



PetroShare Corp

Project: ADAMS COUNTY, CO
Site: S19-T1S-R65W
Well: CONNER 19-18-2NXH
Wellbore: OH
Design: PLAN #1

PROJECT DETAILS: ADAMS COUNTY, CO
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone



Azimuths to Grid North
True North: -0.51°
Magnetic North: 7.50°

Magnetic Field
Strength: 51671.1nT
Dip Angle: 66.20°
Date: 12/31/2020
Model: HDGM2020_FILE

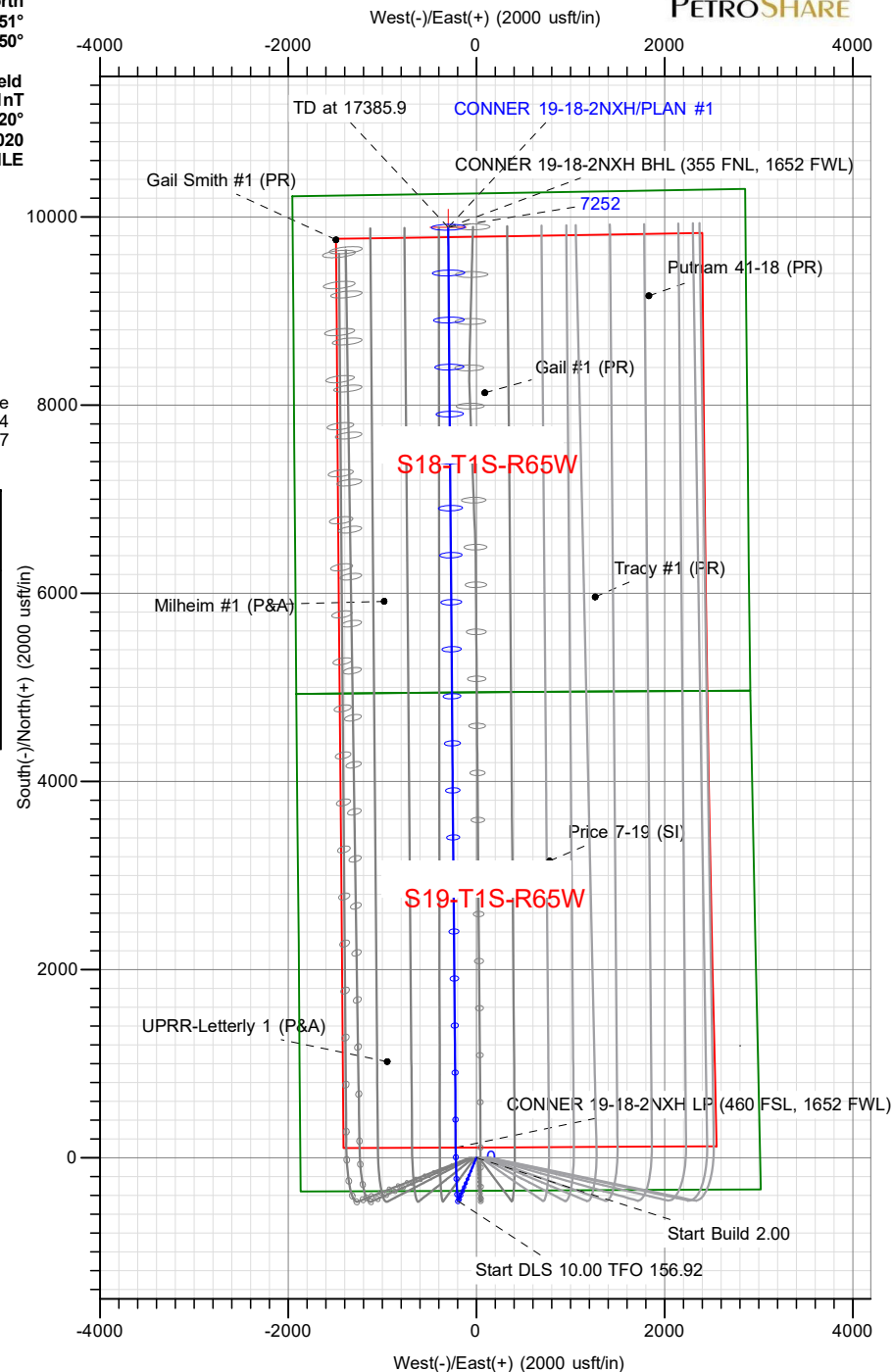
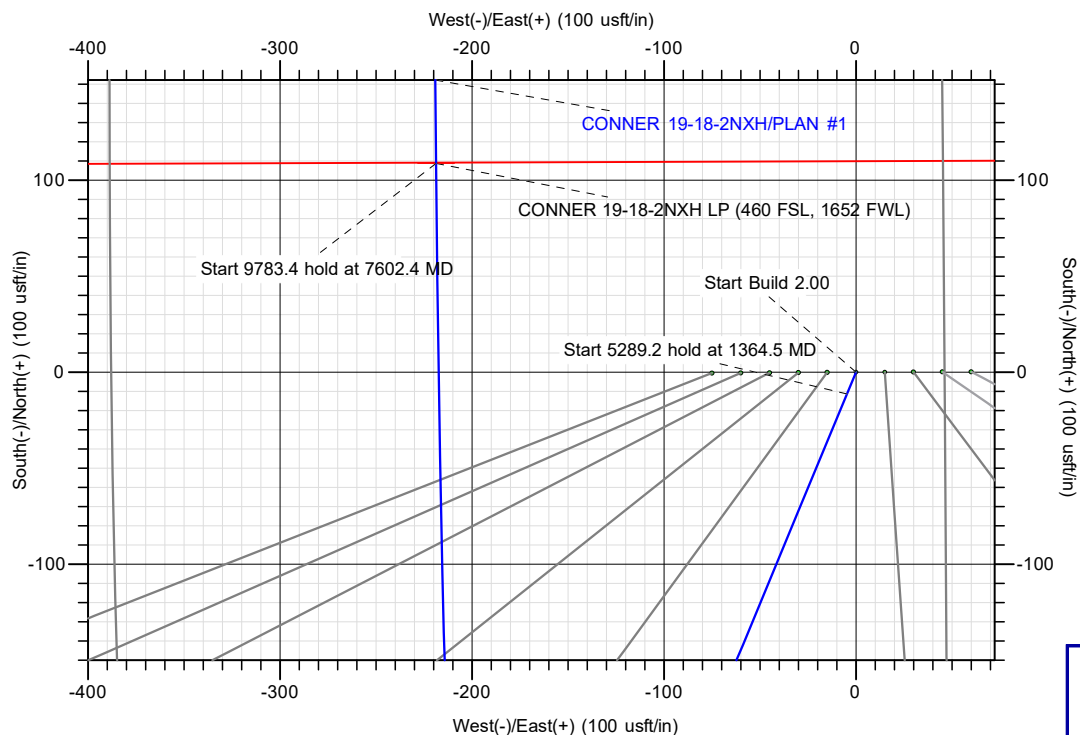


DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CONNER 19-18-2NXH BHL (355 FNL, 1652 FWL)	7252.0	9892.0	-299.5	1233446.76	3221785.35	39.971478	-104.708664
CONNER 19-18-2NXH LP (460 FSL, 1652 FWL)	7252.0	108.9	-218.6	1223663.65	3221866.27	39.944621	-104.708687

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	1100.0	0.00	0.00	1100.0	0.0	0.0	0.00	0.00	0.0	
3	1364.5	5.29	202.51	1364.2	-11.3	-4.7	2.00	202.51	-11.1	
4	6653.7	5.29	202.51	6630.8	-461.8	-191.4	0.00	0.00	-455.8	
5	7602.4	90.00	359.53	7252.0	108.9	-218.6	10.00	156.92	115.4	CONNER 19-18-2NXH LP (460 FSL, 1652 FWL)
6	17385.9	90.00	359.53	7252.0	9892.0	-299.5	0.00	0.00	9896.5	CONNER 19-18-2NXH BHL (355 FNL, 1652 FWL)



TOTAL DIRECTIONAL SERVICES LLC
671 Academy Ct, Windsor, CO 80550
Phone: (970) 460-9402

Plan: PLAN #1 (CONNER 19-18-2NXH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 17:27, March 12 2021
Approved: _____
Date: _____



PetroShare Corp

Project: ADAMS COUNTY, CO
Site: S19-T1S-R65W
Well: CONNER 19-18-2NXH
Wellbore: OH
Design: PLAN #1



Azimuths to Grid North
True North: -0.51°
Magnetic North: 7.50°

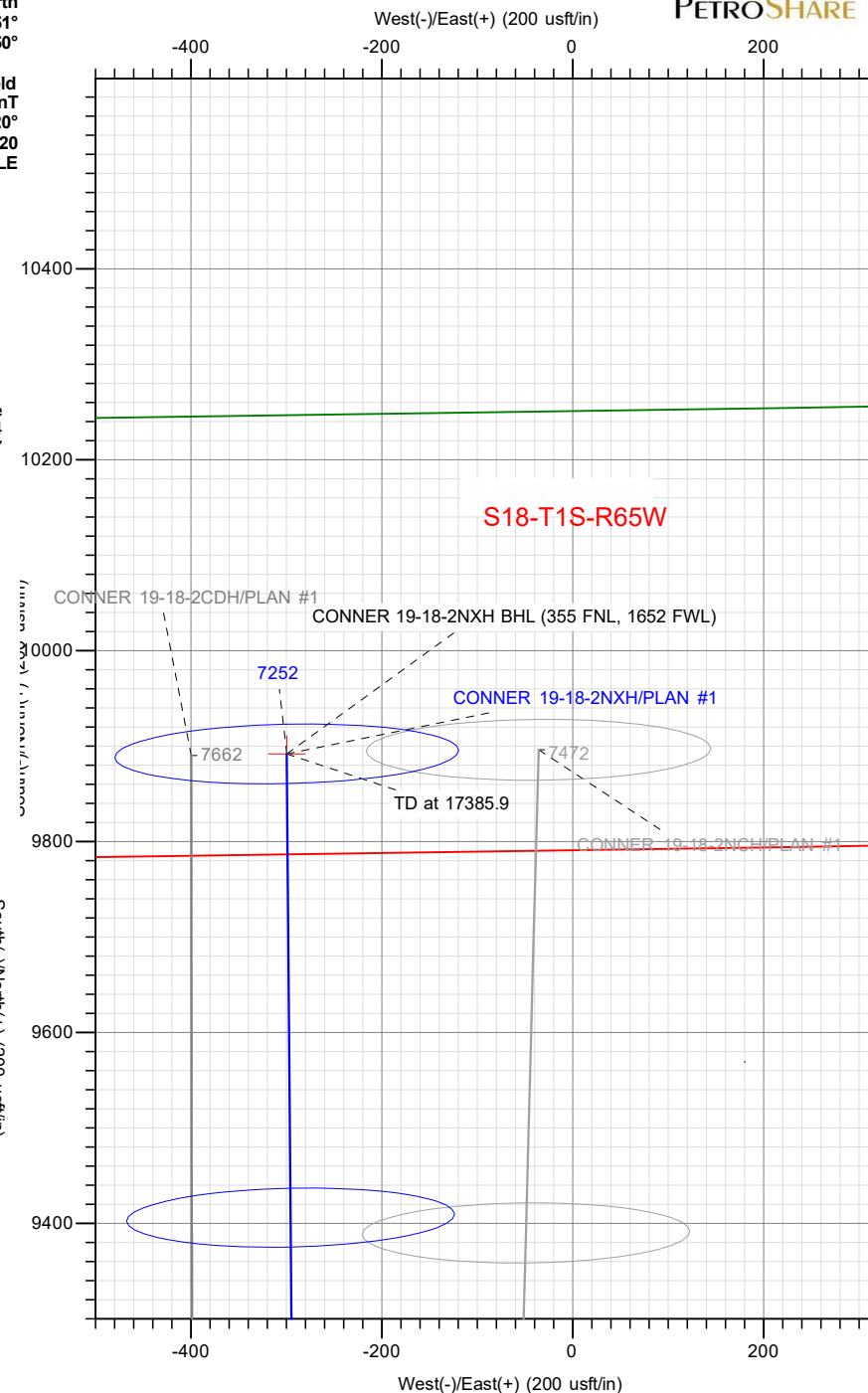
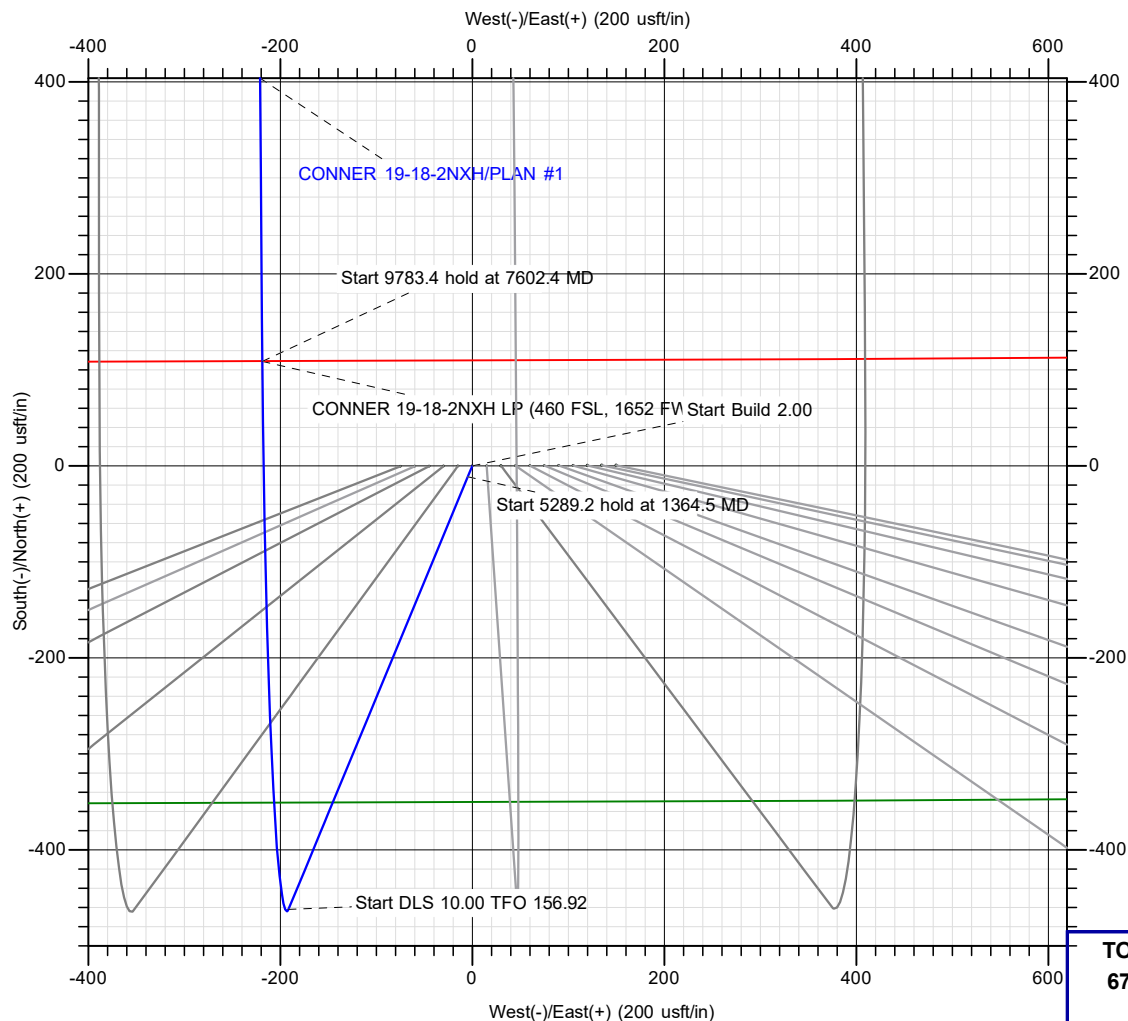
Magnetic Field
Strength: 51671.1nT
Dip Angle: 66.20°
Date: 12/31/2020
Model: HDGM2020_FILE



PROJECT DETAILS: ADAMS COUNTY, CO
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CONNER 19-18-2NXH BHL (355 FNL, 1652 FWL)	7252.0	9892.0	-299.5	1233446.76	3221785.35	39.971478	-104.708664
CONNER 19-18-2NXH LP (460 FSL, 1652 FWL)	7252.0	108.9	-218.6	1223663.65	3221866.27	39.944621	-104.708687



TOTAL DIRECTIONAL SERVICES LLC
671 Academy Ct, Windsor, CO 80550
Phone: (970) 460-9402

Plan: PLAN #1 (CONNER 19-18-2NXH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 17:29, March 12 2021
Approved: _____
Date: _____



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-2NXH

OH

Plan: PLAN #1

Standard Planning Report

12 March, 2021



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Company:	PetroShare Corp	TVD Reference:	13' KB @ 5155.0usft
Project:	ADAMS COUNTY, CO	MD Reference:	13' KB @ 5155.0usft
Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Project	ADAMS COUNTY, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site						S19-T1S-R65W											
Site Position:			Northing:			1,223,554.35 usft			Latitude:			39.944317					
From:			Map			Easting:			3,222,009.87 usft			Longitude:			-104.708179		
Position Uncertainty:			0.0 usft			Slot Radius:			13-3/16 "			Grid Convergence:			0.51		

Well	CONNER 19-18-2NXH					
Well Position	+N/-S	0.4 usft	Northing:	1,223,554.77 usft	Latitude:	39.944317
	+E/-W	75.0 usft	Easting:	3,222,084.87 usft	Longitude:	-104.707911
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,142.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020_FILE	12/31/2020	8.02	66.20	51,671.10000000

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	358.27

Plan Survey Tool Program	Date	3/12/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,385.9	PLAN #1 (OH)	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	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	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,364.5	5.29	202.51	1,364.2	-11.3	-4.7	2.00	2.00	0.00	202.51	
6,653.7	5.29	202.51	6,630.8	-461.8	-191.4	0.00	0.00	0.00	0.00	
7,602.4	90.00	359.53	7,252.0	108.9	-218.6	10.00	8.93	16.55	156.92	CONNER 19-18-2NXH
17,385.9	90.00	359.53	7,252.0	9,892.0	-299.5	0.00	0.00	0.00	0.00	CONNER 19-18-2NXH

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Company:	PetroShare Corp	TVD Reference:	13' KB @ 5155.0usft
Project:	ADAMS COUNTY, CO	MD Reference:	13' KB @ 5155.0usft
Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	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	2.00	202.51	1,200.0	-1.6	-0.7	-1.6	2.00	2.00	0.00
1,300.0	4.00	202.51	1,299.8	-6.4	-2.7	-6.4	2.00	2.00	0.00
1,364.5	5.29	202.51	1,364.2	-11.3	-4.7	-11.1	2.00	2.00	0.00
1,400.0	5.29	202.51	1,399.5	-14.3	-5.9	-14.1	0.00	0.00	0.00
1,500.0	5.29	202.51	1,499.0	-22.8	-9.5	-22.5	0.00	0.00	0.00
1,600.0	5.29	202.51	1,598.6	-31.3	-13.0	-30.9	0.00	0.00	0.00
1,700.0	5.29	202.51	1,698.2	-39.8	-16.5	-39.3	0.00	0.00	0.00
1,800.0	5.29	202.51	1,797.8	-48.4	-20.0	-47.7	0.00	0.00	0.00
1,900.0	5.29	202.51	1,897.3	-56.9	-23.6	-56.1	0.00	0.00	0.00
2,000.0	5.29	202.51	1,996.9	-65.4	-27.1	-64.6	0.00	0.00	0.00
2,100.0	5.29	202.51	2,096.5	-73.9	-30.6	-73.0	0.00	0.00	0.00
2,200.0	5.29	202.51	2,196.1	-82.4	-34.2	-81.4	0.00	0.00	0.00
2,300.0	5.29	202.51	2,295.6	-91.0	-37.7	-89.8	0.00	0.00	0.00
2,400.0	5.29	202.51	2,395.2	-99.5	-41.2	-98.2	0.00	0.00	0.00
2,500.0	5.29	202.51	2,494.8	-108.0	-44.8	-106.6	0.00	0.00	0.00
2,600.0	5.29	202.51	2,594.4	-116.5	-48.3	-115.0	0.00	0.00	0.00
2,700.0	5.29	202.51	2,693.9	-125.0	-51.8	-123.4	0.00	0.00	0.00
2,800.0	5.29	202.51	2,793.5	-133.5	-55.4	-131.8	0.00	0.00	0.00
2,900.0	5.29	202.51	2,893.1	-142.1	-58.9	-140.2	0.00	0.00	0.00
3,000.0	5.29	202.51	2,992.7	-150.6	-62.4	-148.6	0.00	0.00	0.00
3,100.0	5.29	202.51	3,092.2	-159.1	-65.9	-157.0	0.00	0.00	0.00
3,200.0	5.29	202.51	3,191.8	-167.6	-69.5	-165.4	0.00	0.00	0.00
3,300.0	5.29	202.51	3,291.4	-176.1	-73.0	-173.8	0.00	0.00	0.00
3,400.0	5.29	202.51	3,391.0	-184.7	-76.5	-182.3	0.00	0.00	0.00
3,500.0	5.29	202.51	3,490.5	-193.2	-80.1	-190.7	0.00	0.00	0.00
3,600.0	5.29	202.51	3,590.1	-201.7	-83.6	-199.1	0.00	0.00	0.00
3,700.0	5.29	202.51	3,689.7	-210.2	-87.1	-207.5	0.00	0.00	0.00
3,800.0	5.29	202.51	3,789.2	-218.7	-90.7	-215.9	0.00	0.00	0.00
3,900.0	5.29	202.51	3,888.8	-227.2	-94.2	-224.3	0.00	0.00	0.00
4,000.0	5.29	202.51	3,988.4	-235.8	-97.7	-232.7	0.00	0.00	0.00
4,100.0	5.29	202.51	4,088.0	-244.3	-101.3	-241.1	0.00	0.00	0.00
4,200.0	5.29	202.51	4,187.5	-252.8	-104.8	-249.5	0.00	0.00	0.00
4,300.0	5.29	202.51	4,287.1	-261.3	-108.3	-257.9	0.00	0.00	0.00
4,400.0	5.29	202.51	4,386.7	-269.8	-111.8	-266.3	0.00	0.00	0.00
4,500.0	5.29	202.51	4,486.3	-278.4	-115.4	-274.7	0.00	0.00	0.00
4,600.0	5.29	202.51	4,585.8	-286.9	-118.9	-283.1	0.00	0.00	0.00
4,700.0	5.29	202.51	4,685.4	-295.4	-122.4	-291.5	0.00	0.00	0.00
4,800.0	5.29	202.51	4,785.0	-303.9	-126.0	-300.0	0.00	0.00	0.00
4,900.0	5.29	202.51	4,884.6	-312.4	-129.5	-308.4	0.00	0.00	0.00
5,000.0	5.29	202.51	4,984.1	-320.9	-133.0	-316.8	0.00	0.00	0.00
5,100.0	5.29	202.51	5,083.7	-329.5	-136.6	-325.2	0.00	0.00	0.00
5,200.0	5.29	202.51	5,183.3	-338.0	-140.1	-333.6	0.00	0.00	0.00

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Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	5.29	202.51	5,282.9	-346.5	-143.6	-342.0	0.00	0.00	0.00
5,400.0	5.29	202.51	5,382.4	-355.0	-147.2	-350.4	0.00	0.00	0.00
5,500.0	5.29	202.51	5,482.0	-363.5	-150.7	-358.8	0.00	0.00	0.00
5,600.0	5.29	202.51	5,581.6	-372.0	-154.2	-367.2	0.00	0.00	0.00
5,700.0	5.29	202.51	5,681.2	-380.6	-157.7	-375.6	0.00	0.00	0.00
5,800.0	5.29	202.51	5,780.7	-389.1	-161.3	-384.0	0.00	0.00	0.00
5,900.0	5.29	202.51	5,880.3	-397.6	-164.8	-392.4	0.00	0.00	0.00
6,000.0	5.29	202.51	5,979.9	-406.1	-168.3	-400.8	0.00	0.00	0.00
6,100.0	5.29	202.51	6,079.5	-414.6	-171.9	-409.2	0.00	0.00	0.00
6,200.0	5.29	202.51	6,179.0	-423.2	-175.4	-417.7	0.00	0.00	0.00
6,300.0	5.29	202.51	6,278.6	-431.7	-178.9	-426.1	0.00	0.00	0.00
6,400.0	5.29	202.51	6,378.2	-440.2	-182.5	-434.5	0.00	0.00	0.00
6,500.0	5.29	202.51	6,477.7	-448.7	-186.0	-442.9	0.00	0.00	0.00
6,600.0	5.29	202.51	6,577.3	-457.2	-189.5	-451.3	0.00	0.00	0.00
6,653.7	5.29	202.51	6,630.8	-461.8	-191.4	-455.8	0.00	0.00	0.00
6,700.0	2.09	262.87	6,677.0	-463.9	-193.1	-457.8	10.00	-6.93	130.43
6,800.0	9.97	347.66	6,776.5	-455.6	-196.7	-449.5	10.00	7.89	84.79
6,900.0	19.86	353.78	6,873.0	-430.2	-200.4	-424.0	10.00	9.89	6.12
7,000.0	29.82	355.91	6,963.6	-388.4	-204.1	-382.1	10.00	9.96	2.13
7,100.0	39.80	357.04	7,045.6	-331.5	-207.5	-325.1	10.00	9.98	1.13
7,200.0	49.79	357.77	7,116.5	-261.2	-210.6	-254.7	10.00	9.99	0.74
7,300.0	59.78	358.32	7,174.1	-179.7	-213.4	-173.1	10.00	9.99	0.54
7,400.0	69.77	358.76	7,216.6	-89.3	-215.7	-82.8	10.00	9.99	0.44
7,500.0	79.77	359.15	7,242.9	7.0	-217.4	13.6	10.00	9.99	0.39
7,600.0	89.76	359.52	7,252.0	106.5	-218.6	113.0	10.00	9.99	0.37
7,602.4	90.00	359.53	7,252.0	108.9	-218.6	115.4	10.00	9.99	0.36
CONNER 19-18-2NXH PWB LP (460 FSL, 1652 FWL)									
7,700.0	90.00	359.53	7,252.0	206.5	-219.4	213.0	0.00	0.00	0.00
7,800.0	90.00	359.53	7,252.0	306.5	-220.2	313.0	0.00	0.00	0.00
7,900.0	90.00	359.53	7,252.0	406.5	-221.1	413.0	0.00	0.00	0.00
8,000.0	90.00	359.53	7,252.0	506.5	-221.9	512.9	0.00	0.00	0.00
8,100.0	90.00	359.53	7,252.0	606.4	-222.7	612.9	0.00	0.00	0.00
8,200.0	90.00	359.53	7,252.0	706.4	-223.5	712.9	0.00	0.00	0.00
8,300.0	90.00	359.53	7,252.0	806.4	-224.4	812.9	0.00	0.00	0.00
8,400.0	90.00	359.53	7,252.0	906.4	-225.2	912.8	0.00	0.00	0.00
8,500.0	90.00	359.53	7,252.0	1,006.4	-226.0	1,012.8	0.00	0.00	0.00
8,600.0	90.00	359.53	7,252.0	1,106.4	-226.9	1,112.8	0.00	0.00	0.00
8,700.0	90.00	359.53	7,252.0	1,206.4	-227.7	1,212.8	0.00	0.00	0.00
8,800.0	90.00	359.53	7,252.0	1,306.4	-228.5	1,312.7	0.00	0.00	0.00
8,900.0	90.00	359.53	7,252.0	1,406.4	-229.3	1,412.7	0.00	0.00	0.00
9,000.0	90.00	359.53	7,252.0	1,506.4	-230.2	1,512.7	0.00	0.00	0.00
9,100.0	90.00	359.53	7,252.0	1,606.4	-231.0	1,612.7	0.00	0.00	0.00
9,200.0	90.00	359.53	7,252.0	1,706.4	-231.8	1,712.6	0.00	0.00	0.00
9,300.0	90.00	359.53	7,252.0	1,806.4	-232.6	1,812.6	0.00	0.00	0.00
9,400.0	90.00	359.53	7,252.0	1,906.4	-233.5	1,912.6	0.00	0.00	0.00
9,500.0	90.00	359.53	7,252.0	2,006.4	-234.3	2,012.6	0.00	0.00	0.00
9,600.0	90.00	359.53	7,252.0	2,106.4	-235.1	2,112.5	0.00	0.00	0.00
9,700.0	90.00	359.53	7,252.0	2,206.4	-235.9	2,212.5	0.00	0.00	0.00
9,800.0	90.00	359.53	7,252.0	2,306.4	-236.8	2,312.5	0.00	0.00	0.00
9,900.0	90.00	359.53	7,252.0	2,406.4	-237.6	2,412.5	0.00	0.00	0.00
10,000.0	90.00	359.53	7,252.0	2,506.4	-238.4	2,512.5	0.00	0.00	0.00
10,100.0	90.00	359.53	7,252.0	2,606.4	-239.3	2,612.4	0.00	0.00	0.00
10,200.0	90.00	359.53	7,252.0	2,706.4	-240.1	2,712.4	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Company:	PetroShare Corp	TVD Reference:	13' KB @ 5155.0usft
Project:	ADAMS COUNTY, CO	MD Reference:	13' KB @ 5155.0usft
Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,300.0	90.00	359.53	7,252.0	2,806.4	-240.9	2,812.4	0.00	0.00	0.00
10,400.0	90.00	359.53	7,252.0	2,906.4	-241.7	2,912.4	0.00	0.00	0.00
10,500.0	90.00	359.53	7,252.0	3,006.4	-242.6	3,012.3	0.00	0.00	0.00
10,600.0	90.00	359.53	7,252.0	3,106.4	-243.4	3,112.3	0.00	0.00	0.00
10,700.0	90.00	359.53	7,252.0	3,206.4	-244.2	3,212.3	0.00	0.00	0.00
10,800.0	90.00	359.53	7,252.0	3,306.4	-245.0	3,312.3	0.00	0.00	0.00
10,900.0	90.00	359.53	7,252.0	3,406.4	-245.9	3,412.2	0.00	0.00	0.00
11,000.0	90.00	359.53	7,252.0	3,506.3	-246.7	3,512.2	0.00	0.00	0.00
11,100.0	90.00	359.53	7,252.0	3,606.3	-247.5	3,612.2	0.00	0.00	0.00
11,200.0	90.00	359.53	7,252.0	3,706.3	-248.4	3,712.2	0.00	0.00	0.00
11,300.0	90.00	359.53	7,252.0	3,806.3	-249.2	3,812.1	0.00	0.00	0.00
11,400.0	90.00	359.53	7,252.0	3,906.3	-250.0	3,912.1	0.00	0.00	0.00
11,500.0	90.00	359.53	7,252.0	4,006.3	-250.8	4,012.1	0.00	0.00	0.00
11,600.0	90.00	359.53	7,252.0	4,106.3	-251.7	4,112.1	0.00	0.00	0.00
11,700.0	90.00	359.53	7,252.0	4,206.3	-252.5	4,212.0	0.00	0.00	0.00
11,800.0	90.00	359.53	7,252.0	4,306.3	-253.3	4,312.0	0.00	0.00	0.00
11,900.0	90.00	359.53	7,252.0	4,406.3	-254.1	4,412.0	0.00	0.00	0.00
12,000.0	90.00	359.53	7,252.0	4,506.3	-255.0	4,512.0	0.00	0.00	0.00
12,100.0	90.00	359.53	7,252.0	4,606.3	-255.8	4,611.9	0.00	0.00	0.00
12,200.0	90.00	359.53	7,252.0	4,706.3	-256.6	4,711.9	0.00	0.00	0.00
12,300.0	90.00	359.53	7,252.0	4,806.3	-257.5	4,811.9	0.00	0.00	0.00
12,400.0	90.00	359.53	7,252.0	4,906.3	-258.3	4,911.9	0.00	0.00	0.00
12,500.0	90.00	359.53	7,252.0	5,006.3	-259.1	5,011.8	0.00	0.00	0.00
12,600.0	90.00	359.53	7,252.0	5,106.3	-259.9	5,111.8	0.00	0.00	0.00
12,700.0	90.00	359.53	7,252.0	5,206.3	-260.8	5,211.8	0.00	0.00	0.00
12,800.0	90.00	359.53	7,252.0	5,306.3	-261.6	5,311.8	0.00	0.00	0.00
12,900.0	90.00	359.53	7,252.0	5,406.3	-262.4	5,411.7	0.00	0.00	0.00
13,000.0	90.00	359.53	7,252.0	5,506.3	-263.2	5,511.7	0.00	0.00	0.00
13,100.0	90.00	359.53	7,252.0	5,606.3	-264.1	5,611.7	0.00	0.00	0.00
13,200.0	90.00	359.53	7,252.0	5,706.3	-264.9	5,711.7	0.00	0.00	0.00
13,300.0	90.00	359.53	7,252.0	5,806.3	-265.7	5,811.7	0.00	0.00	0.00
13,400.0	90.00	359.53	7,252.0	5,906.3	-266.6	5,911.6	0.00	0.00	0.00
13,500.0	90.00	359.53	7,252.0	6,006.3	-267.4	6,011.6	0.00	0.00	0.00
13,600.0	90.00	359.53	7,252.0	6,106.3	-268.2	6,111.6	0.00	0.00	0.00
13,700.0	90.00	359.53	7,252.0	6,206.3	-269.0	6,211.6	0.00	0.00	0.00
13,800.0	90.00	359.53	7,252.0	6,306.3	-269.9	6,311.5	0.00	0.00	0.00
13,900.0	90.00	359.53	7,252.0	6,406.2	-270.7	6,411.5	0.00	0.00	0.00
14,000.0	90.00	359.53	7,252.0	6,506.2	-271.5	6,511.5	0.00	0.00	0.00
14,100.0	90.00	359.53	7,252.0	6,606.2	-272.3	6,611.5	0.00	0.00	0.00
14,200.0	90.00	359.53	7,252.0	6,706.2	-273.2	6,711.4	0.00	0.00	0.00
14,300.0	90.00	359.53	7,252.0	6,806.2	-274.0	6,811.4	0.00	0.00	0.00
14,400.0	90.00	359.53	7,252.0	6,906.2	-274.8	6,911.4	0.00	0.00	0.00
14,500.0	90.00	359.53	7,252.0	7,006.2	-275.7	7,011.4	0.00	0.00	0.00
14,600.0	90.00	359.53	7,252.0	7,106.2	-276.5	7,111.3	0.00	0.00	0.00
14,700.0	90.00	359.53	7,252.0	7,206.2	-277.3	7,211.3	0.00	0.00	0.00
14,800.0	90.00	359.53	7,252.0	7,306.2	-278.1	7,311.3	0.00	0.00	0.00
14,900.0	90.00	359.53	7,252.0	7,406.2	-279.0	7,411.3	0.00	0.00	0.00
15,000.0	90.00	359.53	7,252.0	7,506.2	-279.8	7,511.2	0.00	0.00	0.00
15,100.0	90.00	359.53	7,252.0	7,606.2	-280.6	7,611.2	0.00	0.00	0.00
15,200.0	90.00	359.53	7,252.0	7,706.2	-281.4	7,711.2	0.00	0.00	0.00
15,300.0	90.00	359.53	7,252.0	7,806.2	-282.3	7,811.2	0.00	0.00	0.00
15,400.0	90.00	359.53	7,252.0	7,906.2	-283.1	7,911.1	0.00	0.00	0.00
15,500.0	90.00	359.53	7,252.0	8,006.2	-283.9	8,011.1	0.00	0.00	0.00
15,600.0	90.00	359.53	7,252.0	8,106.2	-284.7	8,111.1	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Company:	PetroShare Corp	TVD Reference:	13' KB @ 5155.0usft
Project:	ADAMS COUNTY, CO	MD Reference:	13' KB @ 5155.0usft
Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,700.0	90.00	359.53	7,252.0	8,206.2	-285.6	8,211.1	0.00	0.00	0.00
15,800.0	90.00	359.53	7,252.0	8,306.2	-286.4	8,311.0	0.00	0.00	0.00
15,900.0	90.00	359.53	7,252.0	8,406.2	-287.2	8,411.0	0.00	0.00	0.00
16,000.0	90.00	359.53	7,252.0	8,506.2	-288.1	8,511.0	0.00	0.00	0.00
16,100.0	90.00	359.53	7,252.0	8,606.2	-288.9	8,611.0	0.00	0.00	0.00
16,200.0	90.00	359.53	7,252.0	8,706.2	-289.7	8,711.0	0.00	0.00	0.00
16,300.0	90.00	359.53	7,252.0	8,806.2	-290.5	8,810.9	0.00	0.00	0.00
16,400.0	90.00	359.53	7,252.0	8,906.2	-291.4	8,910.9	0.00	0.00	0.00
16,500.0	90.00	359.53	7,252.0	9,006.2	-292.2	9,010.9	0.00	0.00	0.00
16,600.0	90.00	359.53	7,252.0	9,106.2	-293.0	9,110.9	0.00	0.00	0.00
16,700.0	90.00	359.53	7,252.0	9,206.2	-293.8	9,210.8	0.00	0.00	0.00
16,800.0	90.00	359.53	7,252.0	9,306.2	-294.7	9,310.8	0.00	0.00	0.00
16,900.0	90.00	359.53	7,252.0	9,406.1	-295.5	9,410.8	0.00	0.00	0.00
17,000.0	90.00	359.53	7,252.0	9,506.1	-296.3	9,510.8	0.00	0.00	0.00
17,100.0	90.00	359.53	7,252.0	9,606.1	-297.2	9,610.7	0.00	0.00	0.00
17,200.0	90.00	359.53	7,252.0	9,706.1	-298.0	9,710.7	0.00	0.00	0.00
17,300.0	90.00	359.53	7,252.0	9,806.1	-298.8	9,810.7	0.00	0.00	0.00
17,385.9	90.00	359.53	7,252.0	9,892.0	-299.5	9,896.5	0.00	0.00	0.00
CONNER 19-18-2NXH PWB BHL (355 FNL, 1652 FWL)									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CONNER 19-18-2NXH F - plan hits target center - Point	0.00	0.00	7,252.0	9,892.0	-299.5	1,233,446.76	3,221,785.35	39.971478	-104.708664
CONNER 19-18-2NXH F - plan hits target center - Point	0.00	0.01	7,252.0	108.9	-218.6	1,223,663.65	3,221,866.27	39.944621	-104.708687



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-2NXH

OH

PLAN #1

Anticollision Report

12 March, 2021



Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Reference	PLAN #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.0 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	3/12/2021		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	17,385.9	PLAN #1 (OH)		

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S19-T1S-R65W						
CONNER 19-18-1CDH - OH - PLAN #1	600.0	600.0	75.0	70.3	15.805	CC, ES
CONNER 19-18-1CDH - OH - PLAN #1	17,200.0	17,630.0	1,235.1	900.2	3.688	SF
CONNER 19-18-1NBH - OH - PLAN #1	900.0	900.0	30.0	26.5	8.628	CC, ES
CONNER 19-18-1NBH - OH - PLAN #1	17,385.9	17,429.8	464.4	284.3	2.579	SF
CONNER 19-18-1NCH - OH - PLAN #1	800.0	800.0	45.0	41.9	14.466	CC, ES
CONNER 19-18-1NCH - OH - PLAN #1	17,385.9	17,686.9	861.9	687.5	4.940	SF
CONNER 19-18-1NXH - OH - PLAN #1	700.0	700.0	60.0	54.5	10.936	CC, ES
CONNER 19-18-1NXH - OH - PLAN #1	17,200.0	17,270.0	1,091.4	738.6	3.094	SF
CONNER 19-18-2CDH - OH - PLAN #1	1,000.0	1,000.0	15.0	11.1	3.899	CC, ES
CONNER 19-18-2CDH - OH - PLAN #1	1,100.0	1,099.6	16.1	11.8	3.758	SF
CONNER 19-18-2NBH - OH - PLAN #1	1,100.0	1,100.0	30.0	25.8	7.140	CC, ES
CONNER 19-18-2NBH - OH - PLAN #1	17,385.9	17,546.4	645.6	469.1	3.659	SF
CONNER 19-18-2NCH - OH - PLAN #1	1,100.0	1,100.0	15.0	6.6	1.786	CC
CONNER 19-18-2NCH - OH - PLAN #1	1,200.0	1,200.0	15.8	6.5	1.701	ES
CONNER 19-18-2NCH - OH - PLAN #1	17,385.9	17,595.1	343.4	47.5	1.161	Level 2, SF
CONNER 19-18-3CDH - OH - PLAN #1	1,100.0	1,100.0	45.0	40.8	10.710	CC, ES
CONNER 19-18-3CDH - OH - PLAN #1	17,385.9	17,836.2	1,073.2	903.5	6.325	SF
CONNER 19-18-3NBH - OH - PLAN #1	900.0	900.0	90.0	86.6	25.914	CC, ES
CONNER 19-18-3NBH - OH - PLAN #1	17,385.9	17,669.2	1,724.1	1,544.2	9.585	SF
CONNER 19-18-3NCH - OH - PLAN #1	1,000.0	1,000.0	75.0	71.2	19.543	CC, ES
CONNER 19-18-3NCH - OH - PLAN #1	17,385.9	17,720.0	1,371.1	1,192.4	7.673	SF
CONNER 19-18-3NXH - OH - PLAN #1	1,100.0	1,100.0	60.0	55.8	14.289	CC, ES
CONNER 19-18-3NXH - OH - PLAN #1	17,385.9	17,441.2	1,256.0	1,075.8	6.971	SF
CONNER 19-18-4CDH - OH - PLAN #1	800.0	800.0	105.0	101.9	33.778	CC, ES
CONNER 19-18-4CDH - OH - PLAN #1	17,385.9	17,984.3	2,115.2	1,937.1	11.872	SF
CONNER 19-18-4NBH - OH - PLAN #1	500.0	500.0	150.0	148.0	75.035	CC, ES
CONNER 19-18-4NBH - OH - PLAN #1	1,000.0	971.4	190.5	186.7	50.468	SF
CONNER 19-18-4NCH - OH - PLAN #1	600.0	600.0	135.0	132.6	56.886	CC, ES
CONNER 19-18-4NCH - OH - PLAN #1	1,000.0	980.2	161.0	157.2	42.467	SF
CONNER 19-18-4NXH - OH - PLAN #1	700.0	700.0	120.0	117.2	43.754	CC, ES
CONNER 19-18-4NXH - OH - PLAN #1	1,100.0	1,082.1	146.1	141.9	35.250	SF
Gail #1 (PR) - EXISTING - NO SURVEYS (PR)	15,623.6	7,183.0	375.1	199.3	2.134	CC, ES, SF
Gail Smith #1 (PR) - EXISTING - NO SURVEYS (PR)	17,261.9	7,183.0	1,192.7	988.4	5.838	CC
Gail Smith #1 (PR) - EXISTING - NO SURVEYS (PR)	17,300.0	7,183.0	1,193.3	988.3	5.821	ES, SF
Milheim #1 (P&A) - EXISTING - NO SURVEYS (P&A)	13,415.4	7,183.0	712.7	575.1	5.177	CC, ES
Milheim #1 (P&A) - EXISTING - NO SURVEYS (P&A)	13,500.0	7,183.0	717.7	579.0	5.173	SF
Price 7-19 (SI) - EXISTING - NO SURVEYS (SI)	10,642.3	7,183.0	1,022.4	931.1	11.205	CC, ES

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S19-T1S-R65W						
Price 7-19 (SI) - EXISTING - NO SURVEYS (SI)	10,700.0	7,183.0	1,024.0	932.1	11.142	SF
Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)	16,640.1	7,183.0	2,126.7	1,933.3	10.993	CC
Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)	16,700.0	7,183.0	2,127.6	1,933.2	10.947	ES
Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)	16,800.0	7,183.0	2,132.7	1,937.2	10.906	SF
Tracy #1 (PR) - EXISTING - NO SURVEYS (PR)	13,443.9	7,183.0	1,529.5	1,391.4	11.072	CC, ES
Tracy #1 (PR) - EXISTING - NO SURVEYS (PR)	13,600.0	7,183.0	1,537.4	1,397.5	10.987	SF
UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)	8,523.2	7,183.0	720.9	660.0	11.838	CC, ES
UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)	8,600.0	7,183.0	725.0	663.0	11.700	SF

Offset Design

S19-T1S-R65W - CONNER 19-18-1CDH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.32	-0.4	-75.0	75.0				
100.0	100.0	100.0	100.0	0.4	0.4	-90.32	-0.4	-75.0	75.0	74.4	0.55	135.436	
200.0	200.0	200.0	200.0	1.0	1.0	-90.32	-0.4	-75.0	75.0	73.4	1.60	47.004	
300.0	300.0	300.0	300.0	1.5	1.5	-90.32	-0.4	-75.0	75.0	72.5	2.45	30.626	
400.0	400.0	400.0	400.0	1.9	1.9	-90.32	-0.4	-75.0	75.0	71.8	3.24	23.171	
500.0	500.0	500.0	500.0	2.3	2.3	-90.32	-0.4	-75.0	75.0	71.0	4.00	18.759	
600.0	600.0	600.0	600.0	2.7	2.7	-90.32	-0.4	-75.0	75.0	70.3	4.75	15.805	CC, ES
700.0	700.0	697.6	697.6	3.1	3.0	-90.77	-1.0	-76.5	76.6	71.0	5.55	13.794	
800.0	800.0	794.9	794.8	3.5	4.0	-92.01	-2.8	-81.2	81.4	74.4	7.00	11.627	
900.0	900.0	891.8	891.3	3.9	4.8	-93.77	-5.8	-88.8	89.4	81.2	8.26	10.828	
1,000.0	1,000.0	988.1	986.9	4.2	5.5	-95.75	-10.0	-99.4	100.8	91.4	9.39	10.728	
1,100.0	1,100.0	1,083.4	1,081.1	4.6	6.2	-97.72	-15.3	-112.9	115.5	105.0	10.44	11.062	
1,200.0	1,200.0	1,177.9	1,174.0	4.9	6.7	58.29	-21.7	-129.1	132.5	121.3	11.26	11.767	
1,300.0	1,299.8	1,276.2	1,270.3	5.7	6.9	58.04	-28.9	-147.6	149.6	137.5	12.08	12.381	
1,400.0	1,399.5	1,375.0	1,367.0	6.1	7.2	58.89	-36.2	-166.2	165.0	152.3	12.68	13.008	
1,500.0	1,499.0	1,473.8	1,463.8	6.4	7.5	59.93	-43.5	-184.8	180.0	166.8	13.26	13.580	
1,600.0	1,598.6	1,572.6	1,560.6	6.7	7.8	60.82	-50.8	-203.4	195.1	181.2	13.88	14.053	
1,700.0	1,698.2	1,671.4	1,657.3	7.1	8.1	61.57	-58.2	-222.0	210.3	195.7	14.53	14.471	
1,800.0	1,797.8	1,770.2	1,754.1	7.4	8.4	62.23	-65.5	-240.6	225.5	210.3	15.19	14.842	
1,900.0	1,897.3	1,869.1	1,850.9	7.7	8.7	62.80	-72.8	-259.2	240.7	224.8	15.87	15.167	
2,000.0	1,996.9	1,967.9	1,947.6	8.1	9.0	63.30	-80.1	-277.8	255.9	239.3	16.55	15.460	
2,100.0	2,096.5	2,066.7	2,044.4	8.4	9.4	63.75	-87.4	-296.4	271.1	253.9	17.25	15.721	
2,200.0	2,196.1	2,165.5	2,141.2	8.7	9.7	64.15	-94.7	-315.0	286.4	268.4	17.95	15.955	
2,300.0	2,295.6	2,264.3	2,237.9	9.1	10.1	64.51	-102.0	-333.6	301.6	283.0	18.66	16.165	
2,400.0	2,395.2	2,363.1	2,334.7	9.4	10.5	64.84	-109.3	-352.2	316.9	297.5	19.38	16.355	
2,500.0	2,494.8	2,461.9	2,431.5	9.8	10.9	65.13	-116.6	-370.8	332.2	312.1	20.10	16.526	
2,600.0	2,594.4	2,560.7	2,528.2	10.1	11.3	65.40	-123.9	-389.4	347.5	326.7	20.83	16.682	
2,700.0	2,693.9	2,659.5	2,625.0	10.5	11.8	65.65	-131.2	-408.0	362.8	341.2	21.57	16.823	
2,800.0	2,793.5	2,758.3	2,721.8	10.9	12.2	65.87	-138.5	-426.6	378.1	355.8	22.30	16.952	
2,900.0	2,893.1	2,857.2	2,818.5	11.2	12.7	66.08	-145.8	-445.2	393.4	370.4	23.05	17.071	
3,000.0	2,992.7	2,956.0	2,915.3	11.6	13.1	66.27	-153.2	-463.8	408.8	385.0	23.79	17.179	
3,100.0	3,092.2	3,054.8	3,012.1	11.9	13.6	66.45	-160.5	-482.4	424.1	399.5	24.54	17.279	
3,200.0	3,191.8	3,153.6	3,108.9	12.3	14.1	66.62	-167.8	-501.0	439.4	414.1	25.29	17.371	
3,300.0	3,291.4	3,252.4	3,205.6	12.7	14.6	66.78	-175.1	-519.6	454.7	428.7	26.05	17.457	
3,400.0	3,391.0	3,351.2	3,302.4	13.0	15.0	66.92	-182.4	-538.2	470.1	443.3	26.81	17.536	

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
3,500.0	3,490.5	3,450.0	3,399.2	13.4	15.5	67.06	-189.7	-556.8	485.4	457.8	27.57	17.609		
3,600.0	3,590.1	3,548.8	3,495.9	13.8	16.0	67.18	-197.0	-575.4	500.7	472.4	28.33	17.677		
3,700.0	3,689.7	3,647.6	3,592.7	14.2	16.5	67.30	-204.3	-594.0	516.1	487.0	29.09	17.740		
3,800.0	3,789.2	3,746.5	3,689.5	14.5	17.0	67.42	-211.6	-612.6	531.4	501.6	29.86	17.800		
3,900.0	3,888.8	3,845.3	3,786.2	14.9	17.5	67.52	-218.9	-631.2	546.8	516.1	30.62	17.855		
4,000.0	3,988.4	3,944.1	3,883.0	15.3	17.9	67.63	-226.2	-649.8	562.1	530.7	31.39	17.907		
4,100.0	4,088.0	4,042.9	3,979.8	15.7	18.4	67.72	-233.5	-668.4	577.5	545.3	32.16	17.956		
4,200.0	4,187.5	4,141.7	4,076.5	16.0	18.9	67.81	-240.8	-687.0	592.8	559.9	32.93	18.002		
4,300.0	4,287.1	4,240.5	4,173.3	16.4	19.4	67.90	-248.2	-705.6	608.2	574.5	33.70	18.045		
4,400.0	4,386.7	4,339.3	4,270.1	16.8	19.9	67.98	-255.5	-724.2	623.5	589.0	34.48	18.086		
4,500.0	4,486.3	4,438.1	4,366.8	17.2	20.4	68.06	-262.8	-742.8	638.9	603.6	35.25	18.124		
4,600.0	4,585.8	4,536.9	4,463.6	17.6	20.9	68.13	-270.1	-761.4	654.2	618.2	36.02	18.160		
4,700.0	4,685.4	4,635.8	4,560.4	17.9	21.4	68.20	-277.4	-780.0	669.6	632.8	36.80	18.195		
4,800.0	4,785.0	4,734.6	4,657.1	18.3	21.9	68.27	-284.7	-798.6	684.9	647.4	37.58	18.227		
4,900.0	4,884.6	4,833.4	4,753.9	18.7	22.4	68.34	-292.0	-817.2	700.3	661.9	38.36	18.258		
5,000.0	4,984.1	4,932.2	4,850.7	19.1	22.9	68.40	-299.3	-835.8	715.7	676.5	39.13	18.287		
5,100.0	5,083.7	5,031.0	4,947.5	19.5	23.4	68.46	-306.6	-854.4	731.0	691.1	39.91	18.315		
5,200.0	5,183.3	5,129.8	5,044.2	19.9	23.8	68.51	-313.9	-873.0	746.4	705.7	40.69	18.342		
5,300.0	5,282.9	5,228.6	5,141.0	20.2	24.3	68.57	-321.2	-891.6	761.7	720.3	41.47	18.367		
5,400.0	5,382.4	5,327.4	5,237.8	20.6	24.8	68.62	-328.5	-910.2	777.1	734.8	42.25	18.391		
5,500.0	5,482.0	5,426.2	5,334.5	21.0	25.3	68.67	-335.8	-928.8	792.5	749.4	43.04	18.414		
5,600.0	5,581.6	5,525.0	5,431.3	21.4	25.8	68.72	-343.1	-947.4	807.8	764.0	43.82	18.436		
5,700.0	5,681.2	5,623.9	5,528.1	21.8	26.3	68.77	-350.5	-966.0	823.2	778.6	44.60	18.457		
5,800.0	5,780.7	5,722.7	5,624.8	22.2	26.8	68.81	-357.8	-984.6	838.5	793.2	45.38	18.477		
5,900.0	5,880.3	5,821.5	5,721.6	22.6	27.3	68.86	-365.1	-1,003.2	853.9	807.7	46.17	18.496		
6,000.0	5,979.9	5,920.3	5,818.4	22.9	27.8	68.90	-372.4	-1,021.8	869.3	822.3	46.95	18.514		
6,100.0	6,079.5	6,019.1	5,915.1	23.3	28.3	68.94	-379.7	-1,040.4	884.6	836.9	47.74	18.532		
6,200.0	6,179.0	6,117.9	6,011.9	23.7	28.8	68.98	-387.0	-1,059.0	900.0	851.5	48.52	18.549		
6,300.0	6,278.6	6,216.7	6,108.7	24.1	29.3	69.01	-394.3	-1,077.6	915.4	866.1	49.31	18.565		
6,400.0	6,378.2	6,315.5	6,205.4	24.5	29.8	69.05	-401.6	-1,096.2	930.7	880.6	50.09	18.581		
6,500.0	6,477.7	6,414.3	6,302.2	24.9	30.3	69.09	-408.9	-1,114.8	946.1	895.2	50.88	18.596		
6,600.0	6,577.3	6,513.2	6,399.0	25.3	30.8	69.12	-416.2	-1,133.4	961.5	909.8	51.66	18.610		
6,700.0	6,677.0	6,611.9	6,495.7	25.7	31.3	9.48	-423.5	-1,152.0	976.8	924.3	52.44	18.626		
6,800.0	6,776.5	6,709.4	6,591.2	26.0	31.7	-74.57	-430.7	-1,170.4	991.4	938.3	53.07	18.680		
6,900.0	6,873.0	6,802.8	6,682.6	26.2	32.2	-80.84	-437.6	-1,187.9	1,005.7	952.2	53.50	18.798		
7,000.0	6,963.6	6,889.1	6,767.2	26.4	32.6	-83.65	-444.0	-1,204.2	1,020.7	967.0	53.79	18.978		
7,100.0	7,045.6	6,965.9	6,842.3	26.6	33.0	-85.52	-449.7	-1,218.6	1,038.1	984.2	53.96	19.237		
7,200.0	7,116.5	7,030.7	6,905.8	26.8	33.4	-86.56	-454.5	-1,230.8	1,059.5	1,005.4	54.09	19.588		
7,300.0	7,174.1	7,081.5	6,955.6	27.0	33.6	-86.47	-458.3	-1,240.4	1,086.3	1,032.1	54.22	20.035		
7,400.0	7,216.6	7,117.0	6,990.3	27.2	33.8	-84.96	-460.9	-1,247.1	1,119.4	1,065.0	54.40	20.576		
7,500.0	7,242.9	7,135.9	7,008.8	27.5	33.9	-81.81	-462.3	-1,250.6	1,158.7	1,104.0	54.66	21.199		
7,600.0	7,252.0	7,137.7	7,010.6	27.8	33.9	-77.02	-462.4	-1,251.0	1,203.2	1,148.2	54.97	21.889		
7,700.0	7,252.0	8,218.5	7,660.0	28.1	36.4	-109.34	196.8	-1,381.7	1,231.8	1,177.3	54.53	22.589		
7,800.0	7,252.0	8,318.5	7,660.0	28.6	36.5	-109.34	296.8	-1,382.5	1,231.8	1,176.5	55.33	22.262		
7,900.0	7,252.0	8,418.5	7,660.0	29.2	36.7	-109.34	396.8	-1,383.3	1,231.8	1,175.5	56.32	21.870		
8,000.0	7,252.0	8,518.5	7,660.0	29.9	36.9	-109.34	496.8	-1,384.2	1,231.8	1,174.3	57.50	21.424		
8,100.0	7,252.0	8,618.5	7,660.0	30.7	37.3	-109.34	596.8	-1,385.0	1,231.8	1,173.0	58.84	20.936		
8,200.0	7,252.0	8,718.5	7,660.0	31.5	37.8	-109.34	696.8	-1,385.8	1,231.8	1,171.5	60.34	20.415		
8,300.0	7,252.0	8,818.5	7,660.0	32.4	38.3	-109.34	796.8	-1,386.6	1,231.8	1,169.8	61.99	19.872		
8,400.0	7,252.0	8,918.5	7,660.0	33.4	39.0	-109.34	896.8	-1,387.5	1,231.8	1,168.1	63.77	19.317		
8,500.0	7,252.0	9,018.5	7,660.0	34.5	39.8	-109.34	996.8	-1,388.3	1,231.8	1,166.2	65.68	18.755		
8,600.0	7,252.0	9,118.5	7,660.0	35.6	40.6	-109.34	1,096.8	-1,389.1	1,231.8	1,164.1	67.70	18.195		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,700.0	7,252.0	9,218.5	7,660.0	36.8	41.6	-109.34	1,196.8	-1,390.0	1,231.8	1,162.0	69.83	17.641		
8,800.0	7,252.0	9,318.5	7,660.0	38.0	42.6	-109.34	1,296.8	-1,390.8	1,231.8	1,159.8	72.05	17.097		
8,900.0	7,252.0	9,418.5	7,660.0	39.2	43.6	-109.34	1,396.8	-1,391.6	1,231.8	1,157.5	74.36	16.567		
9,000.0	7,252.0	9,518.5	7,660.0	40.5	44.7	-109.34	1,496.8	-1,392.4	1,231.8	1,155.1	76.74	16.051		
9,100.0	7,252.0	9,618.5	7,660.0	41.9	45.9	-109.34	1,596.8	-1,393.3	1,231.8	1,152.6	79.20	15.553		
9,200.0	7,252.0	9,718.5	7,660.0	43.2	47.1	-109.34	1,696.8	-1,394.1	1,231.8	1,150.1	81.73	15.073		
9,300.0	7,252.0	9,818.5	7,660.0	44.6	48.3	-109.34	1,796.8	-1,394.9	1,231.8	1,147.5	84.31	14.611		
9,400.0	7,252.0	9,918.5	7,660.0	46.0	49.6	-109.34	1,896.8	-1,395.7	1,231.8	1,144.9	86.95	14.168		
9,500.0	7,252.0	10,018.5	7,660.0	47.5	50.8	-109.34	1,996.8	-1,396.6	1,231.9	1,142.2	89.63	13.743		
9,600.0	7,252.0	10,118.5	7,660.0	48.9	52.2	-109.34	2,096.8	-1,397.4	1,231.9	1,139.5	92.37	13.337		
9,700.0	7,252.0	10,218.5	7,660.0	50.4	53.5	-109.34	2,196.8	-1,398.2	1,231.9	1,136.7	95.14	12.948		
9,800.0	7,252.0	10,318.5	7,660.0	51.9	54.9	-109.34	2,296.8	-1,399.1	1,231.9	1,133.9	97.95	12.576		
9,900.0	7,252.0	10,418.5	7,660.0	53.4	56.3	-109.34	2,396.8	-1,399.9	1,231.9	1,131.1	100.79	12.222		
10,000.0	7,252.0	10,518.5	7,660.0	54.9	57.7	-109.34	2,496.8	-1,400.7	1,231.9	1,128.2	103.67	11.882		
10,100.0	7,252.0	10,618.5	7,660.0	56.5	59.2	-109.34	2,596.8	-1,401.5	1,231.9	1,125.3	106.58	11.558		
10,200.0	7,252.0	10,718.5	7,660.0	58.0	60.6	-109.34	2,696.7	-1,402.4	1,231.9	1,122.3	109.51	11.249		
10,300.0	7,252.0	10,818.5	7,660.0	59.6	62.1	-109.34	2,796.7	-1,403.2	1,231.9	1,119.4	112.47	10.953		
10,400.0	7,252.0	10,918.5	7,660.0	61.2	63.6	-109.34	2,896.7	-1,404.0	1,231.9	1,116.4	115.45	10.670		
10,500.0	7,252.0	11,018.5	7,660.0	62.8	65.1	-109.34	2,996.7	-1,404.9	1,231.9	1,113.4	118.45	10.400		
10,600.0	7,252.0	11,118.5	7,660.0	64.4	66.6	-109.34	3,096.7	-1,405.7	1,231.9	1,110.4	121.47	10.141		
10,700.0	7,252.0	11,218.5	7,660.0	66.0	68.1	-109.34	3,196.7	-1,406.5	1,231.9	1,107.4	124.51	9.894		
10,800.0	7,252.0	11,318.5	7,660.0	67.6	69.6	-109.34	3,296.7	-1,407.3	1,231.9	1,104.3	127.56	9.657		
10,900.0	7,252.0	11,418.5	7,660.0	69.2	71.2	-109.34	3,396.7	-1,408.2	1,231.9	1,101.2	130.63	9.430		
11,000.0	7,252.0	11,518.5	7,660.0	70.8	72.7	-109.34	3,496.7	-1,409.0	1,231.9	1,098.1	133.72	9.212		
11,100.0	7,252.0	11,618.5	7,660.0	72.5	74.3	-109.34	3,596.7	-1,409.8	1,231.9	1,095.0	136.82	9.004		
11,200.0	7,252.0	11,718.5	7,660.0	74.1	75.9	-109.34	3,696.7	-1,410.7	1,231.9	1,091.9	139.93	8.803		
11,300.0	7,252.0	11,818.5	7,660.0	75.7	77.5	-109.34	3,796.7	-1,411.5	1,231.9	1,088.8	143.06	8.611		
11,400.0	7,252.0	11,918.5	7,660.0	77.4	79.1	-109.34	3,896.7	-1,412.3	1,231.9	1,085.7	146.19	8.426		
11,500.0	7,252.0	12,018.5	7,660.0	79.1	80.7	-109.34	3,996.7	-1,413.1	1,231.9	1,082.5	149.34	8.249		
11,600.0	7,252.0	12,118.5	7,660.0	80.7	82.3	-109.34	4,096.7	-1,414.0	1,231.9	1,079.4	152.49	8.078		
11,700.0	7,252.0	12,218.5	7,660.0	82.4	83.9	-109.34	4,196.7	-1,414.8	1,231.9	1,076.2	155.66	7.914		
11,800.0	7,252.0	12,318.5	7,660.0	84.0	85.5	-109.34	4,296.7	-1,415.6	1,231.9	1,073.0	158.83	7.756		
11,900.0	7,252.0	12,418.5	7,660.0	85.7	87.1	-109.34	4,396.7	-1,416.5	1,231.9	1,069.9	162.01	7.604		
12,000.0	7,252.0	12,518.5	7,660.0	87.4	88.7	-109.34	4,496.7	-1,417.3	1,231.9	1,066.7	165.20	7.457		
12,100.0	7,252.0	12,618.5	7,660.0	89.1	90.4	-109.34	4,596.7	-1,418.1	1,231.9	1,063.5	168.39	7.315		
12,200.0	7,252.0	12,718.5	7,660.0	90.8	92.0	-109.34	4,696.7	-1,418.9	1,231.9	1,060.3	171.60	7.179		
12,300.0	7,252.0	12,818.5	7,660.0	92.4	93.7	-109.34	4,796.7	-1,419.8	1,231.9	1,057.1	174.81	7.047		
12,400.0	7,252.0	12,918.5	7,660.0	94.1	95.3	-109.34	4,896.7	-1,420.6	1,231.9	1,053.9	178.02	6.920		
12,500.0	7,252.0	13,018.5	7,660.0	95.8	97.0	-109.34	4,996.7	-1,421.4	1,231.9	1,050.6	181.24	6.797		
12,600.0	7,252.0	13,118.5	7,660.0	97.5	98.6	-109.34	5,096.7	-1,422.3	1,231.9	1,047.4	184.47	6.678		
12,700.0	7,252.0	13,218.5	7,660.0	99.2	100.3	-109.34	5,196.7	-1,423.1	1,231.9	1,044.2	187.70	6.563		
12,800.0	7,252.0	13,318.5	7,660.0	100.9	101.9	-109.34	5,296.7	-1,423.9	1,231.9	1,041.0	190.94	6.452		
12,900.0	7,252.0	13,418.5	7,660.0	102.6	103.6	-109.34	5,396.7	-1,424.7	1,231.9	1,037.7	194.18	6.344		
13,000.0	7,252.0	13,518.5	7,660.0	104.3	105.3	-109.34	5,496.7	-1,425.6	1,231.9	1,034.5	197.42	6.240		
13,100.0	7,252.0	13,618.5	7,660.0	106.0	107.0	-109.34	5,596.6	-1,426.4	1,231.9	1,031.2	200.67	6.139		
13,200.0	7,252.0	13,718.5	7,660.0	107.7	108.6	-109.34	5,696.6	-1,427.2	1,231.9	1,028.0	203.93	6.041		
13,300.0	7,252.0	13,818.5	7,660.0	109.5	110.3	-109.34	5,796.6	-1,428.1	1,231.9	1,024.7	207.18	5.946		
13,400.0	7,252.0	13,918.5	7,660.0	111.2	112.0	-109.34	5,896.6	-1,428.9	1,231.9	1,021.5	210.44	5.854		
13,500.0	7,252.0	14,018.5	7,660.0	112.9	113.7	-109.34	5,996.6	-1,429.7	1,231.9	1,018.2	213.71	5.764		
13,600.0	7,252.0	14,118.5	7,660.0	114.6	115.4	-109.34	6,096.6	-1,430.5	1,231.9	1,014.9	216.98	5.678		
13,700.0	7,252.0	14,218.5	7,660.0	116.3	117.0	-109.34	6,196.6	-1,431.4	1,231.9	1,011.7	220.25	5.593		
13,800.0	7,252.0	14,318.5	7,660.0	118.0	118.7	-109.34	6,296.6	-1,432.2	1,231.9	1,008.4	223.52	5.511		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
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		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)			
13,900.0	7,252.0	14,418.5	7,660.0	119.7	120.4	-109.34	6,396.6	-1,433.0	1,231.9	1,005.1	226.80	5.432		
14,000.0	7,252.0	14,518.5	7,660.0	121.5	122.1	-109.34	6,496.6	-1,433.9	1,231.9	1,001.8	230.08	5.354		
14,100.0	7,252.0	14,618.5	7,660.0	123.2	123.8	-109.34	6,596.6	-1,434.7	1,231.9	998.5	233.36	5.279		
14,200.0	7,252.0	14,718.5	7,660.0	124.9	125.5	-109.34	6,696.6	-1,435.5	1,231.9	995.3	236.65	5.206		
14,300.0	7,252.0	14,818.5	7,660.0	126.6	127.2	-109.34	6,796.6	-1,436.3	1,231.9	992.0	239.93	5.134		
14,400.0	7,252.0	14,918.5	7,660.0	128.4	128.9	-109.34	6,896.6	-1,437.2	1,231.9	988.7	243.22	5.065		
14,500.0	7,252.0	15,018.5	7,660.0	130.1	130.6	-109.34	6,996.6	-1,438.0	1,231.9	985.4	246.52	4.997		
14,600.0	7,252.0	15,118.5	7,660.0	131.8	132.3	-109.34	7,096.6	-1,438.8	1,231.9	982.1	249.81	4.931		
14,700.0	7,252.0	15,218.5	7,660.0	133.5	134.0	-109.34	7,196.6	-1,439.7	1,231.9	978.8	253.11	4.867		
14,800.0	7,252.0	15,318.5	7,660.0	135.3	135.7	-109.34	7,296.6	-1,440.5	1,231.9	975.5	256.40	4.805		
14,900.0	7,252.0	15,418.5	7,660.0	137.0	137.5	-109.34	7,396.6	-1,441.3	1,231.9	972.2	259.70	4.744		
15,000.0	7,252.0	15,518.5	7,660.0	138.7	139.2	-109.34	7,496.6	-1,442.1	1,231.9	968.9	263.01	4.684		
15,100.0	7,252.0	15,618.5	7,660.0	140.5	140.9	-109.34	7,596.6	-1,443.0	1,231.9	965.6	266.31	4.626		
15,200.0	7,252.0	15,718.5	7,660.0	142.2	142.6	-109.34	7,696.6	-1,443.8	1,231.9	962.3	269.62	4.569		
15,300.0	7,252.0	15,818.5	7,660.0	143.9	144.3	-109.34	7,796.6	-1,444.6	1,231.9	959.0	272.92	4.514		
15,400.0	7,252.0	15,918.5	7,660.0	145.7	146.0	-109.34	7,896.6	-1,445.5	1,231.9	955.7	276.23	4.460		
15,500.0	7,252.0	16,018.5	7,660.0	147.4	147.7	-109.34	7,996.6	-1,446.3	1,231.9	952.4	279.54	4.407		
15,600.0	7,252.0	16,118.5	7,660.0	149.1	149.5	-109.34	8,096.6	-1,447.1	1,231.9	949.1	282.85	4.355		
15,700.0	7,252.0	16,218.5	7,660.0	150.9	151.2	-109.34	8,196.6	-1,447.9	1,231.9	945.8	286.17	4.305		
15,800.0	7,252.0	16,318.5	7,660.0	152.6	152.9	-109.34	8,296.6	-1,448.8	1,231.9	942.4	289.48	4.256		
15,900.0	7,252.0	16,418.5	7,660.0	154.3	154.6	-109.34	8,396.6	-1,449.6	1,231.9	939.1	292.80	4.207		
16,000.0	7,252.0	16,518.5	7,660.0	156.1	156.3	-109.34	8,496.5	-1,450.4	1,231.9	935.8	296.12	4.160		
16,100.0	7,252.0	16,618.5	7,660.0	157.8	158.1	-109.34	8,596.5	-1,451.2	1,231.9	932.5	299.43	4.114		
16,200.0	7,252.0	16,718.5	7,660.0	159.6	159.8	-109.34	8,696.5	-1,452.1	1,231.9	929.2	302.75	4.069		
16,300.0	7,252.0	16,818.5	7,660.0	161.3	161.5	-109.34	8,796.5	-1,452.9	1,231.9	925.9	306.08	4.025		
16,400.0	7,252.0	16,918.5	7,660.0	163.0	163.2	-109.34	8,896.5	-1,453.7	1,231.9	922.5	309.40	3.982		
16,500.0	7,252.0	17,018.5	7,660.0	164.8	165.0	-109.34	8,996.5	-1,454.6	1,231.9	919.2	312.72	3.939		
16,600.0	7,252.0	17,118.5	7,660.0	166.5	166.7	-109.34	9,096.5	-1,455.4	1,231.9	915.9	316.04	3.898		
16,700.0	7,252.0	17,218.5	7,660.0	168.3	168.4	-109.34	9,196.5	-1,456.2	1,231.9	912.6	319.37	3.857		
16,800.0	7,252.0	17,318.5	7,660.0	170.0	170.2	-109.34	9,296.5	-1,457.0	1,231.9	909.2	322.70	3.818		
16,900.0	7,252.0	17,418.5	7,660.0	171.8	171.9	-109.34	9,396.5	-1,457.9	1,231.9	905.9	326.02	3.779		
17,000.0	7,252.0	17,518.5	7,660.0	173.5	173.6	-109.34	9,496.5	-1,458.7	1,231.9	902.6	329.35	3.741		
17,100.0	7,252.0	17,618.5	7,660.0	175.2	175.3	-109.34	9,596.5	-1,459.5	1,231.9	899.3	332.68	3.703		
17,200.0	7,252.0	17,630.0	7,660.0	177.0	175.5	-109.34	9,608.0	-1,459.6	1,235.1	900.2	334.95	3.688 SF		
17,300.0	7,252.0	17,630.0	7,660.0	178.7	175.5	-109.34	9,608.0	-1,459.6	1,246.3	911.2	335.10	3.719		
17,385.9	7,252.0	17,630.0	7,660.0	180.2	175.5	-109.34	9,608.0	-1,459.6	1,262.1	928.5	333.63	3.783		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.30	-0.2	-30.0	30.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.30	-0.2	-30.0	30.0	29.7	0.28	108.214		
200.0	200.0	200.0	200.0	1.0	0.0	-90.30	-0.2	-30.0	30.0	29.2	0.80	37.573		
300.0	300.0	300.0	300.0	1.5	0.0	-90.30	-0.2	-30.0	30.0	28.8	1.22	24.482		
400.0	400.0	400.0	400.0	1.9	0.0	-90.30	-0.2	-30.0	30.0	28.4	1.62	18.524		
500.0	500.0	500.0	500.0	2.3	0.0	-90.30	-0.2	-30.0	30.0	28.0	2.00	14.997		
600.0	600.0	600.0	600.0	2.7	0.0	-90.30	-0.2	-30.0	30.0	27.6	2.37	12.635		
700.0	700.0	700.0	700.0	3.1	0.0	-90.30	-0.2	-30.0	30.0	27.2	2.74	10.932		
800.0	800.0	800.0	800.0	3.5	0.0	-90.30	-0.2	-30.0	30.0	26.9	3.11	9.641		
900.0	900.0	900.0	900.0	3.9	0.0	-90.30	-0.2	-30.0	30.0	26.5	3.47	8.628 CC, ES		
1,000.0	1,000.0	999.1	999.1	4.2	0.0	-92.24	-1.2	-31.3	31.4	27.5	3.87	8.110		
1,100.0	1,100.0	1,098.1	1,097.9	4.6	0.0	-97.13	-4.4	-35.3	35.7	31.4	4.30	8.300		
1,200.0	1,200.0	1,196.6	1,196.1	4.9	0.0	56.26	-9.7	-42.0	42.3	37.6	4.67	9.052		
1,300.0	1,299.8	1,295.1	1,293.9	5.7	0.0	54.81	-17.1	-51.2	50.1	44.8	5.29	9.470		
1,400.0	1,399.5	1,394.9	1,392.7	6.1	0.0	55.88	-25.3	-61.6	57.1	51.5	5.63	10.150		
1,500.0	1,499.0	1,494.6	1,491.6	6.4	0.0	57.31	-33.6	-71.9	63.8	57.9	5.92	10.793		
1,600.0	1,598.6	1,594.4	1,590.5	6.7	0.0	58.48	-41.8	-82.3	70.6	64.3	6.25	11.300		
1,700.0	1,698.2	1,694.1	1,689.4	7.1	0.0	59.44	-50.0	-92.7	77.3	70.7	6.59	11.743		
1,800.0	1,797.8	1,793.9	1,788.3	7.4	0.0	60.25	-58.3	-103.0	84.1	77.2	6.93	12.132		
1,900.0	1,897.3	1,893.7	1,887.1	7.7	0.0	60.93	-66.5	-113.4	90.9	83.6	7.28	12.476		
2,000.0	1,996.9	1,993.4	1,986.0	8.1	0.0	61.52	-74.8	-123.7	97.7	90.0	7.64	12.782		
2,100.0	2,096.5	2,093.2	2,084.9	8.4	0.0	62.04	-83.0	-134.1	104.5	96.5	8.00	13.055		
2,200.0	2,196.1	2,193.0	2,183.8	8.7	0.0	62.49	-91.3	-144.4	111.3	102.9	8.37	13.300		
2,300.0	2,295.6	2,292.7	2,282.7	9.1	0.0	62.89	-99.5	-154.8	118.1	109.4	8.74	13.522		
2,400.0	2,395.2	2,392.5	2,381.5	9.4	0.0	63.24	-107.7	-165.2	124.9	115.8	9.11	13.723		
2,500.0	2,494.8	2,492.3	2,480.4	9.8	0.0	63.56	-116.0	-175.5	131.8	122.3	9.48	13.905		
2,600.0	2,594.4	2,592.0	2,579.3	10.1	0.0	63.85	-124.2	-185.9	138.6	128.8	9.85	14.072		
2,700.0	2,693.9	2,691.8	2,678.2	10.5	0.0	64.11	-132.5	-196.2	145.4	135.2	10.22	14.225		
2,800.0	2,793.5	2,791.5	2,777.1	10.9	0.0	64.35	-140.7	-206.6	152.3	141.7	10.60	14.365		
2,900.0	2,893.1	2,891.3	2,876.0	11.2	0.0	64.56	-149.0	-216.9	159.1	148.1	10.98	14.495		
3,000.0	2,992.7	2,991.1	2,974.8	11.6	0.0	64.76	-157.2	-227.3	166.0	154.6	11.36	14.615		
3,100.0	3,092.2	3,090.8	3,073.7	11.9	0.0	64.95	-165.4	-237.6	172.8	161.1	11.73	14.726		
3,200.0	3,191.8	3,190.6	3,172.6	12.3	0.0	65.11	-173.7	-248.0	179.7	167.5	12.11	14.830		
3,300.0	3,291.4	3,290.4	3,271.5	12.7	0.0	65.27	-181.9	-258.4	186.5	174.0	12.50	14.927		
3,400.0	3,391.0	3,390.1	3,370.4	13.0	0.0	65.42	-190.2	-268.7	193.4	180.5	12.88	15.017		
3,500.0	3,490.5	3,489.9	3,469.2	13.4	0.0	65.55	-198.4	-279.1	200.2	187.0	13.26	15.101		
3,600.0	3,590.1	3,589.7	3,568.1	13.8	0.0	65.68	-206.7	-289.4	207.1	193.4	13.64	15.180		
3,700.0	3,689.7	3,689.4	3,667.0	14.2	0.0	65.80	-214.9	-299.8	213.9	199.9	14.02	15.255		
3,800.0	3,789.2	3,789.2	3,765.9	14.5	0.0	65.91	-223.1	-310.1	220.8	206.4	14.41	15.325		
3,900.0	3,888.8	3,889.0	3,864.8	14.9	0.0	66.01	-231.4	-320.5	227.6	212.8	14.79	15.391		
4,000.0	3,988.4	3,988.7	3,963.7	15.3	0.0	66.11	-239.6	-330.9	234.5	219.3	15.17	15.453		
4,100.0	4,088.0	4,088.5	4,062.5	15.7	0.0	66.20	-247.9	-341.2	241.3	225.8	15.56	15.513		
4,200.0	4,187.5	4,188.2	4,161.4	16.0	0.0	66.29	-256.1	-351.6	248.2	232.2	15.94	15.569		
4,300.0	4,287.1	4,288.0	4,260.3	16.4	0.0	66.37	-264.4	-361.9	255.0	238.7	16.33	15.622		
4,400.0	4,386.7	4,387.8	4,359.2	16.8	0.0	66.45	-272.6	-372.3	261.9	245.2	16.71	15.672		
4,500.0	4,486.3	4,487.5	4,458.1	17.2	0.0	66.53	-280.9	-382.6	268.8	251.7	17.10	15.720		
4,600.0	4,585.8	4,587.3	4,556.9	17.6	0.0	66.60	-289.1	-393.0	275.6	258.1	17.48	15.766		
4,700.0	4,685.4	4,687.1	4,655.8	17.9	0.0	66.67	-297.3	-403.3	282.5	264.6	17.87	15.809		
4,800.0	4,785.0	4,786.8	4,754.7	18.3	0.0	66.73	-305.6	-413.7	289.3	271.1	18.25	15.851		
4,900.0	4,884.6	4,886.6	4,853.6	18.7	0.0	66.79	-313.8	-424.1	296.2	277.6	18.64	15.891		
5,000.0	4,984.1	4,986.4	4,952.5	19.1	0.0	66.85	-322.1	-434.4	303.1	284.0	19.03	15.929		
5,100.0	5,083.7	5,086.1	5,051.4	19.5	0.0	66.91	-330.3	-444.8	309.9	290.5	19.41	15.965		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,183.3	5,185.9	5,150.2	19.9	0.0	66.96	-338.6	-455.1	316.8	297.0	19.80	16.000		
5,300.0	5,282.9	5,285.6	5,249.1	20.2	0.0	67.01	-346.8	-465.5	323.6	303.4	20.18	16.033		
5,400.0	5,382.4	5,385.4	5,348.0	20.6	0.0	67.06	-355.0	-475.8	330.5	309.9	20.57	16.065		
5,500.0	5,482.0	5,485.2	5,446.9	21.0	0.0	67.11	-363.3	-486.2	337.4	316.4	20.96	16.096		
5,600.0	5,581.6	5,584.9	5,545.8	21.4	0.0	67.15	-371.5	-496.6	344.2	322.9	21.35	16.126		
5,700.0	5,681.2	5,684.7	5,644.7	21.8	0.0	67.19	-379.8	-506.9	351.1	329.3	21.73	16.154		
5,800.0	5,780.7	5,784.5	5,743.5	22.2	0.0	67.24	-388.0	-517.3	357.9	335.8	22.12	16.182		
5,900.0	5,880.3	5,884.2	5,842.4	22.6	0.0	67.28	-396.3	-527.6	364.8	342.3	22.51	16.208		
6,000.0	5,979.9	5,984.0	5,941.3	22.9	0.0	67.32	-404.5	-538.0	371.7	348.8	22.89	16.234		
6,100.0	6,079.5	6,083.8	6,040.2	23.3	0.0	67.35	-412.7	-548.3	378.5	355.2	23.28	16.258		
6,200.0	6,179.0	6,183.5	6,139.1	23.7	0.0	67.39	-421.0	-558.7	385.4	361.7	23.67	16.282		
6,300.0	6,278.6	6,283.3	6,237.9	24.1	0.0	67.42	-429.2	-569.1	392.2	368.2	24.06	16.305		
6,400.0	6,378.2	6,383.1	6,336.8	24.5	0.0	67.46	-437.5	-579.4	399.1	374.7	24.44	16.327		
6,500.0	6,477.7	6,482.8	6,435.7	24.9	0.0	67.49	-445.7	-589.8	406.0	381.1	24.83	16.348		
6,600.0	6,577.3	6,582.6	6,534.6	25.3	0.0	67.52	-454.0	-600.1	412.8	387.6	25.22	16.369		
6,700.0	6,677.0	6,682.3	6,633.4	25.7	0.0	7.34	-462.2	-610.5	419.7	394.1	25.61	16.389		
6,800.0	6,776.5	6,781.6	6,732.1	26.0	0.0	-78.10	-465.2	-620.8	426.5	400.6	25.95	16.439		
6,900.0	6,873.0	6,882.8	6,831.6	26.2	0.0	-84.90	-451.1	-631.5	433.5	407.3	26.18	16.556		
7,000.0	6,963.6	6,966.3	6,929.1	26.4	0.0	-87.66	-418.8	-642.0	440.4	414.0	26.38	16.693		
7,100.0	7,045.6	7,091.9	7,021.1	26.6	0.0	-89.33	-368.1	-652.1	446.8	420.3	26.54	16.834		
7,200.0	7,116.5	7,199.7	7,103.8	26.8	0.0	-90.50	-299.8	-661.4	452.6	425.9	26.68	16.961		
7,300.0	7,174.1	7,309.6	7,173.5	27.0	0.0	-91.35	-215.5	-669.4	457.5	430.6	26.83	17.053		
7,400.0	7,216.6	7,421.1	7,226.5	27.2	0.0	-91.95	-117.9	-675.8	461.2	434.2	26.99	17.085		
7,500.0	7,242.9	7,533.8	7,260.0	27.5	0.0	-92.32	-10.5	-680.3	463.5	436.3	27.21	17.036		
7,600.0	7,252.0	7,647.2	7,272.0	27.8	0.0	-92.47	102.1	-682.5	464.3	436.8	27.48	16.895		
7,700.0	7,252.0	7,747.8	7,272.0	28.1	0.0	-92.47	202.6	-683.3	464.3	436.5	27.88	16.654		
7,800.0	7,252.0	7,847.8	7,272.0	28.6	0.0	-92.47	302.6	-684.1	464.3	435.9	28.38	16.359		
7,900.0	7,252.0	7,947.8	7,272.0	29.2	0.0	-92.47	402.6	-684.9	464.3	435.3	28.99	16.019		
8,000.0	7,252.0	8,047.8	7,272.0	29.9	0.0	-92.47	502.6	-685.8	464.3	434.7	29.68	15.644		
8,100.0	7,252.0	8,147.8	7,272.0	30.7	0.0	-92.47	602.6	-686.6	464.3	433.9	30.46	15.243		
8,200.0	7,252.0	8,247.8	7,272.0	31.5	0.0	-92.47	702.6	-687.4	464.3	433.0	31.32	14.824		
8,300.0	7,252.0	8,347.8	7,272.0	32.4	0.0	-92.47	802.6	-688.3	464.3	432.1	32.26	14.394		
8,400.0	7,252.0	8,447.8	7,272.0	33.4	0.0	-92.47	902.6	-689.1	464.3	431.1	33.26	13.960		
8,500.0	7,252.0	8,547.8	7,272.0	34.5	0.0	-92.47	1,002.6	-689.9	464.3	430.0	34.32	13.528		
8,600.0	7,252.0	8,647.8	7,272.0	35.6	0.0	-92.47	1,102.6	-690.7	464.3	428.9	35.44	13.100		
8,700.0	7,252.0	8,747.8	7,272.0	36.8	0.0	-92.47	1,202.6	-691.6	464.3	427.7	36.61	12.682		
8,800.0	7,252.0	8,847.8	7,272.0	38.0	0.0	-92.47	1,302.6	-692.4	464.3	426.5	37.83	12.274		
8,900.0	7,252.0	8,947.8	7,272.0	39.2	0.0	-92.47	1,402.6	-693.2	464.3	425.2	39.09	11.879		
9,000.0	7,252.0	9,047.8	7,272.0	40.5	0.0	-92.47	1,502.6	-694.0	464.3	423.9	40.39	11.497		
9,100.0	7,252.0	9,147.8	7,272.0	41.9	0.0	-92.47	1,602.6	-694.9	464.3	422.6	41.72	11.131		
9,200.0	7,252.0	9,247.8	7,272.0	43.2	0.0	-92.47	1,702.6	-695.7	464.3	421.3	43.08	10.779		
9,300.0	7,252.0	9,347.8	7,272.0	44.6	0.0	-92.47	1,802.6	-696.5	464.3	419.9	44.47	10.442		
9,400.0	7,252.0	9,447.8	7,272.0	46.0	0.0	-92.47	1,902.6	-697.4	464.3	418.4	45.88	10.120		
9,500.0	7,252.0	9,547.8	7,272.0	47.5	0.0	-92.47	2,002.6	-698.2	464.3	417.0	47.32	9.812		
9,600.0	7,252.0	9,647.8	7,272.0	48.9	0.0	-92.47	2,102.6	-699.0	464.3	415.5	48.78	9.518		
9,700.0	7,252.0	9,747.8	7,272.0	50.4	0.0	-92.47	2,202.6	-699.8	464.3	414.1	50.27	9.238		
9,800.0	7,252.0	9,847.8	7,272.0	51.9	0.0	-92.47	2,302.6	-700.7	464.3	412.6	51.76	8.970		
9,900.0	7,252.0	9,947.8	7,272.0	53.4	0.0	-92.47	2,402.5	-701.5	464.3	411.1	53.28	8.715		
10,000.0	7,252.0	10,047.8	7,272.0	54.9	0.0	-92.47	2,502.5	-702.3	464.3	409.5	54.81	8.472		
10,100.0	7,252.0	10,147.8	7,272.0	56.5	0.0	-92.47	2,602.5	-703.1	464.3	408.0	56.35	8.240		
10,200.0	7,252.0	10,247.8	7,272.0	58.0	0.0	-92.47	2,702.5	-704.0	464.3	406.4	57.91	8.019		
10,300.0	7,252.0	10,347.8	7,272.0	59.6	0.0	-92.47	2,802.5	-704.8	464.3	404.9	59.47	7.808		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NBH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,400.0	7,252.0	10,447.8	7,272.0	61.2	0.0	-92.47	2,902.5	-705.6	464.3	403.3	61.05	7.606	
10,500.0	7,252.0	10,547.8	7,272.0	62.8	0.0	-92.47	3,002.5	-706.5	464.3	401.7	62.64	7.413	
10,600.0	7,252.0	10,647.8	7,272.0	64.4	0.0	-92.47	3,102.5	-707.3	464.3	400.1	64.24	7.229	
10,700.0	7,252.0	10,747.8	7,272.0	66.0	0.0	-92.47	3,202.5	-708.1	464.3	398.5	65.84	7.052	
10,800.0	7,252.0	10,847.8	7,272.0	67.6	0.0	-92.47	3,302.5	-708.9	464.3	396.9	67.46	6.884	
10,900.0	7,252.0	10,947.8	7,272.0	69.2	0.0	-92.47	3,402.5	-709.8	464.3	395.3	69.08	6.722	
11,000.0	7,252.0	11,047.8	7,272.0	70.8	0.0	-92.47	3,502.5	-710.6	464.3	393.6	70.70	6.567	
11,100.0	7,252.0	11,147.8	7,272.0	72.5	0.0	-92.47	3,602.5	-711.4	464.3	392.0	72.34	6.419	
11,200.0	7,252.0	11,247.8	7,272.0	74.1	0.0	-92.47	3,702.5	-712.2	464.3	390.4	73.98	6.277	
11,300.0	7,252.0	11,347.8	7,272.0	75.7	0.0	-92.47	3,802.5	-713.1	464.3	388.7	75.62	6.140	
11,400.0	7,252.0	11,447.8	7,272.0	77.4	0.0	-92.47	3,902.5	-713.9	464.3	387.1	77.28	6.009	
11,500.0	7,252.0	11,547.8	7,272.0	79.1	0.0	-92.47	4,002.5	-714.7	464.3	385.4	78.93	5.883	
11,600.0	7,252.0	11,647.8	7,272.0	80.7	0.0	-92.47	4,102.5	-715.6	464.3	383.7	80.59	5.762	
11,700.0	7,252.0	11,747.8	7,272.0	82.4	0.0	-92.47	4,202.5	-716.4	464.3	382.1	82.26	5.645	
11,800.0	7,252.0	11,847.8	7,272.0	84.0	0.0	-92.47	4,302.5	-717.2	464.3	380.4	83.93	5.533	
11,900.0	7,252.0	11,947.8	7,272.0	85.7	0.0	-92.47	4,402.5	-718.0	464.3	378.7	85.60	5.425	
12,000.0	7,252.0	12,047.8	7,272.0	87.4	0.0	-92.47	4,502.5	-718.9	464.3	377.1	87.28	5.320	
12,100.0	7,252.0	12,147.8	7,272.0	89.1	0.0	-92.47	4,602.5	-719.7	464.3	375.4	88.96	5.220	
12,200.0	7,252.0	12,247.8	7,272.0	90.8	0.0	-92.47	4,702.5	-720.5	464.3	373.7	90.64	5.123	
12,300.0	7,252.0	12,347.8	7,272.0	92.4	0.0	-92.47	4,802.5	-721.3	464.3	372.0	92.32	5.029	
12,400.0	7,252.0	12,447.8	7,272.0	94.1	0.0	-92.47	4,902.5	-722.2	464.3	370.3	94.01	4.939	
12,500.0	7,252.0	12,547.8	7,272.0	95.8	0.0	-92.47	5,002.5	-723.0	464.3	368.6	95.70	4.852	
12,600.0	7,252.0	12,647.8	7,272.0	97.5	0.0	-92.47	5,102.5	-723.8	464.3	366.9	97.40	4.767	
12,700.0	7,252.0	12,747.8	7,272.0	99.2	0.0	-92.47	5,202.5	-724.6	464.3	365.2	99.10	4.686	
12,800.0	7,252.0	12,847.8	7,272.0	100.9	0.0	-92.47	5,302.4	-725.5	464.3	363.5	100.79	4.607	
12,900.0	7,252.0	12,947.8	7,272.0	102.6	0.0	-92.47	5,402.4	-726.3	464.3	361.8	102.50	4.530	
13,000.0	7,252.0	13,047.8	7,272.0	104.3	0.0	-92.47	5,502.4	-727.1	464.3	360.1	104.20	4.456	
13,100.0	7,252.0	13,147.8	7,272.0	106.0	0.0	-92.47	5,602.4	-728.0	464.3	358.4	105.90	4.384	
13,200.0	7,252.0	13,247.8	7,272.0	107.7	0.0	-92.47	5,702.4	-728.8	464.3	356.7	107.61	4.315	
13,300.0	7,252.0	13,347.8	7,272.0	109.5	0.0	-92.47	5,802.4	-729.6	464.3	355.0	109.32	4.247	
13,400.0	7,252.0	13,447.8	7,272.0	111.2	0.0	-92.47	5,902.4	-730.4	464.3	353.3	111.03	4.182	
13,500.0	7,252.0	13,547.8	7,272.0	112.9	0.0	-92.47	6,002.4	-731.3	464.3	351.6	112.74	4.118	
13,600.0	7,252.0	13,647.8	7,272.0	114.6	0.0	-92.47	6,102.4	-732.1	464.3	349.9	114.46	4.057	
13,700.0	7,252.0	13,747.8	7,272.0	116.3	0.0	-92.47	6,202.4	-732.9	464.3	348.2	116.17	3.997	
13,800.0	7,252.0	13,847.8	7,272.0	118.0	0.0	-92.47	6,302.4	-733.7	464.3	346.4	117.89	3.939	
13,900.0	7,252.0	13,947.8	7,272.0	119.7	0.0	-92.47	6,402.4	-734.6	464.3	344.7	119.61	3.882	
14,000.0	7,252.0	14,047.8	7,272.0	121.5	0.0	-92.47	6,502.4	-735.4	464.3	343.0	121.33	3.827	
14,100.0	7,252.0	14,147.8	7,272.0	123.2	0.0	-92.47	6,602.4	-736.2	464.3	341.3	123.05	3.774	
14,200.0	7,252.0	14,247.8	7,272.0	124.9	0.0	-92.47	6,702.4	-737.1	464.3	339.6	124.77	3.721	
14,300.0	7,252.0	14,347.8	7,272.0	126.6	0.0	-92.47	6,802.4	-737.9	464.3	337.8	126.49	3.671	
14,400.0	7,252.0	14,447.8	7,272.0	128.4	0.0	-92.47	6,902.4	-738.7	464.3	336.1	128.22	3.621	
14,500.0	7,252.0	14,547.8	7,272.0	130.1	0.0	-92.47	7,002.4	-739.5	464.3	334.4	129.94	3.573	
14,600.0	7,252.0	14,647.8	7,272.0	131.8	0.0	-92.47	7,102.4	-740.4	464.3	332.7	131.67	3.526	
14,700.0	7,252.0	14,747.8	7,272.0	133.5	0.0	-92.47	7,202.4	-741.2	464.3	330.9	133.40	3.481	
14,800.0	7,252.0	14,847.8	7,272.0	135.3	0.0	-92.47	7,302.4	-742.0	464.3	329.2	135.13	3.436	
14,900.0	7,252.0	14,947.8	7,272.0	137.0	0.0	-92.47	7,402.4	-742.8	464.3	327.5	136.86	3.393	
15,000.0	7,252.0	15,047.8	7,272.0	138.7	0.0	-92.47	7,502.4	-743.7	464.3	325.7	138.59	3.350	
15,100.0	7,252.0	15,147.8	7,272.0	140.5	0.0	-92.47	7,602.4	-744.5	464.3	324.0	140.32	3.309	
15,200.0	7,252.0	15,247.8	7,272.0	142.2	0.0	-92.47	7,702.4	-745.3	464.3	322.3	142.05	3.269	
15,300.0	7,252.0	15,347.8	7,272.0	143.9	0.0	-92.47	7,802.4	-746.2	464.3	320.6	143.78	3.229	
15,400.0	7,252.0	15,447.8	7,272.0	145.7	0.0	-92.47	7,902.4	-747.0	464.3	318.8	145.52	3.191	
15,500.0	7,252.0	15,547.8	7,272.0	147.4	0.0	-92.47	8,002.4	-747.8	464.3	317.1	147.25	3.153	

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,252.0	15,647.8	7,272.0	149.1	0.0	-92.47	8,102.4	-748.6	464.3	315.3	148.99	3.117		
15,700.0	7,252.0	15,747.8	7,272.0	150.9	0.0	-92.47	8,202.4	-749.5	464.3	313.6	150.72	3.081		
15,800.0	7,252.0	15,847.8	7,272.0	152.6	0.0	-92.47	8,302.3	-750.3	464.3	311.9	152.46	3.046		
15,900.0	7,252.0	15,947.8	7,272.0	154.3	0.0	-92.47	8,402.3	-751.1	464.3	310.1	154.19	3.011		
16,000.0	7,252.0	16,047.8	7,272.0	156.1	0.0	-92.47	8,502.3	-751.9	464.3	308.4	155.93	2.978		
16,100.0	7,252.0	16,147.8	7,272.0	157.8	0.0	-92.47	8,602.3	-752.8	464.3	306.7	157.67	2.945		
16,200.0	7,252.0	16,247.8	7,272.0	159.6	0.0	-92.47	8,702.3	-753.6	464.3	304.9	159.41	2.913		
16,300.0	7,252.0	16,347.8	7,272.0	161.3	0.0	-92.47	8,802.3	-754.4	464.3	303.2	161.15	2.881		
16,400.0	7,252.0	16,447.8	7,272.0	163.0	0.0	-92.47	8,902.3	-755.3	464.3	301.4	162.89	2.851		
16,500.0	7,252.0	16,547.8	7,272.0	164.8	0.0	-92.47	9,002.3	-756.1	464.3	299.7	164.63	2.821		
16,600.0	7,252.0	16,647.8	7,272.0	166.5	0.0	-92.47	9,102.3	-756.9	464.3	298.0	166.37	2.791		
16,700.0	7,252.0	16,747.8	7,272.0	168.3	0.0	-92.47	9,202.3	-757.7	464.3	296.2	168.11	2.762		
16,800.0	7,252.0	16,847.8	7,272.0	170.0	0.0	-92.47	9,302.3	-758.6	464.3	294.5	169.85	2.734		
16,900.0	7,252.0	16,947.8	7,272.0	171.8	0.0	-92.47	9,402.3	-759.4	464.3	292.7	171.59	2.706		
17,000.0	7,252.0	17,047.8	7,272.0	173.5	0.0	-92.47	9,502.3	-760.2	464.3	291.0	173.34	2.679		
17,100.0	7,252.0	17,147.8	7,272.0	175.2	0.0	-92.47	9,602.3	-761.0	464.3	289.3	175.08	2.652		
17,200.0	7,252.0	17,247.8	7,272.0	177.0	0.0	-92.47	9,702.3	-761.9	464.3	287.5	176.82	2.626		
17,300.0	7,252.0	17,347.8	7,272.0	178.7	0.0	-92.47	9,802.3	-762.7	464.3	285.8	178.57	2.600		
17,308.3	7,252.0	17,356.0	7,272.0	178.9	0.0	-92.47	9,810.6	-762.8	464.3	285.6	178.71	2.598		
17,385.9	7,252.0	17,429.8	7,272.0	180.2	0.0	-92.47	9,884.4	-763.4	464.4	284.3	180.08	2.579 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.29	-0.2	-45.0	45.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.29	-0.2	-45.0	45.0	44.7	0.28	162.384		
200.0	200.0	200.0	200.0	1.0	0.0	-90.29	-0.2	-45.0	45.0	44.2	0.80	56.380		
300.0	300.0	300.0	300.0	1.5	0.0	-90.29	-0.2	-45.0	45.0	43.8	1.22	36.736		
400.0	400.0	400.0	400.0	1.9	0.0	-90.29	-0.2	-45.0	45.0	43.4	1.62	27.795		
500.0	500.0	500.0	500.0	2.3	0.0	-90.29	-0.2	-45.0	45.0	43.0	2.00	22.502		
600.0	600.0	600.0	600.0	2.7	0.0	-90.29	-0.2	-45.0	45.0	42.6	2.37	18.958		
700.0	700.0	700.0	700.0	3.1	0.0	-90.29	-0.2	-45.0	45.0	42.2	2.74	16.402		
800.0	800.0	800.0	800.0	3.5	0.0	-90.29	-0.2	-45.0	45.0	41.9	3.11	14.466 CC, ES		
900.0	900.0	898.6	898.6	3.9	0.0	-91.24	-1.0	-46.5	46.5	43.0	3.49	13.339		
1,000.0	1,000.0	996.9	996.8	4.2	0.0	-93.74	-3.3	-51.0	51.2	47.3	3.88	13.180		
1,100.0	1,100.0	1,094.8	1,094.3	4.6	0.0	-97.00	-7.2	-58.4	59.2	54.9	4.29	13.798		
1,200.0	1,200.0	1,192.2	1,191.0	4.9	0.0	58.18	-12.5	-68.8	69.6	65.0	4.63	15.029		
1,300.0	1,299.8	1,289.0	1,286.7	5.7	0.0	57.77	-19.3	-82.0	81.4	76.2	5.20	15.663		
1,400.0	1,399.5	1,388.2	1,384.4	6.1	0.0	58.84	-27.1	-97.1	93.3	87.8	5.53	16.861		
1,500.0	1,499.0	1,487.5	1,482.2	6.4	0.0	60.12	-34.9	-112.2	104.8	99.0	5.82	18.004		
1,600.0	1,598.6	1,586.8	1,580.0	6.7	0.0	61.14	-42.7	-127.3	116.4	110.2	6.16	18.908		
1,700.0	1,698.2	1,686.1	1,677.9	7.1	0.0	61.98	-50.5	-142.5	128.0	121.5	6.50	19.696		
1,800.0	1,797.8	1,785.4	1,775.7	7.4	0.0	62.68	-58.4	-157.6	139.6	132.8	6.85	20.390		
1,900.0	1,897.3	1,884.7	1,873.5	7.7	0.0	63.27	-66.2	-172.7	151.3	144.1	7.20	21.002		
2,000.0	1,996.9	1,984.0	1,971.4	8.1	0.0	63.78	-74.0	-187.8	163.0	155.4	7.56	21.547		
2,100.0	2,096.5	2,083.4	2,069.2	8.4	0.0	64.22	-81.8	-203.0	174.6	166.7	7.93	22.033		
2,200.0	2,196.1	2,182.7	2,167.1	8.7	0.0	64.60	-89.6	-218.1	186.3	178.0	8.29	22.471		
2,300.0	2,295.6	2,282.0	2,264.9	9.1	0.0	64.94	-97.4	-233.2	198.0	189.3	8.66	22.866		
2,400.0	2,395.2	2,381.3	2,362.7	9.4	0.0	65.24	-105.2	-248.3	209.7	200.7	9.03	23.223		
2,500.0	2,494.8	2,480.6	2,460.6	9.8	0.0	65.51	-113.0	-263.5	221.4	212.0	9.40	23.549		
2,600.0	2,594.4	2,579.9	2,558.4	10.1	0.0	65.75	-120.8	-278.6	233.1	223.3	9.78	23.847		
2,700.0	2,693.9	2,679.2	2,656.3	10.5	0.0	65.97	-128.6	-293.7	244.8	234.7	10.15	24.120		
2,800.0	2,793.5	2,778.5	2,754.1	10.9	0.0	66.17	-136.4	-308.8	256.5	246.0	10.53	24.371		
2,900.0	2,893.1	2,877.8	2,851.9	11.2	0.0	66.35	-144.2	-324.0	268.3	257.4	10.90	24.603		
3,000.0	2,992.7	2,977.1	2,949.8	11.6	0.0	66.52	-152.0	-339.1	280.0	268.7	11.28	24.818		
3,100.0	3,092.2	3,076.4	3,047.6	11.9	0.0	66.67	-159.9	-354.2	291.7	280.0	11.66	25.017		
3,200.0	3,191.8	3,175.7	3,145.4	12.3	0.0	66.81	-167.7	-369.3	303.4	291.4	12.04	25.202		
3,300.0	3,291.4	3,275.0	3,243.3	12.7	0.0	66.94	-175.5	-384.5	315.1	302.7	12.42	25.375		
3,400.0	3,391.0	3,374.4	3,341.1	13.0	0.0	67.06	-183.3	-399.6	326.9	314.1	12.80	25.537		
3,500.0	3,490.5	3,473.7	3,439.0	13.4	0.0	67.18	-191.1	-414.7	338.6	325.4	13.18	25.688		
3,600.0	3,590.1	3,573.0	3,536.8	13.8	0.0	67.28	-198.9	-429.8	350.3	336.8	13.56	25.830		
3,700.0	3,689.7	3,672.3	3,634.6	14.2	0.0	67.38	-206.7	-445.0	362.1	348.1	13.94	25.964		
3,800.0	3,789.2	3,771.6	3,732.5	14.5	0.0	67.47	-214.5	-460.1	373.8	359.5	14.33	26.089		
3,900.0	3,888.8	3,870.9	3,830.3	14.9	0.0	67.56	-222.3	-475.2	385.5	370.8	14.71	26.208		
4,000.0	3,988.4	3,970.2	3,928.2	15.3	0.0	67.64	-230.1	-490.3	397.2	382.2	15.09	26.320		
4,100.0	4,088.0	4,069.5	4,026.0	15.7	0.0	67.72	-237.9	-505.5	409.0	393.5	15.48	26.426		
4,200.0	4,187.5	4,168.8	4,123.8	16.0	0.0	67.79	-245.7	-520.6	420.7	404.9	15.86	26.527		
4,300.0	4,287.1	4,268.1	4,221.7	16.4	0.0	67.86	-253.5	-535.7	432.4	416.2	16.24	26.622		
4,400.0	4,386.7	4,367.4	4,319.5	16.8	0.0	67.93	-261.4	-550.8	444.2	427.6	16.63	26.713		
4,500.0	4,486.3	4,466.7	4,417.3	17.2	0.0	67.99	-269.2	-566.0	455.9	438.9	17.01	26.799		
4,600.0	4,585.8	4,566.0	4,515.2	17.6	0.0	68.05	-277.0	-581.1	467.7	450.3	17.40	26.881		
4,700.0	4,685.4	4,665.4	4,613.0	17.9	0.0	68.10	-284.8	-596.2	479.4	461.6	17.78	26.959		
4,800.0	4,785.0	4,764.7	4,710.9	18.3	0.0	68.16	-292.6	-611.3	491.1	473.0	18.17	27.034		
4,900.0	4,884.6	4,864.0	4,808.7	18.7	0.0	68.21	-300.4	-626.5	502.9	484.3	18.55	27.105		
5,000.0	4,984.1	4,963.3	4,906.5	19.1	0.0	68.25	-308.2	-641.6	514.6	495.7	18.94	27.174		
5,100.0	5,083.7	5,062.6	5,004.4	19.5	0.0	68.30	-316.0	-656.7	526.3	507.0	19.32	27.239		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
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Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,183.3	5,161.9	5,102.2	19.9	0.0	68.34	-323.8	-671.8	538.1	518.4	19.71	27.302		
5,300.0	5,282.9	5,261.2	5,200.0	20.2	0.0	68.39	-331.6	-687.0	549.8	529.7	20.09	27.362		
5,400.0	5,382.4	5,360.5	5,297.9	20.6	0.0	68.43	-339.4	-702.1	561.6	541.1	20.48	27.419		
5,500.0	5,482.0	5,459.8	5,395.7	21.0	0.0	68.47	-347.2	-717.2	573.3	552.4	20.87	27.475		
5,600.0	5,581.6	5,559.1	5,493.6	21.4	0.0	68.50	-355.1	-732.3	585.0	563.8	21.25	27.528		
5,700.0	5,681.2	5,658.4	5,591.4	21.8	0.0	68.54	-362.9	-747.5	596.8	575.1	21.64	27.579		
5,800.0	5,780.7	5,757.7	5,689.2	22.2	0.0	68.57	-370.7	-762.6	608.5	586.5	22.03	27.628		
5,900.0	5,880.3	5,857.0	5,787.1	22.6	0.0	68.61	-378.5	-777.7	620.3	597.8	22.41	27.676		
6,000.0	5,979.9	5,956.4	5,884.9	22.9	0.0	68.64	-386.3	-792.8	632.0	609.2	22.80	27.721		
6,100.0	6,079.5	6,055.7	5,982.8	23.3	0.0	68.67	-394.1	-808.0	643.7	620.6	23.18	27.765		
6,200.0	6,179.0	6,155.0	6,080.6	23.7	0.0	68.70	-401.9	-823.1	655.5	631.9	23.57	27.808		
6,300.0	6,278.6	6,254.3	6,178.4	24.1	0.0	68.73	-409.7	-838.2	667.2	643.3	23.96	27.849		
6,400.0	6,378.2	6,353.6	6,276.3	24.5	0.0	68.75	-417.5	-853.3	679.0	654.6	24.35	27.889		
6,500.0	6,477.7	6,452.9	6,374.1	24.9	0.0	68.78	-425.3	-868.5	690.7	666.0	24.73	27.927		
6,600.0	6,577.3	6,552.2	6,471.9	25.3	0.0	68.81	-433.1	-883.6	702.4	677.3	25.12	27.964		
6,700.0	6,677.0	6,651.5	6,569.7	25.7	0.0	8.95	-440.9	-898.7	714.1	688.6	25.51	27.998		
6,800.0	6,776.5	6,749.4	6,666.2	26.0	0.0	-75.81	-448.6	-913.6	725.4	699.5	25.83	28.077		
6,900.0	6,873.0	6,843.0	6,758.5	26.2	0.0	-83.02	-456.0	-927.9	736.9	710.8	26.06	28.279		
7,000.0	6,963.6	6,929.6	6,843.7	26.4	0.0	-86.84	-462.8	-941.1	750.4	724.2	26.23	28.606		
7,100.0	7,045.6	7,017.6	6,930.6	26.6	0.0	-90.09	-467.6	-954.5	768.0	741.6	26.42	29.066		
7,200.0	7,116.5	7,125.3	7,036.3	26.8	0.0	-93.42	-456.8	-971.0	789.2	762.5	26.68	29.576		
7,300.0	7,174.1	7,255.7	7,158.7	27.0	0.0	-96.90	-417.2	-990.3	812.6	785.7	26.93	30.179		
7,400.0	7,216.6	7,421.4	7,296.2	27.2	0.0	-100.69	-328.5	-1,012.4	835.7	808.7	26.99	30.964		
7,500.0	7,242.9	7,636.8	7,427.6	27.5	0.0	-104.34	-160.8	-1,034.2	854.0	827.3	26.75	31.922		
7,600.0	7,252.0	7,899.2	7,491.8	27.8	0.0	-106.16	91.0	-1,046.3	861.9	835.3	26.58	32.432		
7,700.0	7,252.0	8,007.8	7,492.0	28.1	0.0	-106.17	199.6	-1,047.2	861.9	834.9	26.97	31.958		
7,800.0	7,252.0	8,107.8	7,492.0	28.6	0.0	-106.17	299.6	-1,048.0	861.9	834.4	27.45	31.394		
7,900.0	7,252.0	8,207.8	7,492.0	29.2	0.0	-106.17	399.6	-1,048.8	861.9	833.9	28.04	30.743		
8,000.0	7,252.0	8,307.8	7,492.0	29.9	0.0	-106.17	499.6	-1,049.7	861.9	833.2	28.71	30.025		
8,100.0	7,252.0	8,407.8	7,492.0	30.7	0.0	-106.17	599.6	-1,050.5	861.9	832.4	29.46	29.255		
8,200.0	7,252.0	8,507.8	7,492.0	31.5	0.0	-106.17	699.6	-1,051.3	861.9	831.6	30.29	28.451		
8,300.0	7,252.0	8,607.8	7,492.0	32.4	0.0	-106.17	799.6	-1,052.2	861.9	830.7	31.20	27.626		
8,400.0	7,252.0	8,707.8	7,492.0	33.4	0.0	-106.17	899.6	-1,053.0	861.9	829.7	32.17	26.793		
8,500.0	7,252.0	8,807.8	7,492.0	34.5	0.0	-106.17	999.6	-1,053.8	861.9	828.7	33.20	25.962		
8,600.0	7,252.0	8,907.8	7,492.0	35.6	0.0	-106.17	1,099.6	-1,054.6	861.9	827.6	34.28	25.140		
8,700.0	7,252.0	9,007.8	7,492.0	36.8	0.0	-106.17	1,199.6	-1,055.5	861.9	826.5	35.42	24.336		
8,800.0	7,252.0	9,107.8	7,492.0	38.0	0.0	-106.17	1,299.6	-1,056.3	861.9	825.3	36.60	23.552		
8,900.0	7,252.0	9,207.8	7,492.0	39.2	0.0	-106.17	1,399.6	-1,057.1	861.9	824.1	37.82	22.793		
9,000.0	7,252.0	9,307.8	7,492.0	40.5	0.0	-106.17	1,499.6	-1,057.9	861.9	822.8	39.07	22.060		
9,100.0	7,252.0	9,407.8	7,492.0	41.9	0.0	-106.17	1,599.6	-1,058.8	861.9	821.5	40.36	21.355		
9,200.0	7,252.0	9,507.8	7,492.0	43.2	0.0	-106.17	1,699.6	-1,059.6	861.9	820.2	41.68	20.679		
9,300.0	7,252.0	9,607.8	7,492.0	44.6	0.0	-106.17	1,799.6	-1,060.4	861.9	818.9	43.03	20.032		
9,400.0	7,252.0	9,707.8	7,492.0	46.0	0.0	-106.17	1,899.6	-1,061.3	861.9	817.5	44.40	19.412		
9,500.0	7,252.0	9,807.8	7,492.0	47.5	0.0	-106.17	1,999.6	-1,062.1	861.9	816.1	45.79	18.821		
9,600.0	7,252.0	9,907.8	7,492.0	48.9	0.0	-106.17	2,099.5	-1,062.9	861.9	814.7	47.21	18.257		
9,700.0	7,252.0	10,007.8	7,492.0	50.4	0.0	-106.17	2,199.5	-1,063.7	861.9	813.3	48.64	17.718		
9,800.0	7,252.0	10,107.8	7,492.0	51.9	0.0	-106.17	2,299.5	-1,064.6	861.9	811.8	50.10	17.205		
9,900.0	7,252.0	10,207.8	7,492.0	53.4	0.0	-106.17	2,399.5	-1,065.4	861.9	810.3	51.56	16.715		
10,000.0	7,252.0	10,307.8	7,492.0	54.9	0.0	-106.17	2,499.5	-1,066.2	861.9	808.9	53.05	16.248		
10,100.0	7,252.0	10,407.8	7,492.0	56.5	0.0	-106.17	2,599.5	-1,067.0	861.9	807.4	54.54	15.802		
10,200.0	7,252.0	10,507.8	7,492.0	58.0	0.0	-106.17	2,699.5	-1,067.9	861.9	805.9	56.05	15.377		
10,300.0	7,252.0	10,607.8	7,492.0	59.6	0.0	-106.17	2,799.5	-1,068.7	861.9	804.3	57.57	14.972		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,252.0	10,707.8	7,492.0	61.2	0.0	-106.17	2,899.5	-1,069.5	861.9	802.8	59.10	14.584		
10,500.0	7,252.0	10,807.8	7,492.0	62.8	0.0	-106.17	2,999.5	-1,070.4	861.9	801.3	60.64	14.214		
10,600.0	7,252.0	10,907.8	7,492.0	64.4	0.0	-106.17	3,099.5	-1,071.2	861.9	799.7	62.19	13.860		
10,700.0	7,252.0	11,007.8	7,492.0	66.0	0.0	-106.17	3,199.5	-1,072.0	861.9	798.2	63.74	13.522		
10,800.0	7,252.0	11,107.8	7,492.0	67.6	0.0	-106.17	3,299.5	-1,072.8	861.9	796.6	65.31	13.198		
10,900.0	7,252.0	11,207.8	7,492.0	69.2	0.0	-106.17	3,399.5	-1,073.7	861.9	795.0	66.88	12.888		
11,000.0	7,252.0	11,307.8	7,492.0	70.8	0.0	-106.17	3,499.5	-1,074.5	861.9	793.4	68.46	12.591		
11,100.0	7,252.0	11,407.8	7,492.0	72.5	0.0	-106.17	3,599.5	-1,075.3	861.9	791.9	70.04	12.306		
11,200.0	7,252.0	11,507.8	7,492.0	74.1	0.0	-106.17	3,699.5	-1,076.1	861.9	790.3	71.63	12.033		
11,300.0	7,252.0	11,607.8	7,492.0	75.7	0.0	-106.17	3,799.5	-1,077.0	861.9	788.7	73.23	11.770		
11,400.0	7,252.0	11,707.8	7,492.0	77.4	0.0	-106.17	3,899.5	-1,077.8	861.9	787.1	74.83	11.519		
11,500.0	7,252.0	11,807.8	7,492.0	79.1	0.0	-106.17	3,999.5	-1,078.6	861.9	785.5	76.43	11.277		
11,600.0	7,252.0	11,907.8	7,492.0	80.7	0.0	-106.17	4,099.5	-1,079.5	861.9	783.9	78.04	11.044		
11,700.0	7,252.0	12,007.8	7,492.0	82.4	0.0	-106.17	4,199.5	-1,080.3	861.9	782.3	79.66	10.820		
11,800.0	7,252.0	12,107.8	7,492.0	84.0	0.0	-106.17	4,299.5	-1,081.1	861.9	780.6	81.27	10.605		
11,900.0	7,252.0	12,207.8	7,492.0	85.7	0.0	-106.17	4,399.5	-1,081.9	861.9	779.0	82.89	10.398		
12,000.0	7,252.0	12,307.8	7,492.0	87.4	0.0	-106.17	4,499.5	-1,082.8	861.9	777.4	84.52	10.198		
12,100.0	7,252.0	12,407.8	7,492.0	89.1	0.0	-106.17	4,599.5	-1,083.6	861.9	775.8	86.15	10.005		
12,200.0	7,252.0	12,507.8	7,492.0	90.8	0.0	-106.17	4,699.5	-1,084.4	861.9	774.1	87.78	9.819		
12,300.0	7,252.0	12,607.8	7,492.0	92.4	0.0	-106.17	4,799.5	-1,085.2	861.9	772.5	89.41	9.640		
12,400.0	7,252.0	12,707.8	7,492.0	94.1	0.0	-106.17	4,899.5	-1,086.1	861.9	770.9	91.05	9.466		
12,500.0	7,252.0	12,807.8	7,492.0	95.8	0.0	-106.17	4,999.4	-1,086.9	861.9	769.2	92.69	9.299		
12,600.0	7,252.0	12,907.8	7,492.0	97.5	0.0	-106.17	5,099.4	-1,087.7	861.9	767.6	94.33	9.137		
12,700.0	7,252.0	13,007.8	7,492.0	99.2	0.0	-106.17	5,199.4	-1,088.6	861.9	765.9	95.98	8.980		
12,800.0	7,252.0	13,107.8	7,492.0	100.9	0.0	-106.17	5,299.4	-1,089.4	861.9	764.3	97.62	8.829		
12,900.0	7,252.0	13,207.8	7,492.0	102.6	0.0	-106.17	5,399.4	-1,090.2	861.9	762.6	99.27	8.682		
13,000.0	7,252.0	13,307.8	7,492.0	104.3	0.0	-106.17	5,499.4	-1,091.0	861.9	761.0	100.92	8.540		
13,100.0	7,252.0	13,407.8	7,492.0	106.0	0.0	-106.17	5,599.4	-1,091.9	861.9	759.3	102.58	8.403		
13,200.0	7,252.0	13,507.8	7,492.0	107.7	0.0	-106.17	5,699.4	-1,092.7	861.9	757.7	104.23	8.269		
13,300.0	7,252.0	13,607.8	7,492.0	109.5	0.0	-106.17	5,799.4	-1,093.5	861.9	756.0	105.89	8.140		
13,400.0	7,252.0	13,707.8	7,492.0	111.2	0.0	-106.17	5,899.4	-1,094.3	861.9	754.4	107.55	8.014		
13,500.0	7,252.0	13,807.8	7,492.0	112.9	0.0	-106.17	5,999.4	-1,095.2	861.9	752.7	109.21	7.892		
13,600.0	7,252.0	13,907.8	7,492.0	114.6	0.0	-106.17	6,099.4	-1,096.0	861.9	751.0	110.87	7.774		
13,700.0	7,252.0	14,007.8	7,492.0	116.3	0.0	-106.17	6,199.4	-1,096.8	861.9	749.4	112.53	7.659		
13,800.0	7,252.0	14,107.8	7,492.0	118.0	0.0	-106.17	6,299.4	-1,097.7	861.9	747.7	114.20	7.548		
13,900.0	7,252.0	14,207.8	7,492.0	119.7	0.0	-106.17	6,399.4	-1,098.5	861.9	746.0	115.86	7.439		
14,000.0	7,252.0	14,307.8	7,492.0	121.5	0.0	-106.17	6,499.4	-1,099.3	861.9	744.4	117.53	7.334		
14,100.0	7,252.0	14,407.8	7,492.0	123.2	0.0	-106.17	6,599.4	-1,100.1	861.9	742.7	119.20	7.231		
14,200.0	7,252.0	14,507.8	7,492.0	124.9	0.0	-106.17	6,699.4	-1,101.0	861.9	741.0	120.87	7.131		
14,300.0	7,252.0	14,607.8	7,492.0	126.6	0.0	-106.17	6,799.4	-1,101.8	861.9	739.4	122.54	7.034		
14,400.0	7,252.0	14,707.8	7,492.0	128.4	0.0	-106.17	6,899.4	-1,102.6	861.9	737.7	124.21	6.939		
14,500.0	7,252.0	14,807.8	7,492.0	130.1	0.0	-106.17	6,999.4	-1,103.4	861.9	736.0	125.88	6.847		
14,600.0	7,252.0	14,907.8	7,492.0	131.8	0.0	-106.17	7,099.4	-1,104.3	861.9	734.4	127.55	6.757		
14,700.0	7,252.0	15,007.8	7,492.0	133.5	0.0	-106.17	7,199.4	-1,105.1	861.9	732.7	129.23	6.670		
14,800.0	7,252.0	15,107.8	7,492.0	135.3	0.0	-106.17	7,299.4	-1,105.9	861.9	731.0	130.90	6.584		
14,900.0	7,252.0	15,207.8	7,492.0	137.0	0.0	-106.17	7,399.4	-1,106.8	861.9	729.3	132.58	6.501		
15,000.0	7,252.0	15,307.8	7,492.0	138.7	0.0	-106.17	7,499.4	-1,107.6	861.9	727.7	134.26	6.420		
15,100.0	7,252.0	15,407.8	7,492.0	140.5	0.0	-106.17	7,599.4	-1,108.4	861.9	726.0	135.93	6.341		
15,200.0	7,252.0	15,507.8	7,492.0	142.2	0.0	-106.17	7,699.4	-1,109.2	861.9	724.3	137.61	6.263		
15,300.0	7,252.0	15,607.8	7,492.0	143.9	0.0	-106.17	7,799.4	-1,110.1	861.9	722.6	139.29	6.188		
15,400.0	7,252.0	15,707.8	7,492.0	145.7	0.0	-106.17	7,899.4	-1,110.9	861.9	720.9	140.97	6.114		
15,500.0	7,252.0	15,807.8	7,492.0	147.4	0.0	-106.17	7,999.3	-1,111.7	861.9	719.3	142.65	6.042		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,252.0	15,907.8	7,492.0	149.1	0.0	-106.17	8,099.3	-1,112.5	861.9	717.6	144.34	5.972		
15,700.0	7,252.0	16,007.8	7,492.0	150.9	0.0	-106.17	8,199.3	-1,113.4	861.9	715.9	146.02	5.903		
15,800.0	7,252.0	16,107.8	7,492.0	152.6	0.0	-106.17	8,299.3	-1,114.2	861.9	714.2	147.70	5.835		
15,900.0	7,252.0	16,207.8	7,492.0	154.3	0.0	-106.17	8,399.3	-1,115.0	861.9	712.5	149.38	5.770		
16,000.0	7,252.0	16,307.8	7,492.0	156.1	0.0	-106.17	8,499.3	-1,115.8	861.9	710.8	151.07	5.705		
16,100.0	7,252.0	16,407.8	7,492.0	157.8	0.0	-106.17	8,599.3	-1,116.7	861.9	709.2	152.75	5.642		
16,200.0	7,252.0	16,507.8	7,492.0	159.6	0.0	-106.17	8,699.3	-1,117.5	861.9	707.5	154.44	5.581		
16,300.0	7,252.0	16,607.8	7,492.0	161.3	0.0	-106.17	8,799.3	-1,118.3	861.9	705.8	156.12	5.521		
16,400.0	7,252.0	16,707.8	7,492.0	163.0	0.0	-106.17	8,899.3	-1,119.2	861.9	704.1	157.81	5.462		
16,500.0	7,252.0	16,807.8	7,492.0	164.8	0.0	-106.17	8,999.3	-1,120.0	861.9	702.4	159.50	5.404		
16,600.0	7,252.0	16,907.8	7,492.0	166.5	0.0	-106.17	9,099.3	-1,120.8	861.9	700.7	161.19	5.347		
16,700.0	7,252.0	17,007.8	7,492.0	168.3	0.0	-106.17	9,199.3	-1,121.6	861.9	699.0	162.87	5.292		
16,800.0	7,252.0	17,107.8	7,492.0	170.0	0.0	-106.17	9,299.3	-1,122.5	861.9	697.3	164.56	5.238		
16,900.0	7,252.0	17,207.8	7,492.0	171.8	0.0	-106.17	9,399.3	-1,123.3	861.9	695.7	166.25	5.184		
17,000.0	7,252.0	17,307.8	7,492.0	173.5	0.0	-106.17	9,499.3	-1,124.1	861.9	694.0	167.94	5.132		
17,100.0	7,252.0	17,407.8	7,492.0	175.2	0.0	-106.17	9,599.3	-1,124.9	861.9	692.3	169.63	5.081		
17,200.0	7,252.0	17,507.8	7,492.0	177.0	0.0	-106.17	9,699.3	-1,125.8	861.9	690.6	171.32	5.031		
17,300.0	7,252.0	17,607.8	7,492.0	178.7	0.0	-106.17	9,799.3	-1,126.6	861.9	688.9	173.01	4.982		
17,307.1	7,252.0	17,615.0	7,492.0	178.9	0.0	-106.17	9,806.4	-1,126.7	861.9	688.8	173.13	4.978		
17,385.9	7,252.0	17,686.9	7,492.0	180.2	0.0	-106.17	9,878.4	-1,127.3	861.9	687.5	174.47	4.940 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.30	-0.3	-60.0	60.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.30	-0.3	-60.0	60.0	59.4	0.55	108.327		
200.0	200.0	200.0	200.0	1.0	1.0	-90.30	-0.3	-60.0	60.0	58.4	1.60	37.595		
300.0	300.0	300.0	300.0	1.5	1.5	-90.30	-0.3	-60.0	60.0	57.5	2.45	24.494		
400.0	400.0	400.0	400.0	1.9	1.9	-90.30	-0.3	-60.0	60.0	56.7	3.24	18.532		
500.0	500.0	500.0	500.0	2.3	2.3	-90.30	-0.3	-60.0	60.0	56.0	4.00	15.003		
600.0	600.0	600.0	600.0	2.7	2.7	-90.30	-0.3	-60.0	60.0	55.2	4.74	12.640		
700.0	700.0	700.0	700.0	3.1	3.1	-90.30	-0.3	-60.0	60.0	54.5	5.48	10.936	CC, ES	
800.0	800.0	798.1	798.1	3.5	3.4	-90.93	-1.0	-61.5	61.5	55.3	6.28	9.799		
900.0	900.0	895.9	895.8	3.9	4.3	-92.61	-3.0	-66.1	66.3	58.6	7.68	8.634		
1,000.0	1,000.0	993.3	992.8	4.2	5.1	-94.94	-6.4	-73.7	74.3	65.4	8.92	8.329		
1,100.0	1,100.0	1,090.0	1,088.8	4.6	5.8	-97.44	-11.0	-84.2	85.7	75.6	10.06	8.521		
1,200.0	1,200.0	1,186.1	1,183.7	4.9	6.5	58.26	-16.9	-97.6	99.5	88.4	11.04	9.008		
1,300.0	1,299.8	1,281.7	1,277.7	5.7	6.9	57.89	-24.0	-113.8	114.7	102.6	12.05	9.517		
1,400.0	1,399.5	1,380.5	1,374.6	6.1	7.2	58.71	-32.0	-131.9	129.6	117.0	12.63	10.260		
1,500.0	1,499.0	1,479.4	1,471.5	6.4	7.4	59.75	-39.9	-149.9	144.2	131.0	13.20	10.924		
1,600.0	1,598.6	1,578.3	1,568.4	6.7	7.7	60.60	-47.9	-168.0	158.8	145.0	13.83	11.486		
1,700.0	1,698.2	1,677.2	1,665.3	7.1	8.0	61.30	-55.8	-186.1	173.4	159.0	14.47	11.985		
1,800.0	1,797.8	1,776.1	1,762.2	7.4	8.3	61.90	-63.8	-204.1	188.1	173.0	15.13	12.431		
1,900.0	1,897.3	1,875.0	1,859.1	7.7	8.6	62.40	-71.8	-222.2	202.8	187.0	15.81	12.830		
2,000.0	1,996.9	1,973.9	1,956.0	8.1	8.9	62.84	-79.7	-240.2	217.5	201.0	16.49	13.188		
2,100.0	2,096.5	2,072.8	2,052.9	8.4	9.3	63.23	-87.7	-258.3	232.2	215.0	17.19	13.508		
2,200.0	2,196.1	2,171.7	2,149.9	8.7	9.6	63.57	-95.6	-276.4	246.9	229.0	17.89	13.800		
2,300.0	2,295.6	2,270.6	2,246.8	9.1	10.0	63.87	-103.6	-294.4	261.6	243.0	18.60	14.063		
2,400.0	2,395.2	2,369.5	2,343.7	9.4	10.4	64.13	-111.5	-312.5	276.4	257.0	19.32	14.302		
2,500.0	2,494.8	2,468.4	2,440.6	9.8	10.8	64.38	-119.5	-330.5	291.1	271.0	20.05	14.520		
2,600.0	2,594.4	2,567.3	2,537.5	10.1	11.2	64.59	-127.4	-348.6	305.8	285.0	20.78	14.719		
2,700.0	2,693.9	2,666.2	2,634.4	10.5	11.6	64.79	-135.4	-366.6	320.6	299.1	21.51	14.902		
2,800.0	2,793.5	2,765.1	2,731.3	10.9	12.0	64.97	-143.3	-384.7	335.3	313.1	22.25	15.070		
2,900.0	2,893.1	2,864.0	2,828.2	11.2	12.5	65.14	-151.3	-402.8	350.1	327.1	22.99	15.225		
3,000.0	2,992.7	2,963.0	2,925.2	11.6	12.9	65.29	-159.2	-420.8	364.8	341.1	23.74	15.367		
3,100.0	3,092.2	3,061.9	3,022.1	11.9	13.4	65.43	-167.2	-438.9	379.6	355.1	24.49	15.500		
3,200.0	3,191.8	3,160.8	3,119.0	12.3	13.8	65.56	-175.2	-456.9	394.3	369.1	25.24	15.623		
3,300.0	3,291.4	3,259.7	3,215.9	12.7	14.3	65.68	-183.1	-475.0	409.1	383.1	26.00	15.737		
3,400.0	3,391.0	3,358.6	3,312.8	13.0	14.8	65.79	-191.1	-493.1	423.8	397.1	26.75	15.843		
3,500.0	3,490.5	3,457.5	3,409.7	13.4	15.3	65.89	-199.0	-511.1	438.6	411.1	27.51	15.943		
3,600.0	3,590.1	3,556.4	3,506.6	13.8	15.7	65.99	-207.0	-529.2	453.4	425.1	28.27	16.035		
3,700.0	3,689.7	3,655.3	3,603.5	14.2	16.2	66.08	-214.9	-547.2	468.1	439.1	29.04	16.123		
3,800.0	3,789.2	3,754.2	3,700.5	14.5	16.7	66.17	-222.9	-565.3	482.9	453.1	29.80	16.204		
3,900.0	3,888.8	3,853.1	3,797.4	14.9	17.2	66.25	-230.8	-583.4	497.7	467.1	30.57	16.281		
4,000.0	3,988.4	3,952.0	3,894.3	15.3	17.7	66.33	-238.8	-601.4	512.4	481.1	31.33	16.354		
4,100.0	4,088.0	4,050.9	3,991.2	15.7	18.2	66.40	-246.7	-619.5	527.2	495.1	32.10	16.422		
4,200.0	4,187.5	4,149.8	4,088.1	16.0	18.6	66.47	-254.7	-637.5	542.0	509.1	32.87	16.487		
4,300.0	4,287.1	4,248.7	4,185.0	16.4	19.1	66.53	-262.6	-655.6	556.7	523.1	33.64	16.548		
4,400.0	4,386.7	4,347.6	4,281.9	16.8	19.6	66.59	-270.6	-673.7	571.5	537.1	34.42	16.605		
4,500.0	4,486.3	4,446.5	4,378.9	17.2	20.1	66.65	-278.6	-691.7	586.3	551.1	35.19	16.660		
4,600.0	4,585.8	4,545.4	4,475.8	17.6	20.6	66.70	-286.5	-709.8	601.0	565.1	35.96	16.712		
4,700.0	4,685.4	4,644.3	4,572.7	17.9	21.1	66.76	-294.5	-727.8	615.8	579.1	36.74	16.762		
4,800.0	4,785.0	4,743.2	4,669.6	18.3	21.6	66.81	-302.4	-745.9	630.6	593.1	37.52	16.809		
4,900.0	4,884.6	4,842.1	4,766.5	18.7	22.1	66.85	-310.4	-764.0	645.4	607.1	38.29	16.853		
5,000.0	4,984.1	4,941.0	4,863.4	19.1	22.5	66.90	-318.3	-782.0	660.1	621.1	39.07	16.896		
5,100.0	5,083.7	5,039.9	4,960.3	19.5	23.0	66.94	-326.3	-800.1	674.9	635.1	39.85	16.937		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,183.3	5,138.8	5,057.2	19.9	23.5	66.98	-334.2	-818.1	689.7	649.0	40.63	16.976		
5,300.0	5,282.9	5,237.7	5,154.2	20.2	24.0	67.02	-342.2	-836.2	704.4	663.0	41.41	17.013		
5,400.0	5,382.4	5,336.6	5,251.1	20.6	24.5	67.06	-350.1	-854.3	719.2	677.0	42.19	17.049		
5,500.0	5,482.0	5,435.5	5,348.0	21.0	25.0	67.10	-358.1	-872.3	734.0	691.0	42.97	17.083		
5,600.0	5,581.6	5,534.4	5,444.9	21.4	25.5	67.13	-366.0	-890.4	748.8	705.0	43.75	17.116		
5,700.0	5,681.2	5,633.3	5,541.8	21.8	26.0	67.17	-374.0	-908.4	763.5	719.0	44.53	17.147		
5,800.0	5,780.7	5,732.2	5,638.7	22.2	26.5	67.20	-382.0	-926.5	778.3	733.0	45.31	17.177		
5,900.0	5,880.3	5,831.1	5,735.6	22.6	27.0	67.23	-389.9	-944.6	793.1	747.0	46.09	17.206		
6,000.0	5,979.9	5,930.0	5,832.5	22.9	27.4	67.26	-397.9	-962.6	807.9	761.0	46.88	17.234		
6,100.0	6,079.5	6,028.9	5,929.5	23.3	27.9	67.29	-405.8	-980.7	822.6	775.0	47.66	17.261		
6,200.0	6,179.0	6,127.8	6,026.4	23.7	28.4	67.32	-413.8	-998.7	837.4	789.0	48.44	17.286		
6,300.0	6,278.6	6,226.7	6,123.3	24.1	28.9	67.35	-421.7	-1,016.8	852.2	803.0	49.23	17.311		
6,400.0	6,378.2	6,325.6	6,220.2	24.5	29.4	67.37	-429.7	-1,034.8	867.0	817.0	50.01	17.335		
6,500.0	6,477.7	6,424.5	6,317.1	24.9	29.9	67.40	-437.6	-1,052.9	881.7	831.0	50.80	17.358		
6,600.0	6,577.3	6,523.4	6,414.0	25.3	30.4	67.42	-445.6	-1,071.0	896.5	844.9	51.58	17.381		
6,700.0	6,677.0	6,622.3	6,510.9	25.7	30.9	7.74	-453.5	-1,089.0	911.3	858.9	52.36	17.405		
6,800.0	6,776.5	6,719.7	6,606.4	26.0	31.4	-76.39	-461.4	-1,106.8	925.9	872.9	52.99	17.472		
6,900.0	6,873.0	6,814.4	6,699.2	26.2	31.8	-82.72	-467.9	-1,124.1	940.7	887.2	53.42	17.610		
7,000.0	6,963.6	6,914.0	6,796.8	26.4	32.4	-85.26	-461.3	-1,142.5	956.0	902.2	53.80	17.770		
7,100.0	7,045.6	7,021.1	6,898.6	26.6	32.9	-86.86	-435.1	-1,162.0	971.3	917.2	54.18	17.929		
7,200.0	7,116.5	7,137.3	7,001.5	26.8	33.3	-88.12	-385.5	-1,182.1	986.1	931.6	54.55	18.077		
7,300.0	7,174.1	7,264.0	7,099.9	27.0	33.7	-89.20	-308.6	-1,201.8	999.5	944.6	54.92	18.200		
7,400.0	7,216.6	7,401.7	7,185.1	27.2	33.8	-90.11	-202.2	-1,219.4	1,010.5	955.2	55.29	18.278		
7,500.0	7,242.9	7,549.6	7,246.1	27.5	33.9	-90.78	-68.6	-1,232.9	1,018.3	962.6	55.72	18.274		
7,600.0	7,252.0	7,704.6	7,271.7	27.8	33.9	-91.11	83.6	-1,240.0	1,021.9	965.6	56.31	18.149		
7,700.0	7,252.0	7,811.7	7,272.0	28.1	33.9	-91.12	190.7	-1,241.8	1,022.7	965.6	57.02	17.934		
7,800.0	7,252.0	7,911.7	7,272.0	28.6	34.1	-91.12	290.7	-1,243.3	1,023.4	965.4	57.94	17.662		
7,900.0	7,252.0	8,011.7	7,272.0	29.2	34.3	-91.12	390.7	-1,244.8	1,024.1	965.0	59.06	17.341		
8,000.0	7,252.0	8,111.7	7,272.0	29.9	34.6	-91.12	490.6	-1,246.4	1,024.8	964.5	60.36	16.979		
8,100.0	7,252.0	8,211.7	7,272.0	30.7	35.0	-91.12	590.6	-1,247.9	1,025.5	963.7	61.83	16.585		
8,200.0	7,252.0	8,311.7	7,272.0	31.5	35.6	-91.12	690.6	-1,249.5	1,026.2	962.8	63.47	16.168		
8,300.0	7,252.0	8,411.7	7,272.0	32.4	36.2	-91.12	790.6	-1,251.0	1,027.0	961.7	65.26	15.736		
8,400.0	7,252.0	8,511.7	7,272.0	33.4	37.0	-91.12	890.6	-1,252.6	1,027.7	960.5	67.19	15.295		
8,500.0	7,252.0	8,611.7	7,272.0	34.5	37.8	-91.11	990.6	-1,254.1	1,028.4	959.1	69.24	14.852		
8,600.0	7,252.0	8,711.7	7,272.0	35.6	38.8	-91.11	1,090.6	-1,255.6	1,029.1	957.7	71.41	14.411		
8,700.0	7,252.0	8,811.7	7,272.0	36.8	39.8	-91.11	1,190.5	-1,257.2	1,029.8	956.1	73.69	13.975		
8,800.0	7,252.0	8,911.7	7,272.0	38.0	40.8	-91.11	1,290.5	-1,258.7	1,030.5	954.5	76.06	13.549		
8,900.0	7,252.0	9,011.7	7,272.0	39.2	41.9	-91.11	1,390.5	-1,260.3	1,031.3	952.7	78.52	13.134		
9,000.0	7,252.0	9,111.7	7,272.0	40.5	43.1	-91.11	1,490.5	-1,261.8	1,032.0	950.9	81.06	12.732		
9,100.0	7,252.0	9,211.7	7,272.0	41.9	44.3	-91.11	1,590.5	-1,263.4	1,032.7	949.0	83.67	12.343		
9,200.0	7,252.0	9,311.7	7,272.0	43.2	45.6	-91.11	1,690.5	-1,264.9	1,033.4	947.1	86.34	11.969		
9,300.0	7,252.0	9,411.7	7,272.0	44.6	46.8	-91.11	1,790.5	-1,266.4	1,034.1	945.0	89.08	11.609		
9,400.0	7,252.0	9,511.7	7,272.0	46.0	48.1	-91.11	1,890.4	-1,268.0	1,034.8	943.0	91.87	11.264		
9,500.0	7,252.0	9,611.6	7,272.0	47.5	49.5	-91.11	1,990.4	-1,269.5	1,035.5	940.8	94.71	10.934		
9,600.0	7,252.0	9,711.6	7,272.0	48.9	50.9	-91.11	2,090.4	-1,271.1	1,036.3	938.7	97.59	10.618		
9,700.0	7,252.0	9,811.6	7,272.0	50.4	52.3	-91.11	2,190.4	-1,272.6	1,037.0	936.5	100.52	10.316		
9,800.0	7,252.0	9,911.6	7,272.0	51.9	53.7	-91.10	2,290.4	-1,274.2	1,037.7	934.2	103.48	10.028		
9,900.0	7,252.0	10,011.6	7,272.0	53.4	55.1	-91.10	2,390.4	-1,275.7	1,038.4	931.9	106.48	9.752		
10,000.0	7,252.0	10,111.6	7,272.0	54.9	56.6	-91.10	2,490.4	-1,277.2	1,039.1	929.6	109.51	9.489		
10,100.0	7,252.0	10,211.6	7,272.0	56.5	58.0	-91.10	2,590.3	-1,278.8	1,039.8	927.3	112.57	9.237		
10,200.0	7,252.0	10,311.6	7,272.0	58.0	59.5	-91.10	2,690.3	-1,280.3	1,040.6	924.9	115.66	8.997		
10,300.0	7,252.0	10,411.6	7,272.0	59.6	61.0	-91.10	2,790.3	-1,281.9	1,041.3	922.5	118.77	8.767		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,252.0	10,511.6	7,272.0	61.2	62.5	-91.10	2,890.3	-1,283.4	1,042.0	920.1	121.91	8.547		
10,500.0	7,252.0	10,611.6	7,272.0	62.8	64.1	-91.10	2,990.3	-1,285.0	1,042.7	917.6	125.06	8.337		
10,600.0	7,252.0	10,711.6	7,272.0	64.4	65.6	-91.10	3,090.3	-1,286.5	1,043.4	915.2	128.24	8.137		
10,700.0	7,252.0	10,811.6	7,272.0	66.0	67.2	-91.10	3,190.3	-1,288.0	1,044.1	912.7	131.43	7.944		
10,800.0	7,252.0	10,911.6	7,272.0	67.6	68.7	-91.10	3,290.2	-1,289.6	1,044.8	910.2	134.64	7.760		
10,900.0	7,252.0	11,011.6	7,272.0	69.2	70.3	-91.10	3,390.2	-1,291.1	1,045.6	907.7	137.87	7.584		
11,000.0	7,252.0	11,111.6	7,272.0	70.8	71.9	-91.10	3,490.2	-1,292.7	1,046.3	905.2	141.11	7.415		
11,100.0	7,252.0	11,211.6	7,272.0	72.5	73.5	-91.09	3,590.2	-1,294.2	1,047.0	902.6	144.37	7.252		
11,200.0	7,252.0	11,311.6	7,272.0	74.1	75.1	-91.09	3,690.2	-1,295.8	1,047.7	900.1	147.64	7.097		
11,300.0	7,252.0	11,411.6	7,272.0	75.7	76.7	-91.09	3,790.2	-1,297.3	1,048.4	897.5	150.92	6.947		
11,400.0	7,252.0	11,511.6	7,272.0	77.4	78.3	-91.09	3,890.2	-1,298.8	1,049.1	894.9	154.21	6.803		
11,500.0	7,252.0	11,611.6	7,272.0	79.1	79.9	-91.09	3,990.1	-1,300.4	1,049.9	892.4	157.51	6.665		
11,600.0	7,252.0	11,711.6	7,272.0	80.7	81.5	-91.09	4,090.1	-1,301.9	1,050.6	889.8	160.82	6.533		
11,700.0	7,252.0	11,811.6	7,272.0	82.4	83.2	-91.09	4,190.1	-1,303.5	1,051.3	887.1	164.14	6.405		
11,800.0	7,252.0	11,911.6	7,272.0	84.0	84.8	-91.09	4,290.1	-1,305.0	1,052.0	884.5	167.47	6.282		
11,900.0	7,252.0	12,011.6	7,272.0	85.7	86.4	-91.09	4,390.1	-1,306.6	1,052.7	881.9	170.81	6.163		
12,000.0	7,252.0	12,111.6	7,272.0	87.4	88.1	-91.09	4,490.1	-1,308.1	1,053.4	879.3	174.15	6.049		
12,100.0	7,252.0	12,211.6	7,272.0	89.1	89.7	-91.09	4,590.0	-1,309.6	1,054.2	876.6	177.51	5.939		
12,200.0	7,252.0	12,311.6	7,272.0	90.8	91.4	-91.09	4,690.0	-1,311.2	1,054.9	874.0	180.87	5.832		
12,300.0	7,252.0	12,411.6	7,272.0	92.4	93.1	-91.09	4,790.0	-1,312.7	1,055.6	871.4	184.23	5.730		
12,400.0	7,252.0	12,511.6	7,272.0	94.1	94.7	-91.08	4,890.0	-1,314.3	1,056.3	868.7	187.60	5.630		
12,500.0	7,252.0	12,611.6	7,272.0	95.8	96.4	-91.08	4,990.0	-1,315.8	1,057.0	866.0	190.98	5.535		
12,600.0	7,252.0	12,711.6	7,272.0	97.5	98.1	-91.08	5,090.0	-1,317.4	1,057.7	863.4	194.37	5.442		
12,700.0	7,252.0	12,811.6	7,272.0	99.2	99.7	-91.08	5,190.0	-1,318.9	1,058.4	860.7	197.75	5.352		
12,800.0	7,252.0	12,911.6	7,272.0	100.9	101.4	-91.08	5,289.9	-1,320.4	1,059.2	858.0	201.15	5.266		
12,900.0	7,252.0	13,011.6	7,272.0	102.6	103.1	-91.08	5,389.9	-1,322.0	1,059.9	855.3	204.55	5.182		
13,000.0	7,252.0	13,111.6	7,272.0	104.3	104.8	-91.08	5,489.9	-1,323.5	1,060.6	852.6	207.95	5.100		
13,100.0	7,252.0	13,211.6	7,272.0	106.0	106.5	-91.08	5,589.9	-1,325.1	1,061.3	850.0	211.36	5.021		
13,200.0	7,252.0	13,311.6	7,272.0	107.7	108.1	-91.08	5,689.9	-1,326.6	1,062.0	847.3	214.77	4.945		
13,300.0	7,252.0	13,411.6	7,272.0	109.5	109.8	-91.08	5,789.9	-1,328.2	1,062.7	844.6	218.18	4.871		
13,400.0	7,252.0	13,511.5	7,272.0	111.2	111.5	-91.08	5,889.9	-1,329.7	1,063.5	841.9	221.60	4.799		
13,500.0	7,252.0	13,611.5	7,272.0	112.9	113.2	-91.08	5,989.8	-1,331.2	1,064.2	839.1	225.03	4.729		
13,600.0	7,252.0	13,711.5	7,272.0	114.6	114.9	-91.08	6,089.8	-1,332.8	1,064.9	836.4	228.45	4.661		
13,700.0	7,252.0	13,811.5	7,272.0	116.3	116.6	-91.08	6,189.8	-1,334.3	1,065.6	833.7	231.88	4.595		
13,800.0	7,252.0	13,911.5	7,272.0	118.0	118.3	-91.07	6,289.8	-1,335.9	1,066.3	831.0	235.31	4.531		
13,900.0	7,252.0	14,011.5	7,272.0	119.7	120.0	-91.07	6,389.8	-1,337.4	1,067.0	828.3	238.75	4.469		
14,000.0	7,252.0	14,111.5	7,272.0	121.5	121.7	-91.07	6,489.8	-1,339.0	1,067.8	825.6	242.19	4.409		
14,100.0	7,252.0	14,211.5	7,272.0	123.2	123.4	-91.07	6,589.8	-1,340.5	1,068.5	822.8	245.63	4.350		
14,200.0	7,252.0	14,311.5	7,272.0	124.9	125.2	-91.07	6,689.7	-1,342.0	1,069.2	820.1	249.07	4.293		
14,300.0	7,252.0	14,411.5	7,272.0	126.6	126.9	-91.07	6,789.7	-1,343.6	1,069.9	817.4	252.52	4.237		
14,400.0	7,252.0	14,511.5	7,272.0	128.4	128.6	-91.07	6,889.7	-1,345.1	1,070.6	814.7	255.96	4.183		
14,500.0	7,252.0	14,611.5	7,272.0	130.1	130.3	-91.07	6,989.7	-1,346.7	1,071.3	811.9	259.41	4.130		
14,600.0	7,252.0	14,711.5	7,272.0	131.8	132.0	-91.07	7,089.7	-1,348.2	1,072.0	809.2	262.87	4.078		
14,700.0	7,252.0	14,811.5	7,272.0	133.5	133.7	-91.07	7,189.7	-1,349.8	1,072.8	806.4	266.32	4.028		
14,800.0	7,252.0	14,911.5	7,272.0	135.3	135.4	-91.07	7,289.7	-1,351.3	1,073.5	803.7	269.78	3.979		
14,900.0	7,252.0	15,011.5	7,272.0	137.0	137.2	-91.07	7,389.6	-1,352.8	1,074.2	801.0	273.24	3.931		
15,000.0	7,252.0	15,111.5	7,272.0	138.7	138.9	-91.07	7,489.6	-1,354.4	1,074.9	798.2	276.70	3.885		
15,100.0	7,252.0	15,211.5	7,272.0	140.5	140.6	-91.07	7,589.6	-1,355.9	1,075.6	795.5	280.16	3.839		
15,200.0	7,252.0	15,311.5	7,272.0	142.2	142.3	-91.06	7,689.6	-1,357.5	1,076.3	792.7	283.62	3.795		
15,300.0	7,252.0	15,411.5	7,272.0	143.9	144.0	-91.06	7,789.6	-1,359.0	1,077.1	790.0	287.09	3.752		
15,400.0	7,252.0	15,511.5	7,272.0	145.7	145.8	-91.06	7,889.6	-1,360.6	1,077.8	787.2	290.56	3.709		
15,500.0	7,252.0	15,611.5	7,272.0	147.4	147.5	-91.06	7,989.6	-1,362.1	1,078.5	784.5	294.03	3.668		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,252.0	15,711.5	7,272.0	149.1	149.2	-91.06	8,089.5	-1,363.6	1,079.2	781.7	297.50	3.628		
15,700.0	7,252.0	15,811.5	7,272.0	150.9	150.9	-91.06	8,189.5	-1,365.2	1,079.9	778.9	300.97	3.588		
15,800.0	7,252.0	15,911.5	7,272.0	152.6	152.7	-91.06	8,289.5	-1,366.7	1,080.6	776.2	304.44	3.550		
15,900.0	7,252.0	16,011.5	7,272.0	154.3	154.4	-91.06	8,389.5	-1,368.3	1,081.3	773.4	307.92	3.512		
16,000.0	7,252.0	16,111.5	7,272.0	156.1	156.1	-91.06	8,489.5	-1,369.8	1,082.1	770.7	311.39	3.475		
16,100.0	7,252.0	16,211.5	7,272.0	157.8	157.9	-91.06	8,589.5	-1,371.4	1,082.8	767.9	314.87	3.439		
16,200.0	7,252.0	16,311.5	7,272.0	159.6	159.6	-91.06	8,689.5	-1,372.9	1,083.5	765.1	318.35	3.403		
16,300.0	7,252.0	16,411.5	7,272.0	161.3	161.3	-91.06	8,789.4	-1,374.4	1,084.2	762.4	321.83	3.369		
16,400.0	7,252.0	16,511.5	7,272.0	163.0	163.1	-91.06	8,889.4	-1,376.0	1,084.9	759.6	325.31	3.335		
16,500.0	7,252.0	16,611.5	7,272.0	164.8	164.8	-91.06	8,989.4	-1,377.5	1,085.6	756.8	328.79	3.302		
16,600.0	7,252.0	16,711.5	7,272.0	166.5	166.5	-91.05	9,089.4	-1,379.1	1,086.4	754.1	332.28	3.269		
16,700.0	7,252.0	16,811.5	7,272.0	168.3	168.3	-91.05	9,189.4	-1,380.6	1,087.1	751.3	335.76	3.238		
16,800.0	7,252.0	16,911.5	7,272.0	170.0	170.0	-91.05	9,289.4	-1,382.2	1,087.8	748.5	339.25	3.206		
16,900.0	7,252.0	17,011.5	7,272.0	171.8	171.7	-91.05	9,389.4	-1,383.7	1,088.5	745.8	342.73	3.176		
17,000.0	7,252.0	17,111.5	7,272.0	173.5	173.5	-91.05	9,489.3	-1,385.2	1,089.2	743.0	346.22	3.146		
17,100.0	7,252.0	17,211.5	7,272.0	175.2	175.2	-91.05	9,589.3	-1,386.8	1,089.9	740.2	349.71	3.117		
17,200.0	7,252.0	17,270.0	7,272.0	177.0	176.2	-91.05	9,647.9	-1,387.7	1,091.4	738.6	352.81	3.094 SF		
17,300.0	7,252.0	17,270.0	7,272.0	178.7	176.2	-91.05	9,647.9	-1,387.7	1,100.5	747.1	353.36	3.114		
17,385.9	7,252.0	17,270.0	7,272.0	180.2	176.2	-91.05	9,647.9	-1,387.7	1,115.4	763.7	351.65	3.172		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.37	-0.1	-15.0	15.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.37	-0.1	-15.0	15.0	14.7	0.28	54.004		
200.0	200.0	200.0	200.0	1.0	0.0	-90.37	-0.1	-15.0	15.0	14.2	0.80	18.753		
300.0	300.0	300.0	300.0	1.5	0.0	-90.37	-0.1	-15.0	15.0	13.7	1.23	12.221		
400.0	400.0	400.0	400.0	1.9	0.0	-90.37	-0.1	-15.0	15.0	13.4	1.62	9.247		
500.0	500.0	500.0	500.0	2.3	0.0	-90.37	-0.1	-15.0	15.0	13.0	2.00	7.487		
600.0	600.0	600.0	600.0	2.7	0.0	-90.37	-0.1	-15.0	15.0	12.6	2.37	6.308		
700.0	700.0	700.0	700.0	3.1	0.0	-90.37	-0.1	-15.0	15.0	12.2	2.74	5.458		
800.0	800.0	800.0	800.0	3.5	0.0	-90.37	-0.1	-15.0	15.0	11.9	3.11	4.814		
900.0	900.0	900.0	900.0	3.9	0.0	-90.37	-0.1	-15.0	15.0	11.5	3.48	4.308		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	-90.37	-0.1	-15.0	15.0	11.1	3.84	3.899 CC, ES		
1,100.0	1,100.0	1,099.6	1,099.6	4.6	0.0	-95.35	-1.5	-16.0	16.1	11.8	4.28	3.758 SF		
1,200.0	1,200.0	1,199.2	1,199.0	4.9	0.0	54.92	-5.7	-19.1	18.9	14.2	4.70	4.013		
1,300.0	1,299.8	1,298.7	1,298.1	5.7	0.0	51.30	-12.6	-24.1	22.4	17.0	5.38	4.156		
1,400.0	1,399.5	1,398.6	1,397.6	6.1	0.0	52.95	-20.4	-29.8	24.7	19.0	5.72	4.319		
1,500.0	1,499.0	1,498.6	1,497.1	6.4	0.0	55.61	-28.2	-35.5	26.6	20.7	5.97	4.458		
1,600.0	1,598.6	1,598.6	1,596.6	6.7	0.0	57.91	-36.0	-41.2	28.6	22.3	6.28	4.558		
1,700.0	1,698.2	1,698.6	1,696.2	7.1	0.0	59.90	-43.8	-46.8	30.7	24.1	6.60	4.645		
1,800.0	1,797.8	1,798.5	1,795.7	7.4	0.0	61.65	-51.6	-52.5	32.7	25.8	6.93	4.723		
1,900.0	1,897.3	1,898.5	1,895.2	7.7	0.0	63.18	-59.4	-58.2	34.8	27.5	7.27	4.791		
2,000.0	1,996.9	1,998.5	1,994.7	8.1	0.0	64.54	-67.2	-63.9	36.9	29.3	7.61	4.851		
2,100.0	2,096.5	2,098.4	2,094.2	8.4	0.0	65.76	-75.0	-69.6	39.0	31.1	7.96	4.905		
2,200.0	2,196.1	2,198.4	2,193.7	8.7	0.0	66.84	-82.8	-75.3	41.2	32.9	8.32	4.953		
2,300.0	2,295.6	2,298.4	2,293.2	9.1	0.0	67.82	-90.6	-81.0	43.4	34.7	8.68	4.996		
2,400.0	2,395.2	2,398.4	2,392.7	9.4	0.0	68.71	-98.4	-86.7	45.5	36.5	9.04	5.035		
2,500.0	2,494.8	2,498.3	2,492.2	9.8	0.0	69.52	-106.1	-92.4	47.7	38.3	9.41	5.071		
2,600.0	2,594.4	2,598.3	2,591.7	10.1	0.0	70.25	-113.9	-98.0	49.9	40.1	9.78	5.103		
2,700.0	2,693.9	2,698.3	2,691.2	10.5	0.0	70.92	-121.7	-103.7	52.1	41.9	10.15	5.133		
2,800.0	2,793.5	2,798.3	2,790.7	10.9	0.0	71.54	-129.5	-109.4	54.3	43.8	10.52	5.160		
2,900.0	2,893.1	2,898.2	2,890.2	11.2	0.0	72.11	-137.3	-115.1	56.5	45.6	10.90	5.185		
3,000.0	2,992.7	2,998.2	2,989.7	11.6	0.0	72.64	-145.1	-120.8	58.7	47.4	11.27	5.208		
3,100.0	3,092.2	3,098.2	3,089.3	11.9	0.0	73.13	-152.9	-126.5	60.9	49.3	11.65	5.229		
3,200.0	3,191.8	3,198.2	3,188.8	12.3	0.0	73.58	-160.7	-132.2	63.2	51.1	12.03	5.249		
3,300.0	3,291.4	3,298.1	3,288.3	12.7	0.0	74.01	-168.5	-137.9	65.4	53.0	12.41	5.267		
3,400.0	3,391.0	3,398.1	3,387.8	13.0	0.0	74.40	-176.3	-143.6	67.6	54.8	12.79	5.285		
3,500.0	3,490.5	3,498.1	3,487.3	13.4	0.0	74.77	-184.1	-149.2	69.8	56.7	13.18	5.301		
3,600.0	3,590.1	3,598.1	3,586.8	13.8	0.0	75.12	-191.9	-154.9	72.1	58.5	13.56	5.316		
3,700.0	3,689.7	3,698.0	3,686.3	14.2	0.0	75.45	-199.7	-160.6	74.3	60.4	13.94	5.330		
3,800.0	3,789.2	3,798.0	3,785.8	14.5	0.0	75.75	-207.5	-166.3	76.6	62.2	14.33	5.343		
3,900.0	3,888.8	3,898.0	3,885.3	14.9	0.0	76.04	-215.3	-172.0	78.8	64.1	14.71	5.356		
4,000.0	3,988.4	3,998.0	3,984.8	15.3	0.0	76.32	-223.1	-177.7	81.0	65.9	15.10	5.368		
4,100.0	4,088.0	4,097.9	4,084.3	15.7	0.0	76.58	-230.9	-183.4	83.3	67.8	15.48	5.379		
4,200.0	4,187.5	4,197.9	4,183.8	16.0	0.0	76.82	-238.7	-189.1	85.5	69.7	15.87	5.390		
4,300.0	4,287.1	4,297.9	4,283.3	16.4	0.0	77.05	-246.5	-194.8	87.8	71.5	16.26	5.400		
4,400.0	4,386.7	4,397.9	4,382.8	16.8	0.0	77.28	-254.3	-200.4	90.0	73.4	16.64	5.410		
4,500.0	4,486.3	4,497.8	4,482.4	17.2	0.0	77.49	-262.1	-206.1	92.3	75.3	17.03	5.419		
4,600.0	4,585.8	4,597.8	4,581.9	17.6	0.0	77.69	-269.9	-211.8	94.5	77.1	17.42	5.428		
4,700.0	4,685.4	4,697.8	4,681.4	17.9	0.0	77.88	-277.7	-217.5	96.8	79.0	17.81	5.436		
4,800.0	4,785.0	4,797.7	4,780.9	18.3	0.0	78.06	-285.5	-223.2	99.1	80.9	18.20	5.444		
4,900.0	4,884.6	4,897.7	4,880.4	18.7	0.0	78.23	-293.3	-228.9	101.3	82.7	18.59	5.451		
5,000.0	4,984.1	4,997.7	4,979.9	19.1	0.0	78.40	-301.1	-234.6	103.6	84.6	18.97	5.459		
5,100.0	5,083.7	5,097.7	5,079.4	19.5	0.0	78.56	-308.9	-240.3	105.8	86.5	19.36	5.466		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,183.3	5,197.6	5,178.9	19.9	0.0	78.71	-316.6	-246.0	108.1	88.3	19.75	5.472		
5,300.0	5,282.9	5,297.6	5,278.4	20.2	0.0	78.86	-324.4	-251.6	110.3	90.2	20.14	5.479		
5,400.0	5,382.4	5,397.6	5,377.9	20.6	0.0	79.00	-332.2	-257.3	112.6	92.1	20.53	5.485		
5,500.0	5,482.0	5,497.6	5,477.4	21.0	0.0	79.14	-340.0	-263.0	114.9	93.9	20.92	5.491		
5,600.0	5,581.6	5,597.5	5,576.9	21.4	0.0	79.27	-347.8	-268.7	117.1	95.8	21.31	5.496		
5,700.0	5,681.2	5,697.5	5,676.4	21.8	0.0	79.39	-355.6	-274.4	119.4	97.7	21.70	5.502		
5,800.0	5,780.7	5,797.5	5,775.9	22.2	0.0	79.51	-363.4	-280.1	121.7	99.6	22.09	5.507		
5,900.0	5,880.3	5,897.5	5,875.5	22.6	0.0	79.63	-371.2	-285.8	123.9	101.4	22.48	5.512		
6,000.0	5,979.9	5,997.4	5,975.0	22.9	0.0	79.74	-379.0	-291.5	126.2	103.3	22.87	5.517		
6,100.0	6,079.5	6,097.4	6,074.5	23.3	0.0	79.85	-386.8	-297.2	128.4	105.2	23.26	5.522		
6,200.0	6,179.0	6,197.4	6,174.0	23.7	0.0	79.95	-394.6	-302.9	130.7	107.1	23.65	5.526		
6,300.0	6,278.6	6,297.4	6,273.5	24.1	0.0	80.05	-402.4	-308.5	133.0	108.9	24.04	5.531		
6,400.0	6,378.2	6,397.3	6,373.0	24.5	0.0	80.15	-410.2	-314.2	135.2	110.8	24.43	5.535		
6,500.0	6,477.7	6,497.3	6,472.5	24.9	0.0	80.24	-418.0	-319.9	137.5	112.7	24.83	5.539		
6,600.0	6,577.3	6,597.3	6,572.0	25.3	0.0	80.33	-425.8	-325.6	139.8	114.6	25.22	5.543		
6,700.0	6,677.0	6,697.2	6,671.5	25.7	0.0	19.47	-433.6	-331.3	141.6	116.0	25.62	5.528		
6,800.0	6,776.5	6,795.8	6,769.6	26.0	0.0	-71.61	-441.3	-336.9	141.1	115.1	25.97	5.432		
6,818.3	6,794.5	6,813.5	6,787.2	26.0	0.0	-75.33	-442.7	-337.9	141.0	115.0	26.02	5.419		
6,900.0	6,873.0	6,890.1	6,863.4	26.2	0.0	-89.81	-448.6	-342.3	143.3	117.1	26.22	5.466		
7,000.0	6,963.6	6,977.2	6,950.2	26.4	0.0	-106.04	-455.4	-347.2	158.6	132.3	26.37	6.015		
7,100.0	7,045.6	7,054.6	7,027.2	26.6	0.0	-118.61	-461.5	-351.6	194.9	168.4	26.53	7.348		
7,200.0	7,116.5	7,145.8	7,118.1	26.8	0.0	-129.81	-463.9	-356.8	250.0	223.2	26.78	9.333		
7,300.0	7,174.1	7,265.0	7,235.6	27.0	0.0	-139.48	-445.8	-363.6	311.7	285.1	26.57	11.731		
7,400.0	7,216.6	7,426.7	7,383.8	27.2	0.0	-147.69	-383.3	-372.1	372.6	347.5	25.09	14.851		
7,500.0	7,242.9	7,638.0	7,540.7	27.5	0.0	-153.58	-243.9	-381.3	422.5	400.5	21.95	19.250		
7,600.0	7,252.0	8,010.1	7,662.0	27.8	0.0	-157.47	100.8	-388.6	443.9	426.9	16.93	26.216		
7,700.0	7,252.0	8,115.6	7,662.0	28.1	0.0	-157.56	206.3	-388.7	443.6	426.2	17.43	25.446		
7,800.0	7,252.0	8,215.6	7,662.0	28.6	0.0	-157.65	306.3	-388.8	443.3	425.6	17.72	25.021		
7,900.0	7,252.0	8,315.6	7,662.0	29.2	0.0	-157.73	406.3	-388.9	443.0	425.0	18.05	24.542		
8,000.0	7,252.0	8,415.6	7,662.0	29.9	0.0	-157.82	506.3	-389.1	442.8	424.3	18.43	24.022		
8,100.0	7,252.0	8,515.6	7,662.0	30.7	0.0	-157.90	606.3	-389.2	442.5	423.6	18.85	23.470		
8,200.0	7,252.0	8,615.6	7,662.0	31.5	0.0	-157.99	706.3	-389.3	442.2	422.9	19.32	22.895		
8,300.0	7,252.0	8,715.6	7,662.0	32.4	0.0	-158.08	806.3	-389.4	442.0	422.2	19.81	22.307		
8,400.0	7,252.0	8,815.6	7,662.0	33.4	0.0	-158.16	906.3	-389.5	441.7	421.4	20.34	21.712		
8,500.0	7,252.0	8,915.6	7,662.0	34.5	0.0	-158.25	1,006.3	-389.6	441.4	420.5	20.90	21.117		
8,600.0	7,252.0	9,015.6	7,662.0	35.6	0.0	-158.34	1,106.2	-389.7	441.2	419.7	21.49	20.527		
8,700.0	7,252.0	9,115.6	7,662.0	36.8	0.0	-158.42	1,206.2	-389.8	440.9	418.8	22.11	19.945		
8,800.0	7,252.0	9,215.6	7,662.0	38.0	0.0	-158.51	1,306.2	-389.9	440.6	417.9	22.74	19.376		
8,900.0	7,252.0	9,315.5	7,662.0	39.2	0.0	-158.59	1,406.2	-390.1	440.4	417.0	23.40	18.822		
9,000.0	7,252.0	9,415.5	7,662.0	40.5	0.0	-158.68	1,506.2	-390.2	440.1	416.0	24.07	18.284		
9,100.0	7,252.0	9,515.5	7,662.0	41.9	0.0	-158.77	1,606.2	-390.3	439.9	415.1	24.76	17.763		
9,200.0	7,252.0	9,615.5	7,662.0	43.2	0.0	-158.86	1,706.2	-390.4	439.6	414.1	25.47	17.260		
9,300.0	7,252.0	9,715.5	7,662.0	44.6	0.0	-158.94	1,806.2	-390.5	439.3	413.2	26.19	16.776		
9,400.0	7,252.0	9,815.5	7,662.0	46.0	0.0	-159.03	1,906.2	-390.6	439.1	412.2	26.92	16.311		
9,500.0	7,252.0	9,915.5	7,662.0	47.5	0.0	-159.12	2,006.2	-390.7	438.8	411.2	27.66	15.863		
9,600.0	7,252.0	10,015.5	7,662.0	48.9	0.0	-159.20	2,106.2	-390.8	438.6	410.2	28.42	15.434		
9,700.0	7,252.0	10,115.5	7,662.0	50.4	0.0	-159.29	2,206.2	-390.9	438.3	409.1	29.18	15.023		
9,800.0	7,252.0	10,215.5	7,662.0	51.9	0.0	-159.38	2,306.2	-391.1	438.1	408.1	29.95	14.629		
9,900.0	7,252.0	10,315.5	7,662.0	53.4	0.0	-159.47	2,406.2	-391.2	437.8	407.1	30.72	14.251		
10,000.0	7,252.0	10,415.5	7,662.0	54.9	0.0	-159.55	2,506.2	-391.3	437.6	406.1	31.50	13.889		
10,100.0	7,252.0	10,515.5	7,662.0	56.5	0.0	-159.64	2,606.2	-391.4	437.3	405.0	32.29	13.542		
10,200.0	7,252.0	10,615.5	7,662.0	58.0	0.0	-159.73	2,706.2	-391.5	437.1	404.0	33.09	13.210		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,300.0	7,252.0	10,715.5	7,662.0	59.6	0.0	-159.82	2,806.2	-391.6	436.8	402.9	33.88	12.892		
10,400.0	7,252.0	10,815.5	7,662.0	61.2	0.0	-159.91	2,906.2	-391.7	436.6	401.9	34.68	12.587		
10,500.0	7,252.0	10,915.5	7,662.0	62.8	0.0	-160.00	3,006.2	-391.8	436.3	400.8	35.49	12.295		
10,600.0	7,252.0	11,015.5	7,662.0	64.4	0.0	-160.08	3,106.2	-391.9	436.1	399.8	36.30	12.014		
10,700.0	7,252.0	11,115.5	7,662.0	66.0	0.0	-160.17	3,206.2	-392.1	435.8	398.7	37.11	11.745		
10,800.0	7,252.0	11,215.5	7,662.0	67.6	0.0	-160.26	3,306.2	-392.2	435.6	397.7	37.92	11.487		
10,900.0	7,252.0	11,315.5	7,662.0	69.2	0.0	-160.35	3,406.2	-392.3	435.4	396.6	38.74	11.239		
11,000.0	7,252.0	11,415.5	7,662.0	70.8	0.0	-160.44	3,506.2	-392.4	435.1	395.6	39.55	11.001		
11,100.0	7,252.0	11,515.5	7,662.0	72.5	0.0	-160.53	3,606.2	-392.5	434.9	394.5	40.37	10.772		
11,200.0	7,252.0	11,615.5	7,662.0	74.1	0.0	-160.62	3,706.2	-392.6	434.6	393.4	41.19	10.552		
11,300.0	7,252.0	11,715.5	7,662.0	75.7	0.0	-160.70	3,806.2	-392.7	434.4	392.4	42.01	10.340		
11,400.0	7,252.0	11,815.5	7,662.0	77.4	0.0	-160.79	3,906.2	-392.8	434.2	391.3	42.83	10.136		
11,500.0	7,252.0	11,915.5	7,662.0	79.1	0.0	-160.88	4,006.2	-393.0	433.9	390.3	43.66	9.940		
11,600.0	7,252.0	12,015.5	7,662.0	80.7	0.0	-160.97	4,106.2	-393.1	433.7	389.2	44.48	9.751		
11,700.0	7,252.0	12,115.5	7,662.0	82.4	0.0	-161.06	4,206.2	-393.2	433.5	388.2	45.30	9.569		
11,800.0	7,252.0	12,215.5	7,662.0	84.0	0.0	-161.15	4,306.2	-393.3	433.2	387.1	46.12	9.393		
11,900.0	7,252.0	12,315.5	7,662.0	85.7	0.0	-161.24	4,406.2	-393.4	433.0	386.1	46.95	9.224		
12,000.0	7,252.0	12,415.5	7,662.0	87.4	0.0	-161.33	4,506.2	-393.5	432.8	385.0	47.77	9.060		
12,100.0	7,252.0	12,515.5	7,662.0	89.1	0.0	-161.42	4,606.2	-393.6	432.5	384.0	48.59	8.902		
12,200.0	7,252.0	12,615.5	7,662.0	90.8	0.0	-161.51	4,706.2	-393.7	432.3	382.9	49.41	8.749		
12,300.0	7,252.0	12,715.5	7,662.0	92.4	0.0	-161.60	4,806.2	-393.8	432.1	381.9	50.23	8.602		
12,400.0	7,252.0	12,815.5	7,662.0	94.1	0.0	-161.69	4,906.1	-394.0	431.9	380.8	51.05	8.459		
12,500.0	7,252.0	12,915.5	7,662.0	95.8	0.0	-161.78	5,006.1	-394.1	431.6	379.8	51.87	8.321		
12,600.0	7,252.0	13,015.5	7,662.0	97.5	0.0	-161.87	5,106.1	-394.2	431.4	378.7	52.69	8.187		
12,700.0	7,252.0	13,115.5	7,662.0	99.2	0.0	-161.96	5,206.1	-394.3	431.2	377.7	53.51	8.058		
12,800.0	7,252.0	13,215.4	7,662.0	100.9	0.0	-162.05	5,306.1	-394.4	431.0	376.6	54.33	7.933		
12,900.0	7,252.0	13,315.4	7,662.0	102.6	0.0	-162.14	5,406.1	-394.5	430.8	375.6	55.15	7.811		
13,000.0	7,252.0	13,415.4	7,662.0	104.3	0.0	-162.23	5,506.1	-394.6	430.5	374.6	55.96	7.693		
13,100.0	7,252.0	13,515.4	7,662.0	106.0	0.0	-162.32	5,606.1	-394.7	430.3	373.5	56.78	7.579		
13,200.0	7,252.0	13,615.4	7,662.0	107.7	0.0	-162.41	5,706.1	-394.8	430.1	372.5	57.59	7.468		
13,300.0	7,252.0	13,715.4	7,662.0	109.5	0.0	-162.51	5,806.1	-395.0	429.9	371.5	58.40	7.361		
13,400.0	7,252.0	13,815.4	7,662.0	111.2	0.0	-162.60	5,906.1	-395.1	429.7	370.5	59.21	7.256		
13,500.0	7,252.0	13,915.4	7,662.0	112.9	0.0	-162.69	6,006.1	-395.2	429.5	369.4	60.02	7.155		
13,600.0	7,252.0	14,015.4	7,662.0	114.6	0.0	-162.78	6,106.1	-395.3	429.2	368.4	60.83	7.056		
13,700.0	7,252.0	14,115.4	7,662.0	116.3	0.0	-162.87	6,206.1	-395.4	429.0	367.4	61.64	6.960		
13,800.0	7,252.0	14,215.4	7,662.0	118.0	0.0	-162.96	6,306.1	-395.5	428.8	366.4	62.45	6.867		
13,900.0	7,252.0	14,315.4	7,662.0	119.7	0.0	-163.05	6,406.1	-395.6	428.6	365.4	63.25	6.776		
14,000.0	7,252.0	14,415.4	7,662.0	121.5	0.0	-163.14	6,506.1	-395.7	428.4	364.4	64.05	6.688		
14,100.0	7,252.0	14,515.4	7,662.0	123.2	0.0	-163.24	6,606.1	-395.8	428.2	363.3	64.86	6.602		
14,200.0	7,252.0	14,615.4	7,662.0	124.9	0.0	-163.33	6,706.1	-396.0	428.0	362.3	65.66	6.519		
14,300.0	7,252.0	14,715.4	7,662.0	126.6	0.0	-163.42	6,806.1	-396.1	427.8	361.3	66.45	6.437		
14,400.0	7,252.0	14,815.4	7,662.0	128.4	0.0	-163.51	6,906.1	-396.2	427.6	360.3	67.25	6.358		
14,500.0	7,252.0	14,915.4	7,662.0	130.1	0.0	-163.60	7,006.1	-396.3	427.4	359.3	68.05	6.281		
14,600.0	7,252.0	15,015.4	7,662.0	131.8	0.0	-163.70	7,106.1	-396.4	427.2	358.3	68.84	6.205		
14,700.0	7,252.0	15,115.4	7,662.0	133.5	0.0	-163.79	7,206.1	-396.5	427.0	357.3	69.64	6.132		
14,800.0	7,252.0	15,215.4	7,662.0	135.3	0.0	-163.88	7,306.1	-396.6	426.8	356.4	70.43	6.060		
14,900.0	7,252.0	15,315.4	7,662.0	137.0	0.0	-163.97	7,406.1	-396.7	426.6	355.4	71.22	5.990		
15,000.0	7,252.0	15,415.4	7,662.0	138.7	0.0	-164.07	7,506.1	-396.8	426.4	354.4	72.01	5.922		
15,100.0	7,252.0	15,515.4	7,662.0	140.5	0.0	-164.16	7,606.1	-397.0	426.2	353.4	72.79	5.855		
15,200.0	7,252.0	15,615.4	7,662.0	142.2	0.0	-164.25	7,706.1	-397.1	426.0	352.4	73.58	5.790		
15,300.0	7,252.0	15,715.4	7,662.0	143.9	0.0	-164.34	7,806.1	-397.2	425.8	351.4	74.36	5.726		
15,400.0	7,252.0	15,815.4	7,662.0	145.7	0.0	-164.44	7,906.1	-397.3	425.6	350.5	75.14	5.664		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2CDH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,500.0	7,252.0	15,915.4	7,662.0	147.4	0.0	-164.53	8,006.1	-397.4	425.4	349.5	75.92	5.603	
15,600.0	7,252.0	16,015.4	7,662.0	149.1	0.0	-164.62	8,106.1	-397.5	425.2	348.5	76.70	5.544	
15,700.0	7,252.0	16,115.4	7,662.0	150.9	0.0	-164.71	8,206.1	-397.6	425.0	347.6	77.48	5.486	
15,800.0	7,252.0	16,215.4	7,662.0	152.6	0.0	-164.81	8,306.1	-397.7	424.8	346.6	78.26	5.429	
15,900.0	7,252.0	16,315.4	7,662.0	154.3	0.0	-164.90	8,406.1	-397.8	424.7	345.6	79.03	5.373	
16,000.0	7,252.0	16,415.4	7,662.0	156.1	0.0	-164.99	8,506.1	-398.0	424.5	344.7	79.80	5.319	
16,100.0	7,252.0	16,515.4	7,662.0	157.8	0.0	-165.09	8,606.1	-398.1	424.3	343.7	80.57	5.266	
16,200.0	7,252.0	16,615.4	7,662.0	159.6	0.0	-165.18	8,706.0	-398.2	424.1	342.8	81.34	5.214	
16,300.0	7,252.0	16,715.4	7,662.0	161.3	0.0	-165.27	8,806.0	-398.3	423.9	341.8	82.11	5.163	
16,400.0	7,252.0	16,815.4	7,662.0	163.0	0.0	-165.37	8,906.0	-398.4	423.7	340.9	82.88	5.113	
16,500.0	7,252.0	16,915.4	7,662.0	164.8	0.0	-165.46	9,006.0	-398.5	423.6	339.9	83.64	5.064	
16,600.0	7,252.0	17,015.4	7,662.0	166.5	0.0	-165.56	9,106.0	-398.6	423.4	339.0	84.41	5.016	
16,700.0	7,252.0	17,115.3	7,662.0	168.3	0.0	-165.65	9,206.0	-398.7	423.2	338.0	85.17	4.969	
16,800.0	7,252.0	17,215.3	7,662.0	170.0	0.0	-165.74	9,306.0	-398.9	423.0	337.1	85.93	4.923	
16,900.0	7,252.0	17,315.3	7,662.0	171.8	0.0	-165.84	9,406.0	-399.0	422.9	336.2	86.69	4.878	
17,000.0	7,252.0	17,415.3	7,662.0	173.5	0.0	-165.93	9,506.0	-399.1	422.7	335.2	87.45	4.834	
17,100.0	7,252.0	17,515.3	7,662.0	175.2	0.0	-166.03	9,606.0	-399.2	422.5	334.3	88.20	4.790	
17,200.0	7,252.0	17,615.3	7,662.0	177.0	0.0	-166.12	9,706.0	-399.3	422.3	333.4	88.96	4.748	
17,300.0	7,252.0	17,715.3	7,662.0	178.7	0.0	-166.21	9,806.0	-399.4	422.2	332.5	89.71	4.706	
17,372.4	7,252.0	17,787.8	7,662.0	180.0	0.0	-166.28	9,878.4	-399.5	422.0	331.8	90.25	4.676	
17,385.9	7,252.0	17,799.6	7,662.0	180.2	0.0	-166.29	9,890.3	-399.5	422.0	331.7	90.35	4.671	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.70	0.2	30.0	30.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.70	0.2	30.0	30.0	29.7	0.28	108.295		
200.0	200.0	200.0	200.0	1.0	0.0	89.70	0.2	30.0	30.0	29.2	0.80	37.601		
300.0	300.0	300.0	300.0	1.5	0.0	89.70	0.2	30.0	30.0	28.8	1.22	24.501		
400.0	400.0	400.0	400.0	1.9	0.0	89.70	0.2	30.0	30.0	28.4	1.62	18.538		
500.0	500.0	500.0	500.0	2.3	0.0	89.70	0.2	30.0	30.0	28.0	2.00	15.008		
600.0	600.0	600.0	600.0	2.7	0.0	89.70	0.2	30.0	30.0	27.6	2.37	12.644		
700.0	700.0	700.0	700.0	3.1	0.0	89.70	0.2	30.0	30.0	27.3	2.74	10.940		
800.0	800.0	800.0	800.0	3.5	0.0	89.70	0.2	30.0	30.0	26.9	3.11	9.648		
900.0	900.0	900.0	900.0	3.9	0.0	89.70	0.2	30.0	30.0	26.5	3.47	8.634		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	89.70	0.2	30.0	30.0	26.2	3.84	7.816		
1,100.0	1,100.0	1,100.0	1,100.0	4.6	0.0	89.70	0.2	30.0	30.0	25.8	4.20	7.140 CC, ES		
1,200.0	1,200.0	1,200.0	1,200.0	4.9	0.0	-115.81	0.2	30.0	30.7	26.1	4.57	6.718		
1,300.0	1,299.8	1,299.8	1,299.8	5.7	0.0	-123.88	0.2	30.0	33.3	28.0	5.29	6.298		
1,400.0	1,399.5	1,399.1	1,399.1	6.1	0.0	-131.85	-1.2	31.0	39.2	33.4	5.83	6.721		
1,500.0	1,499.0	1,498.4	1,498.2	6.4	0.0	-134.18	-5.3	34.1	47.0	40.8	6.18	7.598		
1,600.0	1,598.6	1,597.5	1,597.0	6.7	0.0	-132.40	-12.2	39.3	55.7	49.2	6.49	8.577		
1,700.0	1,698.2	1,696.9	1,695.8	7.1	0.0	-129.37	-20.7	45.6	65.1	58.3	6.78	9.593		
1,800.0	1,797.8	1,796.4	1,794.8	7.4	0.0	-127.10	-29.2	52.0	74.6	67.5	7.10	10.516		
1,900.0	1,897.3	1,895.9	1,893.7	7.7	0.0	-125.34	-37.8	58.4	84.3	76.9	7.42	11.351		
2,000.0	1,996.9	1,995.4	1,992.6	8.1	0.0	-123.95	-46.3	64.8	94.0	86.2	7.76	12.108		
2,100.0	2,096.5	2,095.0	2,091.6	8.4	0.0	-122.82	-54.8	71.2	103.7	95.6	8.11	12.795		
2,200.0	2,196.1	2,194.5	2,190.5	8.7	0.0	-121.88	-63.3	77.6	113.5	105.1	8.46	13.419		
2,300.0	2,295.6	2,294.0	2,289.4	9.1	0.0	-121.09	-71.9	84.0	123.3	114.5	8.82	13.989		
2,400.0	2,395.2	2,393.5	2,388.4	9.4	0.0	-120.42	-80.4	90.4	133.2	124.0	9.18	14.511		
2,500.0	2,494.8	2,493.0	2,487.3	9.8	0.0	-119.84	-88.9	96.8	143.0	133.5	9.54	14.989		
2,600.0	2,594.4	2,592.5	2,586.2	10.1	0.0	-119.33	-97.5	103.2	152.9	143.0	9.91	15.430		
2,700.0	2,693.9	2,692.0	2,685.1	10.5	0.0	-118.89	-106.0	109.6	162.8	152.5	10.28	15.836		
2,800.0	2,793.5	2,791.5	2,784.1	10.9	0.0	-118.50	-114.5	116.0	172.6	162.0	10.65	16.213		
2,900.0	2,893.1	2,891.0	2,883.0	11.2	0.0	-118.14	-123.0	122.4	182.5	171.5	11.02	16.562		
3,000.0	2,992.7	2,990.5	2,981.9	11.6	0.0	-117.83	-131.6	128.7	192.4	181.0	11.39	16.887		
3,100.0	3,092.2	3,090.0	3,080.9	11.9	0.0	-117.55	-140.1	135.1	202.3	190.5	11.77	17.189		
3,200.0	3,191.8	3,189.5	3,179.8	12.3	0.0	-117.29	-148.6	141.5	212.2	200.1	12.15	17.472		
3,300.0	3,291.4	3,289.0	3,278.7	12.7	0.0	-117.05	-157.2	147.9	222.1	209.6	12.52	17.737		
3,400.0	3,391.0	3,388.5	3,377.7	13.0	0.0	-116.84	-165.7	154.3	232.0	219.1	12.90	17.985		
3,500.0	3,490.5	3,488.0	3,476.6	13.4	0.0	-116.64	-174.2	160.7	241.9	228.7	13.28	18.219		
3,600.0	3,590.1	3,587.5	3,575.5	13.8	0.0	-116.46	-182.7	167.1	251.8	238.2	13.66	18.439		
3,700.0	3,689.7	3,687.0	3,674.5	14.2	0.0	-116.30	-191.3	173.5	261.8	247.7	14.04	18.646		
3,800.0	3,789.2	3,786.5	3,773.4	14.5	0.0	-116.14	-199.8	179.9	271.7	257.3	14.42	18.842		
3,900.0	3,888.8	3,886.0	3,872.3	14.9	0.0	-116.00	-208.3	186.3	281.6	266.8	14.80	19.027		
4,000.0	3,988.4	3,985.5	3,971.3	15.3	0.0	-115.86	-216.9	192.7	291.5	276.3	15.18	19.202		
4,100.0	4,088.0	4,085.0	4,070.2	15.7	0.0	-115.74	-225.4	199.1	301.4	285.9	15.56	19.369		
4,200.0	4,187.5	4,184.5	4,169.1	16.0	0.0	-115.62	-233.9	205.5	311.4	295.4	15.95	19.527		
4,300.0	4,287.1	4,284.0	4,268.1	16.4	0.0	-115.51	-242.4	211.9	321.3	305.0	16.33	19.677		
4,400.0	4,386.7	4,383.5	4,367.0	16.8	0.0	-115.40	-251.0	218.3	331.2	314.5	16.71	19.820		
4,500.0	4,486.3	4,483.1	4,465.9	17.2	0.0	-115.31	-259.5	224.7	341.2	324.1	17.09	19.957		
4,600.0	4,585.8	4,582.6	4,564.8	17.6	0.0	-115.21	-268.0	231.0	351.1	333.6	17.48	20.087		
4,700.0	4,685.4	4,682.1	4,663.8	17.9	0.0	-115.13	-276.6	237.4	361.0	343.2	17.86	20.211		
4,800.0	4,785.0	4,781.6	4,762.7	18.3	0.0	-115.04	-285.1	243.8	370.9	352.7	18.25	20.330		
4,900.0	4,884.6	4,881.1	4,861.6	18.7	0.0	-114.97	-293.6	250.2	380.9	362.2	18.63	20.444		
5,000.0	4,984.1	4,980.6	4,960.6	19.1	0.0	-114.89	-302.1	256.6	390.8	371.8	19.01	20.553		
5,100.0	5,083.7	5,080.1	5,059.5	19.5	0.0	-114.82	-310.7	263.0	400.7	381.3	19.40	20.658		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,183.3	5,179.6	5,158.4	19.9	0.0	-114.75	-319.2	269.4	410.7	390.9	19.78	20.758		
5,300.0	5,282.9	5,279.1	5,257.4	20.2	0.0	-114.69	-327.7	275.8	420.6	400.4	20.17	20.854		
5,400.0	5,382.4	5,378.6	5,356.3	20.6	0.0	-114.63	-336.3	282.2	430.5	410.0	20.55	20.947		
5,500.0	5,482.0	5,478.1	5,455.2	21.0	0.0	-114.57	-344.8	288.6	440.5	419.5	20.94	21.036		
5,600.0	5,581.6	5,577.6	5,554.2	21.4	0.0	-114.51	-353.3	295.0	450.4	429.1	21.32	21.122		
5,700.0	5,681.2	5,677.1	5,653.1	21.8	0.0	-114.46	-361.8	301.4	460.4	438.6	21.71	21.204		
5,800.0	5,780.7	5,776.6	5,752.0	22.2	0.0	-114.41	-370.4	307.8	470.3	448.2	22.10	21.284		
5,900.0	5,880.3	5,876.1	5,851.0	22.6	0.0	-114.36	-378.9	314.2	480.2	457.7	22.48	21.360		
6,000.0	5,979.9	5,975.6	5,949.9	22.9	0.0	-114.31	-387.4	320.6	490.2	467.3	22.87	21.435		
6,100.0	6,079.5	6,075.1	6,048.8	23.3	0.0	-114.27	-396.0	326.9	500.1	476.8	23.25	21.506		
6,200.0	6,179.0	6,174.6	6,147.8	23.7	0.0	-114.23	-404.5	333.3	510.0	486.4	23.64	21.575		
6,300.0	6,278.6	6,274.1	6,246.7	24.1	0.0	-114.18	-413.0	339.7	520.0	495.9	24.03	21.642		
6,400.0	6,378.2	6,373.6	6,345.6	24.5	0.0	-114.14	-421.5	346.1	529.9	505.5	24.41	21.707		
6,500.0	6,477.7	6,473.1	6,444.6	24.9	0.0	-114.11	-430.1	352.5	539.8	515.1	24.80	21.769		
6,600.0	6,577.3	6,572.6	6,543.5	25.3	0.0	-114.07	-438.6	358.9	549.8	524.6	25.19	21.830		
6,700.0	6,677.0	6,672.1	6,642.4	25.7	0.0	-114.03	-447.1	365.3	559.7	534.1	25.57	21.888		
6,800.0	6,776.5	6,770.0	6,739.7	26.0	0.0	101.52	-455.5	371.6	569.5	543.6	25.91	21.979		
6,900.0	6,873.0	6,867.1	6,836.4	26.2	0.0	97.52	-461.1	377.8	580.2	554.1	26.13	22.209		
7,000.0	6,963.6	6,957.0	6,929.1	26.4	0.0	97.63	-450.6	384.3	592.1	565.8	26.31	22.503		
7,100.0	7,045.6	7,038.6	7,005.0	26.6	0.0	98.68	-419.1	390.8	604.7	578.2	26.47	22.840		
7,200.0	7,116.5	7,109.9	7,149.9	26.8	0.0	100.01	-363.1	397.0	617.1	590.5	26.59	23.206		
7,300.0	7,174.1	7,167.4	7,137.3	27.0	0.0	101.33	-279.9	402.6	628.4	601.7	26.66	23.567		
7,400.0	7,216.6	7,209.9	7,182.3	27.2	0.0	102.45	-169.4	406.8	637.5	610.8	26.73	23.854		
7,500.0	7,242.9	7,236.1	7,208.7	27.5	0.0	103.20	-35.7	409.2	643.5	616.6	26.86	23.952		
7,600.0	7,252.0	7,245.0	7,217.0	27.8	0.0	103.44	111.5	409.2	645.5	618.3	27.17	23.758		
7,674.5	7,252.2	7,245.0	7,217.0	28.0	0.0	103.42	186.1	408.6	645.5	618.0	27.47	23.500		
7,700.0	7,252.0	7,245.0	7,217.0	28.1	0.0	103.44	211.7	408.4	645.5	617.9	27.57	23.416		
7,800.0	7,252.0	7,245.0	7,217.0	28.6	0.0	103.44	311.6	407.6	645.5	617.4	28.07	23.000		
7,900.0	7,252.0	7,245.0	7,217.0	29.2	0.0	103.44	411.6	406.8	645.5	616.8	28.66	22.523		
8,000.0	7,252.0	7,245.0	7,217.0	29.9	0.0	103.44	511.6	405.9	645.5	616.2	29.34	21.997		
8,100.0	7,252.0	7,245.0	7,217.0	30.7	0.0	103.44	611.6	405.1	645.5	615.4	30.11	21.437		
8,200.0	7,252.0	7,245.0	7,217.0	31.5	0.0	103.44	711.6	404.3	645.5	614.6	30.96	20.851		
8,300.0	7,252.0	7,245.0	7,217.0	32.4	0.0	103.44	811.6	403.4	645.5	613.6	31.87	20.252		
8,400.0	7,252.0	7,245.0	7,217.0	33.4	0.0	103.44	911.6	402.6	645.5	612.7	32.86	19.647		
8,500.0	7,252.0	7,245.0	7,217.0	34.5	0.0	103.44	1,011.6	401.8	645.5	611.6	33.90	19.043		
8,600.0	7,252.0	7,245.0	7,217.0	35.6	0.0	103.44	1,111.6	401.0	645.5	610.5	34.99	18.447		
8,700.0	7,252.0	7,245.0	7,217.0	36.8	0.0	103.44	1,211.6	400.1	645.5	609.4	36.14	17.863		
8,800.0	7,252.0	7,245.0	7,217.0	38.0	0.0	103.44	1,311.6	399.3	645.5	608.2	37.33	17.294		
8,900.0	7,252.0	7,245.0	7,217.0	39.2	0.0	103.44	1,411.6	398.5	645.5	607.0	38.56	16.742		
9,000.0	7,252.0	7,245.0	7,217.0	40.5	0.0	103.44	1,511.6	397.7	645.5	605.7	39.82	16.209		
9,100.0	7,252.0	7,245.0	7,217.0	41.9	0.0	103.44	1,611.6	396.8	645.5	604.4	41.12	15.697		
9,200.0	7,252.0	7,245.0	7,217.0	43.2	0.0	103.44	1,711.6	396.0	645.5	603.1	42.46	15.205		
9,300.0	7,252.0	7,245.0	7,217.0	44.6	0.0	103.44	1,811.6	395.2	645.5	601.7	43.81	14.733		
9,400.0	7,252.0	7,245.0	7,217.0	46.0	0.0	103.44	1,911.6	394.4	645.5	600.3	45.20	14.282		
9,500.0	7,252.0	7,245.0	7,217.0	47.5	0.0	103.44	2,011.6	393.5	645.5	598.9	46.60	13.851		
9,600.0	7,252.0	7,245.0	7,217.0	48.9	0.0	103.44	2,111.6	392.7	645.5	597.5	48.03	13.439		
9,700.0	7,252.0	7,245.0	7,217.0	50.4	0.0	103.44	2,211.6	391.9	645.5	596.0	49.48	13.046		
9,800.0	7,252.0	7,245.0	7,217.0	51.9	0.0	103.44	2,311.6	391.1	645.5	594.6	50.94	12.671		
9,900.0	7,252.0	7,245.0	7,217.0	53.4	0.0	103.44	2,411.6	390.2	645.5	593.1	52.42	12.314		
10,000.0	7,252.0	7,245.0	7,217.0	54.9	0.0	103.44	2,511.6	389.4	645.5	591.6	53.92	11.972		
10,100.0	7,252.0	7,245.0	7,217.0	56.5	0.0	103.44	2,611.6	388.6	645.5	590.1	55.43	11.647		
10,200.0	7,252.0	7,245.0	7,217.0	58.0	0.0	103.44	2,711.6	387.7	645.5	588.6	56.95	11.336		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NBH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,300.0	7,252.0	10,460.5	7,402.0	59.6	0.0	103.44	2,811.6	386.9	645.5	587.0	58.48	11.039	
10,400.0	7,252.0	10,560.5	7,402.0	61.2	0.0	103.44	2,911.6	386.1	645.5	585.5	60.02	10.755	
10,500.0	7,252.0	10,660.5	7,402.0	62.8	0.0	103.44	3,011.6	385.3	645.5	583.9	61.57	10.484	
10,600.0	7,252.0	10,760.5	7,402.0	64.4	0.0	103.44	3,111.6	384.4	645.5	582.4	63.13	10.225	
10,700.0	7,252.0	10,860.5	7,402.0	66.0	0.0	103.44	3,211.5	383.6	645.5	580.8	64.70	9.977	
10,800.0	7,252.0	10,960.5	7,402.0	67.6	0.0	103.44	3,311.5	382.8	645.5	579.2	66.28	9.739	
10,900.0	7,252.0	11,060.5	7,402.0	69.2	0.0	103.44	3,411.5	382.0	645.5	577.7	67.87	9.512	
11,000.0	7,252.0	11,160.5	7,402.0	70.8	0.0	103.44	3,511.5	381.1	645.5	576.1	69.46	9.294	
11,100.0	7,252.0	11,260.5	7,402.0	72.5	0.0	103.44	3,611.5	380.3	645.5	574.5	71.06	9.085	
11,200.0	7,252.0	11,360.5	7,402.0	74.1	0.0	103.44	3,711.5	379.5	645.5	572.9	72.66	8.884	
11,300.0	7,252.0	11,460.5	7,402.0	75.7	0.0	103.44	3,811.5	378.7	645.5	571.3	74.27	8.692	
11,400.0	7,252.0	11,560.5	7,402.0	77.4	0.0	103.44	3,911.5	377.8	645.5	569.6	75.88	8.507	
11,500.0	7,252.0	11,660.5	7,402.0	79.1	0.0	103.44	4,011.5	377.0	645.5	568.0	77.50	8.329	
11,600.0	7,252.0	11,760.5	7,402.0	80.7	0.0	103.44	4,111.5	376.2	645.5	566.4	79.13	8.158	
11,700.0	7,252.0	11,860.5	7,402.0	82.4	0.0	103.44	4,211.5	375.3	645.5	564.8	80.76	7.994	
11,800.0	7,252.0	11,960.5	7,402.0	84.0	0.0	103.44	4,311.5	374.5	645.5	563.1	82.39	7.835	
11,900.0	7,252.0	12,060.5	7,402.0	85.7	0.0	103.44	4,411.5	373.7	645.5	561.5	84.02	7.683	
12,000.0	7,252.0	12,160.5	7,402.0	87.4	0.0	103.44	4,511.5	372.9	645.5	559.9	85.66	7.536	
12,100.0	7,252.0	12,260.5	7,402.0	89.1	0.0	103.44	4,611.5	372.0	645.5	558.2	87.31	7.394	
12,200.0	7,252.0	12,360.5	7,402.0	90.8	0.0	103.44	4,711.5	371.2	645.5	556.6	88.95	7.257	
12,300.0	7,252.0	12,460.5	7,402.0	92.4	0.0	103.44	4,811.5	370.4	645.5	554.9	90.60	7.125	
12,400.0	7,252.0	12,560.5	7,402.0	94.1	0.0	103.44	4,911.5	369.6	645.5	553.3	92.25	6.997	
12,500.0	7,252.0	12,660.5	7,402.0	95.8	0.0	103.44	5,011.5	368.7	645.5	551.6	93.91	6.874	
12,600.0	7,252.0	12,760.5	7,402.0	97.5	0.0	103.44	5,111.5	367.9	645.5	550.0	95.56	6.755	
12,700.0	7,252.0	12,860.5	7,402.0	99.2	0.0	103.44	5,211.5	367.1	645.5	548.3	97.22	6.640	
12,800.0	7,252.0	12,960.5	7,402.0	100.9	0.0	103.44	5,311.5	366.3	645.5	546.7	98.89	6.528	
12,900.0	7,252.0	13,060.5	7,402.0	102.6	0.0	103.44	5,411.5	365.4	645.5	545.0	100.55	6.420	
13,000.0	7,252.0	13,160.5	7,402.0	104.3	0.0	103.44	5,511.5	364.6	645.5	543.3	102.22	6.315	
13,100.0	7,252.0	13,260.5	7,402.0	106.0	0.0	103.44	5,611.5	363.8	645.5	541.7	103.88	6.214	
13,200.0	7,252.0	13,360.5	7,402.0	107.7	0.0	103.44	5,711.5	363.0	645.5	540.0	105.55	6.116	
13,300.0	7,252.0	13,460.5	7,402.0	109.5	0.0	103.44	5,811.5	362.1	645.5	538.3	107.23	6.020	
13,400.0	7,252.0	13,560.5	7,402.0	111.2	0.0	103.44	5,911.5	361.3	645.5	536.6	108.90	5.928	
13,500.0	7,252.0	13,660.5	7,402.0	112.9	0.0	103.44	6,011.5	360.5	645.5	535.0	110.57	5.838	
13,600.0	7,252.0	13,760.5	7,402.0	114.6	0.0	103.44	6,111.4	359.6	645.5	533.3	112.25	5.751	
13,700.0	7,252.0	13,860.5	7,402.0	116.3	0.0	103.44	6,211.4	358.8	645.5	531.6	113.93	5.666	
13,800.0	7,252.0	13,960.5	7,402.0	118.0	0.0	103.44	6,311.4	358.0	645.5	529.9	115.61	5.584	
13,900.0	7,252.0	14,060.5	7,402.0	119.7	0.0	103.44	6,411.4	357.2	645.5	528.3	117.29	5.504	
14,000.0	7,252.0	14,160.5	7,402.0	121.5	0.0	103.44	6,511.4	356.3	645.5	526.6	118.97	5.426	
14,100.0	7,252.0	14,260.5	7,402.0	123.2	0.0	103.44	6,611.4	355.5	645.5	524.9	120.66	5.350	
14,200.0	7,252.0	14,360.5	7,402.0	124.9	0.0	103.44	6,711.4	354.7	645.5	523.2	122.34	5.277	
14,300.0	7,252.0	14,460.5	7,402.0	126.6	0.0	103.44	6,811.4	353.9	645.5	521.5	124.03	5.205	
14,400.0	7,252.0	14,560.5	7,402.0	128.4	0.0	103.44	6,911.4	353.0	645.5	519.8	125.71	5.135	
14,500.0	7,252.0	14,660.5	7,402.0	130.1	0.0	103.44	7,011.4	352.2	645.5	518.1	127.40	5.067	
14,600.0	7,252.0	14,760.5	7,402.0	131.8	0.0	103.44	7,111.4	351.4	645.5	516.5	129.09	5.001	
14,700.0	7,252.0	14,860.5	7,402.0	133.5	0.0	103.44	7,211.4	350.6	645.5	514.8	130.78	4.936	
14,800.0	7,252.0	14,960.5	7,402.0	135.3	0.0	103.44	7,311.4	349.7	645.5	513.1	132.47	4.873	
14,900.0	7,252.0	15,060.5	7,402.0	137.0	0.0	103.44	7,411.4	348.9	645.6	511.4	134.16	4.812	
15,000.0	7,252.0	15,160.5	7,402.0	138.7	0.0	103.44	7,511.4	348.1	645.6	509.7	135.86	4.752	
15,100.0	7,252.0	15,260.5	7,402.0	140.5	0.0	103.44	7,611.4	347.2	645.6	508.0	137.55	4.693	
15,200.0	7,252.0	15,360.5	7,402.0	142.2	0.0	103.44	7,711.4	346.4	645.6	506.3	139.24	4.636	
15,300.0	7,252.0	15,460.5	7,402.0	143.9	0.0	103.44	7,811.4	345.6	645.6	504.6	140.94	4.580	
15,400.0	7,252.0	15,560.5	7,402.0	145.7	0.0	103.44	7,911.4	344.8	645.6	502.9	142.64	4.526	

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design		S19-T1S-R65W - CONNER 19-18-2NBH - OH - PLAN #1										Offset Site Error:		0.0 usft	
Survey Program: 0-												Offset Well Error:		0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
15,500.0	7,252.0	15,660.5	7,402.0	147.4	0.0	103.44	8,011.4	343.9	645.6	501.2	144.33	4.473			
15,600.0	7,252.0	15,760.5	7,402.0	149.1	0.0	103.44	8,111.4	343.1	645.6	499.5	146.03	4.421			
15,700.0	7,252.0	15,860.5	7,402.0	150.9	0.0	103.44	8,211.4	342.3	645.6	497.8	147.73	4.370			
15,800.0	7,252.0	15,960.5	7,402.0	152.6	0.0	103.44	8,311.4	341.5	645.6	496.1	149.43	4.320			
15,900.0	7,252.0	16,060.5	7,402.0	154.3	0.0	103.44	8,411.4	340.6	645.6	494.4	151.13	4.272			
16,000.0	7,252.0	16,160.5	7,402.0	156.1	0.0	103.44	8,511.4	339.8	645.6	492.7	152.83	4.224			
16,100.0	7,252.0	16,260.5	7,402.0	157.8	0.0	103.44	8,611.4	339.0	645.6	491.0	154.53	4.178			
16,200.0	7,252.0	16,360.5	7,402.0	159.6	0.0	103.44	8,711.4	338.2	645.6	489.3	156.23	4.132			
16,300.0	7,252.0	16,460.5	7,402.0	161.3	0.0	103.44	8,811.4	337.3	645.6	487.6	157.93	4.088			
16,400.0	7,252.0	16,560.5	7,402.0	163.0	0.0	103.44	8,911.4	336.5	645.6	485.9	159.63	4.044			
16,500.0	7,252.0	16,660.5	7,402.0	164.8	0.0	103.44	9,011.3	335.7	645.6	484.2	161.33	4.001			
16,600.0	7,252.0	16,760.5	7,402.0	166.5	0.0	103.44	9,111.3	334.9	645.6	482.5	163.04	3.960			
16,700.0	7,252.0	16,860.5	7,402.0	168.3	0.0	103.44	9,211.3	334.0	645.6	480.8	164.74	3.919			
16,800.0	7,252.0	16,960.5	7,402.0	170.0	0.0	103.44	9,311.3	333.2	645.6	479.1	166.45	3.879			
16,900.0	7,252.0	17,060.5	7,402.0	171.8	0.0	103.44	9,411.3	332.4	645.6	477.4	168.15	3.839			
17,000.0	7,252.0	17,160.5	7,402.0	173.5	0.0	103.44	9,511.3	331.5	645.6	475.7	169.86	3.801			
17,100.0	7,252.0	17,260.5	7,402.0	175.2	0.0	103.44	9,611.3	330.7	645.6	474.0	171.56	3.763			
17,200.0	7,252.0	17,360.5	7,402.0	177.0	0.0	103.44	9,711.3	329.9	645.6	472.3	173.27	3.726			
17,300.0	7,252.0	17,460.5	7,402.0	178.7	0.0	103.44	9,811.3	329.1	645.6	470.6	174.97	3.689			
17,385.9	7,252.0	17,546.4	7,402.0	180.2	0.0	103.44	9,897.2	328.4	645.6	469.1	176.44	3.659 SF			

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.77	0.1	15.0	15.0					
100.0	100.0	100.0	100.0	0.4	0.4	89.77	0.1	15.0	15.0	14.4	0.55	27.116		
200.0	200.0	200.0	200.0	1.0	1.0	89.77	0.1	15.0	15.0	13.4	1.59	9.409		
300.0	300.0	300.0	300.0	1.5	1.5	89.77	0.1	15.0	15.0	12.6	2.45	6.130		
400.0	400.0	400.0	400.0	1.9	1.9	89.77	0.1	15.0	15.0	11.8	3.23	4.637		
500.0	500.0	500.0	500.0	2.3	2.3	89.77	0.1	15.0	15.0	11.0	4.00	3.754		
600.0	600.0	600.0	600.0	2.7	2.7	89.77	0.1	15.0	15.0	10.3	4.74	3.163		
700.0	700.0	700.0	700.0	3.1	3.1	89.77	0.1	15.0	15.0	9.5	5.48	2.736		
800.0	800.0	800.0	800.0	3.5	3.5	89.77	0.1	15.0	15.0	8.8	6.22	2.413		
900.0	900.0	900.0	900.0	3.9	3.9	89.77	0.1	15.0	15.0	8.1	6.95	2.159		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	4.2	89.77	0.1	15.0	15.0	7.3	7.67	1.955		
1,100.0	1,100.0	1,100.0	1,100.0	4.6	4.6	89.77	0.1	15.0	15.0	6.6	8.40	1.786 CC		
1,200.0	1,200.0	1,200.0	1,200.0	4.9	5.0	-118.59	0.1	15.0	15.8	6.5	9.26	1.701 ES		
1,300.0	1,299.8	1,300.0	1,300.0	5.7	5.3	-127.47	-1.7	15.1	18.4	8.0	10.44	1.765		
1,400.0	1,399.5	1,400.0	1,399.9	6.1	6.0	-131.51	-6.9	15.5	22.7	11.3	11.36	1.995		
1,500.0	1,499.0	1,500.0	1,499.6	6.4	6.3	-129.62	-14.9	16.0	26.7	14.8	11.90	2.243		
1,600.0	1,598.6	1,600.0	1,599.1	6.7	6.6	-127.75	-23.2	16.6	30.7	18.2	12.50	2.454		
1,700.0	1,698.2	1,699.9	1,698.7	7.1	6.9	-126.32	-31.5	17.2	34.7	21.6	13.15	2.639		
1,800.0	1,797.8	1,799.8	1,798.3	7.4	7.3	-125.18	-39.8	17.8	38.8	24.9	13.82	2.804		
1,900.0	1,897.3	1,899.7	1,897.8	7.7	7.6	-124.26	-48.1	18.3	42.8	28.3	14.51	2.951		
2,000.0	1,996.9	1,999.6	1,997.4	8.1	8.0	-123.49	-56.4	18.9	46.9	31.7	15.21	3.083		
2,100.0	2,096.5	2,099.5	2,097.0	8.4	8.3	-122.85	-64.7	19.5	51.0	35.0	15.91	3.202		
2,200.0	2,196.1	2,199.5	2,196.5	8.7	8.7	-122.31	-73.0	20.1	55.0	38.4	16.63	3.310		
2,300.0	2,295.6	2,299.4	2,296.1	9.1	9.0	-121.84	-81.3	20.6	59.1	41.8	17.35	3.407		
2,400.0	2,395.2	2,399.3	2,395.7	9.4	9.4	-121.43	-89.6	21.2	63.2	45.1	18.08	3.496		
2,500.0	2,494.8	2,499.2	2,495.2	9.8	9.7	-121.07	-97.9	21.8	67.3	48.5	18.81	3.577		
2,600.0	2,594.4	2,599.1	2,594.8	10.1	10.1	-120.75	-106.2	22.4	71.4	51.8	19.55	3.652		
2,700.0	2,693.9	2,699.0	2,694.4	10.5	10.4	-120.47	-114.5	22.9	75.5	55.2	20.29	3.721		
2,800.0	2,793.5	2,798.9	2,794.0	10.9	10.8	-120.21	-122.8	23.5	79.6	58.6	21.03	3.784		
2,900.0	2,893.1	2,898.9	2,893.5	11.2	11.1	-119.98	-131.1	24.1	83.7	61.9	21.78	3.842		
3,000.0	2,992.7	2,998.8	2,993.1	11.6	11.5	-119.77	-139.4	24.6	87.8	65.3	22.53	3.897		
3,100.0	3,092.2	3,098.7	3,092.7	11.9	11.9	-119.58	-147.7	25.2	91.9	68.6	23.28	3.947		
3,200.0	3,191.8	3,198.6	3,192.2	12.3	12.2	-119.41	-156.0	25.8	96.0	72.0	24.03	3.994		
3,300.0	3,291.4	3,298.5	3,291.8	12.7	12.6	-119.25	-164.2	26.4	100.1	75.3	24.78	4.038		
3,400.0	3,391.0	3,398.4	3,391.4	13.0	13.0	-119.10	-172.5	26.9	104.2	78.6	25.54	4.080		
3,500.0	3,490.5	3,498.4	3,490.9	13.4	13.3	-118.97	-180.8	27.5	108.3	82.0	26.29	4.118		
3,600.0	3,590.1	3,598.3	3,590.5	13.8	13.7	-118.84	-189.1	28.1	112.4	85.3	27.05	4.155		
3,700.0	3,689.7	3,698.2	3,690.1	14.2	14.1	-118.73	-197.4	28.7	116.5	88.7	27.81	4.189		
3,800.0	3,789.2	3,798.1	3,789.6	14.5	14.4	-118.62	-205.7	29.2	120.6	92.0	28.57	4.221		
3,900.0	3,888.8	3,898.0	3,889.2	14.9	14.8	-118.51	-214.0	29.8	124.7	95.4	29.33	4.251		
4,000.0	3,988.4	3,997.9	3,988.8	15.3	15.2	-118.42	-222.3	30.4	128.8	98.7	30.09	4.280		
4,100.0	4,088.0	4,097.8	4,088.3	15.7	15.5	-118.33	-230.6	31.0	132.9	102.1	30.86	4.308		
4,200.0	4,187.5	4,197.8	4,187.9	16.0	15.9	-118.25	-238.9	31.5	137.0	105.4	31.62	4.333		
4,300.0	4,287.1	4,297.7	4,287.5	16.4	16.3	-118.17	-247.2	32.1	141.1	108.7	32.38	4.358		
4,400.0	4,386.7	4,397.6	4,387.1	16.8	16.7	-118.09	-255.5	32.7	145.2	112.1	33.15	4.381		
4,500.0	4,486.3	4,497.5	4,486.6	17.2	17.0	-118.02	-263.8	33.3	149.3	115.4	33.91	4.404		
4,600.0	4,585.8	4,597.4	4,586.2	17.6	17.4	-117.96	-272.1	33.8	153.4	118.8	34.68	4.425		
4,700.0	4,685.4	4,697.3	4,685.8	17.9	17.8	-117.89	-280.4	34.4	157.6	122.1	35.44	4.445		
4,800.0	4,785.0	4,797.3	4,785.3	18.3	18.2	-117.83	-288.7	35.0	161.7	125.5	36.21	4.464		
4,900.0	4,884.6	4,897.2	4,884.9	18.7	18.5	-117.77	-297.0	35.5	165.8	128.8	36.98	4.483		
5,000.0	4,984.1	4,997.1	4,984.5	19.1	18.9	-117.72	-305.3	36.1	169.9	132.1	37.75	4.501		
5,100.0	5,083.7	5,097.0	5,084.0	19.5	19.3	-117.67	-313.5	36.7	174.0	135.5	38.51	4.518		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,183.3	5,196.9	5,183.6	19.9	19.7	-117.62	-321.8	37.3	178.1	138.8	39.28	4.534		
5,300.0	5,282.9	5,296.8	5,283.2	20.2	20.0	-117.57	-330.1	37.8	182.2	142.2	40.05	4.549		
5,400.0	5,382.4	5,396.7	5,382.7	20.6	20.4	-117.53	-338.4	38.4	186.3	145.5	40.82	4.564		
5,500.0	5,482.0	5,496.7	5,482.3	21.0	20.8	-117.48	-346.7	39.0	190.4	148.8	41.59	4.579		
5,600.0	5,581.6	5,596.6	5,581.9	21.4	21.2	-117.44	-355.0	39.6	194.5	152.2	42.36	4.593		
5,700.0	5,681.2	5,696.5	5,681.5	21.8	21.6	-117.40	-363.3	40.1	198.6	155.5	43.13	4.606		
5,800.0	5,780.7	5,796.4	5,781.0	22.2	21.9	-117.36	-371.6	40.7	202.7	158.8	43.89	4.619		
5,900.0	5,880.3	5,896.3	5,880.6	22.6	22.3	-117.33	-379.9	41.3	206.8	162.2	44.66	4.631		
6,000.0	5,979.9	5,996.2	5,980.2	22.9	22.7	-117.29	-388.2	41.9	211.0	165.5	45.43	4.643		
6,100.0	6,079.5	6,096.2	6,079.7	23.3	23.1	-117.26	-396.5	42.4	215.1	168.9	46.21	4.655		
6,200.0	6,179.0	6,196.1	6,179.3	23.7	23.5	-117.23	-404.8	43.0	219.2	172.2	46.98	4.666		
6,300.0	6,278.6	6,296.0	6,278.9	24.1	23.8	-117.20	-413.1	43.6	223.3	175.5	47.75	4.676		
6,400.0	6,378.2	6,395.9	6,378.4	24.5	24.2	-117.17	-421.4	44.2	227.4	178.9	48.52	4.687		
6,500.0	6,477.7	6,495.8	6,478.0	24.9	24.6	-117.14	-429.7	44.7	231.5	182.2	49.29	4.697		
6,600.0	6,577.3	6,595.7	6,577.6	25.3	25.0	-117.11	-438.0	45.3	235.6	185.6	50.06	4.707		
6,700.0	6,677.0	6,695.6	6,677.1	25.7	25.4	-117.09	-446.3	45.9	239.6	188.8	50.82	4.714		
6,800.0	6,776.5	6,794.0	6,775.2	26.0	25.7	101.83	-454.4	46.4	243.2	191.7	51.49	4.723		
6,900.0	6,873.0	6,889.2	6,870.0	26.2	26.1	102.54	-462.0	47.0	249.5	197.6	51.88	4.809		
7,000.0	6,963.6	6,980.9	6,971.5	26.4	26.7	107.99	-468.2	47.5	261.1	208.8	52.35	4.989		
7,100.0	7,045.6	7,101.1	7,078.8	26.6	27.0	113.76	-473.8	47.8	277.0	224.7	52.30	5.298		
7,200.0	7,116.5	7,221.6	7,188.5	26.8	27.4	119.05	-384.3	48.0	295.3	243.6	51.68	5.715		
7,300.0	7,174.1	7,353.9	7,294.0	27.0	27.7	123.51	-304.9	47.8	313.5	263.2	50.32	6.231		
7,400.0	7,216.6	7,498.6	7,385.1	27.2	28.0	126.92	-193.1	47.4	329.2	280.7	48.46	6.792		
7,500.0	7,242.9	7,653.9	7,448.6	27.5	28.2	129.08	-51.9	46.5	339.8	292.8	47.01	7.228		
7,600.0	7,252.0	7,815.7	7,472.0	27.8	28.5	129.82	107.7	45.3	343.6	296.4	47.15	7.287		
7,699.9	7,252.2	7,916.6	7,472.0	28.1	28.8	129.79	208.5	44.5	343.5	295.5	47.92	7.167		
7,700.0	7,252.0	7,916.7	7,472.0	28.1	28.8	129.81	208.6	44.5	343.6	295.7	47.91	7.171		
7,800.0	7,252.0	8,016.7	7,472.0	28.6	29.2	129.81	308.6	43.7	343.6	294.8	48.76	7.046		
7,900.0	7,252.0	8,116.7	7,472.0	29.2	29.8	129.81	408.6	42.8	343.6	293.8	49.76	6.905		
8,000.0	7,252.0	8,216.7	7,472.0	29.9	30.4	129.81	508.6	42.0	343.6	292.7	50.90	6.750		
8,100.0	7,252.0	8,316.7	7,472.0	30.7	31.2	129.81	608.6	41.2	343.6	291.4	52.18	6.584		
8,200.0	7,252.0	8,416.7	7,472.0	31.5	32.0	129.81	708.6	40.4	343.6	290.0	53.59	6.412		
8,300.0	7,252.0	8,516.7	7,472.0	32.4	32.9	129.81	808.6	39.5	343.6	288.5	55.11	6.235		
8,400.0	7,252.0	8,616.7	7,472.0	33.4	33.9	129.81	908.6	38.7	343.6	286.9	56.73	6.056		
8,500.0	7,252.0	8,716.7	7,472.0	34.5	34.9	129.81	1,008.6	37.9	343.6	285.1	58.46	5.877		
8,600.0	7,252.0	8,816.7	7,472.0	35.6	36.0	129.81	1,108.6	37.1	343.6	283.3	60.27	5.700		
8,700.0	7,252.0	8,916.7	7,472.0	36.8	37.2	129.81	1,208.6	36.2	343.6	281.4	62.17	5.526		
8,800.0	7,252.0	9,016.7	7,472.0	38.0	38.4	129.81	1,308.6	35.4	343.6	279.4	64.14	5.357		
8,900.0	7,252.0	9,116.7	7,472.0	39.2	39.6	129.81	1,408.6	34.6	343.6	277.4	66.18	5.192		
9,000.0	7,252.0	9,216.7	7,472.0	40.5	40.9	129.81	1,508.6	33.7	343.6	275.3	68.28	5.032		
9,100.0	7,252.0	9,316.7	7,472.0	41.9	42.3	129.81	1,608.6	32.9	343.6	273.2	70.44	4.878		
9,200.0	7,252.0	9,416.7	7,472.0	43.2	43.6	129.81	1,708.6	32.1	343.6	270.9	72.64	4.730		
9,300.0	7,252.0	9,516.7	7,472.0	44.6	45.0	129.81	1,808.6	31.3	343.6	268.7	74.90	4.588		
9,400.0	7,252.0	9,616.7	7,472.0	46.0	46.4	129.81	1,908.6	30.4	343.6	266.4	77.19	4.451		
9,500.0	7,252.0	9,716.7	7,472.0	47.5	47.8	129.81	2,008.6	29.6	343.6	264.1	79.53	4.320		
9,600.0	7,252.0	9,816.7	7,472.0	48.9	49.3	129.81	2,108.6	28.8	343.6	261.7	81.90	4.195		
9,700.0	7,252.0	9,916.7	7,472.0	50.4	50.7	129.81	2,208.6	28.0	343.6	259.3	84.30	4.076		
9,800.0	7,252.0	10,016.7	7,472.0	51.9	52.2	129.81	2,308.6	27.1	343.6	256.9	86.73	3.961		
9,900.0	7,252.0	10,116.7	7,472.0	53.4	53.7	129.81	2,408.6	26.3	343.6	254.4	89.19	3.852		
10,000.0	7,252.0	10,216.7	7,472.0	54.9	55.3	129.81	2,508.6	25.5	343.6	251.9	91.68	3.748		
10,100.0	7,252.0	10,316.7	7,472.0	56.5	56.8	129.81	2,608.6	24.7	343.6	249.4	94.19	3.648		
10,200.0	7,252.0	10,416.7	7,472.0	58.0	58.3	129.81	2,708.6	23.8	343.6	246.9	96.72	3.553		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,300.0	7,252.0	10,516.7	7,472.0	59.6	59.9	129.81	2,808.6	23.0	343.6	244.3	99.27	3.461		
10,400.0	7,252.0	10,616.7	7,472.0	61.2	61.5	129.81	2,908.6	22.2	343.6	241.8	101.83	3.374		
10,500.0	7,252.0	10,716.7	7,472.0	62.8	63.1	129.81	3,008.5	21.3	343.6	239.2	104.42	3.290		
10,600.0	7,252.0	10,816.7	7,472.0	64.4	64.7	129.81	3,108.5	20.5	343.6	236.6	107.02	3.211		
10,700.0	7,252.0	10,916.7	7,472.0	66.0	66.3	129.81	3,208.5	19.7	343.6	234.0	109.64	3.134		
10,800.0	7,252.0	11,016.7	7,472.0	67.6	67.9	129.81	3,308.5	18.9	343.6	231.3	112.26	3.061		
10,900.0	7,252.0	11,116.7	7,472.0	69.2	69.5	129.81	3,408.5	18.0	343.6	228.7	114.91	2.990		
11,000.0	7,252.0	11,216.7	7,472.0	70.8	71.1	129.81	3,508.5	17.2	343.6	226.0	117.56	2.923		
11,100.0	7,252.0	11,316.7	7,472.0	72.5	72.7	129.81	3,608.5	16.4	343.6	223.4	120.22	2.858		
11,200.0	7,252.0	11,416.7	7,472.0	74.1	74.4	129.81	3,708.5	15.6	343.6	220.7	122.90	2.796		
11,300.0	7,252.0	11,516.7	7,472.0	75.7	76.0	129.81	3,808.5	14.7	343.6	218.0	125.58	2.736		
11,400.0	7,252.0	11,616.7	7,472.0	77.4	77.7	129.81	3,908.5	13.9	343.6	215.3	128.27	2.679		
11,500.0	7,252.0	11,716.7	7,472.0	79.1	79.3	129.81	4,008.5	13.1	343.6	212.6	130.97	2.623		
11,600.0	7,252.0	11,816.7	7,472.0	80.7	81.0	129.81	4,108.5	12.3	343.6	209.9	133.68	2.570		
11,700.0	7,252.0	11,916.7	7,472.0	82.4	82.6	129.81	4,208.5	11.4	343.6	207.2	136.40	2.519		
11,800.0	7,252.0	12,016.7	7,472.0	84.0	84.3	129.81	4,308.5	10.6	343.6	204.5	139.12	2.470		
11,900.0	7,252.0	12,116.7	7,472.0	85.7	86.0	129.81	4,408.5	9.8	343.6	201.7	141.86	2.422		
12,000.0	7,252.0	12,216.7	7,472.0	87.4	87.6	129.81	4,508.5	8.9	343.6	199.0	144.59	2.376		
12,100.0	7,252.0	12,316.7	7,472.0	89.1	89.3	129.81	4,608.5	8.1	343.6	196.3	147.33	2.332		
12,200.0	7,252.0	12,416.7	7,472.0	90.8	91.0	129.81	4,708.5	7.3	343.6	193.5	150.08	2.289		
12,300.0	7,252.0	12,516.7	7,472.0	92.4	92.7	129.81	4,808.5	6.5	343.6	190.8	152.84	2.248		
12,400.0	7,252.0	12,616.7	7,472.0	94.1	94.4	129.81	4,908.5	5.6	343.6	188.0	155.59	2.208		
12,500.0	7,252.0	12,716.7	7,472.0	95.8	96.1	129.81	5,008.5	4.8	343.6	185.2	158.36	2.170		
12,600.0	7,252.0	12,816.7	7,472.0	97.5	97.8	129.81	5,108.5	4.0	343.6	182.5	161.13	2.132		
12,700.0	7,252.0	12,916.7	7,472.0	99.2	99.5	129.81	5,208.5	3.2	343.6	179.7	163.90	2.096		
12,800.0	7,252.0	13,016.7	7,472.0	100.9	101.2	129.81	5,308.5	2.3	343.6	176.9	166.67	2.061		
12,900.0	7,252.0	13,116.7	7,472.0	102.6	102.9	129.81	5,408.5	1.5	343.6	174.1	169.45	2.028		
13,000.0	7,252.0	13,216.7	7,472.0	104.3	104.6	129.81	5,508.5	0.7	343.6	171.4	172.24	1.995		
13,100.0	7,252.0	13,316.7	7,472.0	106.0	106.3	129.81	5,608.5	-0.1	343.6	168.6	175.02	1.963		
13,200.0	7,252.0	13,416.7	7,472.0	107.7	108.0	129.81	5,708.5	-1.0	343.6	165.8	177.81	1.932		
13,300.0	7,252.0	13,516.7	7,472.0	109.5	109.7	129.81	5,808.5	-1.8	343.6	163.0	180.61	1.902		
13,400.0	7,252.0	13,616.7	7,472.0	111.2	111.4	129.81	5,908.4	-2.6	343.6	160.2	183.41	1.873		
13,500.0	7,252.0	13,716.7	7,472.0	112.9	113.1	129.81	6,008.4	-3.5	343.6	157.4	186.20	1.845		
13,600.0	7,252.0	13,816.7	7,472.0	114.6	114.8	129.81	6,108.4	-4.3	343.6	154.6	189.01	1.818		
13,700.0	7,252.0	13,916.7	7,472.0	116.3	116.5	129.81	6,208.4	-5.1	343.6	151.8	191.81	1.791		
13,800.0	7,252.0	14,016.7	7,472.0	118.0	118.2	129.81	6,308.4	-5.9	343.6	149.0	194.62	1.765		
13,900.0	7,252.0	14,118.4	7,472.0	119.7	120.0	129.82	6,410.1	-6.8	343.6	146.1	197.46	1.740		
14,000.0	7,252.0	14,224.4	7,472.0	121.5	121.8	130.07	6,516.1	-10.1	341.8	141.9	199.89	1.710		
14,100.0	7,252.0	14,324.3	7,472.0	123.2	123.5	130.39	6,615.9	-13.8	339.6	137.5	202.06	1.681		
14,200.0	7,252.0	14,424.3	7,472.0	124.9	125.3	130.71	6,715.8	-17.6	337.4	133.2	204.19	1.652		
14,300.0	7,252.0	14,524.2	7,472.0	126.6	127.0	131.04	6,815.7	-21.3	335.2	128.9	206.30	1.625		
14,400.0	7,252.0	14,624.2	7,472.0	128.4	128.7	131.37	6,915.6	-25.1	333.0	124.6	208.38	1.598		
14,500.0	7,252.0	14,724.1	7,472.0	130.1	130.5	131.70	7,015.5	-28.8	330.8	120.3	210.43	1.572		
14,600.0	7,252.0	14,824.1	7,472.0	131.8	132.2	132.04	7,115.4	-32.6	328.6	116.2	212.44	1.547		
14,700.0	7,252.0	14,924.1	7,472.0	133.5	133.9	132.39	7,215.3	-36.3	326.4	112.0	214.43	1.522		
14,800.0	7,252.0	15,024.0	7,472.0	135.3	135.7	132.73	7,315.2	-40.1	324.3	107.9	216.38	1.499	Level 3	
14,900.0	7,252.0	15,124.0	7,472.0	137.0	137.4	133.09	7,415.0	-43.8	322.1	103.8	218.29	1.476	Level 3	
15,000.0	7,252.0	15,223.9	7,472.0	138.7	139.2	133.44	7,514.9	-47.6	320.0	99.8	220.17	1.453	Level 3	
15,100.0	7,252.0	15,323.9	7,472.0	140.5	140.9	133.81	7,614.8	-51.3	317.9	95.9	222.01	1.432	Level 3	
15,200.0	7,252.0	15,423.8	7,472.0	142.2	142.6	134.17	7,714.7	-55.1	315.8	92.0	223.82	1.411	Level 3	
15,300.0	7,252.0	15,523.8	7,472.0	143.9	144.4	134.55	7,814.6	-58.8	313.7	88.1	225.58	1.391	Level 3	
15,400.0	7,252.0	15,623.8	7,472.0	145.7	146.1	134.92	7,914.5	-62.6	311.6	84.3	227.31	1.371	Level 3	

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NCH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
15,500.0	7,252.0	15,723.7	7,472.0	147.4	147.9	135.31	8,014.4	-66.3	309.5	80.5	229.00	1.352 Level 3	
15,600.0	7,252.0	15,823.7	7,472.0	149.1	149.6	135.69	8,114.3	-70.1	307.5	76.8	230.64	1.333 Level 3	
15,700.0	7,252.0	15,923.6	7,472.0	150.9	151.4	136.09	8,214.1	-73.8	305.5	73.2	232.25	1.315 Level 3	
15,790.2	7,252.0	16,007.6	7,472.0	152.4	152.8	136.25	8,298.1	-75.7	304.5	70.5	234.03	1.301 Level 3	
15,800.0	7,252.0	16,016.8	7,472.0	152.6	153.0	136.25	8,307.3	-75.8	304.5	70.3	234.28	1.300 Level 3	
15,900.0	7,252.0	16,110.1	7,472.0	154.3	154.6	136.01	8,400.6	-74.8	305.9	68.6	237.34	1.289 Level 3	
16,000.0	7,252.0	16,210.1	7,472.0	156.1	156.3	135.54	8,500.5	-72.1	308.3	67.0	241.27	1.278 Level 3	
16,100.0	7,252.0	16,310.0	7,472.0	157.8	158.1	135.09	8,600.4	-69.5	310.7	65.5	245.20	1.267 Level 3	
16,200.0	7,252.0	16,410.0	7,472.0	159.6	159.8	134.65	8,700.3	-66.9	313.2	64.0	249.13	1.257 Level 3	
16,300.0	7,252.0	16,509.9	7,472.0	161.3	161.5	134.21	8,800.2	-64.3	315.6	62.6	253.07	1.247 Level 2	
16,400.0	7,252.0	16,609.8	7,472.0	163.0	163.2	133.77	8,900.1	-61.7	318.1	61.1	257.01	1.238 Level 2	
16,500.0	7,252.0	16,709.8	7,472.0	164.8	165.0	133.35	9,000.1	-59.1	320.6	59.6	260.96	1.229 Level 2	
16,600.0	7,252.0	16,809.7	7,472.0	166.5	166.7	132.93	9,100.0	-56.5	323.1	58.2	264.90	1.220 Level 2	
16,700.0	7,252.0	16,909.7	7,472.0	168.3	168.4	132.52	9,199.9	-53.8	325.6	56.8	268.85	1.211 Level 2	
16,800.0	7,252.0	17,009.6	7,472.0	170.0	170.1	132.11	9,299.8	-51.2	328.2	55.4	272.79	1.203 Level 2	
16,900.0	7,252.0	17,109.5	7,472.0	171.8	171.9	131.71	9,399.7	-48.6	330.8	54.0	276.74	1.195 Level 2	
17,000.0	7,252.0	17,209.5	7,472.0	173.5	173.6	131.32	9,499.6	-46.0	333.3	52.7	280.68	1.188 Level 2	
17,100.0	7,252.0	17,309.4	7,472.0	175.2	175.3	130.93	9,599.5	-43.4	335.9	51.3	284.63	1.180 Level 2	
17,200.0	7,252.0	17,409.4	7,472.0	177.0	177.0	130.55	9,699.4	-40.8	338.5	50.0	288.57	1.173 Level 2	
17,300.0	7,252.0	17,509.3	7,472.0	178.7	178.8	130.17	9,799.3	-38.1	341.2	48.7	292.52	1.166 Level 2	
17,385.9	7,252.0	17,595.1	7,472.0	180.2	180.3	129.85	9,885.1	-35.9	343.4	47.5	295.90	1.161 Level 2, SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	89.67	0.3	45.0	45.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.67	0.3	45.0	45.0	44.7	0.28	162.404		
200.0	200.0	200.0	200.0	1.0	0.0	89.67	0.3	45.0	45.0	44.2	0.80	56.390		
300.0	300.0	300.0	300.0	1.5	0.0	89.67	0.3	45.0	45.0	43.8	1.22	36.745		
400.0	400.0	400.0	400.0	1.9	0.0	89.67	0.3	45.0	45.0	43.4	1.62	27.803		
500.0	500.0	500.0	500.0	2.3	0.0	89.67	0.3	45.0	45.0	43.0	2.00	22.509		
600.0	600.0	600.0	600.0	2.7	0.0	89.67	0.3	45.0	45.0	42.6	2.37	18.964		
700.0	700.0	700.0	700.0	3.1	0.0	89.67	0.3	45.0	45.0	42.3	2.74	16.408		
800.0	800.0	800.0	800.0	3.5	0.0	89.67	0.3	45.0	45.0	41.9	3.11	14.472		
900.0	900.0	900.0	900.0	3.9	0.0	89.67	0.3	45.0	45.0	41.5	3.47	12.950		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	89.67	0.3	45.0	45.0	41.2	3.84	11.723		
1,100.0	1,100.0	1,100.0	1,100.0	4.6	0.0	89.67	0.3	45.0	45.0	40.8	4.20	10.710 CC, ES		
1,200.0	1,200.0	1,200.0	1,200.0	4.9	0.0	-114.84	0.3	45.0	45.7	41.1	4.56	10.027		
1,300.0	1,299.8	1,298.6	1,298.6	5.7	0.0	-119.03	-0.7	46.4	49.4	44.2	5.19	9.531		
1,400.0	1,399.5	1,396.9	1,396.7	6.1	0.0	-122.92	-3.6	50.6	57.6	51.9	5.64	10.207		
1,500.0	1,499.0	1,494.7	1,494.2	6.4	0.0	-124.27	-8.4	57.5	68.6	62.6	5.98	11.480		
1,600.0	1,598.6	1,592.1	1,590.8	6.7	0.0	-123.52	-15.0	67.0	82.0	75.7	6.30	13.015		
1,700.0	1,698.2	1,690.7	1,688.4	7.1	0.0	-122.07	-22.9	78.4	96.9	90.3	6.62	14.635		
1,800.0	1,797.8	1,789.5	1,786.3	7.4	0.0	-121.00	-30.8	89.9	111.9	105.0	6.96	16.082		
1,900.0	1,897.3	1,888.4	1,884.2	7.7	0.0	-120.17	-38.8	101.4	126.9	119.6	7.30	17.379		
2,000.0	1,996.9	1,987.2	1,982.0	8.1	0.0	-119.53	-46.7	112.8	142.0	134.3	7.65	18.546		
2,100.0	2,096.5	2,086.1	2,079.9	8.4	0.0	-119.00	-54.7	124.3	157.0	149.0	8.01	19.600		
2,200.0	2,196.1	2,184.9	2,177.8	8.7	0.0	-118.57	-62.6	135.8	172.1	163.7	8.37	20.556		
2,300.0	2,295.6	2,283.8	2,275.6	9.1	0.0	-118.21	-70.5	147.2	187.1	178.4	8.73	21.427		
2,400.0	2,395.2	2,382.6	2,373.5	9.4	0.0	-117.90	-78.5	158.7	202.2	193.1	9.10	22.223		
2,500.0	2,494.8	2,481.5	2,471.4	9.8	0.0	-117.63	-86.4	170.2	217.3	207.8	9.47	22.952		
2,600.0	2,594.4	2,580.3	2,569.2	10.1	0.0	-117.40	-94.4	181.6	232.3	222.5	9.84	23.624		
2,700.0	2,693.9	2,679.2	2,667.1	10.5	0.0	-117.20	-102.3	193.1	247.4	237.2	10.21	24.243		
2,800.0	2,793.5	2,778.0	2,764.9	10.9	0.0	-117.02	-110.3	204.6	262.5	251.9	10.58	24.816		
2,900.0	2,893.1	2,876.9	2,862.8	11.2	0.0	-116.86	-118.2	216.0	277.6	266.6	10.95	25.348		
3,000.0	2,892.7	2,875.7	2,860.7	11.6	0.0	-116.71	-126.1	227.5	292.7	281.4	11.33	25.842		
3,100.0	3,092.2	3,074.6	3,058.5	11.9	0.0	-116.58	-134.1	238.9	307.8	296.1	11.70	26.303		
3,200.0	3,191.8	3,173.4	3,156.4	12.3	0.0	-116.47	-142.0	250.4	322.9	310.8	12.08	26.734		
3,300.0	3,291.4	3,272.3	3,254.3	12.7	0.0	-116.36	-150.0	261.9	338.0	325.5	12.45	27.138		
3,400.0	3,391.0	3,371.1	3,352.1	13.0	0.0	-116.26	-157.9	273.3	353.0	340.2	12.83	27.516		
3,500.0	3,490.5	3,470.0	3,450.0	13.4	0.0	-116.17	-165.8	284.8	368.1	354.9	13.21	27.872		
3,600.0	3,590.1	3,568.9	3,547.9	13.8	0.0	-116.09	-173.8	296.3	383.2	369.6	13.59	28.207		
3,700.0	3,689.7	3,667.7	3,645.7	14.2	0.0	-116.01	-181.7	307.7	398.3	384.4	13.97	28.523		
3,800.0	3,789.2	3,766.6	3,743.6	14.5	0.0	-115.94	-189.7	319.2	413.4	399.1	14.34	28.821		
3,900.0	3,888.8	3,865.4	3,841.5	14.9	0.0	-115.88	-197.6	330.7	428.5	413.8	14.72	29.104		
4,000.0	3,988.4	3,964.3	3,939.3	15.3	0.0	-115.81	-205.6	342.1	443.6	428.5	15.10	29.371		
4,100.0	4,088.0	4,063.1	4,037.2	15.7	0.0	-115.76	-213.5	353.6	458.7	443.2	15.48	29.625		
4,200.0	4,187.5	4,162.0	4,135.0	16.0	0.0	-115.70	-221.4	365.1	473.8	457.9	15.86	29.866		
4,300.0	4,287.1	4,260.8	4,232.9	16.4	0.0	-115.65	-229.4	376.5	488.9	472.7	16.25	30.095		
4,400.0	4,386.7	4,359.7	4,330.8	16.8	0.0	-115.61	-237.3	388.0	504.0	487.4	16.63	30.314		
4,500.0	4,486.3	4,458.5	4,428.6	17.2	0.0	-115.56	-245.3	399.5	519.1	502.1	17.01	30.522		
4,600.0	4,585.8	4,557.4	4,526.5	17.6	0.0	-115.52	-253.2	410.9	534.2	516.8	17.39	30.720		
4,700.0	4,685.4	4,656.2	4,624.4	17.9	0.0	-115.48	-261.2	422.4	549.3	531.5	17.77	30.910		
4,800.0	4,785.0	4,755.1	4,722.2	18.3	0.0	-115.44	-269.1	433.9	564.4	546.3	18.15	31.092		
4,900.0	4,884.6	4,853.9	4,820.1	18.7	0.0	-115.41	-277.0	445.3	579.5	561.0	18.54	31.265		
5,000.0	4,984.1	4,952.8	4,918.0	19.1	0.0	-115.37	-285.0	456.8	594.6	575.7	18.92	31.432		
5,100.0	5,083.7	5,051.6	5,015.8	19.5	0.0	-115.34	-292.9	468.3	609.7	590.4	19.30	31.591		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,183.3	5,150.5	5,113.7	19.9	0.0	-115.31	-300.9	479.7	624.8	605.1	19.68	31.744		
5,300.0	5,282.9	5,249.3	5,211.5	20.2	0.0	-115.28	-308.8	491.2	639.9	619.8	20.07	31.891		
5,400.0	5,382.4	5,348.2	5,309.4	20.6	0.0	-115.25	-316.7	502.7	655.0	634.6	20.45	32.032		
5,500.0	5,482.0	5,447.1	5,407.3	21.0	0.0	-115.23	-324.7	514.1	670.1	649.3	20.83	32.168		
5,600.0	5,581.6	5,545.9	5,505.1	21.4	0.0	-115.20	-332.6	525.6	685.2	664.0	21.21	32.299		
5,700.0	5,681.2	5,644.8	5,603.0	21.8	0.0	-115.18	-340.6	537.1	700.3	678.7	21.60	32.425		
5,800.0	5,780.7	5,743.6	5,700.9	22.2	0.0	-115.15	-348.5	548.5	715.4	693.4	21.98	32.547		
5,900.0	5,880.3	5,842.5	5,798.7	22.6	0.0	-115.13	-356.5	560.0	730.5	708.2	22.37	32.664		
6,000.0	5,979.9	5,941.3	5,896.6	22.9	0.0	-115.11	-364.4	571.4	745.6	722.9	22.75	32.777		
6,100.0	6,079.5	6,040.2	5,994.5	23.3	0.0	-115.09	-372.3	582.9	760.7	737.6	23.13	32.886		
6,200.0	6,179.0	6,139.0	6,092.3	23.7	0.0	-115.07	-380.3	594.4	775.8	752.3	23.52	32.991		
6,300.0	6,278.6	6,237.9	6,190.2	24.1	0.0	-115.05	-388.2	605.8	790.9	767.0	23.90	33.093		
6,400.0	6,378.2	6,336.7	6,288.0	24.5	0.0	-115.03	-396.2	617.3	806.0	781.7	24.28	33.191		
6,500.0	6,477.7	6,435.6	6,385.9	24.9	0.0	-115.01	-404.1	628.8	821.1	796.5	24.67	33.287		
6,600.0	6,577.3	6,534.4	6,483.8	25.3	0.0	-115.00	-412.0	640.2	836.2	811.2	25.05	33.379		
6,700.0	6,677.0	6,633.2	6,581.6	25.7	0.0	-115.03	-420.0	651.7	851.3	825.8	25.44	33.468		
6,800.0	6,776.5	6,730.6	6,678.0	26.0	0.0	99.21	-427.8	663.0	865.8	840.0	25.78	33.579		
6,900.0	6,873.0	6,823.7	6,770.1	26.2	0.0	93.88	-435.3	673.8	880.3	854.3	26.00	33.663		
7,000.0	6,963.6	6,909.6	6,855.2	26.4	0.0	93.09	-442.2	683.8	896.0	869.9	26.14	34.279		
7,100.0	7,045.6	6,985.9	6,930.7	26.6	0.0	93.32	-448.3	692.6	914.9	888.7	26.24	34.871		
7,200.0	7,116.5	7,050.0	6,994.2	26.8	0.0	93.39	-453.5	700.0	938.8	912.4	26.31	35.683		
7,300.0	7,174.1	7,100.2	7,043.8	27.0	0.0	92.57	-457.5	705.9	969.1	942.7	26.37	36.744		
7,400.0	7,216.6	7,196.5	7,139.4	27.2	0.0	93.82	-457.6	717.0	1,005.7	979.1	26.64	37.753		
7,500.0	7,242.9	7,379.8	7,315.5	27.5	0.0	98.91	-413.7	737.1	1,045.7	1,018.8	26.93	38.829		
7,600.0	7,252.0	8,050.4	7,662.0	27.8	0.0	112.46	114.7	773.1	1,073.2	1,046.8	26.35	40.735		
7,674.6	7,252.2	8,124.9	7,662.0	28.0	0.0	112.45	189.2	772.5	1,073.1	1,046.4	26.64	40.274		
7,700.0	7,252.0	8,150.4	7,662.0	28.1	0.0	112.46	214.7	772.3	1,073.2	1,046.4	26.75	40.125		
7,800.0	7,252.0	8,250.4	7,662.0	28.6	0.0	112.46	314.7	771.5	1,073.2	1,045.9	27.23	39.411		
7,900.0	7,252.0	8,350.4	7,662.0	29.2	0.0	112.46	414.7	770.7	1,073.2	1,045.4	27.80	38.596		
8,000.0	7,252.0	8,450.4	7,662.0	29.9	0.0	112.46	514.7	769.8	1,073.2	1,044.7	28.47	37.701		
8,100.0	7,252.0	8,550.4	7,662.0	30.7	0.0	112.46	614.6	769.0	1,073.2	1,044.0	29.20	36.746		
8,200.0	7,252.0	8,650.4	7,662.0	31.5	0.0	112.46	714.6	768.2	1,073.2	1,043.1	30.02	35.751		
8,300.0	7,252.0	8,750.4	7,662.0	32.4	0.0	112.46	814.6	767.3	1,073.2	1,042.3	30.90	34.732		
8,400.0	7,252.0	8,850.4	7,662.0	33.4	0.0	112.46	914.6	766.5	1,073.2	1,041.3	31.84	33.703		
8,500.0	7,252.0	8,950.4	7,662.0	34.5	0.0	112.46	1,014.6	765.7	1,073.2	1,040.3	32.84	32.677		
8,600.0	7,252.0	9,050.4	7,662.0	35.6	0.0	112.46	1,114.6	764.9	1,073.2	1,039.3	33.89	31.664		
8,700.0	7,252.0	9,150.4	7,662.0	36.8	0.0	112.46	1,214.6	764.0	1,073.2	1,038.2	34.99	30.670		
8,800.0	7,252.0	9,250.4	7,662.0	38.0	0.0	112.46	1,314.6	763.2	1,073.2	1,037.0	36.13	29.701		
8,900.0	7,252.0	9,350.4	7,662.0	39.2	0.0	112.46	1,414.6	762.4	1,073.2	1,035.8	37.31	28.762		
9,000.0	7,252.0	9,450.4	7,662.0	40.5	0.0	112.46	1,514.6	761.6	1,073.2	1,034.6	38.53	27.855		
9,100.0	7,252.0	9,550.4	7,662.0	41.9	0.0	112.46	1,614.6	760.7	1,073.2	1,033.4	39.77	26.981		
9,200.0	7,252.0	9,650.4	7,662.0	43.2	0.0	112.46	1,714.6	759.9	1,073.2	1,032.1	41.05	26.142		
9,300.0	7,252.0	9,750.4	7,662.0	44.6	0.0	112.46	1,814.6	759.1	1,073.2	1,030.8	42.35	25.338		
9,400.0	7,252.0	9,850.4	7,662.0	46.0	0.0	112.46	1,914.6	758.3	1,073.2	1,029.5	43.68	24.568		
9,500.0	7,252.0	9,950.4	7,662.0	47.5	0.0	112.46	2,014.6	757.4	1,073.2	1,028.1	45.03	23.832		
9,600.0	7,252.0	10,050.4	7,662.0	48.9	0.0	112.46	2,114.6	756.6	1,073.2	1,026.8	46.40	23.129		
9,700.0	7,252.0	10,150.4	7,662.0	50.4	0.0	112.46	2,214.6	755.8	1,073.2	1,025.4	47.79	22.458		
9,800.0	7,252.0	10,250.4	7,662.0	51.9	0.0	112.46	2,314.6	754.9	1,073.2	1,024.0	49.19	21.816		
9,900.0	7,252.0	10,350.4	7,662.0	53.4	0.0	112.46	2,414.6	754.1	1,073.2	1,022.6	50.61	21.204		
10,000.0	7,252.0	10,450.4	7,662.0	54.9	0.0	112.46	2,514.6	753.3	1,073.2	1,021.1	52.04	20.620		
10,100.0	7,252.0	10,550.4	7,662.0	56.5	0.0	112.46	2,614.6	752.5	1,073.2	1,019.7	53.49	20.063		
10,200.0	7,252.0	10,650.4	7,662.0	58.0	0.0	112.46	2,714.6	751.6	1,073.2	1,018.2	54.95	19.530		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,300.0	7,252.0	10,750.4	7,662.0	59.6	0.0	112.46	2,814.6	750.8	1,073.2	1,016.7	56.42	19.021		
10,400.0	7,252.0	10,850.4	7,662.0	61.2	0.0	112.46	2,914.6	750.0	1,073.2	1,015.3	57.90	18.535		
10,500.0	7,252.0	10,950.4	7,662.0	62.8	0.0	112.46	3,014.6	749.2	1,073.2	1,013.8	59.39	18.070		
10,600.0	7,252.0	11,050.4	7,662.0	64.4	0.0	112.46	3,114.6	748.3	1,073.2	1,012.3	60.89	17.626		
10,700.0	7,252.0	11,150.4	7,662.0	66.0	0.0	112.46	3,214.6	747.5	1,073.2	1,010.8	62.39	17.200		
10,800.0	7,252.0	11,250.4	7,662.0	67.6	0.0	112.46	3,314.6	746.7	1,073.2	1,009.3	63.91	16.793		
10,900.0	7,252.0	11,350.4	7,662.0	69.2	0.0	112.46	3,414.6	745.9	1,073.2	1,007.7	65.43	16.402		
11,000.0	7,252.0	11,450.4	7,662.0	70.8	0.0	112.46	3,514.5	745.0	1,073.2	1,006.2	66.96	16.028		
11,100.0	7,252.0	11,550.4	7,662.0	72.5	0.0	112.46	3,614.5	744.2	1,073.2	1,004.7	68.49	15.669		
11,200.0	7,252.0	11,650.4	7,662.0	74.1	0.0	112.46	3,714.5	743.4	1,073.2	1,003.1	70.03	15.325		
11,300.0	7,252.0	11,750.4	7,662.0	75.7	0.0	112.46	3,814.5	742.5	1,073.2	1,001.6	71.57	14.994		
11,400.0	7,252.0	11,850.4	7,662.0	77.4	0.0	112.46	3,914.5	741.7	1,073.2	1,000.0	73.12	14.676		
11,500.0	7,252.0	11,950.3	7,662.0	79.1	0.0	112.46	4,014.5	740.9	1,073.2	998.5	74.68	14.371		
11,600.0	7,252.0	12,050.3	7,662.0	80.7	0.0	112.46	4,114.5	740.1	1,073.2	996.9	76.23	14.077		
11,700.0	7,252.0	12,150.3	7,662.0	82.4	0.0	112.46	4,214.5	739.2	1,073.2	995.4	77.80	13.794		
11,800.0	7,252.0	12,250.3	7,662.0	84.0	0.0	112.46	4,314.5	738.4	1,073.2	993.8	79.36	13.522		
11,900.0	7,252.0	12,350.3	7,662.0	85.7	0.0	112.46	4,414.5	737.6	1,073.2	992.2	80.93	13.260		
12,000.0	7,252.0	12,450.3	7,662.0	87.4	0.0	112.46	4,514.5	736.8	1,073.2	990.7	82.51	13.007		
12,100.0	7,252.0	12,550.3	7,662.0	89.1	0.0	112.46	4,614.5	735.9	1,073.2	989.1	84.09	12.763		
12,200.0	7,252.0	12,650.3	7,662.0	90.8	0.0	112.46	4,714.5	735.1	1,073.2	987.5	85.67	12.528		
12,300.0	7,252.0	12,750.3	7,662.0	92.4	0.0	112.46	4,814.5	734.3	1,073.2	985.9	87.25	12.300		
12,400.0	7,252.0	12,850.3	7,662.0	94.1	0.0	112.46	4,914.5	733.4	1,073.2	984.3	88.83	12.081		
12,500.0	7,252.0	12,950.3	7,662.0	95.8	0.0	112.46	5,014.5	732.6	1,073.2	982.7	90.42	11.868		
12,600.0	7,252.0	13,050.3	7,662.0	97.5	0.0	112.46	5,114.5	731.8	1,073.2	981.2	92.01	11.663		
12,700.0	7,252.0	13,150.3	7,662.0	99.2	0.0	112.46	5,214.5	731.0	1,073.2	979.6	93.61	11.465		
12,800.0	7,252.0	13,250.3	7,662.0	100.9	0.0	112.46	5,314.5	730.1	1,073.2	978.0	95.20	11.273		
12,900.0	7,252.0	13,350.3	7,662.0	102.6	0.0	112.46	5,414.5	729.3	1,073.2	976.4	96.80	11.087		
13,000.0	7,252.0	13,450.3	7,662.0	104.3	0.0	112.46	5,514.5	728.5	1,073.2	974.8	98.40	10.906		
13,100.0	7,252.0	13,550.3	7,662.0	106.0	0.0	112.46	5,614.5	727.7	1,073.2	973.2	100.00	10.732		
13,200.0	7,252.0	13,650.3	7,662.0	107.7	0.0	112.46	5,714.5	726.8	1,073.2	971.6	101.60	10.562		
13,300.0	7,252.0	13,750.3	7,662.0	109.5	0.0	112.46	5,814.5	726.0	1,073.2	970.0	103.21	10.398		
13,400.0	7,252.0	13,850.3	7,662.0	111.2	0.0	112.46	5,914.5	725.2	1,073.2	968.4	104.82	10.239		
13,500.0	7,252.0	13,950.3	7,662.0	112.9	0.0	112.46	6,014.5	724.4	1,073.2	966.8	106.42	10.084		
13,600.0	7,252.0	14,050.3	7,662.0	114.6	0.0	112.46	6,114.5	723.5	1,073.2	965.1	108.03	9.934		
13,700.0	7,252.0	14,150.3	7,662.0	116.3	0.0	112.46	6,214.5	722.7	1,073.2	963.5	109.64	9.788		
13,800.0	7,252.0	14,250.3	7,662.0	118.0	0.0	112.46	6,314.5	721.9	1,073.2	961.9	111.26	9.646		
13,900.0	7,252.0	14,350.3	7,662.0	119.7	0.0	112.46	6,414.4	721.0	1,073.2	960.3	112.87	9.508		
14,000.0	7,252.0	14,450.3	7,662.0	121.5	0.0	112.46	6,514.4	720.2	1,073.2	958.7	114.49	9.374		
14,100.0	7,252.0	14,550.3	7,662.0	123.2	0.0	112.46	6,614.4	719.4	1,073.2	957.1	116.10	9.243		
14,200.0	7,252.0	14,650.3	7,662.0	124.9	0.0	112.46	6,714.4	718.6	1,073.2	955.5	117.72	9.116		
14,300.0	7,252.0	14,750.3	7,662.0	126.6	0.0	112.46	6,814.4	717.7	1,073.2	953.8	119.34	8.993		
14,400.0	7,252.0	14,850.3	7,662.0	128.4	0.0	112.46	6,914.4	716.9	1,073.2	952.2	120.96	8.872		
14,500.0	7,252.0	14,950.3	7,662.0	130.1	0.0	112.46	7,014.4	716.1	1,073.2	950.6	122.58	8.755		
14,600.0	7,252.0	15,050.3	7,662.0	131.8	0.0	112.46	7,114.4	715.3	1,073.2	949.0	124.20	8.641		
14,700.0	7,252.0	15,150.3	7,662.0	133.5	0.0	112.46	7,214.4	714.4	1,073.2	947.4	125.83	8.529		
14,800.0	7,252.0	15,250.3	7,662.0	135.3	0.0	112.46	7,314.4	713.6	1,073.2	945.7	127.45	8.420		
14,900.0	7,252.0	15,350.3	7,662.0	137.0	0.0	112.46	7,414.4	712.8	1,073.2	944.1	129.07	8.314		
15,000.0	7,252.0	15,450.3	7,662.0	138.7	0.0	112.46	7,514.4	712.0	1,073.2	942.5	130.70	8.211		
15,100.0	7,252.0	15,550.3	7,662.0	140.5	0.0	112.46	7,614.4	711.1	1,073.2	940.9	132.33	8.110		
15,200.0	7,252.0	15,650.3	7,662.0	142.2	0.0	112.46	7,714.4	710.3	1,073.2	939.2	133.95	8.012		
15,300.0	7,252.0	15,750.3	7,662.0	143.9	0.0	112.46	7,814.4	709.5	1,073.2	937.6	135.58	7.915		
15,400.0	7,252.0	15,850.3	7,662.0	145.7	0.0	112.46	7,914.4	708.6	1,073.2	936.0	137.21	7.821		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3CDH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,500.0	7,252.0	15,950.3	7,662.0	147.4	0.0	112.46	8,014.4	707.8	1,073.2	934.3	138.84	7.730	
15,600.0	7,252.0	16,050.3	7,662.0	149.1	0.0	112.46	8,114.4	707.0	1,073.2	932.7	140.47	7.640	
15,700.0	7,252.0	16,150.3	7,662.0	150.9	0.0	112.46	8,214.4	706.2	1,073.2	931.1	142.10	7.552	
15,800.0	7,252.0	16,250.3	7,662.0	152.6	0.0	112.46	8,314.4	705.3	1,073.2	929.5	143.73	7.467	
15,900.0	7,252.0	16,350.3	7,662.0	154.3	0.0	112.46	8,414.4	704.5	1,073.2	927.8	145.36	7.383	
16,000.0	7,252.0	16,450.3	7,662.0	156.1	0.0	112.46	8,514.4	703.7	1,073.2	926.2	147.00	7.301	
16,100.0	7,252.0	16,550.3	7,662.0	157.8	0.0	112.46	8,614.4	702.9	1,073.2	924.6	148.63	7.221	
16,200.0	7,252.0	16,650.3	7,662.0	159.6	0.0	112.46	8,714.4	702.0	1,073.2	922.9	150.26	7.142	
16,300.0	7,252.0	16,750.3	7,662.0	161.3	0.0	112.46	8,814.4	701.2	1,073.2	921.3	151.90	7.065	
16,400.0	7,252.0	16,850.3	7,662.0	163.0	0.0	112.46	8,914.4	700.4	1,073.2	919.7	153.53	6.990	
16,500.0	7,252.0	16,950.3	7,662.0	164.8	0.0	112.46	9,014.4	699.6	1,073.2	918.0	155.17	6.916	
16,600.0	7,252.0	17,050.3	7,662.0	166.5	0.0	112.46	9,114.4	698.7	1,073.2	916.4	156.80	6.844	
16,700.0	7,252.0	17,150.3	7,662.0	168.3	0.0	112.46	9,214.4	697.9	1,073.2	914.7	158.44	6.774	
16,800.0	7,252.0	17,250.3	7,662.0	170.0	0.0	112.46	9,314.3	697.1	1,073.2	913.1	160.07	6.704	
16,900.0	7,252.0	17,350.3	7,662.0	171.8	0.0	112.46	9,414.3	696.2	1,073.2	911.5	161.71	6.636	
17,000.0	7,252.0	17,450.3	7,662.0	173.5	0.0	112.46	9,514.3	695.4	1,073.2	909.8	163.35	6.570	
17,100.0	7,252.0	17,550.3	7,662.0	175.2	0.0	112.46	9,614.3	694.6	1,073.2	908.2	164.99	6.505	
17,200.0	7,252.0	17,650.3	7,662.0	177.0	0.0	112.46	9,714.3	693.8	1,073.2	906.6	166.63	6.441	
17,300.0	7,252.0	17,750.3	7,662.0	178.7	0.0	112.46	9,814.3	692.9	1,073.2	904.9	168.26	6.378	
17,385.9	7,252.0	17,836.2	7,662.0	180.2	0.0	112.46	9,900.2	692.2	1,073.2	903.5	169.67	6.325 SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.72	0.4	90.0	90.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.72	0.4	90.0	90.0	89.8	0.28	325.083		
200.0	200.0	200.0	200.0	1.0	0.0	89.72	0.4	90.0	90.0	89.2	0.80	112.867		
300.0	300.0	300.0	300.0	1.5	0.0	89.72	0.4	90.0	90.0	88.8	1.22	73.541		
400.0	400.0	400.0	400.0	1.9	0.0	89.72	0.4	90.0	90.0	88.4	1.62	55.641		
500.0	500.0	500.0	500.0	2.3	0.0	89.72	0.4	90.0	90.0	88.0	2.00	45.046		
600.0	600.0	600.0	600.0	2.7	0.0	89.72	0.4	90.0	90.0	87.7	2.37	37.950		
700.0	700.0	700.0	700.0	3.1	0.0	89.72	0.4	90.0	90.0	87.3	2.74	32.834		
800.0	800.0	800.0	800.0	3.5	0.0	89.72	0.4	90.0	90.0	86.9	3.11	28.958		
900.0	900.0	900.0	900.0	3.9	0.0	89.72	0.4	90.0	90.0	86.6	3.47	25.914 CC, ES		
1,000.0	1,000.0	997.1	997.1	4.2	0.0	90.07	-0.1	91.6	91.6	87.8	3.83	23.911		
1,100.0	1,100.0	1,094.0	1,093.8	4.6	0.0	91.05	-1.8	96.2	96.4	92.3	4.18	23.091		
1,200.0	1,200.0	1,190.4	1,189.9	4.9	0.0	-110.74	-4.5	103.9	105.1	100.6	4.49	23.422		
1,300.0	1,299.8	1,286.0	1,284.8	5.7	0.0	-111.09	-8.3	114.5	118.1	113.2	4.98	23.715		
1,400.0	1,399.5	1,380.5	1,378.2	6.1	0.0	-112.18	-13.1	127.9	135.5	130.2	5.35	25.337		
1,500.0	1,499.0	1,473.8	1,470.0	6.4	0.0	-113.00	-18.8	144.0	156.2	150.5	5.67	27.558		
1,600.0	1,598.6	1,565.9	1,559.9	6.7	0.0	-113.28	-25.4	162.6	179.9	173.9	6.00	29.981		
1,700.0	1,698.2	1,661.2	1,652.5	7.1	0.0	-113.27	-33.0	183.9	205.7	199.3	6.34	32.415		
1,800.0	1,797.8	1,757.8	1,746.3	7.4	0.0	-113.25	-40.7	205.6	231.5	224.8	6.70	34.561		
1,900.0	1,897.3	1,854.4	1,840.1	7.7	0.0	-113.24	-48.5	227.2	257.4	250.3	7.06	36.478		
2,000.0	1,996.9	1,951.0	1,933.9	8.1	0.0	-113.23	-56.2	248.9	283.3	275.8	7.42	38.199		
2,100.0	2,096.5	2,047.6	2,027.7	8.4	0.0	-113.22	-63.9	270.6	309.1	301.3	7.78	39.753		
2,200.0	2,196.1	2,144.2	2,121.6	8.7	0.0	-113.21	-71.6	292.2	335.0	326.8	8.14	41.160		
2,300.0	2,295.6	2,240.8	2,215.4	9.1	0.0	-113.20	-79.4	313.9	360.8	352.3	8.50	42.441		
2,400.0	2,395.2	2,337.4	2,309.2	9.4	0.0	-113.20	-87.1	335.6	386.7	377.8	8.87	43.610		
2,500.0	2,494.8	2,434.0	2,403.0	9.8	0.0	-113.19	-94.8	357.2	412.6	403.3	9.23	44.682		
2,600.0	2,594.4	2,530.6	2,496.8	10.1	0.0	-113.19	-102.5	378.9	438.4	428.8	9.60	45.668		
2,700.0	2,693.9	2,627.2	2,590.7	10.5	0.0	-113.18	-110.3	400.6	464.3	454.3	9.97	46.577		
2,800.0	2,793.5	2,723.7	2,684.5	10.9	0.0	-113.18	-118.0	422.3	490.1	479.8	10.34	47.417		
2,900.0	2,893.1	2,820.3	2,778.3	11.2	0.0	-113.18	-125.7	443.9	516.0	505.3	10.71	48.197		
3,000.0	2,992.7	2,916.9	2,872.1	11.6	0.0	-113.17	-133.4	465.6	541.9	530.8	11.08	48.922		
3,100.0	3,092.2	3,013.5	2,965.9	11.9	0.0	-113.17	-141.1	487.3	567.7	556.3	11.45	49.598		
3,200.0	3,191.8	3,110.1	3,059.8	12.3	0.0	-113.17	-148.9	508.9	593.6	581.8	11.82	50.229		
3,300.0	3,291.4	3,206.7	3,153.6	12.7	0.0	-113.17	-156.6	530.6	619.4	607.3	12.19	50.820		
3,400.0	3,391.0	3,303.3	3,247.4	13.0	0.0	-113.17	-164.3	552.3	645.3	632.7	12.56	51.374		
3,500.0	3,490.5	3,399.9	3,341.2	13.4	0.0	-113.16	-172.0	573.9	671.2	658.2	12.93	51.894		
3,600.0	3,590.1	3,496.5	3,435.0	13.8	0.0	-113.16	-179.8	595.6	697.0	683.7	13.31	52.384		
3,700.0	3,689.7	3,593.1	3,528.8	14.2	0.0	-113.16	-187.5	617.3	722.9	709.2	13.68	52.846		
3,800.0	3,789.2	3,689.7	3,622.7	14.5	0.0	-113.16	-195.2	638.9	748.8	734.7	14.05	53.282		
3,900.0	3,888.8	3,786.3	3,716.5	14.9	0.0	-113.16	-202.9	660.6	774.6	760.2	14.43	53.694		
4,000.0	3,988.4	3,882.9	3,810.3	15.3	0.0	-113.16	-210.7	682.3	800.5	785.7	14.80	54.085		
4,100.0	4,088.0	3,979.5	3,904.1	15.7	0.0	-113.15	-218.4	704.0	826.3	811.2	15.17	54.455		
4,200.0	4,187.5	4,076.1	3,997.9	16.0	0.0	-113.15	-226.1	725.6	852.2	836.6	15.55	54.806		
4,300.0	4,287.1	4,172.7	4,091.8	16.4	0.0	-113.15	-233.8	747.3	878.1	862.1	15.92	55.140		
4,400.0	4,386.7	4,269.3	4,185.6	16.8	0.0	-113.15	-241.6	769.0	903.9	887.6	16.30	55.458		
4,500.0	4,486.3	4,365.9	4,279.4	17.2	0.0	-113.15	-249.3	790.6	929.8	913.1	16.67	55.761		
4,600.0	4,585.8	4,462.5	4,373.2	17.6	0.0	-113.15	-257.0	812.3	955.6	938.6	17.05	56.050		
4,700.0	4,685.4	4,559.1	4,467.0	17.9	0.0	-113.15	-264.7	834.0	981.5	964.1	17.43	56.326		
4,800.0	4,785.0	4,655.7	4,560.9	18.3	0.0	-113.15	-272.4	855.6	1,007.4	989.6	17.80	56.590		
4,900.0	4,884.6	4,752.3	4,654.7	18.7	0.0	-113.15	-280.2	877.3	1,033.2	1,015.0	18.18	56.842		
5,000.0	4,984.1	4,848.9	4,748.5	19.1	0.0	-113.15	-287.9	899.0	1,059.1	1,040.5	18.55	57.083		
5,100.0	5,083.7	4,945.5	4,842.3	19.5	0.0	-113.15	-295.6	920.7	1,084.9	1,066.0	18.93	57.314		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,183.3	5,042.1	4,936.1	19.9	0.0	-113.15	-303.3	942.3	1,110.8	1,091.5	19.31	57.536		
5,300.0	5,282.9	5,138.7	5,029.9	20.2	0.0	-113.14	-311.1	964.0	1,136.7	1,117.0	19.68	57.748		
5,400.0	5,382.4	5,235.3	5,123.8	20.6	0.0	-113.14	-318.8	985.7	1,162.5	1,142.5	20.06	57.953		
5,500.0	5,482.0	5,331.9	5,217.6	21.0	0.0	-113.14	-326.5	1,007.3	1,188.4	1,168.0	20.44	58.149		
5,600.0	5,581.6	5,428.5	5,311.4	21.4	0.0	-113.14	-334.2	1,029.0	1,214.3	1,193.4	20.81	58.338		
5,700.0	5,681.2	5,525.1	5,405.2	21.8	0.0	-113.14	-342.0	1,050.7	1,240.1	1,218.9	21.19	58.519		
5,800.0	5,780.7	5,621.7	5,499.0	22.2	0.0	-113.14	-349.7	1,072.3	1,266.0	1,244.4	21.57	58.694		
5,900.0	5,880.3	5,718.3	5,592.9	22.6	0.0	-113.14	-357.4	1,094.0	1,291.8	1,269.9	21.95	58.863		
6,000.0	5,979.9	5,814.9	5,686.7	22.9	0.0	-113.14	-365.1	1,115.7	1,317.7	1,295.4	22.32	59.025		
6,100.0	6,079.5	5,911.5	5,780.5	23.3	0.0	-113.14	-372.9	1,137.3	1,343.6	1,320.9	22.70	59.182		
6,200.0	6,179.0	6,008.1	5,874.3	23.7	0.0	-113.14	-380.6	1,159.0	1,369.4	1,346.3	23.08	59.333		
6,300.0	6,278.6	6,104.7	5,968.1	24.1	0.0	-113.14	-388.3	1,180.7	1,395.3	1,371.8	23.46	59.479		
6,400.0	6,378.2	6,201.3	6,062.0	24.5	0.0	-113.14	-396.0	1,202.4	1,421.1	1,397.3	23.84	59.620		
6,500.0	6,477.7	6,297.9	6,155.8	24.9	0.0	-113.14	-403.7	1,224.0	1,447.0	1,422.8	24.22	59.756		
6,600.0	6,577.3	6,394.5	6,249.6	25.3	0.0	-113.14	-411.5	1,245.7	1,472.9	1,448.3	24.59	59.887		
6,700.0	6,677.0	6,491.0	6,343.4	25.7	0.0	-174.58	-419.2	1,267.4	1,498.7	1,473.7	24.97	60.018		
6,800.0	6,776.5	6,586.1	6,435.7	26.0	0.0	98.81	-426.8	1,288.7	1,524.3	1,499.0	25.31	60.221		
6,900.0	6,873.0	6,677.0	6,524.0	26.2	0.0	91.48	-434.1	1,309.1	1,549.3	1,523.8	25.52	60.702		
7,000.0	6,963.6	6,760.9	6,605.5	26.4	0.0	88.57	-440.8	1,327.9	1,574.1	1,548.5	25.67	61.313		
7,100.0	7,045.6	6,835.2	6,677.6	26.6	0.0	86.83	-446.7	1,344.6	1,599.2	1,573.5	25.78	62.030		
7,200.0	7,116.5	6,897.7	6,738.4	26.8	0.0	85.36	-451.7	1,358.6	1,625.3	1,599.5	25.87	62.827		
7,300.0	7,174.1	6,960.0	6,798.9	27.0	0.0	84.14	-456.1	1,372.6	1,653.0	1,627.0	26.01	63.565		
7,400.0	7,216.6	7,071.9	6,907.6	27.2	0.0	84.53	-448.9	1,397.5	1,681.4	1,655.1	26.35	63.809		
7,500.0	7,242.9	7,283.8	7,100.8	27.5	0.0	87.67	-377.3	1,441.4	1,708.7	1,681.8	26.90	63.512		
7,600.0	7,252.0	7,869.9	7,376.7	27.8	0.0	94.15	107.3	1,501.0	1,724.1	1,696.5	27.53	62.628		
7,700.0	7,252.0	7,983.4	7,377.0	28.1	0.0	94.16	220.7	1,500.1	1,724.1	1,696.2	27.93	61.728		
7,800.0	7,252.0	8,083.4	7,377.0	28.6	0.0	94.16	320.7	1,499.3	1,724.1	1,695.7	28.44	60.632		
7,900.0	7,252.0	8,183.4	7,377.0	29.2	0.0	94.16	420.7	1,498.4	1,724.1	1,695.1	29.04	59.373		
8,000.0	7,252.0	8,283.4	7,377.0	29.9	0.0	94.16	520.7	1,497.6	1,724.1	1,694.4	29.73	57.984		
8,100.0	7,252.0	8,383.4	7,377.0	30.7	0.0	94.16	620.7	1,496.8	1,724.1	1,693.6	30.52	56.499		
8,200.0	7,252.0	8,483.4	7,377.0	31.5	0.0	94.16	720.7	1,496.0	1,724.1	1,692.7	31.38	54.949		
8,300.0	7,252.0	8,583.4	7,377.0	32.4	0.0	94.16	820.7	1,495.1	1,724.1	1,691.8	32.31	53.360		
8,400.0	7,252.0	8,683.4	7,377.0	33.4	0.0	94.16	920.7	1,494.3	1,724.1	1,690.8	33.31	51.756		
8,500.0	7,252.0	8,783.4	7,377.0	34.5	0.0	94.16	1,020.7	1,493.5	1,724.1	1,689.7	34.37	50.156		
8,600.0	7,252.0	8,883.4	7,377.0	35.6	0.0	94.16	1,120.7	1,492.7	1,724.1	1,688.6	35.49	48.576		
8,700.0	7,252.0	8,983.4	7,377.0	36.8	0.0	94.16	1,220.6	1,491.8	1,724.1	1,687.4	36.66	47.027		
8,800.0	7,252.0	9,083.4	7,377.0	38.0	0.0	94.16	1,320.6	1,491.0	1,724.1	1,686.2	37.88	45.519		
8,900.0	7,252.0	9,183.4	7,377.0	39.2	0.0	94.16	1,420.6	1,490.2	1,724.1	1,685.0	39.13	44.058		
9,000.0	7,252.0	9,283.4	7,377.0	40.5	0.0	94.16	1,520.6	1,489.3	1,724.1	1,683.7	40.43	42.648		
9,100.0	7,252.0	9,383.4	7,377.0	41.9	0.0	94.16	1,620.6	1,488.5	1,724.1	1,682.3	41.76	41.291		
9,200.0	7,252.0	9,483.4	7,377.0	43.2	0.0	94.16	1,720.6	1,487.7	1,724.1	1,681.0	43.11	39.989		
9,300.0	7,252.0	9,583.4	7,377.0	44.6	0.0	94.16	1,820.6	1,486.9	1,724.1	1,679.6	44.50	38.742		
9,400.0	7,252.0	9,683.4	7,377.0	46.0	0.0	94.16	1,920.6	1,486.0	1,724.1	1,678.2	45.92	37.550		
9,500.0	7,252.0	9,783.4	7,377.0	47.5	0.0	94.16	2,020.6	1,485.2	1,724.1	1,676.8	47.35	36.410		
9,600.0	7,252.0	9,883.4	7,377.0	48.9	0.0	94.16	2,120.6	1,484.4	1,724.1	1,675.3	48.81	35.323		
9,700.0	7,252.0	9,983.4	7,377.0	50.4	0.0	94.16	2,220.6	1,483.6	1,724.1	1,673.8	50.29	34.285		
9,800.0	7,252.0	10,083.4	7,377.0	51.9	0.0	94.16	2,320.6	1,482.7	1,724.1	1,672.3	51.78	33.295		
9,900.0	7,252.0	10,183.4	7,377.0	53.4	0.0	94.16	2,420.6	1,481.9	1,724.1	1,670.8	53.29	32.351		
10,000.0	7,252.0	10,283.4	7,377.0	54.9	0.0	94.16	2,520.6	1,481.1	1,724.1	1,669.3	54.82	31.450		
10,100.0	7,252.0	10,383.4	7,377.0	56.5	0.0	94.16	2,620.6	1,480.2	1,724.1	1,667.7	56.36	30.590		
10,200.0	7,252.0	10,483.4	7,377.0	58.0	0.0	94.16	2,720.6	1,479.4	1,724.1	1,666.2	57.91	29.770		
10,300.0	7,252.0	10,583.4	7,377.0	59.6	0.0	94.16	2,820.6	1,478.6	1,724.1	1,664.6	59.48	28.987		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
10,400.0	7,252.0	10,683.4	7,377.0	61.2	0.0	94.16	2,920.6	1,477.8	1,724.1	1,663.0	61.05	28.239		
10,500.0	7,252.0	10,783.4	7,377.0	62.8	0.0	94.16	3,020.6	1,476.9	1,724.1	1,661.5	62.64	27.524		
10,600.0	7,252.0	10,883.4	7,377.0	64.4	0.0	94.16	3,120.6	1,476.1	1,724.1	1,659.9	64.23	26.841		
10,700.0	7,252.0	10,983.4	7,377.0	66.0	0.0	94.16	3,220.6	1,475.3	1,724.1	1,658.3	65.84	26.188		
10,800.0	7,252.0	11,083.4	7,377.0	67.6	0.0	94.16	3,320.6	1,474.5	1,724.1	1,656.7	67.45	25.562		
10,900.0	7,252.0	11,183.4	7,377.0	69.2	0.0	94.16	3,420.6	1,473.6	1,724.1	1,655.0	69.07	24.963		
11,000.0	7,252.0	11,283.4	7,377.0	70.8	0.0	94.16	3,520.6	1,472.8	1,724.1	1,653.4	70.69	24.390		
11,100.0	7,252.0	11,383.4	7,377.0	72.5	0.0	94.16	3,620.6	1,472.0	1,724.1	1,651.8	72.32	23.839		
11,200.0	7,252.0	11,483.4	7,377.0	74.1	0.0	94.16	3,720.6	1,471.2	1,724.1	1,650.1	73.96	23.311		
11,300.0	7,252.0	11,583.4	7,377.0	75.7	0.0	94.16	3,820.6	1,470.3	1,724.1	1,648.5	75.60	22.805		
11,400.0	7,252.0	11,683.4	7,377.0	77.4	0.0	94.16	3,920.6	1,469.5	1,724.1	1,646.9	77.25	22.318		
11,500.0	7,252.0	11,783.4	7,377.0	79.1	0.0	94.16	4,020.6	1,468.7	1,724.1	1,645.2	78.90	21.851		
11,600.0	7,252.0	11,883.4	7,377.0	80.7	0.0	94.16	4,120.5	1,467.8	1,724.1	1,643.5	80.56	21.401		
11,700.0	7,252.0	11,983.4	7,377.0	82.4	0.0	94.16	4,220.5	1,467.0	1,724.1	1,641.9	82.22	20.968		
11,800.0	7,252.0	12,083.4	7,377.0	84.0	0.0	94.16	4,320.5	1,466.2	1,724.1	1,640.2	83.89	20.552		
11,900.0	7,252.0	12,183.4	7,377.0	85.7	0.0	94.16	4,420.5	1,465.4	1,724.1	1,638.5	85.56	20.151		
12,000.0	7,252.0	12,283.4	7,377.0	87.4	0.0	94.16	4,520.5	1,464.5	1,724.1	1,636.9	87.23	19.764		
12,100.0	7,252.0	12,383.4	7,377.0	89.1	0.0	94.16	4,620.5	1,463.7	1,724.1	1,635.2	88.91	19.391		
12,200.0	7,252.0	12,483.4	7,377.0	90.8	0.0	94.16	4,720.5	1,462.9	1,724.1	1,633.5	90.59	19.032		
12,300.0	7,252.0	12,583.4	7,377.0	92.4	0.0	94.16	4,820.5	1,462.1	1,724.1	1,631.8	92.27	18.685		
12,400.0	7,252.0	12,683.4	7,377.0	94.1	0.0	94.16	4,920.5	1,461.2	1,724.1	1,630.1	93.96	18.349		
12,500.0	7,252.0	12,783.4	7,377.0	95.8	0.0	94.16	5,020.5	1,460.4	1,724.1	1,628.5	95.65	18.025		
12,600.0	7,252.0	12,883.4	7,377.0	97.5	0.0	94.16	5,120.5	1,459.6	1,724.1	1,626.8	97.34	17.712		
12,700.0	7,252.0	12,983.4	7,377.0	99.2	0.0	94.16	5,220.5	1,458.7	1,724.1	1,625.1	99.04	17.409		
12,800.0	7,252.0	13,083.4	7,377.0	100.9	0.0	94.16	5,320.5	1,457.9	1,724.1	1,623.4	100.73	17.116		
12,900.0	7,252.0	13,183.4	7,377.0	102.6	0.0	94.16	5,420.5	1,457.1	1,724.1	1,621.7	102.43	16.832		
13,000.0	7,252.0	13,283.4	7,377.0	104.3	0.0	94.16	5,520.5	1,456.3	1,724.1	1,620.0	104.13	16.557		
13,100.0	7,252.0	13,383.4	7,377.0	106.0	0.0	94.16	5,620.5	1,455.4	1,724.1	1,618.3	105.83	16.291		
13,200.0	7,252.0	13,483.4	7,377.0	107.7	0.0	94.16	5,720.5	1,454.6	1,724.1	1,616.6	107.54	16.033		
13,300.0	7,252.0	13,583.4	7,377.0	109.5	0.0	94.16	5,820.5	1,453.8	1,724.1	1,614.9	109.24	15.782		
13,400.0	7,252.0	13,683.4	7,377.0	111.2	0.0	94.16	5,920.5	1,453.0	1,724.1	1,613.2	110.95	15.539		
13,500.0	7,252.0	13,783.4	7,377.0	112.9	0.0	94.16	6,020.5	1,452.1	1,724.1	1,611.4	112.66	15.303		
13,600.0	7,252.0	13,883.4	7,377.0	114.6	0.0	94.16	6,120.5	1,451.3	1,724.1	1,609.7	114.37	15.074		
13,700.0	7,252.0	13,983.4	7,377.0	116.3	0.0	94.16	6,220.5	1,450.5	1,724.1	1,608.0	116.09	14.852		
13,800.0	7,252.0	14,083.4	7,377.0	118.0	0.0	94.16	6,320.5	1,449.6	1,724.1	1,606.3	117.80	14.636		
13,900.0	7,252.0	14,183.4	7,377.0	119.7	0.0	94.16	6,420.5	1,448.8	1,724.1	1,604.6	119.52	14.426		
14,000.0	7,252.0	14,283.4	7,377.0	121.5	0.0	94.16	6,520.5	1,448.0	1,724.1	1,602.9	121.23	14.221		
14,100.0	7,252.0	14,383.4	7,377.0	123.2	0.0	94.16	6,620.5	1,447.2	1,724.1	1,601.2	122.95	14.023		
14,200.0	7,252.0	14,483.4	7,377.0	124.9	0.0	94.16	6,720.5	1,446.3	1,724.1	1,599.4	124.67	13.829		
14,300.0	7,252.0	14,583.4	7,377.0	126.6	0.0	94.16	6,820.5	1,445.5	1,724.1	1,597.7	126.39	13.641		
14,400.0	7,252.0	14,683.4	7,377.0	128.4	0.0	94.16	6,920.5	1,444.7	1,724.1	1,596.0	128.11	13.458		
14,500.0	7,252.0	14,783.4	7,377.0	130.1	0.0	94.16	7,020.4	1,443.9	1,724.1	1,594.3	129.84	13.279		
14,600.0	7,252.0	14,883.4	7,377.0	131.8	0.0	94.16	7,120.4	1,443.0	1,724.1	1,592.5	131.56	13.105		
14,700.0	7,252.0	14,983.4	7,377.0	133.5	0.0	94.16	7,220.4	1,442.2	1,724.1	1,590.8	133.28	12.936		
14,800.0	7,252.0	15,083.4	7,377.0	135.3	0.0	94.16	7,320.4	1,441.4	1,724.1	1,589.1	135.01	12.770		
14,900.0	7,252.0	15,183.4	7,377.0	137.0	0.0	94.16	7,420.4	1,440.6	1,724.1	1,587.4	136.74	12.609		
15,000.0	7,252.0	15,283.4	7,377.0	138.7	0.0	94.16	7,520.4	1,439.7	1,724.1	1,585.6	138.46	12.452		
15,100.0	7,252.0	15,383.4	7,377.0	140.5	0.0	94.16	7,620.4	1,438.9	1,724.1	1,583.9	140.19	12.298		
15,200.0	7,252.0	15,483.4	7,377.0	142.2	0.0	94.16	7,720.4	1,438.1	1,724.1	1,582.2	141.92	12.148		
15,300.0	7,252.0	15,583.4	7,377.0	143.9	0.0	94.16	7,820.4	1,437.2	1,724.1	1,580.5	143.65	12.002		
15,400.0	7,252.0	15,683.4	7,377.0	145.7	0.0	94.16	7,920.4	1,436.4	1,724.1	1,578.7	145.38	11.859		
15,500.0	7,252.0	15,783.4	7,377.0	147.4	0.0	94.16	8,020.4	1,435.6	1,724.1	1,577.0	147.11	11.720		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NBH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,600.0	7,252.0	15,883.4	7,377.0	149.1	0.0	94.16	8,120.4	1,434.8	1,724.1	1,575.3	148.85	11.583	
15,700.0	7,252.0	15,983.4	7,377.0	150.9	0.0	94.16	8,220.4	1,433.9	1,724.1	1,573.5	150.58	11.450	
15,800.0	7,252.0	16,083.4	7,377.0	152.6	0.0	94.16	8,320.4	1,433.1	1,724.1	1,571.8	152.31	11.319	
15,900.0	7,252.0	16,183.4	7,377.0	154.3	0.0	94.16	8,420.4	1,432.3	1,724.1	1,570.1	154.05	11.192	
16,000.0	7,252.0	16,283.4	7,377.0	156.1	0.0	94.16	8,520.4	1,431.5	1,724.1	1,568.3	155.78	11.067	
16,100.0	7,252.0	16,383.4	7,377.0	157.8	0.0	94.16	8,620.4	1,430.6	1,724.1	1,566.6	157.52	10.945	
16,200.0	7,252.0	16,483.4	7,377.0	159.6	0.0	94.16	8,720.4	1,429.8	1,724.1	1,564.9	159.25	10.826	
16,300.0	7,252.0	16,583.4	7,377.0	161.3	0.0	94.16	8,820.4	1,429.0	1,724.1	1,563.1	160.99	10.709	
16,400.0	7,252.0	16,683.4	7,377.0	163.0	0.0	94.16	8,920.4	1,428.1	1,724.1	1,561.4	162.73	10.595	
16,500.0	7,252.0	16,783.4	7,377.0	164.8	0.0	94.16	9,020.4	1,427.3	1,724.1	1,559.6	164.47	10.483	
16,600.0	7,252.0	16,883.4	7,377.0	166.5	0.0	94.16	9,120.4	1,426.5	1,724.1	1,557.9	166.20	10.373	
16,700.0	7,252.0	16,983.4	7,377.0	168.3	0.0	94.16	9,220.4	1,425.7	1,724.1	1,556.2	167.94	10.266	
16,800.0	7,252.0	17,083.4	7,377.0	170.0	0.0	94.16	9,320.4	1,424.8	1,724.1	1,554.4	169.68	10.161	
16,900.0	7,252.0	17,183.4	7,377.0	171.8	0.0	94.16	9,420.4	1,424.0	1,724.1	1,552.7	171.42	10.058	
17,000.0	7,252.0	17,283.4	7,377.0	173.5	0.0	94.16	9,520.4	1,423.2	1,724.1	1,550.9	173.16	9.957	
17,100.0	7,252.0	17,383.4	7,377.0	175.2	0.0	94.16	9,620.4	1,422.4	1,724.1	1,549.2	174.90	9.858	
17,200.0	7,252.0	17,483.4	7,377.0	177.0	0.0	94.16	9,720.4	1,421.5	1,724.1	1,547.5	176.64	9.760	
17,300.0	7,252.0	17,583.4	7,377.0	178.7	0.0	94.16	9,820.4	1,420.7	1,724.1	1,545.7	178.38	9.665	
17,385.9	7,252.0	17,669.2	7,377.0	180.2	0.0	94.16	9,906.2	1,420.0	1,724.1	1,544.2	179.88	9.585 SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.74	0.3	75.0	75.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.74	0.3	75.0	75.0	74.7	0.28	270.879		
200.0	200.0	200.0	200.0	1.0	0.0	89.74	0.3	75.0	75.0	74.2	0.80	94.045		
300.0	300.0	300.0	300.0	1.5	0.0	89.74	0.3	75.0	75.0	73.8	1.22	61.275		
400.0	400.0	400.0	400.0	1.9	0.0	89.74	0.3	75.0	75.0	73.4	1.62	46.359		
500.0	500.0	500.0	500.0	2.3	0.0	89.74	0.3	75.0	75.0	73.0	2.00	37.531		
600.0	600.0	600.0	600.0	2.7	0.0	89.74	0.3	75.0	75.0	72.6	2.37	31.619		
700.0	700.0	700.0	700.0	3.1	0.0	89.74	0.3	75.0	75.0	72.3	2.74	27.356		
800.0	800.0	800.0	800.0	3.5	0.0	89.74	0.3	75.0	75.0	71.9	3.11	24.126		
900.0	900.0	900.0	900.0	3.9	0.0	89.74	0.3	75.0	75.0	71.5	3.47	21.590		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	89.74	0.3	75.0	75.0	71.2	3.84	19.543 CC, ES		
1,100.0	1,100.0	1,097.6	1,097.6	4.6	0.0	90.22	-0.3	76.5	76.6	72.4	4.19	18.265		
1,200.0	1,200.0	1,195.0	1,194.8	4.9	0.0	-111.96	-2.2	81.1	82.0	77.4	4.51	18.167		
1,300.0	1,299.8	1,291.8	1,291.3	5.7	0.0	-112.78	-5.4	88.7	91.8	86.7	5.03	18.242		
1,400.0	1,399.5	1,387.7	1,386.5	6.1	0.0	-114.30	-9.8	99.2	106.0	100.6	5.41	19.573		
1,500.0	1,499.0	1,482.7	1,480.4	6.4	0.0	-115.21	-15.3	112.4	123.5	117.8	5.74	21.514		
1,600.0	1,598.6	1,576.6	1,572.7	6.7	0.0	-115.33	-22.0	128.4	144.0	137.9	6.08	23.699		
1,700.0	1,698.2	1,672.7	1,666.8	7.1	0.0	-115.06	-29.7	146.8	166.6	160.2	6.42	25.971		
1,800.0	1,797.8	1,770.1	1,762.0	7.4	0.0	-114.83	-37.5	165.6	189.4	182.6	6.77	27.985		
1,900.0	1,897.3	1,867.5	1,857.2	7.7	0.0	-114.65	-45.4	184.4	212.2	205.1	7.12	29.786		
2,000.0	1,996.9	1,964.9	1,952.4	8.1	0.0	-114.50	-53.3	203.3	235.0	227.5	7.48	31.403		
2,100.0	2,096.5	2,062.2	2,047.6	8.4	0.0	-114.38	-61.1	222.1	257.7	249.9	7.84	32.862		
2,200.0	2,196.1	2,159.6	2,142.8	8.7	0.0	-114.28	-69.0	240.9	280.5	272.3	8.21	34.184		
2,300.0	2,295.6	2,257.0	2,238.0	9.1	0.0	-114.20	-76.9	259.7	303.3	294.7	8.57	35.387		
2,400.0	2,395.2	2,354.3	2,333.2	9.4	0.0	-114.12	-84.7	278.5	326.0	317.1	8.94	36.486		
2,500.0	2,494.8	2,451.7	2,428.4	9.8	0.0	-114.06	-92.6	297.3	348.8	339.5	9.30	37.493		
2,600.0	2,594.4	2,549.1	2,523.7	10.1	0.0	-114.00	-100.5	316.2	371.6	361.9	9.67	38.419		
2,700.0	2,693.9	2,646.5	2,618.9	10.5	0.0	-113.95	-108.3	335.0	394.4	384.3	10.04	39.273		
2,800.0	2,793.5	2,743.8	2,714.1	10.9	0.0	-113.91	-116.2	353.8	417.2	406.7	10.41	40.064		
2,900.0	2,893.1	2,841.2	2,809.3	11.2	0.0	-113.87	-124.1	372.6	439.9	429.1	10.78	40.797		
3,000.0	2,992.7	2,938.6	2,904.5	11.6	0.0	-113.83	-131.9	391.4	462.7	451.5	11.16	41.478		
3,100.0	3,092.2	3,035.9	2,999.7	11.9	0.0	-113.80	-139.8	410.2	485.5	474.0	11.53	42.114		
3,200.0	3,191.8	3,133.3	3,094.9	12.3	0.0	-113.77	-147.7	429.1	508.3	496.4	11.90	42.707		
3,300.0	3,291.4	3,230.7	3,190.1	12.7	0.0	-113.74	-155.5	447.9	531.0	518.8	12.27	43.263		
3,400.0	3,391.0	3,328.1	3,285.3	13.0	0.0	-113.72	-163.4	466.7	553.8	541.2	12.65	43.784		
3,500.0	3,490.5	3,425.4	3,380.6	13.4	0.0	-113.70	-171.3	485.5	576.6	563.6	13.02	44.274		
3,600.0	3,590.1	3,522.8	3,475.8	13.8	0.0	-113.68	-179.1	504.3	599.4	586.0	13.40	44.735		
3,700.0	3,689.7	3,620.2	3,571.0	14.2	0.0	-113.66	-187.0	523.1	622.1	608.4	13.77	45.170		
3,800.0	3,789.2	3,717.5	3,666.2	14.5	0.0	-113.64	-194.9	542.0	644.9	630.8	14.15	45.580		
3,900.0	3,888.8	3,814.9	3,761.4	14.9	0.0	-113.62	-202.7	560.8	667.7	653.2	14.53	45.968		
4,000.0	3,988.4	3,912.3	3,856.6	15.3	0.0	-113.61	-210.6	579.6	690.5	675.6	14.90	46.336		
4,100.0	4,088.0	4,009.7	3,951.8	15.7	0.0	-113.59	-218.5	598.4	713.3	698.0	15.28	46.685		
4,200.0	4,187.5	4,107.0	4,047.0	16.0	0.0	-113.58	-226.3	617.2	736.0	720.4	15.65	47.016		
4,300.0	4,287.1	4,204.4	4,142.2	16.4	0.0	-113.56	-234.2	636.0	758.8	742.8	16.03	47.331		
4,400.0	4,386.7	4,301.8	4,237.5	16.8	0.0	-113.55	-242.1	654.9	781.6	765.2	16.41	47.631		
4,500.0	4,486.3	4,399.1	4,332.7	17.2	0.0	-113.54	-249.9	673.7	804.4	787.6	16.79	47.917		
4,600.0	4,585.8	4,496.5	4,427.9	17.6	0.0	-113.53	-257.8	692.5	827.1	810.0	17.16	48.189		
4,700.0	4,685.4	4,593.9	4,523.1	17.9	0.0	-113.52	-265.7	711.3	849.9	832.4	17.54	48.450		
4,800.0	4,785.0	4,691.3	4,618.3	18.3	0.0	-113.51	-273.5	730.1	872.7	854.8	17.92	48.698		
4,900.0	4,884.6	4,788.6	4,713.5	18.7	0.0	-113.50	-281.4	748.9	895.5	877.2	18.30	48.936		
5,000.0	4,984.1	4,886.0	4,808.7	19.1	0.0	-113.49	-289.3	767.8	918.3	899.6	18.68	49.164		
5,100.0	5,083.7	4,983.4	4,903.9	19.5	0.0	-113.48	-297.1	786.6	941.0	922.0	19.06	49.383		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,183.3	5,080.7	4,999.2	19.9	0.0	-113.47	-305.0	805.4	963.8	944.4	19.43	49.592		
5,300.0	5,282.9	5,178.1	5,094.4	20.2	0.0	-113.47	-312.9	824.2	986.6	966.8	19.81	49.793		
5,400.0	5,382.4	5,275.5	5,189.6	20.6	0.0	-113.46	-320.7	843.0	1,009.4	989.2	20.19	49.986		
5,500.0	5,482.0	5,372.8	5,284.8	21.0	0.0	-113.45	-328.6	861.8	1,032.1	1,011.6	20.57	50.172		
5,600.0	5,581.6	5,470.2	5,380.0	21.4	0.0	-113.45	-336.5	880.7	1,054.9	1,034.0	20.95	50.351		
5,700.0	5,681.2	5,567.6	5,475.2	21.8	0.0	-113.44	-344.3	899.5	1,077.7	1,056.4	21.33	50.523		
5,800.0	5,780.7	5,665.0	5,570.4	22.2	0.0	-113.43	-352.2	918.3	1,100.5	1,078.8	21.71	50.688		
5,900.0	5,880.3	5,762.3	5,665.6	22.6	0.0	-113.43	-360.1	937.1	1,123.3	1,101.2	22.09	50.848		
6,000.0	5,979.9	5,859.7	5,760.8	22.9	0.0	-113.42	-367.9	955.9	1,146.0	1,123.6	22.47	51.002		
6,100.0	6,079.5	5,957.1	5,856.1	23.3	0.0	-113.42	-375.8	974.7	1,168.8	1,146.0	22.85	51.151		
6,200.0	6,179.0	6,054.4	5,951.3	23.7	0.0	-113.41	-383.7	993.6	1,191.6	1,168.4	23.23	51.294		
6,300.0	6,278.6	6,151.8	6,046.5	24.1	0.0	-113.41	-391.5	1,012.4	1,214.4	1,190.8	23.61	51.432		
6,400.0	6,378.2	6,249.2	6,141.7	24.5	0.0	-113.40	-399.4	1,031.2	1,237.2	1,213.2	23.99	51.566		
6,500.0	6,477.7	6,346.6	6,236.9	24.9	0.0	-113.40	-407.3	1,050.0	1,259.9	1,235.6	24.37	51.696		
6,600.0	6,577.3	6,443.9	6,332.1	25.3	0.0	-113.39	-415.1	1,068.8	1,282.7	1,258.0	24.75	51.821		
6,700.0	6,677.0	6,541.3	6,427.3	25.7	0.0	-174.66	-423.0	1,087.6	1,305.5	1,280.3	25.13	51.945		
6,800.0	6,776.5	6,637.1	6,521.0	26.0	0.0	99.16	-430.8	1,106.2	1,327.9	1,302.5	25.47	52.131		
6,900.0	6,873.0	6,728.7	6,610.6	26.2	0.0	92.32	-438.2	1,123.9	1,350.1	1,324.4	25.68	52.563		
7,000.0	6,963.6	6,813.3	6,693.3	26.4	0.0	89.90	-445.0	1,140.2	1,372.3	1,346.5	25.83	53.122		
7,100.0	7,045.6	6,888.2	6,766.5	26.6	0.0	88.61	-451.0	1,154.7	1,395.6	1,369.7	25.94	53.803		
7,200.0	7,116.5	6,951.2	6,828.1	26.8	0.0	87.49	-456.1	1,166.9	1,420.8	1,394.8	26.02	54.598		
7,300.0	7,174.1	7,036.3	6,911.5	27.0	0.0	87.29	-459.2	1,183.3	1,448.4	1,422.1	26.22	55.230		
7,400.0	7,216.6	7,180.4	7,050.9	27.2	0.0	88.99	-436.3	1,210.0	1,476.7	1,450.0	26.62	55.481		
7,500.0	7,242.9	7,433.5	7,266.5	27.5	0.0	93.29	-314.2	1,249.5	1,501.8	1,474.8	27.07	55.486		
7,600.0	7,252.0	7,943.6	7,457.0	27.8	0.0	97.80	140.2	1,276.5	1,509.5	1,482.0	27.46	54.965		
7,700.0	7,252.0	8,043.6	7,457.0	28.1	0.0	97.81	240.2	1,274.3	1,508.1	1,480.2	27.86	54.130		
7,800.0	7,252.0	8,143.6	7,457.0	28.6	0.0	97.82	340.1	1,272.0	1,506.6	1,478.3	28.36	53.116		
7,900.0	7,252.0	8,243.6	7,457.0	29.2	0.0	97.83	440.1	1,269.8	1,505.2	1,476.3	28.97	51.963		
8,000.0	7,252.0	8,343.6	7,457.0	29.9	0.0	97.84	540.1	1,267.5	1,503.8	1,474.1	29.66	50.699		
8,100.0	7,252.0	8,443.6	7,457.0	30.7	0.0	97.84	640.0	1,265.2	1,502.4	1,472.0	30.44	49.355		
8,200.0	7,252.0	8,543.6	7,457.0	31.5	0.0	97.85	740.0	1,263.0	1,501.0	1,469.7	31.30	47.957		
8,300.0	7,252.0	8,643.6	7,457.0	32.4	0.0	97.86	839.9	1,260.7	1,499.6	1,467.3	32.23	46.529		
8,400.0	7,252.0	8,743.5	7,457.0	33.4	0.0	97.87	939.9	1,258.5	1,498.1	1,464.9	33.23	45.091		
8,500.0	7,252.0	8,843.5	7,457.0	34.5	0.0	97.87	1,039.9	1,256.2	1,496.7	1,462.4	34.28	43.659		
8,600.0	7,252.0	8,943.5	7,457.0	35.6	0.0	97.88	1,139.8	1,254.0	1,495.3	1,459.9	35.39	42.247		
8,700.0	7,252.0	9,043.5	7,457.0	36.8	0.0	97.89	1,239.8	1,251.7	1,493.9	1,457.3	36.56	40.865		
8,800.0	7,252.0	9,143.5	7,457.0	38.0	0.0	97.90	1,339.8	1,249.5	1,492.5	1,454.7	37.77	39.520		
8,900.0	7,252.0	9,243.5	7,457.0	39.2	0.0	97.90	1,439.7	1,247.2	1,491.1	1,452.1	39.01	38.219		
9,000.0	7,252.0	9,343.5	7,457.0	40.5	0.0	97.91	1,539.7	1,244.9	1,489.7	1,449.4	40.30	36.963		
9,100.0	7,252.0	9,443.5	7,457.0	41.9	0.0	97.92	1,639.7	1,242.7	1,488.2	1,446.6	41.62	35.757		
9,200.0	7,252.0	9,543.5	7,457.0	43.2	0.0	97.93	1,739.6	1,240.4	1,486.8	1,443.9	42.97	34.600		
9,300.0	7,252.0	9,643.5	7,457.0	44.6	0.0	97.93	1,839.6	1,238.2	1,485.4	1,441.1	44.35	33.492		
9,400.0	7,252.0	9,743.4	7,457.0	46.0	0.0	97.94	1,939.6	1,235.9	1,484.0	1,438.2	45.76	32.433		
9,500.0	7,252.0	9,843.4	7,457.0	47.5	0.0	97.95	2,039.5	1,233.7	1,482.6	1,435.4	47.18	31.421		
9,600.0	7,252.0	9,943.4	7,457.0	48.9	0.0	97.96	2,139.5	1,231.4	1,481.2	1,432.5	48.63	30.456		
9,700.0	7,252.0	10,043.4	7,457.0	50.4	0.0	97.96	2,239.4	1,229.2	1,479.8	1,429.7	50.10	29.535		
9,800.0	7,252.0	10,143.4	7,457.0	51.9	0.0	97.97	2,339.4	1,226.9	1,478.3	1,426.8	51.59	28.657		
9,900.0	7,252.0	10,243.4	7,457.0	53.4	0.0	97.98	2,439.4	1,224.7	1,476.9	1,423.8	53.09	27.820		
10,000.0	7,252.0	10,343.4	7,457.0	54.9	0.0	97.99	2,539.3	1,222.4	1,475.5	1,420.9	54.61	27.021		
10,100.0	7,252.0	10,443.4	7,457.0	56.5	0.0	97.99	2,639.3	1,220.1	1,474.1	1,418.0	56.14	26.260		
10,200.0	7,252.0	10,543.4	7,457.0	58.0	0.0	98.00	2,739.3	1,217.9	1,472.7	1,415.0	57.68	25.533		
10,300.0	7,252.0	10,643.3	7,457.0	59.6	0.0	98.01	2,839.2	1,215.6	1,471.3	1,412.0	59.23	24.839		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,252.0	10,743.3	7,457.0	61.2	0.0	98.02	2,939.2	1,213.4	1,469.9	1,409.1	60.80	24.176		
10,500.0	7,252.0	10,843.3	7,457.0	62.8	0.0	98.03	3,039.2	1,211.1	1,468.4	1,406.1	62.37	23.543		
10,600.0	7,252.0	10,943.3	7,457.0	64.4	0.0	98.03	3,139.1	1,208.9	1,467.0	1,403.1	63.96	22.938		
10,700.0	7,252.0	11,043.3	7,457.0	66.0	0.0	98.04	3,239.1	1,206.6	1,465.6	1,400.1	65.55	22.359		
10,800.0	7,252.0	11,143.3	7,457.0	67.6	0.0	98.05	3,339.1	1,204.4	1,464.2	1,397.0	67.15	21.805		
10,900.0	7,252.0	11,243.3	7,457.0	69.2	0.0	98.06	3,439.0	1,202.1	1,462.8	1,394.0	68.76	21.275		
11,000.0	7,252.0	11,343.3	7,457.0	70.8	0.0	98.06	3,539.0	1,199.8	1,461.4	1,391.0	70.37	20.767		
11,100.0	7,252.0	11,443.3	7,457.0	72.5	0.0	98.07	3,638.9	1,197.6	1,460.0	1,388.0	71.99	20.280		
11,200.0	7,252.0	11,543.3	7,457.0	74.1	0.0	98.08	3,738.9	1,195.3	1,458.5	1,384.9	73.62	19.813		
11,300.0	7,252.0	11,643.2	7,457.0	75.7	0.0	98.09	3,838.9	1,193.1	1,457.1	1,381.9	75.25	19.364		
11,400.0	7,252.0	11,743.2	7,457.0	77.4	0.0	98.10	3,938.8	1,190.8	1,455.7	1,378.8	76.89	18.933		
11,500.0	7,252.0	11,843.2	7,457.0	79.1	0.0	98.10	4,038.8	1,188.6	1,454.3	1,375.8	78.53	18.520		
11,600.0	7,252.0	11,943.2	7,457.0	80.7	0.0	98.11	4,138.8	1,186.3	1,452.9	1,372.7	80.17	18.122		
11,700.0	7,252.0	12,043.2	7,457.0	82.4	0.0	98.12	4,238.7	1,184.1	1,451.5	1,369.6	81.82	17.739		
11,800.0	7,252.0	12,143.2	7,457.0	84.0	0.0	98.13	4,338.7	1,181.8	1,450.1	1,366.6	83.48	17.370		
11,900.0	7,252.0	12,243.2	7,457.0	85.7	0.0	98.14	4,438.7	1,179.6	1,448.6	1,363.5	85.14	17.015		
12,000.0	7,252.0	12,343.2	7,457.0	87.4	0.0	98.14	4,538.6	1,177.3	1,447.2	1,360.4	86.80	16.673		
12,100.0	7,252.0	12,443.2	7,457.0	89.1	0.0	98.15	4,638.6	1,175.0	1,445.8	1,357.3	88.46	16.343		
12,200.0	7,252.0	12,543.2	7,457.0	90.8	0.0	98.16	4,738.6	1,172.8	1,444.4	1,354.3	90.13	16.025		
12,300.0	7,252.0	12,643.1	7,457.0	92.4	0.0	98.17	4,838.5	1,170.5	1,443.0	1,351.2	91.80	15.718		
12,400.0	7,252.0	12,743.1	7,457.0	94.1	0.0	98.18	4,938.5	1,168.3	1,441.6	1,348.1	93.48	15.421		
12,500.0	7,252.0	12,843.1	7,457.0	95.8	0.0	98.18	5,038.4	1,166.0	1,440.2	1,345.0	95.16	15.135		
12,600.0	7,252.0	12,943.1	7,457.0	97.5	0.0	98.19	5,138.4	1,163.8	1,438.7	1,341.9	96.83	14.858		
12,700.0	7,252.0	13,043.1	7,457.0	99.2	0.0	98.20	5,238.4	1,161.5	1,437.3	1,338.8	98.52	14.590		
12,800.0	7,252.0	13,143.1	7,457.0	100.9	0.0	98.21	5,338.3	1,159.3	1,435.9	1,335.7	100.20	14.330		
12,900.0	7,252.0	13,243.1	7,457.0	102.6	0.0	98.22	5,438.3	1,157.0	1,434.5	1,332.6	101.89	14.079		
13,000.0	7,252.0	13,343.1	7,457.0	104.3	0.0	98.23	5,538.3	1,154.7	1,433.1	1,329.5	103.57	13.836		
13,100.0	7,252.0	13,443.1	7,457.0	106.0	0.0	98.23	5,638.2	1,152.5	1,431.7	1,326.4	105.26	13.601		
13,200.0	7,252.0	13,543.1	7,457.0	107.7	0.0	98.24	5,738.2	1,150.2	1,430.3	1,323.3	106.96	13.372		
13,300.0	7,252.0	13,643.0	7,457.0	109.5	0.0	98.25	5,838.2	1,148.0	1,428.8	1,320.2	108.65	13.151		
13,400.0	7,252.0	13,743.0	7,457.0	111.2	0.0	98.26	5,938.1	1,145.7	1,427.4	1,317.1	110.35	12.936		
13,500.0	7,252.0	13,843.0	7,457.0	112.9	0.0	98.27	6,038.1	1,143.5	1,426.0	1,314.0	112.04	12.727		
13,600.0	7,252.0	13,943.0	7,457.0	114.6	0.0	98.27	6,138.1	1,141.2	1,424.6	1,310.9	113.74	12.525		
13,700.0	7,252.0	14,043.0	7,457.0	116.3	0.0	98.28	6,238.0	1,139.0	1,423.2	1,307.8	115.44	12.328		
13,800.0	7,252.0	14,143.0	7,457.0	118.0	0.0	98.29	6,338.0	1,136.7	1,421.8	1,304.6	117.14	12.137		
13,900.0	7,252.0	14,243.0	7,457.0	119.7	0.0	98.30	6,437.9	1,134.4	1,420.4	1,301.5	118.84	11.951		
14,000.0	7,252.0	14,343.0	7,457.0	121.5	0.0	98.31	6,537.9	1,132.2	1,419.0	1,298.4	120.55	11.771		
14,100.0	7,252.0	14,443.0	7,457.0	123.2	0.0	98.32	6,637.9	1,129.9	1,417.5	1,295.3	122.25	11.595		
14,200.0	7,252.0	14,543.0	7,457.0	124.9	0.0	98.32	6,737.8	1,127.7	1,416.1	1,292.2	123.96	11.424		
14,300.0	7,252.0	14,642.9	7,457.0	126.6	0.0	98.33	6,837.8	1,125.4	1,414.7	1,289.0	125.67	11.258		
14,400.0	7,252.0	14,742.9	7,457.0	128.4	0.0	98.34	6,937.8	1,123.2	1,413.3	1,285.9	127.38	11.096		
14,500.0	7,252.0	14,842.9	7,457.0	130.1	0.0	98.35	7,037.7	1,120.9	1,411.9	1,282.8	129.08	10.938		
14,600.0	7,252.0	14,942.9	7,457.0	131.8	0.0	98.36	7,137.7	1,118.7	1,410.5	1,279.7	130.79	10.784		
14,700.0	7,252.0	15,042.9	7,457.0	133.5	0.0	98.37	7,237.7	1,116.4	1,409.1	1,276.6	132.51	10.634		
14,800.0	7,252.0	15,142.9	7,457.0	135.3	0.0	98.37	7,337.6	1,114.2	1,407.6	1,273.4	134.22	10.488		
14,900.0	7,252.0	15,242.9	7,457.0	137.0	0.0	98.38	7,437.6	1,111.9	1,406.2	1,270.3	135.93	10.345		
15,000.0	7,252.0	15,342.9	7,457.0	138.7	0.0	98.39	7,537.6	1,109.6	1,404.8	1,267.2	137.64	10.206		
15,100.0	7,252.0	15,442.9	7,457.0	140.5	0.0	98.40	7,637.5	1,107.4	1,403.4	1,264.0	139.36	10.070		
15,200.0	7,252.0	15,542.8	7,457.0	142.2	0.0	98.41	7,737.5	1,105.1	1,402.0	1,260.9	141.07	9.938		
15,300.0	7,252.0	15,642.8	7,457.0	143.9	0.0	98.42	7,837.4	1,102.9	1,400.6	1,257.8	142.79	9.809		
15,400.0	7,252.0	15,742.8	7,457.0	145.7	0.0	98.43	7,937.4	1,100.6	1,399.2	1,254.7	144.51	9.682		
15,500.0	7,252.0	15,842.8	7,457.0	147.4	0.0	98.43	8,037.4	1,098.4	1,397.8	1,251.5	146.22	9.559		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NCH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)					
15,600.0	7,252.0	15,942.8	7,457.0	149.1	0.0	98.44	8,137.3	1,096.1	1,396.3	1,248.4	147.94	9.438	
15,700.0	7,252.0	16,042.8	7,457.0	150.9	0.0	98.45	8,237.3	1,093.9	1,394.9	1,245.3	149.66	9.321	
15,800.0	7,252.0	16,142.8	7,457.0	152.6	0.0	98.46	8,337.3	1,091.6	1,393.5	1,242.1	151.38	9.205	
15,900.0	7,252.0	16,242.8	7,457.0	154.3	0.0	98.47	8,437.2	1,089.3	1,392.1	1,239.0	153.10	9.093	
16,000.0	7,252.0	16,342.8	7,457.0	156.1	0.0	98.48	8,537.2	1,087.1	1,390.7	1,235.9	154.82	8.983	
16,100.0	7,252.0	16,442.8	7,457.0	157.8	0.0	98.49	8,637.2	1,084.8	1,389.3	1,232.7	156.54	8.875	
16,200.0	7,252.0	16,542.7	7,457.0	159.6	0.0	98.50	8,737.1	1,082.6	1,387.9	1,229.6	158.26	8.769	
16,300.0	7,252.0	16,642.7	7,457.0	161.3	0.0	98.50	8,837.1	1,080.3	1,386.5	1,226.5	159.98	8.666	
16,400.0	7,252.0	16,742.7	7,457.0	163.0	0.0	98.51	8,937.1	1,078.1	1,385.0	1,223.3	161.71	8.565	
16,500.0	7,252.0	16,842.7	7,457.0	164.8	0.0	98.52	9,037.0	1,075.8	1,383.6	1,220.2	163.43	8.466	
16,600.0	7,252.0	16,942.7	7,457.0	166.5	0.0	98.53	9,137.0	1,073.6	1,382.2	1,217.1	165.15	8.369	
16,700.0	7,252.0	17,042.7	7,457.0	168.3	0.0	98.54	9,236.9	1,071.3	1,380.8	1,213.9	166.88	8.274	
16,800.0	7,252.0	17,142.7	7,457.0	170.0	0.0	98.55	9,336.9	1,069.1	1,379.4	1,210.8	168.60	8.181	
16,900.0	7,252.0	17,242.7	7,457.0	171.8	0.0	98.56	9,436.9	1,066.8	1,378.0	1,207.7	170.32	8.090	
17,000.0	7,252.0	17,342.7	7,457.0	173.5	0.0	98.57	9,536.8	1,064.5	1,376.6	1,204.5	172.05	8.001	
17,100.0	7,252.0	17,442.7	7,457.0	175.2	0.0	98.57	9,636.8	1,062.3	1,375.2	1,201.4	173.77	7.913	
17,200.0	7,252.0	17,542.6	7,457.0	177.0	0.0	98.58	9,736.8	1,060.0	1,373.7	1,198.2	175.50	7.828	
17,300.0	7,252.0	17,642.6	7,457.0	178.7	0.0	98.59	9,836.7	1,057.8	1,372.3	1,195.1	177.23	7.743	
17,385.9	7,252.0	17,720.0	7,457.0	180.2	0.0	98.60	9,914.1	1,056.0	1,371.1	1,192.4	178.70	7.673 SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.73	0.3	60.0	60.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.73	0.3	60.0	60.0	59.8	0.28	216.784		
200.0	200.0	200.0	200.0	1.0	0.0	89.73	0.3	60.0	60.0	59.2	0.80	75.265		
300.0	300.0	300.0	300.0	1.5	0.0	89.73	0.3	60.0	60.0	58.8	1.22	49.040		
400.0	400.0	400.0	400.0	1.9	0.0	89.73	0.3	60.0	60.0	58.4	1.62	37.103		
500.0	500.0	500.0	500.0	2.3	0.0	89.73	0.3	60.0	60.0	58.0	2.00	30.037		
600.0	600.0	600.0	600.0	2.7	0.0	89.73	0.3	60.0	60.0	57.7	2.37	25.306		
700.0	700.0	700.0	700.0	3.1	0.0	89.73	0.3	60.0	60.0	57.3	2.74	21.894		
800.0	800.0	800.0	800.0	3.5	0.0	89.73	0.3	60.0	60.0	56.9	3.11	19.309		
900.0	900.0	900.0	900.0	3.9	0.0	89.73	0.3	60.0	60.0	56.6	3.47	17.279		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	89.73	0.3	60.0	60.0	56.2	3.84	15.641		
1,100.0	1,100.0	1,100.0	1,100.0	4.6	0.0	89.73	0.3	60.0	60.0	55.8	4.20	14.289 CC, ES		
1,200.0	1,200.0	1,198.1	1,198.1	4.9	0.0	-113.48	-0.5	61.5	62.2	57.7	4.54	13.714		
1,300.0	1,299.8	1,295.9	1,295.8	5.7	0.0	-115.28	-2.8	66.0	68.9	63.8	5.10	13.512		
1,400.0	1,399.5	1,393.1	1,392.6	6.1	0.0	-117.54	-6.6	73.3	79.9	74.4	5.50	14.517		
1,500.0	1,499.0	1,489.6	1,488.4	6.4	0.0	-118.57	-11.9	83.5	94.2	88.4	5.84	16.137		
1,600.0	1,598.6	1,585.3	1,583.0	6.7	0.0	-118.38	-18.6	96.4	111.2	105.1	6.17	18.030		
1,700.0	1,698.2	1,681.7	1,677.8	7.1	0.0	-117.53	-26.7	111.9	130.7	124.2	6.50	20.124		
1,800.0	1,797.8	1,779.7	1,774.1	7.4	0.0	-116.80	-35.1	128.1	150.6	143.8	6.84	22.024		
1,900.0	1,897.3	1,877.7	1,870.4	7.7	0.0	-116.24	-43.4	144.2	170.5	163.3	7.19	23.723		
2,000.0	1,996.9	1,975.7	1,966.7	8.1	0.0	-115.79	-51.8	160.4	190.4	182.8	7.54	25.249		
2,100.0	2,096.5	2,073.7	2,063.0	8.4	0.0	-115.43	-60.2	176.5	210.3	202.4	7.90	26.626		
2,200.0	2,196.1	2,171.7	2,159.2	8.7	0.0	-115.14	-68.6	192.6	230.2	221.9	8.26	27.873		
2,300.0	2,295.6	2,269.7	2,255.5	9.1	0.0	-114.89	-77.0	208.8	250.1	241.5	8.62	29.008		
2,400.0	2,395.2	2,367.7	2,351.8	9.4	0.0	-114.67	-85.4	224.9	270.0	261.1	8.99	30.045		
2,500.0	2,494.8	2,465.6	2,448.1	9.8	0.0	-114.49	-93.7	241.1	290.0	280.6	9.36	30.995		
2,600.0	2,594.4	2,563.6	2,544.4	10.1	0.0	-114.33	-102.1	257.2	309.9	300.2	9.72	31.869		
2,700.0	2,693.9	2,661.6	2,640.7	10.5	0.0	-114.19	-110.5	273.4	329.8	319.7	10.09	32.675		
2,800.0	2,793.5	2,759.6	2,737.0	10.9	0.0	-114.06	-118.9	289.5	349.8	339.3	10.47	33.420		
2,900.0	2,893.1	2,857.6	2,833.3	11.2	0.0	-113.95	-127.3	305.6	369.7	358.9	10.84	34.111		
3,000.0	2,992.7	2,955.6	2,929.5	11.6	0.0	-113.85	-135.7	321.8	389.6	378.4	11.21	34.754		
3,100.0	3,092.2	3,053.6	3,025.8	11.9	0.0	-113.76	-144.0	337.9	409.6	398.0	11.59	35.353		
3,200.0	3,191.8	3,151.6	3,122.1	12.3	0.0	-113.68	-152.4	354.1	429.5	417.5	11.96	35.913		
3,300.0	3,291.4	3,249.6	3,218.4	12.7	0.0	-113.60	-160.8	370.2	449.4	437.1	12.33	36.437		
3,400.0	3,391.0	3,347.6	3,314.7	13.0	0.0	-113.54	-169.2	386.4	469.4	456.7	12.71	36.928		
3,500.0	3,490.5	3,445.6	3,411.0	13.4	0.0	-113.47	-177.6	402.5	489.3	476.2	13.09	37.390		
3,600.0	3,590.1	3,543.5	3,507.3	13.8	0.0	-113.42	-186.0	418.6	509.3	495.8	13.46	37.824		
3,700.0	3,689.7	3,641.5	3,603.6	14.2	0.0	-113.36	-194.3	434.8	529.2	515.4	13.84	38.234		
3,800.0	3,789.2	3,739.5	3,699.8	14.5	0.0	-113.31	-202.7	450.9	549.1	534.9	14.22	38.621		
3,900.0	3,888.8	3,837.5	3,796.1	14.9	0.0	-113.27	-211.1	467.1	569.1	554.5	14.60	38.988		
4,000.0	3,988.4	3,935.5	3,892.4	15.3	0.0	-113.22	-219.5	483.2	589.0	574.1	14.97	39.334		
4,100.0	4,088.0	4,033.5	3,988.7	15.7	0.0	-113.18	-227.9	499.3	609.0	593.6	15.35	39.663		
4,200.0	4,187.5	4,131.5	4,085.0	16.0	0.0	-113.15	-236.3	515.5	628.9	613.2	15.73	39.976		
4,300.0	4,287.1	4,229.5	4,181.3	16.4	0.0	-113.11	-244.7	531.6	648.9	632.7	16.11	40.273		
4,400.0	4,386.7	4,327.5	4,277.6	16.8	0.0	-113.08	-253.0	547.8	668.8	652.3	16.49	40.556		
4,500.0	4,486.3	4,425.5	4,373.9	17.2	0.0	-113.05	-261.4	563.9	688.7	671.9	16.87	40.825		
4,600.0	4,585.8	4,523.5	4,470.1	17.6	0.0	-113.02	-269.8	580.1	708.7	691.4	17.25	41.083		
4,700.0	4,685.4	4,621.4	4,566.4	17.9	0.0	-112.99	-278.2	596.2	728.6	711.0	17.63	41.328		
4,800.0	4,785.0	4,719.4	4,662.7	18.3	0.0	-112.96	-286.6	612.3	748.6	730.6	18.01	41.563		
4,900.0	4,884.6	4,817.4	4,759.0	18.7	0.0	-112.94	-295.0	628.5	768.5	750.1	18.39	41.788		
5,000.0	4,984.1	4,915.4	4,855.3	19.1	0.0	-112.91	-303.3	644.6	788.5	769.7	18.77	42.003		
5,100.0	5,083.7	5,013.4	4,951.6	19.5	0.0	-112.89	-311.7	660.8	808.4	789.2	19.15	42.209		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NXH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,183.3	5,111.4	5,047.9	19.9	0.0	-112.87	-320.1	676.9	828.3	808.8	19.53	42.407	
5,300.0	5,282.9	5,209.4	5,144.2	20.2	0.0	-112.85	-328.5	693.1	848.3	828.4	19.91	42.597	
5,400.0	5,382.4	5,307.4	5,240.4	20.6	0.0	-112.83	-336.9	709.2	868.2	847.9	20.30	42.780	
5,500.0	5,482.0	5,405.4	5,336.7	21.0	0.0	-112.81	-345.3	725.3	888.2	867.5	20.68	42.955	
5,600.0	5,581.6	5,503.4	5,433.0	21.4	0.0	-112.79	-353.6	741.5	908.1	887.1	21.06	43.124	
5,700.0	5,681.2	5,601.3	5,529.3	21.8	0.0	-112.78	-362.0	757.6	928.1	906.6	21.44	43.287	
5,800.0	5,780.7	5,699.3	5,625.6	22.2	0.0	-112.76	-370.4	773.8	948.0	926.2	21.82	43.443	
5,900.0	5,880.3	5,797.3	5,721.9	22.6	0.0	-112.74	-378.8	789.9	967.9	945.7	22.20	43.594	
6,000.0	5,979.9	5,895.3	5,818.2	22.9	0.0	-112.73	-387.2	806.1	987.9	965.3	22.59	43.740	
6,100.0	6,079.5	5,993.3	5,914.5	23.3	0.0	-112.71	-395.6	822.2	1,007.8	984.9	22.97	43.881	
6,200.0	6,179.0	6,091.3	6,010.7	23.7	0.0	-112.70	-403.9	838.3	1,027.8	1,004.4	23.35	44.017	
6,300.0	6,278.6	6,189.3	6,107.0	24.1	0.0	-112.69	-412.3	854.5	1,047.7	1,024.0	23.73	44.148	
6,400.0	6,378.2	6,287.3	6,203.3	24.5	0.0	-112.67	-420.7	870.6	1,067.7	1,043.6	24.11	44.275	
6,500.0	6,477.7	6,385.3	6,299.6	24.9	0.0	-112.66	-429.1	886.8	1,087.6	1,063.1	24.50	44.397	
6,600.0	6,577.3	6,483.3	6,395.9	25.3	0.0	-112.65	-437.5	902.9	1,107.6	1,082.7	24.88	44.516	
6,700.0	6,677.0	6,581.2	6,492.1	25.7	0.0	-112.64	-445.9	919.0	1,127.5	1,102.3	25.26	44.634	
6,800.0	6,776.5	6,677.6	6,586.9	26.0	0.0	100.45	-454.1	934.9	1,147.4	1,121.8	25.60	44.823	
6,900.0	6,873.0	6,774.4	6,682.2	26.2	0.0	93.94	-458.1	950.9	1,167.3	1,141.5	25.82	45.202	
7,000.0	6,963.6	6,877.4	6,782.9	26.4	0.0	91.55	-465.0	967.6	1,186.8	1,160.8	26.03	45.595	
7,100.0	7,045.6	6,987.4	6,886.0	26.6	0.0	90.30	-471.2	984.5	1,205.3	1,179.0	26.23	45.954	
7,200.0	7,116.5	7,105.5	6,987.4	26.8	0.0	89.59	-477.5	1,000.9	1,221.9	1,195.5	26.43	46.235	
7,300.0	7,174.1	7,232.4	7,080.9	27.0	0.0	89.19	-269.4	1,015.9	1,236.0	1,209.4	26.64	46.393	
7,400.0	7,216.6	7,367.8	7,158.0	27.2	0.0	89.00	-159.1	1,027.8	1,246.8	1,220.0	26.88	46.378	
7,500.0	7,242.9	7,510.1	7,209.3	27.5	0.0	88.92	-27.0	1,035.3	1,253.6	1,226.5	27.17	46.138	
7,600.0	7,252.0	7,656.1	7,227.0	27.8	0.0	88.86	117.6	1,037.0	1,255.9	1,228.4	27.51	45.646	
7,606.0	7,252.0	7,664.9	7,226.9	27.8	0.0	88.85	126.3	1,037.0	1,255.9	1,228.4	27.54	45.603	
7,700.0	7,252.0	7,755.4	7,227.0	28.1	0.0	88.86	216.8	1,036.2	1,255.9	1,228.0	27.91	44.997	
7,800.0	7,252.0	7,855.4	7,227.0	28.6	0.0	88.86	316.8	1,035.4	1,255.9	1,227.5	28.42	44.199	
7,900.0	7,252.0	7,955.4	7,227.0	29.2	0.0	88.86	416.8	1,034.6	1,255.9	1,226.9	29.02	43.281	
8,000.0	7,252.0	8,055.4	7,227.0	29.9	0.0	88.86	516.8	1,033.7	1,255.9	1,226.2	29.71	42.268	
8,100.0	7,252.0	8,155.4	7,227.0	30.7	0.0	88.86	616.8	1,032.9	1,255.9	1,225.4	30.50	41.184	
8,200.0	7,252.0	8,255.4	7,227.0	31.5	0.0	88.86	716.8	1,032.1	1,255.9	1,224.6	31.36	40.052	
8,300.0	7,252.0	8,355.4	7,227.0	32.4	0.0	88.86	816.8	1,031.3	1,255.9	1,223.6	32.29	38.891	
8,400.0	7,252.0	8,455.4	7,227.0	33.4	0.0	88.86	916.8	1,030.4	1,255.9	1,222.6	33.30	37.720	
8,500.0	7,252.0	8,555.4	7,227.0	34.5	0.0	88.86	1,016.8	1,029.6	1,255.9	1,221.6	34.36	36.551	
8,600.0	7,252.0	8,655.4	7,227.0	35.6	0.0	88.86	1,116.8	1,028.8	1,255.9	1,220.5	35.48	35.397	
8,700.0	7,252.0	8,755.4	7,227.0	36.8	0.0	88.86	1,216.8	1,028.0	1,255.9	1,219.3	36.65	34.266	
8,800.0	7,252.0	8,855.4	7,227.0	38.0	0.0	88.86	1,316.8	1,027.1	1,255.9	1,218.1	37.87	33.164	
8,900.0	7,252.0	8,955.4	7,227.0	39.2	0.0	88.86	1,416.8	1,026.3	1,255.9	1,216.8	39.13	32.097	
9,000.0	7,252.0	9,055.4	7,227.0	40.5	0.0	88.86	1,516.8	1,025.5	1,255.9	1,215.5	40.43	31.067	
9,100.0	7,252.0	9,155.4	7,227.0	41.9	0.0	88.86	1,616.8	1,024.7	1,255.9	1,214.2	41.76	30.077	
9,200.0	7,252.0	9,255.4	7,227.0	43.2	0.0	88.86	1,716.8	1,023.8	1,255.9	1,212.8	43.12	29.126	
9,300.0	7,252.0	9,355.4	7,227.0	44.6	0.0	88.86	1,816.8	1,023.0	1,255.9	1,211.4	44.51	28.216	
9,400.0	7,252.0	9,455.4	7,227.0	46.0	0.0	88.86	1,916.8	1,022.2	1,255.9	1,210.0	45.93	27.346	
9,500.0	7,252.0	9,555.4	7,227.0	47.5	0.0	88.86	2,016.8	1,021.3	1,255.9	1,208.6	47.37	26.515	
9,600.0	7,252.0	9,655.4	7,227.0	48.9	0.0	88.86	2,116.8	1,020.5	1,255.9	1,207.1	48.83	25.721	
9,700.0	7,252.0	9,755.4	7,227.0	50.4	0.0	88.86	2,216.8	1,019.7	1,255.9	1,205.6	50.31	24.964	
9,800.0	7,252.0	9,855.4	7,227.0	51.9	0.0	88.86	2,316.8	1,018.9	1,255.9	1,204.1	51.81	24.242	
9,900.0	7,252.0	9,955.4	7,227.0	53.4	0.0	88.86	2,416.8	1,018.0	1,255.9	1,202.6	53.32	23.553	
10,000.0	7,252.0	10,055.4	7,227.0	54.9	0.0	88.86	2,516.8	1,017.2	1,255.9	1,201.1	54.85	22.896	
10,100.0	7,252.0	10,155.4	7,227.0	56.5	0.0	88.86	2,616.8	1,016.4	1,255.9	1,199.5	56.40	22.269	
10,200.0	7,252.0	10,255.4	7,227.0	58.0	0.0	88.86	2,716.8	1,015.6	1,255.9	1,198.0	57.95	21.671	

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
10,300.0	7,252.0	10,355.4	7,227.0	59.6	0.0	88.86	2,816.8	1,014.7	1,255.9	1,196.4	59.52	21.100		
10,400.0	7,252.0	10,455.4	7,227.0	61.2	0.0	88.86	2,916.8	1,013.9	1,255.9	1,194.8	61.10	20.555		
10,500.0	7,252.0	10,555.4	7,227.0	62.8	0.0	88.86	3,016.7	1,013.1	1,255.9	1,193.2	62.69	20.034		
10,600.0	7,252.0	10,655.4	7,227.0	64.4	0.0	88.86	3,116.7	1,012.3	1,255.9	1,191.7	64.29	19.536		
10,700.0	7,252.0	10,755.4	7,227.0	66.0	0.0	88.86	3,216.7	1,011.4	1,255.9	1,190.0	65.89	19.060		
10,800.0	7,252.0	10,855.4	7,227.0	67.6	0.0	88.86	3,316.7	1,010.6	1,255.9	1,188.4	67.51	18.604		
10,900.0	7,252.0	10,955.4	7,227.0	69.2	0.0	88.86	3,416.7	1,009.8	1,255.9	1,186.8	69.13	18.168		
11,000.0	7,252.0	11,055.4	7,227.0	70.8	0.0	88.86	3,516.7	1,008.9	1,255.9	1,185.2	70.76	17.749		
11,100.0	7,252.0	11,155.4	7,227.0	72.5	0.0	88.86	3,616.7	1,008.1	1,255.9	1,183.5	72.39	17.348		
11,200.0	7,252.0	11,255.4	7,227.0	74.1	0.0	88.86	3,716.7	1,007.3	1,255.9	1,181.9	74.04	16.964		
11,300.0	7,252.0	11,355.4	7,227.0	75.7	0.0	88.86	3,816.7	1,006.5	1,255.9	1,180.3	75.68	16.595		
11,400.0	7,252.0	11,455.4	7,227.0	77.4	0.0	88.86	3,916.7	1,005.6	1,255.9	1,178.6	77.33	16.240		
11,500.0	7,252.0	11,555.4	7,227.0	79.1	0.0	88.86	4,016.7	1,004.8	1,255.9	1,177.0	78.99	15.900		
11,600.0	7,252.0	11,655.4	7,227.0	80.7	0.0	88.86	4,116.7	1,004.0	1,255.9	1,175.3	80.65	15.572		
11,700.0	7,252.0	11,755.4	7,227.0	82.4	0.0	88.86	4,216.7	1,003.2	1,255.9	1,173.6	82.32	15.257		
11,800.0	7,252.0	11,855.4	7,227.0	84.0	0.0	88.86	4,316.7	1,002.3	1,255.9	1,172.0	83.99	14.954		
11,900.0	7,252.0	11,955.4	7,227.0	85.7	0.0	88.86	4,416.7	1,001.5	1,255.9	1,170.3	85.66	14.662		
12,000.0	7,252.0	12,055.4	7,227.0	87.4	0.0	88.86	4,516.7	1,000.7	1,255.9	1,168.6	87.34	14.380		
12,100.0	7,252.0	12,155.4	7,227.0	89.1	0.0	88.86	4,616.7	999.9	1,255.9	1,166.9	89.02	14.108		
12,200.0	7,252.0	12,255.4	7,227.0	90.8	0.0	88.86	4,716.7	999.0	1,255.9	1,165.2	90.70	13.847		
12,300.0	7,252.0	12,355.4	7,227.0	92.4	0.0	88.86	4,816.7	998.2	1,255.9	1,163.6	92.39	13.594		
12,400.0	7,252.0	12,455.4	7,227.0	94.1	0.0	88.86	4,916.7	997.4	1,255.9	1,161.9	94.08	13.350		
12,500.0	7,252.0	12,555.4	7,227.0	95.8	0.0	88.86	5,016.7	996.5	1,255.9	1,160.2	95.77	13.114		
12,600.0	7,252.0	12,655.4	7,227.0	97.5	0.0	88.86	5,116.7	995.7	1,255.9	1,158.5	97.47	12.886		
12,700.0	7,252.0	12,755.4	7,227.0	99.2	0.0	88.86	5,216.7	994.9	1,255.9	1,156.8	99.17	12.665		
12,800.0	7,252.0	12,855.4	7,227.0	100.9	0.0	88.86	5,316.7	994.1	1,255.9	1,155.1	100.87	12.452		
12,900.0	7,252.0	12,955.4	7,227.0	102.6	0.0	88.86	5,416.7	993.2	1,255.9	1,153.4	102.57	12.245		
13,000.0	7,252.0	13,055.4	7,227.0	104.3	0.0	88.86	5,516.7	992.4	1,255.9	1,151.7	104.27	12.045		
13,100.0	7,252.0	13,155.4	7,227.0	106.0	0.0	88.86	5,616.7	991.6	1,255.9	1,150.0	105.98	11.851		
13,200.0	7,252.0	13,255.4	7,227.0	107.7	0.0	88.86	5,716.7	990.8	1,255.9	1,148.3	107.69	11.663		
13,300.0	7,252.0	13,355.4	7,227.0	109.5	0.0	88.86	5,816.7	989.9	1,255.9	1,146.6	109.40	11.481		
13,400.0	7,252.0	13,455.4	7,227.0	111.2	0.0	88.86	5,916.6	989.1	1,255.9	1,144.8	111.11	11.304		
13,500.0	7,252.0	13,555.4	7,227.0	112.9	0.0	88.86	6,016.6	988.3	1,255.9	1,143.1	112.82	11.132		
13,600.0	7,252.0	13,655.4	7,227.0	114.6	0.0	88.86	6,116.6	987.5	1,255.9	1,141.4	114.54	10.965		
13,700.0	7,252.0	13,755.4	7,227.0	116.3	0.0	88.86	6,216.6	986.6	1,256.0	1,139.7	116.25	10.804		
13,800.0	7,252.0	13,855.4	7,227.0	118.0	0.0	88.86	6,316.6	985.8	1,256.0	1,138.0	117.97	10.646		
13,900.0	7,252.0	13,955.4	7,227.0	119.7	0.0	88.86	6,416.6	985.0	1,256.0	1,136.3	119.69	10.493		
14,000.0	7,252.0	14,055.4	7,227.0	121.5	0.0	88.86	6,516.6	984.1	1,256.0	1,134.5	121.41	10.345		
14,100.0	7,252.0	14,155.4	7,227.0	123.2	0.0	88.86	6,616.6	983.3	1,256.0	1,132.8	123.13	10.200		
14,200.0	7,252.0	14,255.4	7,227.0	124.9	0.0	88.86	6,716.6	982.5	1,256.0	1,131.1	124.86	10.059		
14,300.0	7,252.0	14,355.4	7,227.0	126.6	0.0	88.86	6,816.6	981.7	1,256.0	1,129.4	126.58	9.922		
14,400.0	7,252.0	14,455.4	7,227.0	128.4	0.0	88.86	6,916.6	980.8	1,256.0	1,127.6	128.31	9.789		
14,500.0	7,252.0	14,555.4	7,227.0	130.1	0.0	88.86	7,016.6	980.0	1,256.0	1,125.9	130.03	9.659		
14,600.0	7,252.0	14,655.4	7,227.0	131.8	0.0	88.86	7,116.6	979.2	1,256.0	1,124.2	131.76	9.532		
14,700.0	7,252.0	14,755.4	7,227.0	133.5	0.0	88.86	7,216.6	978.4	1,256.0	1,122.5	133.49	9.409		
14,800.0	7,252.0	14,855.4	7,227.0	135.3	0.0	88.86	7,316.6	977.5	1,256.0	1,120.7	135.22	9.288		
14,900.0	7,252.0	14,955.4	7,227.0	137.0	0.0	88.86	7,416.6	976.7	1,256.0	1,119.0	136.95	9.171		
15,000.0	7,252.0	15,055.4	7,227.0	138.7	0.0	88.86	7,516.6	975.9	1,256.0	1,117.3	138.68	9.057		
15,100.0	7,252.0	15,155.4	7,227.0	140.5	0.0	88.86	7,616.6	975.1	1,256.0	1,115.5	140.41	8.945		
15,200.0	7,252.0	15,255.4	7,227.0	142.2	0.0	88.86	7,716.6	974.2	1,256.0	1,113.8	142.14	8.836		
15,300.0	7,252.0	15,355.4	7,227.0	143.9	0.0	88.86	7,816.6	973.4	1,256.0	1,112.1	143.88	8.729		
15,400.0	7,252.0	15,455.4	7,227.0	145.7	0.0	88.86	7,916.6	972.6	1,256.0	1,110.3	145.61	8.625		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,500.0	7,252.0	15,555.4	7,227.0	147.4	0.0	88.86	8,016.6	971.7	1,256.0	1,108.6	147.35	8.524		
15,600.0	7,252.0	15,655.4	7,227.0	149.1	0.0	88.86	8,116.6	970.9	1,256.0	1,106.9	149.08	8.425		
15,700.0	7,252.0	15,755.4	7,227.0	150.9	0.0	88.86	8,216.6	970.1	1,256.0	1,105.1	150.82	8.328		
15,800.0	7,252.0	15,855.4	7,227.0	152.6	0.0	88.86	8,316.6	969.3	1,256.0	1,103.4	152.56	8.233		
15,900.0	7,252.0	15,955.4	7,227.0	154.3	0.0	88.86	8,416.6	968.4	1,256.0	1,101.7	154.30	8.140		
16,000.0	7,252.0	16,055.4	7,227.0	156.1	0.0	88.86	8,516.6	967.6	1,256.0	1,099.9	156.03	8.049		
16,100.0	7,252.0	16,155.4	7,227.0	157.8	0.0	88.86	8,616.6	966.8	1,256.0	1,098.2	157.77	7.961		
16,200.0	7,252.0	16,255.4	7,227.0	159.6	0.0	88.86	8,716.6	966.0	1,256.0	1,096.4	159.51	7.874		
16,300.0	7,252.0	16,355.4	7,227.0	161.3	0.0	88.86	8,816.5	965.1	1,256.0	1,094.7	161.25	7.789		
16,400.0	7,252.0	16,455.4	7,227.0	163.0	0.0	88.86	8,916.5	964.3	1,256.0	1,093.0	162.99	7.706		
16,500.0	7,252.0	16,555.4	7,227.0	164.8	0.0	88.86	9,016.5	963.5	1,256.0	1,091.2	164.73	7.624		
16,600.0	7,252.0	16,655.4	7,227.0	166.5	0.0	88.86	9,116.5	962.6	1,256.0	1,089.5	166.48	7.544		
16,700.0	7,252.0	16,755.4	7,227.0	168.3	0.0	88.86	9,216.5	961.8	1,256.0	1,087.7	168.22	7.466		
16,800.0	7,252.0	16,855.4	7,227.0	170.0	0.0	88.86	9,316.5	961.0	1,256.0	1,086.0	169.96	7.390		
16,900.0	7,252.0	16,955.4	7,227.0	171.8	0.0	88.86	9,416.5	960.2	1,256.0	1,084.3	171.70	7.315		
17,000.0	7,252.0	17,055.4	7,227.0	173.5	0.0	88.86	9,516.5	959.3	1,256.0	1,082.5	173.45	7.241		
17,100.0	7,252.0	17,155.4	7,227.0	175.2	0.0	88.86	9,616.5	958.5	1,256.0	1,080.8	175.19	7.169		
17,200.0	7,252.0	17,255.4	7,227.0	177.0	0.0	88.86	9,716.5	957.7	1,256.0	1,079.0	176.94	7.098		
17,300.0	7,252.0	17,355.4	7,227.0	178.7	0.0	88.86	9,816.5	956.9	1,256.0	1,077.3	178.68	7.029		
17,385.9	7,252.0	17,441.2	7,227.0	180.2	0.0	88.86	9,902.4	956.2	1,256.0	1,075.8	180.18	6.971 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.75	0.5	105.0	105.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.75	0.5	105.0	105.0	104.7	0.28	379.265		
200.0	200.0	200.0	200.0	1.0	0.0	89.75	0.5	105.0	105.0	104.2	0.80	131.673		
300.0	300.0	300.0	300.0	1.5	0.0	89.75	0.5	105.0	105.0	103.8	1.22	85.791		
400.0	400.0	400.0	400.0	1.9	0.0	89.75	0.5	105.0	105.0	103.4	1.62	64.907		
500.0	500.0	500.0	500.0	2.3	0.0	89.75	0.5	105.0	105.0	103.0	2.00	52.546		
600.0	600.0	600.0	600.0	2.7	0.0	89.75	0.5	105.0	105.0	102.6	2.37	44.268		
700.0	700.0	700.0	700.0	3.1	0.0	89.75	0.5	105.0	105.0	102.3	2.74	38.300		
800.0	800.0	800.0	800.0	3.5	0.0	89.75	0.5	105.0	105.0	101.9	3.11	33.778 CC, ES		
900.0	900.0	896.6	896.6	3.9	0.0	89.99	0.0	106.6	106.6	103.2	3.47	30.732		
1,000.0	1,000.0	992.9	992.8	4.2	0.0	90.67	-1.3	111.2	111.5	107.7	3.82	29.189		
1,100.0	1,100.0	1,088.8	1,088.3	4.6	0.0	91.68	-3.5	119.0	119.6	115.5	4.16	28.759		
1,200.0	1,200.0	1,184.0	1,182.9	4.9	0.0	-110.09	-6.5	129.7	131.6	127.1	4.47	29.467		
1,300.0	1,299.8	1,278.2	1,276.0	5.7	0.0	-110.31	-10.4	143.3	148.0	143.0	4.95	29.904		
1,400.0	1,399.5	1,371.0	1,367.3	6.1	0.0	-111.23	-15.0	159.6	168.6	163.3	5.30	31.785		
1,500.0	1,499.0	1,462.5	1,456.6	6.4	0.0	-112.08	-20.3	178.4	192.6	187.0	5.62	34.268		
1,600.0	1,598.6	1,552.6	1,544.0	6.7	0.0	-112.52	-26.3	199.6	219.5	213.6	5.95	36.905		
1,700.0	1,698.2	1,644.7	1,632.7	7.1	0.0	-112.69	-33.1	223.6	249.0	242.7	6.28	39.632		
1,800.0	1,797.8	1,740.2	1,724.4	7.4	0.0	-112.81	-40.3	248.9	278.8	272.2	6.64	42.020		
1,900.0	1,897.3	1,835.6	1,816.2	7.7	0.0	-112.91	-47.4	274.1	308.7	301.7	6.99	44.156		
2,000.0	1,996.9	1,931.1	1,907.9	8.1	0.0	-112.99	-54.6	299.3	338.5	331.2	7.35	46.075		
2,100.0	2,096.5	2,026.5	1,999.7	8.4	0.0	-113.06	-61.7	324.6	368.4	360.7	7.71	47.807		
2,200.0	2,196.1	2,121.9	2,091.5	8.7	0.0	-113.12	-68.9	349.8	398.2	390.2	8.06	49.377		
2,300.0	2,295.6	2,217.4	2,183.2	9.1	0.0	-113.17	-76.0	375.1	428.1	419.7	8.43	50.807		
2,400.0	2,395.2	2,312.8	2,275.0	9.4	0.0	-113.21	-83.2	400.3	457.9	449.1	8.79	52.113		
2,500.0	2,494.8	2,408.3	2,366.8	9.8	0.0	-113.25	-90.4	425.6	487.8	478.6	9.15	53.310		
2,600.0	2,594.4	2,503.7	2,458.5	10.1	0.0	-113.28	-97.5	450.8	517.6	508.1	9.51	54.411		
2,700.0	2,693.9	2,599.1	2,550.3	10.5	0.0	-113.31	-104.7	476.1	547.5	537.6	9.88	55.427		
2,800.0	2,793.5	2,694.6	2,642.1	10.9	0.0	-113.34	-111.8	501.3	577.3	567.1	10.24	56.367		
2,900.0	2,893.1	2,790.0	2,733.8	11.2	0.0	-113.36	-119.0	526.6	607.2	596.6	10.61	57.238		
3,000.0	2,992.7	2,885.5	2,825.6	11.6	0.0	-113.38	-126.1	551.8	637.0	626.0	10.97	58.049		
3,100.0	3,092.2	2,980.9	2,917.3	11.9	0.0	-113.40	-133.3	577.1	666.9	655.5	11.34	58.804		
3,200.0	3,191.8	3,076.4	3,009.1	12.3	0.0	-113.42	-140.4	602.3	696.7	685.0	11.71	59.509		
3,300.0	3,291.4	3,171.8	3,100.9	12.7	0.0	-113.44	-147.6	627.5	726.6	714.5	12.08	60.170		
3,400.0	3,391.0	3,267.2	3,192.6	13.0	0.0	-113.45	-154.7	652.8	756.4	744.0	12.44	60.789		
3,500.0	3,490.5	3,362.7	3,284.4	13.4	0.0	-113.47	-161.9	678.0	786.2	773.4	12.81	61.370		
3,600.0	3,590.1	3,458.1	3,376.2	13.8	0.0	-113.48	-169.0	703.3	816.1	802.9	13.18	61.918		
3,700.0	3,689.7	3,553.6	3,467.9	14.2	0.0	-113.49	-176.2	728.5	845.9	832.4	13.55	62.434		
3,800.0	3,789.2	3,649.0	3,559.7	14.5	0.0	-113.50	-183.3	753.8	875.8	861.9	13.92	62.921		
3,900.0	3,888.8	3,744.4	3,651.5	14.9	0.0	-113.51	-190.5	779.0	905.6	891.4	14.29	63.381		
4,000.0	3,988.4	3,839.9	3,743.2	15.3	0.0	-113.52	-197.6	804.3	935.5	920.8	14.66	63.817		
4,100.0	4,088.0	3,935.3	3,835.0	15.7	0.0	-113.53	-204.8	829.5	965.3	950.3	15.03	64.231		
4,200.0	4,187.5	4,030.8	3,926.7	16.0	0.0	-113.54	-211.9	854.8	995.2	979.8	15.40	64.623		
4,300.0	4,287.1	4,126.2	4,018.5	16.4	0.0	-113.55	-219.1	880.0	1,025.0	1,009.3	15.77	64.996		
4,400.0	4,386.7	4,221.7	4,110.3	16.8	0.0	-113.56	-226.2	905.2	1,054.9	1,038.7	16.14	65.351		
4,500.0	4,486.3	4,317.1	4,202.0	17.2	0.0	-113.57	-233.4	930.5	1,084.7	1,068.2	16.51	65.689		
4,600.0	4,585.8	4,412.5	4,293.8	17.6	0.0	-113.57	-240.5	955.7	1,114.6	1,097.7	16.88	66.011		
4,700.0	4,685.4	4,508.0	4,385.6	17.9	0.0	-113.58	-247.7	981.0	1,144.4	1,127.2	17.26	66.318		
4,800.0	4,785.0	4,603.4	4,477.3	18.3	0.0	-113.59	-254.8	1,006.2	1,174.3	1,156.6	17.63	66.612		
4,900.0	4,884.6	4,698.9	4,569.1	18.7	0.0	-113.59	-262.0	1,031.5	1,204.1	1,186.1	18.00	66.893		
5,000.0	4,984.1	4,794.3	4,660.9	19.1	0.0	-113.60	-269.1	1,056.7	1,234.0	1,215.6	18.37	67.162		
5,100.0	5,083.7	4,889.7	4,752.6	19.5	0.0	-113.60	-276.3	1,082.0	1,263.8	1,245.1	18.75	67.419		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4CDH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,183.3	4,985.2	4,844.4	19.9	0.0	-113.61	-283.4	1,107.2	1,293.7	1,274.6	19.12	67.666	
5,300.0	5,282.9	5,080.6	4,936.1	20.2	0.0	-113.61	-290.6	1,132.5	1,323.5	1,304.0	19.49	67.902	
5,400.0	5,382.4	5,176.1	5,027.9	20.6	0.0	-113.62	-297.8	1,157.7	1,353.4	1,333.5	19.86	68.129	
5,500.0	5,482.0	5,271.5	5,119.7	21.0	0.0	-113.62	-304.9	1,182.9	1,383.2	1,363.0	20.24	68.347	
5,600.0	5,581.6	5,366.9	5,211.4	21.4	0.0	-113.63	-312.1	1,208.2	1,413.1	1,392.5	20.61	68.557	
5,700.0	5,681.2	5,462.4	5,303.2	21.8	0.0	-113.63	-319.2	1,233.4	1,442.9	1,421.9	20.99	68.759	
5,800.0	5,780.7	5,557.8	5,395.0	22.2	0.0	-113.63	-326.4	1,258.7	1,472.8	1,451.4	21.36	68.953	
5,900.0	5,880.3	5,653.3	5,486.7	22.6	0.0	-113.64	-333.5	1,283.9	1,502.6	1,480.9	21.73	69.139	
6,000.0	5,979.9	5,748.7	5,578.5	22.9	0.0	-113.64	-340.7	1,309.2	1,532.5	1,510.4	22.11	69.319	
6,100.0	6,079.5	5,844.2	5,670.3	23.3	0.0	-113.65	-347.8	1,334.4	1,562.3	1,539.8	22.48	69.493	
6,200.0	6,179.0	5,939.6	5,762.0	23.7	0.0	-113.65	-355.0	1,359.7	1,592.2	1,569.3	22.86	69.660	
6,300.0	6,278.6	6,035.0	5,853.8	24.1	0.0	-113.65	-362.1	1,384.9	1,622.0	1,598.8	23.23	69.821	
6,400.0	6,378.2	6,130.5	5,945.5	24.5	0.0	-113.66	-369.3	1,410.2	1,651.9	1,628.2	23.61	69.977	
6,500.0	6,477.7	6,225.9	6,037.3	24.9	0.0	-113.66	-376.4	1,435.4	1,681.7	1,657.7	23.98	70.128	
6,600.0	6,577.3	6,321.4	6,129.1	25.3	0.0	-113.66	-383.6	1,460.6	1,711.5	1,687.2	24.36	70.273	
6,700.0	6,677.0	6,416.8	6,220.8	25.7	0.0	-175.32	-390.7	1,485.9	1,741.4	1,716.6	24.73	70.418	
6,800.0	6,776.5	6,510.8	6,311.2	26.0	0.0	97.57	-397.8	1,510.8	1,770.7	1,745.6	25.07	70.626	
6,900.0	6,873.0	6,600.7	6,397.7	26.2	0.0	89.71	-404.5	1,534.5	1,799.1	1,773.8	25.29	71.150	
7,000.0	6,963.6	6,683.8	6,477.5	26.4	0.0	86.30	-410.7	1,556.5	1,826.6	1,801.1	25.44	71.799	
7,100.0	7,045.6	6,757.4	6,548.3	26.6	0.0	84.13	-416.3	1,576.0	1,853.5	1,827.9	25.55	72.533	
7,200.0	7,116.5	6,819.5	6,608.0	26.8	0.0	82.38	-420.9	1,592.4	1,880.2	1,854.5	25.65	73.304	
7,300.0	7,174.1	6,868.0	6,654.7	27.0	0.0	80.63	-424.5	1,605.2	1,907.1	1,881.4	25.75	74.065	
7,400.0	7,216.6	6,901.6	6,686.9	27.2	0.0	78.62	-427.1	1,614.1	1,934.6	1,908.8	25.88	74.765	
7,500.0	7,242.9	6,919.1	6,703.8	27.5	0.0	76.23	-428.4	1,618.8	1,962.6	1,936.5	26.04	75.355	
7,600.0	7,252.0	6,920.1	6,704.7	27.8	0.0	73.44	-428.4	1,619.0	1,990.6	1,964.3	26.26	75.793	
7,700.0	7,252.0	6,912.4	6,697.3	28.1	0.0	73.15	-427.9	1,617.0	2,020.5	1,993.9	26.55	76.114	
7,800.0	7,252.0	6,904.7	6,689.9	28.6	0.0	72.92	-427.3	1,614.9	2,054.8	2,027.9	26.87	76.466	
7,900.0	7,252.0	6,897.0	6,682.5	29.2	0.0	72.69	-426.7	1,612.9	2,093.3	2,066.1	27.25	76.812	
8,000.0	7,252.0	6,898.4	6,682.5	29.9	0.0	99.94	523.7	1,861.5	2,115.2	2,085.7	29.55	71.570	
8,100.0	7,252.0	8,698.4	7,617.0	30.7	0.0	99.94	623.7	1,860.7	2,115.2	2,084.9	30.33	69.742	
8,200.0	7,252.0	8,798.4	7,617.0	31.5	0.0	99.94	723.7	1,859.9	2,115.2	2,084.0	31.18	67.834	
8,300.0	7,252.0	8,898.4	7,617.0	32.4	0.0	99.94	823.7	1,859.1	2,115.2	2,083.1	32.11	65.879	
8,400.0	7,252.0	8,998.4	7,617.0	33.4	0.0	99.94	923.7	1,858.2	2,115.2	2,082.1	33.10	63.905	
8,500.0	7,252.0	9,098.4	7,617.0	34.5	0.0	99.94	1,023.7	1,857.4	2,115.2	2,081.1	34.15	61.937	
8,600.0	7,252.0	9,198.4	7,617.0	35.6	0.0	99.94	1,123.7	1,856.6	2,115.2	2,080.0	35.26	59.993	
8,700.0	7,252.0	9,298.4	7,617.0	36.8	0.0	99.94	1,223.7	1,855.8	2,115.2	2,078.8	36.41	58.087	
8,800.0	7,252.0	9,398.4	7,617.0	38.0	0.0	99.94	1,323.7	1,854.9	2,115.2	2,077.6	37.62	56.231	
8,900.0	7,252.0	9,498.4	7,617.0	39.2	0.0	99.94	1,423.7	1,854.1	2,115.2	2,076.4	38.86	54.432	
9,000.0	7,252.0	9,598.4	7,617.0	40.5	0.0	99.94	1,523.6	1,853.3	2,115.2	2,075.1	40.14	52.695	
9,100.0	7,252.0	9,698.4	7,617.0	41.9	0.0	99.94	1,623.6	1,852.4	2,115.2	2,073.8	41.46	51.025	
9,200.0	7,252.0	9,798.4	7,617.0	43.2	0.0	99.94	1,723.6	1,851.6	2,115.2	2,072.4	42.80	49.421	
9,300.0	7,252.0	9,898.4	7,617.0	44.6	0.0	99.94	1,823.6	1,850.8	2,115.2	2,071.1	44.17	47.885	
9,400.0	7,252.0	9,998.4	7,617.0	46.0	0.0	99.94	1,923.6	1,850.0	2,115.2	2,069.7	45.57	46.416	
9,500.0	7,252.0	10,098.4	7,617.0	47.5	0.0	99.94	2,023.6	1,849.1	2,115.2	2,068.2	46.99	45.012	
9,600.0	7,252.0	10,198.4	7,617.0	48.9	0.0	99.94	2,123.6	1,848.3	2,115.2	2,066.8	48.44	43.671	
9,700.0	7,252.0	10,298.4	7,617.0	50.4	0.0	99.94	2,223.6	1,847.5	2,115.2	2,065.3	49.90	42.391	
9,800.0	7,252.0	10,398.4	7,617.0	51.9	0.0	99.94	2,323.6	1,846.7	2,115.2	2,063.9	51.38	41.171	
9,900.0	7,252.0	10,498.4	7,617.0	53.4	0.0	99.94	2,423.6	1,845.8	2,115.2	2,062.4	52.87	40.006	
10,000.0	7,252.0	10,598.4	7,617.0	54.9	0.0	99.94	2,523.6	1,845.0	2,115.2	2,060.8	54.38	38.895	
10,100.0	7,252.0	10,698.4	7,617.0	56.5	0.0	99.94	2,623.6	1,844.2	2,115.2	2,059.3	55.91	37.835	
10,200.0	7,252.0	10,798.4	7,617.0	58.0	0.0	99.94	2,723.6	1,843.3	2,115.2	2,057.8	57.44	36.823	
10,300.0	7,252.0	10,898.4	7,617.0	59.6	0.0	99.94	2,823.6	1,842.5	2,115.2	2,056.2	58.99	35.856	

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
10,400.0	7,252.0	10,998.4	7,617.0	61.2	0.0	99.94	2,923.6	1,841.7	2,115.2	2,054.7	60.55	34.933		
10,500.0	7,252.0	11,098.4	7,617.0	62.8	0.0	99.94	3,023.6	1,840.9	2,115.2	2,053.1	62.12	34.051		
10,600.0	7,252.0	11,198.4	7,617.0	64.4	0.0	99.94	3,123.6	1,840.0	2,115.2	2,051.5	63.70	33.208		
10,700.0	7,252.0	11,298.4	7,617.0	66.0	0.0	99.94	3,223.6	1,839.2	2,115.2	2,049.9	65.28	32.401		
10,800.0	7,252.0	11,398.4	7,617.0	67.6	0.0	99.94	3,323.6	1,838.4	2,115.2	2,048.4	66.88	31.628		
10,900.0	7,252.0	11,498.4	7,617.0	69.2	0.0	99.94	3,423.6	1,837.6	2,115.2	2,046.8	68.48	30.889		
11,000.0	7,252.0	11,598.4	7,617.0	70.8	0.0	99.94	3,523.6	1,836.7	2,115.2	2,045.1	70.09	30.180		
11,100.0	7,252.0	11,698.4	7,617.0	72.5	0.0	99.94	3,623.6	1,835.9	2,115.2	2,043.5	71.70	29.500		
11,200.0	7,252.0	11,798.4	7,617.0	74.1	0.0	99.94	3,723.6	1,835.1	2,115.2	2,041.9	73.32	28.848		
11,300.0	7,252.0	11,898.4	7,617.0	75.7	0.0	99.94	3,823.6	1,834.2	2,115.2	2,040.3	74.95	28.222		
11,400.0	7,252.0	11,998.4	7,617.0	77.4	0.0	99.94	3,923.6	1,833.4	2,115.2	2,038.7	76.58	27.621		
11,500.0	7,252.0	12,098.4	7,617.0	79.1	0.0	99.94	4,023.6	1,832.6	2,115.2	2,037.0	78.22	27.043		
11,600.0	7,252.0	12,198.4	7,617.0	80.7	0.0	99.94	4,123.6	1,831.8	2,115.2	2,035.4	79.86	26.488		
11,700.0	7,252.0	12,298.4	7,617.0	82.4	0.0	99.94	4,223.6	1,830.9	2,115.2	2,033.7	81.50	25.953		
11,800.0	7,252.0	12,398.4	7,617.0	84.0	0.0	99.94	4,323.6	1,830.1	2,115.2	2,032.1	83.15	25.438		
11,900.0	7,252.0	12,498.4	7,617.0	85.7	0.0	99.94	4,423.5	1,829.3	2,115.2	2,030.4	84.80	24.943		
12,000.0	7,252.0	12,598.4	7,617.0	87.4	0.0	99.94	4,523.5	1,828.5	2,115.2	2,028.8	86.46	24.465		
12,100.0	7,252.0	12,698.4	7,617.0	89.1	0.0	99.94	4,623.5	1,827.6	2,115.2	2,027.1	88.12	24.004		
12,200.0	7,252.0	12,798.4	7,617.0	90.8	0.0	99.94	4,723.5	1,826.8	2,115.2	2,025.5	89.78	23.559		
12,300.0	7,252.0	12,898.4	7,617.0	92.4	0.0	99.94	4,823.5	1,826.0	2,115.2	2,023.8	91.45	23.130		
12,400.0	7,252.0	12,998.4	7,617.0	94.1	0.0	99.94	4,923.5	1,825.2	2,115.2	2,022.1	93.12	22.716		
12,500.0	7,252.0	13,098.4	7,617.0	95.8	0.0	99.94	5,023.5	1,824.3	2,115.2	2,020.4	94.79	22.315		
12,600.0	7,252.0	13,198.4	7,617.0	97.5	0.0	99.94	5,123.5	1,823.5	2,115.2	2,018.8	96.46	21.928		
12,700.0	7,252.0	13,298.4	7,617.0	99.2	0.0	99.94	5,223.5	1,822.7	2,115.2	2,017.1	98.14	21.553		
12,800.0	7,252.0	13,398.4	7,617.0	100.9	0.0	99.94	5,323.5	1,821.8	2,115.2	2,015.4	99.82	21.191		
12,900.0	7,252.0	13,498.4	7,617.0	102.6	0.0	99.94	5,423.5	1,821.0	2,115.2	2,013.7	101.50	20.840		
13,000.0	7,252.0	13,598.4	7,617.0	104.3	0.0	99.94	5,523.5	1,820.2	2,115.2	2,012.1	103.18	20.500		
13,100.0	7,252.0	13,698.4	7,617.0	106.0	0.0	99.94	5,623.5	1,819.4	2,115.2	2,010.4	104.87	20.170		
13,200.0	7,252.0	13,798.4	7,617.0	107.7	0.0	99.94	5,723.5	1,818.5	2,115.2	2,008.7	106.56	19.851		
13,300.0	7,252.0	13,898.4	7,617.0	109.5	0.0	99.94	5,823.5	1,817.7	2,115.2	2,007.0	108.25	19.541		
13,400.0	7,252.0	13,998.4	7,617.0	111.2	0.0	99.94	5,923.5	1,816.9	2,115.2	2,005.3	109.94	19.241		
13,500.0	7,252.0	14,098.4	7,617.0	112.9	0.0	99.94	6,023.5	1,816.1	2,115.2	2,003.6	111.63	18.949		
13,600.0	7,252.0	14,198.4	7,617.0	114.6	0.0	99.94	6,123.5	1,815.2	2,115.2	2,001.9	113.32	18.666		
13,700.0	7,252.0	14,298.4	7,617.0	116.3	0.0	99.94	6,223.5	1,814.4	2,115.2	2,000.2	115.02	18.390		
13,800.0	7,252.0	14,398.4	7,617.0	118.0	0.0	99.94	6,323.5	1,813.6	2,115.2	1,998.5	116.71	18.123		
13,900.0	7,252.0	14,498.4	7,617.0	119.7	0.0	99.94	6,423.5	1,812.7	2,115.2	1,996.8	118.41	17.863		
14,000.0	7,252.0	14,598.4	7,617.0	121.5	0.0	99.94	6,523.5	1,811.9	2,115.2	1,995.1	120.11	17.610		
14,100.0	7,252.0	14,698.4	7,617.0	123.2	0.0	99.94	6,623.5	1,811.1	2,115.2	1,993.4	121.81	17.365		
14,200.0	7,252.0	14,798.4	7,617.0	124.9	0.0	99.94	6,723.5	1,810.3	2,115.2	1,991.7	123.52	17.125		
14,300.0	7,252.0	14,898.4	7,617.0	126.6	0.0	99.94	6,823.5	1,809.4	2,115.2	1,990.0	125.22	16.892		
14,400.0	7,252.0	14,998.4	7,617.0	128.4	0.0	99.94	6,923.5	1,808.6	2,115.2	1,988.3	126.92	16.666		
14,500.0	7,252.0	15,098.4	7,617.0	130.1	0.0	99.94	7,023.5	1,807.8	2,115.2	1,986.6	128.63	16.445		
14,600.0	7,252.0	15,198.4	7,617.0	131.8	0.0	99.94	7,123.5	1,807.0	2,115.2	1,984.9	130.33	16.229		
14,700.0	7,252.0	15,298.4	7,617.0	133.5	0.0	99.94	7,223.5	1,806.1	2,115.2	1,983.2	132.04	16.019		
14,800.0	7,252.0	15,398.4	7,617.0	135.3	0.0	99.94	7,323.4	1,805.3	2,115.2	1,981.5	133.75	15.815		
14,900.0	7,252.0	15,498.4	7,617.0	137.0	0.0	99.94	7,423.4	1,804.5	2,115.2	1,979.8	135.46	15.615		
15,000.0	7,252.0	15,598.4	7,617.0	138.7	0.0	99.94	7,523.4	1,803.7	2,115.2	1,978.1	137.17	15.421		
15,100.0	7,252.0	15,698.4	7,617.0	140.5	0.0	99.94	7,623.4	1,802.8	2,115.2	1,976.4	138.88	15.231		
15,200.0	7,252.0	15,798.4	7,617.0	142.2	0.0	99.94	7,723.4	1,802.0	2,115.2	1,974.6	140.59	15.045		
15,300.0	7,252.0	15,898.4	7,617.0	143.9	0.0	99.94	7,823.4	1,801.2	2,115.2	1,972.9	142.31	14.864		
15,400.0	7,252.0	15,998.4	7,617.0	145.7	0.0	99.94	7,923.4	1,800.3	2,115.2	1,971.2	144.02	14.687		
15,500.0	7,252.0	16,098.4	7,617.0	147.4	0.0	99.94	8,023.4	1,799.5	2,115.2	1,969.5	145.73	14.515		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
15,600.0	7,252.0	16,198.4	7,617.0	149.1	0.0	99.94	8,123.4	1,798.7	2,115.2	1,967.8	147.45	14.346		
15,700.0	7,252.0	16,298.4	7,617.0	150.9	0.0	99.94	8,223.4	1,797.9	2,115.2	1,966.1	149.16	14.181		
15,800.0	7,252.0	16,398.4	7,617.0	152.6	0.0	99.94	8,323.4	1,797.0	2,115.2	1,964.4	150.88	14.019		
15,900.0	7,252.0	16,498.4	7,617.0	154.3	0.0	99.94	8,423.4	1,796.2	2,115.2	1,962.6	152.60	13.862		
16,000.0	7,252.0	16,598.4	7,617.0	156.1	0.0	99.94	8,523.4	1,795.4	2,115.2	1,960.9	154.31	13.707		
16,100.0	7,252.0	16,698.4	7,617.0	157.8	0.0	99.94	8,623.4	1,794.6	2,115.2	1,959.2	156.03	13.557		
16,200.0	7,252.0	16,798.4	7,617.0	159.6	0.0	99.94	8,723.4	1,793.7	2,115.2	1,957.5	157.75	13.409		
16,300.0	7,252.0	16,898.4	7,617.0	161.3	0.0	99.94	8,823.4	1,792.9	2,115.2	1,955.8	159.47	13.264		
16,400.0	7,252.0	16,998.4	7,617.0	163.0	0.0	99.94	8,923.4	1,792.1	2,115.2	1,954.1	161.19	13.123		
16,500.0	7,252.0	17,098.4	7,617.0	164.8	0.0	99.94	9,023.4	1,791.2	2,115.2	1,952.3	162.91	12.984		
16,600.0	7,252.0	17,198.4	7,617.0	166.5	0.0	99.94	9,123.4	1,790.4	2,115.2	1,950.6	164.63	12.849		
16,700.0	7,252.0	17,298.4	7,617.0	168.3	0.0	99.94	9,223.4	1,789.6	2,115.2	1,948.9	166.35	12.716		
16,800.0	7,252.0	17,398.4	7,617.0	170.0	0.0	99.94	9,323.4	1,788.8	2,115.2	1,947.2	168.07	12.585		
16,900.0	7,252.0	17,498.4	7,617.0	171.8	0.0	99.94	9,423.4	1,787.9	2,115.2	1,945.4	169.79	12.458		
17,000.0	7,252.0	17,598.4	7,617.0	173.5	0.0	99.94	9,523.4	1,787.1	2,115.2	1,943.7	171.52	12.333		
17,100.0	7,252.0	17,698.4	7,617.0	175.2	0.0	99.94	9,623.4	1,786.3	2,115.2	1,942.0	173.24	12.210		
17,200.0	7,252.0	17,798.4	7,617.0	177.0	0.0	99.94	9,723.4	1,785.5	2,115.2	1,940.3	174.96	12.090		
17,300.0	7,252.0	17,898.4	7,617.0	178.7	0.0	99.94	9,823.4	1,784.6	2,115.2	1,938.6	176.69	11.972		
17,385.9	7,252.0	17,984.3	7,617.0	180.2	0.0	99.94	9,909.2	1,783.9	2,115.2	1,937.1	178.17	11.872 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.71	0.8	150.0	150.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.71	0.8	150.0	150.0	149.7	0.28	541.476		
200.0	200.0	200.0	200.0	1.0	0.0	89.71	0.8	150.0	150.0	149.2	0.80	188.001		
300.0	300.0	300.0	300.0	1.5	0.0	89.71	0.8	150.0	150.0	148.8	1.22	122.498		
400.0	400.0	400.0	400.0	1.9	0.0	89.71	0.8	150.0	150.0	148.4	1.62	92.682		
500.0	500.0	500.0	500.0	2.3	0.0	89.71	0.8	150.0	150.0	148.0	2.00	75.035 CC, ES		
600.0	600.0	595.1	595.1	2.7	0.0	89.84	0.4	151.5	151.6	149.2	2.37	63.944		
700.0	700.0	690.0	689.8	3.1	0.0	90.20	-0.5	156.1	156.5	153.7	2.73	57.227		
800.0	800.0	784.5	784.0	3.5	0.0	90.75	-2.1	163.8	164.6	161.5	3.09	53.279		
900.0	900.0	878.3	877.2	3.9	0.0	91.43	-4.3	174.4	175.9	172.5	3.44	51.206		
1,000.0	1,000.0	971.4	969.2	4.2	0.0	92.18	-7.2	187.8	190.5	186.7	3.77	50.468 SF		
1,100.0	1,100.0	1,063.4	1,059.8	4.6	0.0	92.96	-10.5	204.0	208.2	204.1	4.11	50.721		
1,200.0	1,200.0	1,154.2	1,148.5	4.9	0.0	-108.77	-14.5	222.8	229.6	225.2	4.40	52.179		
1,300.0	1,299.8	1,243.4	1,235.1	5.7	0.0	-108.59	-18.9	243.9	255.2	250.3	4.85	52.638		
1,400.0	1,399.5	1,330.8	1,319.2	6.1	0.0	-108.98	-23.7	267.1	284.7	279.5	5.18	55.011		
1,500.0	1,499.0	1,416.4	1,400.8	6.4	0.0	-109.64	-29.0	292.2	317.3	311.8	5.47	58.015		
1,600.0	1,598.6	1,500.0	1,479.8	6.7	0.0	-110.09	-34.6	319.1	352.7	346.9	5.78	61.035		
1,700.0	1,698.2	1,586.4	1,560.6	7.1	0.0	-110.40	-40.9	349.0	390.6	384.5	6.10	64.053		
1,800.0	1,797.8	1,678.8	1,646.8	7.4	0.0	-110.67	-47.7	381.4	428.9	422.5	6.44	66.571		
1,900.0	1,897.3	1,771.1	1,733.0	7.7	0.0	-110.89	-54.4	413.8	467.3	460.5	6.79	68.820		
2,000.0	1,996.9	1,863.4	1,819.2	8.1	0.0	-111.08	-61.2	446.3	505.6	498.5	7.14	70.839		
2,100.0	2,096.5	1,955.8	1,905.4	8.4	0.0	-111.24	-68.0	478.7	544.0	536.5	7.49	72.660		
2,200.0	2,196.1	2,048.1	1,991.6	8.7	0.0	-111.38	-74.8	511.1	582.4	574.5	7.84	74.308		
2,300.0	2,295.6	2,140.4	2,077.8	9.1	0.0	-111.51	-81.6	543.5	620.8	612.6	8.19	75.807		
2,400.0	2,295.2	2,232.8	2,164.0	9.4	0.0	-111.62	-88.3	575.9	659.1	650.6	8.54	77.175		
2,500.0	2,294.8	2,325.1	2,250.2	9.8	0.0	-111.71	-95.1	608.3	697.5	688.6	8.89	78.427		
2,600.0	2,294.4	2,417.4	2,336.4	10.1	0.0	-111.80	-101.9	640.7	735.9	726.7	9.25	79.577		
2,700.0	2,293.9	2,509.8	2,422.6	10.5	0.0	-111.88	-108.7	673.2	774.3	764.7	9.60	80.637		
2,800.0	2,293.5	2,602.1	2,508.8	10.9	0.0	-111.95	-115.5	705.6	812.7	802.7	9.96	81.616		
2,900.0	2,293.1	2,694.4	2,594.9	11.2	0.0	-112.01	-122.2	738.0	851.1	840.7	10.31	82.523		
3,000.0	2,292.7	2,786.8	2,681.1	11.6	0.0	-112.07	-129.0	770.4	889.4	878.8	10.67	83.365		
3,100.0	3,092.2	2,879.1	2,767.3	11.9	0.0	-112.13	-135.8	802.8	927.8	916.8	11.03	84.149		
3,200.0	3,191.8	2,971.4	2,853.5	12.3	0.0	-112.18	-142.6	835.2	966.2	954.8	11.38	84.880		
3,300.0	3,291.4	3,063.8	2,939.7	12.7	0.0	-112.22	-149.4	867.7	1,004.6	992.9	11.74	85.563		
3,400.0	3,391.0	3,156.1	3,025.9	13.0	0.0	-112.27	-156.1	900.1	1,043.0	1,030.9	12.10	86.203		
3,500.0	3,490.5	3,248.5	3,112.1	13.4	0.0	-112.31	-162.9	932.5	1,081.4	1,068.9	12.46	86.804		
3,600.0	3,590.1	3,340.8	3,198.3	13.8	0.0	-112.34	-169.7	964.9	1,119.8	1,107.0	12.82	87.368		
3,700.0	3,689.7	3,433.1	3,284.5	14.2	0.0	-112.38	-176.5	997.3	1,158.2	1,145.0	13.18	87.899		
3,800.0	3,789.2	3,525.5	3,370.7	14.5	0.0	-112.41	-183.3	1,029.7	1,196.6	1,183.0	13.54	88.400		
3,900.0	3,888.8	3,617.8	3,456.9	14.9	0.0	-112.44	-190.0	1,062.1	1,234.9	1,221.1	13.90	88.872		
4,000.0	3,988.4	3,710.1	3,543.1	15.3	0.0	-112.47	-196.8	1,094.6	1,273.3	1,259.1	14.26	89.319		
4,100.0	4,088.0	3,802.5	3,629.3	15.7	0.0	-112.49	-203.6	1,127.0	1,311.7	1,297.1	14.62	89.742		
4,200.0	4,187.5	3,894.8	3,715.4	16.0	0.0	-112.52	-210.4	1,159.4	1,350.1	1,335.1	14.98	90.142		
4,300.0	4,287.1	3,987.1	3,801.6	16.4	0.0	-112.54	-217.2	1,191.8	1,388.5	1,373.2	15.34	90.523		
4,400.0	4,386.7	4,079.5	3,887.8	16.8	0.0	-112.57	-223.9	1,224.2	1,426.9	1,411.2	15.70	90.884		
4,500.0	4,486.3	4,171.8	3,974.0	17.2	0.0	-112.59	-230.7	1,256.6	1,465.3	1,449.2	16.06	91.227		
4,600.0	4,585.8	4,264.1	4,060.2	17.6	0.0	-112.61	-237.5	1,289.1	1,503.7	1,487.3	16.42	91.553		
4,700.0	4,685.4	4,356.5	4,146.4	17.9	0.0	-112.63	-244.3	1,321.5	1,542.1	1,525.3	16.79	91.865		
4,800.0	4,785.0	4,448.8	4,232.6	18.3	0.0	-112.65	-251.1	1,353.9	1,580.5	1,563.3	17.15	92.161		
4,900.0	4,884.6	4,541.1	4,318.8	18.7	0.0	-112.66	-257.8	1,386.3	1,618.9	1,601.4	17.51	92.444		
5,000.0	4,984.1	4,633.5	4,405.0	19.1	0.0	-112.68	-264.6	1,418.7	1,657.3	1,639.4	17.87	92.714		
5,100.0	5,083.7	4,725.8	4,491.2	19.5	0.0	-112.70	-271.4	1,451.1	1,695.7	1,677.4	18.24	92.973		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NBH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,183.3	4,818.1	4,577.4	19.9	0.0	-112.71	-278.2	1,483.6	1,734.0	1,715.4	18.60	93.220	
5,300.0	5,282.9	4,910.5	4,663.6	20.2	0.0	-112.73	-285.0	1,516.0	1,772.4	1,753.5	18.97	93.456	
5,400.0	5,382.4	5,002.8	4,749.7	20.6	0.0	-112.74	-291.8	1,548.4	1,810.8	1,791.5	19.33	93.682	
5,500.0	5,482.0	5,095.2	4,835.9	21.0	0.0	-112.75	-298.5	1,580.8	1,849.2	1,829.5	19.69	93.899	
5,600.0	5,581.6	5,187.5	4,922.1	21.4	0.0	-112.77	-305.3	1,613.2	1,887.6	1,867.6	20.06	94.107	
5,700.0	5,681.2	5,279.8	5,008.3	21.8	0.0	-112.78	-312.1	1,645.6	1,926.0	1,905.6	20.42	94.306	
5,800.0	5,780.7	5,372.2	5,094.5	22.2	0.0	-112.79	-318.9	1,678.0	1,964.4	1,943.6	20.79	94.497	
5,900.0	5,880.3	5,464.5	5,180.7	22.6	0.0	-112.80	-325.7	1,710.5	2,002.8	1,981.7	21.15	94.681	
6,000.0	5,979.9	5,556.8	5,266.9	22.9	0.0	-112.81	-332.4	1,742.9	2,041.2	2,019.7	21.52	94.857	
6,100.0	6,079.5	5,649.2	5,353.1	23.3	0.0	-112.82	-339.2	1,775.3	2,079.6	2,057.7	21.88	95.027	
6,200.0	6,179.0	5,741.5	5,439.3	23.7	0.0	-112.83	-346.0	1,807.7	2,118.0	2,095.7	22.25	95.190	
6,300.0	6,278.6	5,833.8	5,525.5	24.1	0.0	-112.84	-352.8	1,840.1	2,156.4	2,133.8	22.62	95.347	
6,400.0	6,378.2	5,926.2	5,611.7	24.5	0.0	-112.85	-359.6	1,872.5	2,194.8	2,171.8	22.98	95.498	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.69	0.7	135.0	135.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.69	0.7	135.0	135.0	134.7	0.28	487.194		
200.0	200.0	200.0	200.0	1.0	0.0	89.69	0.7	135.0	135.0	134.2	0.80	169.161		
300.0	300.0	300.0	300.0	1.5	0.0	89.69	0.7	135.0	135.0	133.8	1.22	110.226		
400.0	400.0	400.0	400.0	1.9	0.0	89.69	0.7	135.0	135.0	133.4	1.62	83.399		
500.0	500.0	500.0	500.0	2.3	0.0	89.69	0.7	135.0	135.0	133.0	2.00	67.521		
600.0	600.0	600.0	600.0	2.7	0.0	89.69	0.7	135.0	135.0	132.6	2.37	56.886 CC, ES		
700.0	700.0	695.6	695.5	3.1	0.0	89.83	0.4	136.5	136.6	133.9	2.74	49.854		
800.0	800.0	790.9	790.8	3.5	0.0	90.24	-0.6	141.2	141.5	138.4	3.10	45.657		
900.0	900.0	885.8	885.4	3.9	0.0	90.87	-2.3	148.9	149.6	146.2	3.45	43.378		
1,000.0	1,000.0	980.2	979.0	4.2	0.0	91.63	-4.5	159.6	161.0	157.2	3.79	42.467 SF		
1,100.0	1,100.0	1,073.6	1,071.5	4.6	0.0	92.46	-7.4	173.2	175.7	171.5	4.13	42.570		
1,200.0	1,200.0	1,166.0	1,162.4	4.9	0.0	-109.32	-10.9	189.5	194.1	189.6	4.43	43.838		
1,300.0	1,299.8	1,257.0	1,251.3	5.7	0.0	-109.29	-15.0	208.3	216.7	211.8	4.89	44.343		
1,400.0	1,399.5	1,346.2	1,337.8	6.1	0.0	-109.86	-19.5	229.5	243.4	238.2	5.22	46.596		
1,500.0	1,499.0	1,433.8	1,422.1	6.4	0.0	-110.61	-24.5	252.8	273.3	267.8	5.52	49.470		
1,600.0	1,598.6	1,519.8	1,504.1	6.7	0.0	-111.10	-29.9	278.1	306.1	300.2	5.84	52.399		
1,700.0	1,698.2	1,603.9	1,583.5	7.1	0.0	-111.40	-35.7	305.2	341.6	335.5	6.15	55.582		
1,800.0	1,797.8	1,693.4	1,667.3	7.4	0.0	-111.60	-42.3	335.9	379.2	372.7	6.48	58.559		
1,900.0	1,897.3	1,786.0	1,753.9	7.7	0.0	-111.76	-49.1	367.8	416.9	410.1	6.82	61.118		
2,000.0	1,996.9	1,878.6	1,840.6	8.1	0.0	-111.89	-56.0	399.7	454.6	447.5	7.17	63.417		
2,100.0	2,096.5	1,971.2	1,927.3	8.4	0.0	-112.01	-62.8	431.6	492.3	484.8	7.52	65.491		
2,200.0	2,196.1	2,063.8	2,014.0	8.7	0.0	-112.11	-69.6	463.5	530.1	522.2	7.87	67.372		
2,300.0	2,295.6	2,156.4	2,100.6	9.1	0.0	-112.19	-76.5	495.4	567.8	559.6	8.22	69.083		
2,400.0	2,395.2	2,249.0	2,187.3	9.4	0.0	-112.27	-83.3	527.3	605.5	597.0	8.57	70.646		
2,500.0	2,494.8	2,341.6	2,274.0	9.8	0.0	-112.33	-90.1	559.2	643.3	634.3	8.92	72.078		
2,600.0	2,594.4	2,434.2	2,360.7	10.1	0.0	-112.39	-96.9	591.0	681.0	671.7	9.28	73.395		
2,700.0	2,693.9	2,526.8	2,447.3	10.5	0.0	-112.44	-103.8	622.9	718.7	709.1	9.63	74.609		
2,800.0	2,793.5	2,619.5	2,534.0	10.9	0.0	-112.49	-110.6	654.8	756.4	746.5	9.99	75.731		
2,900.0	2,893.1	2,712.1	2,620.7	11.2	0.0	-112.53	-117.4	686.7	794.2	783.8	10.34	76.771		
3,000.0	2,992.7	2,804.7	2,707.4	11.6	0.0	-112.57	-124.3	718.6	831.9	821.2	10.70	77.738		
3,100.0	3,092.2	2,897.3	2,794.0	11.9	0.0	-112.60	-131.1	750.5	869.6	858.6	11.06	78.639		
3,200.0	3,191.8	2,989.9	2,880.7	12.3	0.0	-112.64	-137.9	782.4	907.4	896.0	11.42	79.479		
3,300.0	3,291.4	3,082.5	2,967.4	12.7	0.0	-112.67	-144.8	814.3	945.1	933.3	11.77	80.266		
3,400.0	3,391.0	3,175.1	3,054.1	13.0	0.0	-112.69	-151.6	846.2	982.8	970.7	12.13	81.002		
3,500.0	3,490.5	3,267.7	3,140.7	13.4	0.0	-112.72	-158.4	878.1	1,020.6	1,008.1	12.49	81.694		
3,600.0	3,590.1	3,360.3	3,227.4	13.8	0.0	-112.74	-165.2	909.9	1,058.3	1,045.5	12.85	82.344		
3,700.0	3,689.7	3,452.9	3,314.1	14.2	0.0	-112.76	-172.1	941.8	1,096.0	1,082.8	13.21	82.957		
3,800.0	3,789.2	3,545.5	3,400.8	14.5	0.0	-112.79	-178.9	973.7	1,133.8	1,120.2	13.57	83.535		
3,900.0	3,888.8	3,638.1	3,487.4	14.9	0.0	-112.80	-185.7	1,005.6	1,171.5	1,157.6	13.93	84.081		
4,000.0	3,988.4	3,730.7	3,574.1	15.3	0.0	-112.82	-192.6	1,037.5	1,209.2	1,194.9	14.29	84.597		
4,100.0	4,088.0	3,823.3	3,660.8	15.7	0.0	-112.84	-199.4	1,069.4	1,247.0	1,232.3	14.66	85.086		
4,200.0	4,187.5	3,916.0	3,747.5	16.0	0.0	-112.86	-206.2	1,101.3	1,284.7	1,269.7	15.02	85.550		
4,300.0	4,287.1	4,008.6	3,834.1	16.4	0.0	-112.87	-213.1	1,133.2	1,322.4	1,307.1	15.38	85.991		
4,400.0	4,386.7	4,101.2	3,920.8	16.8	0.0	-112.88	-219.9	1,165.1	1,360.2	1,344.4	15.74	86.409		
4,500.0	4,486.3	4,193.8	4,007.5	17.2	0.0	-112.90	-226.7	1,197.0	1,397.9	1,381.8	16.10	86.808		
4,600.0	4,585.8	4,286.4	4,094.2	17.6	0.0	-112.91	-233.5	1,228.9	1,435.6	1,419.2	16.47	87.187		
4,700.0	4,685.4	4,379.0	4,180.8	17.9	0.0	-112.92	-240.4	1,260.7	1,473.4	1,456.5	16.83	87.548		
4,800.0	4,785.0	4,471.6	4,267.5	18.3	0.0	-112.93	-247.2	1,292.6	1,511.1	1,493.9	17.19	87.893		
4,900.0	4,884.6	4,564.2	4,354.2	18.7	0.0	-112.95	-254.0	1,324.5	1,548.8	1,531.3	17.56	88.223		
5,000.0	4,984.1	4,656.8	4,440.8	19.1	0.0	-112.96	-260.9	1,356.4	1,586.6	1,568.7	17.92	88.537		
5,100.0	5,083.7	4,749.4	4,527.5	19.5	0.0	-112.97	-267.7	1,388.3	1,624.3	1,606.0	18.28	88.839		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,183.3	4,842.0	4,614.2	19.9	0.0	-112.98	-274.5	1,420.2	1,662.0	1,643.4	18.65	89.127		
5,300.0	5,282.9	4,934.6	4,700.9	20.2	0.0	-112.98	-281.4	1,452.1	1,699.8	1,680.8	19.01	89.403		
5,400.0	5,382.4	5,027.2	4,787.5	20.6	0.0	-112.99	-288.2	1,484.0	1,737.5	1,718.1	19.38	89.667		
5,500.0	5,482.0	5,119.8	4,874.2	21.0	0.0	-113.00	-295.0	1,515.9	1,775.2	1,755.5	19.74	89.921		
5,600.0	5,581.6	5,212.5	4,960.9	21.4	0.0	-113.01	-301.8	1,547.8	1,813.0	1,792.9	20.11	90.165		
5,700.0	5,681.2	5,305.1	5,047.6	21.8	0.0	-113.02	-308.7	1,579.7	1,850.7	1,830.2	20.47	90.398		
5,800.0	5,780.7	5,397.7	5,134.2	22.2	0.0	-113.02	-315.5	1,611.5	1,888.4	1,867.6	20.84	90.623		
5,900.0	5,880.3	5,490.3	5,220.9	22.6	0.0	-113.03	-322.3	1,643.4	1,926.2	1,905.0	21.20	90.839		
6,000.0	5,979.9	5,582.9	5,307.6	22.9	0.0	-113.04	-329.2	1,675.3	1,963.9	1,942.3	21.57	91.046		
6,100.0	6,079.5	5,675.5	5,394.3	23.3	0.0	-113.04	-336.0	1,707.2	2,001.6	1,979.7	21.94	91.246		
6,200.0	6,179.0	5,768.1	5,480.9	23.7	0.0	-113.05	-342.8	1,739.1	2,039.4	2,017.1	22.30	91.438		
6,300.0	6,278.6	5,860.7	5,567.6	24.1	0.0	-113.06	-349.7	1,771.0	2,077.1	2,054.4	22.67	91.623		
6,400.0	6,378.2	5,953.3	5,654.3	24.5	0.0	-113.06	-356.5	1,802.9	2,114.9	2,091.8	23.04	91.802		
6,500.0	6,477.7	6,045.9	5,741.0	24.9	0.0	-113.07	-363.3	1,834.8	2,152.6	2,129.2	23.40	91.973		
6,600.0	6,577.3	6,138.5	5,827.6	25.3	0.0	-113.07	-370.1	1,866.7	2,190.3	2,166.5	23.77	92.139		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.71	0.6	120.0	120.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.71	0.6	120.0	120.0	119.7	0.28	433.179		
200.0	200.0	200.0	200.0	1.0	0.0	89.71	0.6	120.0	120.0	119.2	0.80	150.399		
300.0	300.0	300.0	300.0	1.5	0.0	89.71	0.6	120.0	120.0	118.8	1.22	97.997		
400.0	400.0	400.0	400.0	1.9	0.0	89.71	0.6	120.0	120.0	118.4	1.62	74.144		
500.0	500.0	500.0	500.0	2.3	0.0	89.71	0.6	120.0	120.0	118.0	2.00	60.026		
600.0	600.0	600.0	600.0	2.7	0.0	89.71	0.6	120.0	120.0	117.6	2.37	50.571		
700.0	700.0	700.0	700.0	3.1	0.0	89.71	0.6	120.0	120.0	117.2	2.74	43.754 CC, ES		
800.0	800.0	796.1	796.0	3.5	0.0	89.89	0.2	121.5	121.6	118.5	3.11	39.153		
900.0	900.0	891.9	891.7	3.9	0.0	90.40	-0.9	126.2	126.5	123.0	3.46	36.552		
1,000.0	1,000.0	987.3	986.8	4.2	0.0	91.16	-2.7	134.0	134.7	130.8	3.81	35.373		
1,100.0	1,100.0	1,082.1	1,080.9	4.6	0.0	92.08	-5.3	144.7	146.1	141.9	4.14	35.250 SF		
1,200.0	1,200.0	1,176.0	1,173.8	4.9	0.0	-109.72	-8.5	158.4	161.3	156.9	4.45	36.270		
1,300.0	1,299.8	1,268.6	1,264.9	5.7	0.0	-109.82	-12.4	174.7	180.9	176.0	4.92	36.772		
1,400.0	1,399.5	1,359.6	1,353.8	6.1	0.0	-110.57	-16.8	193.6	204.6	199.4	5.27	38.862		
1,500.0	1,499.0	1,449.2	1,440.7	6.4	0.0	-111.39	-21.9	214.8	231.7	226.1	5.57	41.563		
1,600.0	1,598.6	1,537.2	1,525.4	6.7	0.0	-111.89	-27.4	238.2	261.7	255.8	5.90	44.369		
1,700.0	1,698.2	1,623.6	1,607.6	7.1	0.0	-112.16	-33.4	263.6	294.4	288.2	6.21	47.435		
1,800.0	1,797.8	1,709.8	1,689.0	7.4	0.0	-112.26	-40.0	291.3	329.9	323.4	6.52	50.639		
1,900.0	1,897.3	1,803.0	1,776.7	7.7	0.0	-112.31	-47.3	322.1	366.3	359.4	6.86	53.389		
2,000.0	1,996.9	1,896.1	1,864.3	8.1	0.0	-112.35	-54.6	352.9	402.6	395.4	7.21	55.860		
2,100.0	2,096.5	1,989.3	1,951.9	8.4	0.0	-112.38	-61.9	383.7	439.0	431.5	7.56	58.090		
2,200.0	2,196.1	2,082.4	2,039.5	8.7	0.0	-112.41	-69.2	414.5	475.4	467.5	7.91	60.113		
2,300.0	2,295.6	2,175.6	2,127.1	9.1	0.0	-112.44	-76.4	445.3	511.7	503.5	8.26	61.953		
2,400.0	2,395.2	2,268.7	2,214.7	9.4	0.0	-112.46	-83.7	476.1	548.1	539.5	8.61	63.635		
2,500.0	2,494.8	2,361.9	2,302.4	9.8	0.0	-112.48	-91.0	506.9	584.5	575.5	8.97	65.176		
2,600.0	2,594.4	2,455.0	2,390.0	10.1	0.0	-112.50	-98.3	537.6	620.8	611.5	9.32	66.593		
2,700.0	2,693.9	2,548.2	2,477.6	10.5	0.0	-112.51	-105.6	568.4	657.2	647.5	9.68	67.901		
2,800.0	2,793.5	2,641.3	2,565.2	10.9	0.0	-112.53	-112.9	599.2	693.6	683.5	10.04	69.110		
2,900.0	2,893.1	2,734.5	2,652.8	11.2	0.0	-112.54	-120.2	630.0	729.9	719.5	10.39	70.231		
3,000.0	2,992.7	2,827.7	2,740.4	11.6	0.0	-112.55	-127.5	660.8	766.3	755.5	10.75	71.273		
3,100.0	3,092.2	2,920.8	2,828.0	11.9	0.0	-112.56	-134.8	691.6	802.6	791.5	11.11	72.244		
3,200.0	3,191.8	3,014.0	2,915.7	12.3	0.0	-112.57	-142.1	722.4	839.0	827.5	11.47	73.151		
3,300.0	3,291.4	3,107.1	3,003.3	12.7	0.0	-112.58	-149.4	753.2	875.4	863.5	11.83	73.999		
3,400.0	3,391.0	3,200.3	3,090.9	13.0	0.0	-112.58	-156.7	784.0	911.7	899.6	12.19	74.794		
3,500.0	3,490.5	3,293.4	3,178.5	13.4	0.0	-112.59	-163.9	814.7	948.1	935.6	12.55	75.541		
3,600.0	3,590.1	3,386.6	3,266.1	13.8	0.0	-112.60	-171.2	845.5	984.5	971.6	12.91	76.244		
3,700.0	3,689.7	3,479.7	3,353.7	14.2	0.0	-112.60	-178.5	876.3	1,020.8	1,007.6	13.27	76.906		
3,800.0	3,789.2	3,572.9	3,441.4	14.5	0.0	-112.61	-185.8	907.1	1,057.2	1,043.6	13.64	77.531		
3,900.0	3,888.8	3,666.0	3,529.0	14.9	0.0	-112.61	-193.1	937.9	1,093.6	1,079.6	14.00	78.122		
4,000.0	3,988.4	3,759.2	3,616.6	15.3	0.0	-112.62	-200.4	968.7	1,129.9	1,115.6	14.36	78.680		
4,100.0	4,088.0	3,852.3	3,704.2	15.7	0.0	-112.62	-207.7	999.5	1,166.3	1,151.6	14.72	79.210		
4,200.0	4,187.5	3,945.5	3,791.8	16.0	0.0	-112.63	-215.0	1,030.3	1,202.7	1,187.6	15.09	79.712		
4,300.0	4,287.1	4,038.7	3,879.4	16.4	0.0	-112.63	-222.3	1,061.1	1,239.0	1,223.6	15.45	80.190		
4,400.0	4,386.7	4,131.8	3,967.0	16.8	0.0	-112.64	-229.6	1,091.9	1,275.4	1,259.6	15.82	80.644		
4,500.0	4,486.3	4,225.0	4,054.7	17.2	0.0	-112.64	-236.9	1,122.6	1,311.7	1,295.6	16.18	81.076		
4,600.0	4,585.8	4,318.1	4,142.3	17.6	0.0	-112.64	-244.2	1,153.4	1,348.1	1,331.6	16.54	81.487		
4,700.0	4,685.4	4,411.3	4,229.9	17.9	0.0	-112.65	-251.5	1,184.2	1,384.5	1,367.6	16.91	81.880		
4,800.0	4,785.0	4,504.4	4,317.5	18.3	0.0	-112.65	-258.7	1,215.0	1,420.8	1,403.6	17.27	82.255		
4,900.0	4,884.6	4,597.6	4,405.1	18.7	0.0	-112.65	-266.0	1,245.8	1,457.2	1,439.6	17.64	82.613		
5,000.0	4,984.1	4,690.7	4,492.7	19.1	0.0	-112.66	-273.3	1,276.6	1,493.6	1,475.6	18.00	82.955		
5,100.0	5,083.7	4,783.9	4,580.4	19.5	0.0	-112.66	-280.6	1,307.4	1,529.9	1,511.6	18.37	83.283		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,183.3	4,877.0	4,668.0	19.9	0.0	-112.66	-287.9	1,338.2	1,566.3	1,547.6	18.74	83.597		
5,300.0	5,282.9	4,970.2	4,755.6	20.2	0.0	-112.66	-295.2	1,369.0	1,602.7	1,583.6	19.10	83.898		
5,400.0	5,382.4	5,063.3	4,843.2	20.6	0.0	-112.67	-302.5	1,399.7	1,639.0	1,619.6	19.47	84.186		
5,500.0	5,482.0	5,156.5	4,930.8	21.0	0.0	-112.67	-309.8	1,430.5	1,675.4	1,655.6	19.84	84.463		
5,600.0	5,581.6	5,249.7	5,018.4	21.4	0.0	-112.67	-317.1	1,461.3	1,711.8	1,691.6	20.20	84.729		
5,700.0	5,681.2	5,342.8	5,106.0	21.8	0.0	-112.67	-324.4	1,492.1	1,748.1	1,727.6	20.57	84.984		
5,800.0	5,780.7	5,436.0	5,193.7	22.2	0.0	-112.67	-331.7	1,522.9	1,784.5	1,763.5	20.94	85.230		
5,900.0	5,880.3	5,529.1	5,281.3	22.6	0.0	-112.68	-339.0	1,553.7	1,820.8	1,799.5	21.30	85.466		
6,000.0	5,979.9	5,622.3	5,368.9	22.9	0.0	-112.68	-346.3	1,584.5	1,857.2	1,835.5	21.67	85.694		
6,100.0	6,079.5	5,715.4	5,456.5	23.3	0.0	-112.68	-353.5	1,615.3	1,893.6	1,871.5	22.04	85.913		
6,200.0	6,179.0	5,808.6	5,544.1	23.7	0.0	-112.68	-360.8	1,646.1	1,929.9	1,907.5	22.41	86.123		
6,300.0	6,278.6	5,901.7	5,631.7	24.1	0.0	-112.68	-368.1	1,676.8	1,966.3	1,943.5	22.78	86.327		
6,400.0	6,378.2	5,994.9	5,719.4	24.5	0.0	-112.68	-375.4	1,707.6	2,002.7	1,979.5	23.15	86.523		
6,500.0	6,477.7	6,088.0	5,807.0	24.9	0.0	-112.69	-382.7	1,738.4	2,039.0	2,015.5	23.52	86.712		
6,600.0	6,577.3	6,181.2	5,894.6	25.3	0.0	-112.69	-390.0	1,769.2	2,075.4	2,051.5	23.88	86.894		
6,700.0	6,677.0	6,274.3	5,982.2	25.7	0.0	-174.72	-397.3	1,800.0	2,111.8	2,087.5	24.25	87.077		
6,800.0	6,776.5	6,366.0	6,068.4	26.0	0.0	97.29	-404.5	1,830.3	2,147.7	2,123.2	24.59	87.350		
6,900.0	6,873.0	6,453.6	6,150.8	26.2	0.0	88.51	-411.3	1,859.2	2,182.7	2,157.9	24.80	88.011		
7,000.0	6,963.6	6,534.3	6,226.7	26.4	0.0	84.19	-417.6	1,885.9	2,216.3	2,191.3	24.95	88.812		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Gail #1 (PR) - EXISTING - NO SURVEYS (PR)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,500.0	7,252.0	7,183.0	7,183.0	112.9	26.7	90.00	8,132.9	90.2	2,156.5	2,094.5	62.02	34.771		
13,600.0	7,252.0	7,183.0	7,183.0	114.6	26.7	90.00	8,132.9	90.2	2,058.1	1,995.3	62.82	32.764		
13,700.0	7,252.0	7,183.0	7,183.0	116.3	26.7	90.00	8,132.9	90.2	1,959.9	1,896.1	63.71	30.761		
13,800.0	7,252.0	7,183.0	7,183.0	118.0	26.7	90.00	8,132.9	90.2	1,861.8	1,797.1	64.73	28.763		
13,900.0	7,252.0	7,183.0	7,183.0	119.7	26.7	90.00	8,132.9	90.2	1,764.0	1,698.1	65.89	26.772		
14,000.0	7,252.0	7,183.0	7,183.0	121.5	26.7	90.00	8,132.9	90.2	1,666.4	1,599.2	67.22	24.791		
14,100.0	7,252.0	7,183.0	7,183.0	123.2	26.7	90.00	8,132.9	90.2	1,569.1	1,500.4	68.75	22.823		
14,200.0	7,252.0	7,183.0	7,183.0	124.9	26.7	90.00	8,132.9	90.2	1,472.2	1,401.7	70.53	20.875		
14,300.0	7,252.0	7,183.0	7,183.0	126.6	26.7	90.00	8,132.9	90.2	1,375.7	1,303.1	72.60	18.950		
14,400.0	7,252.0	7,183.0	7,183.0	128.4	26.7	90.00	8,132.9	90.2	1,279.8	1,204.8	75.04	17.056		
14,500.0	7,252.0	7,183.0	7,183.0	130.1	26.7	90.00	8,132.9	90.2	1,184.6	1,106.7	77.92	15.202		
14,600.0	7,252.0	7,183.0	7,183.0	131.8	26.7	90.00	8,132.9	90.2	1,090.2	1,008.8	81.37	13.398		
14,700.0	7,252.0	7,183.0	7,183.0	133.5	26.7	90.00	8,132.9	90.2	996.9	911.4	85.52	11.657		
14,800.0	7,252.0	7,183.0	7,183.0	135.3	26.7	90.00	8,132.9	90.2	905.0	814.5	90.56	9.994		
14,900.0	7,252.0	7,183.0	7,183.0	137.0	26.7	90.00	8,132.9	90.2	815.1	718.3	96.73	8.427		
15,000.0	7,252.0	7,183.0	7,183.0	138.7	26.7	90.00	8,132.9	90.2	727.7	623.4	104.33	6.976		
15,100.0	7,252.0	7,183.0	7,183.0	140.5	26.7	90.00	8,132.9	90.2	644.1	530.4	113.71	5.665		
15,200.0	7,252.0	7,183.0	7,183.0	142.2	26.7	90.00	8,132.9	90.2	565.8	440.6	125.20	4.519		
15,300.0	7,252.0	7,183.0	7,183.0	143.9	26.7	90.00	8,132.9	90.2	495.4	356.6	138.86	3.568		
15,400.0	7,252.0	7,183.0	7,183.0	145.7	26.7	90.00	8,132.9	90.2	436.7	282.9	153.86	2.838		
15,500.0	7,252.0	7,183.0	7,183.0	147.4	26.7	90.00	8,132.9	90.2	395.0	227.4	167.54	2.357		
15,600.0	7,252.0	7,183.0	7,183.0	149.1	26.7	90.00	8,132.9	90.2	375.9	200.6	175.29	2.144		
15,623.6	7,252.0	7,183.0	7,183.0	149.5	26.7	90.00	8,132.9	90.2	375.1	199.3	175.78	2.134 CC, ES, SF		
15,700.0	7,252.0	7,183.0	7,183.0	150.9	26.7	90.00	8,132.9	90.2	382.8	209.3	173.55	2.206		
15,800.0	7,252.0	7,183.0	7,183.0	152.6	26.7	90.00	8,132.9	90.2	414.5	250.9	163.59	2.534		
15,900.0	7,252.0	7,183.0	7,183.0	154.3	26.7	90.00	8,132.9	90.2	465.9	316.0	149.96	3.107		
16,000.0	7,252.0	7,183.0	7,183.0	156.1	26.7	90.00	8,132.9	90.2	531.4	395.0	136.39	3.896		
16,100.0	7,252.0	7,183.0	7,183.0	157.8	26.7	90.00	8,132.9	90.2	606.3	481.8	124.50	4.870		
16,200.0	7,252.0	7,183.0	7,183.0	159.6	26.7	90.00	8,132.9	90.2	687.7	573.1	114.61	6.000		
16,300.0	7,252.0	7,183.0	7,183.0	161.3	26.7	90.00	8,132.9	90.2	773.4	666.9	106.54	7.259		
16,400.0	7,252.0	7,183.0	7,183.0	163.0	26.7	90.00	8,132.9	90.2	862.2	762.3	99.97	8.625		
16,500.0	7,252.0	7,183.0	7,183.0	164.8	26.7	90.00	8,132.9	90.2	953.3	858.7	94.60	10.077		
16,600.0	7,252.0	7,183.0	7,183.0	166.5	26.7	90.00	8,132.9	90.2	1,046.0	955.8	90.18	11.599		
16,700.0	7,252.0	7,183.0	7,183.0	168.3	26.7	90.00	8,132.9	90.2	1,139.9	1,053.4	86.51	13.176		
16,800.0	7,252.0	7,183.0	7,183.0	170.0	26.7	90.00	8,132.9	90.2	1,234.7	1,151.3	83.43	14.799		
16,900.0	7,252.0	7,183.0	7,183.0	171.8	26.7	90.00	8,132.9	90.2	1,330.4	1,249.5	80.84	16.456		
17,000.0	7,252.0	7,183.0	7,183.0	173.5	26.7	90.00	8,132.9	90.2	1,426.6	1,347.9	78.64	18.141		
17,100.0	7,252.0	7,183.0	7,183.0	175.2	26.7	90.00	8,132.9	90.2	1,523.3	1,446.5	76.75	19.846		
17,200.0	7,252.0	7,183.0	7,183.0	177.0	26.7	90.00	8,132.9	90.2	1,620.4	1,545.3	75.13	21.567		
17,300.0	7,252.0	7,183.0	7,183.0	178.7	26.7	90.00	8,132.9	90.2	1,717.8	1,644.1	73.73	23.299		
17,385.9	7,252.0	7,183.0	7,183.0	180.2	26.7	90.00	8,132.9	90.2	1,801.7	1,729.0	72.67	24.793		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Gail Smith #1 (PR) - EXISTING - NO SURVEYS (PR)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,400.0	7,252.0	7,183.0	7,183.0	145.7	26.7	-90.00	9,758.1	-1,491.2	2,211.1	2,104.7	106.42	20.777		
15,500.0	7,252.0	7,183.0	7,183.0	147.4	26.7	-90.00	9,758.1	-1,491.2	2,127.6	2,017.4	110.20	19.306		
15,600.0	7,252.0	7,183.0	7,183.0	149.1	26.7	-90.00	9,758.1	-1,491.2	2,045.6	1,931.3	114.26	17.903		
15,700.0	7,252.0	7,183.0	7,183.0	150.9	26.7	-90.00	9,758.1	-1,491.2	1,965.2	1,846.6	118.61	16.568		
15,800.0	7,252.0	7,183.0	7,183.0	152.6	26.7	-90.00	9,758.1	-1,491.2	1,886.7	1,763.4	123.27	15.305		
15,900.0	7,252.0	7,183.0	7,183.0	154.3	26.7	-90.00	9,758.1	-1,491.2	1,810.3	1,682.1	128.25	14.116		
16,000.0	7,252.0	7,183.0	7,183.0	156.1	26.7	-90.00	9,758.1	-1,491.2	1,736.3	1,602.8	133.55	13.001		
16,100.0	7,252.0	7,183.0	7,183.0	157.8	26.7	-90.00	9,758.1	-1,491.2	1,665.1	1,525.9	139.18	11.964		
16,200.0	7,252.0	7,183.0	7,183.0	159.6	26.7	-90.00	9,758.1	-1,491.2	1,596.9	1,451.8	145.12	11.004		
16,300.0	7,252.0	7,183.0	7,183.0	161.3	26.7	-90.00	9,758.1	-1,491.2	1,532.2	1,380.9	151.34	10.124		
16,400.0	7,252.0	7,183.0	7,183.0	163.0	26.7	-90.00	9,758.1	-1,491.2	1,471.5	1,313.7	157.80	9.325		
16,500.0	7,252.0	7,183.0	7,183.0	164.8	26.7	-90.00	9,758.1	-1,491.2	1,415.3	1,250.9	164.41	8.608		
16,600.0	7,252.0	7,183.0	7,183.0	166.5	26.7	-90.00	9,758.1	-1,491.2	1,364.0	1,193.0	171.09	7.973		
16,700.0	7,252.0	7,183.0	7,183.0	168.3	26.7	-90.00	9,758.1	-1,491.2	1,318.4	1,140.7	177.68	7.420		
16,800.0	7,252.0	7,183.0	7,183.0	170.0	26.7	-90.00	9,758.1	-1,491.2	1,279.0	1,095.0	184.02	6.950		
16,900.0	7,252.0	7,183.0	7,183.0	171.8	26.7	-90.00	9,758.1	-1,491.2	1,246.4	1,056.5	189.91	6.563		
17,000.0	7,252.0	7,183.0	7,183.0	173.5	26.7	-90.00	9,758.1	-1,491.2	1,221.1	1,026.0	195.14	6.258		
17,100.0	7,252.0	7,183.0	7,183.0	175.2	26.7	-90.00	9,758.1	-1,491.2	1,203.6	1,004.1	199.51	6.033		
17,200.0	7,252.0	7,183.0	7,183.0	177.0	26.7	-90.00	9,758.1	-1,491.2	1,194.3	991.5	202.83	5.888		
17,261.9	7,252.0	7,183.0	7,183.0	178.1	26.7	-90.00	9,758.1	-1,491.2	1,192.7	988.4	204.31	5.838 CC		
17,300.0	7,252.0	7,183.0	7,183.0	178.7	26.7	-90.00	9,758.1	-1,491.2	1,193.3	988.3	204.99	5.821 ES, SF		
17,385.9	7,252.0	7,183.0	7,183.0	180.2	26.7	-90.00	9,758.1	-1,491.2	1,199.1	993.3	205.87	5.825		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Milheim #1 (P&A) - EXISTING - NO SURVEYS (P&A)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,400.0	7,252.0	7,183.0	7,183.0	77.4	26.7	-90.00	5,915.8	-979.4	2,137.7	2,076.6	61.12	34.974		
11,500.0	7,252.0	7,183.0	7,183.0	79.1	26.7	-90.00	5,915.8	-979.4	2,043.7	1,981.5	62.24	32.835		
11,600.0	7,252.0	7,183.0	7,183.0	80.7	26.7	-90.00	5,915.8	-979.4	1,950.3	1,886.8	63.52	30.706		
11,700.0	7,252.0	7,183.0	7,183.0	82.4	26.7	-90.00	5,915.8	-979.4	1,857.6	1,792.6	64.97	28.593		
11,800.0	7,252.0	7,183.0	7,183.0	84.0	26.7	-90.00	5,915.8	-979.4	1,765.7	1,699.0	66.62	26.504		
11,900.0	7,252.0	7,183.0	7,183.0	85.7	26.7	-90.00	5,915.8	-979.4	1,674.7	1,606.2	68.51	24.446		
12,000.0	7,252.0	7,183.0	7,183.0	87.4	26.7	-90.00	5,915.8	-979.4	1,584.7	1,514.1	70.66	22.428		
12,100.0	7,252.0	7,183.0	7,183.0	89.1	26.7	-90.00	5,915.8	-979.4	1,496.1	1,423.0	73.12	20.461		
12,200.0	7,252.0	7,183.0	7,183.0	90.8	26.7	-90.00	5,915.8	-979.4	1,409.0	1,333.1	75.93	18.556		
12,300.0	7,252.0	7,183.0	7,183.0	92.4	26.7	-90.00	5,915.8	-979.4	1,323.7	1,244.5	79.14	16.725		
12,400.0	7,252.0	7,183.0	7,183.0	94.1	26.7	-90.00	5,915.8	-979.4	1,240.6	1,157.8	82.81	14.982		
12,500.0	7,252.0	7,183.0	7,183.0	95.8	26.7	-90.00	5,915.8	-979.4	1,160.2	1,073.2	86.98	13.338		
12,600.0	7,252.0	7,183.0	7,183.0	97.5	26.7	-90.00	5,915.8	-979.4	1,083.0	991.3	91.70	11.810		
12,700.0	7,252.0	7,183.0	7,183.0	99.2	26.7	-90.00	5,915.8	-979.4	1,009.9	912.9	97.00	10.410		
12,800.0	7,252.0	7,183.0	7,183.0	100.9	26.7	-90.00	5,915.8	-979.4	941.7	838.8	102.88	9.153		
12,900.0	7,252.0	7,183.0	7,183.0	102.6	26.7	-90.00	5,915.8	-979.4	879.6	770.3	109.25	8.051		
13,000.0	7,252.0	7,183.0	7,183.0	104.3	26.7	-90.00	5,915.8	-979.4	825.0	709.0	115.92	7.116		
13,100.0	7,252.0	7,183.0	7,183.0	106.0	26.7	-90.00	5,915.8	-979.4	779.4	656.8	122.59	6.358		
13,200.0	7,252.0	7,183.0	7,183.0	107.7	26.7	-90.00	5,915.8	-979.4	744.6	615.8	128.76	5.782		
13,300.0	7,252.0	7,183.0	7,183.0	109.5	26.7	-90.00	5,915.8	-979.4	722.0	588.2	133.85	5.394		
13,400.0	7,252.0	7,183.0	7,183.0	111.2	26.7	-90.00	5,915.8	-979.4	712.9	575.6	137.30	5.192		
13,415.4	7,252.0	7,183.0	7,183.0	111.4	26.7	-90.00	5,915.8	-979.4	712.7	575.1	137.66	5.177 CC, ES		
13,500.0	7,252.0	7,183.0	7,183.0	112.9	26.7	-90.00	5,915.8	-979.4	717.7	579.0	138.75	5.173 SF		
13,600.0	7,252.0	7,183.0	7,183.0	114.6	26.7	-90.00	5,915.8	-979.4	736.2	598.0	138.20	5.327		
13,700.0	7,252.0	7,183.0	7,183.0	116.3	26.7	-90.00	5,915.8	-979.4	767.4	631.5	135.94	5.645		
13,800.0	7,252.0	7,183.0	7,183.0	118.0	26.7	-90.00	5,915.8	-979.4	809.9	677.4	132.47	6.114		
13,900.0	7,252.0	7,183.0	7,183.0	119.7	26.7	-90.00	5,915.8	-979.4	861.8	733.6	128.28	6.718		
14,000.0	7,252.0	7,183.0	7,183.0	121.5	26.7	-90.00	5,915.8	-979.4	921.8	798.0	123.80	7.446		
14,100.0	7,252.0	7,183.0	7,183.0	123.2	26.7	-90.00	5,915.8	-979.4	988.2	868.9	119.32	8.282		
14,200.0	7,252.0	7,183.0	7,183.0	124.9	26.7	-90.00	5,915.8	-979.4	1,060.0	944.9	115.02	9.215		
14,300.0	7,252.0	7,183.0	7,183.0	126.6	26.7	-90.00	5,915.8	-979.4	1,136.0	1,025.0	111.01	10.233		
14,400.0	7,252.0	7,183.0	7,183.0	128.4	26.7	-90.00	5,915.8	-979.4	1,215.5	1,108.2	107.31	11.326		
14,500.0	7,252.0	7,183.0	7,183.0	130.1	26.7	-90.00	5,915.8	-979.4	1,297.8	1,193.8	103.95	12.485		
14,600.0	7,252.0	7,183.0	7,183.0	131.8	26.7	-90.00	5,915.8	-979.4	1,382.5	1,281.6	100.90	13.701		
14,700.0	7,252.0	7,183.0	7,183.0	133.5	26.7	-90.00	5,915.8	-979.4	1,469.0	1,370.9	98.15	14.968		
14,800.0	7,252.0	7,183.0	7,183.0	135.3	26.7	-90.00	5,915.8	-979.4	1,557.2	1,461.6	95.67	16.278		
14,900.0	7,252.0	7,183.0	7,183.0	137.0	26.7	-90.00	5,915.8	-979.4	1,646.8	1,553.4	93.42	17.627		
15,000.0	7,252.0	7,183.0	7,183.0	138.7	26.7	-90.00	5,915.8	-979.4	1,737.5	1,646.1	91.40	19.010		
15,100.0	7,252.0	7,183.0	7,183.0	140.5	26.7	-90.00	5,915.8	-979.4	1,829.1	1,739.6	89.57	20.422		
15,200.0	7,252.0	7,183.0	7,183.0	142.2	26.7	-90.00	5,915.8	-979.4	1,921.6	1,833.7	87.91	21.860		
15,300.0	7,252.0	7,183.0	7,183.0	143.9	26.7	-90.00	5,915.8	-979.4	2,014.8	1,928.4	86.40	23.321		
15,400.0	7,252.0	7,183.0	7,183.0	145.7	26.7	-90.00	5,915.8	-979.4	2,108.7	2,023.6	85.02	24.801		
15,500.0	7,252.0	7,183.0	7,183.0	147.4	26.7	-90.00	5,915.8	-979.4	2,203.0	2,119.3	83.77	26.298		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Price 7-19 (SI) - EXISTING - NO SURVEYS (SI)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,700.0	7,252.0	7,183.0	7,183.0	36.8	26.7	90.00	3,157.1	778.6	2,194.9	2,138.0	56.98	38.524		
8,800.0	7,252.0	7,183.0	7,183.0	38.0	26.7	90.00	3,157.1	778.6	2,107.0	2,049.3	57.61	36.572		
8,900.0	7,252.0	7,183.0	7,183.0	39.2	26.7	90.00	3,157.1	778.6	2,020.1	1,961.8	58.34	34.625		
9,000.0	7,252.0	7,183.0	7,183.0	40.5	26.7	90.00	3,157.1	778.6	1,934.5	1,875.3	59.19	32.686		
9,100.0	7,252.0	7,183.0	7,183.0	41.9	26.7	90.00	3,157.1	778.6	1,850.4	1,790.2	60.15	30.762		
9,200.0	7,252.0	7,183.0	7,183.0	43.2	26.7	90.00	3,157.1	778.6	1,767.9	1,706.6	61.26	28.861		
9,300.0	7,252.0	7,183.0	7,183.0	44.6	26.7	90.00	3,157.1	778.6	1,687.3	1,624.8	62.51	26.991		
9,400.0	7,252.0	7,183.0	7,183.0	46.0	26.7	90.00	3,157.1	778.6	1,608.9	1,545.0	63.94	25.163		
9,500.0	7,252.0	7,183.0	7,183.0	47.5	26.7	90.00	3,157.1	778.6	1,533.0	1,467.4	65.55	23.387		
9,600.0	7,252.0	7,183.0	7,183.0	48.9	26.7	90.00	3,157.1	778.6	1,460.0	1,392.7	67.35	21.678		
9,700.0	7,252.0	7,183.0	7,183.0	50.4	26.7	90.00	3,157.1	778.6	1,390.4	1,321.0	69.35	20.049		
9,800.0	7,252.0	7,183.0	7,183.0	51.9	26.7	90.00	3,157.1	778.6	1,324.7	1,253.1	71.54	18.515		
9,900.0	7,252.0	7,183.0	7,183.0	53.4	26.7	90.00	3,157.1	778.6	1,263.4	1,189.5	73.92	17.091		
10,000.0	7,252.0	7,183.0	7,183.0	54.9	26.7	90.00	3,157.1	778.6	1,207.4	1,130.9	76.45	15.793		
10,100.0	7,252.0	7,183.0	7,183.0	56.5	26.7	90.00	3,157.1	778.6	1,157.3	1,078.2	79.09	14.633		
10,200.0	7,252.0	7,183.0	7,183.0	58.0	26.7	90.00	3,157.1	778.6	1,114.0	1,032.2	81.76	13.625		
10,300.0	7,252.0	7,183.0	7,183.0	59.6	26.7	90.00	3,157.1	778.6	1,078.2	993.8	84.36	12.781		
10,400.0	7,252.0	7,183.0	7,183.0	61.2	26.7	90.00	3,157.1	778.6	1,050.7	963.9	86.79	12.107		
10,500.0	7,252.0	7,183.0	7,183.0	62.8	26.7	90.00	3,157.1	778.6	1,032.2	943.3	88.92	11.609		
10,600.0	7,252.0	7,183.0	7,183.0	64.4	26.7	90.00	3,157.1	778.6	1,023.3	932.6	90.65	11.288		
10,642.3	7,252.0	7,183.0	7,183.0	65.0	26.7	90.00	3,157.1	778.6	1,022.4	931.1	91.25	11.205 CC, ES		
10,700.0	7,252.0	7,183.0	7,183.0	66.0	26.7	90.00	3,157.1	778.6	1,024.0	932.1	91.91	11.142 SF		
10,800.0	7,252.0	7,183.0	7,183.0	67.6	26.7	90.00	3,157.1	778.6	1,034.5	941.8	92.64	11.166		
10,900.0	7,252.0	7,183.0	7,183.0	69.2	26.7	90.00	3,157.1	778.6	1,054.4	961.5	92.87	11.353		
11,000.0	7,252.0	7,183.0	7,183.0	70.8	26.7	90.00	3,157.1	778.6	1,083.2	990.5	92.64	11.692		
11,100.0	7,252.0	7,183.0	7,183.0	72.5	26.7	90.00	3,157.1	778.6	1,120.2	1,028.1	92.03	12.172		
11,200.0	7,252.0	7,183.0	7,183.0	74.1	26.7	90.00	3,157.1	778.6	1,164.6	1,073.5	91.13	12.780		
11,300.0	7,252.0	7,183.0	7,183.0	75.7	26.7	90.00	3,157.1	778.6	1,215.7	1,125.7	90.02	13.505		
11,400.0	7,252.0	7,183.0	7,183.0	77.4	26.7	90.00	3,157.1	778.6	1,272.6	1,183.8	88.78	14.334		
11,500.0	7,252.0	7,183.0	7,183.0	79.1	26.7	90.00	3,157.1	778.6	1,334.5	1,247.1	87.47	15.257		
11,600.0	7,252.0	7,183.0	7,183.0	80.7	26.7	90.00	3,157.1	778.6	1,400.9	1,314.8	86.14	16.263		
11,700.0	7,252.0	7,183.0	7,183.0	82.4	26.7	90.00	3,157.1	778.6	1,471.1	1,386.2	84.83	17.342		
11,800.0	7,252.0	7,183.0	7,183.0	84.0	26.7	90.00	3,157.1	778.6	1,544.5	1,461.0	83.56	18.485		
11,900.0	7,252.0	7,183.0	7,183.0	85.7	26.7	90.00	3,157.1	778.6	1,620.9	1,538.5	82.34	19.685		
12,000.0	7,252.0	7,183.0	7,183.0	87.4	26.7	90.00	3,157.1	778.6	1,699.6	1,618.4	81.18	20.936		
12,100.0	7,252.0	7,183.0	7,183.0	89.1	26.7	90.00	3,157.1	778.6	1,780.5	1,700.4	80.10	22.230		
12,200.0	7,252.0	7,183.0	7,183.0	90.8	26.7	90.00	3,157.1	778.6	1,863.3	1,784.2	79.08	23.563		
12,300.0	7,252.0	7,183.0	7,183.0	92.4	26.7	90.00	3,157.1	778.6	1,947.7	1,869.5	78.12	24.930		
12,400.0	7,252.0	7,183.0	7,183.0	94.1	26.7	90.00	3,157.1	778.6	2,033.4	1,956.2	77.24	26.328		
12,500.0	7,252.0	7,183.0	7,183.0	95.8	26.7	90.00	3,157.1	778.6	2,120.5	2,044.1	76.41	27.751		
12,600.0	7,252.0	7,183.0	7,183.0	97.5	26.7	90.00	3,157.1	778.6	2,208.6	2,133.0	75.64	29.198		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)												Offset Site Error:	0.0 usft
Survey Program: 100-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
16,000.0	7,252.0	7,183.0	7,183.0	156.1	26.7	90.00	9,163.8	1,833.3	2,221.0	2,044.1	176.88	12.557	
16,100.0	7,252.0	7,183.0	7,183.0	157.8	26.7	90.00	9,163.8	1,833.3	2,194.2	2,014.1	180.18	12.178	
16,200.0	7,252.0	7,183.0	7,183.0	159.6	26.7	90.00	9,163.8	1,833.3	2,171.8	1,988.5	183.27	11.850	
16,300.0	7,252.0	7,183.0	7,183.0	161.3	26.7	90.00	9,163.8	1,833.3	2,153.8	1,967.7	186.10	11.573	
16,400.0	7,252.0	7,183.0	7,183.0	163.0	26.7	90.00	9,163.8	1,833.3	2,140.2	1,951.6	188.66	11.345	
16,500.0	7,252.0	7,183.0	7,183.0	164.8	26.7	90.00	9,163.8	1,833.3	2,131.3	1,940.4	190.90	11.165	
16,600.0	7,252.0	7,183.0	7,183.0	166.5	26.7	90.00	9,163.8	1,833.3	2,127.1	1,934.3	192.80	11.033	
16,640.1	7,252.0	7,183.0	7,183.0	167.2	26.7	90.00	9,163.8	1,833.3	2,126.7	1,933.3	193.47	10.993 CC	
16,700.0	7,252.0	7,183.0	7,183.0	168.3	26.7	90.00	9,163.8	1,833.3	2,127.6	1,933.2	194.36	10.947 ES	
16,800.0	7,252.0	7,183.0	7,183.0	170.0	26.7	90.00	9,163.8	1,833.3	2,132.7	1,937.2	195.55	10.906 SF	
16,900.0	7,252.0	7,183.0	7,183.0	171.8	26.7	90.00	9,163.8	1,833.3	2,142.6	1,946.2	196.38	10.910	
17,000.0	7,252.0	7,183.0	7,183.0	173.5	26.7	90.00	9,163.8	1,833.3	2,157.0	1,960.1	196.85	10.958	
17,100.0	7,252.0	7,183.0	7,183.0	175.2	26.7	90.00	9,163.8	1,833.3	2,175.9	1,978.9	196.97	11.047	
17,200.0	7,252.0	7,183.0	7,183.0	177.0	26.7	90.00	9,163.8	1,833.3	2,199.2	2,002.4	196.76	11.177	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Tracy #1 (PR) - EXISTING - NO SURVEYS (PR)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,900.0	7,252.0	7,183.0	7,183.0	85.7	26.7	90.00	5,962.8	1,262.5	2,173.2	2,081.5	91.71	23.696		
12,000.0	7,252.0	7,183.0	7,183.0	87.4	26.7	90.00	5,962.8	1,262.5	2,103.4	2,008.8	94.56	22.244		
12,100.0	7,252.0	7,183.0	7,183.0	89.1	26.7	90.00	5,962.8	1,262.5	2,036.0	1,938.5	97.55	20.872		
12,200.0	7,252.0	7,183.0	7,183.0	90.8	26.7	90.00	5,962.8	1,262.5	1,971.5	1,870.8	100.67	19.583		
12,300.0	7,252.0	7,183.0	7,183.0	92.4	26.7	90.00	5,962.8	1,262.5	1,909.9	1,806.0	103.92	18.379		
12,400.0	7,252.0	7,183.0	7,183.0	94.1	26.7	90.00	5,962.8	1,262.5	1,851.8	1,744.5	107.27	17.263		
12,500.0	7,252.0	7,183.0	7,183.0	95.8	26.7	90.00	5,962.8	1,262.5	1,797.3	1,686.6	110.70	16.235		
12,600.0	7,252.0	7,183.0	7,183.0	97.5	26.7	90.00	5,962.8	1,262.5	1,746.9	1,632.7	114.18	15.299		
12,700.0	7,252.0	7,183.0	7,183.0	99.2	26.7	90.00	5,962.8	1,262.5	1,700.8	1,583.1	117.67	14.454		
12,800.0	7,252.0	7,183.0	7,183.0	100.9	26.7	90.00	5,962.8	1,262.5	1,659.5	1,538.4	121.11	13.703		
12,900.0	7,252.0	7,183.0	7,183.0	102.6	26.7	90.00	5,962.8	1,262.5	1,623.3	1,498.9	124.45	13.044		
13,000.0	7,252.0	7,183.0	7,183.0	104.3	26.7	90.00	5,962.8	1,262.5	1,592.6	1,465.0	127.62	12.479		
13,100.0	7,252.0	7,183.0	7,183.0	106.0	26.7	90.00	5,962.8	1,262.5	1,567.7	1,437.1	130.57	12.006		
13,200.0	7,252.0	7,183.0	7,183.0	107.7	26.7	90.00	5,962.8	1,262.5	1,548.8	1,415.6	133.23	11.625		
13,300.0	7,252.0	7,183.0	7,183.0	109.5	26.7	90.00	5,962.8	1,262.5	1,536.3	1,400.7	135.54	11.335		
13,400.0	7,252.0	7,183.0	7,183.0	111.2	26.7	90.00	5,962.8	1,262.5	1,530.1	1,392.7	137.44	11.133		
13,443.9	7,252.0	7,183.0	7,183.0	111.9	26.7	90.00	5,962.8	1,262.5	1,529.5	1,391.4	138.15	11.072 CC, ES		
13,500.0	7,252.0	7,183.0	7,183.0	112.9	26.7	90.00	5,962.8	1,262.5	1,530.5	1,391.6	138.92	11.018		
13,600.0	7,252.0	7,183.0	7,183.0	114.6	26.7	90.00	5,962.8	1,262.5	1,537.4	1,397.5	139.94	10.987 SF		
13,700.0	7,252.0	7,183.0	7,183.0	116.3	26.7	90.00	5,962.8	1,262.5	1,550.8	1,410.3	140.50	11.037		
13,800.0	7,252.0	7,183.0	7,183.0	118.0	26.7	90.00	5,962.8	1,262.5	1,570.4	1,429.8	140.64	11.167		
13,900.0	7,252.0	7,183.0	7,183.0	119.7	26.7	90.00	5,962.8	1,262.5	1,596.1	1,455.7	140.36	11.371		
14,000.0	7,252.0	7,183.0	7,183.0	121.5	26.7	90.00	5,962.8	1,262.5	1,627.5	1,487.7	139.72	11.648		
14,100.0	7,252.0	7,183.0	7,183.0	123.2	26.7	90.00	5,962.8	1,262.5	1,664.3	1,525.5	138.76	11.994		
14,200.0	7,252.0	7,183.0	7,183.0	124.9	26.7	90.00	5,962.8	1,262.5	1,706.2	1,568.6	137.55	12.404		
14,300.0	7,252.0	7,183.0	7,183.0	126.6	26.7	90.00	5,962.8	1,262.5	1,752.8	1,616.7	136.12	12.877		
14,400.0	7,252.0	7,183.0	7,183.0	128.4	26.7	90.00	5,962.8	1,262.5	1,803.8	1,669.2	134.52	13.409		
14,500.0	7,252.0	7,183.0	7,183.0	130.1	26.7	90.00	5,962.8	1,262.5	1,858.7	1,725.9	132.81	13.995		
14,600.0	7,252.0	7,183.0	7,183.0	131.8	26.7	90.00	5,962.8	1,262.5	1,917.3	1,786.3	131.02	14.633		
14,700.0	7,252.0	7,183.0	7,183.0	133.5	26.7	90.00	5,962.8	1,262.5	1,979.2	1,850.0	129.18	15.321		
14,800.0	7,252.0	7,183.0	7,183.0	135.3	26.7	90.00	5,962.8	1,262.5	2,044.1	1,916.8	127.33	16.054		
14,900.0	7,252.0	7,183.0	7,183.0	137.0	26.7	90.00	5,962.8	1,262.5	2,111.8	1,986.3	125.48	16.830		
15,000.0	7,252.0	7,183.0	7,183.0	138.7	26.7	90.00	5,962.8	1,262.5	2,181.9	2,058.3	123.64	17.647		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-42.77	1,023.7	-947.1	1,396.3					
100.0	100.0	31.0	31.0	0.4	0.3	-42.77	1,023.7	-947.1	1,394.6	1,394.3	0.27	5,197.981		
200.0	200.0	131.0	131.0	1.0	1.1	-42.77	1,023.7	-947.1	1,394.6	1,393.6	0.99	1,406.980		
300.0	300.0	231.0	231.0	1.5	1.5	-42.77	1,023.7	-947.1	1,394.6	1,392.9	1.71	817.527		
400.0	400.0	331.0	331.0	1.9	1.9	-42.77	1,023.7	-947.1	1,394.6	1,392.2	2.42	575.805		
500.0	500.0	431.0	431.0	2.3	2.3	-42.77	1,023.7	-947.1	1,394.6	1,391.5	3.14	444.345		
600.0	600.0	531.0	531.0	2.7	2.7	-42.77	1,023.7	-947.1	1,394.6	1,390.8	3.86	361.739		
700.0	700.0	631.0	631.0	3.1	3.1	-42.77	1,023.7	-947.1	1,394.6	1,390.0	4.57	305.026		
800.0	800.0	731.0	731.0	3.5	3.5	-42.77	1,023.7	-947.1	1,394.6	1,389.3	5.29	263.683		
900.0	900.0	831.0	831.0	3.9	3.9	-42.77	1,023.7	-947.1	1,394.6	1,388.6	6.01	232.209		
1,000.0	1,000.0	931.0	931.0	4.2	4.2	-42.77	1,023.7	-947.1	1,394.6	1,387.9	6.72	207.447		
1,100.0	1,100.0	1,031.0	1,031.0	4.6	4.6	-42.77	1,023.7	-947.1	1,394.6	1,387.2	7.44	187.456		
1,200.0	1,200.0	1,131.0	1,131.0	4.9	5.0	114.77	1,023.7	-947.1	1,395.3	1,387.2	8.14	171.333		
1,300.0	1,299.8	1,230.8	1,230.8	5.7	5.3	114.92	1,023.7	-947.1	1,397.5	1,388.7	8.85	157.867		
1,400.0	1,399.5	1,330.5	1,330.5	6.1	5.7	115.19	1,023.7	-947.1	1,401.2	1,391.6	9.55	146.679		
1,500.0	1,499.0	1,430.0	1,430.0	6.4	6.1	115.53	1,023.7	-947.1	1,405.1	1,394.9	10.26	136.994		
1,600.0	1,598.6	1,529.6	1,529.6	6.7	6.4	115.87	1,023.7	-947.1	1,409.1	1,398.2	10.97	128.451		
1,700.0	1,698.2	1,629.2	1,629.2	7.1	6.8	116.21	1,023.7	-947.1	1,413.2	1,401.5	11.69	120.918		
1,800.0	1,797.8	1,728.8	1,728.8	7.4	7.1	116.54	1,023.7	-947.1	1,417.3	1,404.9	12.41	114.232		
1,900.0	1,897.3	1,828.3	1,828.3	7.7	7.5	116.87	1,023.7	-947.1	1,421.5	1,408.3	13.13	108.263		
2,000.0	1,996.9	1,927.9	1,927.9	8.1	7.9	117.20	1,023.7	-947.1	1,425.7	1,411.8	13.85	102.906		
2,100.0	2,096.5	2,027.5	2,027.5	8.4	8.2	117.53	1,023.7	-947.1	1,429.9	1,415.3	14.58	98.072		
2,200.0	2,196.1	2,127.1	2,127.1	8.7	8.6	117.85	1,023.7	-947.1	1,434.2	1,418.9	15.31	93.691		
2,300.0	2,295.6	2,226.6	2,226.6	9.1	8.9	118.18	1,023.7	-947.1	1,438.6	1,422.5	16.04	89.705		
2,400.0	2,395.2	2,326.2	2,326.2	9.4	9.3	118.50	1,023.7	-947.1	1,443.0	1,426.2	16.77	86.062		
2,500.0	2,494.8	2,425.8	2,425.8	9.8	9.7	118.82	1,023.7	-947.1	1,447.4	1,429.9	17.50	82.721		
2,600.0	2,594.4	2,525.4	2,525.4	10.1	10.0	119.14	1,023.7	-947.1	1,451.9	1,433.6	18.23	79.648		
2,700.0	2,693.9	2,624.9	2,624.9	10.5	10.4	119.45	1,023.7	-947.1	1,456.4	1,437.4	18.96	76.812		
2,800.0	2,793.5	2,724.5	2,724.5	10.9	10.7	119.76	1,023.7	-947.1	1,461.0	1,441.3	19.69	74.187		
2,900.0	2,893.1	2,824.1	2,824.1	11.2	11.1	120.08	1,023.7	-947.1	1,465.6	1,445.2	20.43	71.750		
3,000.0	2,992.7	2,923.7	2,923.7	11.6	11.4	120.39	1,023.7	-947.1	1,470.2	1,449.1	21.16	69.484		
3,100.0	3,092.2	3,023.2	3,023.2	11.9	11.8	120.69	1,023.7	-947.1	1,474.9	1,453.0	21.89	67.370		
3,200.0	3,191.8	3,122.8	3,122.8	12.3	12.2	121.00	1,023.7	-947.1	1,479.7	1,457.1	22.63	65.394		
3,300.0	3,291.4	3,222.4	3,222.4	12.7	12.5	121.30	1,023.7	-947.1	1,484.5	1,461.1	23.36	63.544		
3,400.0	3,391.0	3,322.0	3,322.0	13.0	12.9	121.61	1,023.7	-947.1	1,489.3	1,465.2	24.10	61.807		
3,500.0	3,490.5	3,421.5	3,421.5	13.4	13.2	121.91	1,023.7	-947.1	1,494.2	1,469.3	24.83	60.175		
3,600.0	3,590.1	3,521.1	3,521.1	13.8	13.6	122.21	1,023.7	-947.1	1,499.1	1,473.5	25.56	58.638		
3,700.0	3,689.7	3,620.7	3,620.7	14.2	14.0	122.50	1,023.7	-947.1	1,504.0	1,477.7	26.30	57.188		
3,800.0	3,789.2	3,720.2	3,720.2	14.5	14.3	122.80	1,023.7	-947.1	1,509.0	1,482.0	27.03	55.818		
3,900.0	3,888.8	3,819.8	3,819.8	14.9	14.7	123.09	1,023.7	-947.1	1,514.0	1,486.3	27.77	54.522		
4,000.0	3,988.4	3,919.4	3,919.4	15.3	15.0	123.38	1,023.7	-947.1	1,519.1	1,490.6	28.50	53.294		
4,100.0	4,088.0	4,019.0	4,019.0	15.7	15.4	123.67	1,023.7	-947.1	1,524.2	1,495.0	29.24	52.129		
4,200.0	4,187.5	4,118.5	4,118.5	16.0	15.7	123.95	1,023.7	-947.1	1,529.4	1,499.4	29.97	51.023		
4,300.0	4,287.1	4,218.1	4,218.1	16.4	16.1	124.24	1,023.7	-947.1	1,534.5	1,503.8	30.71	49.970		
4,400.0	4,386.7	4,317.7	4,317.7	16.8	16.5	124.52	1,023.7	-947.1	1,539.8	1,508.3	31.44	48.969		
4,500.0	4,486.3	4,417.3	4,417.3	17.2	16.8	124.80	1,023.7	-947.1	1,545.0	1,512.8	32.18	48.014		
4,600.0	4,585.8	4,516.8	4,516.8	17.6	17.2	125.08	1,023.7	-947.1	1,550.3	1,517.4	32.91	47.103		
4,700.0	4,685.4	4,616.4	4,616.4	17.9	17.5	125.36	1,023.7	-947.1	1,555.7	1,522.0	33.65	46.233		
4,800.0	4,785.0	4,716.0	4,716.0	18.3	17.9	125.63	1,023.7	-947.1	1,561.0	1,526.6	34.38	45.401		
4,900.0	4,884.6	4,815.6	4,815.6	18.7	18.2	125.91	1,023.7	-947.1	1,566.4	1,531.3	35.12	44.605		
5,000.0	4,984.1	4,915.1	4,915.1	19.1	18.6	126.18	1,023.7	-947.1	1,571.9	1,536.0	35.85	43.843		
5,100.0	5,083.7	5,014.7	5,014.7	19.5	19.0	126.45	1,023.7	-947.1	1,577.3	1,540.8	36.59	43.113		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,183.3	5,114.3	5,114.3	19.9	19.3	126.72	1,023.7	-947.1	1,582.9	1,545.5	37.32	42.412		
5,300.0	5,282.9	5,213.9	5,213.9	20.2	19.7	126.98	1,023.7	-947.1	1,588.4	1,550.3	38.05	41.740		
5,400.0	5,382.4	5,313.4	5,313.4	20.6	20.0	127.25	1,023.7	-947.1	1,594.0	1,555.2	38.79	41.094		
5,500.0	5,482.0	5,413.0	5,413.0	21.0	20.4	127.51	1,023.7	-947.1	1,599.6	1,560.1	39.52	40.472		
5,600.0	5,581.6	5,512.6	5,512.6	21.4	20.7	127.77	1,023.7	-947.1	1,605.2	1,565.0	40.26	39.875		
5,700.0	5,681.2	5,612.2	5,612.2	21.8	21.1	128.03	1,023.7	-947.1	1,610.9	1,569.9	40.99	39.300		
5,800.0	5,780.7	5,711.7	5,711.7	22.2	21.5	128.28	1,023.7	-947.1	1,616.6	1,574.9	41.72	38.746		
5,900.0	5,880.3	5,811.3	5,811.3	22.6	21.8	128.54	1,023.7	-947.1	1,622.4	1,579.9	42.46	38.211		
6,000.0	5,979.9	5,910.9	5,910.9	22.9	22.2	128.79	1,023.7	-947.1	1,628.1	1,585.0	43.19	37.696		
6,100.0	6,079.5	6,010.5	6,010.5	23.3	22.5	129.04	1,023.7	-947.1	1,634.0	1,590.0	43.92	37.199		
6,200.0	6,179.0	6,110.0	6,110.0	23.7	22.9	129.29	1,023.7	-947.1	1,639.8	1,595.1	44.66	36.719		
6,300.0	6,278.6	6,209.6	6,209.6	24.1	23.2	129.54	1,023.7	-947.1	1,645.7	1,600.3	45.39	36.255		
6,400.0	6,378.2	6,309.2	6,309.2	24.5	23.6	129.79	1,023.7	-947.1	1,651.6	1,605.4	46.12	35.807		
6,500.0	6,477.7	6,408.7	6,408.7	24.9	24.0	130.03	1,023.7	-947.1	1,657.5	1,610.6	46.86	35.374		
6,600.0	6,577.3	6,508.3	6,508.3	25.3	24.3	130.27	1,023.7	-947.1	1,663.5	1,615.9	47.59	34.955		
6,700.0	6,677.0	6,608.0	6,608.0	25.7	24.7	70.26	1,023.7	-947.1	1,667.8	1,619.4	48.33	34.508		
6,800.0	6,776.5	6,707.5	6,707.5	26.0	25.0	-14.77	1,023.7	-947.1	1,658.8	1,609.6	49.14	33.754		
6,900.0	6,873.0	6,804.0	6,804.0	26.2	25.4	-22.16	1,023.7	-947.1	1,634.4	1,584.5	49.98	32.702		
7,000.0	6,963.6	6,894.6	6,894.6	26.4	25.7	-26.80	1,023.7	-947.1	1,595.7	1,545.0	50.72	31.460		
7,100.0	7,045.6	6,976.6	6,976.6	26.6	26.0	-32.02	1,023.7	-947.1	1,543.9	1,492.6	51.33	30.076		
7,200.0	7,116.5	7,047.5	7,047.5	26.8	26.3	-38.99	1,023.7	-947.1	1,481.0	1,429.2	51.80	28.592		
7,300.0	7,174.1	7,105.1	7,105.1	27.0	26.5	-48.56	1,023.7	-947.1	1,409.4	1,357.3	52.12	27.039		
7,400.0	7,216.6	7,147.6	7,147.6	27.2	26.6	-61.11	1,023.7	-947.1	1,331.8	1,279.5	52.33	25.451		
7,500.0	7,242.9	7,173.9	7,173.9	27.5	26.7	-75.67	1,023.7	-947.1	1,251.4	1,199.0	52.45	23.860		
7,600.0	7,252.0	7,183.0	7,183.0	27.8	26.7	-89.69	1,023.7	-947.1	1,171.3	1,118.8	52.52	22.301		
7,700.0	7,252.0	7,183.0	7,183.0	28.1	26.7	-90.00	1,023.7	-947.1	1,094.3	1,041.6	52.64	20.786		
7,800.0	7,252.0	7,183.0	7,183.0	28.6	26.7	-90.00	1,023.7	-947.1	1,021.2	968.3	52.89	19.307		
7,900.0	7,252.0	7,183.0	7,183.0	29.2	26.7	-90.00	1,023.7	-947.1	952.9	899.6	53.30	17.877		
8,000.0	7,252.0	7,183.0	7,183.0	29.9	26.7	-90.00	1,023.7	-947.1	890.8	836.8	53.94	16.515		
8,100.0	7,252.0	7,183.0	7,183.0	30.7	26.7	-90.00	1,023.7	-947.1	835.9	781.1	54.83	15.247		
8,200.0	7,252.0	7,183.0	7,183.0	31.5	26.7	-90.00	1,023.7	-947.1	790.0	734.0	55.99	14.110		
8,300.0	7,252.0	7,183.0	7,183.0	32.4	26.7	-90.00	1,023.7	-947.1	754.7	697.3	57.40	13.147		
8,400.0	7,252.0	7,183.0	7,183.0	33.4	26.7	-90.00	1,023.7	-947.1	731.3	672.4	58.97	12.402		
8,500.0	7,252.0	7,183.0	7,183.0	34.5	26.7	-90.00	1,023.7	-947.1	721.3	660.7	60.54	11.913		
8,523.2	7,252.0	7,183.0	7,183.0	34.7	26.7	-90.00	1,023.7	-947.1	720.9	660.0	60.90	11.838 CC, ES		
8,600.0	7,252.0	7,183.0	7,183.0	35.6	26.7	-90.00	1,023.7	-947.1	725.0	663.0	61.96	11.700 SF		
8,700.0	7,252.0	7,183.0	7,183.0	36.8	26.7	-90.00	1,023.7	-947.1	742.2	679.1	63.10	11.762		
8,800.0	7,252.0	7,183.0	7,183.0	38.0	26.7	-90.00	1,023.7	-947.1	772.2	708.3	63.90	12.084		
8,900.0	7,252.0	7,183.0	7,183.0	39.2	26.7	-90.00	1,023.7	-947.1	813.4	749.0	64.37	12.636		
9,000.0	7,252.0	7,183.0	7,183.0	40.5	26.7	-90.00	1,023.7	-947.1	864.3	799.7	64.57	13.386		
9,100.0	7,252.0	7,183.0	7,183.0	41.9	26.7	-90.00	1,023.7	-947.1	923.2	858.7	64.56	14.300		
9,200.0	7,252.0	7,183.0	7,183.0	43.2	26.7	-90.00	1,023.7	-947.1	988.8	924.4	64.42	15.349		
9,300.0	7,252.0	7,183.0	7,183.0	44.6	26.7	-90.00	1,023.7	-947.1	1,059.7	995.5	64.20	16.507		
9,400.0	7,252.0	7,183.0	7,183.0	46.0	26.7	-90.00	1,023.7	-947.1	1,135.1	1,071.1	63.93	17.755		
9,500.0	7,252.0	7,183.0	7,183.0	47.5	26.7	-90.00	1,023.7	-947.1	1,214.0	1,150.3	63.64	19.075		
9,600.0	7,252.0	7,183.0	7,183.0	48.9	26.7	-90.00	1,023.7	-947.1	1,295.8	1,232.4	63.35	20.453		
9,700.0	7,252.0	7,183.0	7,183.0	50.4	26.7	-90.00	1,023.7	-947.1	1,380.0	1,316.9	63.07	21.880		
9,800.0	7,252.0	7,183.0	7,183.0	51.9	26.7	-90.00	1,023.7	-947.1	1,466.2	1,403.4	62.80	23.346		
9,900.0	7,252.0	7,183.0	7,183.0	53.4	26.7	-90.00	1,023.7	-947.1	1,554.1	1,491.5	62.55	24.845		
10,000.0	7,252.0	7,183.0	7,183.0	54.9	26.7	-90.00	1,023.7	-947.1	1,643.3	1,581.0	62.32	26.370		
10,100.0	7,252.0	7,183.0	7,183.0	56.5	26.7	-90.00	1,023.7	-947.1	1,733.7	1,671.6	62.10	27.919		
10,200.0	7,252.0	7,183.0	7,183.0	58.0	26.7	-90.00	1,023.7	-947.1	1,825.2	1,763.3	61.90	29.486		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)												Offset Site Error:	0.0 usft
Survey Program: 100-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,300.0	7,252.0	7,183.0	7,183.0	59.6	26.7	-90.00	1,023.7	-947.1	1,917.4	1,855.7	61.72	31.069	
10,400.0	7,252.0	7,183.0	7,183.0	61.2	26.7	-90.00	1,023.7	-947.1	2,010.4	1,948.9	61.55	32.665	
10,500.0	7,252.0	7,183.0	7,183.0	62.8	26.7	-90.00	1,023.7	-947.1	2,104.1	2,042.7	61.39	34.273	
10,600.0	7,252.0	7,183.0	7,183.0	64.4	26.7	-90.00	1,023.7	-947.1	2,198.3	2,137.1	61.25	35.890	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 13' KB @ 5155.0usft

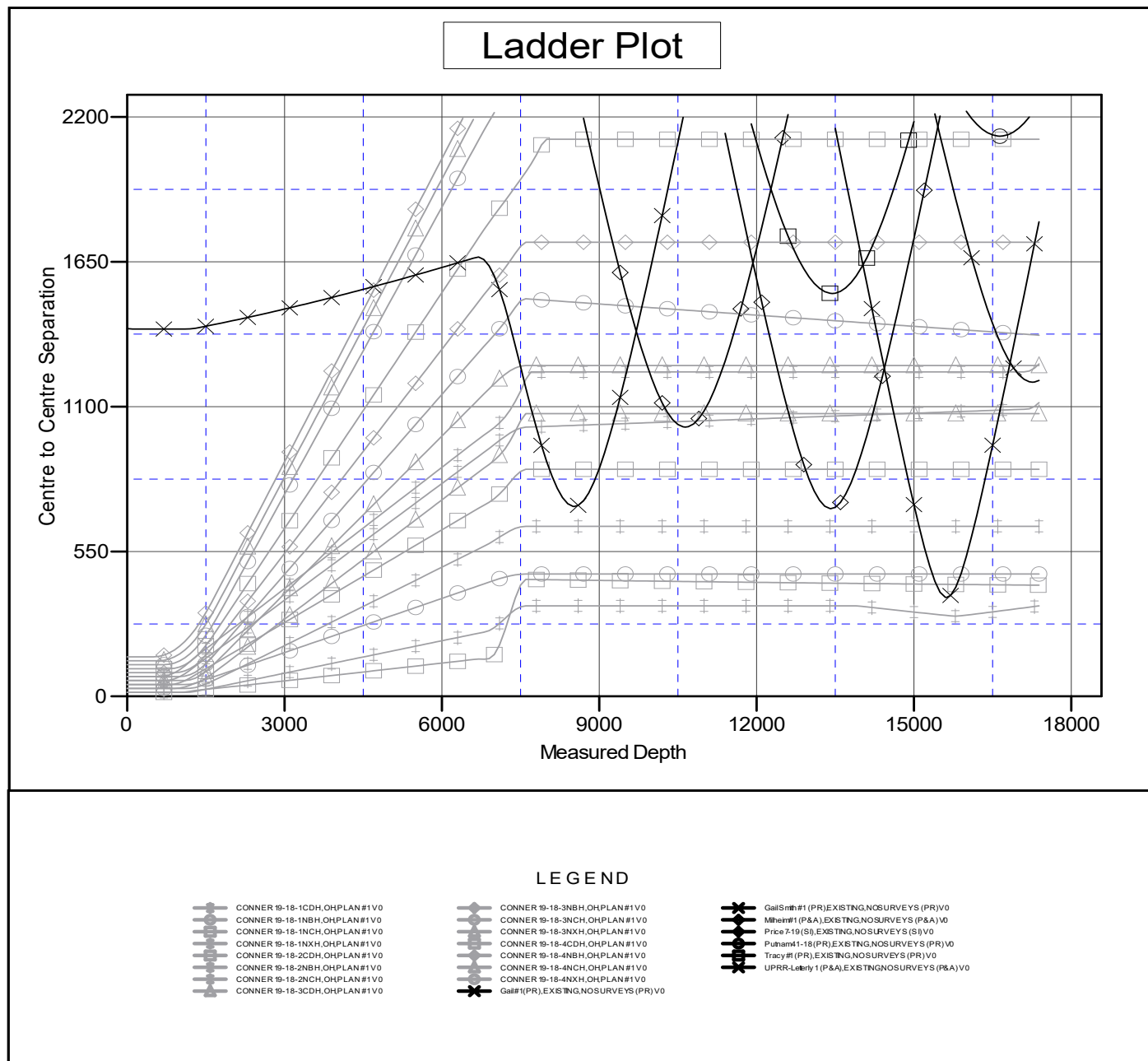
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: CONNER 19-18-2NXH

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.51°



Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NXH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-2NXH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 13' KB @ 5155.0usft

Offset Depths are relative to Offset Datum

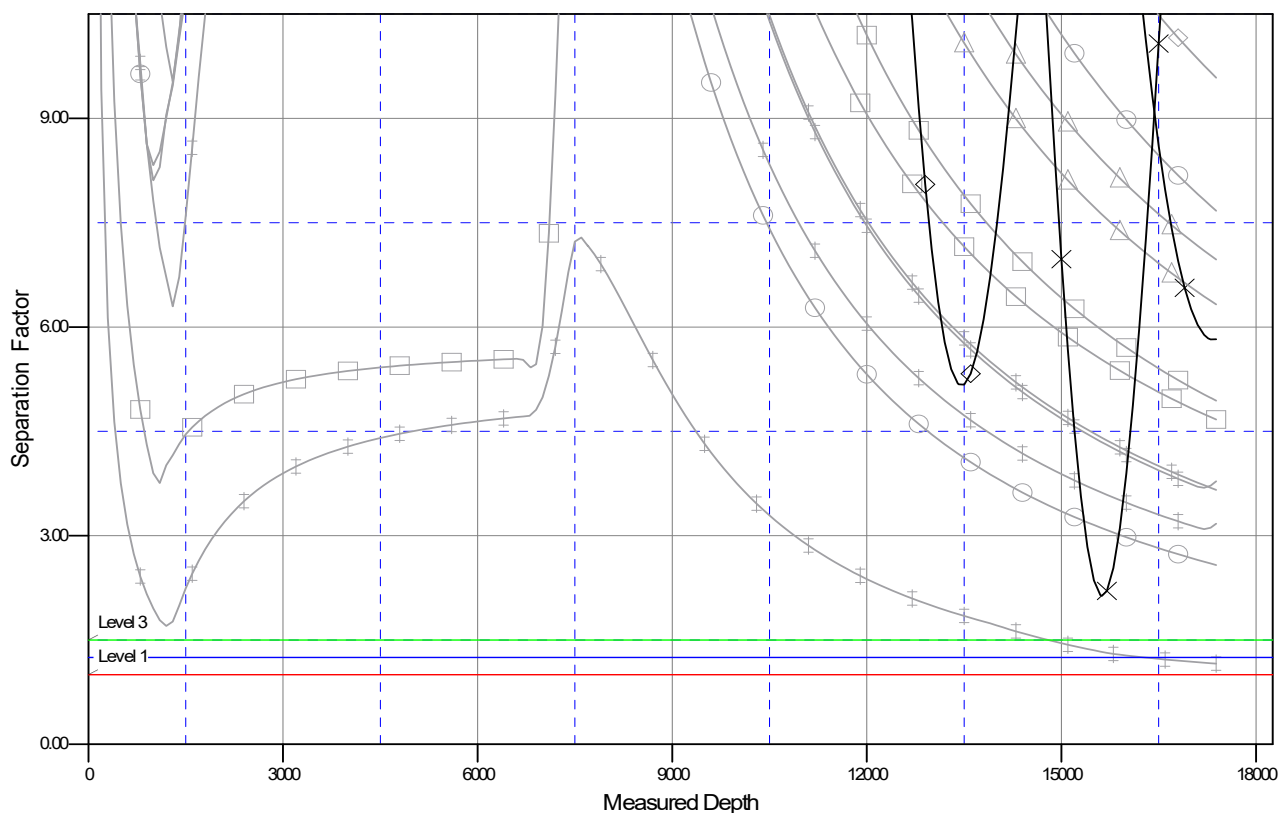
Central Meridian is -105.500000

Coordinates are relative to: CONNER 19-18-2NXH

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.51°







Separation Factor Plot



LEGEND

 CONNER 19-18-1CDH.OHPLAN#1V0
 CONNER 19-18-1NBH.OHPLAN#1V0
 CONNER 19-18-1NCH.OHPLAN#1V0
 CONNER 19-18-1NXH.OHPLAN#1V0
 CONNER 19-18-2CDH.OHPLAN#1V0
 CONNER 19-18-2NBH.OHPLAN#1V0
 CONNER 19-18-2NCH.OHPLAN#1V0
 CONNER 19-18-3CDH.OHPLAN#1V0

 CONNER 19-18-3NBH.OHPLAN#1V0
 CONNER 19-18-3NCH.OHPLAN#1V0
 CONNER 19-18-3NXH.OHPLAN#1V0
 CONNER 19-18-4CDH.OHPLAN#1V0
 CONNER 19-18-4NBH.OHPLAN#1V0
 CONNER 19-18-4NCH.OHPLAN#1V0
 CONNER 19-18-4NXH.OHPLAN#1V0
 Gal#1(PR).EXISTING.NOSURVEYS (PR)V0

 GalSmb#1 (PR).EXISTING.NOSURVEYS (PR)V0
 Minn#1 (P&A).EXISTING.NOSURVEYS (P&A)V0
 Price7-19 (S).EXISTING.NOSURVEYS (S)V0
 Putnam1-18 (PR).EXISTING.NOSURVEYS (PR)V0
 Tracy#1 (PR).EXISTING.NOSURVEYS (PR)V0
 UPRR-Leddy 1 (P&A).EXISTING.NOSURVEYS (P&A)V0