.8	9.2	-122.80	-264.5	139.4	312.3	293.9	18.39	16.985		
3,800.0	3,768.7	3,781.4	3,759.9	10.3	9.5	-122.95	-280.1	141.7	325.3	306.2	19.09	17.040		
3,900.0	3,866.8	3,880.5	3,857.8	10.7	9.9	-123.08	-295.7	144.0	338.3	318.5	19.80	17.086		
4,000.0	3,964.8	3,979.7	3,955.6	11.1	10.2	-123.20	-311.3	146.3	351.3	330.7	20.51	17.126		
4,100.0	4,062.9	4,078.8	4,053.5	11.5	10.6	-123.32	-326.9	148.7	364.2	343.0	21.23	17.160		
4,200.0	4,160.9	4,178.0	4,151.4	11.9	10.9	-123.42	-342.5	151.0	377.2	355.3	21.95	17.189		
4,300.0	4,258.9	4,277.1	4,249.3	12.3	11.3	-123.52	-358.1	153.3	390.2	367.6	22.67	17.214		
4,400.0	4,357.0	4,376.3	4,347.2	12.7	11.6	-123.62	-373.7	155.6	403.2	379.8	23.40	17.235		
4,500.0	4,455.0	4,475.4	4,445.1	13.2	12.0	-123.71	-389.2	158.0	416.2	392.1	24.13	17.253		
4,600.0	4,553.1	4,574.6	4,543.0	13.6	12.4	-123.79	-404.8	160.3	429.2	404.4	24.86	17.268		
4,700.0	4,651.1	4,673.7	4,640.9	14.0	12.7	-123.87	-420.4	162.6	442.2	416.6	25.59	17.281		
4,800.0	4,749.1	4,772.9	4,738.8	14.4	13.1	-123.94	-436.0	164.9	455.2	428.9	26.33	17.291		
4,900.0	4,847.2	4,872.0	4,836.7	14.9	13.4	-124.01	-451.6	167.3	468.2	441.2	27.06	17.300		
5,000.0	4,945.2	4,971.2	4,934.5	15.3	13.8	-124.07	-467.2	169.6	481.2	453.4	27.80	17.308		

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

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 511-1510H - Wellbore #1 - Plan 1 (Feb 14, 2017)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,043.3	5,070.3	5,032.4	15.7	14.2	-124.13	-482.8	171.9	494.2	465.7	28.54	17.314		
5,200.0	5,141.3	5,169.5	5,130.3	16.2	14.5	-124.19	-498.4	174.2	507.2	477.9	29.29	17.319		
5,300.0	5,239.3	5,268.6	5,228.2	16.6	14.9	-124.25	-513.9	176.6	520.2	490.2	30.03	17.323		
5,400.0	5,337.4	5,367.8	5,326.1	17.0	15.3	-124.30	-529.5	178.9	533.2	502.5	30.78	17.326		
5,500.0	5,435.4	5,466.9	5,424.0	17.5	15.6	-124.35	-545.1	181.2	546.2	514.7	31.52	17.329		
5,600.0	5,533.5	5,566.1	5,521.9	17.9	16.0	-124.40	-560.7	183.5	559.2	527.0	32.27	17.331		
5,700.0	5,631.5	5,665.2	5,619.8	18.3	16.4	-124.45	-576.3	185.8	572.2	539.2	33.02	17.332		
5,800.0	5,729.5	5,764.4	5,717.7	18.8	16.7	-124.49	-591.9	188.2	585.3	551.5	33.77	17.332		
5,900.0	5,827.6	5,863.5	5,815.5	19.2	17.1	-124.53	-607.5	190.5	598.3	563.7	34.52	17.332		
6,000.0	5,925.6	5,962.7	5,913.4	19.6	17.5	-124.57	-623.1	192.8	611.3	576.0	35.27	17.332		
6,010.2	5,935.6	5,972.8	5,923.4	19.7	17.5	-124.58	-624.6	193.1	612.6	577.2	35.34	17.332		
6,100.0	6,023.9	6,061.9	6,011.4	20.0	17.9	-124.68	-638.7	195.1	623.5	587.5	36.00	17.319		
6,200.0	6,122.8	6,161.3	6,109.6	20.3	18.2	-124.53	-654.3	197.5	633.7	597.1	36.67	17.282		
6,300.0	6,222.1	6,262.5	6,209.6	20.5	18.5	-124.15	-669.5	199.7	642.0	604.7	37.25	17.232		
6,400.0	6,321.8	6,365.1	6,311.4	20.7	18.8	-123.77	-681.5	201.5	647.9	610.2	37.74	17.167		
6,500.0	6,421.7	6,468.0	6,414.0	20.9	19.0	-123.42	-689.9	202.8	651.5	613.3	38.16	17.075		
6,578.3	6,500.0	6,548.8	6,494.6	21.0	19.1	89.56	-694.0	203.4	652.6	614.2	38.47	16.965		
6,600.0	6,521.7	6,571.2	6,517.0	21.0	19.2	89.62	-694.7	203.5	652.7	614.2	38.54	16.935		
6,700.0	6,621.7	6,673.9	6,619.7	21.2	19.3	89.73	-695.9	203.7	652.9	614.0	38.85	16.805		
6,800.0	6,721.7	6,773.9	6,719.7	21.3	19.5	89.73	-695.9	203.7	652.9	613.8	39.13	16.685		
6,900.0	6,821.7	6,873.9	6,819.7	21.4	19.6	89.73	-695.9	203.7	652.9	613.5	39.41	16.567		
6,945.1	6,866.8	6,919.0	6,864.8	21.5	19.7	89.73	-695.9	203.7	652.9	613.3	39.54	16.514		
6,950.0	6,871.7	6,923.8	6,869.7	21.5	19.7	90.21	-695.9	203.7	652.9	613.4	39.52	16.522		
7,000.0	6,921.7	6,973.5	6,919.3	21.5	19.7	90.22	-693.9	203.7	652.9	613.3	39.62	16.481		
7,050.0	6,971.3	7,023.3	6,968.8	21.5	19.8	90.22	-688.5	203.7	653.0	613.3	39.65	16.466		
7,100.0	7,020.5	7,073.0	7,017.7	21.5	19.8	90.22	-679.6	203.7	653.1	613.4	39.63	16.478		
7,150.0	7,068.9	7,122.7	7,065.9	21.5	19.7	90.23	-667.4	203.7	653.2	613.6	39.55	16.515		
7,200.0	7,116.4	7,172.5	7,113.1	21.4	19.7	90.23	-651.8	203.8	653.3	613.9	39.42	16.576		
7,250.0	7,162.6	7,222.2	7,159.2	21.3	19.6	90.23	-633.0	203.8	653.5	614.3	39.23	16.659		
7,300.0	7,207.4	7,272.0	7,203.8	21.2	19.5	90.23	-611.1	203.8	653.8	614.7	39.00	16.761		
7,350.0	7,250.5	7,321.8	7,246.9	21.1	19.3	90.22	-586.1	203.9	654.0	615.3	38.74	16.880		
7,400.0	7,291.7	7,371.6	7,288.1	21.0	19.2	90.22	-558.2	203.9	654.3	615.8	38.46	17.013		
7,450.0	7,330.9	7,421.4	7,327.3	20.8	19.1	90.22	-527.4	204.0	654.6	616.4	38.16	17.155		
7,500.0	7,367.8	7,471.2	7,364.2	20.6	18.9	90.21	-494.0	204.0	654.9	617.1	37.85	17.302		
7,550.0	7,402.3	7,521.0	7,398.8	20.5	18.8	90.20	-458.1	204.1	655.3	617.8	37.56	17.448		
7,600.0	7,434.2	7,570.9	7,430.8	20.3	18.6	90.20	-419.9	204.1	655.7	618.4	37.28	17.588		
7,650.0	7,463.3	7,620.8	7,460.0	20.1	18.5	90.19	-379.5	204.2	656.1	619.1	37.03	17.716		
7,700.0	7,489.5	7,670.7	7,486.4	19.9	18.4	90.18	-337.1	204.3	656.5	619.7	36.83	17.825		
7,750.0	7,512.7	7,720.6	7,509.8	19.8	18.4	90.17	-293.1	204.3	657.0	620.3	36.68	17.909		
7,800.0	7,532.7	7,770.6	7,530.1	19.6	18.3	90.16	-247.4	204.4	657.4	620.8	36.60	17.962		
7,850.0	7,549.4	7,820.5	7,547.1	19.5	18.3	90.15	-200.5	204.5	657.9	621.3	36.59	17.980		
7,900.0	7,562.9	7,870.5	7,560.9	19.3	18.4	90.13	-152.4	204.6	658.4	621.7	36.66	17.958		
7,950.0	7,573.0	7,920.5	7,571.2	19.2	18.4	90.12	-103.5	204.7	658.9	622.1	36.82	17.896		
8,000.0	7,579.6	7,970.5	7,578.1	19.1	18.6	90.11	-54.0	204.7	659.4	622.3	37.06	17.791		
8,050.0	7,582.7	8,020.6	7,581.6	19.1	18.7	90.09	-4.1	204.8	659.9	622.5	37.39	17.648		
8,070.1	7,582.0	8,039.7	7,582.0	19.1	18.8	90.17	15.0	204.9	660.1	622.6	37.55	17.581		
8,071.1	7,582.0	8,040.7	7,582.0	19.1	18.8	90.17	16.0	204.9	660.1	622.6	37.55	17.578		
8,071.7	7,582.0	8,041.3	7,582.0	19.1	18.8	90.17	16.7	204.9	660.1	622.6	37.56	17.576		
8,100.0	7,582.0	8,069.6	7,582.0	19.1	18.9	90.17	45.0	204.9	660.4	622.6	37.77	17.485		
8,200.0	7,582.0	8,169.6	7,582.0	19.4	19.5	90.17	145.0	205.1	661.4	622.5	38.89	17.008		
8,300.0	7,582.0	8,269.6	7,582.0	20.1	20.2	90.17	245.0	205.2	662.4	622.1	40.33	16.424		
8,400.0	7,582.0	8,369.6	7,582.0	21.0	21.1	90.17	345.0	205.4	663.4	621.3	42.08	15.766		

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

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design		Crittter Creek Pad 15-11N-63W - Crittter Creek 511-1510H - Wellbore #1 - Plan 1 (Feb 14, 2017)											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)				
8,500.0	7,582.0	8,469.6	7,582.0	22.1	22.2	90.17	444.9	205.6	664.4	620.3	44.10	15.067			
8,600.0	7,582.0	8,569.6	7,582.0	23.2	23.3	90.17	544.9	205.7	665.4	619.1	46.35	14.357			
8,700.0	7,582.0	8,669.6	7,582.0	24.5	24.5	90.17	644.9	205.9	666.4	617.6	48.80	13.656			
8,800.0	7,582.0	8,769.6	7,582.0	25.8	25.8	90.17	744.9	206.1	667.4	616.0	51.43	12.978			
8,900.0	7,582.0	8,869.6	7,582.0	27.3	27.2	90.17	844.9	206.2	668.4	614.2	54.20	12.332			
9,000.0	7,582.0	8,969.6	7,582.0	28.7	28.7	90.17	944.9	206.4	669.4	612.3	57.10	11.724			
9,100.0	7,582.0	9,069.6	7,582.0	30.2	30.2	90.17	1,044.9	206.6	670.4	610.3	60.11	11.154			
9,200.0	7,582.0	9,169.6	7,582.0	31.8	31.8	90.17	1,144.9	206.7	671.4	608.2	63.20	10.623			
9,300.0	7,582.0	9,269.6	7,582.0	33.4	33.3	90.17	1,244.9	206.9	672.4	606.0	66.38	10.129			
9,400.0	7,582.0	9,369.5	7,582.0	35.0	35.0	90.17	1,344.9	207.1	673.4	603.8	69.63	9.671			
9,500.0	7,582.0	9,469.5	7,582.0	36.7	36.6	90.17	1,444.9	207.2	674.4	601.5	72.94	9.246			
9,600.0	7,582.0	9,569.5	7,582.0	38.3	38.3	90.17	1,544.9	207.4	675.4	599.1	76.30	8.852			
9,700.0	7,582.0	9,669.5	7,582.0	40.0	40.0	90.17	1,644.9	207.6	676.4	596.7	79.70	8.487			
9,800.0	7,582.0	9,769.5	7,582.0	41.7	41.7	90.17	1,744.9	207.7	677.4	594.3	83.15	8.147			
9,900.0	7,582.0	9,869.5	7,582.0	43.5	43.5	90.17	1,844.9	207.9	678.4	591.8	86.63	7.831			
10,000.0	7,582.0	9,969.5	7,582.0	45.2	45.2	90.17	1,944.9	208.1	679.4	589.3	90.13	7.538			
10,100.0	7,582.0	10,069.5	7,582.0	47.0	47.0	90.17	2,044.9	208.2	680.4	586.7	93.67	7.264			
10,200.0	7,582.0	10,169.5	7,582.0	48.8	48.8	90.17	2,144.9	208.4	681.4	584.2	97.23	7.008			
10,300.0	7,582.0	10,269.5	7,582.0	50.6	50.6	90.17	2,244.9	208.6	682.4	581.6	100.82	6.769			
10,400.0	7,582.0	10,369.5	7,582.0	52.4	52.4	90.17	2,344.8	208.7	683.4	579.0	104.42	6.545			
10,500.0	7,582.0	10,469.5	7,582.0	54.2	54.2	90.17	2,444.8	208.9	684.4	576.4	108.04	6.335			
10,600.0	7,582.0	10,569.5	7,582.0	56.0	56.0	90.17	2,544.8	209.1	685.4	573.7	111.68	6.137			
10,700.0	7,582.0	10,669.5	7,582.0	57.8	57.8	90.17	2,644.8	209.2	686.4	571.1	115.33	5.952			
10,800.0	7,582.0	10,769.5	7,582.0	59.6	59.6	90.17	2,744.8	209.4	687.4	568.4	118.99	5.777			
10,900.0	7,582.0	10,869.5	7,582.0	61.5	61.5	90.17	2,844.8	209.6	688.4	565.7	122.67	5.612			
11,000.0	7,582.0	10,969.5	7,582.0	63.3	63.3	90.17	2,944.8	209.7	689.4	563.0	126.35	5.456			
11,100.0	7,582.0	11,069.5	7,582.0	65.1	65.2	90.17	3,044.8	209.9	690.4	560.3	130.05	5.309			
11,200.0	7,582.0	11,169.5	7,582.0	67.0	67.0	90.17	3,144.8	210.1	691.4	557.6	133.75	5.169			
11,300.0	7,582.0	11,269.5	7,582.0	68.9	68.9	90.17	3,244.8	210.2	692.4	554.9	137.47	5.037			
11,400.0	7,582.0	11,369.4	7,582.0	70.7	70.7	90.17	3,344.8	210.4	693.4	552.2	141.19	4.911			
11,500.0	7,582.0	11,469.4	7,582.0	72.6	72.6	90.17	3,444.8	210.6	694.4	549.5	144.92	4.792			
11,600.0	7,582.0	11,569.4	7,582.0	74.4	74.5	90.16	3,544.8	210.7	695.4	546.7	148.65	4.678			
11,700.0	7,582.0	11,669.4	7,582.0	76.3	76.3	90.16	3,644.8	210.9	696.4	544.0	152.39	4.570			
11,800.0	7,582.0	11,769.4	7,582.0	78.2	78.2	90.16	3,744.8	211.1	697.4	541.3	156.14	4.466			
11,900.0	7,582.0	11,869.4	7,582.0	80.0	80.1	90.16	3,844.8	211.2	698.4	538.5	159.89	4.368			
12,000.0	7,582.0	11,969.4	7,582.0	81.9	82.0	90.16	3,944.8	211.4	699.4	535.7	163.65	4.274			
12,100.0	7,582.0	12,069.4	7,582.0	83.8	83.8	90.16	4,044.8	211.6	700.4	533.0	167.41	4.184			
12,200.0	7,582.0	12,169.4	7,582.0	85.7	85.7	90.16	4,144.8	211.7	701.4	530.2	171.18	4.097			
12,300.0	7,582.0	12,269.4	7,582.0	87.6	87.6	90.16	4,244.8	211.9	702.4	527.4	174.95	4.015			
12,400.0	7,582.0	12,369.4	7,582.0	89.5	89.5	90.16	4,344.7	212.1	703.4	524.7	178.72	3.936			
12,500.0	7,582.0	12,469.4	7,582.0	91.3	91.4	90.16	4,444.7	212.2	704.4	521.9	182.50	3.860			
12,600.0	7,582.0	12,569.4	7,582.0	93.2	93.3	90.16	4,544.7	212.4	705.4	519.1	186.28	3.787			
12,700.0	7,582.0	12,669.4	7,582.0	95.1	95.1	90.16	4,644.7	212.6	706.4	516.3	190.06	3.717			
12,800.0	7,582.0	12,769.4	7,582.0	97.0	97.0	90.16	4,744.7	212.7	707.4	513.5	193.85	3.649			
12,900.0	7,582.0	12,869.4	7,582.0	98.9	98.9	90.16	4,844.7	212.9	708.4	510.8	197.64	3.584			
13,000.0	7,582.0	12,969.4	7,582.0	100.8	100.8	90.16	4,944.7	213.1	709.4	508.0	201.43	3.522			
13,100.0	7,582.0	13,069.4	7,582.0	102.7	102.7	90.16	5,044.7	213.2	710.4	505.2	205.23	3.462			
13,200.0	7,582.0	13,169.4	7,582.0	104.6	104.6	90.16	5,144.7	213.4	711.4	502.4	209.02	3.403			
13,300.0	7,582.0	13,269.4	7,582.0	106.5	106.5	90.16	5,244.7	213.6	712.4	499.6	212.82	3.347			
13,400.0	7,582.0	13,369.3	7,582.0	108.4	108.4	90.16	5,344.7	213.7	713.4	496.8	216.62	3.293			
13,500.0	7,582.0	13,469.3	7,582.0	110.3	110.3	90.16	5,444.7	213.9	714.4	494.0	220.43	3.241			
13,600.0	7,582.0	13,569.3	7,582.0	112.2	112.2	90.16	5,544.7	214.1	715.4	491.2	224.23	3.190			

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

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 511-1510H - Wellbore #1 - Plan 1 (Feb 14, 2017)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
13,700.0	7,582.0	13,669.3	7,582.0	114.1	114.1	90.16	5,644.7	214.2	716.4	488.4	228.04	3.142		
13,800.0	7,582.0	13,769.3	7,582.0	116.0	116.0	90.16	5,744.7	214.4	717.4	485.5	231.84	3.094		
13,900.0	7,582.0	13,869.3	7,582.0	117.9	117.9	90.16	5,844.7	214.6	718.4	482.7	235.65	3.048		
14,000.0	7,582.0	13,969.3	7,582.0	119.8	119.8	90.16	5,944.7	214.7	719.4	479.9	239.47	3.004		
14,100.0	7,582.0	14,069.3	7,582.0	121.7	121.7	90.16	6,044.7	214.9	720.4	477.1	243.28	2.961		
14,200.0	7,582.0	14,169.3	7,582.0	123.6	123.6	90.16	6,144.7	215.1	721.4	474.3	247.09	2.920		
14,300.0	7,582.0	14,269.3	7,582.0	125.5	125.5	90.16	6,244.6	215.2	722.4	471.5	250.91	2.879		
14,400.0	7,582.0	14,369.3	7,582.0	127.4	127.4	90.16	6,344.6	215.4	723.4	468.7	254.73	2.840		
14,500.0	7,582.0	14,469.3	7,582.0	129.4	129.4	90.16	6,444.6	215.6	724.4	465.8	258.54	2.802		
14,600.0	7,582.0	14,569.3	7,582.0	131.3	131.3	90.16	6,544.6	215.7	725.4	463.0	262.36	2.765		
14,700.0	7,582.0	14,669.3	7,582.0	133.2	133.2	90.16	6,644.6	215.9	726.4	460.2	266.18	2.729		
14,800.0	7,582.0	14,769.3	7,582.0	135.1	135.1	90.16	6,744.6	216.1	727.4	457.4	270.00	2.694		
14,900.0	7,582.0	14,869.3	7,582.0	137.0	137.0	90.16	6,844.6	216.2	728.4	454.6	273.83	2.660		
15,000.0	7,582.0	14,969.3	7,582.0	138.9	138.9	90.16	6,944.6	216.4	729.4	451.7	277.65	2.627		
15,100.0	7,582.0	15,069.3	7,582.0	140.8	140.8	90.16	7,044.6	216.6	730.4	448.9	281.47	2.595		
15,200.0	7,582.0	15,169.3	7,582.0	142.7	142.7	90.16	7,144.6	216.7	731.4	446.1	285.30	2.564		
15,300.0	7,582.0	15,269.3	7,582.0	144.6	144.6	90.16	7,244.6	216.9	732.4	443.3	289.13	2.533		
15,400.0	7,582.0	15,369.2	7,582.0	146.6	146.5	90.16	7,344.6	217.1	733.4	440.4	292.95	2.503		
15,500.0	7,582.0	15,469.2	7,582.0	148.5	148.5	90.16	7,444.6	217.2	734.4	437.6	296.78	2.475		
15,600.0	7,582.0	15,569.2	7,582.0	150.4	150.4	90.16	7,544.6	217.4	735.4	434.8	300.61	2.446		
15,700.0	7,582.0	15,669.2	7,582.0	152.3	152.3	90.16	7,644.6	217.6	736.4	432.0	304.44	2.419		
15,800.0	7,582.0	15,769.2	7,582.0	154.2	154.2	90.16	7,744.6	217.7	737.4	429.1	308.27	2.392		
15,900.0	7,582.0	15,869.2	7,582.0	156.1	156.1	90.16	7,844.6	217.9	738.4	426.3	312.10	2.366		
16,000.0	7,582.0	15,969.2	7,582.0	158.0	158.0	90.15	7,944.6	218.1	739.4	423.5	315.93	2.340		
16,100.0	7,582.0	16,069.2	7,582.0	160.0	159.9	90.15	8,044.6	218.2	740.4	420.6	319.76	2.315		
16,200.0	7,582.0	16,169.2	7,582.0	161.9	161.9	90.15	8,144.6	218.4	741.4	417.8	323.59	2.291		
16,300.0	7,582.0	16,269.2	7,582.0	163.8	163.8	90.15	8,244.5	218.6	742.4	415.0	327.43	2.267		
16,400.0	7,582.0	16,369.2	7,582.0	165.7	165.7	90.15	8,344.5	218.7	743.4	412.1	331.26	2.244		
16,500.0	7,582.0	16,469.2	7,582.0	167.6	167.6	90.15	8,444.5	218.9	744.4	409.3	335.09	2.221		
16,600.0	7,582.0	16,569.2	7,582.0	169.6	169.5	90.15	8,544.5	219.1	745.4	406.5	338.93	2.199		
16,700.0	7,582.0	16,669.2	7,582.0	171.5	171.4	90.15	8,644.5	219.2	746.4	403.6	342.76	2.178		
16,800.0	7,582.0	16,769.2	7,582.0	173.4	173.3	90.15	8,744.5	219.4	747.4	400.8	346.60	2.156		
16,900.0	7,582.0	16,869.2	7,582.0	175.3	175.3	90.15	8,844.5	219.6	748.4	398.0	350.44	2.136		
17,000.0	7,582.0	16,969.2	7,582.0	177.2	177.2	90.15	8,944.5	219.7	749.4	395.1	354.27	2.115		
17,100.0	7,582.0	17,069.2	7,582.0	179.1	179.1	90.15	9,044.5	219.9	750.4	392.3	358.11	2.095		
17,200.0	7,582.0	17,169.2	7,582.0	181.1	181.0	90.15	9,144.5	220.1	751.4	389.4	361.95	2.076		
17,300.0	7,582.0	17,269.2	7,582.0	183.0	182.9	90.15	9,244.5	220.2	752.4	386.6	365.78	2.057		
17,400.0	7,582.0	17,369.1	7,582.0	184.9	184.8	90.15	9,344.5	220.4	753.4	383.8	369.62	2.038		
17,500.0	7,582.0	17,469.1	7,582.0	186.8	186.8	90.15	9,444.5	220.6	754.4	380.9	373.46	2.020		
17,600.0	7,582.0	17,569.1	7,582.0	188.7	188.7	90.15	9,544.5	220.7	755.4	378.1	377.30	2.002		
17,700.0	7,582.0	17,669.1	7,582.0	190.7	190.6	90.15	9,644.5	220.9	756.4	375.2	381.14	1.985		
17,800.0	7,582.0	17,769.1	7,582.0	192.6	192.5	90.15	9,744.5	221.1	757.4	372.4	384.98	1.967		
17,900.0	7,582.0	17,869.1	7,582.0	194.5	194.4	90.15	9,844.5	221.2	758.4	369.6	388.82	1.950		
18,000.0	7,582.0	17,969.1	7,582.0	196.4	196.4	90.15	9,944.5	221.4	759.4	366.7	392.66	1.934		
18,022.1	7,582.0	17,991.2	7,582.0	196.9	196.8	90.15	9,966.6	221.4	759.6	366.1	393.51	1.930 SF		

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 562-1527H - Wellbore #1 - Plan 1 (Feb 14, 2017)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.01	0.0	-25.4	25.4					
100.0	100.0	100.0	100.0	0.1	0.1	-90.01	0.0	-25.4	25.4	25.2	0.22	113.128		
200.0	200.0	200.0	200.0	0.3	0.3	-90.01	0.0	-25.4	25.4	24.8	0.67	37.709		
300.0	300.0	300.0	300.0	0.6	0.6	-90.01	0.0	-25.4	25.4	24.3	1.12	22.626		
400.0	400.0	400.0	400.0	0.8	0.8	-90.01	0.0	-25.4	25.4	23.9	1.57	16.161		
500.0	500.0	500.0	500.0	1.0	1.0	-90.01	0.0	-25.4	25.4	23.4	2.02	12.570		
600.0	600.0	600.0	600.0	1.2	1.2	-90.01	0.0	-25.4	25.4	23.0	2.47	10.284		
700.0	700.0	700.0	700.0	1.5	1.5	-90.01	0.0	-25.4	25.4	22.5	2.92	8.702		
800.0	800.0	800.0	800.0	1.7	1.7	-90.01	0.0	-25.4	25.4	22.1	3.37	7.542		
900.0	900.0	900.0	900.0	1.9	1.9	-90.01	0.0	-25.4	25.4	21.6	3.82	6.655		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.01	0.0	-25.4	25.4	21.2	4.27	5.954		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-90.01	0.0	-25.4	25.4	20.7	4.72	5.387		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.01	0.0	-25.4	25.4	20.3	5.17	4.919		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.01	0.0	-25.4	25.4	19.8	5.62	4.525		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-90.01	0.0	-25.4	25.4	19.4	6.07	4.190		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-90.01	0.0	-25.4	25.4	18.9	6.52	3.901 CC, ES		
1,600.0	1,600.0	1,599.3	1,599.3	3.5	3.5	-89.33	0.3	-26.7	26.7	19.7	6.96	3.837		
1,700.0	1,700.0	1,698.5	1,698.4	3.7	3.7	-87.64	1.3	-30.4	30.5	23.1	7.39	4.129		
1,800.0	1,800.0	1,797.5	1,797.2	3.9	3.9	63.40	2.8	-36.7	36.3	28.5	7.79	4.657		
1,900.0	1,899.9	1,896.1	1,895.4	4.1	4.1	69.48	5.0	-45.3	43.8	35.6	8.17	5.355		
2,000.0	1,999.7	1,994.2	1,992.8	4.3	4.3	76.22	7.8	-56.4	53.5	44.9	8.57	6.246		
2,100.0	2,099.3	2,093.3	2,091.1	4.5	4.6	82.94	10.9	-68.8	64.6	55.7	8.98	7.198		
2,200.0	2,198.6	2,192.3	2,189.3	4.7	4.9	89.53	14.0	-81.1	76.4	66.9	9.42	8.109		
2,300.0	2,297.5	2,291.0	2,287.2	4.9	5.1	95.94	17.1	-93.4	89.1	79.2	9.89	9.014		
2,400.0	2,396.1	2,389.5	2,384.8	5.2	5.4	102.06	20.2	-105.7	103.2	92.9	10.38	9.942		
2,457.4	2,452.5	2,445.8	2,440.7	5.3	5.6	105.41	21.9	-112.7	112.1	101.4	10.68	10.494		
2,500.0	2,494.2	2,487.6	2,482.1	5.4	5.7	107.80	23.3	-117.9	119.0	108.1	10.91	10.907		
2,600.0	2,592.3	2,585.6	2,579.3	5.7	6.0	112.43	26.3	-130.2	135.9	124.5	11.46	11.859		
2,700.0	2,690.3	2,683.6	2,676.5	6.1	6.2	116.04	29.4	-142.4	153.5	141.5	12.02	12.767		
2,800.0	2,788.3	2,781.7	2,773.7	6.4	6.5	118.90	32.5	-154.6	171.5	158.9	12.59	13.620		
2,900.0	2,886.4	2,879.7	2,871.0	6.8	6.8	121.21	35.6	-166.9	189.9	176.7	13.17	14.416		
3,000.0	2,984.4	2,977.7	2,968.2	7.1	7.1	123.12	38.6	-179.1	208.5	194.8	13.76	15.155		
3,100.0	3,082.5	3,075.8	3,065.4	7.5	7.4	124.71	41.7	-191.3	227.3	213.0	14.35	15.840		
3,200.0	3,180.5	3,173.8	3,162.6	7.9	7.7	126.06	44.8	-203.6	246.3	231.3	14.95	16.474		
3,300.0	3,278.5	3,271.8	3,259.8	8.3	8.0	127.22	47.9	-215.8	265.3	249.8	15.55	17.062		
3,400.0	3,376.6	3,369.9	3,357.1	8.6	8.3	128.22	50.9	-228.0	284.5	268.3	16.16	17.606		
3,500.0	3,474.6	3,467.9	3,454.3	9.0	8.6	129.09	54.0	-240.3	303.7	287.0	16.77	18.112		
3,600.0	3,572.7	3,565.9	3,551.5	9.4	9.0	129.86	57.1	-252.5	323.0	305.6	17.38	18.582		
3,700.0	3,670.7	3,664.0	3,648.7	9.8	9.3	130.55	60.2	-264.7	342.4	324.4	18.00	19.019		
3,800.0	3,768.7	3,762.0	3,745.9	10.3	9.6	131.16	63.2	-277.0	361.7	343.1	18.62	19.427		
3,900.0	3,866.8	3,860.0	3,843.2	10.7	9.9	131.71	66.3	-289.2	381.2	361.9	19.24	19.808		
4,000.0	3,964.8	3,958.1	3,940.4	11.1	10.2	132.20	69.4	-301.4	400.6	380.7	19.87	20.165		
4,100.0	4,062.9	4,056.1	4,037.6	11.5	10.5	132.65	72.5	-313.7	420.1	399.6	20.49	20.499		
4,200.0	4,160.9	4,154.1	4,134.8	11.9	10.8	133.06	75.5	-325.9	439.6	418.5	21.12	20.812		
4,300.0	4,258.9	4,252.2	4,232.0	12.3	11.1	133.44	78.6	-338.1	459.1	437.3	21.75	21.107		
4,400.0	4,357.0	4,350.2	4,329.3	12.7	11.5	133.78	81.7	-350.3	478.6	456.2	22.38	21.384		
4,500.0	4,455.0	4,448.3	4,426.5	13.2	11.8	134.10	84.8	-362.6	498.2	475.2	23.02	21.646		
4,600.0	4,553.1	4,546.3	4,523.7	13.6	12.1	134.39	87.8	-374.8	517.7	494.1	23.65	21.892		
4,700.0	4,651.1	4,644.3	4,620.9	14.0	12.4	134.67	90.9	-387.0	537.3	513.0	24.28	22.126		
4,800.0	4,749.1	4,742.4	4,718.1	14.4	12.7	134.92	94.0	-399.3	556.9	532.0	24.92	22.347		
4,900.0	4,847.2	4,840.4	4,815.4	14.9	13.0	135.15	97.1	-411.5	576.5	550.9	25.56	22.556		
5,000.0	4,945.2	4,938.4	4,912.6	15.3	13.4	135.38	100.1	-423.7	596.1	569.9	26.20	22.754		

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

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design		Crittter Creek Pad 15-11N-63W - Crittter Creek 562-1527H - Wellbore #1 - Plan 1 (Feb 14, 2017)											Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
5,100.0	5,043.3	5,036.5	5,009.8	15.7	13.7	135.58	103.2	-436.0	615.7	588.9	26.84	22.943			
5,200.0	5,141.3	5,134.5	5,107.0	16.2	14.0	135.78	106.3	-448.2	635.3	607.9	27.48	23.123			
5,300.0	5,239.3	5,232.5	5,204.2	16.6	14.3	135.96	109.4	-460.4	655.0	626.8	28.12	23.294			
5,400.0	5,337.4	5,330.6	5,301.5	17.0	14.6	136.13	112.4	-472.7	674.6	645.8	28.76	23.456			
5,500.0	5,435.4	5,428.6	5,398.7	17.5	15.0	136.29	115.5	-484.9	694.2	664.8	29.40	23.612			
5,600.0	5,533.5	5,526.6	5,495.9	17.9	15.3	136.44	118.6	-497.1	713.9	683.8	30.04	23.760			
5,700.0	5,631.5	5,624.7	5,593.1	18.3	15.6	136.59	121.7	-509.4	733.5	702.8	30.69	23.902			
5,800.0	5,729.5	5,722.7	5,690.3	18.8	15.9	136.73	124.7	-521.6	753.2	721.8	31.33	24.038			
5,900.0	5,827.6	5,820.7	5,787.6	19.2	16.2	136.86	127.8	-533.8	772.8	740.8	31.98	24.168			
6,000.0	5,925.6	5,925.5	5,891.5	19.6	16.5	137.03	130.9	-546.3	792.3	759.7	32.60	24.304			
6,010.2	5,935.6	5,936.7	5,902.7	19.7	16.6	137.06	131.2	-547.4	794.2	761.5	32.65	24.320			
6,900.0	6,821.7	8,144.7	7,582.0	21.4	23.0	-90.82	-700.5	-550.5	767.0	725.7	41.30	18.570			
6,945.1	6,866.8	8,144.7	7,582.0	21.5	23.0	-90.82	-700.5	-550.5	722.3	681.0	41.37	17.461			
6,950.0	6,871.7	8,144.7	7,582.0	21.5	23.0	-93.07	-700.4	-550.5	717.5	676.7	40.80	17.585			
7,000.0	6,921.7	8,142.6	7,582.0	21.5	23.0	-116.78	-698.4	-550.6	668.1	632.0	36.05	18.533			
7,050.0	6,971.3	8,137.0	7,582.0	21.5	22.9	-131.50	-692.8	-550.6	619.0	585.6	33.42	18.525			
7,100.0	7,020.5	8,128.0	7,582.0	21.5	22.8	-140.04	-683.8	-550.8	570.6	538.4	32.20	17.720			
7,150.0	7,068.9	8,115.6	7,582.0	21.5	22.7	-145.07	-671.4	-550.9	523.0	491.6	31.43	16.643			
7,200.0	7,116.4	8,099.8	7,582.0	21.4	22.5	-148.03	-655.6	-551.2	476.6	445.9	30.70	15.524			
7,250.0	7,162.6	8,080.8	7,582.0	21.3	22.3	-149.66	-636.5	-551.4	431.6	401.7	29.91	14.430			
7,300.0	7,207.4	8,058.6	7,582.0	21.2	22.1	-150.32	-614.3	-551.8	388.2	359.2	29.02	13.377			
7,350.0	7,250.5	8,033.3	7,582.0	21.1	21.8	-150.20	-589.0	-552.1	346.9	318.8	28.06	12.360			
7,400.0	7,291.7	7,991.2	7,581.2	21.0	21.4	-147.60	-547.0	-552.7	307.3	280.0	27.28	11.263			
7,450.0	7,330.9	7,946.6	7,577.7	20.8	21.0	-143.71	-502.5	-553.4	268.5	241.7	26.82	10.012			
7,500.0	7,367.8	7,905.1	7,571.9	20.6	20.7	-139.07	-461.5	-553.9	231.0	204.2	26.81	8.617			
7,550.0	7,402.3	7,866.1	7,564.4	20.5	20.4	-133.37	-423.2	-554.5	195.3	167.9	27.44	7.120			
7,600.0	7,434.2	7,829.1	7,555.3	20.3	20.2	-126.20	-387.3	-555.0	162.5	133.7	28.86	5.633			
7,650.0	7,463.3	7,793.6	7,544.8	20.1	20.0	-117.19	-353.4	-555.5	134.3	103.3	31.04	4.328			
7,700.0	7,489.5	7,759.3	7,533.1	19.9	19.8	-106.08	-321.1	-555.9	113.6	80.0	33.56	3.384			
7,750.0	7,512.7	7,726.0	7,520.3	19.8	19.6	-93.15	-290.4	-556.4	104.0	68.5	35.52	2.929			
7,760.1	7,517.0	7,719.4	7,517.6	19.7	19.6	-90.40	-284.4	-556.5	103.8	68.0	35.75	2.902 SF			
7,800.0	7,532.7	7,693.6	7,506.5	19.6	19.5	-79.48	-261.1	-556.8	108.0	72.1	35.93	3.006			
7,850.0	7,549.4	7,661.9	7,491.7	19.5	19.4	-66.55	-233.1	-557.2	123.4	88.9	34.53	3.574			
7,900.0	7,562.9	7,630.7	7,476.0	19.3	19.3	-55.45	-206.2	-557.6	146.0	114.2	31.88	4.581			
7,950.0	7,573.0	7,600.0	7,459.3	19.2	19.2	-46.47	-180.4	-557.9	172.5	143.7	28.81	5.987			
8,000.0	7,579.6	7,570.0	7,442.0	19.1	19.1	-39.47	-155.8	-558.3	200.7	174.7	25.96	7.730			
8,050.0	7,582.7	7,540.2	7,423.8	19.1	19.0	-33.98	-132.2	-558.6	229.5	205.9	23.62	9.718			
8,070.1	7,582.0	7,528.4	7,416.4	19.1	19.0	-32.30	-123.1	-558.8	239.9	217.0	22.93	10.461			
8,071.1	7,582.0	7,527.8	7,416.0	19.1	19.0	-32.24	-122.7	-558.8	240.5	217.6	22.91	10.496			
8,071.7	7,582.0	7,527.4	7,415.8	19.1	19.0	-32.20	-122.4	-558.8	240.8	217.9	22.89	10.520			
8,100.0	7,582.0	7,511.1	7,405.1	19.1	19.0	-30.64	-109.9	-558.9	257.5	235.2	22.29	11.552			
8,200.0	7,582.0	7,458.1	7,368.9	19.4	18.9	-26.22	-71.4	-559.5	321.5	300.7	20.77	15.481			
8,300.0	7,582.0	7,412.1	7,335.1	20.1	18.8	-23.07	-40.1	-559.9	391.7	371.8	19.89	19.698			
8,400.0	7,582.0	7,372.0	7,304.0	21.0	18.8	-20.75	-14.7	-560.3	466.8	447.3	19.45	24.001			
8,500.0	7,582.0	7,336.9	7,275.8	22.1	18.8	-19.00	6.0	-560.6	545.6	526.3	19.31	28.252			
8,600.0	7,582.0	7,300.0	7,245.0	23.2	18.7	-17.39	26.4	-560.9	627.6	608.3	19.27	32.568			
8,700.0	7,582.0	7,279.1	7,227.1	24.5	18.7	-16.57	37.2	-561.0	711.9	692.3	19.62	36.282			
8,800.0	7,582.0	7,250.0	7,201.7	25.8	18.7	-15.53	51.3	-561.2	798.3	778.4	19.87	40.164			

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 563-1527H - Wellbore #1 - Plan 1 (Feb 14, 2017)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	89.16	1.1	75.2	75.2					
100.0	100.0	99.0	99.0	0.1	0.1	89.16	1.1	75.2	75.2	75.0	0.22	336.180		
200.0	200.0	199.0	199.0	0.3	0.3	89.16	1.1	75.2	75.2	74.5	0.67	111.873		
300.0	300.0	299.0	299.0	0.6	0.6	89.16	1.1	75.2	75.2	74.1	1.12	67.034		
400.0	400.0	399.0	399.0	0.8	0.8	89.16	1.1	75.2	75.2	73.6	1.57	47.854		
500.0	500.0	499.0	499.0	1.0	1.0	89.16	1.1	75.2	75.2	73.2	2.02	37.208		
600.0	600.0	599.0	599.0	1.2	1.2	89.16	1.1	75.2	75.2	72.7	2.47	30.437		
700.0	700.0	699.0	699.0	1.5	1.5	89.16	1.1	75.2	75.2	72.3	2.92	25.751		
800.0	800.0	799.0	799.0	1.7	1.7	89.16	1.1	75.2	75.2	71.8	3.37	22.315		
900.0	900.0	899.0	899.0	1.9	1.9	89.16	1.1	75.2	75.2	71.4	3.82	19.688		
1,000.0	1,000.0	999.0	999.0	2.1	2.1	89.16	1.1	75.2	75.2	70.9	4.27	17.615		
1,100.0	1,100.0	1,099.0	1,099.0	2.4	2.4	89.16	1.1	75.2	75.2	70.5	4.72	15.936		
1,200.0	1,200.0	1,199.0	1,199.0	2.6	2.6	89.16	1.1	75.2	75.2	70.0	5.17	14.550		
1,300.0	1,300.0	1,299.0	1,299.0	2.8	2.8	89.16	1.1	75.2	75.2	69.6	5.62	13.385		
1,400.0	1,400.0	1,399.0	1,399.0	3.0	3.0	89.16	1.1	75.2	75.2	69.1	6.07	12.394		
1,500.0	1,500.0	1,499.0	1,499.0	3.3	3.3	89.16	1.1	75.2	75.2	68.7	6.52	11.539 CC, ES		
1,600.0	1,600.0	1,597.3	1,597.3	3.5	3.5	88.69	1.7	76.2	76.3	69.3	6.96	10.967		
1,700.0	1,700.0	1,695.5	1,695.4	3.7	3.7	87.35	3.7	79.5	79.6	72.2	7.39	10.776 SF		
1,800.0	1,800.0	1,794.7	1,794.4	3.9	3.9	-127.85	6.6	84.4	85.6	77.8	7.80	10.976		
1,900.0	1,899.9	1,894.2	1,893.8	4.1	4.1	-131.24	9.7	89.5	93.5	85.3	8.18	11.427		
2,000.0	1,999.7	1,993.4	1,992.8	4.3	4.3	-135.10	12.7	94.5	103.6	95.0	8.57	12.082		
2,100.0	2,099.3	2,092.4	2,091.6	4.5	4.6	-139.08	15.8	99.6	116.0	107.0	8.97	12.940		
2,200.0	2,198.6	2,190.9	2,189.9	4.7	4.8	-142.95	18.8	104.6	131.0	121.6	9.36	13.995		
2,300.0	2,297.5	2,288.9	2,287.8	4.9	5.0	-146.53	21.8	109.6	148.6	138.8	9.75	15.239		
2,400.0	2,396.1	2,386.4	2,385.1	5.2	5.2	-149.77	24.8	114.6	168.9	158.7	10.14	16.654		
2,457.4	2,452.5	2,442.1	2,440.7	5.3	5.4	-151.45	26.5	117.4	181.8	171.4	10.36	17.539		
2,500.0	2,494.2	2,483.3	2,481.8	5.4	5.5	-152.67	27.7	119.5	191.7	181.2	10.54	18.183		
2,600.0	2,592.3	2,580.1	2,578.5	5.7	5.7	-155.08	30.7	124.5	215.3	204.4	10.97	19.630		
2,700.0	2,690.3	2,676.9	2,675.1	6.1	5.9	-157.01	33.6	129.4	239.2	227.8	11.40	20.985		
2,800.0	2,788.3	2,773.7	2,771.7	6.4	6.2	-158.60	36.6	134.4	263.3	251.5	11.83	22.249		
2,900.0	2,886.4	2,870.5	2,868.4	6.8	6.4	-159.92	39.6	139.3	287.6	275.3	12.27	23.430		
3,000.0	2,984.4	2,967.4	2,965.0	7.1	6.6	-161.03	42.5	144.2	312.0	299.3	12.72	24.531		
3,100.0	3,082.5	3,064.2	3,061.7	7.5	6.9	-161.98	45.5	149.2	336.4	323.3	13.16	25.559		
3,200.0	3,180.5	3,161.0	3,158.3	7.9	7.1	-162.80	48.5	154.1	361.0	347.4	13.61	26.520		
3,300.0	3,278.5	3,257.8	3,255.0	8.3	7.3	-163.52	51.4	159.0	385.6	371.6	14.06	27.419		
3,400.0	3,376.6	3,354.6	3,351.6	8.6	7.6	-164.16	54.4	164.0	410.3	395.8	14.52	28.261		
3,500.0	3,474.6	3,451.4	3,448.3	9.0	7.8	-164.72	57.3	168.9	435.0	420.0	14.97	29.050		
3,600.0	3,572.7	3,548.3	3,544.9	9.4	8.0	-165.22	60.3	173.9	459.7	444.3	15.43	29.792		
3,700.0	3,670.7	3,645.1	3,641.5	9.8	8.3	-165.67	63.3	178.8	484.5	468.6	15.89	30.489		
3,800.0	3,768.7	3,741.9	3,738.2	10.3	8.5	-166.07	66.2	183.7	509.3	493.0	16.35	31.146		
3,900.0	3,866.8	3,838.7	3,834.8	10.7	8.7	-166.44	69.2	188.7	534.1	517.3	16.82	31.765		
4,000.0	3,964.8	3,935.5	3,931.5	11.1	9.0	-166.78	72.2	193.6	559.0	541.7	17.28	32.350		
4,100.0	4,062.9	4,032.3	4,028.1	11.5	9.2	-167.08	75.1	198.6	583.8	566.1	17.74	32.903		
4,200.0	4,160.9	4,129.2	4,124.8	11.9	9.4	-167.36	78.1	203.5	608.7	590.5	18.21	33.426		
4,300.0	4,258.9	4,226.0	4,221.4	12.3	9.7	-167.62	81.1	208.4	633.6	614.9	18.68	33.922		
4,400.0	4,357.0	4,322.8	4,318.1	12.7	9.9	-167.86	84.0	213.4	658.5	639.3	19.15	34.392		
4,500.0	4,455.0	4,419.6	4,414.7	13.2	10.2	-168.09	87.0	218.3	683.4	663.8	19.62	34.839		
4,600.0	4,553.1	4,516.4	4,511.3	13.6	10.4	-168.29	89.9	223.2	708.3	688.2	20.09	35.264		
4,700.0	4,651.1	4,613.2	4,608.0	14.0	10.6	-168.49	92.9	228.2	733.2	712.7	20.56	35.669		
4,800.0	4,749.1	4,710.1	4,704.6	14.4	10.9	-168.67	95.9	233.1	758.2	737.1	21.03	36.054		
4,900.0	4,847.2	4,806.9	4,801.3	14.9	11.1	-168.84	98.8	238.1	783.1	761.6	21.50	36.422		
7,450.0	7,330.9	7,919.3	7,577.6	20.8	19.5	100.62	-497.9	307.6	798.2	759.9	38.37	20.801		

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

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 563-1527H - Wellbore #1 - Plan 1 (Feb 14, 2017)												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	
7,500.0	7,367.8	7,877.9	7,571.8	20.6	19.1	99.06	-456.8	307.4	786.5	748.7	37.82	20.795	
7,550.0	7,402.3	7,838.8	7,564.2	20.5	18.7	97.48	-418.6	307.3	776.8	739.5	37.31	20.821	
7,600.0	7,434.2	7,801.8	7,555.1	20.3	18.4	95.85	-382.6	307.1	769.3	732.5	36.84	20.881	
7,650.0	7,463.3	7,766.2	7,544.6	20.1	18.1	94.16	-348.7	307.0	764.0	727.6	36.43	20.974	
7,700.0	7,489.5	7,731.9	7,532.9	19.9	17.9	92.40	-316.5	306.9	760.7	724.7	36.04	21.105	
7,750.0	7,512.7	7,698.7	7,520.1	19.8	17.7	90.57	-285.8	306.8	759.5	723.8	35.69	21.278	
7,756.6	7,515.5	7,694.4	7,518.3	19.8	17.6	90.32	-281.8	306.8	759.5	723.8	35.65	21.301	
7,800.0	7,532.7	7,666.2	7,506.2	19.6	17.5	88.67	-256.4	306.7	760.2	724.8	35.38	21.484	
7,850.0	7,549.4	7,634.5	7,491.4	19.5	17.3	86.71	-228.4	306.6	762.7	727.6	35.09	21.732	
7,900.0	7,562.9	7,603.4	7,475.7	19.3	17.1	84.70	-201.6	306.5	766.8	732.0	34.83	22.018	
7,950.0	7,573.0	7,572.8	7,459.1	19.2	17.0	82.65	-175.8	306.4	772.4	737.9	34.58	22.336	
8,000.0	7,579.6	7,542.6	7,441.7	19.1	16.9	80.59	-151.2	306.3	779.4	745.0	34.35	22.690	
8,050.0	7,582.7	7,512.8	7,423.4	19.1	16.8	78.51	-127.6	306.2	787.5	753.3	34.14	23.068	
8,070.1	7,582.0	7,500.0	7,415.3	19.1	16.8	77.70	-117.7	306.1	790.6	756.6	34.05	23.217	
8,071.1	7,582.0	7,500.0	7,415.3	19.1	16.8	77.70	-117.7	306.1	790.8	756.7	34.06	23.220	
8,071.7	7,582.0	7,500.0	7,415.3	19.1	16.8	77.70	-117.7	306.1	790.9	756.9	34.06	23.222	
8,100.0	7,582.0	7,483.7	7,404.7	19.1	16.7	76.95	-105.4	306.1	796.3	762.3	33.97	23.440	

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Critter Creek Pad 15-11N-63W - Critter Creek 564-1527H - Wellbore #1 - Plan 1 (Feb 14, 2017)													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	89.59	5.1	724.7	724.7					
100.0	100.0	98.0	98.0	0.1	0.1	89.59	5.1	724.7	724.7	724.5	0.22	3,256.742		
200.0	200.0	198.0	198.0	0.3	0.3	89.59	5.1	724.7	724.7	724.0	0.67	1,081.957		
300.0	300.0	298.0	298.0	0.6	0.6	89.59	5.1	724.7	724.7	723.6	1.12	647.436		
400.0	400.0	398.0	398.0	0.8	0.8	89.59	5.1	724.7	724.7	723.1	1.57	461.924		
500.0	500.0	498.0	498.0	1.0	1.0	89.59	5.1	724.7	724.7	722.7	2.02	359.046		
600.0	600.0	598.0	598.0	1.2	1.2	89.59	5.1	724.7	724.7	722.2	2.47	293.646		
700.0	700.0	698.0	698.0	1.5	1.5	89.59	5.1	724.7	724.7	721.8	2.92	248.400		
800.0	800.0	798.0	798.0	1.7	1.7	89.59	5.1	724.7	724.7	721.3	3.37	215.236		
900.0	900.0	898.0	898.0	1.9	1.9	89.59	5.1	724.7	724.7	720.9	3.82	189.884		
1,000.0	1,000.0	998.0	998.0	2.1	2.1	89.59	5.1	724.7	724.7	720.4	4.27	169.875		
1,100.0	1,100.0	1,098.0	1,098.0	2.4	2.4	89.59	5.1	724.7	724.7	720.0	4.72	153.681		
1,200.0	1,200.0	1,198.0	1,198.0	2.6	2.6	89.59	5.1	724.7	724.7	719.5	5.17	140.306		
1,300.0	1,300.0	1,298.0	1,298.0	2.8	2.8	89.59	5.1	724.7	724.7	719.1	5.61	129.073		
1,400.0	1,400.0	1,398.0	1,398.0	3.0	3.0	89.59	5.1	724.7	724.7	718.6	6.06	119.505		
1,500.0	1,500.0	1,498.0	1,498.0	3.3	3.3	89.59	5.1	724.7	724.7	718.2	6.51	111.257		
1,600.0	1,600.0	1,598.0	1,598.0	3.5	3.5	89.59	5.1	724.7	724.7	717.7	6.96	104.075		
1,700.0	1,700.0	1,698.0	1,698.0	3.7	3.7	89.59	5.1	724.7	724.7	717.3	7.41	97.763 CC, ES		
1,800.0	1,800.0	1,798.0	1,798.0	3.9	3.9	-123.21	5.1	724.7	725.4	717.6	7.83	92.590		
1,900.0	1,899.9	1,897.9	1,897.9	4.1	4.2	-123.44	5.1	724.7	727.6	719.3	8.23	88.381		
2,000.0	1,999.7	1,997.7	1,997.7	4.3	4.4	-123.82	5.1	724.7	731.2	722.6	8.63	84.686		
2,100.0	2,099.3	2,097.3	2,097.3	4.5	4.6	-124.35	5.1	724.7	736.3	727.3	9.04	81.431		
2,200.0	2,198.6	2,181.6	2,181.6	4.7	4.8	-124.91	5.5	725.5	744.0	734.6	9.42	78.991		
2,300.0	2,297.5	2,264.7	2,264.7	4.9	5.0	-125.59	6.5	728.0	755.4	745.6	9.80	77.078		
2,400.0	2,396.1	2,346.8	2,346.7	5.2	5.1	-126.36	8.1	732.1	770.6	760.4	10.19	75.589		
2,457.4	2,452.5	2,400.0	2,399.7	5.3	5.3	-126.93	9.6	735.6	781.1	770.6	10.44	74.812		
2,500.0	2,494.2	2,427.7	2,427.3	5.4	5.3	-127.30	10.4	737.7	789.5	778.9	10.61	74.422 SF		



Existing Wells Sec.15 (Fifth Creek) - Critter Creek 5-10H (Exist) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 1377-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
14,200.0	7,582.0	8,683.0	7,315.2	123.6	41.5	58.61	6,651.7	-24.1	759.3	624.1	135.15	5.618		
14,300.0	7,582.0	8,756.1	7,315.7	125.5	43.2	55.65	6,701.8	-77.4	693.1	558.9	134.21	5.164		
14,400.0	7,582.0	8,821.5	7,316.2	127.4	44.7	52.59	6,747.0	-124.6	628.8	496.2	132.63	4.741		
14,500.0	7,582.0	8,887.9	7,316.9	129.4	46.3	49.00	6,793.3	-172.2	566.7	436.9	129.86	4.364		
14,600.0	7,582.0	8,955.4	7,317.6	131.3	47.9	44.75	6,840.8	-220.2	507.4	381.9	125.55	4.042		
14,700.0	7,582.0	9,024.0	7,318.4	133.2	49.6	39.72	6,889.4	-268.6	451.8	332.5	119.28	3.787		
14,800.0	7,582.0	9,093.8	7,319.2	135.1	51.2	33.75	6,939.3	-317.3	401.0	290.2	110.72	3.622		
14,900.0	7,582.0	9,164.7	7,320.2	137.0	52.9	26.72	6,990.4	-366.5	356.7	256.9	99.82	3.574		
15,000.0	7,582.0	9,229.0	7,320.8	138.9	54.4	19.54	7,037.4	-410.4	322.0	233.0	89.03	3.617		
15,100.0	7,582.0	9,317.0	7,321.9	140.8	56.5	8.53	7,101.3	-470.8	298.5	222.2	76.30	3.913		
15,200.0	7,582.0	9,390.0	7,324.4	142.7	58.3	-1.42	7,153.5	-521.9	287.8	213.6	74.22	3.877		
15,216.0	7,582.0	9,401.6	7,324.8	143.0	58.6	-3.03	7,161.7	-530.0	287.6	212.6	74.96	3.836	CC	
15,300.0	7,582.0	9,462.2	7,327.1	144.6	60.0	-11.39	7,204.8	-572.6	293.4	210.0	83.37	3.519	ES	
15,400.0	7,582.0	9,531.4	7,330.0	146.6	61.7	-20.63	7,253.4	-621.7	314.9	215.5	99.47	3.166		
15,500.0	7,582.0	9,598.0	7,331.8	148.5	63.3	-28.66	7,300.2	-669.1	350.4	233.6	116.81	3.000		
15,600.0	7,582.0	9,670.7	7,332.4	150.4	65.1	-36.08	7,352.0	-720.1	395.7	261.7	134.05	2.952	SF	
15,700.0	7,582.0	9,743.2	7,333.0	152.3	66.9	-42.31	7,403.8	-770.7	447.1	298.2	148.90	3.002		
15,800.0	7,582.0	9,812.1	7,332.9	154.2	68.6	-47.19	7,453.5	-818.5	502.6	341.9	160.76	3.127		
15,900.0	7,582.0	9,876.4	7,332.6	156.1	70.1	-51.07	7,499.4	-863.6	561.9	391.6	170.36	3.299		
16,000.0	7,582.0	9,955.5	7,331.6	158.0	72.1	-55.06	7,555.3	-919.5	624.3	444.2	180.06	3.467		
16,100.0	7,582.0	10,045.2	7,332.5	160.0	74.3	-58.90	7,619.7	-981.9	686.4	497.1	189.28	3.626		
16,200.0	7,582.0	10,105.4	7,333.4	161.9	75.7	-61.09	7,663.2	-1,023.5	749.0	553.7	195.25	3.836		

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Offset Design Existing Wells Sec.15 (Fifth Creek) - Critter Creek 9-15H (Exist) - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 ft	
Survey Program: 1367-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)			
8,800.0	7,582.0	8,523.2	7,301.0	25.8	37.9	61.17	1,271.9	62.9	797.5	750.0	47.52	16.782		
8,900.0	7,582.0	8,592.6	7,301.2	27.3	39.6	58.79	1,321.1	14.0	732.8	684.0	48.72	15.039		
9,000.0	7,582.0	8,662.9	7,301.4	28.7	41.2	56.04	1,371.6	-35.1	669.8	620.1	49.69	13.480		
9,100.0	7,582.0	8,723.7	7,301.8	30.2	42.6	53.27	1,414.7	-77.9	607.6	557.2	50.38	12.059		
9,200.0	7,582.0	8,792.3	7,302.0	31.8	44.2	49.75	1,464.8	-124.7	549.0	498.3	50.63	10.843		
9,300.0	7,582.0	8,866.6	7,302.2	33.4	46.0	45.25	1,519.1	-175.4	492.6	442.6	50.06	9.840		
9,400.0	7,582.0	8,940.6	7,302.5	35.0	47.7	39.90	1,573.1	-226.1	439.4	390.9	48.55	9.052		
9,500.0	7,582.0	9,014.5	7,302.7	36.7	49.5	33.56	1,626.9	-276.7	390.7	344.9	45.88	8.516		
9,600.0	7,582.0	9,088.1	7,302.9	38.3	51.2	26.13	1,680.4	-327.3	348.5	306.4	42.10	8.278		
9,700.0	7,582.0	9,161.6	7,303.2	40.0	53.0	17.63	1,733.7	-377.8	315.3	277.5	37.76	8.349		
9,800.0	7,582.0	9,234.8	7,303.4	41.7	54.7	8.24	1,786.8	-428.2	294.4	259.8	34.54	8.522		
9,885.6	7,582.0	9,298.6	7,303.8	43.2	56.3	-0.66	1,831.5	-473.7	288.2	253.5	34.69	8.308 CC		
9,900.0	7,582.0	9,308.2	7,303.9	43.5	56.5	-2.06	1,838.0	-480.8	288.4	253.3	35.08	8.221 ES		
10,000.0	7,582.0	9,373.8	7,304.4	45.2	58.1	-11.74	1,880.7	-530.5	300.8	260.4	40.37	7.450		
10,100.0	7,582.0	9,431.6	7,304.7	47.0	59.6	-19.93	1,917.4	-575.3	331.3	283.5	47.78	6.933		
10,200.0	7,582.0	9,500.1	7,303.7	48.8	61.3	-28.45	1,961.5	-627.6	375.6	318.5	57.13	6.575		
10,300.0	7,582.0	9,587.3	7,302.7	50.6	63.4	-37.15	2,021.2	-691.1	425.9	358.3	67.65	6.297 SF		
10,400.0	7,582.0	9,644.8	7,303.2	52.4	64.8	-42.14	2,060.0	-733.6	481.9	407.5	74.42	6.475		
10,500.0	7,582.0	9,722.1	7,303.7	54.2	66.8	-47.77	2,112.6	-790.3	541.6	459.5	82.06	6.600		
10,600.0	7,582.0	9,822.7	7,304.4	56.0	69.2	-53.41	2,184.4	-860.7	601.0	511.1	89.93	6.683		
10,700.0	7,582.0	9,876.4	7,304.6	57.8	70.5	-55.91	2,222.8	-898.2	662.5	568.1	94.36	7.021		
10,800.0	7,582.0	9,939.4	7,305.0	59.6	72.1	-58.56	2,266.5	-943.5	727.3	628.3	99.02	7.344		
10,900.0	7,582.0	10,067.9	7,307.4	61.5	75.2	-62.97	2,359.1	-1,032.6	790.4	684.4	105.99	7.457		

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Critter Creek 512-1510H
Project:	Sec.15-T11N-R63W	TVD Reference:	WELL @ 5241.0ft (Original Well Elev)
Reference Site:	Critter Creek Pad 15-11N-63W	MD Reference:	WELL @ 5241.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Critter Creek 512-1510H	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 1 (Feb 14, 2017)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5241.0ft (Original Well Elev)

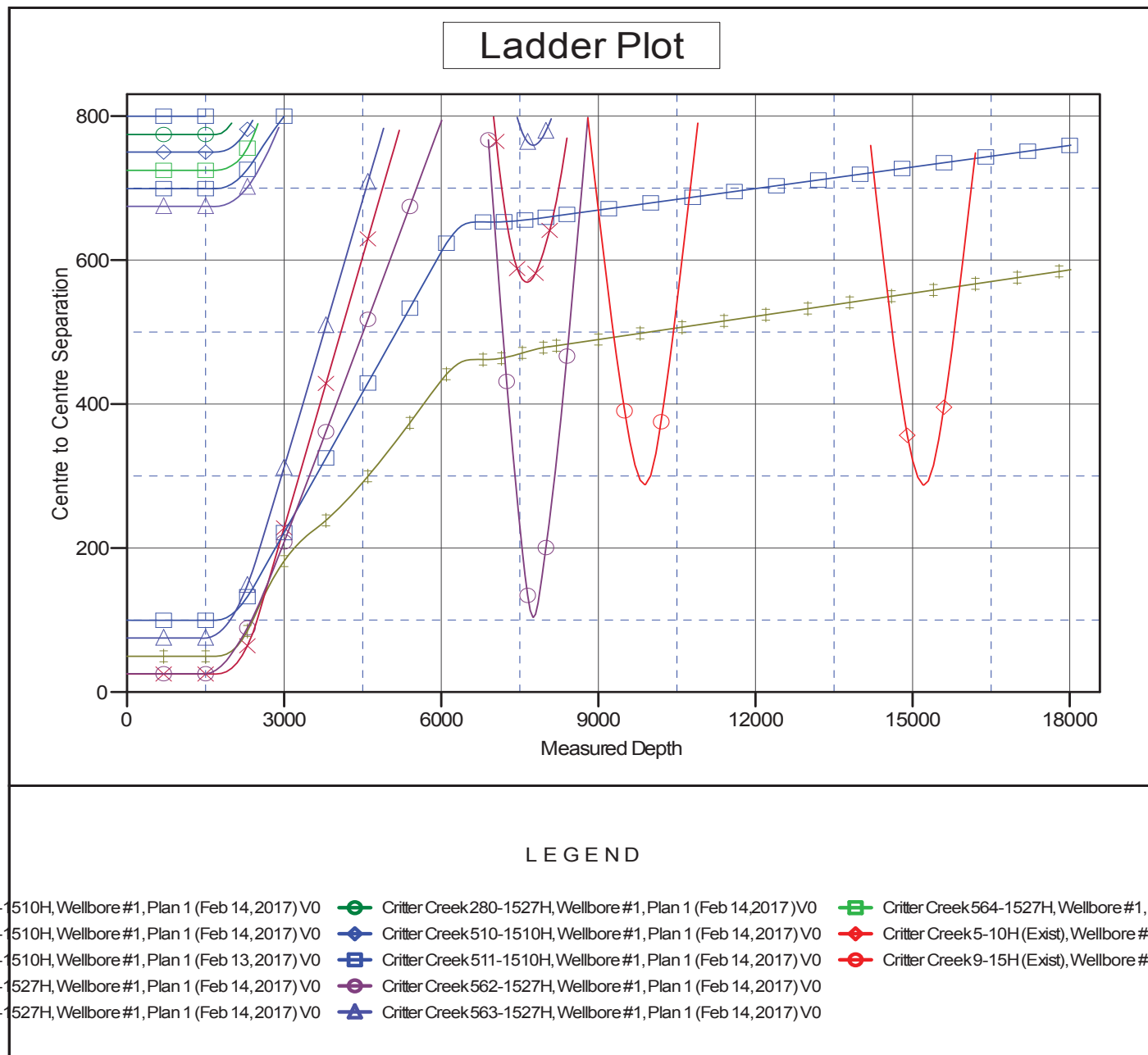
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: Critter Creek 512-1510H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.70°



Reference Depths are relative to WELL @ 5241.0ft (Original Well Elev)	Coordinates are relative to: Critter Creek 512-1510H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000	Grid Convergence at Surface is: 0.70°

