



PetroShare Corp

Project: ADAMS COUNTY, CO
Site: S19-T1S-R65W
Well: CONNER 19-18-1NCH
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: 7.30°

Magnetic Field
Strength: 51747.7nT
Dip Angle: 66.31°
Date: 3/5/2021
Model: IGRF2020

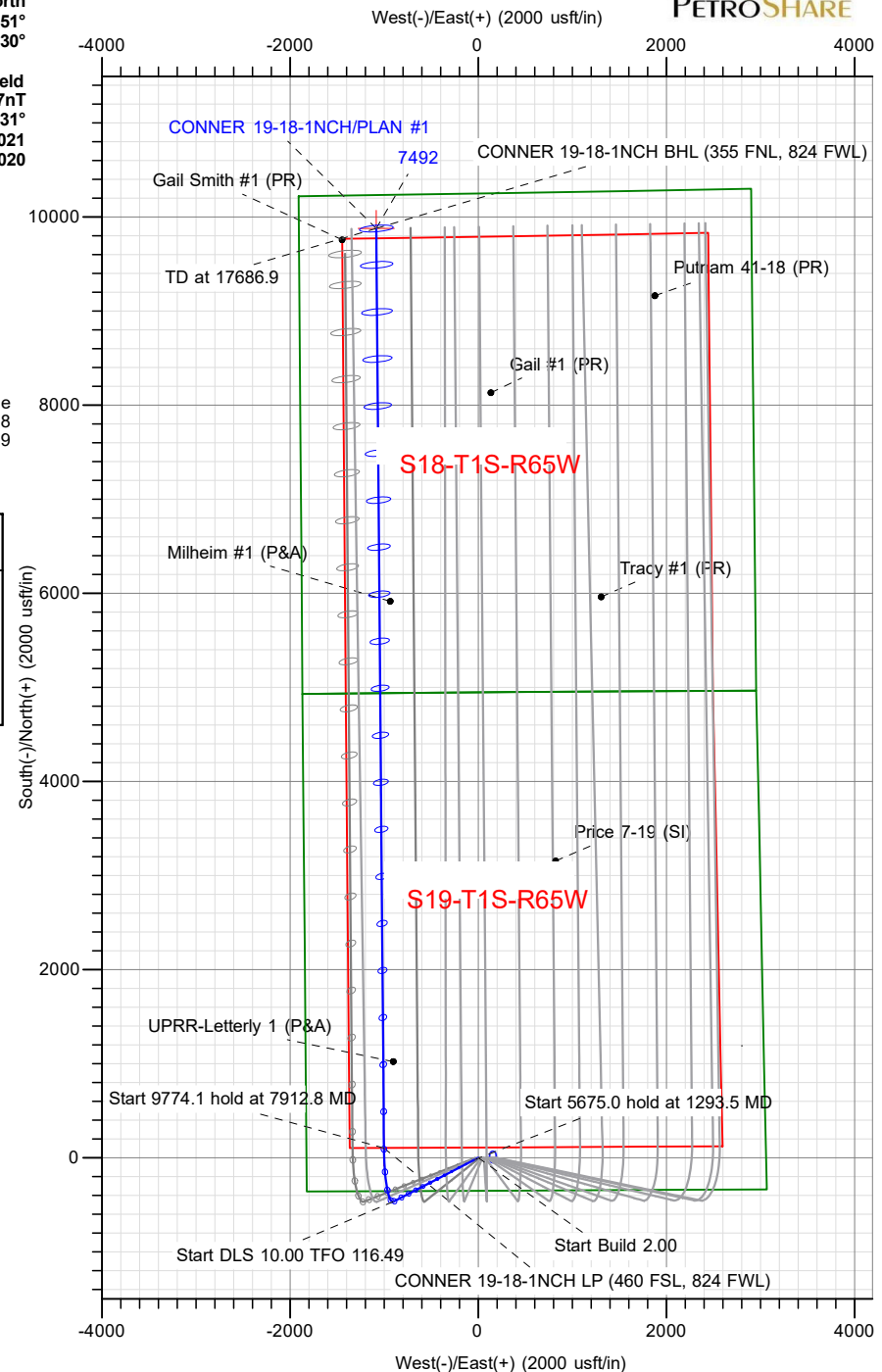
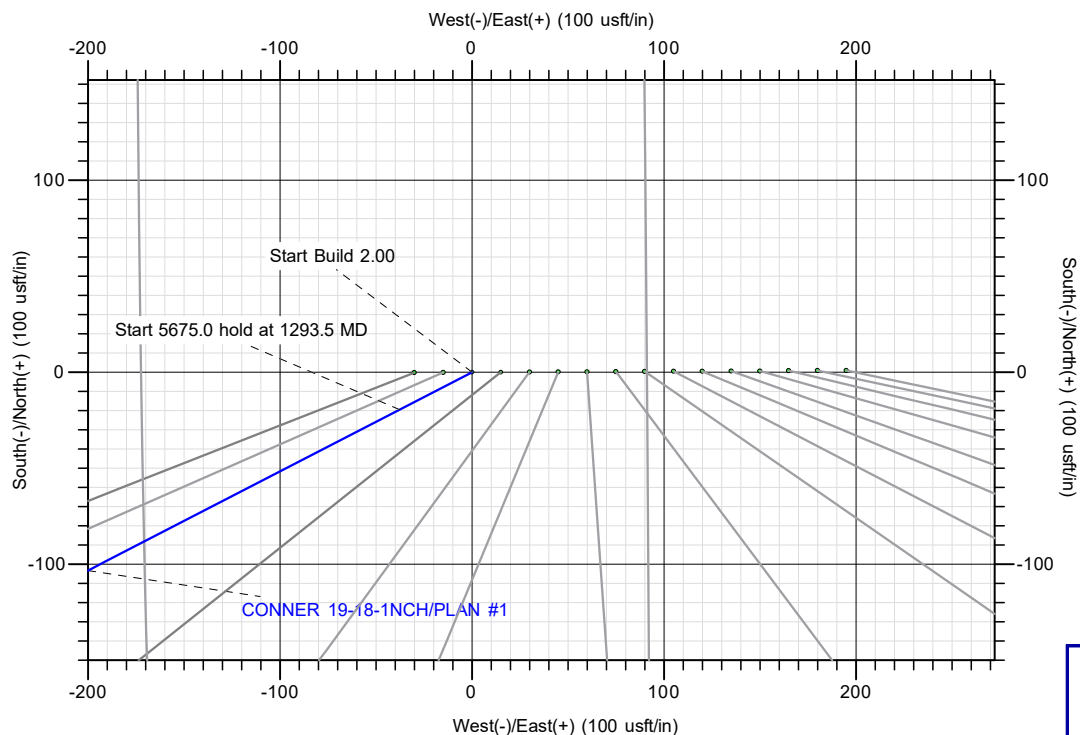


DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CONNER 19-18-1NCH BHL (355 FNL, 824 FWL)	7492.0	9878.6	-1082.3	1233433.15	3220957.61	39.971461	-104.711618
CONNER 19-18-1NCH LP (460 FSL, 824 FWL)	7492.0	104.8	-1001.4	1223659.35	3221038.46	39.944629	-104.711639

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1293.5	9.87	242.70	1291.0	-19.4	-37.7	2.00	242.70	-19.1	
4	6968.4	9.87	242.70	6882.0	-465.6	-902.0	0.00	0.00	-458.2	
5	7912.8	90.00	359.53	7492.0	104.8	-1001.4	10.00	116.49	113.0	CONNER 19-18-1NCH LP (460 FSL, 824 FWL)
6	17686.9	90.00	359.53	7492.0	9878.6	-1082.3	0.00	0.00	9887.2	CONNER 19-18-1NCH BHL (355 FNL, 824 FWL)



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

Plan: PLAN #1 (CONNER 19-18-1NCH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 15:03, March 12 2021
Approved: _____
Date: _____



PetroShare Corp

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



Azimuths to Grid North
True North: -0.51°
Magnetic North: 7.30°

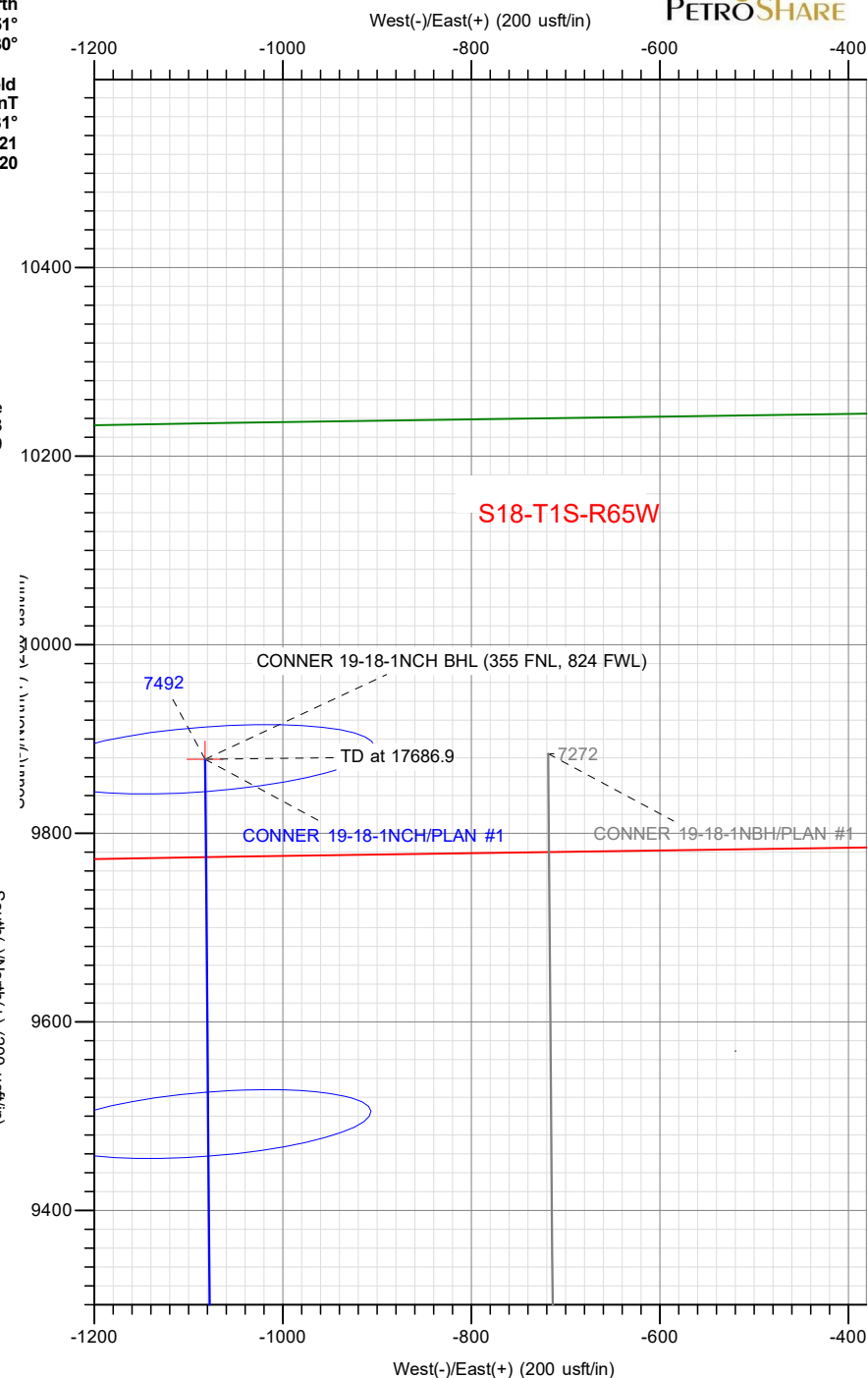
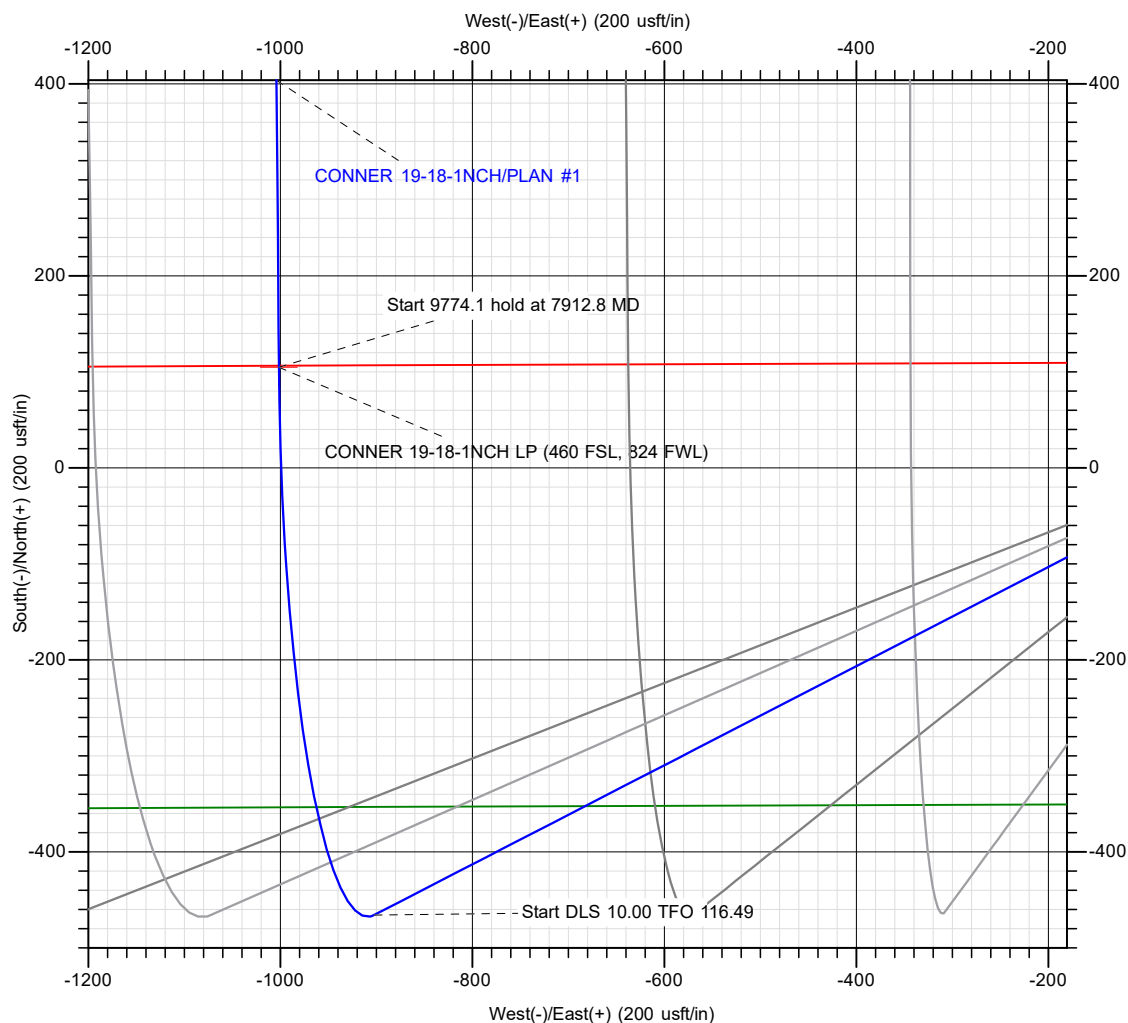
Magnetic Field
Strength: 51747.7nT
Dip Angle: 66.31°
Date: 3/5/2021
Model: IGRF2020



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 19-18-1NCH BHL (355 FNL, 824 FWL)	7492.0	9878.6	-1082.3	1233433.15	3220957.61	39.971461	-104.711618
CONNER 19-18-1NCH LP (460 FSL, 824 FWL)	7492.0	104.8	-1001.4	1223659.35	3221038.46	39.944629	-104.711639



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

Plan: PLAN #1 (CONNER 19-18-1NCH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 15:05, March 12 2021
Approved: _____
Date: _____



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-1NCH

OH

Plan: PLAN #1

Standard Planning Report

12 March, 2021



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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 19-18-1NCH					
Well Position	+N/-S	0.2 usft	Northing:	1,223,554.54 usft	Latitude:	39.944317
	+E/-W	30.0 usft	Easting:	3,222,039.89 usft	Longitude:	-104.708071
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)
	IGRF2020	3/5/2021	7.81	66.31	51,747.72795269

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	359.53

Plan Survey Tool Program	Date	3/12/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,686.9	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	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,293.5	9.87	242.70	1,291.0	-19.4	-37.7	2.00	2.00	0.00	242.70	
6,968.4	9.87	242.70	6,882.0	-465.6	-902.0	0.00	0.00	0.00	0.00	
7,912.8	90.00	359.53	7,492.0	104.8	-1,001.4	10.00	8.49	12.37	116.49	CONNER 19-18-1NC
17,686.9	90.00	359.53	7,492.0	9,878.6	-1,082.3	0.00	0.00	0.00	0.00	CONNER 19-18-1NC

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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	2.00	242.70	900.0	-0.8	-1.6	-0.8	2.00	2.00	0.00
1,000.0	4.00	242.70	999.8	-3.2	-6.2	-3.2	2.00	2.00	0.00
1,100.0	6.00	242.70	1,099.5	-7.2	-13.9	-7.1	2.00	2.00	0.00
1,200.0	8.00	242.70	1,198.7	-12.8	-24.8	-12.6	2.00	2.00	0.00
1,293.5	9.87	242.70	1,291.0	-19.4	-37.7	-19.1	2.00	2.00	0.00
1,300.0	9.87	242.70	1,297.5	-20.0	-38.7	-19.6	0.00	0.00	0.00
1,400.0	9.87	242.70	1,396.0	-27.8	-53.9	-27.4	0.00	0.00	0.00
1,500.0	9.87	242.70	1,494.5	-35.7	-69.1	-35.1	0.00	0.00	0.00
1,600.0	9.87	242.70	1,593.0	-43.5	-84.4	-42.9	0.00	0.00	0.00
1,700.0	9.87	242.70	1,691.5	-51.4	-99.6	-50.6	0.00	0.00	0.00
1,800.0	9.87	242.70	1,790.1	-59.3	-114.8	-58.3	0.00	0.00	0.00
1,900.0	9.87	242.70	1,888.6	-67.1	-130.1	-66.1	0.00	0.00	0.00
2,000.0	9.87	242.70	1,987.1	-75.0	-145.3	-73.8	0.00	0.00	0.00
2,100.0	9.87	242.70	2,085.6	-82.9	-160.5	-81.5	0.00	0.00	0.00
2,200.0	9.87	242.70	2,184.1	-90.7	-175.7	-89.3	0.00	0.00	0.00
2,300.0	9.87	242.70	2,282.7	-98.6	-191.0	-97.0	0.00	0.00	0.00
2,400.0	9.87	242.70	2,381.2	-106.4	-206.2	-104.8	0.00	0.00	0.00
2,500.0	9.87	242.70	2,479.7	-114.3	-221.4	-112.5	0.00	0.00	0.00
2,600.0	9.87	242.70	2,578.2	-122.2	-236.7	-120.2	0.00	0.00	0.00
2,700.0	9.87	242.70	2,676.7	-130.0	-251.9	-128.0	0.00	0.00	0.00
2,800.0	9.87	242.70	2,775.3	-137.9	-267.1	-135.7	0.00	0.00	0.00
2,900.0	9.87	242.70	2,873.8	-145.8	-282.4	-143.4	0.00	0.00	0.00
3,000.0	9.87	242.70	2,972.3	-153.6	-297.6	-151.2	0.00	0.00	0.00
3,100.0	9.87	242.70	3,070.8	-161.5	-312.8	-158.9	0.00	0.00	0.00
3,200.0	9.87	242.70	3,169.3	-169.3	-328.1	-166.6	0.00	0.00	0.00
3,300.0	9.87	242.70	3,267.9	-177.2	-343.3	-174.4	0.00	0.00	0.00
3,400.0	9.87	242.70	3,366.4	-185.1	-358.5	-182.1	0.00	0.00	0.00
3,500.0	9.87	242.70	3,464.9	-192.9	-373.7	-189.9	0.00	0.00	0.00
3,600.0	9.87	242.70	3,563.4	-200.8	-389.0	-197.6	0.00	0.00	0.00
3,700.0	9.87	242.70	3,661.9	-208.7	-404.2	-205.3	0.00	0.00	0.00
3,800.0	9.87	242.70	3,760.5	-216.5	-419.4	-213.1	0.00	0.00	0.00
3,900.0	9.87	242.70	3,859.0	-224.4	-434.7	-220.8	0.00	0.00	0.00
4,000.0	9.87	242.70	3,957.5	-232.2	-449.9	-228.5	0.00	0.00	0.00
4,100.0	9.87	242.70	4,056.0	-240.1	-465.1	-236.3	0.00	0.00	0.00
4,200.0	9.87	242.70	4,154.5	-248.0	-480.4	-244.0	0.00	0.00	0.00
4,300.0	9.87	242.70	4,253.1	-255.8	-495.6	-251.8	0.00	0.00	0.00
4,400.0	9.87	242.70	4,351.6	-263.7	-510.8	-259.5	0.00	0.00	0.00
4,500.0	9.87	242.70	4,450.1	-271.6	-526.0	-267.2	0.00	0.00	0.00
4,600.0	9.87	242.70	4,548.6	-279.4	-541.3	-275.0	0.00	0.00	0.00
4,700.0	9.87	242.70	4,647.2	-287.3	-556.5	-282.7	0.00	0.00	0.00
4,800.0	9.87	242.70	4,745.7	-295.1	-571.7	-290.4	0.00	0.00	0.00
4,900.0	9.87	242.70	4,844.2	-303.0	-587.0	-298.2	0.00	0.00	0.00
5,000.0	9.87	242.70	4,942.7	-310.9	-602.2	-305.9	0.00	0.00	0.00
5,100.0	9.87	242.70	5,041.2	-318.7	-617.4	-313.7	0.00	0.00	0.00
5,200.0	9.87	242.70	5,139.8	-326.6	-632.7	-321.4	0.00	0.00	0.00

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Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-1NCH	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	9.87	242.70	5,238.3	-334.5	-647.9	-329.1	0.00	0.00	0.00
5,400.0	9.87	242.70	5,336.8	-342.3	-663.1	-336.9	0.00	0.00	0.00
5,500.0	9.87	242.70	5,435.3	-350.2	-678.4	-344.6	0.00	0.00	0.00
5,600.0	9.87	242.70	5,533.8	-358.0	-693.6	-352.3	0.00	0.00	0.00
5,700.0	9.87	242.70	5,632.4	-365.9	-708.8	-360.1	0.00	0.00	0.00
5,800.0	9.87	242.70	5,730.9	-373.8	-724.0	-367.8	0.00	0.00	0.00
5,900.0	9.87	242.70	5,829.4	-381.6	-739.3	-375.5	0.00	0.00	0.00
6,000.0	9.87	242.70	5,927.9	-389.5	-754.5	-383.3	0.00	0.00	0.00
6,100.0	9.87	242.70	6,026.4	-397.3	-769.7	-391.0	0.00	0.00	0.00
6,200.0	9.87	242.70	6,125.0	-405.2	-785.0	-398.8	0.00	0.00	0.00
6,300.0	9.87	242.70	6,223.5	-413.1	-800.2	-406.5	0.00	0.00	0.00
6,400.0	9.87	242.70	6,322.0	-420.9	-815.4	-414.2	0.00	0.00	0.00
6,500.0	9.87	242.70	6,420.5	-428.8	-830.7	-422.0	0.00	0.00	0.00
6,600.0	9.87	242.70	6,519.0	-436.7	-845.9	-429.7	0.00	0.00	0.00
6,700.0	9.87	242.70	6,617.6	-444.5	-861.1	-437.4	0.00	0.00	0.00
6,800.0	9.87	242.70	6,716.1	-452.4	-876.4	-445.2	0.00	0.00	0.00
6,900.0	9.87	242.70	6,814.6	-460.2	-891.6	-452.9	0.00	0.00	0.00
6,968.4	9.87	242.70	6,882.0	-465.6	-902.0	-458.2	0.00	0.00	0.00
7,000.0	8.92	261.23	6,913.2	-467.2	-906.8	-459.8	10.00	-3.02	58.74
7,100.0	12.38	314.52	7,011.6	-460.9	-922.2	-453.3	10.00	3.46	53.28
7,200.0	20.63	335.17	7,107.5	-437.3	-937.3	-429.6	10.00	8.25	20.65
7,300.0	29.93	343.88	7,197.9	-397.3	-951.6	-389.5	10.00	9.31	8.72
7,400.0	39.56	348.69	7,280.0	-341.9	-964.8	-334.0	10.00	9.62	4.81
7,500.0	49.31	351.86	7,351.3	-273.0	-976.5	-265.0	10.00	9.75	3.16
7,600.0	59.13	354.20	7,409.7	-192.6	-986.2	-184.5	10.00	9.82	2.35
7,700.0	68.98	356.11	7,453.4	-103.1	-993.7	-94.9	10.00	9.85	1.91
7,800.0	78.85	357.77	7,481.1	-7.3	-998.8	0.9	10.00	9.87	1.67
7,900.0	88.73	359.33	7,491.9	92.0	-1,001.3	100.2	10.00	9.88	1.56
7,912.8	90.00	359.53	7,492.0	104.8	-1,001.4	113.0	10.00	9.88	1.53
CONNER 19-18-1NCH LP (460 FSL, 824 FWL)									
8,000.0	90.00	359.53	7,492.0	192.0	-1,002.2	200.2	0.00	0.00	0.00
8,100.0	90.00	359.53	7,492.0	292.0	-1,003.0	300.2	0.00	0.00	0.00
8,200.0	90.00	359.53	7,492.0	392.0	-1,003.8	400.2	0.00	0.00	0.00
8,300.0	90.00	359.53	7,492.0	492.0	-1,004.6	500.2	0.00	0.00	0.00
8,400.0	90.00	359.53	7,492.0	592.0	-1,005.5	600.2	0.00	0.00	0.00
8,500.0	90.00	359.53	7,492.0	692.0	-1,006.3	700.2	0.00	0.00	0.00
8,600.0	90.00	359.53	7,492.0	792.0	-1,007.1	800.2	0.00	0.00	0.00
8,700.0	90.00	359.53	7,492.0	892.0	-1,007.9	900.2	0.00	0.00	0.00
8,800.0	90.00	359.53	7,492.0	992.0	-1,008.8	1,000.2	0.00	0.00	0.00
8,900.0	90.00	359.53	7,492.0	1,092.0	-1,009.6	1,100.2	0.00	0.00	0.00
9,000.0	90.00	359.53	7,492.0	1,192.0	-1,010.4	1,200.2	0.00	0.00	0.00
9,100.0	90.00	359.53	7,492.0	1,292.0	-1,011.3	1,300.2	0.00	0.00	0.00
9,200.0	90.00	359.53	7,492.0	1,392.0	-1,012.1	1,400.2	0.00	0.00	0.00
9,300.0	90.00	359.53	7,492.0	1,491.9	-1,012.9	1,500.2	0.00	0.00	0.00
9,400.0	90.00	359.53	7,492.0	1,591.9	-1,013.7	1,600.2	0.00	0.00	0.00
9,500.0	90.00	359.53	7,492.0	1,691.9	-1,014.6	1,700.2	0.00	0.00	0.00
9,600.0	90.00	359.53	7,492.0	1,791.9	-1,015.4	1,800.2	0.00	0.00	0.00
9,700.0	90.00	359.53	7,492.0	1,891.9	-1,016.2	1,900.2	0.00	0.00	0.00
9,800.0	90.00	359.53	7,492.0	1,991.9	-1,017.0	2,000.2	0.00	0.00	0.00
9,900.0	90.00	359.53	7,492.0	2,091.9	-1,017.9	2,100.2	0.00	0.00	0.00
10,000.0	90.00	359.53	7,492.0	2,191.9	-1,018.7	2,200.2	0.00	0.00	0.00
10,100.0	90.00	359.53	7,492.0	2,291.9	-1,019.5	2,300.2	0.00	0.00	0.00
10,200.0	90.00	359.53	7,492.0	2,391.9	-1,020.3	2,400.2	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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	7,492.0	2,491.9	-1,021.2	2,500.2	0.00	0.00	0.00	
10,400.0	90.00	359.53	7,492.0	2,591.9	-1,022.0	2,600.2	0.00	0.00	0.00	
10,500.0	90.00	359.53	7,492.0	2,691.9	-1,022.8	2,700.2	0.00	0.00	0.00	
10,600.0	90.00	359.53	7,492.0	2,791.9	-1,023.7	2,800.2	0.00	0.00	0.00	
10,700.0	90.00	359.53	7,492.0	2,891.9	-1,024.5	2,900.2	0.00	0.00	0.00	
10,800.0	90.00	359.53	7,492.0	2,991.9	-1,025.3	3,000.2	0.00	0.00	0.00	
10,900.0	90.00	359.53	7,492.0	3,091.9	-1,026.1	3,100.2	0.00	0.00	0.00	
11,000.0	90.00	359.53	7,492.0	3,191.9	-1,027.0	3,200.2	0.00	0.00	0.00	
11,100.0	90.00	359.53	7,492.0	3,291.9	-1,027.8	3,300.2	0.00	0.00	0.00	
11,200.0	90.00	359.53	7,492.0	3,391.9	-1,028.6	3,400.2	0.00	0.00	0.00	
11,300.0	90.00	359.53	7,492.0	3,491.9	-1,029.4	3,500.2	0.00	0.00	0.00	
11,400.0	90.00	359.53	7,492.0	3,591.9	-1,030.3	3,600.2	0.00	0.00	0.00	
11,500.0	90.00	359.53	7,492.0	3,691.9	-1,031.1	3,700.2	0.00	0.00	0.00	
11,600.0	90.00	359.53	7,492.0	3,791.9	-1,031.9	3,800.2	0.00	0.00	0.00	
11,700.0	90.00	359.53	7,492.0	3,891.9	-1,032.8	3,900.2	0.00	0.00	0.00	
11,800.0	90.00	359.53	7,492.0	3,991.9	-1,033.6	4,000.2	0.00	0.00	0.00	
11,900.0	90.00	359.53	7,492.0	4,091.9	-1,034.4	4,100.2	0.00	0.00	0.00	
12,000.0	90.00	359.53	7,492.0	4,191.9	-1,035.2	4,200.2	0.00	0.00	0.00	
12,100.0	90.00	359.53	7,492.0	4,291.9	-1,036.1	4,300.2	0.00	0.00	0.00	
12,200.0	90.00	359.53	7,492.0	4,391.8	-1,036.9	4,400.2	0.00	0.00	0.00	
12,300.0	90.00	359.53	7,492.0	4,491.8	-1,037.7	4,500.2	0.00	0.00	0.00	
12,400.0	90.00	359.53	7,492.0	4,591.8	-1,038.5	4,600.2	0.00	0.00	0.00	
12,500.0	90.00	359.53	7,492.0	4,691.8	-1,039.4	4,700.2	0.00	0.00	0.00	
12,600.0	90.00	359.53	7,492.0	4,791.8	-1,040.2	4,800.2	0.00	0.00	0.00	
12,700.0	90.00	359.53	7,492.0	4,891.8	-1,041.0	4,900.2	0.00	0.00	0.00	
12,800.0	90.00	359.53	7,492.0	4,991.8	-1,041.9	5,000.2	0.00	0.00	0.00	
12,900.0	90.00	359.53	7,492.0	5,091.8	-1,042.7	5,100.2	0.00	0.00	0.00	
13,000.0	90.00	359.53	7,492.0	5,191.8	-1,043.5	5,200.2	0.00	0.00	0.00	
13,100.0	90.00	359.53	7,492.0	5,291.8	-1,044.3	5,300.2	0.00	0.00	0.00	
13,200.0	90.00	359.53	7,492.0	5,391.8	-1,045.2	5,400.2	0.00	0.00	0.00	
13,300.0	90.00	359.53	7,492.0	5,491.8	-1,046.0	5,500.2	0.00	0.00	0.00	
13,400.0	90.00	359.53	7,492.0	5,591.8	-1,046.8	5,600.2	0.00	0.00	0.00	
13,500.0	90.00	359.53	7,492.0	5,691.8	-1,047.6	5,700.2	0.00	0.00	0.00	
13,600.0	90.00	359.53	7,492.0	5,791.8	-1,048.5	5,800.2	0.00	0.00	0.00	
13,700.0	90.00	359.53	7,492.0	5,891.8	-1,049.3	5,900.2	0.00	0.00	0.00	
13,800.0	90.00	359.53	7,492.0	5,991.8	-1,050.1	6,000.2	0.00	0.00	0.00	
13,900.0	90.00	359.53	7,492.0	6,091.8	-1,051.0	6,100.2	0.00	0.00	0.00	
14,000.0	90.00	359.53	7,492.0	6,191.8	-1,051.8	6,200.2	0.00	0.00	0.00	
14,100.0	90.00	359.53	7,492.0	6,291.8	-1,052.6	6,300.2	0.00	0.00	0.00	
14,200.0	90.00	359.53	7,492.0	6,391.8	-1,053.4	6,400.2	0.00	0.00	0.00	
14,300.0	90.00	359.53	7,492.0	6,491.8	-1,054.3	6,500.2	0.00	0.00	0.00	
14,400.0	90.00	359.53	7,492.0	6,591.8	-1,055.1	6,600.2	0.00	0.00	0.00	
14,500.0	90.00	359.53	7,492.0	6,691.8	-1,055.9	6,700.2	0.00	0.00	0.00	
14,600.0	90.00	359.53	7,492.0	6,791.8	-1,056.7	6,800.2	0.00	0.00	0.00	
14,700.0	90.00	359.53	7,492.0	6,891.8	-1,057.6	6,900.2	0.00	0.00	0.00	
14,800.0	90.00	359.53	7,492.0	6,991.8	-1,058.4	7,000.2	0.00	0.00	0.00	
14,900.0	90.00	359.53	7,492.0	7,091.8	-1,059.2	7,100.2	0.00	0.00	0.00	
15,000.0	90.00	359.53	7,492.0	7,191.8	-1,060.1	7,200.2	0.00	0.00	0.00	
15,100.0	90.00	359.53	7,492.0	7,291.7	-1,060.9	7,300.2	0.00	0.00	0.00	
15,200.0	90.00	359.53	7,492.0	7,391.7	-1,061.7	7,400.2	0.00	0.00	0.00	
15,300.0	90.00	359.53	7,492.0	7,491.7	-1,062.5	7,500.2	0.00	0.00	0.00	
15,400.0	90.00	359.53	7,492.0	7,591.7	-1,063.4	7,600.2	0.00	0.00	0.00	
15,500.0	90.00	359.53	7,492.0	7,691.7	-1,064.2	7,700.2	0.00	0.00	0.00	
15,600.0	90.00	359.53	7,492.0	7,791.7	-1,065.0	7,800.2	0.00	0.00	0.00	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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	7,492.0	7,891.7	-1,065.8	7,900.2	0.00	0.00	0.00	
15,800.0	90.00	359.53	7,492.0	7,991.7	-1,066.7	8,000.2	0.00	0.00	0.00	
15,900.0	90.00	359.53	7,492.0	8,091.7	-1,067.5	8,100.2	0.00	0.00	0.00	
16,000.0	90.00	359.53	7,492.0	8,191.7	-1,068.3	8,200.2	0.00	0.00	0.00	
16,100.0	90.00	359.53	7,492.0	8,291.7	-1,069.2	8,300.2	0.00	0.00	0.00	
16,200.0	90.00	359.53	7,492.0	8,391.7	-1,070.0	8,400.2	0.00	0.00	0.00	
16,300.0	90.00	359.53	7,492.0	8,491.7	-1,070.8	8,500.2	0.00	0.00	0.00	
16,400.0	90.00	359.53	7,492.0	8,591.7	-1,071.6	8,600.2	0.00	0.00	0.00	
16,500.0	90.00	359.53	7,492.0	8,691.7	-1,072.5	8,700.2	0.00	0.00	0.00	
16,600.0	90.00	359.53	7,492.0	8,791.7	-1,073.3	8,800.2	0.00	0.00	0.00	
16,700.0	90.00	359.53	7,492.0	8,891.7	-1,074.1	8,900.2	0.00	0.00	0.00	
16,800.0	90.00	359.53	7,492.0	8,991.7	-1,074.9	9,000.2	0.00	0.00	0.00	
16,900.0	90.00	359.53	7,492.0	9,091.7	-1,075.8	9,100.2	0.00	0.00	0.00	
17,000.0	90.00	359.53	7,492.0	9,191.7	-1,076.6	9,200.2	0.00	0.00	0.00	
17,100.0	90.00	359.53	7,492.0	9,291.7	-1,077.4	9,300.2	0.00	0.00	0.00	
17,200.0	90.00	359.53	7,492.0	9,391.7	-1,078.3	9,400.2	0.00	0.00	0.00	
17,300.0	90.00	359.53	7,492.0	9,491.7	-1,079.1	9,500.2	0.00	0.00	0.00	
17,400.0	90.00	359.53	7,492.0	9,591.7	-1,079.9	9,600.2	0.00	0.00	0.00	
17,500.0	90.00	359.53	7,492.0	9,691.7	-1,080.7	9,700.2	0.00	0.00	0.00	
17,600.0	90.00	359.53	7,492.0	9,791.7	-1,081.6	9,800.2	0.00	0.00	0.00	
17,686.9	90.00	359.53	7,492.0	9,878.6	-1,082.3	9,887.2	0.00	0.00	0.00	
CONNER 19-18-1NCH BHL (355 FNL, 824 FWL)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
CONNER 19-18-1NCH I - hit/miss target - Shape - Point	0.00	0.00	7,492.0	9,878.6	-1,082.3	1,233,433.15	3,220,957.61	39.971461	-104.711618	
CONNER 19-18-1NCH I - plan hits target center - Point	0.00	0.00	7,492.0	104.8	-1,001.4	1,223,659.35	3,221,038.46	39.944629	-104.711640	



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-1NCH

OH

PLAN #1

Anticollision Report

12 March, 2021



Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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	17,686.9	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	30.0	25.3	6.325	CC, ES
CONNER 19-18-1CDH - OH - PLAN #1	17,400.0	17,610.7	374.4	57.7	1.182	Level 2, SF
CONNER 19-18-1NBH - OH - PLAN #1	800.0	800.0	15.0	11.9	4.825	CC, ES
CONNER 19-18-1NBH - OH - PLAN #1	17,686.9	17,426.9	425.2	267.4	2.694	SF
CONNER 19-18-1NXH - OH - PLAN #1	700.0	700.0	15.0	12.3	5.468	CC, ES
CONNER 19-18-1NXH - OH - PLAN #1	17,686.9	17,496.2	343.6	193.6	2.290	SF
CONNER 19-18-2CDH - OH - PLAN #1	800.0	800.0	30.0	26.9	9.652	CC, ES
CONNER 19-18-2CDH - OH - PLAN #1	17,686.9	17,788.5	747.4	570.8	4.232	SF
CONNER 19-18-2NBH - OH - PLAN #1	800.0	800.0	75.0	71.9	24.115	CC, ES
CONNER 19-18-2NBH - OH - PLAN #1	17,686.9	17,539.6	1,458.5	1,279.4	8.144	SF
CONNER 19-18-2NCH - OH - PLAN #1	800.0	800.0	60.0	56.9	19.292	CC, ES
CONNER 19-18-2NCH - OH - PLAN #1	17,686.9	17,595.8	1,092.0	912.5	6.084	SF
CONNER 19-18-2NXH - OH - PLAN #1	800.0	800.0	45.0	41.9	14.466	CC, ES
CONNER 19-18-2NXH - OH - PLAN #1	17,686.9	17,379.1	861.9	688.9	4.981	SF
CONNER 19-18-3CDH - OH - PLAN #1	800.0	800.0	90.0	86.9	28.938	CC, ES
CONNER 19-18-3CDH - OH - PLAN #1	17,686.9	17,829.4	1,827.5	1,648.2	10.194	SF
CONNER 19-18-3NBH - OH - PLAN #1	800.0	800.0	135.0	131.9	43.424	CC, ES
CONNER 19-18-3NBH - OH - PLAN #1	1,200.0	1,183.3	173.9	167.9	28.911	SF
CONNER 19-18-3NCH - OH - PLAN #1	800.0	800.0	120.0	116.9	38.593	CC, ES
CONNER 19-18-3NCH - OH - PLAN #1	17,686.9	17,720.0	2,183.9	2,004.3	12.161	SF
CONNER 19-18-3NXH - OH - PLAN #1	800.0	800.0	105.0	101.9	33.776	CC, ES
CONNER 19-18-3NXH - OH - PLAN #1	17,686.9	17,434.5	2,100.3	1,922.3	11.800	SF
CONNER 19-18-4CDH - OH - PLAN #1	800.0	800.0	150.0	146.9	48.244	CC, ES
CONNER 19-18-4CDH - OH - PLAN #1	1,200.0	1,174.9	200.0	194.0	33.462	SF
CONNER 19-18-4NBH - OH - PLAN #1	500.0	500.0	195.0	193.0	97.537	CC, ES
CONNER 19-18-4NBH - OH - PLAN #1	1,200.0	1,139.7	296.4	290.6	50.710	SF
CONNER 19-18-4NCH - OH - PLAN #1	600.0	600.0	180.0	177.6	75.844	CC, ES
CONNER 19-18-4NCH - OH - PLAN #1	1,200.0	1,153.1	261.4	255.5	44.361	SF
CONNER 19-18-4NXH - OH - PLAN #1	700.0	700.0	165.0	162.2	60.156	CC, ES
CONNER 19-18-4NXH - OH - PLAN #1	1,200.0	1,164.9	229.2	223.3	38.612	SF
Gail #1 (PR) - EXISTING - NO SURVEYS (PR)	15,931.5	7,423.0	1,202.9	1,026.8	6.829	CC, ES, SF
Gail Smith #1 (PR) - EXISTING - NO SURVEYS (PR)	17,569.7	7,423.0	364.9	160.2	1.783	CC, ES
Gail Smith #1 (PR) - EXISTING - NO SURVEYS (PR)	17,600.0	7,423.0	366.1	160.5	1.780	SF
Milheim #1 (P&A) - EXISTING - NO SURVEYS (P&A)	13,723.3	7,423.0	115.1	-23.0	0.833	Level 1, CC, ES, SF
Price 7-19 (SI) - EXISTING - NO SURVEYS (SI)	10,950.1	7,423.0	1,850.2	1,758.1	20.087	CC, ES
Price 7-19 (SI) - EXISTING - NO SURVEYS (SI)	11,200.0	7,423.0	1,867.0	1,772.9	19.847	SF
Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)						Out of range

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 19-18-1NCH
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 19-18-1NCH	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						
Tracy #1 (PR) - EXISTING - NO SURVEYS (PR)						Out of range
UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&	8,831.1	7,423.0	106.9	44.2	1.704	CC, ES, 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)	Vertical Depth (usft)	Offset Measured Depth (usft)	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	-90.36	-0.2	-30.0	30.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.36	-0.2	-30.0	30.0	29.5	0.55	54.185		
200.0	200.0	200.0	200.0	1.0	1.0	-90.36	-0.2	-30.0	30.0	28.4	1.60	18.807		
300.0	300.0	300.0	300.0	1.5	1.5	-90.36	-0.2	-30.0	30.0	27.6	2.45	12.254		
400.0	400.0	400.0	400.0	1.9	1.9	-90.36	-0.2	-30.0	30.0	26.8	3.24	9.272		
500.0	500.0	500.0	500.0	2.3	2.3	-90.36	-0.2	-30.0	30.0	26.0	4.00	7.507		
600.0	600.0	600.0	600.0	2.7	2.7	-90.36	-0.2	-30.0	30.0	25.3	4.75	6.325	CC, ES	
700.0	700.0	699.0	699.0	3.1	3.0	-91.48	-0.8	-31.6	31.6	26.1	5.58	5.675		
800.0	800.0	797.7	797.6	3.5	4.0	-94.22	-2.7	-36.4	36.5	29.5	7.08	5.162		
900.0	900.0	896.2	895.7	3.8	4.8	20.59	-5.8	-44.3	43.2	34.8	8.39	5.152		
1,000.0	999.8	994.4	993.2	4.7	5.6	19.16	-10.1	-55.2	50.0	39.9	10.11	4.946		
1,100.0	1,099.5	1,092.4	1,090.0	5.5	6.2	18.42	-15.6	-69.3	56.8	45.2	11.58	4.903		
1,200.0	1,198.7	1,190.3	1,186.1	6.2	6.7	18.15	-22.3	-86.4	63.6	50.9	12.78	4.978		
1,300.0	1,297.5	1,290.2	1,283.9	6.8	7.0	18.58	-29.7	-105.2	68.6	55.0	13.61	5.040		
1,400.0	1,396.0	1,390.1	1,381.8	7.0	7.2	19.36	-37.1	-124.0	72.2	58.0	14.13	5.107		
1,500.0	1,494.5	1,490.0	1,479.7	7.3	7.5	20.07	-44.5	-142.8	75.7	61.0	14.70	5.150		
1,600.0	1,593.0	1,590.0	1,577.5	7.6	7.8	20.72	-51.9	-161.7	79.3	64.0	15.30	5.182		
1,700.0	1,691.5	1,689.9	1,675.4	7.9	8.1	21.31	-59.3	-180.5	82.8	66.9	15.91	5.206		
1,800.0	1,790.1	1,789.8	1,773.3	8.2	8.4	21.86	-66.7	-199.3	86.4	69.9	16.55	5.224		
1,900.0	1,888.6	1,889.8	1,871.1	8.5	8.8	22.35	-74.1	-218.1	90.0	72.8	17.20	5.235		
2,000.0	1,987.1	1,989.7	1,969.0	8.8	9.1	22.82	-81.5	-236.9	93.6	75.8	17.86	5.242		
2,100.0	2,085.6	2,089.6	2,066.9	9.1	9.5	23.24	-88.9	-255.7	97.2	78.7	18.54	5.245		
2,200.0	2,184.1	2,189.6	2,164.7	9.5	9.8	23.64	-96.2	-274.5	100.8	81.6	19.22	5.244		
2,300.0	2,282.7	2,289.5	2,262.6	9.8	10.2	24.01	-103.6	-293.3	104.4	84.5	19.92	5.242		
2,400.0	2,381.2	2,389.4	2,360.5	10.2	10.6	24.35	-111.0	-312.1	108.0	87.4	20.63	5.237		
2,500.0	2,479.7	2,489.4	2,458.3	10.5	11.0	24.68	-118.4	-331.0	111.7	90.3	21.35	5.231		
2,600.0	2,578.2	2,589.3	2,556.2	10.9	11.5	24.98	-125.8	-349.8	115.3	93.2	22.07	5.223		
2,700.0	2,676.7	2,689.2	2,654.1	11.3	11.9	25.26	-133.2	-368.6	118.9	96.1	22.80	5.215		
2,800.0	2,775.3	2,789.2	2,751.9	11.7	12.4	25.53	-140.6	-387.4	122.5	99.0	23.54	5.206		
2,900.0	2,873.8	2,889.1	2,849.8	12.1	12.8	25.78	-148.0	-406.2	126.2	101.9	24.28	5.196		
3,000.0	2,972.3	2,989.0	2,947.7	12.5	13.3	26.02	-155.4	-425.0	129.8	104.8	25.03	5.185		
3,100.0	3,070.8	3,089.0	3,045.5	13.0	13.8	26.24	-162.8	-443.8	133.4	107.7	25.79	5.175		
3,200.0	3,169.3	3,188.9	3,143.4	13.4	14.3	26.45	-170.2	-462.6	137.1	110.5	26.54	5.164		
3,300.0	3,267.9	3,288.8	3,241.3	13.8	14.7	26.65	-177.5	-481.5	140.7	113.4	27.30	5.153		
3,400.0	3,366.4	3,388.8	3,339.2	14.3	15.2	26.85	-184.9	-500.3	144.4	116.3	28.07	5.142		
3,500.0	3,464.9	3,488.7	3,437.0	14.7	15.7	27.03	-192.3	-519.1	148.0	119.2	28.84	5.132		
3,600.0	3,563.4	3,588.6	3,534.9	15.2	16.2	27.20	-199.7	-537.9	151.6	122.0	29.61	5.121		
3,700.0	3,661.9	3,688.5	3,632.8	15.6	16.7	27.37	-207.1	-556.7	155.3	124.9	30.39	5.110		
3,800.0	3,760.5	3,788.5	3,730.6	16.1	17.2	27.52	-214.5	-575.5	158.9	127.8	31.16	5.100		
3,900.0	3,859.0	3,888.4	3,828.5	16.5	17.7	27.67	-221.9	-594.3	162.6	130.6	31.94	5.089		
4,000.0	3,957.5	3,988.3	3,926.4	17.0	18.2	27.82	-229.3	-613.1	166.2	133.5	32.73	5.079		

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 19-18-1NCH
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 19-18-1NCH	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		
4,100.0	4,056.0	4,088.3	4,024.2	17.4	18.7	27.96	-236.7	-632.0	169.9	136.4	33.51	5.069		
4,200.0	4,154.5	4,188.2	4,122.1	17.9	19.2	28.09	-244.1	-650.8	173.5	139.2	34.30	5.059		
4,300.0	4,253.1	4,288.1	4,220.0	18.3	19.7	28.21	-251.4	-669.6	177.2	142.1	35.09	5.049		
4,400.0	4,351.6	4,388.1	4,317.8	18.8	20.1	28.34	-258.8	-688.4	180.8	144.9	35.88	5.040		
4,500.0	4,450.1	4,488.0	4,415.7	19.3	20.6	28.45	-266.2	-707.2	184.5	147.8	36.67	5.030		
4,600.0	4,548.6	4,587.9	4,513.6	19.7	21.1	28.56	-273.6	-726.0	188.1	150.7	37.47	5.021		
4,700.0	4,647.2	4,687.9	4,611.4	20.2	21.6	28.67	-281.0	-744.8	191.8	153.5	38.26	5.012		
4,800.0	4,745.7	4,787.8	4,709.3	20.6	22.1	28.78	-288.4	-763.6	195.4	156.4	39.06	5.004		
4,900.0	4,844.2	4,887.7	4,807.2	21.1	22.6	28.88	-295.8	-782.5	199.1	159.2	39.86	4.995		
5,000.0	4,942.7	4,987.7	4,905.0	21.6	23.1	28.97	-303.2	-801.3	202.7	162.1	40.65	4.987		
5,100.0	5,041.2	5,087.6	5,002.9	22.0	23.6	29.06	-310.6	-820.1	206.4	164.9	41.45	4.979		
5,200.0	5,139.8	5,187.5	5,100.8	22.5	24.1	29.15	-318.0	-838.9	210.1	167.8	42.26	4.971		
5,300.0	5,238.3	5,287.5	5,198.6	22.9	24.6	29.24	-325.4	-857.7	213.7	170.7	43.06	4.963		
5,400.0	5,336.8	5,387.4	5,296.5	23.4	25.1	29.32	-332.7	-876.5	217.4	173.5	43.86	4.956		
5,500.0	5,435.3	5,487.3	5,394.4	23.9	25.6	29.41	-340.1	-895.3	221.0	176.4	44.67	4.948		
5,600.0	5,533.8	5,587.3	5,492.2	24.3	26.1	29.48	-347.5	-914.1	224.7	179.2	45.47	4.941		
5,700.0	5,632.4	5,687.2	5,590.1	24.8	26.6	29.56	-354.9	-932.9	228.3	182.1	46.28	4.934		
5,800.0	5,730.9	5,787.1	5,688.0	25.3	27.1	29.63	-362.3	-951.8	232.0	184.9	47.08	4.927		
5,900.0	5,829.4	5,887.1	5,785.8	25.7	27.6	29.70	-369.7	-970.6	235.7	187.8	47.89	4.921		
6,000.0	5,927.9	5,987.0	5,883.7	26.2	28.1	29.77	-377.1	-989.4	239.3	190.6	48.70	4.914		
6,100.0	6,026.4	6,086.9	5,981.6	26.6	28.6	29.84	-384.5	-1,008.2	243.0	193.5	49.51	4.908		
6,200.0	6,125.0	6,186.9	6,079.4	27.1	29.1	29.90	-391.9	-1,027.0	246.6	196.3	50.32	4.902		
6,300.0	6,223.5	6,286.8	6,177.3	27.6	29.6	29.97	-399.3	-1,045.8	250.3	199.2	51.13	4.895		
6,400.0	6,322.0	6,386.7	6,275.2	28.0	30.1	30.03	-406.6	-1,064.6	254.0	202.0	51.94	4.890		
6,500.0	6,420.5	6,486.7	6,373.0	28.5	30.6	30.09	-414.0	-1,083.4	257.6	204.9	52.75	4.884		
6,600.0	6,519.0	6,586.6	6,470.9	29.0	31.1	30.15	-421.4	-1,102.3	261.3	207.7	53.56	4.878		
6,700.0	6,617.6	6,686.5	6,568.8	29.4	31.6	30.20	-428.8	-1,121.1	264.9	210.6	54.38	4.872		
6,800.0	6,716.1	6,786.5	6,666.6	29.9	32.1	30.26	-436.2	-1,139.9	268.6	213.4	55.19	4.867		
6,900.0	6,814.6	6,886.4	6,764.5	30.4	32.6	30.31	-443.6	-1,158.7	272.3	216.3	56.00	4.862		
7,000.0	6,913.2	6,986.3	6,862.4	30.8	33.1	12.00	-451.0	-1,177.5	275.9	219.1	56.77	4.859		
7,100.0	7,011.6	7,085.2	6,959.2	31.3	33.6	-43.02	-458.3	-1,196.1	278.9	221.9	57.00	4.893		
7,200.0	7,107.5	7,180.2	7,052.2	31.8	34.1	-68.33	-465.3	-1,214.0	283.6	226.9	56.68	5.004		
7,300.0	7,197.9	7,279.6	7,149.8	32.1	34.6	-83.01	-464.8	-1,232.8	293.2	236.7	56.44	5.194		
7,400.0	7,280.0	7,387.7	7,253.9	32.4	35.2	-93.33	-444.9	-1,253.1	307.2	250.5	56.64	5.423		
7,500.0	7,351.3	7,506.1	7,361.4	32.5	35.7	-101.31	-400.6	-1,274.2	324.1	267.4	56.70	5.715		
7,600.0	7,409.7	7,636.7	7,466.8	32.6	36.1	-107.57	-327.0	-1,295.1	341.7	285.7	56.01	6.100		
7,700.0	7,453.4	7,780.4	7,560.6	32.6	36.3	-112.28	-220.3	-1,314.1	357.5	303.2	54.39	6.574		
7,800.0	7,481.1	7,936.3	7,629.4	32.6	36.4	-115.34	-81.7	-1,328.5	369.1	316.6	52.49	7.031		
7,900.0	7,491.9	8,100.3	7,659.4	32.6	36.3	-116.64	78.9	-1,335.6	374.2	322.5	51.68	7.240		
8,000.0	7,492.0	8,210.7	7,660.0	32.7	36.4	-116.67	189.2	-1,336.6	374.3	322.2	52.08	7.188		
8,100.0	7,492.0	8,310.7	7,660.0	32.8	36.5	-116.67	289.2	-1,337.5	374.3	321.6	52.69	7.104		
8,200.0	7,492.0	8,410.7	7,660.0	33.0	36.6	-116.67	389.2	-1,338.3	374.3	320.8	53.50	6.997		
8,300.0	7,492.0	8,510.7	7,660.0	33.4	36.9	-116.67	489.2	-1,339.1	374.3	319.8	54.49	6.870		
8,400.0	7,492.0	8,610.7	7,660.0	33.9	37.3	-116.67	589.2	-1,339.9	374.3	318.7	55.64	6.727		
8,500.0	7,492.0	8,710.7	7,660.0	34.6	37.7	-116.67	689.2	-1,340.8	374.3	317.3	56.96	6.571		
8,600.0	7,492.0	8,810.7	7,660.0	35.3	38.3	-116.67	789.2	-1,341.6	374.3	315.9	58.43	6.406		
8,700.0	7,492.0	8,910.7	7,660.0	36.1	39.0	-116.67	889.2	-1,342.4	374.3	314.3	60.04	6.235		
8,800.0	7,492.0	9,010.7	7,660.0	37.1	39.7	-116.67	989.2	-1,343.3	374.3	312.5	61.77	6.060		
8,900.0	7,492.0	9,110.7	7,660.0	38.0	40.6	-116.67	1,089.2	-1,344.1	374.3	310.7	63.62	5.883		
9,000.0	7,492.0	9,210.7	7,660.0	39.1	41.5	-116.67	1,189.2	-1,344.9	374.3	308.7	65.58	5.708		
9,100.0	7,492.0	9,310.7	7,660.0	40.2	42.5	-116.67	1,289.2	-1,345.7	374.3	306.7	67.64	5.534		
9,200.0	7,492.0	9,410.7	7,660.0	41.3	43.5	-116.67	1,389.2	-1,346.6	374.3	304.5	69.79	5.364		

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 19-18-1NCH
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 19-18-1NCH	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		
9,300.0	7,492.0	9,510.7	7,660.0	42.5	44.6	-116.67	1,489.2	-1,347.4	374.3	302.3	72.02	5.198		
9,400.0	7,492.0	9,610.7	7,660.0	43.8	45.8	-116.67	1,589.2	-1,348.2	374.3	300.0	74.32	5.037		
9,500.0	7,492.0	9,710.7	7,660.0	45.0	47.0	-116.67	1,689.2	-1,349.1	374.3	297.6	76.69	4.881		
9,600.0	7,492.0	9,810.7	7,660.0	46.3	48.2	-116.67	1,789.2	-1,349.9	374.3	295.2	79.12	4.731		
9,700.0	7,492.0	9,910.7	7,660.0	47.7	49.4	-116.67	1,889.2	-1,350.7	374.3	292.7	81.61	4.587		
9,800.0	7,492.0	10,010.7	7,660.0	49.0	50.7	-116.67	1,989.2	-1,351.5	374.3	290.2	84.14	4.449		
9,900.0	7,492.0	10,110.7	7,660.0	50.4	52.1	-116.67	2,089.2	-1,352.4	374.3	287.6	86.73	4.316		
10,000.0	7,492.0	10,210.7	7,660.0	51.8	53.4	-116.67	2,189.2	-1,353.2	374.3	285.0	89.35	4.189		
10,100.0	7,492.0	10,310.7	7,660.0	53.2	54.8	-116.67	2,289.2	-1,354.0	374.3	282.3	92.02	4.068		
10,200.0	7,492.0	10,410.7	7,660.0	54.7	56.2	-116.67	2,389.1	-1,354.8	374.3	279.6	94.72	3.952		
10,300.0	7,492.0	10,510.7	7,660.0	56.1	57.6	-116.67	2,489.1	-1,355.7	374.3	276.9	97.45	3.841		
10,400.0	7,492.0	10,610.7	7,660.0	57.6	59.0	-116.67	2,589.1	-1,356.5	374.3	274.1	100.22	3.735		
10,500.0	7,492.0	10,710.7	7,660.0	59.1	60.5	-116.67	2,689.1	-1,357.3	374.3	271.3	103.01	3.634		
10,600.0	7,492.0	10,810.7	7,660.0	60.6	62.0	-116.67	2,789.1	-1,358.2	374.3	268.5	105.83	3.537		
10,700.0	7,492.0	10,910.7	7,660.0	62.2	63.4	-116.67	2,889.1	-1,359.0	374.3	265.7	108.66	3.445		
10,800.0	7,492.0	11,010.7	7,660.0	63.7	64.9	-116.67	2,989.1	-1,359.8	374.3	262.8	111.53	3.356		
10,900.0	7,492.0	11,110.7	7,660.0	65.2	66.5	-116.67	3,089.1	-1,360.6	374.3	259.9	114.41	3.272		
11,000.0	7,492.0	11,210.7	7,660.0	66.8	68.0	-116.67	3,189.1	-1,361.5	374.3	257.0	117.31	3.191		
11,100.0	7,492.0	11,310.7	7,660.0	68.4	69.5	-116.67	3,289.1	-1,362.3	374.3	254.1	120.22	3.114		
11,200.0	7,492.0	11,410.7	7,660.0	70.0	71.1	-116.67	3,389.1	-1,363.1	374.3	251.2	123.16	3.040		
11,300.0	7,492.0	11,510.7	7,660.0	71.5	72.6	-116.67	3,489.1	-1,364.0	374.3	248.2	126.10	2.968		
11,400.0	7,492.0	11,610.7	7,660.0	73.1	74.2	-116.67	3,589.1	-1,364.8	374.3	245.3	129.07	2.900		
11,500.0	7,492.0	11,710.7	7,660.0	74.7	75.8	-116.67	3,689.1	-1,365.6	374.3	242.3	132.04	2.835		
11,600.0	7,492.0	11,810.7	7,660.0	76.4	77.3	-116.67	3,789.1	-1,366.4	374.3	239.3	135.03	2.772		
11,700.0	7,492.0	11,910.7	7,660.0	78.0	78.9	-116.67	3,889.1	-1,367.3	374.3	236.3	138.02	2.712		
11,800.0	7,492.0	12,010.7	7,660.0	79.6	80.5	-116.67	3,989.1	-1,368.1	374.3	233.3	141.03	2.654		
11,900.0	7,492.0	12,110.7	7,660.0	81.2	82.1	-116.67	4,089.1	-1,368.9	374.3	230.3	144.05	2.599		
12,000.0	7,492.0	12,210.7	7,660.0	82.9	83.8	-116.67	4,189.1	-1,369.8	374.3	227.3	147.08	2.545		
12,100.0	7,492.0	12,310.7	7,660.0	84.5	85.4	-116.67	4,289.1	-1,370.6	374.3	224.2	150.11	2.494		
12,200.0	7,492.0	12,410.7	7,660.0	86.1	87.0	-116.67	4,389.1	-1,371.4	374.3	221.2	153.16	2.444		
12,300.0	7,492.0	12,510.7	7,660.0	87.8	88.6	-116.67	4,489.1	-1,372.2	374.4	218.1	156.21	2.396		
12,400.0	7,492.0	12,610.7	7,660.0	89.5	90.3	-116.67	4,589.1	-1,373.1	374.4	215.1	159.27	2.350		
12,500.0	7,492.0	12,710.7	7,660.0	91.1	91.9	-116.67	4,689.1	-1,373.9	374.4	212.0	162.33	2.306		
12,600.0	7,492.0	12,810.7	7,660.0	92.8	93.5	-116.67	4,789.1	-1,374.7	374.4	208.9	165.41	2.263		
12,700.0	7,492.0	12,910.7	7,660.0	94.4	95.2	-116.66	4,889.1	-1,375.6	374.4	205.9	168.48	2.222		
12,800.0	7,492.0	13,010.7	7,660.0	96.1	96.8	-116.66	4,989.1	-1,376.4	374.4	202.8	171.57	2.182		
12,900.0	7,492.0	13,110.7	7,660.0	97.8	98.5	-116.66	5,089.1	-1,377.2	374.4	199.7	174.66	2.143		
13,000.0	7,492.0	13,210.7	7,660.0	99.5	100.1	-116.66	5,189.1	-1,378.0	374.4	196.6	177.75	2.106		
13,100.0	7,492.0	13,310.7	7,660.0	101.1	101.8	-116.66	5,289.0	-1,378.9	374.4	193.5	180.85	2.070		
13,200.0	7,492.0	13,410.7	7,660.0	102.8	103.5	-116.66	5,389.0	-1,379.7	374.4	190.4	183.96	2.035		
13,300.0	7,492.0	13,510.7	7,660.0	104.5	105.1	-116.66	5,489.0	-1,380.5	374.4	187.3	187.07	2.001		
13,400.0	7,492.0	13,610.7	7,660.0	106.2	106.8	-116.66	5,589.0	-1,381.4	374.4	184.2	190.18	1.968		
13,500.0	7,492.0	13,710.7	7,660.0	107.9	108.5	-116.66	5,689.0	-1,382.2	374.4	181.1	193.30	1.937		
13,600.0	7,492.0	13,810.7	7,660.0	109.6	110.2	-116.66	5,789.0	-1,383.0	374.4	177.9	196.42	1.906		
13,700.0	7,492.0	13,910.7	7,660.0	111.3	111.9	-116.66	5,889.0	-1,383.8	374.4	174.8	199.54	1.876		
13,800.0	7,492.0	14,010.7	7,660.0	113.0	113.5	-116.66	5,989.0	-1,384.7	374.4	171.7	202.67	1.847		
13,900.0	7,492.0	14,110.7	7,660.0	114.7	115.2	-116.66	6,089.0	-1,385.5	374.4	168.6	205.80	1.819		
14,000.0	7,492.0	14,210.7	7,660.0	116.4	116.9	-116.66	6,189.0	-1,386.3	374.4	165.4	208.94	1.792		
14,100.0	7,492.0	14,310.7	7,660.0	118.1	118.6	-116.66	6,289.0	-1,387.2	374.4	162.3	212.07	1.765		
14,200.0	7,492.0	14,410.7	7,660.0	119.8	120.3	-116.66	6,389.0	-1,388.0	374.4	159.2	215.21	1.740		
14,300.0	7,492.0	14,510.7	7,660.0	121.5	122.0	-116.66	6,489.0	-1,388.8	374.4	156.0	218.36	1.714		
14,400.0	7,492.0	14,610.7	7,660.0	123.2	123.7	-116.66	6,589.0	-1,389.6	374.4	152.9	221.50	1.690		

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 19-18-1NCH
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 19-18-1NCH	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		
14,500.0	7,492.0	14,710.7	7,660.0	124.9	125.4	-116.66	6,689.0	-1,390.5	374.4	149.7	224.65	1.666		
14,600.0	7,492.0	14,810.7	7,660.0	126.6	127.1	-116.66	6,789.0	-1,391.3	374.4	146.6	227.80	1.643		
14,700.0	7,492.0	14,910.7	7,660.0	128.3	128.8	-116.66	6,889.0	-1,392.1	374.4	143.4	230.96	1.621		
14,800.0	7,492.0	15,010.7	7,660.0	130.0	130.5	-116.66	6,989.0	-1,393.0	374.4	140.3	234.11	1.599		
14,900.0	7,492.0	15,110.7	7,660.0	131.8	132.2	-116.66	7,089.0	-1,393.8	374.4	137.1	237.27	1.578		
15,000.0	7,492.0	15,210.7	7,660.0	133.5	133.9	-116.66	7,189.0	-1,394.6	374.4	133.9	240.43	1.557		
15,100.0	7,492.0	15,310.7	7,660.0	135.2	135.6	-116.66	7,289.0	-1,395.4	374.4	130.8	243.59	1.537		
15,200.0	7,492.0	15,410.7	7,660.0	136.9	137.3	-116.66	7,389.0	-1,396.3	374.4	127.6	246.76	1.517		
15,300.0	7,492.0	15,510.7	7,660.0	138.6	139.0	-116.66	7,489.0	-1,397.1	374.4	124.5	249.92	1.498 Level 3		
15,400.0	7,492.0	15,610.7	7,660.0	140.4	140.7	-116.66	7,589.0	-1,397.9	374.4	121.3	253.09	1.479 Level 3		
15,500.0	7,492.0	15,710.7	7,660.0	142.1	142.5	-116.66	7,689.0	-1,398.8	374.4	118.1	256.26	1.461 Level 3		
15,600.0	7,492.0	15,810.7	7,660.0	143.8	144.2	-116.66	7,789.0	-1,399.6	374.4	115.0	259.43	1.443 Level 3		
15,700.0	7,492.0	15,910.7	7,660.0	145.5	145.9	-116.66	7,889.0	-1,400.4	374.4	111.8	262.60	1.426 Level 3		
15,800.0	7,492.0	16,010.7	7,660.0	147.3	147.6	-116.66	7,989.0	-1,401.2	374.4	108.6	265.78	1.409 Level 3		
15,900.0	7,492.0	16,110.7	7,660.0	149.0	149.3	-116.66	8,089.0	-1,402.1	374.4	105.4	268.95	1.392 Level 3		
16,000.0	7,492.0	16,210.7	7,660.0	150.7	151.0	-116.66	8,189.0	-1,402.9	374.4	102.3	272.13	1.376 Level 3		
16,100.0	7,492.0	16,310.7	7,660.0	152.4	152.8	-116.66	8,289.0	-1,403.7	374.4	99.1	275.31	1.360 Level 3		
16,200.0	7,492.0	16,410.7	7,660.0	154.2	154.5	-116.66	8,389.0	-1,404.5	374.4	95.9	278.48	1.344 Level 3		
16,300.0	7,492.0	16,510.7	7,660.0	155.9	156.2	-116.66	8,489.0	-1,405.4	374.4	92.7	281.67	1.329 Level 3		
16,400.0	7,492.0	16,610.7	7,660.0	157.6	157.9	-116.66	8,589.0	-1,406.2	374.4	89.5	284.85	1.314 Level 3		
16,500.0	7,492.0	16,710.7	7,660.0	159.4	159.7	-116.66	8,689.0	-1,407.0	374.4	86.4	288.03	1.300 Level 3		
16,600.0	7,492.0	16,810.7	7,660.0	161.1	161.4	-116.66	8,789.0	-1,407.9	374.4	83.2	291.22	1.286 Level 3		
16,700.0	7,492.0	16,910.7	7,660.0	162.8	163.1	-116.66	8,889.0	-1,408.7	374.4	80.0	294.40	1.272 Level 3		
16,800.0	7,492.0	17,010.7	7,660.0	164.6	164.8	-116.66	8,989.0	-1,409.5	374.4	76.8	297.59	1.258 Level 3		
16,900.0	7,492.0	17,110.7	7,660.0	166.3	166.6	-116.66	9,089.0	-1,410.3	374.4	73.6	300.77	1.245 Level 2		
17,000.0	7,492.0	17,210.7	7,660.0	168.0	168.3	-116.66	9,189.0	-1,411.2	374.4	70.4	303.96	1.232 Level 2		
17,100.0	7,492.0	17,310.7	7,660.0	169.8	170.0	-116.66	9,289.0	-1,412.0	374.4	67.2	307.15	1.219 Level 2		
17,200.0	7,492.0	17,410.7	7,660.0	171.5	171.7	-116.66	9,389.0	-1,412.8	374.4	64.1	310.34	1.206 Level 2		
17,300.0	7,492.0	17,510.7	7,660.0	173.2	173.5	-116.66	9,489.0	-1,413.7	374.4	60.9	313.54	1.194 Level 2		
17,400.0	7,492.0	17,610.7	7,660.0	175.0	175.2	-116.66	9,589.0	-1,414.5	374.4	57.7	316.73	1.182 Level 2, SF		
17,500.0	7,492.0	17,730.0	7,660.0	176.7	175.5	-116.66	9,608.2	-1,414.7	383.0	65.7	317.33	1.207 Level 2		
17,600.0	7,492.0	17,630.0	7,660.0	178.5	175.5	-116.66	9,608.2	-1,414.7	415.7	114.4	301.33	1.380 Level 3		
17,686.9	7,492.0	17,630.0	7,660.0	180.0	175.5	-116.66	9,608.2	-1,414.7	460.2	180.3	279.90	1.644		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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	89.73	0.1	15.0	15.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.73	0.1	15.0	15.0	14.7	0.28	54.170		
200.0	200.0	200.0	200.0	1.0	0.0	89.73	0.1	15.0	15.0	14.2	0.80	18.807		
300.0	300.0	300.0	300.0	1.5	0.0	89.73	0.1	15.0	15.0	13.8	1.22	12.254		
400.0	400.0	400.0	400.0	1.9	0.0	89.73	0.1	15.0	15.0	13.4	1.62	9.271		
500.0	500.0	500.0	500.0	2.3	0.0	89.73	0.1	15.0	15.0	13.0	2.00	7.506		
600.0	600.0	600.0	600.0	2.7	0.0	89.73	0.1	15.0	15.0	12.6	2.37	6.323		
700.0	700.0	700.0	700.0	3.1	0.0	89.73	0.1	15.0	15.0	12.3	2.74	5.471		
800.0	800.0	800.0	800.0	3.5	0.0	89.73	0.1	15.0	15.0	11.9	3.11	4.825 CC, ES		
900.0	900.0	900.0	900.0	3.8	0.0	-155.69	0.1	15.0	16.6	13.0	3.55	4.664		
1,000.0	999.8	1,000.4	1,000.4	4.7	0.0	-158.95	-1.0	13.6	20.0	15.4	4.56	4.379		
1,100.0	1,099.5	1,101.0	1,100.9	5.5	0.0	-159.72	-4.3	9.5	23.6	18.3	5.38	4.395		
1,200.0	1,198.7	1,201.7	1,201.2	6.2	0.0	-158.97	-9.8	2.6	27.6	21.5	6.10	4.530		
1,300.0	1,297.5	1,302.3	1,301.0	6.8	0.0	-157.36	-17.4	-7.0	32.0	25.3	6.67	4.792		
1,400.0	1,396.0	1,402.2	1,400.0	7.0	0.0	-156.15	-25.7	-17.4	36.8	29.9	6.91	5.328		
1,500.0	1,494.5	1,502.1	1,499.0	7.3	0.0	-155.22	-33.9	-27.7	41.7	34.5	7.20	5.790		
1,600.0	1,593.0	1,601.9	1,598.0	7.6	0.0	-154.49	-42.2	-38.1	46.5	39.0	7.50	6.206		
1,700.0	1,691.5	1,701.8	1,697.0	7.9	0.0	-153.89	-50.5	-48.5	51.4	43.6	7.81	6.581		
1,800.0	1,790.1	1,801.7	1,796.0	8.2	0.0	-153.40	-58.7	-58.8	56.3	48.2	8.13	6.920		
1,900.0	1,888.6	1,901.6	1,895.0	8.5	0.0	-152.99	-67.0	-69.2	61.2	52.7	8.47	7.225		
2,000.0	1,987.1	2,001.5	1,994.0	8.8	0.0	-152.63	-75.2	-79.6	66.1	57.3	8.80	7.502		
2,100.0	2,085.6	2,101.3	2,093.0	9.1	0.0	-152.33	-83.5	-90.0	70.9	61.8	9.15	7.754		
2,200.0	2,184.1	2,201.2	2,192.0	9.5	0.0	-152.07	-91.7	-100.3	75.8	66.3	9.50	7.983		
2,300.0	2,282.7	2,301.1	2,291.0	9.8	0.0	-151.83	-100.0	-110.7	80.7	70.9	9.85	8.191		
2,400.0	2,381.2	2,401.0	2,390.0	10.2	0.0	-151.63	-108.2	-121.1	85.6	75.4	10.21	8.382		
2,500.0	2,479.7	2,500.9	2,489.0	10.5	0.0	-151.44	-116.5	-131.4	90.5	79.9	10.58	8.557		
2,600.0	2,578.2	2,600.7	2,588.0	10.9	0.0	-151.28	-124.7	-141.8	95.4	84.5	10.94	8.718		
2,700.0	2,676.7	2,700.6	2,686.9	11.3	0.0	-151.13	-133.0	-152.2	100.3	89.0	11.31	8.866		
2,800.0	2,775.3	2,800.5	2,785.9	11.7	0.0	-151.00	-141.2	-162.5	105.2	93.5	11.68	9.003		
2,900.0	2,873.8	2,900.4	2,884.9	12.1	0.0	-150.87	-149.5	-172.9	110.1	98.0	12.06	9.129		
3,000.0	2,972.3	3,000.3	2,983.9	12.5	0.0	-150.76	-157.7	-183.3	115.0	102.5	12.44	9.247		
3,100.0	3,070.8	3,100.1	3,082.9	13.0	0.0	-150.66	-166.0	-193.6	119.9	107.1	12.81	9.356		
3,200.0	3,169.3	3,200.0	3,181.9	13.4	0.0	-150.56	-174.2	-204.0	124.8	111.6	13.19	9.457		
3,300.0	3,267.9	3,299.9	3,280.9	13.8	0.0	-150.47	-182.5	-214.4	129.7	116.1	13.58	9.552		
3,400.0	3,366.4	3,399.8	3,379.9	14.3	0.0	-150.39	-190.7	-224.7	134.6	120.6	13.96	9.641		
3,500.0	3,464.9	3,499.7	3,478.9	14.7	0.0	-150.32	-199.0	-235.1	139.5	125.1	14.34	9.724		
3,600.0	3,563.4	3,599.5	3,577.9	15.2	0.0	-150.25	-207.3	-245.5	144.4	129.6	14.73	9.802		
3,700.0	3,661.9	3,699.4	3,676.9	15.6	0.0	-150.18	-215.5	-255.8	149.3	134.2	15.12	9.875		
3,800.0	3,760.5	3,799.3	3,775.9	16.1	0.0	-150.12	-223.8	-266.2	154.2	138.7	15.50	9.944		
3,900.0	3,859.0	3,899.2	3,874.9	16.5	0.0	-150.06	-232.0	-276.6	159.1	143.2	15.89	10.008		
4,000.0	3,957.5	3,999.1	3,973.9	17.0	0.0	-150.01	-240.3	-287.0	164.0	147.7	16.28	10.070		
4,100.0	4,056.0	4,098.9	4,072.9	17.4	0.0	-149.95	-248.5	-297.3	168.9	152.2	16.67	10.127		
4,200.0	4,154.5	4,198.8	4,171.9	17.9	0.0	-149.91	-256.8	-307.7	173.8	156.7	17.07	10.182		
4,300.0	4,253.1	4,298.7	4,270.9	18.3	0.0	-149.86	-265.0	-318.1	178.7	161.2	17.46	10.234		
4,400.0	4,351.6	4,398.6	4,369.9	18.8	0.0	-149.82	-273.3	-328.4	183.6	165.7	17.85	10.283		
4,500.0	4,450.1	4,498.5	4,468.9	19.3	0.0	-149.78	-281.5	-338.8	188.5	170.2	18.24	10.330		
4,600.0	4,548.6	4,598.3	4,567.9	19.7	0.0	-149.74	-289.8	-349.2	193.4	174.7	18.64	10.374		
4,700.0	4,647.2	4,698.2	4,666.9	20.2	0.0	-149.70	-298.0	-359.5	198.3	179.2	19.03	10.417		
4,800.0	4,745.7	4,798.1	4,765.9	20.6	0.0	-149.66	-306.3	-369.9	203.2	183.7	19.43	10.457		
4,900.0	4,844.2	4,898.0	4,864.9	21.1	0.0	-149.63	-314.5	-380.3	208.1	188.2	19.82	10.495		
5,000.0	4,942.7	4,997.9	4,963.9	21.6	0.0	-149.60	-322.8	-390.6	213.0	192.7	20.22	10.532		
5,100.0	5,041.2	5,097.7	5,062.9	22.0	0.0	-149.57	-331.0	-401.0	217.9	197.2	20.62	10.567		

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 19-18-1NCH
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 19-18-1NCH	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	5,139.8	5,197.6	5,161.9	22.5	0.0	-149.54	-339.3	-411.4	222.8	201.7	21.01	10.601		
5,300.0	5,238.3	5,297.5	5,260.9	22.9	0.0	-149.51	-347.5	-421.7	227.7	206.2	21.41	10.633		
5,400.0	5,336.8	5,397.4	5,359.9	23.4	0.0	-149.48	-355.8	-432.1	232.6	210.7	21.81	10.664		
5,500.0	5,435.3	5,497.3	5,458.9	23.9	0.0	-149.46	-364.0	-442.5	237.5	215.2	22.21	10.693		
5,600.0	5,533.8	5,597.1	5,557.9	24.3	0.0	-149.43	-372.3	-452.8	242.4	219.8	22.60	10.721		
5,700.0	5,632.4	5,697.0	5,656.9	24.8	0.0	-149.41	-380.6	-463.2	247.3	224.3	23.00	10.749		
5,800.0	5,730.9	5,796.9	5,755.8	25.3	0.0	-149.39	-388.8	-473.6	252.2	228.8	23.40	10.775		
5,900.0	5,829.4	5,896.8	5,854.8	25.7	0.0	-149.36	-397.1	-484.0	257.1	233.3	23.80	10.800		
6,000.0	5,927.9	5,996.7	5,953.8	26.2	0.0	-149.34	-405.3	-494.3	262.0	237.8	24.20	10.824		
6,100.0	6,026.4	6,096.5	6,052.8	26.6	0.0	-149.32	-413.6	-504.7	266.9	242.3	24.60	10.847		
6,200.0	6,125.0	6,196.4	6,151.8	27.1	0.0	-149.30	-421.8	-515.1	271.8	246.8	25.00	10.870		
6,300.0	6,223.5	6,296.3	6,250.8	27.6	0.0	-149.28	-430.1	-525.4	276.7	251.3	25.40	10.892		
6,400.0	6,322.0	6,396.2	6,349.8	28.0	0.0	-149.27	-438.3	-535.8	281.6	255.8	25.80	10.913		
6,500.0	6,420.5	6,496.1	6,448.8	28.5	0.0	-149.25	-446.6	-546.2	286.5	260.3	26.20	10.933		
6,600.0	6,519.0	6,595.9	6,547.8	29.0	0.0	-149.23	-454.8	-556.5	291.4	264.8	26.60	10.952		
6,700.0	6,617.6	6,695.8	6,646.8	29.4	0.0	-149.21	-463.1	-566.9	296.3	269.3	27.00	10.971		
6,800.0	6,716.1	6,798.4	6,748.7	29.9	0.0	-150.65	-463.9	-577.6	300.7	273.4	27.31	11.013		
6,900.0	6,814.6	6,895.8	6,844.1	30.4	0.0	-155.11	-447.9	-587.8	305.4	278.1	27.37	11.158		
7,000.0	6,913.2	6,983.4	6,926.5	30.8	0.0	-179.95	-419.7	-596.7	314.0	286.7	27.25	11.523		
7,100.0	7,011.6	7,065.1	6,998.7	31.3	0.0	120.57	-382.4	-604.7	327.3	300.3	27.05	12.102		
7,200.0	7,107.5	7,143.4	7,062.2	31.8	0.0	94.57	-337.3	-611.7	343.6	316.8	26.78	12.830		
7,300.0	7,197.9	7,218.9	7,117.1	32.1	0.0	81.46	-285.9	-617.9	360.9	334.5	26.38	13.680		
7,400.0	7,280.0	7,292.4	7,163.7	32.4	0.0	73.23	-229.3	-623.3	377.9	352.0	25.90	14.592		
7,500.0	7,351.3	7,364.3	7,201.9	32.5	0.0	67.58	-168.6	-627.9	393.4	368.0	25.39	15.491		
7,600.0	7,409.7	7,435.1	7,231.8	32.6	0.0	63.65	-104.6	-631.5	406.4	381.4	24.94	16.294		
7,700.0	7,453.4	7,500.0	7,252.2	32.6	0.0	61.07	-43.1	-634.2	416.3	391.8	24.57	16.947		
7,800.0	7,481.1	7,574.4	7,266.8	32.6	0.0	59.45	29.8	-636.3	422.7	398.2	24.48	17.262		
7,900.0	7,491.9	7,643.5	7,271.9	32.6	0.0	58.85	98.6	-637.4	425.2	400.6	24.59	17.292		
8,000.0	7,492.0	7,739.9	7,272.0	32.7	0.0	58.85	195.0	-638.3	425.2	400.4	24.80	17.148		
8,100.0	7,492.0	7,839.9	7,272.0	32.8	0.0	58.85	295.0	-639.1	425.2	400.1	25.11	16.935		
8,200.0	7,492.0	7,939.9	7,272.0	33.0	0.0	58.85	395.0	-639.9	425.2	399.7	25.52	16.665		
8,300.0	7,492.0	8,039.9	7,272.0	33.4	0.0	58.85	495.0	-640.7	425.2	399.2	26.01	16.349		
8,400.0	7,492.0	8,139.9	7,272.0	33.9	0.0	58.85	595.0	-641.6	425.2	398.7	26.59	15.994		
8,500.0	7,492.0	8,239.9	7,272.0	34.6	0.0	58.85	695.0	-642.4	425.2	398.0	27.24	15.609		
8,600.0	7,492.0	8,339.9	7,272.0	35.3	0.0	58.85	795.0	-643.2	425.2	397.3	27.97	15.203		
8,700.0	7,492.0	8,439.9	7,272.0	36.1	0.0	58.85	895.0	-644.0	425.2	396.5	28.77	14.783		
8,800.0	7,492.0	8,539.9	7,272.0	37.1	0.0	58.85	995.0	-644.9	425.2	395.6	29.62	14.355		
8,900.0	7,492.0	8,639.9	7,272.0	38.0	0.0	58.85	1,095.0	-645.7	425.2	394.7	30.54	13.926		
9,000.0	7,492.0	8,739.9	7,272.0	39.1	0.0	58.85	1,195.0	-646.5	425.2	393.7	31.50	13.500		
9,100.0	7,492.0	8,839.9	7,272.0	40.2	0.0	58.85	1,295.0	-647.3	425.2	392.7	32.51	13.080		
9,200.0	7,492.0	8,939.9	7,272.0	41.3	0.0	58.85	1,395.0	-648.2	425.2	391.7	33.57	12.669		
9,300.0	7,492.0	9,039.9	7,272.0	42.5	0.0	58.85	1,495.0	-649.0	425.2	390.6	34.66	12.270		
9,400.0	7,492.0	9,139.9	7,272.0	43.8	0.0	58.85	1,595.0	-649.8	425.2	389.5	35.79	11.883		
9,500.0	7,492.0	9,239.9	7,272.0	45.0	0.0	58.85	1,695.0	-650.7	425.2	388.3	36.95	11.510		
9,600.0	7,492.0	9,339.9	7,272.0	46.3	0.0	58.85	1,794.9	-651.5	425.2	387.1	38.13	11.151		
9,700.0	7,492.0	9,439.9	7,272.0	47.7	0.0	58.85	1,894.9	-652.3	425.2	385.9	39.35	10.807		
9,800.0	7,492.0	9,539.9	7,272.0	49.0	0.0	58.85	1,994.9	-653.1	425.2	384.7	40.59	10.477		
9,900.0	7,492.0	9,639.9	7,272.0	50.4	0.0	58.85	2,094.9	-654.0	425.2	383.4	41.85	10.161		
10,000.0	7,492.0	9,739.9	7,272.0	51.8	0.0	58.85	2,194.9	-654.8	425.2	382.1	43.13	9.859		
10,100.0	7,492.0	9,839.9	7,272.0	53.2	0.0	58.85	2,294.9	-655.6	425.2	380.8	44.43	9.571		
10,200.0	7,492.0	9,939.9	7,272.0	54.7	0.0	58.85	2,394.9	-656.4	425.2	379.5	45.75	9.296		
10,300.0	7,492.0	10,039.9	7,272.0	56.1	0.0	58.85	2,494.9	-657.3	425.2	378.2	47.08	9.033		

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 19-18-1NCH
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 19-18-1NCH	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		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	7,492.0	10,139.9	7,272.0	57.6	0.0	58.85	2,594.9	-658.1	425.2	376.8	48.42	8.782		
10,500.0	7,492.0	10,239.9	7,272.0	59.1	0.0	58.85	2,694.9	-658.9	425.2	375.5	49.78	8.542		
10,600.0	7,492.0	10,339.9	7,272.0	60.6	0.0	58.85	2,794.9	-659.8	425.2	374.1	51.15	8.313		
10,700.0	7,492.0	10,439.9	7,272.0	62.2	0.0	58.85	2,894.9	-660.6	425.2	372.7	52.53	8.095		
10,800.0	7,492.0	10,539.9	7,272.0	63.7	0.0	58.85	2,994.9	-661.4	425.2	371.3	53.92	7.886		
10,900.0	7,492.0	10,639.9	7,272.0	65.2	0.0	58.85	3,094.9	-662.2	425.2	369.9	55.33	7.686		
11,000.0	7,492.0	10,739.9	7,272.0	66.8	0.0	58.85	3,194.9	-663.1	425.2	368.5	56.74	7.495		
11,100.0	7,492.0	10,839.9	7,272.0	68.4	0.0	58.85	3,294.9	-663.9	425.2	367.1	58.15	7.313		
11,200.0	7,492.0	10,939.9	7,272.0	70.0	0.0	58.85	3,394.9	-664.7	425.2	365.7	59.58	7.138		
11,300.0	7,492.0	11,039.9	7,272.0	71.5	0.0	58.85	3,494.9	-665.5	425.2	364.2	61.01	6.970		
11,400.0	7,492.0	11,139.9	7,272.0	73.1	0.0	58.85	3,594.9	-666.4	425.2	362.8	62.45	6.810		
11,500.0	7,492.0	11,239.9	7,272.0	74.7	0.0	58.85	3,694.9	-667.2	425.2	361.4	63.89	6.656		
11,600.0	7,492.0	11,339.9	7,272.0	76.4	0.0	58.85	3,794.9	-668.0	425.2	359.9	65.34	6.508		
11,700.0	7,492.0	11,439.9	7,272.0	78.0	0.0	58.85	3,894.9	-668.9	425.2	358.4	66.80	6.366		
11,800.0	7,492.0	11,539.9	7,272.0	79.6	0.0	58.85	3,994.9	-669.7	425.2	357.0	68.26	6.230		
11,900.0	7,492.0	11,639.9	7,272.0	81.2	0.0	58.85	4,094.9	-670.5	425.2	355.5	69.72	6.099		
12,000.0	7,492.0	11,739.9	7,272.0	82.9	0.0	58.85	4,194.9	-671.3	425.2	354.1	71.19	5.973		
12,100.0	7,492.0	11,839.9	7,272.0	84.5	0.0	58.85	4,294.9	-672.2	425.2	352.6	72.66	5.852		
12,200.0	7,492.0	11,939.9	7,272.0	86.1	0.0	58.85	4,394.9	-673.0	425.2	351.1	74.14	5.736		
12,300.0	7,492.0	12,039.9	7,272.0	87.8	0.0	58.85	4,494.9	-673.8	425.2	349.6	75.62	5.623		
12,400.0	7,492.0	12,139.9	7,272.0	89.5	0.0	58.85	4,594.9	-674.6	425.2	348.1	77.10	5.515		
12,500.0	7,492.0	12,239.9	7,272.0	91.1	0.0	58.85	4,694.8	-675.5	425.2	346.7	78.59	5.411		
12,600.0	7,492.0	12,339.9	7,272.0	92.8	0.0	58.85	4,794.8	-676.3	425.2	345.2	80.08	5.310		
12,700.0	7,492.0	12,439.9	7,272.0	94.4	0.0	58.85	4,894.8	-677.1	425.2	343.7	81.57	5.213		
12,800.0	7,492.0	12,539.9	7,272.0	96.1	0.0	58.85	4,994.8	-678.0	425.2	342.2	83.07	5.119		
12,900.0	7,492.0	12,639.9	7,272.0	97.8	0.0	58.85	5,094.8	-678.8	425.2	340.7	84.57	5.028		
13,000.0	7,492.0	12,739.9	7,272.0	99.5	0.0	58.85	5,194.8	-679.6	425.2	339.2	86.07	4.941		
13,100.0	7,492.0	12,839.9	7,272.0	101.1	0.0	58.85	5,294.8	-680.4	425.2	337.7	87.57	4.856		
13,200.0	7,492.0	12,939.9	7,272.0	102.8	0.0	58.85	5,394.8	-681.3	425.2	336.2	89.08	4.774		
13,300.0	7,492.0	13,039.9	7,272.0	104.5	0.0	58.85	5,494.8	-682.1	425.2	334.7	90.58	4.694		
13,400.0	7,492.0	13,139.9	7,272.0	106.2	0.0	58.85	5,594.8	-682.9	425.2	333.2	92.09	4.618		
13,500.0	7,492.0	13,239.9	7,272.0	107.9	0.0	58.85	5,694.8	-683.7	425.2	331.6	93.60	4.543		
13,600.0	7,492.0	13,339.9	7,272.0	109.6	0.0	58.85	5,794.8	-684.6	425.2	330.1	95.12	4.471		
13,700.0	7,492.0	13,439.9	7,272.0	111.3	0.0	58.85	5,894.8	-685.4	425.2	328.6	96.63	4.401		
13,800.0	7,492.0	13,539.9	7,272.0	113.0	0.0	58.85	5,994.8	-686.2	425.2	327.1	98.15	4.333		
13,900.0	7,492.0	13,639.9	7,272.0	114.7	0.0	58.85	6,094.8	-687.1	425.2	325.6	99.67	4.267		
14,000.0	7,492.0	13,739.9	7,272.0	116.4	0.0	58.85	6,194.8	-687.9	425.2	324.1	101.18	4.203		
14,100.0	7,492.0	13,839.9	7,272.0	118.1	0.0	58.85	6,294.8	-688.7	425.2	322.5	102.70	4.140		
14,200.0	7,492.0	13,939.9	7,272.0	119.8	0.0	58.85	6,394.8	-689.5	425.2	321.0	104.23	4.080		
14,300.0	7,492.0	14,039.9	7,272.0	121.5	0.0	58.85	6,494.8	-690.4	425.2	319.5	105.75	4.021		
14,400.0	7,492.0	14,139.9	7,272.0	123.2	0.0	58.85	6,594.8	-691.2	425.2	318.0	107.27	3.964		
14,500.0	7,492.0	14,239.9	7,272.0	124.9	0.0	58.85	6,694.8	-692.0	425.2	316.4	108.80	3.909		
14,600.0	7,492.0	14,339.9	7,272.0	126.6	0.0	58.85	6,794.8	-692.8	425.2	314.9	110.33	3.854		
14,700.0	7,492.0	14,439.9	7,272.0	128.3	0.0	58.85	6,894.8	-693.7	425.2	313.4	111.85	3.802		
14,800.0	7,492.0	14,539.9	7,272.0	130.0	0.0	58.85	6,994.8	-694.5	425.2	311.9	113.38	3.751		
14,900.0	7,492.0	14,639.9	7,272.0	131.8	0.0	58.85	7,094.8	-695.3	425.2	310.3	114.91	3.701		
15,000.0	7,492.0	14,739.9	7,272.0	133.5	0.0	58.85	7,194.8	-696.2	425.2	308.8	116.44	3.652		
15,100.0	7,492.0	14,839.9	7,272.0	135.2	0.0	58.85	7,294.8	-697.0	425.2	307.3	117.98	3.605		
15,200.0	7,492.0	14,939.9	7,272.0	136.9	0.0	58.85	7,394.8	-697.8	425.2	305.7	119.51	3.558		
15,300.0	7,492.0	15,039.9	7,272.0	138.6	0.0	58.85	7,494.8	-698.6	425.2	304.2	121.04	3.513		
15,400.0	7,492.0	15,139.9	7,272.0	140.4	0.0	58.85	7,594.7	-699.5	425.2	302.7	122.58	3.469		
15,500.0	7,492.0	15,239.9	7,272.0	142.1	0.0	58.85	7,694.7	-700.3	425.2	301.1	124.11	3.426		

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 19-18-1NCH
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 19-18-1NCH	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							
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	
15,600.0	7,492.0	15,339.9	7,272.0	143.8	0.0	58.85	7,794.7	-701.1	425.2	299.6	125.65	3.384		
15,700.0	7,492.0	15,439.9	7,272.0	145.5	0.0	58.85	7,894.7	-701.9	425.2	298.1	127.18	3.344		
15,800.0	7,492.0	15,539.9	7,272.0	147.3	0.0	58.85	7,994.7	-702.8	425.2	296.5	128.72	3.304		
15,900.0	7,492.0	15,639.9	7,272.0	149.0	0.0	58.85	8,094.7	-703.6	425.2	295.0	130.26	3.265		
16,000.0	7,492.0	15,739.9	7,272.0	150.7	0.0	58.85	8,194.7	-704.4	425.2	293.4	131.80	3.226		
16,100.0	7,492.0	15,839.9	7,272.0	152.4	0.0	58.85	8,294.7	-705.2	425.2	291.9	133.34	3.189		
16,200.0	7,492.0	15,939.9	7,272.0	154.2	0.0	58.85	8,394.7	-706.1	425.2	290.4	134.88	3.153		
16,300.0	7,492.0	16,039.9	7,272.0	155.9	0.0	58.85	8,494.7	-706.9	425.2	288.8	136.42	3.117		
16,400.0	7,492.0	16,139.9	7,272.0	157.6	0.0	58.85	8,594.7	-707.7	425.2	287.3	137.96	3.082		
16,500.0	7,492.0	16,239.9	7,272.0	159.4	0.0	58.85	8,694.7	-708.6	425.2	285.7	139.50	3.048		
16,600.0	7,492.0	16,339.9	7,272.0	161.1	0.0	58.85	8,794.7	-709.4	425.2	284.2	141.04	3.015		
16,700.0	7,492.0	16,439.9	7,272.0	162.8	0.0	58.85	8,894.7	-710.2	425.2	282.7	142.59	2.982		
16,800.0	7,492.0	16,539.9	7,272.0	164.6	0.0	58.85	8,994.7	-711.0	425.2	281.1	144.13	2.950		
16,900.0	7,492.0	16,639.9	7,272.0	166.3	0.0	58.85	9,094.7	-711.9	425.2	279.6	145.67	2.919		
17,000.0	7,492.0	16,739.9	7,272.0	168.0	0.0	58.85	9,194.7	-712.7	425.2	278.0	147.22	2.889		
17,100.0	7,492.0	16,839.9	7,272.0	169.8	0.0	58.85	9,294.7	-713.5	425.2	276.5	148.76	2.859		
17,200.0	7,492.0	16,939.9	7,272.0	171.5	0.0	58.85	9,394.7	-714.3	425.2	274.9	150.31	2.829		
17,300.0	7,492.0	17,039.9	7,272.0	173.2	0.0	58.85	9,494.7	-715.2	425.2	273.4	151.85	2.800		
17,400.0	7,492.0	17,139.9	7,272.0	175.0	0.0	58.85	9,594.7	-716.0	425.2	271.8	153.40	2.772		
17,500.0	7,492.0	17,239.9	7,272.0	176.7	0.0	58.85	9,694.7	-716.8	425.2	270.3	154.95	2.744		
17,600.0	7,492.0	17,339.9	7,272.0	178.5	0.0	58.85	9,794.7	-717.7	425.2	268.8	156.49	2.717		
17,686.9	7,492.0	17,426.9	7,272.0	180.0	0.0	58.85	9,881.6	-718.4	425.2	267.4	157.84	2.694 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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-													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	-90.34	-0.1	-15.0	15.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.34	-0.1	-15.0	15.0	14.7	0.28	54.114		
200.0	200.0	200.0	200.0	1.0	0.0	-90.34	-0.1	-15.0	15.0	14.2	0.80	18.790		
300.0	300.0	300.0	300.0	1.5	0.0	-90.34	-0.1	-15.0	15.0	13.8	1.22	12.244		
400.0	400.0	400.0	400.0	1.9	0.0	-90.34	-0.1	-15.0	15.0	13.4	1.62	9.265		
500.0	500.0	500.0	500.0	2.3	0.0	-90.34	-0.1	-15.0	15.0	13.0	2.00	7.501		
600.0	600.0	600.0	600.0	2.7	0.0	-90.34	-0.1	-15.0	15.0	12.6	2.37	6.320		
700.0	700.0	700.0	700.0	3.1	0.0	-90.34	-0.1	-15.0	15.0	12.3	2.74	5.468	CC, ES	
800.0	800.0	799.5	799.5	3.5	0.0	-92.71	-0.8	-16.6	16.6	13.5	3.14	5.284		
900.0	900.0	898.8	898.7	3.8	0.0	21.29	-2.9	-21.3	19.9	16.3	3.58	5.555		
1,000.0	999.8	998.0	997.5	4.7	0.0	19.45	-6.3	-29.2	23.3	18.7	4.56	5.109		
1,100.0	1,099.5	1,097.2	1,095.9	5.5	0.0	18.53	-11.2	-40.2	26.7	21.4	5.38	4.975		
1,200.0	1,198.7	1,196.1	1,193.7	6.2	0.0	18.22	-17.4	-54.2	30.2	24.1	6.09	4.960		
1,300.0	1,297.5	1,295.2	1,291.0	6.8	0.0	18.35	-24.9	-71.3	33.7	27.0	6.67	5.047		
1,400.0	1,396.0	1,395.2	1,388.9	7.0	0.0	18.79	-32.9	-89.6	36.7	29.8	6.92	5.311		
1,500.0	1,494.5	1,495.1	1,486.9	7.3	0.0	19.15	-41.0	-107.8	39.8	32.6	7.21	5.524		
1,600.0	1,593.0	1,595.1	1,584.8	7.6	0.0	19.47	-49.0	-126.1	42.9	35.4	7.51	5.712		
1,700.0	1,691.5	1,695.0	1,682.7	7.9	0.0	19.74	-57.1	-144.3	45.9	38.1	7.81	5.880		
1,800.0	1,790.1	1,795.0	1,780.7	8.2	0.0	19.98	-65.1	-162.6	49.0	40.9	8.13	6.030		
1,900.0	1,888.6	1,895.0	1,878.6	8.5	0.0	20.19	-73.1	-180.8	52.1	43.6	8.45	6.163		
2,000.0	1,987.1	1,994.9	1,976.6	8.8	0.0	20.37	-81.2	-199.1	55.2	46.4	8.78	6.282		
2,100.0	2,085.6	2,094.9	2,074.5	9.1	0.0	20.54	-89.2	-217.3	58.2	49.1	9.12	6.388		
2,200.0	2,184.1	2,194.8	2,172.5	9.5	0.0	20.69	-97.2	-235.6	61.3	51.9	9.46	6.484		
2,300.0	2,282.7	2,294.8	2,270.4	9.8	0.0	20.83	-105.3	-253.8	64.4	54.6	9.80	6.570		
2,400.0	2,381.2	2,394.7	2,368.3	10.2	0.0	20.95	-113.3	-272.1	67.5	57.3	10.15	6.648		
2,500.0	2,479.7	2,494.7	2,466.3	10.5	0.0	21.06	-121.4	-290.3	70.6	60.1	10.50	6.719		
2,600.0	2,578.2	2,594.6	2,564.2	10.9	0.0	21.17	-129.4	-308.6	73.6	62.8	10.86	6.783		
2,700.0	2,676.7	2,694.6	2,662.2	11.3	0.0	21.26	-137.4	-326.8	76.7	65.5	11.21	6.841		
2,800.0	2,775.3	2,794.5	2,760.1	11.7	0.0	21.35	-145.5	-345.1	79.8	68.2	11.57	6.894		
2,900.0	2,873.8	2,894.5	2,858.1	12.1	0.0	21.43	-153.5	-363.3	82.9	70.9	11.94	6.943		
3,000.0	2,972.3	2,994.4	2,956.0	12.5	0.0	21.50	-161.5	-381.6	85.9	73.6	12.30	6.987		
3,100.0	3,070.8	3,094.4	3,053.9	13.0	0.0	21.57	-169.6	-399.8	89.0	76.4	12.67	7.028		
3,200.0	3,169.3	3,194.3	3,151.9	13.4	0.0	21.64	-177.6	-418.1	92.1	79.1	13.03	7.066		
3,300.0	3,267.9	3,294.3	3,249.8	13.8	0.0	21.70	-185.7	-436.4	95.2	81.8	13.40	7.101		
3,400.0	3,366.4	3,394.2	3,347.8	14.3	0.0	21.76	-193.7	-454.6	98.3	84.5	13.78	7.133		
3,500.0	3,464.9	3,494.2	3,445.7	14.7	0.0	21.81	-201.7	-472.9	101.3	87.2	14.15	7.163		
3,600.0	3,563.4	3,594.1	3,543.7	15.2	0.0	21.86	-209.8	-491.1	104.4	89.9	14.52	7.190		
3,700.0	3,661.9	3,694.1	3,641.6	15.6	0.0	21.91	-217.8	-509.4	107.5	92.6	14.90	7.216		
3,800.0	3,760.5	3,794.0	3,739.5	16.1	0.0	21.96	-225.9	-527.6	110.6	95.3	15.27	7.240		
3,900.0	3,859.0	3,894.0	3,837.5	16.5	0.0	22.00	-233.9	-545.9	113.7	98.0	15.65	7.263		
4,000.0	3,957.5	3,994.0	3,935.4	17.0	0.0	22.04	-241.9	-564.1	116.7	100.7	16.03	7.283		
4,100.0	4,056.0	4,093.9	4,033.4	17.4	0.0	22.08	-250.0	-582.4	119.8	103.4	16.41	7.303		
4,200.0	4,154.5	4,193.9	4,131.3	17.9	0.0	22.11	-258.0	-600.6	122.9	106.1	16.79	7.321		
4,300.0	4,253.1	4,293.8	4,229.3	18.3	0.0	22.15	-266.0	-618.9	126.0	108.8	17.17	7.338		
4,400.0	4,351.6	4,393.8	4,327.2	18.8	0.0	22.18	-274.1	-637.1	129.1	111.5	17.55	7.355		
4,500.0	4,450.1	4,493.7	4,425.1	19.3	0.0	22.21	-282.1	-655.4	132.1	114.2	17.93	7.370		
4,600.0	4,548.6	4,593.7	4,523.1	19.7	0.0	22.24	-290.2	-673.6	135.2	116.9	18.31	7.384		
4,700.0	4,647.2	4,693.6	4,621.0	20.2	0.0	22.27	-298.2	-691.9	138.3	119.6	18.69	7.398		
4,800.0	4,745.7	4,793.6	4,719.0	20.6	0.0	22.30	-306.2	-710.1	141.4	122.3	19.08	7.410		
4,900.0	4,844.2	4,893.5	4,816.9	21.1	0.0	22.32	-314.3	-728.4	144.4	125.0	19.46	7.423		
5,000.0	4,942.7	4,993.5	4,914.9	21.6	0.0	22.35	-322.3	-746.6	147.5	127.7	19.85	7.434		
5,100.0	5,041.2	5,093.4	5,012.8	22.0	0.0	22.37	-330.4	-764.9	150.6	130.4	20.23	7.445		

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 19-18-1NCH
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 19-18-1NCH	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-													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	5,139.8	5,193.4	5,110.7	22.5	0.0	22.40	-338.4	-783.1	153.7	133.1	20.62	7.455		
5,300.0	5,238.3	5,293.3	5,208.7	22.9	0.0	22.42	-346.4	-801.4	156.8	135.8	21.00	7.465		
5,400.0	5,336.8	5,393.3	5,306.6	23.4	0.0	22.44	-354.5	-819.6	159.8	138.5	21.39	7.474		
5,500.0	5,435.3	5,493.2	5,404.6	23.9	0.0	22.46	-362.5	-837.9	162.9	141.2	21.77	7.483		
5,600.0	5,533.8	5,593.2	5,502.5	24.3	0.0	22.48	-370.5	-856.1	166.0	143.8	22.16	7.491		
5,700.0	5,632.4	5,693.1	5,600.5	24.8	0.0	22.50	-378.6	-874.4	169.1	146.5	22.55	7.499		
5,800.0	5,730.9	5,793.1	5,698.4	25.3	0.0	22.52	-386.6	-892.6	172.2	149.2	22.93	7.507		
5,900.0	5,829.4	5,893.1	5,796.3	25.7	0.0	22.54	-394.7	-910.9	175.2	151.9	23.32	7.514		
6,000.0	5,927.9	5,993.0	5,894.3	26.2	0.0	22.55	-402.7	-929.1	178.3	154.6	23.71	7.521		
6,100.0	6,026.4	6,093.0	5,992.2	26.6	0.0	22.57	-410.7	-947.4	181.4	157.3	24.10	7.528		
6,200.0	6,125.0	6,192.9	6,090.2	27.1	0.0	22.59	-418.8	-965.6	184.5	160.0	24.49	7.534		
6,300.0	6,223.5	6,292.9	6,188.1	27.6	0.0	22.60	-426.8	-983.9	187.6	162.7	24.87	7.541		
6,400.0	6,322.0	6,392.8	6,286.1	28.0	0.0	22.62	-434.9	-1,002.1	190.6	165.4	25.26	7.546		
6,500.0	6,420.5	6,492.8	6,384.0	28.5	0.0	22.63	-442.9	-1,020.4	193.7	168.1	25.65	7.552		
6,600.0	6,519.0	6,592.7	6,481.9	29.0	0.0	22.64	-450.9	-1,038.6	196.8	170.8	26.04	7.557		
6,700.0	6,617.6	6,692.7	6,579.9	29.4	0.0	22.66	-459.0	-1,056.9	199.9	173.5	26.43	7.563		
6,800.0	6,716.1	6,792.9	6,678.1	29.9	0.0	22.71	-466.9	-1,075.2	203.0	176.1	26.83	7.566		
6,900.0	6,814.6	6,893.4	6,776.7	30.4	0.0	25.81	-463.8	-1,093.8	205.7	178.3	27.43	7.500		
7,000.0	6,913.2	6,987.7	6,867.4	30.8	0.0	14.62	-445.1	-1,111.0	210.5	182.2	28.24	7.451		
7,100.0	7,011.6	7,076.9	6,949.2	31.3	0.0	-30.27	-413.7	-1,126.9	219.2	190.4	28.77	7.618		
7,200.0	7,107.5	7,162.6	7,022.5	31.8	0.0	-43.52	-371.7	-1,141.3	230.6	201.8	28.77	8.014		
7,300.0	7,197.9	7,245.7	7,086.8	32.1	0.0	-45.92	-320.8	-1,154.1	243.3	215.0	28.32	8.592		
7,400.0	7,280.0	7,326.6	7,141.8	32.4	0.0	-45.44	-262.6	-1,165.3	256.1	228.6	27.54	9.301		
7,500.0	7,351.3	7,405.8	7,187.3	32.5	0.0	-44.25	-198.5	-1,174.9	268.0	241.4	26.61	10.073		
7,600.0	7,409.7	7,483.7	7,223.1	32.6	0.0	-43.07	-129.9	-1,182.7	278.1	252.4	25.71	10.818		
7,700.0	7,453.4	7,560.7	7,249.2	32.6	0.0	-42.14	-57.7	-1,188.7	285.9	260.9	25.03	11.424		
7,800.0	7,481.1	7,637.1	7,265.5	32.6	0.0	-41.57	16.7	-1,192.9	291.0	266.3	24.72	11.775		
7,900.0	7,491.9	7,713.2	7,271.9	32.6	0.0	-41.40	92.5	-1,195.2	293.2	268.4	24.87	11.792		
8,000.0	7,492.0	7,809.8	7,272.0	32.7	0.0	-41.50	189.0	-1,196.7	293.7	268.5	25.26	11.630		
8,100.0	7,492.0	7,909.8	7,272.0	32.8	0.0	-41.60	289.0	-1,198.3	294.2	268.5	25.71	11.443		
8,200.0	7,492.0	8,009.8	7,272.0	33.0	0.0	-41.70	389.0	-1,199.8	294.7	268.5	26.23	11.237		
8,300.0	7,492.0	8,109.8	7,272.0	33.4	0.0	-41.81	488.9	-1,201.4	295.2	268.4	26.79	11.015		
8,400.0	7,492.0	8,209.8	7,272.0	33.9	0.0	-41.91	588.9	-1,202.9	295.6	268.2	27.42	10.783		
8,500.0	7,492.0	8,309.8	7,272.0	34.6	0.0	-42.01	688.9	-1,204.5	296.1	268.0	28.09	10.542		
8,600.0	7,492.0	8,409.8	7,272.0	35.3	0.0	-42.12	788.9	-1,206.0	296.6	267.8	28.81	10.295		
8,700.0	7,492.0	8,509.8	7,272.0	36.1	0.0	-42.22	888.9	-1,207.5	297.1	267.5	29.57	10.045		
8,800.0	7,492.0	8,609.7	7,272.0	37.1	0.0	-42.32	988.9	-1,209.1	297.6	267.2	30.38	9.795		
8,900.0	7,492.0	8,709.7	7,272.0	38.0	0.0	-42.42	1,088.9	-1,210.6	298.0	266.8	31.22	9.546		
9,000.0	7,492.0	8,809.7	7,272.0	39.1	0.0	-42.53	1,188.8	-1,212.2	298.5	266.4	32.10	9.300		
9,100.0	7,492.0	8,909.7	7,272.0	40.2	0.0	-42.63	1,288.8	-1,213.7	299.0	266.0	33.01	9.058		
9,200.0	7,492.0	9,009.7	7,272.0	41.3	0.0	-42.73	1,388.8	-1,215.3	299.5	265.5	33.95	8.821		
9,300.0	7,492.0	9,109.7	7,272.0	42.5	0.0	-42.83	1,488.8	-1,216.8	300.0	265.1	34.92	8.589		
9,400.0	7,492.0	9,209.7	7,272.0	43.8	0.0	-42.93	1,588.8	-1,218.3	300.5	264.5	35.92	8.364		
9,500.0	7,492.0	9,309.7	7,272.0	45.0	0.0	-43.03	1,688.8	-1,219.9	300.9	264.0	36.94	8.146		
9,600.0	7,492.0	9,409.7	7,272.0	46.3	0.0	-43.13	1,788.8	-1,221.4	301.4	263.4	37.99	7.934		
9,700.0	7,492.0	9,509.7	7,272.0	47.7	0.0	-43.23	1,888.7	-1,223.0	301.9	262.9	39.06	7.730		
9,800.0	7,492.0	9,609.7	7,272.0	49.0	0.0	-43.32	1,988.7	-1,224.5	302.4	262.3	40.15	7.533		
9,900.0	7,492.0	9,709.7	7,272.0	50.4	0.0	-43.42	2,088.7	-1,226.1	302.9	261.7	41.25	7.343		
10,000.0	7,492.0	9,809.7	7,272.0	51.8	0.0	-43.52	2,188.7	-1,227.6	303.4	261.0	42.38	7.159		
10,100.0	7,492.0	9,909.7	7,272.0	53.2	0.0	-43.62	2,288.7	-1,229.1	303.9	260.4	43.52	6.983		
10,200.0	7,492.0	10,009.7	7,272.0	54.7	0.0	-43.72	2,388.7	-1,230.7	304.4	259.7	44.68	6.813		
10,300.0	7,492.0	10,109.7	7,272.0	56.1	0.0	-43.81	2,488.7	-1,232.2	304.9	259.0	45.85	6.650		

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 19-18-1NCH
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 19-18-1NCH	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-													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	7,492.0	10,209.7	7,272.0	57.6	0.0	-43.91	2,588.6	-1,233.8	305.4	258.3	47.03	6.493		
10,500.0	7,492.0	10,309.7	7,272.0	59.1	0.0	-44.01	2,688.6	-1,235.3	305.9	257.6	48.23	6.342		
10,600.0	7,492.0	10,409.7	7,272.0	60.6	0.0	-44.10	2,788.6	-1,236.9	306.4	256.9	49.44	6.196		
10,700.0	7,492.0	10,509.7	7,272.0	62.2	0.0	-44.20	2,888.6	-1,238.4	306.9	256.2	50.67	6.057		
10,800.0	7,492.0	10,609.7	7,272.0	63.7	0.0	-44.30	2,988.6	-1,239.9	307.4	255.5	51.90	5.922		
10,900.0	7,492.0	10,709.7	7,272.0	65.2	0.0	-44.39	3,088.6	-1,241.5	307.9	254.7	53.15	5.793		
11,000.0	7,492.0	10,809.7	7,272.0	66.8	0.0	-44.49	3,188.6	-1,243.0	308.4	254.0	54.40	5.669		
11,100.0	7,492.0	10,909.7	7,272.0	68.4	0.0	-44.58	3,288.5	-1,244.6	308.9	253.2	55.66	5.549		
11,200.0	7,492.0	11,009.7	7,272.0	70.0	0.0	-44.67	3,388.5	-1,246.1	309.4	252.4	56.94	5.434		
11,300.0	7,492.0	11,109.7	7,272.0	71.5	0.0	-44.77	3,488.5	-1,247.7	309.9	251.7	58.22	5.323		
11,400.0	7,492.0	11,209.7	7,272.0	73.1	0.0	-44.86	3,588.5	-1,249.2	310.4	250.9	59.51	5.216		
11,500.0	7,492.0	11,309.7	7,272.0	74.7	0.0	-44.96	3,688.5	-1,250.7	310.9	250.1	60.81	5.113		
11,600.0	7,492.0	11,409.7	7,272.0	76.4	0.0	-45.05	3,788.5	-1,252.3	311.4	249.3	62.11	5.013		
11,700.0	7,492.0	11,509.7	7,272.0	78.0	0.0	-45.14	3,888.5	-1,253.8	311.9	248.5	63.43	4.918		
11,800.0	7,492.0	11,609.7	7,272.0	79.6	0.0	-45.23	3,988.4	-1,255.4	312.4	247.7	64.75	4.825		
11,900.0	7,492.0	11,709.7	7,272.0	81.2	0.0	-45.33	4,088.4	-1,256.9	312.9	246.9	66.07	4.736		
12,000.0	7,492.0	11,809.7	7,272.0	82.9	0.0	-45.42	4,188.4	-1,258.5	313.4	246.0	67.41	4.650		
12,100.0	7,492.0	11,909.7	7,272.0	84.5	0.0	-45.51	4,288.4	-1,260.0	313.9	245.2	68.75	4.567		
12,200.0	7,492.0	12,009.7	7,272.0	86.1	0.0	-45.60	4,388.4	-1,261.5	314.5	244.4	70.09	4.486		
12,300.0	7,492.0	12,109.7	7,272.0	87.8	0.0	-45.69	4,488.4	-1,263.1	315.0	243.5	71.44	4.409		
12,400.0	7,492.0	12,209.7	7,272.0	89.5	0.0	-45.78	4,588.4	-1,264.6	315.5	242.7	72.80	4.334		
12,500.0	7,492.0	12,309.7	7,272.0	91.1	0.0	-45.87	4,688.3	-1,266.2	316.0	241.8	74.16	4.261		
12,600.0	7,492.0	12,409.7	7,272.0	92.8	0.0	-45.96	4,788.3	-1,267.7	316.5	241.0	75.53	4.190		
12,700.0	7,492.0	12,509.6	7,272.0	94.4	0.0	-46.05	4,888.3	-1,269.3	317.0	240.1	76.90	4.122		
12,800.0	7,492.0	12,609.6	7,272.0	96.1	0.0	-46.14	4,988.3	-1,270.8	317.5	239.3	78.28	4.056		
12,900.0	7,492.0	12,709.6	7,272.0	97.8	0.0	-46.23	5,088.3	-1,272.3	318.1	238.4	79.67	3.992		
13,000.0	7,492.0	12,809.6	7,272.0	99.5	0.0	-46.32	5,188.3	-1,273.9	318.6	237.5	81.05	3.930		
13,100.0	7,492.0	12,909.6	7,272.0	101.1	0.0	-46.41	5,288.3	-1,275.4	319.1	236.6	82.45	3.870		
13,200.0	7,492.0	13,009.6	7,272.0	102.8	0.0	-46.50	5,388.2	-1,277.0	319.6	235.8	83.84	3.812		
13,300.0	7,492.0	13,109.6	7,272.0	104.5	0.0	-46.59	5,488.2	-1,278.5	320.1	234.9	85.25	3.755		
13,400.0	7,492.0	13,209.6	7,272.0	106.2	0.0	-46.68	5,588.2	-1,280.1	320.6	234.0	86.65	3.700		
13,500.0	7,492.0	13,309.6	7,272.0	107.9	0.0	-46.76	5,688.2	-1,281.6	321.2	233.1	88.06	3.647		
13,600.0	7,492.0	13,409.6	7,272.0	109.6	0.0	-46.85	5,788.2	-1,283.1	321.7	232.2	89.48	3.595		
13,700.0	7,492.0	13,509.6	7,272.0	111.3	0.0	-46.94	5,888.2	-1,284.7	322.2	231.3	90.89	3.545		
13,800.0	7,492.0	13,609.6	7,272.0	113.0	0.0	-47.02	5,988.2	-1,286.2	322.7	230.4	92.32	3.496		
13,900.0	7,492.0	13,709.6	7,272.0	114.7	0.0	-47.11	6,088.1	-1,287.8	323.3	229.5	93.74	3.448		
14,000.0	7,492.0	13,809.6	7,272.0	116.4	0.0	-47.20	6,188.1	-1,289.3	323.8	228.6	95.17	3.402		
14,100.0	7,492.0	13,909.6	7,272.0	118.1	0.0	-47.28	6,288.1	-1,290.9	324.3	227.7	96.61	3.357		
14,200.0	7,492.0	14,009.6	7,272.0	119.8	0.0	-47.37	6,388.1	-1,292.4	324.8	226.8	98.04	3.313		
14,300.0	7,492.0	14,109.6	7,272.0	121.5	0.0	-47.45	6,488.1	-1,293.9	325.4	225.9	99.48	3.271		
14,400.0	7,492.0	14,209.6	7,272.0	123.2	0.0	-47.54	6,588.1	-1,295.5	325.9	225.0	100.93	3.229		
14,500.0	7,492.0	14,309.6	7,272.0	124.9	0.0	-47.62	6,688.1	-1,297.0	326.4	224.0	102.38	3.188		
14,600.0	7,492.0	14,409.6	7,272.0	126.6	0.0	-47.71	6,788.0	-1,298.6	326.9	223.1	103.83	3.149		
14,700.0	7,492.0	14,509.6	7,272.0	128.3	0.0	-47.79	6,888.0	-1,300.1	327.5	222.2	105.28	3.111		
14,800.0	7,492.0	14,609.6	7,272.0	130.0	0.0	-47.88	6,988.0	-1,301.7	328.0	221.3	106.74	3.073		
14,900.0	7,492.0	14,709.6	7,272.0	131.8	0.0	-47.96	7,088.0	-1,303.2	328.5	220.3	108.20	3.036		
15,000.0	7,492.0	14,809.6	7,272.0	133.5	0.0	-48.04	7,188.0	-1,304.7	329.1	219.4	109.66	3.001		
15,100.0	7,492.0	14,909.6	7,272.0	135.2	0.0	-48.13	7,288.0	-1,306.3	329.6	218.5	111.13	2.966		
15,200.0	7,492.0	15,009.6	7,272.0	136.9	0.0	-48.21	7,387.9	-1,307.8	330.1	217.5	112.60	2.932		
15,300.0	7,492.0	15,109.6	7,272.0	138.6	0.0	-48.29	7,487.9	-1,309.4	330.7	216.6	114.07	2.899		
15,400.0	7,492.0	15,209.6	7,272.0	140.4	0.0	-48.38	7,587.9	-1,310.9	331.2	215.7	115.55	2.866		
15,500.0	7,492.0	15,309.6	7,272.0	142.1	0.0	-48.46	7,687.9	-1,312.5	331.7	214.7	117.03	2.835		

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 19-18-1NCH
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 19-18-1NCH	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-													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	7,492.0	15,409.6	7,272.0	143.8	0.0	-48.54	7,787.9	-1,314.0	332.3	213.8	118.51	2.804		
15,700.0	7,492.0	15,509.6	7,272.0	145.5	0.0	-48.62	7,887.9	-1,315.5	332.8	212.8	119.99	2.774		
15,800.0	7,492.0	15,609.6	7,272.0	147.3	0.0	-48.70	7,987.9	-1,317.1	333.4	211.9	121.48	2.744		
15,900.0	7,492.0	15,709.6	7,272.0	149.0	0.0	-48.78	8,087.8	-1,318.6	333.9	210.9	122.97	2.715		
16,000.0	7,492.0	15,809.6	7,272.0	150.7	0.0	-48.86	8,187.8	-1,320.2	334.4	210.0	124.46	2.687		
16,100.0	7,492.0	15,909.6	7,272.0	152.4	0.0	-48.94	8,287.8	-1,321.7	335.0	209.0	125.96	2.659		
16,200.0	7,492.0	16,009.6	7,272.0	154.2	0.0	-49.02	8,387.8	-1,323.3	335.5	208.0	127.46	2.632		
16,300.0	7,492.0	16,109.6	7,272.0	155.9	0.0	-49.10	8,487.8	-1,324.8	336.0	207.1	128.96	2.606		
16,400.0	7,492.0	16,209.6	7,272.0	157.6	0.0	-49.18	8,587.8	-1,326.3	336.6	206.1	130.46	2.580		
16,500.0	7,492.0	16,309.6	7,272.0	159.4	0.0	-49.26	8,687.8	-1,327.9	337.1	205.2	131.97	2.555		
16,600.0	7,492.0	16,409.5	7,272.0	161.1	0.0	-49.34	8,787.7	-1,329.4	337.7	204.2	133.48	2.530		
16,700.0	7,492.0	16,509.5	7,272.0	162.8	0.0	-49.42	8,887.7	-1,331.0	338.2	203.2	134.99	2.506		
16,800.0	7,492.0	16,609.5	7,272.0	164.6	0.0	-49.50	8,987.7	-1,332.5	338.8	202.3	136.50	2.482		
16,900.0	7,492.0	16,709.5	7,272.0	166.3	0.0	-49.58	9,087.7	-1,334.1	339.3	201.3	138.02	2.458		
17,000.0	7,492.0	16,809.5	7,272.0	168.0	0.0	-49.66	9,187.7	-1,335.6	339.9	200.3	139.53	2.436		
17,100.0	7,492.0	16,909.5	7,272.0	169.8	0.0	-49.74	9,287.7	-1,337.1	340.4	199.3	141.05	2.413		
17,200.0	7,492.0	17,009.5	7,272.0	171.5	0.0	-49.81	9,387.7	-1,338.7	340.9	198.4	142.58	2.391		
17,300.0	7,492.0	17,109.5	7,272.0	173.2	0.0	-49.89	9,487.6	-1,340.2	341.5	197.4	144.10	2.370		
17,400.0	7,492.0	17,209.5	7,272.0	175.0	0.0	-49.97	9,587.6	-1,341.8	342.0	196.4	145.63	2.349		
17,500.0	7,492.0	17,309.5	7,272.0	176.7	0.0	-50.05	9,687.6	-1,343.3	342.6	195.4	147.16	2.328		
17,600.0	7,492.0	17,409.5	7,272.0	178.5	0.0	-50.12	9,787.6	-1,344.9	343.1	194.4	148.69	2.308		
17,686.9	7,492.0	17,496.2	7,272.0	180.0	0.0	-50.19	9,874.3	-1,346.2	343.6	193.6	150.03	2.290 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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	89.75	0.1	30.0	30.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.75	0.1	30.0	30.0	29.7	0.28	108.381		
200.0	200.0	200.0	200.0	1.0	0.0	89.75	0.1	30.0	30.0	29.2	0.80	37.627		
300.0	300.0	300.0	300.0	1.5	0.0	89.75	0.1	30.0	30.0	28.8	1.22	24.516		
400.0	400.0	400.0	400.0	1.9	0.0	89.75	0.1	30.0	30.0	28.4	1.62	18.548		
500.0	500.0	500.0	500.0	2.3	0.0	89.75	0.1	30.0	30.0	28.0	2.00	15.016		
600.0	600.0	600.0	600.0	2.7	0.0	89.75	0.1	30.0	30.0	27.6	2.37	12.650		
700.0	700.0	700.0	700.0	3.1	0.0	89.75	0.1	30.0	30.0	27.3	2.74	10.945		
800.0	800.0	800.0	800.0	3.5	0.0	89.75	0.1	30.0	30.0	26.9	3.11	9.652 CC, ES		
900.0	900.0	900.0	900.0	3.8	0.0	-154.37	0.1	30.0	31.6	28.0	3.54	8.924		
1,000.0	999.8	999.8	999.8	4.7	0.0	-157.91	0.1	30.0	36.4	31.8	4.54	8.000		
1,100.0	1,099.5	1,100.5	1,100.5	5.5	0.0	-160.48	-1.3	29.0	43.3	37.9	5.39	8.036		
1,200.0	1,198.7	1,201.4	1,201.2	6.2	0.0	-160.75	-5.6	25.8	51.2	45.1	6.13	8.356		
1,300.0	1,297.5	1,302.0	1,301.4	6.8	0.0	-159.69	-12.6	20.7	59.9	53.2	6.71	8.934		
1,400.0	1,396.0	1,401.5	1,400.5	7.0	0.0	-158.80	-20.4	15.0	69.5	62.5	6.95	9.994		
1,500.0	1,494.5	1,501.1	1,499.6	7.3	0.0	-158.12	-28.2	9.4	79.0	71.8	7.24	10.916		
1,600.0	1,593.0	1,600.6	1,598.7	7.6	0.0	-157.59	-35.9	3.7	88.6	81.0	7.54	11.750		
1,700.0	1,691.5	1,700.1	1,697.7	7.9	0.0	-157.16	-43.7	-2.0	98.1	90.3	7.85	12.504		
1,800.0	1,790.1	1,799.7	1,796.8	8.2	0.0	-156.81	-51.4	-7.6	107.7	99.5	8.17	13.188		
1,900.0	1,888.6	1,899.2	1,895.9	8.5	0.0	-156.52	-59.2	-13.3	117.3	108.8	8.49	13.809		
2,000.0	1,987.1	1,998.8	1,995.0	8.8	0.0	-156.27	-67.0	-19.0	126.8	118.0	8.82	14.373		
2,100.0	2,085.6	2,098.3	2,094.0	9.1	0.0	-156.05	-74.7	-24.6	136.4	127.2	9.16	14.888		
2,200.0	2,184.1	2,197.8	2,193.1	9.5	0.0	-155.87	-82.5	-30.3	146.0	136.5	9.50	15.358		
2,300.0	2,282.7	2,297.4	2,292.2	9.8	0.0	-155.70	-90.2	-35.9	155.5	145.7	9.85	15.788		
2,400.0	2,381.2	2,396.9	2,391.3	10.2	0.0	-155.56	-98.0	-41.6	165.1	154.9	10.20	16.183		
2,500.0	2,479.7	2,496.5	2,490.3	10.5	0.0	-155.43	-105.8	-47.3	174.7	164.1	10.56	16.546		
2,600.0	2,578.2	2,596.0	2,589.4	10.9	0.0	-155.31	-113.5	-52.9	184.3	173.4	10.92	16.880		
2,700.0	2,676.7	2,695.5	2,688.5	11.3	0.0	-155.21	-121.3	-58.6	193.8	182.6	11.28	17.189		
2,800.0	2,775.3	2,795.1	2,787.6	11.7	0.0	-155.12	-129.1	-64.3	203.4	191.8	11.64	17.475		
2,900.0	2,873.8	2,894.6	2,886.6	12.1	0.0	-155.03	-136.8	-69.9	213.0	201.0	12.01	17.741		
3,000.0	2,972.3	2,994.2	2,985.7	12.5	0.0	-154.95	-144.6	-75.6	222.6	210.2	12.37	17.987		
3,100.0	3,070.8	3,093.7	3,084.8	13.0	0.0	-154.88	-152.3	-81.3	232.2	219.4	12.74	18.217		
3,200.0	3,169.3	3,193.2	3,183.9	13.4	0.0	-154.81	-160.1	-86.9	241.7	228.6	13.12	18.431		
3,300.0	3,267.9	3,292.8	3,282.9	13.8	0.0	-154.75	-167.9	-92.6	251.3	237.8	13.49	18.632		
3,400.0	3,366.4	3,392.3	3,382.0	14.3	0.0	-154.70	-175.6	-98.3	260.9	247.0	13.86	18.819		
3,500.0	3,464.9	3,491.9	3,481.1	14.7	0.0	-154.64	-183.4	-103.9	270.5	256.2	14.24	18.995		
3,600.0	3,563.4	3,591.4	3,580.2	15.2	0.0	-154.59	-191.2	-109.6	280.1	265.4	14.62	19.160		
3,700.0	3,661.9	3,690.9	3,679.2	15.6	0.0	-154.55	-198.9	-115.2	289.6	274.6	14.99	19.316		
3,800.0	3,760.5	3,790.5	3,778.3	16.1	0.0	-154.51	-206.7	-120.9	299.2	283.8	15.37	19.463		
3,900.0	3,859.0	3,890.0	3,877.4	16.5	0.0	-154.47	-214.4	-126.6	308.8	293.0	15.75	19.601		
4,000.0	3,957.5	3,989.6	3,976.5	17.0	0.0	-154.43	-222.2	-132.2	318.4	302.2	16.14	19.731		
4,100.0	4,056.0	4,089.1	4,075.5	17.4	0.0	-154.39	-230.0	-137.9	328.0	311.4	16.52	19.855		
4,200.0	4,154.5	4,188.6	4,174.6	17.9	0.0	-154.36	-237.7	-143.6	337.5	320.6	16.90	19.972		
4,300.0	4,253.1	4,288.2	4,273.7	18.3	0.0	-154.33	-245.5	-149.2	347.1	329.8	17.28	20.083		
4,400.0	4,351.6	4,387.7	4,372.8	18.8	0.0	-154.30	-253.3	-154.9	356.7	339.0	17.67	20.189		
4,500.0	4,450.1	4,487.3	4,471.8	19.3	0.0	-154.27	-261.0	-160.6	366.3	348.2	18.05	20.289		
4,600.0	4,548.6	4,586.8	4,570.9	19.7	0.0	-154.24	-268.8	-166.2	375.9	357.4	18.44	20.384		
4,700.0	4,647.2	4,686.3	4,670.0	20.2	0.0	-154.22	-276.5	-171.9	385.4	366.6	18.82	20.475		
4,800.0	4,745.7	4,785.9	4,769.1	20.6	0.0	-154.19	-284.3	-177.6	395.0	375.8	19.21	20.562		
4,900.0	4,844.2	4,885.4	4,868.1	21.1	0.0	-154.17	-292.1	-183.2	404.6	385.0	19.60	20.645		
5,000.0	4,942.7	4,985.0	4,967.2	21.6	0.0	-154.15	-299.8	-188.9	414.2	394.2	19.99	20.724		
5,100.0	5,041.2	5,084.5	5,066.3	22.0	0.0	-154.13	-307.6	-194.5	423.8	403.4	20.37	20.800		

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 19-18-1NCH
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 19-18-1NCH	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	5,139.8	5,184.0	5,165.4	22.5	0.0	-154.10	-315.4	-200.2	433.4	412.6	20.76	20.872		
5,300.0	5,238.3	5,283.6	5,264.4	22.9	0.0	-154.09	-323.1	-205.9	442.9	421.8	21.15	20.941		
5,400.0	5,336.8	5,383.1	5,363.5	23.4	0.0	-154.07	-330.9	-211.5	452.5	431.0	21.54	21.008		
5,500.0	5,435.3	5,482.7	5,462.6	23.9	0.0	-154.05	-338.6	-217.2	462.1	440.2	21.93	21.071		
5,600.0	5,533.8	5,582.2	5,561.7	24.3	0.0	-154.03	-346.4	-222.9	471.7	449.4	22.32	21.133		
5,700.0	5,632.4	5,681.7	5,660.7	24.8	0.0	-154.02	-354.2	-228.5	481.3	458.6	22.71	21.192		
5,800.0	5,730.9	5,781.3	5,759.8	25.3	0.0	-154.00	-361.9	-234.2	490.8	467.7	23.10	21.248		
5,900.0	5,829.4	5,880.8	5,858.9	25.7	0.0	-153.99	-369.7	-239.9	500.4	476.9	23.49	21.303		
6,000.0	5,927.9	5,980.4	5,958.0	26.2	0.0	-153.97	-377.5	-245.5	510.0	486.1	23.88	21.355		
6,100.0	6,026.4	6,079.9	6,057.0	26.6	0.0	-153.96	-385.2	-251.2	519.6	495.3	24.27	21.405		
6,200.0	6,125.0	6,179.4	6,156.1	27.1	0.0	-153.94	-393.0	-256.9	529.2	504.5	24.67	21.454		
6,300.0	6,223.5	6,279.0	6,255.2	27.6	0.0	-153.93	-400.7	-262.5	538.8	513.7	25.06	21.501		
6,400.0	6,322.0	6,378.5	6,354.3	28.0	0.0	-153.92	-408.5	-268.2	548.3	522.9	25.45	21.546		
6,500.0	6,420.5	6,478.1	6,453.3	28.5	0.0	-153.91	-416.3	-273.8	557.9	532.1	25.84	21.590		
6,600.0	6,519.0	6,577.6	6,552.4	29.0	0.0	-153.89	-424.0	-279.5	567.5	541.3	26.23	21.632		
6,700.0	6,617.6	6,677.1	6,651.5	29.4	0.0	-153.88	-431.8	-285.2	577.1	550.5	26.63	21.673		
6,800.0	6,716.1	6,776.7	6,750.6	29.9	0.0	-153.87	-439.6	-290.8	586.7	559.7	27.02	21.713		
6,900.0	6,814.6	6,876.2	6,849.6	30.4	0.0	-153.86	-447.3	-296.5	596.3	568.8	27.41	21.751		
7,000.0	6,913.2	6,975.7	6,948.7	30.8	0.0	-172.36	-455.1	-302.2	605.8	578.0	27.80	21.791		
7,100.0	7,011.6	7,074.1	7,046.6	31.3	0.0	135.48	-462.7	-307.8	615.4	587.2	28.21	21.812		
7,200.0	7,107.5	7,173.5	7,145.7	31.8	0.0	116.68	-461.7	-313.4	625.5	596.9	28.60	21.870		
7,300.0	7,197.9	7,277.1	7,247.2	32.1	0.0	109.80	-442.3	-319.3	635.9	607.0	28.90	22.006		
7,400.0	7,280.0	7,385.5	7,347.8	32.4	0.0	106.82	-402.9	-325.1	646.2	617.1	29.10	22.208		
7,500.0	7,351.3	7,498.9	7,443.2	32.5	0.0	105.45	-342.1	-330.6	656.0	626.8	29.20	22.465		
7,600.0	7,409.7	7,617.5	7,528.1	32.6	0.0	104.84	-259.9	-335.6	664.7	635.5	29.23	22.741		
7,700.0	7,453.4	7,740.7	7,596.5	32.6	0.0	104.60	-157.7	-339.6	671.8	642.6	29.24	22.979		
7,800.0	7,481.1	7,867.7	7,642.5	32.6	0.0	104.53	-39.6	-342.4	676.8	647.5	29.30	23.100		
7,900.0	7,491.9	7,997.1	7,661.6	32.6	0.0	104.49	88.0	-343.6	679.3	649.8	29.49	23.035		
8,000.0	7,492.0	8,101.8	7,662.0	32.7	0.0	104.48	192.7	-343.7	680.0	650.2	29.82	22.803		
8,100.0	7,492.0	8,201.8	7,662.0	32.8	0.0	104.46	292.7	-343.8	680.7	650.5	30.25	22.499		
8,200.0	7,492.0	8,301.8	7,662.0	33.0	0.0	104.45	392.7	-344.0	681.4	650.6	30.78	22.139		
8,300.0	7,492.0	8,401.8	7,662.0	33.4	0.0	104.43	492.7	-344.1	682.1	650.7	31.39	21.731		
8,400.0	7,492.0	8,501.8	7,662.0	33.9	0.0	104.42	592.7	-344.2	682.8	650.7	32.08	21.285		
8,500.0	7,492.0	8,601.8	7,662.0	34.6	0.0	104.40	692.7	-344.3	683.5	650.6	32.84	20.810		
8,600.0	7,492.0	8,701.8	7,662.0	35.3	0.0	104.39	792.7	-344.4	684.2	650.5	33.68	20.313		
8,700.0	7,492.0	8,801.8	7,662.0	36.1	0.0	104.37	892.7	-344.5	684.9	650.3	34.58	19.803		
8,800.0	7,492.0	8,901.8	7,662.0	37.1	0.0	104.36	992.7	-344.6	685.6	650.0	35.55	19.286		
8,900.0	7,492.0	9,001.8	7,662.0	38.0	0.0	104.34	1,092.7	-344.7	686.3	649.7	36.57	18.767		
9,000.0	7,492.0	9,101.8	7,662.0	39.1	0.0	104.33	1,192.7	-344.8	686.9	649.3	37.64	18.252		
9,100.0	7,492.0	9,201.8	7,662.0	40.2	0.0	104.31	1,292.7	-345.0	687.6	648.9	38.76	17.743		
9,200.0	7,492.0	9,301.8	7,662.0	41.3	0.0	104.30	1,392.7	-345.1	688.3	648.4	39.92	17.244		
9,300.0	7,492.0	9,401.8	7,662.0	42.5	0.0	104.28	1,492.7	-345.2	689.0	647.9	41.12	16.758		
9,400.0	7,492.0	9,501.8	7,662.0	43.8	0.0	104.27	1,592.7	-345.3	689.7	647.4	42.35	16.285		
9,500.0	7,492.0	9,601.8	7,662.0	45.0	0.0	104.25	1,692.7	-345.4	690.4	646.8	43.62	15.827		
9,600.0	7,492.0	9,701.8	7,662.0	46.3	0.0	104.24	1,792.7	-345.5	691.1	646.2	44.92	15.384		
9,700.0	7,492.0	9,801.8	7,662.0	47.7	0.0	104.23	1,892.7	-345.6	691.8	645.6	46.25	14.957		
9,800.0	7,492.0	9,901.8	7,662.0	49.0	0.0	104.21	1,992.7	-345.7	692.5	644.9	47.61	14.546		
9,900.0	7,492.0	10,001.8	7,662.0	50.4	0.0	104.20	2,092.7	-345.8	693.2	644.2	48.98	14.152		
10,000.0	7,492.0	10,101.8	7,662.0	51.8	0.0	104.18	2,192.7	-346.0	693.9	643.5	50.38	13.773		
10,100.0	7,492.0	10,201.8	7,662.0	53.2	0.0	104.17	2,292.7	-346.1	694.6	642.8	51.80	13.409		
10,200.0	7,492.0	10,301.7	7,662.0	54.7	0.0	104.15	2,392.7	-346.2	695.3	642.0	53.24	13.060		
10,300.0	7,492.0	10,401.7	7,662.0	56.1	0.0	104.14	2,492.7	-346.3	696.0	641.3	54.69	12.726		

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 19-18-1NCH
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 19-18-1NCH	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		
10,400.0	7,492.0	10,501.7	7,662.0	57.6	0.0	104.12	2,592.7	-346.4	696.7	640.5	56.16	12.405		
10,500.0	7,492.0	10,601.7	7,662.0	59.1	0.0	104.11	2,692.7	-346.5	697.4	639.7	57.64	12.098		
10,600.0	7,492.0	10,701.7	7,662.0	60.6	0.0	104.10	2,792.7	-346.6	698.1	638.9	59.14	11.804		
10,700.0	7,492.0	10,801.7	7,662.0	62.2	0.0	104.08	2,892.7	-346.7	698.7	638.1	60.65	11.521		
10,800.0	7,492.0	10,901.7	7,662.0	63.7	0.0	104.07	2,992.7	-346.8	699.4	637.3	62.17	11.251		
10,900.0	7,492.0	11,001.7	7,662.0	65.2	0.0	104.05	3,092.6	-347.0	700.1	636.4	63.70	10.991		
11,000.0	7,492.0	11,101.7	7,662.0	66.8	0.0	104.04	3,192.6	-347.1	700.8	635.6	65.24	10.742		
11,100.0	7,492.0	11,201.7	7,662.0	68.4	0.0	104.02	3,292.6	-347.2	701.5	634.7	66.79	10.503		
11,200.0	7,492.0	11,301.7	7,662.0	70.0	0.0	104.01	3,392.6	-347.3	702.2	633.9	68.35	10.274		
11,300.0	7,492.0	11,401.7	7,662.0	71.5	0.0	104.00	3,492.6	-347.4	702.9	633.0	69.92	10.054		
11,400.0	7,492.0	11,501.7	7,662.0	73.1	0.0	103.98	3,592.6	-347.5	703.6	632.1	71.49	9.842		
11,500.0	7,492.0	11,601.7	7,662.0	74.7	0.0	103.97	3,692.6	-347.6	704.3	631.2	73.07	9.639		
11,600.0	7,492.0	11,701.7	7,662.0	76.4	0.0	103.95	3,792.6	-347.7	705.0	630.3	74.66	9.443		
11,700.0	7,492.0	11,801.7	7,662.0	78.0	0.0	103.94	3,892.6	-347.8	705.7	629.4	76.25	9.255		
11,800.0	7,492.0	11,901.7	7,662.0	79.6	0.0	103.93	3,992.6	-348.0	706.4	628.5	77.85	9.073		
11,900.0	7,492.0	12,001.7	7,662.0	81.2	0.0	103.91	4,092.6	-348.1	707.1	627.6	79.46	8.899		
12,000.0	7,492.0	12,101.7	7,662.0	82.9	0.0	103.90	4,192.6	-348.2	707.8	626.7	81.07	8.731		
12,100.0	7,492.0	12,201.7	7,662.0	84.5	0.0	103.88	4,292.6	-348.3	708.5	625.8	82.68	8.568		
12,200.0	7,492.0	12,301.7	7,662.0	86.1	0.0	103.87	4,392.6	-348.4	709.2	624.9	84.30	8.412		
12,300.0	7,492.0	12,401.7	7,662.0	87.8	0.0	103.86	4,492.6	-348.5	709.9	623.9	85.93	8.261		
12,400.0	7,492.0	12,501.7	7,662.0	89.5	0.0	103.84	4,592.6	-348.6	710.6	623.0	87.56	8.115		
12,500.0	7,492.0	12,601.7	7,662.0	91.1	0.0	103.83	4,692.6	-348.7	711.3	622.1	89.19	7.975		
12,600.0	7,492.0	12,701.7	7,662.0	92.8	0.0	103.82	4,792.6	-348.8	711.9	621.1	90.83	7.839		
12,700.0	7,492.0	12,801.7	7,662.0	94.4	0.0	103.80	4,892.6	-349.0	712.6	620.2	92.47	7.707		
12,800.0	7,492.0	12,901.7	7,662.0	96.1	0.0	103.79	4,992.6	-349.1	713.3	619.2	94.11	7.580		
12,900.0	7,492.0	13,001.7	7,662.0	97.8	0.0	103.77	5,092.6	-349.2	714.0	618.3	95.75	7.457		
13,000.0	7,492.0	13,101.7	7,662.0	99.5	0.0	103.76	5,192.6	-349.3	714.7	617.3	97.40	7.338		
13,100.0	7,492.0	13,201.7	7,662.0	101.1	0.0	103.75	5,292.6	-349.4	715.4	616.4	99.06	7.222		
13,200.0	7,492.0	13,301.7	7,662.0	102.8	0.0	103.73	5,392.6	-349.5	716.1	615.4	100.71	7.111		
13,300.0	7,492.0	13,401.7	7,662.0	104.5	0.0	103.72	5,492.6	-349.6	716.8	614.4	102.37	7.002		
13,400.0	7,492.0	13,501.7	7,662.0	106.2	0.0	103.71	5,592.6	-349.7	717.5	613.5	104.03	6.897		
13,500.0	7,492.0	13,601.7	7,662.0	107.9	0.0	103.69	5,692.6	-349.9	718.2	612.5	105.69	6.795		
13,600.0	7,492.0	13,701.7	7,662.0	109.6	0.0	103.68	5,792.6	-350.0	718.9	611.5	107.35	6.697		
13,700.0	7,492.0	13,801.7	7,662.0	111.3	0.0	103.67	5,892.6	-350.1	719.6	610.6	109.02	6.601		
13,800.0	7,492.0	13,901.7	7,662.0	113.0	0.0	103.65	5,992.6	-350.2	720.3	609.6	110.69	6.507		
13,900.0	7,492.0	14,001.7	7,662.0	114.7	0.0	103.64	6,092.6	-350.3	721.0	608.6	112.36	6.417		
14,000.0	7,492.0	14,101.7	7,662.0	116.4	0.0	103.63	6,192.6	-350.4	721.7	607.6	114.03	6.329		
14,100.0	7,492.0	14,201.6	7,662.0	118.1	0.0	103.61	6,292.6	-350.5	722.4	606.7	115.71	6.243		
14,200.0	7,492.0	14,301.6	7,662.0	119.8	0.0	103.60	6,392.6	-350.6	723.1	605.7	117.38	6.160		
14,300.0	7,492.0	14,401.6	7,662.0	121.5	0.0	103.58	6,492.6	-350.7	723.8	604.7	119.06	6.079		
14,400.0	7,492.0	14,501.6	7,662.0	123.2	0.0	103.57	6,592.6	-350.9	724.5	603.7	120.74	6.000		
14,500.0	7,492.0	14,601.6	7,662.0	124.9	0.0	103.56	6,692.6	-351.0	725.2	602.7	122.42	5.923		
14,600.0	7,492.0	14,701.6	7,662.0	126.6	0.0	103.55	6,792.6	-351.1	725.9	601.8	124.11	5.849		
14,700.0	7,492.0	14,801.6	7,662.0	128.3	0.0	103.53	6,892.6	-351.2	726.6	600.8	125.79	5.776		
14,800.0	7,492.0	14,901.6	7,662.0	130.0	0.0	103.52	6,992.5	-351.3	727.2	599.8	127.48	5.705		
14,900.0	7,492.0	15,001.6	7,662.0	131.8	0.0	103.51	7,092.5	-351.4	727.9	598.8	129.16	5.636		
15,000.0	7,492.0	15,101.6	7,662.0	133.5	0.0	103.49	7,192.5	-351.5	728.6	597.8	130.85	5.568		
15,100.0	7,492.0	15,201.6	7,662.0	135.2	0.0	103.48	7,292.5	-351.6	729.3	596.8	132.54	5.503		
15,200.0	7,492.0	15,301.6	7,662.0	136.9	0.0	103.47	7,392.5	-351.7	730.0	595.8	134.23	5.439		
15,300.0	7,492.0	15,401.6	7,662.0	138.6	0.0	103.45	7,492.5	-351.9	730.7	594.8	135.92	5.376		
15,400.0	7,492.0	15,501.6	7,662.0	140.4	0.0	103.44	7,592.5	-352.0	731.4	593.8	137.62	5.315		
15,500.0	7,492.0	15,601.6	7,662.0	142.1	0.0	103.43	7,692.5	-352.1	732.1	592.8	139.31	5.255		

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 19-18-1NCH
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 19-18-1NCH	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		
15,600.0	7,492.0	15,701.6	7,662.0	143.8	0.0	103.41	7,792.5	-352.2	732.8	591.8	141.01	5.197		
15,700.0	7,492.0	15,801.6	7,662.0	145.5	0.0	103.40	7,892.5	-352.3	733.5	590.8	142.70	5.140		
15,800.0	7,492.0	15,901.6	7,662.0	147.3	0.0	103.39	7,992.5	-352.4	734.2	589.8	144.40	5.085		
15,900.0	7,492.0	16,001.6	7,662.0	149.0	0.0	103.38	8,092.5	-352.5	734.9	588.8	146.10	5.030		
16,000.0	7,492.0	16,101.6	7,662.0	150.7	0.0	103.36	8,192.5	-352.6	735.6	587.8	147.80	4.977		
16,100.0	7,492.0	16,201.6	7,662.0	152.4	0.0	103.35	8,292.5	-352.7	736.3	586.8	149.50	4.925		
16,200.0	7,492.0	16,301.6	7,662.0	154.2	0.0	103.34	8,392.5	-352.9	737.0	585.8	151.20	4.874		
16,300.0	7,492.0	16,401.6	7,662.0	155.9	0.0	103.32	8,492.5	-353.0	737.7	584.8	152.90	4.825		
16,400.0	7,492.0	16,501.6	7,662.0	157.6	0.0	103.31	8,592.5	-353.1	738.4	583.8	154.60	4.776		
16,500.0	7,492.0	16,601.6	7,662.0	159.4	0.0	103.30	8,692.5	-353.2	739.1	582.8	156.31	4.728		
16,600.0	7,492.0	16,701.6	7,662.0	161.1	0.0	103.29	8,792.5	-353.3	739.8	581.8	158.01	4.682		
16,700.0	7,492.0	16,801.6	7,662.0	162.8	0.0	103.27	8,892.5	-353.4	740.5	580.8	159.72	4.636		
16,800.0	7,492.0	16,901.6	7,662.0	164.6	0.0	103.26	8,992.5	-353.5	741.2	579.8	161.42	4.592		
16,900.0	7,492.0	17,001.6	7,662.0	166.3	0.0	103.25	9,092.5	-353.6	741.9	578.7	163.13	4.548		
17,000.0	7,492.0	17,101.6	7,662.0	168.0	0.0	103.23	9,192.5	-353.7	742.6	577.7	164.84	4.505		
17,100.0	7,492.0	17,201.6	7,662.0	169.8	0.0	103.22	9,292.5	-353.9	743.3	576.7	166.55	4.463		
17,200.0	7,492.0	17,301.6	7,662.0	171.5	0.0	103.21	9,392.5	-354.0	744.0	575.7	168.25	4.422		
17,300.0	7,492.0	17,401.6	7,662.0	173.2	0.0	103.20	9,492.5	-354.1	744.7	574.7	169.96	4.381		
17,400.0	7,492.0	17,501.6	7,662.0	175.0	0.0	103.18	9,592.5	-354.2	745.4	573.7	171.67	4.342		
17,500.0	7,492.0	17,601.6	7,662.0	176.7	0.0	103.17	9,692.5	-354.3	746.1	572.7	173.38	4.303		
17,600.0	7,492.0	17,701.6	7,662.0	178.5	0.0	103.16	9,792.5	-354.4	746.8	571.7	175.10	4.265		
17,686.9	7,492.0	17,788.5	7,662.0	180.0	0.0	103.15	9,879.4	-354.5	747.4	570.8	176.58	4.232 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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	0.4	75.0	75.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.70	0.4	75.0	75.0	74.7	0.28	270.679		
200.0	200.0	200.0	200.0	1.0	0.0	89.70	0.4	75.0	75.0	74.2	0.80	93.981		
300.0	300.0	300.0	300.0	1.5	0.0	89.70	0.4	75.0	75.0	73.8	1.22	61.237		
400.0	400.0	400.0	400.0	1.9	0.0	89.70	0.4	75.0	75.0	73.4	1.62	46.332		
500.0	500.0	500.0	500.0	2.3	0.0	89.70	0.4	75.0	75.0	73.0	2.00	37.511		
600.0	600.0	600.0	600.0	2.7	0.0	89.70	0.4	75.0	75.0	72.6	2.37	31.602		
700.0	700.0	700.0	700.0	3.1	0.0	89.70	0.4	75.0	75.0	72.2	2.74	27.342		
800.0	800.0	800.0	800.0	3.5	0.0	89.70	0.4	75.0	75.0	71.9	3.11	24.115 CC, ES		
900.0	900.0	900.0	900.0	3.8	0.0	-153.57	0.4	75.0	76.5	73.0	3.53	21.697		
1,000.0	999.8	999.8	999.8	4.7	0.0	-155.17	0.4	75.0	81.3	76.7	4.51	18.018		
1,100.0	1,099.5	1,099.5	1,099.5	5.5	0.0	-157.46	0.4	75.0	89.2	83.9	5.36	16.664		
1,200.0	1,198.7	1,198.7	1,198.7	6.2	0.0	-160.04	0.4	75.0	100.6	94.5	6.12	16.454		
1,300.0	1,297.5	1,297.5	1,297.5	6.8	0.0	-162.61	0.4	75.0	115.5	108.7	6.73	17.145		
1,400.0	1,396.0	1,394.2	1,394.1	7.0	0.0	-164.18	-0.9	75.9	132.6	125.6	6.98	18.982		
1,500.0	1,494.5	1,490.4	1,490.3	7.3	0.0	-164.24	-4.7	78.8	151.2	143.9	7.26	20.820		
1,600.0	1,593.0	1,586.0	1,585.5	7.6	0.0	-163.30	-11.0	83.5	171.2	163.6	7.54	22.707		
1,700.0	1,691.5	1,683.1	1,682.1	7.9	0.0	-161.93	-19.3	89.7	192.3	184.4	7.83	24.556		
1,800.0	1,790.1	1,780.8	1,779.2	8.2	0.0	-160.80	-27.7	96.0	213.5	205.3	8.13	26.248		
1,900.0	1,888.6	1,878.4	1,876.3	8.5	0.0	-159.87	-36.0	102.3	234.7	226.3	8.44	27.797		
2,000.0	1,987.1	1,976.1	1,973.3	8.8	0.0	-159.10	-44.4	108.5	256.0	247.3	8.76	29.214		
2,100.0	2,085.6	2,073.7	2,070.4	9.1	0.0	-158.45	-52.8	114.8	277.4	268.3	9.09	30.514		
2,200.0	2,184.1	2,171.3	2,167.5	9.5	0.0	-157.89	-61.1	121.1	298.8	289.3	9.42	31.705		
2,300.0	2,282.7	2,269.0	2,264.6	9.8	0.0	-157.40	-69.5	127.4	320.2	310.4	9.76	32.800		
2,400.0	2,381.2	2,366.6	2,361.7	10.2	0.0	-156.98	-77.9	133.6	341.6	331.5	10.10	33.808		
2,500.0	2,479.7	2,464.3	2,458.8	10.5	0.0	-156.60	-86.2	139.9	363.0	352.6	10.45	34.738		
2,600.0	2,578.2	2,561.9	2,555.9	10.9	0.0	-156.27	-94.6	146.2	384.5	373.7	10.80	35.597		
2,700.0	2,676.7	2,659.6	2,652.9	11.3	0.0	-155.97	-103.0	152.5	406.0	394.8	11.16	36.392		
2,800.0	2,775.3	2,757.2	2,750.0	11.7	0.0	-155.70	-111.4	158.7	427.4	415.9	11.51	37.129		
2,900.0	2,873.8	2,854.9	2,847.1	12.1	0.0	-155.46	-119.7	165.0	448.9	437.1	11.87	37.814		
3,000.0	2,972.3	2,952.5	2,944.2	12.5	0.0	-155.24	-128.1	171.3	470.4	458.2	12.23	38.452		
3,100.0	3,070.8	3,050.2	3,041.3	13.0	0.0	-155.04	-136.5	177.6	491.9	479.3	12.60	39.047		
3,200.0	3,169.3	3,147.8	3,138.4	13.4	0.0	-154.86	-144.8	183.8	513.4	500.4	12.96	39.603		
3,300.0	3,267.9	3,245.5	3,235.5	13.8	0.0	-154.69	-153.2	190.1	534.9	521.6	13.33	40.123		
3,400.0	3,366.4	3,343.1	3,332.6	14.3	0.0	-154.53	-161.6	196.4	556.4	542.7	13.70	40.610		
3,500.0	3,464.9	3,440.8	3,429.6	14.7	0.0	-154.39	-169.9	202.7	577.9	563.9	14.07	41.068		
3,600.0	3,563.4	3,538.4	3,526.7	15.2	0.0	-154.26	-178.3	208.9	599.5	585.0	14.45	41.499		
3,700.0	3,661.9	3,636.1	3,623.8	15.6	0.0	-154.13	-186.7	215.2	621.0	606.2	14.82	41.904		
3,800.0	3,760.5	3,733.7	3,720.9	16.1	0.0	-154.01	-195.0	221.5	642.5	627.3	15.19	42.286		
3,900.0	3,859.0	3,831.4	3,818.0	16.5	0.0	-153.91	-203.4	227.8	664.0	648.4	15.57	42.647		
4,000.0	3,957.5	3,929.0	3,915.1	17.0	0.0	-153.80	-211.8	234.0	685.5	669.6	15.95	42.989		
4,100.0	4,056.0	4,026.7	4,012.2	17.4	0.0	-153.71	-220.2	240.3	707.1	690.7	16.33	43.312		
4,200.0	4,154.5	4,124.3	4,109.2	17.9	0.0	-153.62	-228.5	246.6	728.6	711.9	16.70	43.618		
4,300.0	4,253.1	4,222.0	4,206.3	18.3	0.0	-153.53	-236.9	252.9	750.1	733.1	17.08	43.909		
4,400.0	4,351.6	4,319.6	4,303.4	18.8	0.0	-153.45	-245.3	259.1	771.7	754.2	17.46	44.185		
4,500.0	4,450.1	4,417.3	4,400.5	19.3	0.0	-153.38	-253.6	265.4	793.2	775.4	17.85	44.448		
4,600.0	4,548.6	4,514.9	4,497.6	19.7	0.0	-153.30	-262.0	271.7	814.7	796.5	18.23	44.698		
4,700.0	4,647.2	4,612.6	4,594.7	20.2	0.0	-153.24	-270.4	277.9	836.3	817.7	18.61	44.936		
4,800.0	4,745.7	4,710.2	4,691.8	20.6	0.0	-153.17	-278.7	284.2	857.8	838.8	18.99	45.164		
4,900.0	4,844.2	4,807.9	4,788.9	21.1	0.0	-153.11	-287.1	290.5	879.4	860.0	19.38	45.381		
5,000.0	4,942.7	4,905.5	4,885.9	21.6	0.0	-153.05	-295.5	296.8	900.9	881.1	19.76	45.588		
5,100.0	5,041.2	5,003.2	4,983.0	22.0	0.0	-153.00	-303.9	303.0	922.4	902.3	20.15	45.787		

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 19-18-1NCH
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 19-18-1NCH	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	5,139.8	5,100.8	5,080.1	22.5	0.0	-152.94	-312.2	309.3	944.0	923.4	20.53	45.977		
5,300.0	5,238.3	5,198.5	5,177.2	22.9	0.0	-152.89	-320.6	315.6	965.5	944.6	20.92	46.159		
5,400.0	5,336.8	5,296.1	5,274.3	23.4	0.0	-152.84	-329.0	321.9	987.1	965.8	21.30	46.333		
5,500.0	5,435.3	5,393.8	5,371.4	23.9	0.0	-152.80	-337.3	328.1	1,008.6	986.9	21.69	46.501		
5,600.0	5,533.8	5,491.4	5,468.5	24.3	0.0	-152.75	-345.7	334.4	1,030.2	1,008.1	22.08	46.662		
5,700.0	5,632.4	5,589.0	5,565.5	24.8	0.0	-152.71	-354.1	340.7	1,051.7	1,029.2	22.46	46.816		
5,800.0	5,730.9	5,686.7	5,662.6	25.3	0.0	-152.67	-362.4	347.0	1,073.2	1,050.4	22.85	46.965		
5,900.0	5,829.4	5,784.3	5,759.7	25.7	0.0	-152.63	-370.8	353.2	1,094.8	1,071.5	23.24	47.108		
6,000.0	5,927.9	5,882.0	5,856.8	26.2	0.0	-152.59	-379.2	359.5	1,116.3	1,092.7	23.63	47.245		
6,100.0	6,026.4	5,979.6	5,953.9	26.6	0.0	-152.55	-387.6	365.8	1,137.9	1,113.9	24.02	47.378		
6,200.0	6,125.0	6,077.3	6,051.0	27.1	0.0	-152.52	-395.9	372.1	1,159.4	1,135.0	24.41	47.506		
6,300.0	6,223.5	6,174.9	6,148.1	27.6	0.0	-152.48	-404.3	378.3	1,181.0	1,156.2	24.80	47.629		
6,400.0	6,322.0	6,272.6	6,245.2	28.0	0.0	-152.45	-412.7	384.6	1,202.5	1,177.3	25.19	47.748		
6,500.0	6,420.5	6,370.2	6,342.2	28.5	0.0	-152.42	-421.0	390.9	1,224.1	1,198.5	25.57	47.862		
6,600.0	6,519.0	6,467.9	6,439.3	29.0	0.0	-152.39	-429.4	397.2	1,245.6	1,219.7	25.96	47.973		
6,700.0	6,617.6	6,565.5	6,536.4	29.4	0.0	-152.36	-437.8	403.4	1,267.2	1,240.8	26.36	48.080		
6,800.0	6,716.1	6,663.2	6,633.5	29.9	0.0	-152.33	-446.1	409.7	1,288.7	1,262.0	26.75	48.184		
6,900.0	6,814.6	6,760.8	6,730.6	30.4	0.0	-152.30	-454.5	416.0	1,310.3	1,283.1	27.14	48.284		
7,000.0	6,913.2	6,858.9	6,828.2	30.8	0.0	-171.31	-461.0	422.3	1,331.8	1,304.3	27.52	48.403		
7,100.0	7,011.6	6,957.2	6,925.9	31.3	0.0	133.90	-452.8	428.4	1,353.4	1,325.5	27.83	48.638		
7,200.0	7,107.5	7,055.4	7,020.6	31.8	0.0	111.85	-428.1	434.3	1,374.3	1,346.3	28.06	48.986		
7,300.0	7,197.9	7,153.8	7,110.0	32.1	0.0	101.92	-387.6	439.7	1,394.1	1,365.9	28.21	49.413		
7,400.0	7,280.0	7,252.6	7,191.3	32.4	0.0	96.15	-332.0	444.4	1,412.0	1,383.7	28.32	49.854		
7,500.0	7,351.3	7,351.8	7,262.3	32.5	0.0	92.34	-263.0	448.4	1,427.7	1,399.2	28.41	50.247		
7,600.0	7,409.7	7,451.5	7,320.6	32.6	0.0	89.71	-182.4	451.4	1,440.4	1,411.9	28.51	50.529		
7,700.0	7,453.4	7,551.6	7,364.3	32.6	0.0	87.95	-92.4	453.5	1,450.0	1,421.4	28.63	50.646		
7,800.0	7,481.1	7,652.0	7,391.7	32.6	0.0	86.89	4.1	454.4	1,456.0	1,427.2	28.80	50.556		
7,900.0	7,491.9	7,752.6	7,401.9	32.6	0.0	86.47	104.0	454.3	1,458.4	1,429.4	29.03	50.241		
8,000.0	7,492.0	7,852.6	7,402.0	32.7	0.0	86.46	204.0	453.4	1,458.4	1,429.1	29.32	49.736		
8,100.0	7,492.0	7,952.6	7,402.0	32.8	0.0	86.46	304.0	452.6	1,458.4	1,428.7	29.73	49.064		
8,200.0	7,492.0	8,052.6	7,402.0	33.0	0.0	86.46	404.0	451.8	1,458.4	1,428.2	30.23	48.251		
8,300.0	7,492.0	8,152.6	7,402.0	33.4	0.0	86.46	504.0	451.0	1,458.4	1,427.6	30.82	47.322		
8,400.0	7,492.0	8,252.6	7,402.0	33.9	0.0	86.46	604.0	450.1	1,458.4	1,426.9	31.50	46.298		
8,500.0	7,492.0	8,352.6	7,402.0	34.6	0.0	86.46	704.0	449.3	1,458.4	1,426.2	32.26	45.203		
8,600.0	7,492.0	8,452.6	7,402.0	35.3	0.0	86.46	804.0	448.5	1,458.4	1,425.3	33.10	44.056		
8,700.0	7,492.0	8,552.6	7,402.0	36.1	0.0	86.46	904.0	447.7	1,458.4	1,424.4	34.01	42.876		
8,800.0	7,492.0	8,652.6	7,402.0	37.1	0.0	86.46	1,004.0	446.8	1,458.4	1,423.4	34.99	41.680		
8,900.0	7,492.0	8,752.6	7,402.0	38.0	0.0	86.46	1,104.0	446.0	1,458.4	1,422.4	36.03	40.481		
9,000.0	7,492.0	8,852.6	7,402.0	39.1	0.0	86.46	1,204.0	445.2	1,458.4	1,421.3	37.12	39.292		
9,100.0	7,492.0	8,952.6	7,402.0	40.2	0.0	86.46	1,304.0	444.4	1,458.4	1,420.2	38.26	38.119		
9,200.0	7,492.0	9,052.6	7,402.0	41.3	0.0	86.46	1,404.0	443.5	1,458.4	1,419.0	39.45	36.972		
9,300.0	7,492.0	9,152.6	7,402.0	42.5	0.0	86.46	1,504.0	442.7	1,458.4	1,417.8	40.68	35.855		
9,400.0	7,492.0	9,252.6	7,402.0	43.8	0.0	86.46	1,604.0	441.9	1,458.4	1,416.5	41.94	34.771		
9,500.0	7,492.0	9,352.6	7,402.0	45.0	0.0	86.46	1,704.0	441.1	1,458.4	1,415.2	43.25	33.724		
9,600.0	7,492.0	9,452.6	7,402.0	46.3	0.0	86.46	1,804.0	440.2	1,458.4	1,413.9	44.58	32.715		
9,700.0	7,492.0	9,552.6	7,402.0	47.7	0.0	86.46	1,904.0	439.4	1,458.4	1,412.5	45.94	31.745		
9,800.0	7,492.0	9,652.6	7,402.0	49.0	0.0	86.46	2,004.0	438.6	1,458.4	1,411.1	47.33	30.813		
9,900.0	7,492.0	9,752.6	7,402.0	50.4	0.0	86.46	2,104.0	437.7	1,458.4	1,409.7	48.75	29.919		
10,000.0	7,492.0	9,852.6	7,402.0	51.8	0.0	86.46	2,204.0	436.9	1,458.4	1,408.3	50.18	29.063		
10,100.0	7,492.0	9,952.6	7,402.0	53.2	0.0	86.46	2,304.0	436.1	1,458.4	1,406.8	51.64	28.243		
10,200.0	7,492.0	10,052.6	7,402.0	54.7	0.0	86.46	2,403.9	435.3	1,458.4	1,405.3	53.11	27.459		
10,300.0	7,492.0	10,152.6	7,402.0	56.1	0.0	86.46	2,503.9	434.4	1,458.4	1,403.8	54.61	26.709		

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 19-18-1NCH
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 19-18-1NCH	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		
10,400.0	7,492.0	10,252.6	7,402.0	57.6	0.0	86.46	2,603.9	433.6	1,458.4	1,402.3	56.11	25.991		
10,500.0	7,492.0	10,352.6	7,402.0	59.1	0.0	86.46	2,703.9	432.8	1,458.4	1,400.8	57.64	25.304		
10,600.0	7,492.0	10,452.6	7,402.0	60.6	0.0	86.46	2,803.9	432.0	1,458.4	1,399.3	59.17	24.647		
10,700.0	7,492.0	10,552.6	7,402.0	62.2	0.0	86.46	2,903.9	431.1	1,458.4	1,397.7	60.72	24.019		
10,800.0	7,492.0	10,652.6	7,402.0	63.7	0.0	86.46	3,003.9	430.3	1,458.4	1,396.2	62.28	23.417		
10,900.0	7,492.0	10,752.6	7,402.0	65.2	0.0	86.46	3,103.9	429.5	1,458.4	1,394.6	63.85	22.841		
11,000.0	7,492.0	10,852.6	7,402.0	66.8	0.0	86.46	3,203.9	428.7	1,458.5	1,393.0	65.43	22.290		
11,100.0	7,492.0	10,952.6	7,402.0	68.4	0.0	86.46	3,303.9	427.8	1,458.5	1,391.4	67.02	21.761		
11,200.0	7,492.0	11,052.6	7,402.0	70.0	0.0	86.46	3,403.9	427.0	1,458.5	1,389.8	68.62	21.254		
11,300.0	7,492.0	11,152.6	7,402.0	71.5	0.0	86.46	3,503.9	426.2	1,458.5	1,388.2	70.23	20.768		
11,400.0	7,492.0	11,252.6	7,402.0	73.1	0.0	86.46	3,603.9	425.3	1,458.5	1,386.6	71.84	20.302		
11,500.0	7,492.0	11,352.6	7,402.0	74.7	0.0	86.46	3,703.9	424.5	1,458.5	1,385.0	73.46	19.854		
11,600.0	7,492.0	11,452.6	7,402.0	76.4	0.0	86.46	3,803.9	423.7	1,458.5	1,383.4	75.09	19.424		
11,700.0	7,492.0	11,552.6	7,402.0	78.0	0.0	86.46	3,903.9	422.9	1,458.5	1,381.7	76.72	19.010		
11,800.0	7,492.0	11,652.6	7,402.0	79.6	0.0	86.46	4,003.9	422.0	1,458.5	1,380.1	78.36	18.613		
11,900.0	7,492.0	11,752.6	7,402.0	81.2	0.0	86.46	4,103.9	421.2	1,458.5	1,378.5	80.00	18.230		
12,000.0	7,492.0	11,852.6	7,402.0	82.9	0.0	86.46	4,203.9	420.4	1,458.5	1,376.8	81.65	17.862		
12,100.0	7,492.0	11,952.6	7,402.0	84.5	0.0	86.46	4,303.9	419.6	1,458.5	1,375.2	83.30	17.508		
12,200.0	7,492.0	12,052.6	7,402.0	86.1	0.0	86.46	4,403.9	418.7	1,458.5	1,373.5	84.96	17.166		
12,300.0	7,492.0	12,152.6	7,402.0	87.8	0.0	86.46	4,503.9	417.9	1,458.5	1,371.8	86.62	16.837		
12,400.0	7,492.0	12,252.6	7,402.0	89.5	0.0	86.46	4,603.9	417.1	1,458.5	1,370.2	88.29	16.519		
12,500.0	7,492.0	12,352.6	7,402.0	91.1	0.0	86.46	4,703.9	416.3	1,458.5	1,368.5	89.96	16.212		
12,600.0	7,492.0	12,452.6	7,402.0	92.8	0.0	86.46	4,803.9	415.4	1,458.5	1,366.8	91.63	15.916		
12,700.0	7,492.0	12,552.6	7,402.0	94.4	0.0	86.46	4,903.9	414.6	1,458.5	1,365.2	93.31	15.630		
12,800.0	7,492.0	12,652.6	7,402.0	96.1	0.0	86.46	5,003.9	413.8	1,458.5	1,363.5	94.99	15.354		
12,900.0	7,492.0	12,752.6	7,402.0	97.8	0.0	86.46	5,103.9	413.0	1,458.5	1,361.8	96.67	15.086		
13,000.0	7,492.0	12,852.6	7,402.0	99.5	0.0	86.46	5,203.9	412.1	1,458.5	1,360.1	98.36	14.828		
13,100.0	7,492.0	12,952.6	7,402.0	101.1	0.0	86.46	5,303.8	411.3	1,458.5	1,358.4	100.05	14.577		
13,200.0	7,492.0	13,052.6	7,402.0	102.8	0.0	86.46	5,403.8	410.5	1,458.5	1,356.7	101.74	14.335		
13,300.0	7,492.0	13,152.6	7,402.0	104.5	0.0	86.46	5,503.8	409.6	1,458.5	1,355.0	103.43	14.100		
13,400.0	7,492.0	13,252.6	7,402.0	106.2	0.0	86.46	5,603.8	408.8	1,458.5	1,353.3	105.13	13.873		
13,500.0	7,492.0	13,352.6	7,402.0	107.9	0.0	86.46	5,703.8	408.0	1,458.5	1,351.6	106.83	13.652		
13,600.0	7,492.0	13,452.6	7,402.0	109.6	0.0	86.46	5,803.8	407.2	1,458.5	1,349.9	108.53	13.439		
13,700.0	7,492.0	13,552.6	7,402.0	111.3	0.0	86.46	5,903.8	406.3	1,458.5	1,348.2	110.23	13.231		
13,800.0	7,492.0	13,652.6	7,402.0	113.0	0.0	86.46	6,003.8	405.5	1,458.5	1,346.5	111.94	13.030		
13,900.0	7,492.0	13,752.6	7,402.0	114.7	0.0	86.46	6,103.8	404.7	1,458.5	1,344.8	113.64	12.834		
14,000.0	7,492.0	13,852.6	7,402.0	116.4	0.0	86.46	6,203.8	403.9	1,458.5	1,343.1	115.35	12.644		
14,100.0	7,492.0	13,952.6	7,402.0	118.1	0.0	86.46	6,303.8	403.0	1,458.5	1,341.4	117.06	12.459		
14,200.0	7,492.0	14,052.6	7,402.0	119.8	0.0	86.46	6,403.8	402.2	1,458.5	1,339.7	118.77	12.280		
14,300.0	7,492.0	14,152.6	7,402.0	121.5	0.0	86.46	6,503.8	401.4	1,458.5	1,338.0	120.48	12.105		
14,400.0	7,492.0	14,252.6	7,402.0	123.2	0.0	86.46	6,603.8	400.6	1,458.5	1,336.3	122.20	11.935		
14,500.0	7,492.0	14,352.6	7,402.0	124.9	0.0	86.46	6,703.8	399.7	1,458.5	1,334.6	123.91	11.770		
14,600.0	7,492.0	14,452.6	7,402.0	126.6	0.0	86.46	6,803.8	398.9	1,458.5	1,332.8	125.63	11.609		
14,700.0	7,492.0	14,552.6	7,402.0	128.3	0.0	86.46	6,903.8	398.1	1,458.5	1,331.1	127.35	11.453		
14,800.0	7,492.0	14,652.6	7,402.0	130.0	0.0	86.46	7,003.8	397.2	1,458.5	1,329.4	129.07	11.300		
14,900.0	7,492.0	14,752.6	7,402.0	131.8	0.0	86.46	7,103.8	396.4	1,458.5	1,327.7	130.79	11.152		
15,000.0	7,492.0	14,852.6	7,402.0	133.5	0.0	86.46	7,203.8	395.6	1,458.5	1,326.0	132.51	11.007		
15,100.0	7,492.0	14,952.6	7,402.0	135.2	0.0	86.46	7,303.8	394.8	1,458.5	1,324.2	134.23	10.865		
15,200.0	7,492.0	15,052.6	7,402.0	136.9	0.0	86.46	7,403.8	393.9	1,458.5	1,322.5	135.96	10.728		
15,300.0	7,492.0	15,152.6	7,402.0	138.6	0.0	86.46	7,503.8	393.1	1,458.5	1,320.8	137.68	10.593		
15,400.0	7,492.0	15,252.6	7,402.0	140.4	0.0	86.46	7,603.8	392.3	1,458.5	1,319.1	139.41	10.462		
15,500.0	7,492.0	15,352.6	7,402.0	142.1	0.0	86.46	7,703.8	391.5	1,458.5	1,317.3	141.13	10.334		

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 19-18-1NCH
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 19-18-1NCH	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		
15,600.0	7,492.0	15,452.6	7,402.0	143.8	0.0	86.46	7,803.8	390.6	1,458.5	1,315.6	142.86	10.209		
15,700.0	7,492.0	15,552.6	7,402.0	145.5	0.0	86.46	7,903.8	389.8	1,458.5	1,313.9	144.59	10.087		
15,800.0	7,492.0	15,652.6	7,402.0	147.3	0.0	86.46	8,003.8	389.0	1,458.5	1,312.2	146.32	9.968		
15,900.0	7,492.0	15,752.6	7,402.0	149.0	0.0	86.46	8,103.8	388.2	1,458.5	1,310.4	148.05	9.851		
16,000.0	7,492.0	15,852.6	7,402.0	150.7	0.0	86.46	8,203.8	387.3	1,458.5	1,308.7	149.78	9.737		
16,100.0	7,492.0	15,952.6	7,402.0	152.4	0.0	86.46	8,303.7	386.5	1,458.5	1,307.0	151.51	9.626		
16,200.0	7,492.0	16,052.6	7,402.0	154.2	0.0	86.46	8,403.7	385.7	1,458.5	1,305.2	153.24	9.517		
16,300.0	7,492.0	16,152.6	7,402.0	155.9	0.0	86.46	8,503.7	384.9	1,458.5	1,303.5	154.98	9.411		
16,400.0	7,492.0	16,252.6	7,402.0	157.6	0.0	86.46	8,603.7	384.0	1,458.5	1,301.8	156.71	9.307		
16,500.0	7,492.0	16,352.6	7,402.0	159.4	0.0	86.46	8,703.7	383.2	1,458.5	1,300.0	158.45	9.205		
16,600.0	7,492.0	16,452.6	7,402.0	161.1	0.0	86.46	8,803.7	382.4	1,458.5	1,298.3	160.18	9.105		
16,700.0	7,492.0	16,552.6	7,402.0	162.8	0.0	86.46	8,903.7	381.5	1,458.5	1,296.6	161.92	9.008		
16,800.0	7,492.0	16,652.6	7,402.0	164.6	0.0	86.46	9,003.7	380.7	1,458.5	1,294.8	163.65	8.912		
16,900.0	7,492.0	16,752.6	7,402.0	166.3	0.0	86.46	9,103.7	379.9	1,458.5	1,293.1	165.39	8.818		
17,000.0	7,492.0	16,852.6	7,402.0	168.0	0.0	86.46	9,203.7	379.1	1,458.5	1,291.4	167.13	8.727		
17,100.0	7,492.0	16,952.6	7,402.0	169.8	0.0	86.46	9,303.7	378.2	1,458.5	1,289.6	168.87	8.637		
17,200.0	7,492.0	17,052.6	7,402.0	171.5	0.0	86.46	9,403.7	377.4	1,458.5	1,287.9	170.61	8.549		
17,300.0	7,492.0	17,152.6	7,402.0	173.2	0.0	86.46	9,503.7	376.6	1,458.5	1,286.1	172.35	8.463		
17,400.0	7,492.0	17,252.6	7,402.0	175.0	0.0	86.46	9,603.7	375.8	1,458.5	1,284.4	174.09	8.378		
17,500.0	7,492.0	17,352.6	7,402.0	176.7	0.0	86.46	9,703.7	374.9	1,458.5	1,282.7	175.83	8.295		
17,600.0	7,492.0	17,452.6	7,402.0	178.5	0.0	86.46	9,803.7	374.1	1,458.5	1,280.9	177.57	8.214		
17,686.9	7,492.0	17,539.6	7,402.0	180.0	0.0	86.46	9,890.6	373.4	1,458.5	1,279.4	179.08	8.144 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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-													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	0.3	60.0	60.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.72	0.3	60.0	60.0	59.7	0.28	216.577		
200.0	200.0	200.0	200.0	1.0	0.0	89.72	0.3	60.0	60.0	59.2	0.80	75.194		
300.0	300.0	300.0	300.0	1.5	0.0	89.72	0.3	60.0	60.0	58.8	1.22	48.994		
400.0	400.0	400.0	400.0	1.9	0.0	89.72	0.3	60.0	60.0	58.4	1.62	37.068		
500.0	500.0	500.0	500.0	2.3	0.0	89.72	0.3	60.0	60.0	58.0	2.00	30.010		
600.0	600.0	600.0	600.0	2.7	0.0	89.72	0.3	60.0	60.0	57.6	2.37	25.283		
700.0	700.0	700.0	700.0	3.1	0.0	89.72	0.3	60.0	60.0	57.2	2.74	21.874		
800.0	800.0	800.0	800.0	3.5	0.0	89.72	0.3	60.0	60.0	56.9	3.11	19.292 CC, ES		
900.0	900.0	900.0	900.0	3.8	0.0	-153.70	0.3	60.0	61.5	58.0	3.53	17.437		
1,000.0	999.8	999.8	999.8	4.7	0.0	-155.66	0.3	60.0	66.3	61.8	4.52	14.674		
1,100.0	1,099.5	1,099.5	1,099.5	5.5	0.0	-158.37	0.3	60.0	74.3	68.9	5.37	13.844		
1,200.0	1,198.7	1,198.7	1,198.7	6.2	0.0	-161.30	0.3	60.0	85.8	79.6	6.13	13.994		
1,300.0	1,297.5	1,297.9	1,297.9	6.8	0.0	-163.13	-1.4	60.1	100.5	93.8	6.74	14.913		
1,400.0	1,396.0	1,397.1	1,396.9	7.0	0.0	-163.06	-6.5	60.4	116.3	109.3	6.99	16.653		
1,500.0	1,494.5	1,496.0	1,495.5	7.3	0.0	-161.77	-14.4	61.0	131.9	124.6	7.26	18.155		
1,600.0	1,593.0	1,594.7	1,593.9	7.6	0.0	-160.63	-22.6	61.6	147.4	139.9	7.55	19.521		
1,700.0	1,691.5	1,693.5	1,692.3	7.9	0.0	-159.71	-30.8	62.1	163.0	155.2	7.85	20.762		
1,800.0	1,790.1	1,792.2	1,790.7	8.2	0.0	-158.95	-39.0	62.7	178.7	170.5	8.16	21.890		
1,900.0	1,888.6	1,891.0	1,889.1	8.5	0.0	-158.31	-47.2	63.3	194.3	185.9	8.48	22.915		
2,000.0	1,987.1	1,989.7	1,987.5	8.8	0.0	-157.77	-55.4	63.8	210.0	201.2	8.81	23.849		
2,100.0	2,085.6	2,088.5	2,085.9	9.1	0.0	-157.30	-63.6	64.4	225.7	216.6	9.14	24.700		
2,200.0	2,184.1	2,187.2	2,184.3	9.5	0.0	-156.90	-71.8	65.0	241.5	232.0	9.48	25.477		
2,300.0	2,282.7	2,286.0	2,282.7	9.8	0.0	-156.54	-80.0	65.5	257.2	247.4	9.82	26.188		
2,400.0	2,381.2	2,384.7	2,381.1	10.2	0.0	-156.22	-88.2	66.1	272.9	262.7	10.17	26.840		
2,500.0	2,479.7	2,483.4	2,479.5	10.5	0.0	-155.94	-96.4	66.7	288.7	278.1	10.52	27.440		
2,600.0	2,578.2	2,582.2	2,577.9	10.9	0.0	-155.69	-104.6	67.2	304.4	293.5	10.87	27.992		
2,700.0	2,676.7	2,680.9	2,676.3	11.3	0.0	-155.46	-112.8	67.8	320.2	308.9	11.23	28.502		
2,800.0	2,775.3	2,779.7	2,774.7	11.7	0.0	-155.26	-120.9	68.4	335.9	324.3	11.59	28.974		
2,900.0	2,873.8	2,878.4	2,873.1	12.1	0.0	-155.07	-129.1	68.9	351.7	339.7	11.96	29.411		
3,000.0	2,972.3	2,977.2	2,971.5	12.5	0.0	-154.90	-137.3	69.5	367.4	355.1	12.32	29.817		
3,100.0	3,070.8	3,075.9	3,069.9	13.0	0.0	-154.74	-145.5	70.1	383.2	370.5	12.69	30.194		
3,200.0	3,169.3	3,174.6	3,168.4	13.4	0.0	-154.60	-153.7	70.6	399.0	385.9	13.06	30.547		
3,300.0	3,267.9	3,273.4	3,266.8	13.8	0.0	-154.46	-161.9	71.2	414.8	401.3	13.43	30.876		
3,400.0	3,366.4	3,372.1	3,365.2	14.3	0.0	-154.34	-170.1	71.8	430.5	416.7	13.81	31.183		
3,500.0	3,464.9	3,470.9	3,463.6	14.7	0.0	-154.23	-178.3	72.3	446.3	432.1	14.18	31.472		
3,600.0	3,563.4	3,569.6	3,562.0	15.2	0.0	-154.12	-186.5	72.9	462.1	447.5	14.56	31.743		
3,700.0	3,661.9	3,668.4	3,660.4	15.6	0.0	-154.02	-194.7	73.5	477.9	462.9	14.94	31.997		
3,800.0	3,760.5	3,767.1	3,758.8	16.1	0.0	-153.92	-202.9	74.0	493.7	478.3	15.31	32.237		
3,900.0	3,859.0	3,865.9	3,857.2	16.5	0.0	-153.84	-211.1	74.6	509.4	493.8	15.69	32.463		
4,000.0	3,957.5	3,964.6	3,955.6	17.0	0.0	-153.75	-219.3	75.2	525.2	509.2	16.07	32.676		
4,100.0	4,056.0	4,063.3	4,054.0	17.4	0.0	-153.68	-227.5	75.7	541.0	524.6	16.46	32.878		
4,200.0	4,154.5	4,162.1	4,152.4	17.9	0.0	-153.60	-235.7	76.3	556.8	540.0	16.84	33.069		
4,300.0	4,253.1	4,260.8	4,250.8	18.3	0.0	-153.53	-243.9	76.9	572.6	555.4	17.22	33.250		
4,400.0	4,351.6	4,359.6	4,349.2	18.8	0.0	-153.47	-252.1	77.4	588.4	570.8	17.60	33.422		
4,500.0	4,450.1	4,458.3	4,447.6	19.3	0.0	-153.40	-260.3	78.0	604.2	586.2	17.99	33.585		
4,600.0	4,548.6	4,557.1	4,546.0	19.7	0.0	-153.35	-268.5	78.6	620.0	601.6	18.37	33.740		
4,700.0	4,647.2	4,655.8	4,644.4	20.2	0.0	-153.29	-276.7	79.1	635.7	617.0	18.76	33.888		
4,800.0	4,745.7	4,754.5	4,742.8	20.6	0.0	-153.24	-284.9	79.7	651.5	632.4	19.15	34.029		
4,900.0	4,844.2	4,853.3	4,841.2	21.1	0.0	-153.19	-293.1	80.3	667.3	647.8	19.53	34.163		
5,000.0	4,942.7	4,952.0	4,939.6	21.6	0.0	-153.14	-301.3	80.8	683.1	663.2	19.92	34.292		
5,100.0	5,041.2	5,050.8	5,038.0	22.0	0.0	-153.09	-309.5	81.4	698.9	678.6	20.31	34.414		

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 19-18-1NCH
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 19-18-1NCH	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-													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	5,139.8	5,149.5	5,136.4	22.5	0.0	-153.05	-317.7	82.0	714.7	694.0	20.70	34.532		
5,300.0	5,238.3	5,248.3	5,234.8	22.9	0.0	-153.00	-325.9	82.5	730.5	709.4	21.09	34.644		
5,400.0	5,336.8	5,347.0	5,333.2	23.4	0.0	-152.96	-334.1	83.1	746.3	724.8	21.48	34.751		
5,500.0	5,435.3	5,445.8	5,431.6	23.9	0.0	-152.92	-342.3	83.7	762.1	740.2	21.86	34.854		
5,600.0	5,533.8	5,544.5	5,530.0	24.3	0.0	-152.89	-350.5	84.2	777.9	755.6	22.25	34.953		
5,700.0	5,632.4	5,643.2	5,628.4	24.8	0.0	-152.85	-358.7	84.8	793.7	771.0	22.64	35.048		
5,800.0	5,730.9	5,742.0	5,726.8	25.3	0.0	-152.82	-366.9	85.4	809.5	786.4	23.04	35.140		
5,900.0	5,829.4	5,840.7	5,825.2	25.7	0.0	-152.78	-375.1	85.9	825.3	801.8	23.43	35.227		
6,000.0	5,927.9	5,939.5	5,923.6	26.2	0.0	-152.75	-383.3	86.5	841.1	817.2	23.82	35.312		
6,100.0	6,026.4	6,038.2	6,022.0	26.6	0.0	-152.72	-391.5	87.1	856.9	832.6	24.21	35.393		
6,200.0	6,125.0	6,137.0	6,120.4	27.1	0.0	-152.69	-399.7	87.6	872.6	848.0	24.60	35.472		
6,300.0	6,223.5	6,235.7	6,218.8	27.6	0.0	-152.66	-407.9	88.2	888.4	863.4	24.99	35.547		
6,400.0	6,322.0	6,334.4	6,317.2	28.0	0.0	-152.64	-416.0	88.8	904.2	878.9	25.39	35.620		
6,500.0	6,420.5	6,433.2	6,415.6	28.5	0.0	-152.61	-424.2	89.3	920.0	894.3	25.78	35.690		
6,600.0	6,519.0	6,531.9	6,514.0	29.0	0.0	-152.58	-432.4	89.9	935.8	909.7	26.17	35.758		
6,700.0	6,617.6	6,630.7	6,612.4	29.4	0.0	-152.56	-440.6	90.5	951.6	925.1	26.56	35.824		
6,800.0	6,716.1	6,729.4	6,710.8	29.9	0.0	-152.53	-448.8	91.0	967.4	940.5	26.96	35.887		
6,900.0	6,814.6	6,828.2	6,809.2	30.4	0.0	-152.51	-457.0	91.6	983.2	955.9	27.35	35.948		
7,000.0	6,913.2	6,927.3	6,908.1	30.8	0.0	-171.40	-465.2	92.2	999.0	971.3	27.73	36.030		
7,100.0	7,011.6	7,026.3	7,006.5	31.3	0.0	134.28	-452.4	92.6	1,014.8	986.8	28.03	36.207		
7,200.0	7,107.5	7,124.7	7,101.1	31.8	0.0	112.68	-425.7	92.8	1,030.2	1,001.9	28.25	36.469		
7,300.0	7,197.9	7,222.8	7,189.5	32.1	0.0	103.16	-383.4	92.9	1,044.7	1,016.3	28.40	36.787		
7,400.0	7,280.0	7,320.7	7,269.2	32.4	0.0	97.76	-326.9	92.9	1,057.9	1,029.3	28.50	37.113		
7,500.0	7,351.3	7,418.5	7,338.1	32.5	0.0	94.25	-257.7	92.7	1,069.3	1,040.7	28.59	37.400		
7,600.0	7,409.7	7,516.2	7,394.2	32.6	0.0	91.87	-177.8	92.3	1,078.7	1,050.0	28.69	37.603		
7,700.0	7,453.4	7,613.8	7,435.9	32.6	0.0	90.28	-89.7	91.8	1,085.7	1,056.9	28.81	37.682		
7,800.0	7,481.1	7,711.5	7,462.1	32.6	0.0	89.33	4.3	91.1	1,090.1	1,061.2	28.99	37.609		
7,900.0	7,491.9	7,809.0	7,471.9	32.6	0.0	88.96	101.3	90.4	1,091.9	1,062.7	29.22	37.372		
8,000.0	7,492.0	7,908.8	7,472.0	32.7	0.0	88.95	201.0	89.5	1,091.9	1,062.4	29.52	36.990		
8,100.0	7,492.0	8,008.8	7,472.0	32.8	0.0	88.95	301.0	88.7	1,091.9	1,062.0	29.93	36.485		
8,200.0	7,492.0	8,108.8	7,472.0	33.0	0.0	88.95	401.0	87.9	1,091.9	1,061.5	30.43	35.878		
8,300.0	7,492.0	8,208.8	7,472.0	33.4	0.0	88.95	501.0	87.1	1,091.9	1,060.9	31.03	35.186		
8,400.0	7,492.0	8,308.8	7,472.0	33.9	0.0	88.95	601.0	86.2	1,091.9	1,060.2	31.72	34.425		
8,500.0	7,492.0	8,408.8	7,472.0	34.6	0.0	88.95	701.0	85.4	1,091.9	1,059.4	32.49	33.612		
8,600.0	7,492.0	8,508.8	7,472.0	35.3	0.0	88.95	801.0	84.6	1,091.9	1,058.6	33.33	32.761		
8,700.0	7,492.0	8,608.8	7,472.0	36.1	0.0	88.95	901.0	83.8	1,091.9	1,057.7	34.24	31.887		
8,800.0	7,492.0	8,708.8	7,472.0	37.1	0.0	88.95	1,001.0	82.9	1,091.9	1,056.7	35.22	31.000		
8,900.0	7,492.0	8,808.8	7,472.0	38.0	0.0	88.95	1,101.0	82.1	1,091.9	1,055.7	36.26	30.112		
9,000.0	7,492.0	8,908.8	7,472.0	39.1	0.0	88.95	1,201.0	81.3	1,091.9	1,054.6	37.35	29.231		
9,100.0	7,492.0	9,008.8	7,472.0	40.2	0.0	88.95	1,301.0	80.4	1,091.9	1,053.4	38.50	28.363		
9,200.0	7,492.0	9,108.8	7,472.0	41.3	0.0	88.95	1,401.0	79.6	1,091.9	1,052.2	39.69	27.513		
9,300.0	7,492.0	9,208.8	7,472.0	42.5	0.0	88.95	1,501.0	78.8	1,091.9	1,051.0	40.92	26.685		
9,400.0	7,492.0	9,308.8	7,472.0	43.8	0.0	88.95	1,601.0	78.0	1,091.9	1,049.7	42.19	25.882		
9,500.0	7,492.0	9,408.8	7,472.0	45.0	0.0	88.95	1,701.0	77.1	1,091.9	1,048.4	43.49	25.106		
9,600.0	7,492.0	9,508.8	7,472.0	46.3	0.0	88.95	1,801.0	76.3	1,091.9	1,047.1	44.83	24.358		
9,700.0	7,492.0	9,608.8	7,472.0	47.7	0.0	88.95	1,901.0	75.5	1,091.9	1,045.7	46.19	23.639		
9,800.0	7,492.0	9,708.8	7,472.0	49.0	0.0	88.95	2,001.0	74.7	1,091.9	1,044.3	47.58	22.948		
9,900.0	7,492.0	9,808.8	7,472.0	50.4	0.0	88.95	2,101.0	73.8	1,091.9	1,042.9	49.00	22.285		
10,000.0	7,492.0	9,908.8	7,472.0	51.8	0.0	88.95	2,201.0	73.0	1,091.9	1,041.5	50.43	21.650		
10,100.0	7,492.0	10,008.8	7,472.0	53.2	0.0	88.95	2,300.9	72.2	1,091.9	1,040.0	51.89	21.042		
10,200.0	7,492.0	10,108.8	7,472.0	54.7	0.0	88.95	2,400.9	71.3	1,091.9	1,038.6	53.37	20.460		
10,300.0	7,492.0	10,208.8	7,472.0	56.1	0.0	88.95	2,500.9	70.5	1,091.9	1,037.1	54.86	19.903		

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 19-18-1NCH
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 19-18-1NCH	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-													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	7,492.0	10,308.8	7,472.0	57.6	0.0	88.95	2,600.9	69.7	1,091.9	1,035.5	56.37	19.370		
10,500.0	7,492.0	10,408.8	7,472.0	59.1	0.0	88.95	2,700.9	68.9	1,091.9	1,034.0	57.90	18.860		
10,600.0	7,492.0	10,508.8	7,472.0	60.6	0.0	88.95	2,800.9	68.0	1,091.9	1,032.5	59.43	18.372		
10,700.0	7,492.0	10,608.8	7,472.0	62.2	0.0	88.95	2,900.9	67.2	1,091.9	1,030.9	60.98	17.905		
10,800.0	7,492.0	10,708.8	7,472.0	63.7	0.0	88.95	3,000.9	66.4	1,091.9	1,029.4	62.54	17.458		
10,900.0	7,492.0	10,808.8	7,472.0	65.2	0.0	88.95	3,100.9	65.6	1,091.9	1,027.8	64.12	17.030		
11,000.0	7,492.0	10,908.8	7,472.0	66.8	0.0	88.95	3,200.9	64.7	1,091.9	1,026.2	65.70	16.620		
11,100.0	7,492.0	11,008.8	7,472.0	68.4	0.0	88.95	3,300.9	63.9	1,091.9	1,024.6	67.29	16.227		
11,200.0	7,492.0	11,108.8	7,472.0	70.0	0.0	88.95	3,400.9	63.1	1,091.9	1,023.0	68.89	15.851		
11,300.0	7,492.0	11,208.8	7,472.0	71.5	0.0	88.95	3,500.9	62.3	1,091.9	1,021.4	70.50	15.489		
11,400.0	7,492.0	11,308.8	7,472.0	73.1	0.0	88.95	3,600.9	61.4	1,091.9	1,019.8	72.11	15.142		
11,500.0	7,492.0	11,408.8	7,472.0	74.7	0.0	88.95	3,700.9	60.6	1,091.9	1,018.2	73.73	14.809		
11,600.0	7,492.0	11,508.8	7,472.0	76.4	0.0	88.95	3,800.9	59.8	1,091.9	1,016.6	75.36	14.489		
11,700.0	7,492.0	11,608.8	7,472.0	78.0	0.0	88.95	3,900.9	58.9	1,091.9	1,014.9	77.00	14.182		
11,800.0	7,492.0	11,708.8	7,472.0	79.6	0.0	88.95	4,000.9	58.1	1,091.9	1,013.3	78.64	13.886		
11,900.0	7,492.0	11,808.8	7,472.0	81.2	0.0	88.95	4,100.9	57.3	1,091.9	1,011.6	80.28	13.601		
12,000.0	7,492.0	11,908.8	7,472.0	82.9	0.0	88.95	4,200.9	56.5	1,091.9	1,010.0	81.93	13.327		
12,100.0	7,492.0	12,008.8	7,472.0	84.5	0.0	88.95	4,300.9	55.6	1,091.9	1,008.3	83.59	13.063		
12,200.0	7,492.0	12,108.8	7,472.0	86.1	0.0	88.95	4,400.9	54.8	1,091.9	1,006.7	85.25	12.809		
12,300.0	7,492.0	12,208.8	7,472.0	87.8	0.0	88.95	4,500.9	54.0	1,091.9	1,005.0	86.91	12.564		
12,400.0	7,492.0	12,308.8	7,472.0	89.5	0.0	88.95	4,600.9	53.2	1,091.9	1,003.3	88.58	12.327		
12,500.0	7,492.0	12,408.8	7,472.0	91.1	0.0	88.95	4,700.9	52.3	1,091.9	1,001.7	90.25	12.099		
12,600.0	7,492.0	12,508.8	7,472.0	92.8	0.0	88.95	4,800.9	51.5	1,091.9	1,000.0	91.93	11.878		
12,700.0	7,492.0	12,608.8	7,472.0	94.4	0.0	88.95	4,900.9	50.7	1,091.9	998.3	93.61	11.665		
12,800.0	7,492.0	12,708.8	7,472.0	96.1	0.0	88.95	5,000.9	49.9	1,091.9	996.6	95.29	11.459		
12,900.0	7,492.0	12,808.8	7,472.0	97.8	0.0	88.95	5,100.9	49.0	1,091.9	995.0	96.97	11.260		
13,000.0	7,492.0	12,908.8	7,472.0	99.5	0.0	88.95	5,200.8	48.2	1,091.9	993.3	98.66	11.068		
13,100.0	7,492.0	13,008.8	7,472.0	101.1	0.0	88.95	5,300.8	47.4	1,091.9	991.6	100.35	10.881		
13,200.0	7,492.0	13,108.8	7,472.0	102.8	0.0	88.95	5,400.8	46.5	1,091.9	989.9	102.04	10.701		
13,300.0	7,492.0	13,208.8	7,472.0	104.5	0.0	88.95	5,500.8	45.7	1,091.9	988.2	103.74	10.526		
13,400.0	7,492.0	13,308.8	7,472.0	106.2	0.0	88.95	5,600.8	44.9	1,091.9	986.5	105.44	10.356		
13,500.0	7,492.0	13,408.8	7,472.0	107.9	0.0	88.95	5,700.8	44.1	1,091.9	984.8	107.14	10.192		
13,600.0	7,492.0	13,508.8	7,472.0	109.6	0.0	88.95	5,800.8	43.2	1,091.9	983.1	108.84	10.032		
13,700.0	7,492.0	13,608.8	7,472.0	111.3	0.0	88.95	5,900.8	42.4	1,091.9	981.4	110.54	9.878		
13,800.0	7,492.0	13,708.8	7,472.0	113.0	0.0	88.95	6,000.8	41.6	1,091.9	979.7	112.25	9.728		
13,900.0	7,492.0	13,808.8	7,472.0	114.7	0.0	88.95	6,100.8	40.8	1,091.9	978.0	113.96	9.582		
14,000.0	7,492.0	13,908.8	7,472.0	116.4	0.0	88.95	6,200.8	39.9	1,091.9	976.3	115.67	9.440		
14,100.0	7,492.0	14,008.8	7,472.0	118.1	0.0	88.95	6,300.8	39.1	1,091.9	974.6	117.38	9.303		
14,200.0	7,492.0	14,108.8	7,472.0	119.8	0.0	88.95	6,400.8	38.3	1,091.9	972.8	119.09	9.169		
14,300.0	7,492.0	14,208.8	7,472.0	121.5	0.0	88.95	6,500.8	37.5	1,091.9	971.1	120.81	9.039		
14,400.0	7,492.0	14,308.8	7,472.0	123.2	0.0	88.95	6,600.8	36.6	1,091.9	969.4	122.52	8.912		
14,500.0	7,492.0	14,408.8	7,472.0	124.9	0.0	88.95	6,700.8	35.8	1,091.9	967.7	124.24	8.789		
14,600.0	7,492.0	14,508.8	7,472.0	126.6	0.0	88.95	6,800.8	35.0	1,091.9	966.0	125.96	8.669		
14,700.0	7,492.0	14,608.8	7,472.0	128.3	0.0	88.95	6,900.8	34.1	1,091.9	964.3	127.68	8.552		
14,800.0	7,492.0	14,708.8	7,472.0	130.0	0.0	88.95	7,000.8	33.3	1,091.9	962.5	129.40	8.438		
14,900.0	7,492.0	14,808.8	7,472.0	131.8	0.0	88.95	7,100.8	32.5	1,091.9	960.8	131.12	8.328		
15,000.0	7,492.0	14,908.8	7,472.0	133.5	0.0	88.95	7,200.8	31.7	1,091.9	959.1	132.85	8.219		
15,100.0	7,492.0	15,008.8	7,472.0	135.2	0.0	88.95	7,300.8	30.8	1,091.9	957.4	134.57	8.114		
15,200.0	7,492.0	15,108.8	7,472.0	136.9	0.0	88.95	7,400.8	30.0	1,091.9	955.6	136.30	8.011		
15,300.0	7,492.0	15,208.8	7,472.0	138.6	0.0	88.95	7,500.8	29.2	1,091.9	953.9	138.03	7.911		
15,400.0	7,492.0	15,308.8	7,472.0	140.4	0.0	88.95	7,600.8	28.4	1,091.9	952.2	139.75	7.813		
15,500.0	7,492.0	15,408.8	7,472.0	142.1	0.0	88.95	7,700.8	27.5	1,091.9	950.5	141.48	7.718		

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 19-18-1NCH
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 19-18-1NCH	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-													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	7,492.0	15,508.8	7,472.0	143.8	0.0	88.95	7,800.8	26.7	1,091.9	948.7	143.21	7.625		
15,700.0	7,492.0	15,608.8	7,472.0	145.5	0.0	88.95	7,900.8	25.9	1,091.9	947.0	144.94	7.534		
15,800.0	7,492.0	15,708.8	7,472.0	147.3	0.0	88.95	8,000.8	25.1	1,091.9	945.3	146.68	7.445		
15,900.0	7,492.0	15,808.8	7,472.0	149.0	0.0	88.95	8,100.7	24.2	1,091.9	943.5	148.41	7.358		
16,000.0	7,492.0	15,908.8	7,472.0	150.7	0.0	88.95	8,200.7	23.4	1,091.9	941.8	150.14	7.273		
16,100.0	7,492.0	16,008.8	7,472.0	152.4	0.0	88.95	8,300.7	22.6	1,091.9	940.1	151.87	7.190		
16,200.0	7,492.0	16,108.8	7,472.0	154.2	0.0	88.95	8,400.7	21.7	1,091.9	938.3	153.61	7.109		
16,300.0	7,492.0	16,208.8	7,472.0	155.9	0.0	88.95	8,500.7	20.9	1,091.9	936.6	155.34	7.029		
16,400.0	7,492.0	16,308.8	7,472.0	157.6	0.0	88.95	8,600.7	20.1	1,091.9	934.9	157.08	6.951		
16,500.0	7,492.0	16,408.8	7,472.0	159.4	0.0	88.95	8,700.7	19.3	1,091.9	933.1	158.82	6.875		
16,600.0	7,492.0	16,508.8	7,472.0	161.1	0.0	88.95	8,800.7	18.4	1,091.9	931.4	160.56	6.801		
16,700.0	7,492.0	16,608.8	7,472.0	162.8	0.0	88.95	8,900.7	17.6	1,091.9	929.7	162.29	6.728		
16,800.0	7,492.0	16,708.8	7,472.0	164.6	0.0	88.95	9,000.7	16.8	1,091.9	927.9	164.03	6.657		
16,900.0	7,492.0	16,808.8	7,472.0	166.3	0.0	88.95	9,100.7	16.0	1,091.9	926.2	165.77	6.587		
17,000.0	7,492.0	16,908.8	7,472.0	168.0	0.0	88.95	9,200.7	15.1	1,091.9	924.4	167.51	6.519		
17,100.0	7,492.0	17,008.8	7,472.0	169.8	0.0	88.95	9,300.7	14.3	1,091.9	922.7	169.25	6.452		
17,200.0	7,492.0	17,108.8	7,472.0	171.5	0.0	88.95	9,400.7	13.5	1,091.9	921.0	170.99	6.386		
17,300.0	7,492.0	17,208.8	7,472.0	173.2	0.0	88.95	9,500.7	12.6	1,091.9	919.2	172.73	6.322		
17,400.0	7,492.0	17,308.8	7,472.0	175.0	0.0	88.95	9,600.7	11.8	1,091.9	917.5	174.48	6.258		
17,500.0	7,492.0	17,408.8	7,472.0	176.7	0.0	88.95	9,700.7	11.0	1,092.0	915.7	176.22	6.197		
17,600.0	7,492.0	17,508.8	7,472.0	178.5	0.0	88.95	9,800.7	10.2	1,092.0	914.0	177.96	6.136		
17,686.9	7,492.0	17,595.8	7,472.0	180.0	0.0	88.95	9,887.6	9.5	1,092.0	912.5	179.48	6.084 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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 19-18-2NXH - 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	0.2	45.0	45.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.71	0.2	45.0	45.0	44.7	0.28	162.384		
200.0	200.0	200.0	200.0	1.0	0.0	89.71	0.2	45.0	45.0	44.2	0.80	56.380		
300.0	300.0	300.0	300.0	1.5	0.0	89.71	0.2	45.0	45.0	43.8	1.22	36.736		
400.0	400.0	400.0	400.0	1.9	0.0	89.71	0.2	45.0	45.0	43.4	1.62	27.795		
500.0	500.0	500.0	500.0	2.3	0.0	89.71	0.2	45.0	45.0	43.0	2.00	22.502		
600.0	600.0	600.0	600.0	2.7	0.0	89.71	0.2	45.0	45.0	42.6	2.37	18.958		
700.0	700.0	700.0	700.0	3.1	0.0	89.71	0.2	45.0	45.0	42.2	2.74	16.402		
800.0	800.0	800.0	800.0	3.5	0.0	89.71	0.2	45.0	45.0	41.9	3.11	14.466 CC, ES		
900.0	900.0	900.0	900.0	3.8	0.0	-153.95	0.2	45.0	46.5	43.0	3.53	13.176		
1,000.0	999.8	999.8	999.8	4.7	0.0	-156.48	0.2	45.0	51.3	46.8	4.53	11.331		
1,100.0	1,099.5	1,099.5	1,099.5	5.5	0.0	-159.78	0.2	45.0	59.4	54.0	5.38	11.031		
1,200.0	1,198.7	1,200.0	1,200.0	6.2	0.0	-161.95	-1.4	44.3	70.0	63.9	6.14	11.412		
1,300.0	1,297.5	1,300.7	1,300.5	6.8	0.0	-162.16	-6.3	42.3	82.2	75.4	6.74	12.198		
1,400.0	1,396.0	1,401.0	1,400.5	7.0	0.0	-160.96	-14.2	39.0	94.0	87.0	6.97	13.481		
1,500.0	1,494.5	1,500.3	1,499.3	7.3	0.0	-159.70	-22.6	35.5	105.6	98.3	7.25	14.553		
1,600.0	1,593.0	1,599.6	1,598.2	7.6	0.0	-158.69	-31.1	32.0	117.1	109.6	7.55	15.522		
1,700.0	1,691.5	1,698.9	1,697.1	7.9	0.0	-157.86	-39.5	28.5	128.8	120.9	7.85	16.399		
1,800.0	1,790.1	1,798.2	1,796.0	8.2	0.0	-157.17	-48.0	25.0	140.4	132.2	8.17	17.193		
1,900.0	1,888.6	1,897.5	1,894.9	8.5	0.0	-156.58	-56.4	21.5	152.0	143.6	8.49	17.911		
2,000.0	1,987.1	1,996.8	1,993.8	8.8	0.0	-156.08	-64.9	18.0	163.7	154.9	8.82	18.563		
2,100.0	2,085.6	2,096.1	2,092.6	9.1	0.0	-155.65	-73.4	14.5	175.4	166.2	9.16	19.155		
2,200.0	2,184.1	2,195.4	2,191.5	9.5	0.0	-155.26	-81.8	11.0	187.1	177.6	9.50	19.695		
2,300.0	2,282.7	2,294.8	2,290.4	9.8	0.0	-154.93	-90.3	7.5	198.8	188.9	9.85	20.187		
2,400.0	2,381.2	2,394.1	2,389.3	10.2	0.0	-154.63	-98.7	4.0	210.5	200.3	10.20	20.637		
2,500.0	2,479.7	2,493.4	2,488.2	10.5	0.0	-154.36	-107.2	0.4	222.2	211.6	10.55	21.050		
2,600.0	2,578.2	2,592.7	2,587.1	10.9	0.0	-154.12	-115.7	-3.1	233.9	223.0	10.91	21.429		
2,700.0	2,676.7	2,692.0	2,686.0	11.3	0.0	-153.90	-124.1	-6.6	245.6	234.3	11.28	21.778		
2,800.0	2,775.3	2,791.3	2,784.8	11.7	0.0	-153.71	-132.6	-10.1	257.3	245.6	11.64	22.100		
2,900.0	2,873.8	2,890.6	2,883.7	12.1	0.0	-153.53	-141.0	-13.6	269.0	257.0	12.01	22.399		
3,000.0	2,972.3	2,989.9	2,982.6	12.5	0.0	-153.36	-149.5	-17.1	280.7	268.3	12.38	22.675		
3,100.0	3,070.8	3,089.2	3,081.5	13.0	0.0	-153.21	-158.0	-20.6	292.4	279.7	12.75	22.932		
3,200.0	3,169.3	3,188.5	3,180.4	13.4	0.0	-153.07	-166.4	-24.1	304.2	291.0	13.13	23.171		
3,300.0	3,267.9	3,287.8	3,279.3	13.8	0.0	-152.94	-174.9	-27.6	315.9	302.4	13.50	23.394		
3,400.0	3,366.4	3,387.1	3,378.1	14.3	0.0	-152.82	-183.3	-31.1	327.6	313.7	13.88	23.602		
3,500.0	3,464.9	3,486.4	3,477.0	14.7	0.0	-152.70	-191.8	-34.6	339.3	325.1	14.26	23.797		
3,600.0	3,563.4	3,585.8	3,575.9	15.2	0.0	-152.60	-200.2	-38.1	351.1	336.4	14.64	23.979		
3,700.0	3,661.9	3,685.1	3,674.8	15.6	0.0	-152.50	-208.7	-41.6	362.8	347.8	15.02	24.151		
3,800.0	3,760.5	3,784.4	3,773.7	16.1	0.0	-152.41	-217.2	-45.1	374.5	359.1	15.41	24.312		
3,900.0	3,859.0	3,883.7	3,872.6	16.5	0.0	-152.32	-225.6	-48.6	386.3	370.5	15.79	24.464		
4,000.0	3,957.5	3,983.0	3,971.5	17.0	0.0	-152.24	-234.1	-52.1	398.0	381.8	16.17	24.607		
4,100.0	4,056.0	4,082.3	4,070.3	17.4	0.0	-152.16	-242.5	-55.7	409.7	393.2	16.56	24.742		
4,200.0	4,154.5	4,181.6	4,169.2	17.9	0.0	-152.09	-251.0	-59.2	421.5	404.5	16.95	24.870		
4,300.0	4,253.1	4,280.9	4,268.1	18.3	0.0	-152.02	-259.5	-62.7	433.2	415.9	17.33	24.991		
4,400.0	4,351.6	4,380.2	4,367.0	18.8	0.0	-151.96	-267.9	-66.2	444.9	427.2	17.72	25.106		
4,500.0	4,450.1	4,479.5	4,465.9	19.3	0.0	-151.90	-276.4	-69.7	456.7	438.6	18.11	25.215		
4,600.0	4,548.6	4,578.8	4,564.8	19.7	0.0	-151.84	-284.8	-73.2	468.4	449.9	18.50	25.319		
4,700.0	4,647.2	4,678.1	4,663.6	20.2	0.0	-151.78	-293.3	-76.7	480.1	461.3	18.89	25.417		
4,800.0	4,745.7	4,777.4	4,762.5	20.6	0.0	-151.73	-301.8	-80.2	491.9	472.6	19.28	25.511		
4,900.0	4,844.2	4,876.8	4,861.4	21.1	0.0	-151.68	-310.2	-83.7	503.6	483.9	19.67	25.601		
5,000.0	4,942.7	4,976.1	4,960.3	21.6	0.0	-151.63	-318.7	-87.2	515.4	495.3	20.06	25.686		
5,100.0	5,041.2	5,075.4	5,059.2	22.0	0.0	-151.59	-327.1	-90.7	527.1	506.6	20.46	25.767		

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 19-18-1NCH
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 19-18-1NCH	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 19-18-2NXH - 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	5,139.8	5,174.7	5,158.1	22.5	0.0	-151.54	-335.6	-94.2	538.8	518.0	20.85	25.845		
5,300.0	5,238.3	5,274.0	5,257.0	22.9	0.0	-151.50	-344.1	-97.7	550.6	529.3	21.24	25.920		
5,400.0	5,336.8	5,373.3	5,355.8	23.4	0.0	-151.46	-352.5	-101.2	562.3	540.7	21.63	25.991		
5,500.0	5,435.3	5,472.6	5,454.7	23.9	0.0	-151.42	-361.0	-104.7	574.0	552.0	22.03	26.060		
5,600.0	5,533.8	5,571.9	5,553.6	24.3	0.0	-151.38	-369.4	-108.2	585.8	563.4	22.42	26.125		
5,700.0	5,632.4	5,671.2	5,652.5	24.8	0.0	-151.35	-377.9	-111.7	597.5	574.7	22.82	26.188		
5,800.0	5,730.9	5,770.5	5,751.4	25.3	0.0	-151.31	-386.3	-115.3	609.3	586.1	23.21	26.249		
5,900.0	5,829.4	5,869.8	5,850.3	25.7	0.0	-151.28	-394.8	-118.8	621.0	597.4	23.61	26.307		
6,000.0	5,927.9	5,969.1	5,949.2	26.2	0.0	-151.25	-403.3	-122.3	632.7	608.7	24.00	26.363		
6,100.0	6,026.4	6,068.5	6,048.0	26.6	0.0	-151.22	-411.7	-125.8	644.5	620.1	24.40	26.416		
6,200.0	6,125.0	6,167.8	6,146.9	27.1	0.0	-151.19	-420.2	-129.3	656.2	631.4	24.79	26.468		
6,300.0	6,223.5	6,267.1	6,245.8	27.6	0.0	-151.16	-428.6	-132.8	668.0	642.8	25.19	26.518		
6,400.0	6,322.0	6,366.4	6,344.7	28.0	0.0	-151.13	-437.1	-136.3	679.7	654.1	25.59	26.566		
6,500.0	6,420.5	6,465.7	6,443.6	28.5	0.0	-151.11	-445.6	-139.8	691.5	665.5	25.98	26.613		
6,600.0	6,519.0	6,565.0	6,542.5	29.0	0.0	-151.08	-454.0	-143.3	703.2	676.8	26.38	26.657		
6,700.0	6,617.6	6,664.8	6,641.8	29.4	0.0	-151.06	-462.4	-146.8	714.9	688.2	26.78	26.700		
6,800.0	6,716.1	6,767.0	6,743.9	29.9	0.0	-151.92	-460.0	-150.5	726.4	699.3	27.12	26.785		
6,900.0	6,814.6	6,862.8	6,837.6	30.4	0.0	-153.96	-441.4	-154.1	738.1	710.8	27.35	26.989		
7,000.0	6,913.2	6,960.0	6,919.2	30.8	0.0	-175.47	-411.1	-157.3	751.7	724.2	27.47	27.366		
7,100.0	7,011.6	7,028.0	6,987.6	31.3	0.0	127.99	-373.7	-160.1	767.5	739.9	27.51	27.893		
7,200.0	7,107.5	7,100.0	7,045.6	31.8	0.0	104.45	-331.3	-162.5	784.4	756.9	27.50	28.250		
7,300.0	7,197.9	7,178.2	7,102.1	32.1	0.0	93.02	-277.3	-165.0	801.4	774.0	27.45	29.193		
7,400.0	7,280.0	7,250.0	7,147.1	32.4	0.0	86.09	-221.5	-167.1	817.6	790.3	27.36	29.881		
7,500.0	7,351.3	7,320.8	7,184.2	32.5	0.0	81.34	-161.3	-168.9	832.2	804.9	27.27	30.512		
7,600.0	7,409.7	7,390.3	7,213.2	32.6	0.0	78.00	-98.2	-170.5	844.3	817.1	27.21	31.024		
7,700.0	7,453.4	7,459.1	7,234.2	32.6	0.0	75.73	-32.7	-171.8	853.5	826.3	27.22	31.361		
7,800.0	7,481.1	7,527.4	7,247.1	32.6	0.0	74.37	34.3	-172.8	859.5	832.2	27.30	31.479		
7,900.0	7,491.9	7,602.4	7,252.0	32.6	0.0	73.83	109.1	-173.6	861.9	834.4	27.49	31.349		
7,902.3	7,491.9	7,602.4	7,252.0	32.6	0.0	73.83	109.1	-173.6	861.9	834.4	27.50	31.344		
8,000.0	7,492.0	7,692.2	7,252.0	32.7	0.0	73.83	198.8	-174.4	861.9	834.2	27.75	31.063		
8,100.0	7,492.0	7,792.2	7,252.0	32.8	0.0	73.83	298.8	-175.2	861.9	833.8	28.11	30.661		
8,200.0	7,492.0	7,892.2	7,252.0	33.0	0.0	73.83	398.8	-176.0	861.9	833.3	28.57	30.163		
8,300.0	7,492.0	7,992.2	7,252.0	33.4	0.0	73.83	498.8	-176.8	861.9	832.8	29.13	29.587		
8,400.0	7,492.0	8,092.2	7,252.0	33.9	0.0	73.83	598.8	-177.7	861.9	832.1	29.78	28.946		
8,500.0	7,492.0	8,192.2	7,252.0	34.6	0.0	73.83	698.8	-178.5	861.9	831.4	30.50	28.256		
8,600.0	7,492.0	8,292.2	7,252.0	35.3	0.0	73.83	798.8	-179.3	861.9	830.6	31.31	27.531		
8,700.0	7,492.0	8,392.2	7,252.0	36.1	0.0	73.83	898.8	-180.2	861.9	829.7	32.18	26.782		
8,800.0	7,492.0	8,492.2	7,252.0	37.1	0.0	73.83	998.8	-181.0	861.9	828.8	33.12	26.022		
8,900.0	7,492.0	8,592.2	7,252.0	38.0	0.0	73.83	1,098.8	-181.8	861.9	827.8	34.12	25.259		
9,000.0	7,492.0	8,692.2	7,252.0	39.1	0.0	73.83	1,198.8	-182.6	861.9	826.7	35.18	24.501		
9,100.0	7,492.0	8,792.2	7,252.0	40.2	0.0	73.83	1,298.8	-183.5	861.9	825.6	36.28	23.755		
9,200.0	7,492.0	8,892.2	7,252.0	41.3	0.0	73.83	1,398.8	-184.3	861.9	824.5	37.43	23.025		
9,300.0	7,492.0	8,992.2	7,252.0	42.5	0.0	73.83	1,498.8	-185.1	861.9	823.3	38.63	22.314		
9,400.0	7,492.0	9,092.2	7,252.0	43.8	0.0	73.83	1,598.8	-185.9	861.9	822.0	39.86	21.625		
9,500.0	7,492.0	9,192.2	7,252.0	45.0	0.0	73.83	1,698.8	-186.8	861.9	820.8	41.12	20.960		
9,600.0	7,492.0	9,292.2	7,252.0	46.3	0.0	73.83	1,798.8	-187.6	861.9	819.5	42.42	20.320		
9,700.0	7,492.0	9,392.2	7,252.0	47.7	0.0	73.83	1,898.8	-188.4	861.9	818.2	43.74	19.704		
9,800.0	7,492.0	9,492.2	7,252.0	49.0	0.0	73.83	1,998.8	-189.3	861.9	816.8	45.09	19.114		
9,900.0	7,492.0	9,592.2	7,252.0	50.4	0.0	73.83	2,098.8	-190.1	861.9	815.4	46.47	18.549		
10,000.0	7,492.0	9,692.2	7,252.0	51.8	0.0	73.83	2,198.8	-190.9	861.9	814.0	47.86	18.008		
10,100.0	7,492.0	9,792.2	7,252.0	53.2	0.0	73.83	2,298.8	-191.7	861.9	812.6	49.28	17.490		
10,200.0	7,492.0	9,892.2	7,252.0	54.7	0.0	73.83	2,398.8	-192.6	861.9	811.2	50.71	16.996		

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 19-18-1NCH
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 19-18-1NCH	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 19-18-2NXH - 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	7,492.0	9,992.2	7,252.0	56.1	0.0	73.83	2,498.8	-193.4	861.9	809.7	52.16	16.523		
10,400.0	7,492.0	10,092.2	7,252.0	57.6	0.0	73.83	2,598.8	-194.2	861.9	808.3	53.63	16.071		
10,500.0	7,492.0	10,192.2	7,252.0	59.1	0.0	73.83	2,698.8	-195.0	861.9	806.8	55.11	15.639		
10,600.0	7,492.0	10,292.2	7,252.0	60.6	0.0	73.83	2,798.8	-195.9	861.9	805.3	56.60	15.227		
10,700.0	7,492.0	10,392.2	7,252.0	62.2	0.0	73.83	2,898.7	-196.7	861.9	803.8	58.11	14.832		
10,800.0	7,492.0	10,492.2	7,252.0	63.7	0.0	73.83	2,998.7	-197.5	861.9	802.3	59.63	14.455		
10,900.0	7,492.0	10,592.2	7,252.0	65.2	0.0	73.83	3,098.7	-198.4	861.9	800.8	61.15	14.094		
11,000.0	7,492.0	10,692.2	7,252.0	66.8	0.0	73.83	3,198.7	-199.2	861.9	799.2	62.69	13.749		
11,100.0	7,492.0	10,792.2	7,252.0	68.4	0.0	73.83	3,298.7	-200.0	861.9	797.7	64.23	13.418		
11,200.0	7,492.0	10,892.2	7,252.0	70.0	0.0	73.83	3,398.7	-200.8	861.9	796.1	65.79	13.101		
11,300.0	7,492.0	10,992.2	7,252.0	71.5	0.0	73.83	3,498.7	-201.7	861.9	794.6	67.35	12.798		
11,400.0	7,492.0	11,092.2	7,252.0	73.1	0.0	73.83	3,598.7	-202.5	861.9	793.0	68.92	12.506		
11,500.0	7,492.0	11,192.2	7,252.0	74.7	0.0	73.83	3,698.7	-203.3	861.9	791.4	70.49	12.227		
11,600.0	7,492.0	11,292.2	7,252.0	76.4	0.0	73.83	3,798.7	-204.1	861.9	789.8	72.07	11.959		
11,700.0	7,492.0	11,392.2	7,252.0	78.0	0.0	73.83	3,898.7	-205.0	861.9	788.2	73.66	11.701		
11,800.0	7,492.0	11,492.2	7,252.0	79.6	0.0	73.83	3,998.7	-205.8	861.9	786.7	75.25	11.453		
11,900.0	7,492.0	11,592.2	7,252.0	81.2	0.0	73.83	4,098.7	-206.6	861.9	785.1	76.85	11.215		
12,000.0	7,492.0	11,692.2	7,252.0	82.9	0.0	73.83	4,198.7	-207.4	861.9	783.5	78.45	10.986		
12,100.0	7,492.0	11,792.2	7,252.0	84.5	0.0	73.83	4,298.7	-208.3	861.9	781.8	80.06	10.766		
12,200.0	7,492.0	11,892.2	7,252.0	86.1	0.0	73.83	4,398.7	-209.1	861.9	780.2	81.67	10.553		
12,300.0	7,492.0	11,992.2	7,252.0	87.8	0.0	73.83	4,498.7	-209.9	861.9	778.6	83.29	10.349		
12,400.0	7,492.0	12,092.2	7,252.0	89.5	0.0	73.83	4,598.7	-210.8	861.9	777.0	84.90	10.151		
12,500.0	7,492.0	12,192.1	7,252.0	91.1	0.0	73.83	4,698.7	-211.6	861.9	775.4	86.53	9.961		
12,600.0	7,492.0	12,292.1	7,252.0	92.8	0.0	73.83	4,798.7	-212.4	861.9	773.8	88.15	9.777		
12,700.0	7,492.0	12,392.1	7,252.0	94.4	0.0	73.83	4,898.7	-213.2	861.9	772.1	89.78	9.600		
12,800.0	7,492.0	12,492.1	7,252.0	96.1	0.0	73.83	4,998.7	-214.1	861.9	770.5	91.41	9.429		
12,900.0	7,492.0	12,592.1	7,252.0	97.8	0.0	73.83	5,098.7	-214.9	861.9	768.9	93.05	9.263		
13,000.0	7,492.0	12,692.1	7,252.0	99.5	0.0	73.83	5,198.7	-215.7	861.9	767.2	94.69	9.103		
13,100.0	7,492.0	12,792.1	7,252.0	101.1	0.0	73.83	5,298.7	-216.5	861.9	765.6	96.33	8.948		
13,200.0	7,492.0	12,892.1	7,252.0	102.8	0.0	73.83	5,398.7	-217.4	861.9	763.9	97.97	8.798		
13,300.0	7,492.0	12,992.1	7,252.0	104.5	0.0	73.83	5,498.7	-218.2	861.9	762.3	99.61	8.652		
13,400.0	7,492.0	13,092.1	7,252.0	106.2	0.0	73.83	5,598.7	-219.0	861.9	760.6	101.26	8.512		
13,500.0	7,492.0	13,192.1	7,252.0	107.9	0.0	73.83	5,698.7	-219.9	861.9	759.0	102.91	8.375		
13,600.0	7,492.0	13,292.1	7,252.0	109.6	0.0	73.83	5,798.6	-220.7	861.9	757.3	104.56	8.243		
13,700.0	7,492.0	13,392.1	7,252.0	111.3	0.0	73.83	5,898.6	-221.5	861.9	755.7	106.21	8.115		
13,800.0	7,492.0	13,492.1	7,252.0	113.0	0.0	73.83	5,998.6	-222.3	861.9	754.0	107.87	7.990		
13,900.0	7,492.0	13,592.1	7,252.0	114.7	0.0	73.83	6,098.6	-223.2	861.9	752.4	109.53	7.869		
14,000.0	7,492.0	13,692.1	7,252.0	116.4	0.0	73.83	6,198.6	-224.0	861.9	750.7	111.18	7.752		
14,100.0	7,492.0	13,792.1	7,252.0	118.1	0.0	73.83	6,298.6	-224.8	861.9	749.1	112.84	7.638		
14,200.0	7,492.0	13,892.1	7,252.0	119.8	0.0	73.83	6,398.6	-225.6	861.9	747.4	114.50	7.527		
14,300.0	7,492.0	13,992.1	7,252.0	121.5	0.0	73.83	6,498.6	-226.5	861.9	745.7	116.17	7.420		
14,400.0	7,492.0	14,092.1	7,252.0	123.2	0.0	73.83	6,598.6	-227.3	861.9	744.1	117.83	7.315		
14,500.0	7,492.0	14,192.1	7,252.0	124.9	0.0	73.83	6,698.6	-228.1	861.9	742.4	119.50	7.213		
14,600.0	7,492.0	14,292.1	7,252.0	126.6	0.0	73.83	6,798.6	-229.0	861.9	740.7	121.16	7.114		
14,700.0	7,492.0	14,392.1	7,252.0	128.3	0.0	73.83	6,898.6	-229.8	861.9	739.1	122.83	7.017		
14,800.0	7,492.0	14,492.1	7,252.0	130.0	0.0	73.83	6,998.6	-230.6	861.9	737.4	124.50	6.923		
14,900.0	7,492.0	14,592.1	7,252.0	131.8	0.0	73.83	7,098.6	-231.4	861.9	735.7	126.17	6.831		
15,000.0	7,492.0	14,692.1	7,252.0	133.5	0.0	73.83	7,198.6	-232.3	861.9	734.1	127.84	6.742		
15,100.0	7,492.0	14,792.1	7,252.0	135.2	0.0	73.83	7,298.6	-233.1	861.9	732.4	129.52	6.655		
15,200.0	7,492.0	14,892.1	7,252.0	136.9	0.0	73.83	7,398.6	-233.9	861.9	730.7	131.19	6.570		
15,300.0	7,492.0	14,992.1	7,252.0	138.6	0.0	73.83	7,498.6	-234.7	861.9	729.0	132.86	6.487		
15,400.0	7,492.0	15,092.1	7,252.0	140.4	0.0	73.83	7,598.6	-235.6	861.9	727.4	134.54	6.406		

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 19-18-1NCH
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 19-18-1NCH	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 19-18-2NXH - 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	7,492.0	15,192.1	7,252.0	142.1	0.0	73.83	7,698.6	-236.4	861.9	725.7	136.22	6.328		
15,600.0	7,492.0	15,292.1	7,252.0	143.8	0.0	73.83	7,798.6	-237.2	861.9	724.0	137.89	6.251		
15,700.0	7,492.0	15,392.1	7,252.0	145.5	0.0	73.83	7,898.6	-238.1	861.9	722.3	139.57	6.175		
15,800.0	7,492.0	15,492.1	7,252.0	147.3	0.0	73.83	7,998.6	-238.9	861.9	720.7	141.25	6.102		
15,900.0	7,492.0	15,592.1	7,252.0	149.0	0.0	73.83	8,098.6	-239.7	861.9	719.0	142.93	6.030		
16,000.0	7,492.0	15,692.1	7,252.0	150.7	0.0	73.83	8,198.6	-240.5	861.9	717.3	144.61	5.960		
16,100.0	7,492.0	15,792.1	7,252.0	152.4	0.0	73.83	8,298.6	-241.4	861.9	715.6	146.29	5.892		
16,200.0	7,492.0	15,892.1	7,252.0	154.2	0.0	73.83	8,398.6	-242.2	861.9	713.9	147.97	5.825		
16,300.0	7,492.0	15,992.1	7,252.0	155.9	0.0	73.83	8,498.6	-243.0	861.9	712.3	149.65	5.759		
16,400.0	7,492.0	16,092.1	7,252.0	157.6	0.0	73.83	8,598.6	-243.8	861.9	710.6	151.34	5.695		
16,500.0	7,492.0	16,192.1	7,252.0	159.4	0.0	73.83	8,698.5	-244.7	861.9	708.9	153.02	5.633		
16,600.0	7,492.0	16,292.1	7,252.0	161.1	0.0	73.83	8,798.5	-245.5	861.9	707.2	154.70	5.571		
16,700.0	7,492.0	16,392.1	7,252.0	162.8	0.0	73.83	8,898.5	-246.3	861.9	705.5	156.39	5.511		
16,800.0	7,492.0	16,492.1	7,252.0	164.6	0.0	73.83	8,998.5	-247.2	861.9	703.8	158.08	5.453		
16,900.0	7,492.0	16,592.1	7,252.0	166.3	0.0	73.83	9,098.5	-248.0	861.9	702.1	159.76	5.395		
17,000.0	7,492.0	16,692.1	7,252.0	168.0	0.0	73.83	9,198.5	-248.8	861.9	700.5	161.45	5.339		
17,100.0	7,492.0	16,792.1	7,252.0	169.8	0.0	73.83	9,298.5	-249.6	861.9	698.8	163.13	5.283		
17,200.0	7,492.0	16,892.1	7,252.0	171.5	0.0	73.83	9,398.5	-250.5	861.9	697.1	164.82	5.229		
17,300.0	7,492.0	16,992.1	7,252.0	173.2	0.0	73.83	9,498.5	-251.3	861.9	695.4	166.51	5.176		
17,400.0	7,492.0	17,092.1	7,252.0	175.0	0.0	73.83	9,598.5	-252.1	861.9	693.7	168.20	5.124		
17,500.0	7,492.0	17,192.1	7,252.0	176.7	0.0	73.83	9,698.5	-252.9	861.9	692.0	169.89	5.073		
17,600.0	7,492.0	17,292.1	7,252.0	178.5	0.0	73.83	9,798.5	-253.8	861.9	690.3	171.58	5.023		
17,686.9	7,492.0	17,379.1	7,252.0	180.0	0.0	73.83	9,885.5	-254.5	861.9	688.9	173.05	4.981 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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		
0.0	0.0	0.0	0.0	0.0	0.0	89.69	0.5	90.0	90.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.69	0.5	90.0	90.0	89.7	0.28	324.788		
200.0	200.0	200.0	200.0	1.0	0.0	89.69	0.5	90.0	90.0	89.2	0.80	112.771		
300.0	300.0	300.0	300.0	1.5	0.0	89.69	0.5	90.0	90.0	88.8	1.22	73.481		
400.0	400.0	400.0	400.0	1.9	0.0	89.69	0.5	90.0	90.0	88.4	1.62	55.597		
500.0	500.0	500.0	500.0	2.3	0.0	89.69	0.5	90.0	90.0	88.0	2.00	45.012		
600.0	600.0	600.0	600.0	2.7	0.0	89.69	0.5	90.0	90.0	87.6	2.37	37.922		
700.0	700.0	700.0	700.0	3.1	0.0	89.69	0.5	90.0	90.0	87.2	2.74	32.811		
800.0	800.0	800.0	800.0	3.5	0.0	89.69	0.5	90.0	90.0	86.9	3.11	28.938 CC, ES		
900.0	900.0	900.0	900.0	3.8	0.0	-153.49	0.5	90.0	91.5	88.0	3.53	25.957		
1,000.0	999.8	999.8	999.8	4.7	0.0	-154.84	0.5	90.0	96.2	91.7	4.51	21.364		
1,100.0	1,099.5	1,099.5	1,099.5	5.5	0.0	-156.81	0.5	90.0	104.2	98.9	5.35	19.488		
1,200.0	1,198.7	1,198.7	1,198.7	6.2	0.0	-159.11	0.5	90.0	115.5	109.4	6.10	18.923		
1,300.0	1,297.5	1,294.3	1,294.3	6.8	0.0	-160.92	-0.4	91.3	131.4	124.7	6.71	19.583		
1,400.0	1,396.0	1,389.0	1,388.8	7.0	0.0	-161.73	-3.1	95.1	151.2	144.3	6.95	21.748		
1,500.0	1,494.5	1,482.7	1,482.2	7.3	0.0	-161.62	-7.5	101.4	173.3	166.1	7.22	24.007		
1,600.0	1,593.0	1,575.3	1,574.2	7.6	0.0	-160.91	-13.5	110.2	197.7	190.2	7.48	26.416		
1,700.0	1,691.5	1,670.2	1,668.2	7.9	0.0	-159.91	-21.0	121.0	223.9	216.2	7.77	28.825		
1,800.0	1,790.1	1,766.6	1,763.6	8.2	0.0	-159.08	-28.8	132.2	250.3	242.2	8.07	31.018		
1,900.0	1,888.6	1,863.0	1,859.0	8.5	0.0	-158.41	-36.5	143.4	276.7	268.4	8.38	33.024		
2,000.0	1,987.1	1,959.4	1,954.5	8.8	0.0	-157.85	-44.3	154.6	303.2	294.5	8.70	34.859		
2,100.0	2,085.6	2,055.8	2,049.9	9.1	0.0	-157.38	-52.0	165.8	329.7	320.6	9.02	36.542		
2,200.0	2,184.1	2,152.2	2,145.3	9.5	0.0	-156.99	-59.7	176.9	356.2	346.8	9.35	38.087		
2,300.0	2,282.7	2,248.6	2,240.8	9.8	0.0	-156.65	-67.5	188.1	382.7	373.0	9.69	39.508		
2,400.0	2,381.2	2,345.0	2,336.2	10.2	0.0	-156.35	-75.2	199.3	409.2	399.2	10.02	40.817		
2,500.0	2,479.7	2,441.4	2,431.6	10.5	0.0	-156.09	-83.0	210.5	435.7	425.3	10.37	42.026		
2,600.0	2,578.2	2,537.8	2,527.1	10.9	0.0	-155.86	-90.7	221.7	462.2	451.5	10.71	43.144		
2,700.0	2,676.7	2,634.2	2,622.5	11.3	0.0	-155.65	-98.5	232.8	488.8	477.7	11.06	44.180		
2,800.0	2,775.3	2,730.6	2,718.0	11.7	0.0	-155.46	-106.2	244.0	515.3	503.9	11.42	45.142		
2,900.0	2,873.8	2,827.0	2,813.4	12.1	0.0	-155.30	-114.0	255.2	541.9	530.1	11.77	46.038		
3,000.0	2,972.3	2,923.4	2,908.8	12.5	0.0	-155.15	-121.7	266.4	568.4	556.3	12.13	46.872		
3,100.0	3,070.8	3,019.8	3,004.3	13.0	0.0	-155.01	-129.4	277.6	595.0	582.5	12.49	47.651		
3,200.0	3,169.3	3,116.2	3,099.7	13.4	0.0	-154.88	-137.2	288.7	621.5	608.7	12.85	48.380		
3,300.0	3,267.9	3,212.6	3,195.1	13.8	0.0	-154.77	-144.9	299.9	648.1	634.9	13.21	49.062		
3,400.0	3,366.4	3,309.0	3,290.6	14.3	0.0	-154.66	-152.7	311.1	674.7	661.1	13.57	49.703		
3,500.0	3,464.9	3,405.4	3,386.0	14.7	0.0	-154.56	-160.4	322.3	701.2	687.3	13.94	50.305		
3,600.0	3,563.4	3,501.8	3,481.4	15.2	0.0	-154.47	-168.2	333.5	727.8	713.5	14.31	50.871		
3,700.0	3,661.9	3,598.2	3,576.9	15.6	0.0	-154.39	-175.9	344.7	754.4	739.7	14.68	51.405		
3,800.0	3,760.5	3,694.6	3,672.3	16.1	0.0	-154.31	-183.7	355.8	781.0	765.9	15.04	51.909		
3,900.0	3,859.0	3,791.0	3,767.7	16.5	0.0	-154.23	-191.4	367.0	807.5	792.1	15.42	52.386		
4,000.0	3,957.5	3,887.4	3,863.2	17.0	0.0	-154.16	-199.2	378.2	834.1	818.3	15.79	52.836		
4,100.0	4,056.0	3,983.8	3,958.6	17.4	0.0	-154.10	-206.9	389.4	860.7	844.5	16.16	53.263		
4,200.0	4,154.5	4,080.2	4,054.0	17.9	0.0	-154.04	-214.6	400.6	887.3	870.7	16.53	53.668		
4,300.0	4,253.1	4,176.6	4,149.5	18.3	0.0	-153.98	-222.4	411.7	913.8	896.9	16.91	54.053		
4,400.0	4,351.6	4,273.0	4,244.9	18.8	0.0	-153.93	-230.1	422.9	940.4	923.1	17.28	54.419		
4,500.0	4,450.1	4,369.4	4,340.4	19.3	0.0	-153.87	-237.9	434.1	967.0	949.3	17.66	54.766		
4,600.0	4,548.6	4,465.8	4,435.8	19.7	0.0	-153.83	-245.6	445.3	993.6	975.5	18.03	55.098		
4,700.0	4,647.2	4,562.2	4,531.2	20.2	0.0	-153.78	-253.4	456.5	1,020.1	1,001.7	18.41	55.414		
4,800.0	4,745.7	4,658.6	4,626.7	20.6	0.0	-153.74	-261.1	467.6	1,046.7	1,027.9	18.79	55.715		
4,900.0	4,844.2	4,755.0	4,722.1	21.1	0.0	-153.69	-268.9	478.8	1,073.3	1,054.1	19.17	56.003		
5,000.0	4,942.7	4,851.4	4,817.5	21.6	0.0	-153.65	-276.6	490.0	1,099.9	1,080.3	19.54	56.279		
5,100.0	5,041.2	4,947.8	4,913.0	22.0	0.0	-153.62	-284.3	501.2	1,126.5	1,106.6	19.92	56.542		

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 19-18-1NCH
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 19-18-1NCH	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	5,139.8	5,044.2	5,008.4	22.5	0.0	-153.58	-292.1	512.4	1,153.1	1,132.8	20.30	56.795		
5,300.0	5,238.3	5,140.6	5,103.8	22.9	0.0	-153.55	-299.8	523.5	1,179.6	1,159.0	20.68	57.036		
5,400.0	5,336.8	5,237.0	5,199.3	23.4	0.0	-153.51	-307.6	534.7	1,206.2	1,185.2	21.06	57.268		
5,500.0	5,435.3	5,333.4	5,294.7	23.9	0.0	-153.48	-315.3	545.9	1,232.8	1,211.4	21.44	57.491		
5,600.0	5,533.8	5,429.8	5,390.1	24.3	0.0	-153.45	-323.1	557.1	1,259.4	1,237.6	21.82	57.705		
5,700.0	5,632.4	5,526.2	5,485.6	24.8	0.0	-153.42	-330.8	568.3	1,286.0	1,263.8	22.21	57.910		
5,800.0	5,730.9	5,622.6	5,581.0	25.3	0.0	-153.40	-338.6	579.5	1,312.6	1,290.0	22.59	58.107		
5,900.0	5,829.4	5,719.0	5,676.4	25.7	0.0	-153.37	-346.3	590.6	1,339.1	1,316.2	22.97	58.297		
6,000.0	5,927.9	5,815.3	5,771.9	26.2	0.0	-153.34	-354.0	601.8	1,365.7	1,342.4	23.35	58.480		
6,100.0	6,026.4	5,911.7	5,867.3	26.6	0.0	-153.32	-361.8	613.0	1,392.3	1,368.6	23.74	58.657		
6,200.0	6,125.0	6,008.1	5,962.8	27.1	0.0	-153.30	-369.5	624.2	1,418.9	1,394.8	24.12	58.826		
6,300.0	6,223.5	6,104.5	6,058.2	27.6	0.0	-153.27	-377.3	635.4	1,445.5	1,421.0	24.50	58.990		
6,400.0	6,322.0	6,200.9	6,153.6	28.0	0.0	-153.25	-385.0	646.5	1,472.1	1,447.2	24.89	59.148		
6,500.0	6,420.5	6,297.3	6,249.1	28.5	0.0	-153.23	-392.8	657.7	1,498.7	1,473.4	25.27	59.301		
6,600.0	6,519.0	6,393.7	6,344.5	29.0	0.0	-153.21	-400.5	668.9	1,525.2	1,499.6	25.66	59.448		
6,700.0	6,617.6	6,490.1	6,439.9	29.4	0.0	-153.19	-408.3	680.1	1,551.8	1,525.8	26.04	59.590		
6,800.0	6,716.1	6,586.5	6,535.4	29.9	0.0	-153.17	-416.0	691.3	1,578.4	1,552.0	26.43	59.728		
6,900.0	6,814.6	6,682.9	6,630.8	30.4	0.0	-153.15	-423.7	702.4	1,605.0	1,578.2	26.81	59.861		
7,000.0	6,913.2	6,779.3	6,726.2	30.8	0.0	-172.26	-431.5	713.6	1,631.6	1,604.4	27.19	60.007		
7,100.0	7,011.6	6,874.5	6,820.5	31.3	0.0	133.00	-439.1	724.7	1,658.0	1,630.5	27.54	60.212		
7,200.0	7,107.5	6,965.8	6,910.8	31.8	0.0	111.48	-446.5	735.3	1,684.1	1,656.2	27.84	60.494		
7,300.0	7,197.9	7,050.4	6,994.6	32.1	0.0	102.34	-453.3	745.1	1,709.7	1,681.6	28.09	60.877		
7,400.0	7,280.0	7,132.4	7,075.8	32.4	0.0	97.48	-459.1	754.6	1,735.4	1,707.1	28.31	61.299		
7,500.0	7,351.3	7,235.7	7,178.0	32.5	0.0	94.90	-452.8	766.4	1,760.7	1,732.1	28.58	61.603		
7,600.0	7,409.7	7,361.8	7,298.9	32.6	0.0	93.72	-420.3	780.2	1,784.5	1,755.6	28.86	61.827		
7,700.0	7,453.4	7,525.9	7,440.4	32.6	0.0	93.75	-339.8	796.1	1,805.4	1,776.3	29.13	61.985		
7,800.0	7,481.1	7,747.8	7,584.8	32.6	0.0	94.68	-174.0	811.5	1,820.9	1,791.6	29.32	62.097		
7,900.0	7,491.9	8,028.6	7,661.6	32.6	0.0	95.34	93.1	818.2	1,827.5	1,797.9	29.52	61.907		
8,000.0	7,492.0	8,142.5	7,662.0	32.7	0.0	95.34	207.0	817.3	1,827.5	1,797.6	29.84	61.247		
8,100.0	7,492.0	8,242.5	7,662.0	32.8	0.0	95.34	307.0	816.5	1,827.5	1,797.2	30.26	60.392		
8,200.0	7,492.0	8,342.5	7,662.0	33.0	0.0	95.34	407.0	815.7	1,827.5	1,796.7	30.78	59.375		
8,300.0	7,492.0	8,442.5	7,662.0	33.4	0.0	95.34	507.0	814.9	1,827.5	1,796.1	31.39	58.224		
8,400.0	7,492.0	8,542.5	7,662.0	33.9	0.0	95.34	607.0	814.0	1,827.5	1,795.4	32.08	56.965		
8,500.0	7,492.0	8,642.5	7,662.0	34.6	0.0	95.34	707.0	813.2	1,827.5	1,794.6	32.85	55.624		
8,600.0	7,492.0	8,742.5	7,662.0	35.3	0.0	95.34	807.0	812.4	1,827.5	1,793.8	33.70	54.225		
8,700.0	7,492.0	8,842.5	7,662.0	36.1	0.0	95.34	907.0	811.6	1,827.5	1,792.9	34.62	52.789		
8,800.0	7,492.0	8,942.5	7,662.0	37.1	0.0	95.34	1,007.0	810.7	1,827.5	1,791.9	35.60	51.335		
8,900.0	7,492.0	9,042.5	7,662.0	38.0	0.0	95.34	1,107.0	809.9	1,827.5	1,790.9	36.64	49.880		
9,000.0	7,492.0	9,142.5	7,662.0	39.1	0.0	95.34	1,207.0	809.1	1,827.5	1,789.8	37.73	48.436		
9,100.0	7,492.0	9,242.5	7,662.0	40.2	0.0	95.34	1,307.0	808.3	1,827.5	1,788.6	38.87	47.014		
9,200.0	7,492.0	9,342.5	7,662.0	41.3	0.0	95.34	1,407.0	807.4	1,827.5	1,787.4	40.06	45.622		
9,300.0	7,492.0	9,442.5	7,662.0	42.5	0.0	95.34	1,507.0	806.6	1,827.5	1,786.2	41.28	44.266		
9,400.0	7,492.0	9,542.5	7,662.0	43.8	0.0	95.34	1,607.0	805.8	1,827.5	1,784.9	42.55	42.950		
9,500.0	7,492.0	9,642.5	7,662.0	45.0	0.0	95.34	1,707.0	804.9	1,827.5	1,783.6	43.85	41.678		
9,600.0	7,492.0	9,742.5	7,662.0	46.3	0.0	95.34	1,807.0	804.1	1,827.5	1,782.3	45.18	40.450		
9,700.0	7,492.0	9,842.5	7,662.0	47.7	0.0	95.34	1,907.0	803.3	1,827.5	1,781.0	46.54	39.269		
9,800.0	7,492.0	9,942.5	7,662.0	49.0	0.0	95.34	2,007.0	802.5	1,827.5	1,779.6	47.92	38.134		
9,900.0	7,492.0	10,042.5	7,662.0	50.4	0.0	95.34	2,107.0	801.6	1,827.5	1,778.2	49.33	37.045		
10,000.0	7,492.0	10,142.5	7,662.0	51.8	0.0	95.34	2,207.0	800.8	1,827.5	1,776.7	50.76	36.001		
10,100.0	7,492.0	10,242.5	7,662.0	53.2	0.0	95.34	2,307.0	800.0	1,827.5	1,775.3	52.21	35.001		
10,200.0	7,492.0	10,342.5	7,662.0	54.7	0.0	95.34	2,407.0	799.2	1,827.5	1,773.8	53.68	34.042		
10,300.0	7,492.0	10,442.5	7,662.0	56.1	0.0	95.34	2,507.0	798.3	1,827.5	1,772.3	55.17	33.125		

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 19-18-1NCH
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 19-18-1NCH	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		
10,400.0	7,492.0	10,542.5	7,662.0	57.6	0.0	95.34	2,607.0	797.5	1,827.5	1,770.8	56.67	32.247		
10,500.0	7,492.0	10,642.5	7,662.0	59.1	0.0	95.34	2,707.0	796.7	1,827.5	1,769.3	58.19	31.406		
10,600.0	7,492.0	10,742.5	7,662.0	60.6	0.0	95.34	2,806.9	795.9	1,827.5	1,767.8	59.72	30.602		
10,700.0	7,492.0	10,842.5	7,662.0	62.2	0.0	95.34	2,906.9	795.0	1,827.5	1,766.2	61.26	29.831		
10,800.0	7,492.0	10,942.5	7,662.0	63.7	0.0	95.34	3,006.9	794.2	1,827.5	1,764.7	62.82	29.093		
10,900.0	7,492.0	11,042.5	7,662.0	65.2	0.0	95.34	3,106.9	793.4	1,827.5	1,763.1	64.38	28.386		
11,000.0	7,492.0	11,142.5	7,662.0	66.8	0.0	95.34	3,206.9	792.5	1,827.5	1,761.5	65.95	27.708		
11,100.0	7,492.0	11,242.5	7,662.0	68.4	0.0	95.34	3,306.9	791.7	1,827.5	1,760.0	67.54	27.059		
11,200.0	7,492.0	11,342.5	7,662.0	70.0	0.0	95.34	3,406.9	790.9	1,827.5	1,758.4	69.13	26.435		
11,300.0	7,492.0	11,442.5	7,662.0	71.5	0.0	95.34	3,506.9	790.1	1,827.5	1,756.8	70.73	25.837		
11,400.0	7,492.0	11,542.5	7,662.0	73.1	0.0	95.34	3,606.9	789.2	1,827.5	1,755.2	72.34	25.263		
11,500.0	7,492.0	11,642.5	7,662.0	74.7	0.0	95.34	3,706.9	788.4	1,827.5	1,753.5	73.95	24.711		
11,600.0	7,492.0	11,742.5	7,662.0	76.4	0.0	95.34	3,806.9	787.6	1,827.5	1,751.9	75.57	24.181		
11,700.0	7,492.0	11,842.5	7,662.0	78.0	0.0	95.34	3,906.9	786.8	1,827.5	1,750.3	77.20	23.672		
11,800.0	7,492.0	11,942.5	7,662.0	79.6	0.0	95.34	4,006.9	785.9	1,827.5	1,748.7	78.84	23.181		
11,900.0	7,492.0	12,042.5	7,662.0	81.2	0.0	95.34	4,106.9	785.1	1,827.5	1,747.0	80.47	22.709		
12,000.0	7,492.0	12,142.5	7,662.0	82.9	0.0	95.34	4,206.9	784.3	1,827.5	1,745.4	82.12	22.255		
12,100.0	7,492.0	12,242.5	7,662.0	84.5	0.0	95.34	4,306.9	783.5	1,827.5	1,743.7	83.77	21.817		
12,200.0	7,492.0	12,342.5	7,662.0	86.1	0.0	95.34	4,406.9	782.6	1,827.5	1,742.1	85.42	21.395		
12,300.0	7,492.0	12,442.5	7,662.0	87.8	0.0	95.34	4,506.9	781.8	1,827.5	1,740.4	87.08	20.988		
12,400.0	7,492.0	12,542.5	7,662.0	89.5	0.0	95.34	4,606.9	781.0	1,827.5	1,738.8	88.74	20.595		
12,500.0	7,492.0	12,642.5	7,662.0	91.1	0.0	95.34	4,706.9	780.1	1,827.5	1,737.1	90.40	20.216		
12,600.0	7,492.0	12,742.5	7,662.0	92.8	0.0	95.34	4,806.9	779.3	1,827.5	1,735.4	92.07	19.849		
12,700.0	7,492.0	12,842.5	7,662.0	94.4	0.0	95.34	4,906.9	778.5	1,827.5	1,733.8	93.74	19.495		
12,800.0	7,492.0	12,942.5	7,662.0	96.1	0.0	95.34	5,006.9	777.7	1,827.5	1,732.1	95.42	19.153		
12,900.0	7,492.0	13,042.5	7,662.0	97.8	0.0	95.34	5,106.9	776.8	1,827.5	1,730.4	97.09	18.822		
13,000.0	7,492.0	13,142.5	7,662.0	99.5	0.0	95.34	5,206.9	776.0	1,827.5	1,728.7	98.77	18.502		
13,100.0	7,492.0	13,242.5	7,662.0	101.1	0.0	95.34	5,306.9	775.2	1,827.5	1,727.0	100.46	18.192		
13,200.0	7,492.0	13,342.5	7,662.0	102.8	0.0	95.34	5,406.9	774.4	1,827.5	1,725.4	102.14	17.891		
13,300.0	7,492.0	13,442.5	7,662.0	104.5	0.0	95.34	5,506.9	773.5	1,827.5	1,723.7	103.83	17.601		
13,400.0	7,492.0	13,542.5	7,662.0	106.2	0.0	95.34	5,606.9	772.7	1,827.5	1,722.0	105.52	17.318		
13,500.0	7,492.0	13,642.5	7,662.0	107.9	0.0	95.34	5,706.8	771.9	1,827.5	1,720.3	107.22	17.045		
13,600.0	7,492.0	13,742.5	7,662.0	109.6	0.0	95.34	5,806.8	771.0	1,827.5	1,718.6	108.91	16.780		
13,700.0	7,492.0	13,842.5	7,662.0	111.3	0.0	95.34	5,906.8	770.2	1,827.5	1,716.9	110.61	16.522		
13,800.0	7,492.0	13,942.5	7,662.0	113.0	0.0	95.34	6,006.8	769.4	1,827.5	1,715.2	112.31	16.272		
13,900.0	7,492.0	14,042.5	7,662.0	114.7	0.0	95.34	6,106.8	768.6	1,827.5	1,713.5	114.01	16.029		
14,000.0	7,492.0	14,142.5	7,662.0	116.4	0.0	95.34	6,206.8	767.7	1,827.5	1,711.8	115.71	15.793		
14,100.0	7,492.0	14,242.5	7,662.0	118.1	0.0	95.34	6,306.8	766.9	1,827.5	1,710.1	117.42	15.564		
14,200.0	7,492.0	14,342.5	7,662.0	119.8	0.0	95.34	6,406.8	766.1	1,827.5	1,708.4	119.12	15.341		
14,300.0	7,492.0	14,442.5	7,662.0	121.5	0.0	95.34	6,506.8	765.3	1,827.5	1,706.7	120.83	15.124		
14,400.0	7,492.0	14,542.5	7,662.0	123.2	0.0	95.34	6,606.8	764.4	1,827.5	1,705.0	122.54	14.913		
14,500.0	7,492.0	14,642.5	7,662.0	124.9	0.0	95.34	6,706.8	763.6	1,827.5	1,703.3	124.25	14.708		
14,600.0	7,492.0	14,742.5	7,662.0	126.6	0.0	95.34	6,806.8	762.8	1,827.5	1,701.5	125.96	14.508		
14,700.0	7,492.0	14,842.5	7,662.0	128.3	0.0	95.34	6,906.8	762.0	1,827.5	1,699.8	127.68	14.313		
14,800.0	7,492.0	14,942.5	7,662.0	130.0	0.0	95.34	7,006.8	761.1	1,827.5	1,698.1	129.39	14.124		
14,900.0	7,492.0	15,042.5	7,662.0	131.8	0.0	95.34	7,106.8	760.3	1,827.5	1,696.4	131.11	13.939		
15,000.0	7,492.0	15,142.5	7,662.0	133.5	0.0	95.34	7,206.8	759.5	1,827.5	1,694.7	132.83	13.759		
15,100.0	7,492.0	15,242.5	7,662.0	135.2	0.0	95.34	7,306.8	758.6	1,827.5	1,693.0	134.54	13.583		
15,200.0	7,492.0	15,342.5	7,662.0	136.9	0.0	95.34	7,406.8	757.8	1,827.5	1,691.3	136.26	13.412		
15,300.0	7,492.0	15,442.5	7,662.0	138.6	0.0	95.34	7,506.8	757.0	1,827.5	1,689.5	137.98	13.244		
15,400.0	7,492.0	15,542.5	7,662.0	140.4	0.0	95.34	7,606.8	756.2	1,827.5	1,687.8	139.70	13.081		
15,500.0	7,492.0	15,642.5	7,662.0	142.1	0.0	95.34	7,706.8	755.3	1,827.5	1,686.1	141.43	12.922		

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 19-18-1NCH
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 19-18-1NCH	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		
15,600.0	7,492.0	15,742.5	7,662.0	143.8	0.0	95.34	7,806.8	754.5	1,827.5	1,684.4	143.15	12.766		
15,700.0	7,492.0	15,842.5	7,662.0	145.5	0.0	95.34	7,906.8	753.7	1,827.5	1,682.6	144.87	12.614		
15,800.0	7,492.0	15,942.5	7,662.0	147.3	0.0	95.34	8,006.8	752.9	1,827.5	1,680.9	146.60	12.466		
15,900.0	7,492.0	16,042.5	7,662.0	149.0	0.0	95.34	8,106.8	752.0	1,827.5	1,679.2	148.33	12.321		
16,000.0	7,492.0	16,142.5	7,662.0	150.7	0.0	95.34	8,206.8	751.2	1,827.5	1,677.5	150.05	12.179		
16,100.0	7,492.0	16,242.5	7,662.0	152.4	0.0	95.34	8,306.8	750.4	1,827.5	1,675.7	151.78	12.041		
16,200.0	7,492.0	16,342.5	7,662.0	154.2	0.0	95.34	8,406.8	749.6	1,827.5	1,674.0	153.51	11.905		
16,300.0	7,492.0	16,442.5	7,662.0	155.9	0.0	95.34	8,506.8	748.7	1,827.5	1,672.3	155.24	11.772		
16,400.0	7,492.0	16,542.5	7,662.0	157.6	0.0	95.34	8,606.7	747.9	1,827.5	1,670.6	156.97	11.643		
16,500.0	7,492.0	16,642.5	7,662.0	159.4	0.0	95.34	8,706.7	747.1	1,827.5	1,668.8	158.70	11.516		
16,600.0	7,492.0	16,742.5	7,662.0	161.1	0.0	95.34	8,806.7	746.2	1,827.5	1,667.1	160.43	11.392		
16,700.0	7,492.0	16,842.5	7,662.0	162.8	0.0	95.34	8,906.7	745.4	1,827.5	1,665.4	162.16	11.270		
16,800.0	7,492.0	16,942.5	7,662.0	164.6	0.0	95.34	9,006.7	744.6	1,827.5	1,663.6	163.89	11.151		
16,900.0	7,492.0	17,042.5	7,662.0	166.3	0.0	95.34	9,106.7	743.8	1,827.5	1,661.9	165.62	11.034		
17,000.0	7,492.0	17,142.5	7,662.0	168.0	0.0	95.34	9,206.7	742.9	1,827.5	1,660.2	167.36	10.920		
17,100.0	7,492.0	17,242.5	7,662.0	169.8	0.0	95.34	9,306.7	742.1	1,827.5	1,658.4	169.09	10.808		
17,200.0	7,492.0	17,342.5	7,662.0	171.5	0.0	95.34	9,406.7	741.3	1,827.5	1,656.7	170.83	10.698		
17,300.0	7,492.0	17,442.5	7,662.0	173.2	0.0	95.34	9,506.7	740.5	1,827.5	1,655.0	172.56	10.591		
17,400.0	7,492.0	17,542.5	7,662.0	175.0	0.0	95.34	9,606.7	739.6	1,827.5	1,653.2	174.30	10.485		
17,500.0	7,492.0	17,642.5	7,662.0	176.7	0.0	95.34	9,706.7	738.8	1,827.5	1,651.5	176.03	10.382		
17,600.0	7,492.0	17,742.5	7,662.0	178.5	0.0	95.34	9,806.7	738.0	1,827.5	1,649.8	177.77	10.280		
17,686.9	7,492.0	17,829.4	7,662.0	180.0	0.0	95.34	9,893.7	737.3	1,827.5	1,648.2	179.28	10.194 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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							
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
0.0	0.0	0.0	0.0	0.0	0.0	89.72	0.7	135.0	135.0				
100.0	100.0	100.0	100.0	0.4	0.0	89.72	0.7	135.0	135.0	134.7	0.28	487.467	
200.0	200.0	200.0	200.0	1.0	0.0	89.72	0.7	135.0	135.0	134.2	0.80	169.248	
300.0	300.0	300.0	300.0	1.5	0.0	89.72	0.7	135.0	135.0	133.8	1.22	110.278	
400.0	400.0	400.0	400.0	1.9	0.0	89.72	0.7	135.0	135.0	133.4	1.62	83.436	
500.0	500.0	500.0	500.0	2.3	0.0	89.72	0.7	135.0	135.0	133.0	2.00	67.548	
600.0	600.0	600.0	600.0	2.7	0.0	89.72	0.7	135.0	135.0	132.6	2.37	56.908	
700.0	700.0	700.0	700.0	3.1	0.0	89.72	0.7	135.0	135.0	132.3	2.74	49.237	
800.0	800.0	800.0	800.0	3.5	0.0	89.72	0.7	135.0	135.0	131.9	3.11	43.424 CC, ES	
900.0	900.0	900.0	900.0	3.8	0.0	-153.30	0.7	135.0	136.6	133.0	3.52	38.751	
1,000.0	999.8	995.4	995.4	4.7	0.0	-153.93	0.1	136.5	142.8	138.3	4.49	31.800	
1,100.0	1,099.5	1,090.0	1,089.9	5.5	0.0	-154.54	-1.4	140.9	155.3	150.0	5.30	29.282	
1,200.0	1,198.7	1,183.3	1,182.8	6.2	0.0	-155.07	-4.0	148.2	173.9	167.9	6.02	28.911 SF	
1,300.0	1,297.5	1,274.7	1,273.6	6.8	0.0	-155.49	-7.5	158.1	198.6	192.0	6.58	30.158	
1,400.0	1,396.0	1,364.3	1,362.3	7.0	0.0	-155.83	-11.9	170.4	227.3	220.5	6.81	33.404	
1,500.0	1,494.5	1,452.4	1,449.0	7.3	0.0	-155.83	-17.2	185.0	258.9	251.8	7.06	36.690	
1,600.0	1,593.0	1,538.7	1,533.5	7.6	0.0	-155.61	-23.1	201.8	293.0	285.7	7.30	40.132	
1,700.0	1,691.5	1,626.9	1,619.2	7.9	0.0	-155.26	-30.0	221.2	329.5	322.0	7.56	43.560	
1,800.0	1,790.1	1,719.8	1,709.4	8.2	0.0	-154.92	-37.5	242.0	366.5	358.6	7.86	46.607	
1,900.0	1,888.6	1,812.7	1,799.7	8.5	0.0	-154.65	-44.9	262.9	403.5	395.3	8.17	49.388	
2,000.0	1,987.1	1,905.6	1,899.9	8.8	0.0	-154.43	-52.3	283.7	440.4	432.0	8.48	51.931	
2,100.0	2,085.6	1,998.5	1,980.1	9.1	0.0	-154.24	-59.8	304.5	477.4	468.6	8.80	54.259	
2,200.0	2,184.1	2,091.4	2,070.3	9.5	0.0	-154.07	-67.2	325.4	514.4	505.3	9.12	56.396	
2,300.0	2,282.7	2,184.3	2,160.6	9.8	0.0	-153.93	-74.6	346.2	551.4	542.0	9.45	58.361	
2,400.0	2,381.2	2,277.2	2,250.8	10.2	0.0	-153.81	-82.0	367.1	588.4	578.6	9.78	60.171	
2,500.0	2,479.7	2,370.1	2,341.0	10.5	0.0	-153.70	-89.5	387.9	625.4	615.3	10.11	61.841	
2,600.0	2,578.2	2,463.0	2,431.2	10.9	0.0	-153.60	-96.9	408.7	662.4	652.0	10.45	63.387	
2,700.0	2,676.7	2,555.9	2,521.5	11.3	0.0	-153.52	-104.3	429.6	699.4	688.6	10.79	64.819	
2,800.0	2,775.3	2,648.8	2,611.7	11.7	0.0	-153.44	-111.8	450.4	736.4	725.3	11.13	66.149	
2,900.0	2,873.8	2,741.7	2,701.9	12.1	0.0	-153.37	-119.2	471.3	773.4	761.9	11.48	67.387	
3,000.0	2,972.3	2,834.6	2,792.1	12.5	0.0	-153.31	-126.6	492.1	810.4	798.6	11.82	68.540	
3,100.0	3,070.8	2,927.5	2,882.4	13.0	0.0	-153.25	-134.0	512.9	847.4	835.3	12.17	69.617	
3,200.0	3,169.3	3,020.4	2,972.6	13.4	0.0	-153.19	-141.5	533.8	884.4	871.9	12.52	70.624	
3,300.0	3,267.9	3,113.3	3,062.8	13.8	0.0	-153.14	-148.9	554.6	921.4	908.6	12.88	71.567	
3,400.0	3,366.4	3,206.2	3,153.0	14.3	0.0	-153.10	-156.3	575.5	958.5	945.2	13.23	72.452	
3,500.0	3,464.9	3,299.1	3,243.3	14.7	0.0	-153.06	-163.7	596.3	995.5	981.9	13.58	73.283	
3,600.0	3,563.4	3,392.0	3,333.5	15.2	0.0	-153.02	-171.2	617.1	1,032.5	1,018.5	13.94	74.066	
3,700.0	3,661.9	3,484.9	3,423.7	15.6	0.0	-152.98	-178.6	638.0	1,069.5	1,055.2	14.30	74.803	
3,800.0	3,760.5	3,577.8	3,513.9	16.1	0.0	-152.95	-186.0	658.8	1,106.5	1,091.8	14.66	75.498	
3,900.0	3,859.0	3,670.7	3,604.2	16.5	0.0	-152.92	-193.5	679.7	1,143.5	1,128.5	15.02	76.156	
4,000.0	3,957.5	3,763.6	3,694.4	17.0	0.0	-152.89	-200.9	700.5	1,180.5	1,165.1	15.38	76.777	
4,100.0	4,056.0	3,856.5	3,784.6	17.4	0.0	-152.86	-208.3	721.3	1,217.5	1,201.8	15.74	77.366	
4,200.0	4,154.5	3,949.4	3,874.8	17.9	0.0	-152.83	-215.7	742.2	1,254.5	1,238.4	16.10	77.924	
4,300.0	4,253.1	4,042.3	3,965.1	18.3	0.0	-152.81	-223.2	763.0	1,291.5	1,275.1	16.46	78.454	
4,400.0	4,351.6	4,135.2	4,055.3	18.8	0.0	-152.78	-230.6	783.8	1,328.6	1,311.7	16.83	78.957	
4,500.0	4,450.1	4,228.1	4,145.5	19.3	0.0	-152.76	-238.0	804.7	1,365.6	1,348.4	17.19	79.436	
4,600.0	4,548.6	4,321.0	4,235.7	19.7	0.0	-152.74	-245.5	825.5	1,402.6	1,385.0	17.56	79.891	
4,700.0	4,647.2	4,413.9	4,326.0	20.2	0.0	-152.72	-252.9	846.4	1,439.6	1,421.7	17.92	80.325	
4,800.0	4,745.7	4,506.8	4,416.2	20.6	0.0	-152.70	-260.3	867.2	1,476.6	1,458.3	18.29	80.739	
4,900.0	4,844.2	4,599.7	4,506.4	21.1	0.0	-152.68	-267.7	888.0	1,513.6	1,495.0	18.66	81.134	
5,000.0	4,942.7	4,692.5	4,596.6	21.6	0.0	-152.67	-275.2	908.9	1,550.6	1,531.6	19.02	81.512	
5,100.0	5,041.2	4,785.4	4,686.9	22.0	0.0	-152.65	-282.6	929.7	1,587.6	1,568.2	19.39	81.873	

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 19-18-1NCH
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 19-18-1NCH	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	5,139.8	4,878.3	4,777.1	22.5	0.0	-152.64	-290.0	950.6	1,624.6	1,604.9	19.76	82.218		
5,300.0	5,238.3	4,971.2	4,867.3	22.9	0.0	-152.62	-297.4	971.4	1,661.7	1,641.5	20.13	82.548		
5,400.0	5,336.8	5,064.1	4,957.5	23.4	0.0	-152.61	-304.9	992.2	1,698.7	1,678.2	20.50	82.865		
5,500.0	5,435.3	5,157.0	5,047.8	23.9	0.0	-152.59	-312.3	1,013.1	1,735.7	1,714.8	20.87	83.168		
5,600.0	5,533.8	5,249.9	5,138.0	24.3	0.0	-152.58	-319.7	1,033.9	1,772.7	1,751.5	21.24	83.460		
5,700.0	5,632.4	5,342.8	5,228.2	24.8	0.0	-152.57	-327.2	1,054.8	1,809.7	1,788.1	21.61	83.739		
5,800.0	5,730.9	5,435.7	5,318.4	25.3	0.0	-152.56	-334.6	1,075.6	1,846.7	1,824.7	21.98	84.007		
5,900.0	5,829.4	5,528.6	5,408.7	25.7	0.0	-152.54	-342.0	1,096.4	1,883.7	1,861.4	22.35	84.265		
6,000.0	5,927.9	5,621.5	5,498.9	26.2	0.0	-152.53	-349.4	1,117.3	1,920.7	1,898.0	22.73	84.513		
6,100.0	6,026.4	5,714.4	5,589.1	26.6	0.0	-152.52	-356.9	1,138.1	1,957.8	1,934.7	23.10	84.752		
6,200.0	6,125.0	5,807.3	5,679.3	27.1	0.0	-152.51	-364.3	1,159.0	1,994.8	1,971.3	23.47	84.981		
6,300.0	6,223.5	5,900.2	5,769.6	27.6	0.0	-152.50	-371.7	1,179.8	2,031.8	2,007.9	23.85	85.202		
6,400.0	6,322.0	5,993.1	5,859.8	28.0	0.0	-152.49	-379.2	1,200.6	2,068.8	2,044.6	24.22	85.415		
6,500.0	6,420.5	6,086.0	5,950.0	28.5	0.0	-152.48	-386.6	1,221.5	2,105.8	2,081.2	24.59	85.620		
6,600.0	6,519.0	6,178.9	6,040.2	29.0	0.0	-152.47	-394.0	1,242.3	2,142.8	2,117.9	24.97	85.818		
6,700.0	6,617.6	6,271.8	6,130.5	29.4	0.0	-152.47	-401.4	1,263.2	2,179.8	2,154.5	25.34	86.008		
6,800.0	6,716.1	6,364.7	6,220.7	29.9	0.0	-152.46	-408.9	1,284.0	2,216.8	2,191.1	25.72	86.192		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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	89.73	0.6	120.0	120.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.73	0.6	120.0	120.0	119.7	0.28	433.263		
200.0	200.0	200.0	200.0	1.0	0.0	89.73	0.6	120.0	120.0	119.2	0.80	150.425		
300.0	300.0	300.0	300.0	1.5	0.0	89.73	0.6	120.0	120.0	118.8	1.22	98.012		
400.0	400.0	400.0	400.0	1.9	0.0	89.73	0.6	120.0	120.0	118.4	1.62	74.154		
500.0	500.0	500.0	500.0	2.3	0.0	89.73	0.6	120.0	120.0	118.0	2.00	60.034		
600.0	600.0	600.0	600.0	2.7	0.0	89.73	0.6	120.0	120.0	117.6	2.37	50.577		
700.0	700.0	700.0	700.0	3.1	0.0	89.73	0.6	120.0	120.0	117.2	2.74	43.758		
800.0	800.0	800.0	800.0	3.5	0.0	89.73	0.6	120.0	120.0	116.9	3.11	38.593 CC, ES		
900.0	900.0	900.0	900.0	3.8	0.0	-153.33	0.6	120.0	121.5	118.0	3.52	34.483		
1,000.0	999.8	999.8	999.8	4.7	0.0	-154.35	0.6	120.0	126.2	121.7	4.50	28.061		
1,100.0	1,099.5	1,095.4	1,095.4	5.5	0.0	-155.53	0.0	121.4	135.6	130.3	5.33	25.470		
1,200.0	1,198.7	1,189.9	1,189.8	6.2	0.0	-156.46	-1.9	125.8	151.2	145.2	6.05	24.986		
1,300.0	1,297.5	1,282.8	1,282.4	6.8	0.0	-157.10	-4.8	132.8	172.8	166.2	6.63	26.061		
1,400.0	1,396.0	1,374.2	1,373.1	7.0	0.0	-157.48	-8.8	142.5	198.6	191.8	6.86	28.953		
1,500.0	1,494.5	1,464.2	1,462.1	7.3	0.0	-157.41	-13.9	154.6	227.1	220.0	7.11	31.920		
1,600.0	1,593.0	1,552.6	1,549.2	7.6	0.0	-157.06	-19.9	169.0	258.2	250.8	7.37	35.053		
1,700.0	1,691.5	1,642.5	1,637.1	7.9	0.0	-156.53	-27.0	185.9	291.7	284.1	7.63	38.214		
1,800.0	1,790.1	1,736.5	1,729.1	8.2	0.0	-156.04	-34.6	204.1	325.6	317.7	7.93	41.052		
1,900.0	1,888.6	1,830.5	1,821.0	8.5	0.0	-155.65	-42.2	222.3	359.6	351.4	8.24	43.645		
2,000.0	1,987.1	1,924.5	1,913.0	8.8	0.0	-155.32	-49.8	240.4	393.6	385.0	8.55	46.016		
2,100.0	2,085.6	2,018.6	2,004.9	9.1	0.0	-155.05	-57.4	258.6	427.6	418.7	8.87	48.188		
2,200.0	2,184.1	2,112.6	2,096.8	9.5	0.0	-154.82	-65.0	276.8	461.6	452.4	9.20	50.182		
2,300.0	2,282.7	2,206.6	2,188.8	9.8	0.0	-154.62	-72.6	295.0	495.6	486.1	9.53	52.016		
2,400.0	2,381.2	2,300.6	2,280.7	10.2	0.0	-154.44	-80.2	313.1	529.6	519.8	9.86	53.706		
2,500.0	2,479.7	2,394.7	2,372.7	10.5	0.0	-154.29	-87.8	331.3	563.6	553.4	10.20	55.266		
2,600.0	2,578.2	2,488.7	2,464.6	10.9	0.0	-154.15	-95.4	349.5	597.6	587.1	10.54	56.709		
2,700.0	2,676.7	2,582.7	2,556.5	11.3	0.0	-154.03	-103.0	367.6	631.7	620.8	10.88	58.047		
2,800.0	2,775.3	2,676.7	2,648.5	11.7	0.0	-153.92	-110.6	385.8	665.7	654.5	11.23	59.290		
2,900.0	2,873.8	2,770.8	2,740.4	12.1	0.0	-153.82	-118.2	404.0	699.7	688.1	11.58	60.446		
3,000.0	2,972.3	2,864.8	2,832.4	12.5	0.0	-153.73	-125.8	422.2	733.7	721.8	11.93	61.524		
3,100.0	3,070.8	2,958.8	2,924.3	13.0	0.0	-153.65	-133.4	440.3	767.8	755.5	12.28	62.531		
3,200.0	3,169.3	3,052.9	3,016.2	13.4	0.0	-153.57	-141.0	458.5	801.8	789.2	12.63	63.472		
3,300.0	3,267.9	3,146.9	3,108.2	13.8	0.0	-153.50	-148.5	476.7	835.8	822.9	12.99	64.354		
3,400.0	3,366.4	3,240.9	3,200.1	14.3	0.0	-153.44	-156.1	494.8	869.9	856.5	13.35	65.182		
3,500.0	3,464.9	3,334.9	3,292.1	14.7	0.0	-153.38	-163.7	513.0	903.9	890.2	13.70	65.960		
3,600.0	3,563.4	3,429.0	3,384.0	15.2	0.0	-153.33	-171.3	531.2	937.9	923.9	14.06	66.692		
3,700.0	3,661.9	3,523.0	3,476.0	15.6	0.0	-153.28	-178.9	549.3	972.0	957.5	14.42	67.383		
3,800.0	3,760.5	3,617.0	3,567.9	16.1	0.0	-153.23	-186.5	567.5	1,006.0	991.2	14.79	68.034		
3,900.0	3,859.0	3,711.0	3,659.8	16.5	0.0	-153.19	-194.1	585.7	1,040.0	1,024.9	15.15	68.649		
4,000.0	3,957.5	3,805.1	3,751.8	17.0	0.0	-153.14	-201.7	603.9	1,074.1	1,058.6	15.51	69.232		
4,100.0	4,056.0	3,899.1	3,843.7	17.4	0.0	-153.11	-209.3	622.0	1,108.1	1,092.2	15.88	69.783		
4,200.0	4,154.5	3,993.1	3,935.7	17.9	0.0	-153.07	-216.9	640.2	1,142.2	1,125.9	16.25	70.307		
4,300.0	4,253.1	4,087.1	4,027.6	18.3	0.0	-153.04	-224.5	658.4	1,176.2	1,159.6	16.61	70.803		
4,400.0	4,351.6	4,181.2	4,119.5	18.8	0.0	-153.00	-232.1	676.5	1,210.2	1,193.3	16.98	71.275		
4,500.0	4,450.1	4,275.2	4,211.5	19.3	0.0	-152.97	-239.7	694.7	1,244.3	1,226.9	17.35	71.724		
4,600.0	4,548.6	4,369.2	4,303.4	19.7	0.0	-152.94	-247.3	712.9	1,278.3	1,260.6	17.72	72.152		
4,700.0	4,647.2	4,463.3	4,395.4	20.2	0.0	-152.92	-254.9	731.0	1,312.3	1,294.3	18.09	72.560		
4,800.0	4,745.7	4,557.3	4,487.3	20.6	0.0	-152.89	-262.5	749.2	1,346.4	1,327.9	18.46	72.949		
4,900.0	4,844.2	4,651.3	4,579.2	21.1	0.0	-152.86	-270.1	767.4	1,380.4	1,361.6	18.83	73.320		
5,000.0	4,942.7	4,745.3	4,671.2	21.6	0.0	-152.84	-277.7	785.6	1,414.5	1,395.3	19.20	73.675		
5,100.0	5,041.2	4,839.4	4,763.1	22.0	0.0	-152.82	-285.3	803.7	1,448.5	1,428.9	19.57	74.014		

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 19-18-1NCH
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 19-18-1NCH	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	5,139.8	4,933.4	4,855.1	22.5	0.0	-152.80	-292.9	821.9	1,482.5	1,462.6	19.94	74.339	
5,300.0	5,238.3	5,027.4	4,947.0	22.9	0.0	-152.78	-300.5	840.1	1,516.6	1,496.3	20.32	74.650	
5,400.0	5,336.8	5,121.4	5,039.0	23.4	0.0	-152.76	-308.1	858.2	1,550.6	1,529.9	20.69	74.948	
5,500.0	5,435.3	5,215.5	5,130.9	23.9	0.0	-152.74	-315.7	876.4	1,584.7	1,563.6	21.06	75.234	
5,600.0	5,533.8	5,309.5	5,222.8	24.3	0.0	-152.72	-323.3	894.6	1,618.7	1,597.3	21.44	75.509	
5,700.0	5,632.4	5,403.5	5,314.8	24.8	0.0	-152.70	-330.9	912.8	1,652.7	1,630.9	21.81	75.772	
5,800.0	5,730.9	5,497.5	5,406.7	25.3	0.0	-152.69	-338.5	930.9	1,686.8	1,664.6	22.19	76.026	
5,900.0	5,829.4	5,591.6	5,498.7	25.7	0.0	-152.67	-346.1	949.1	1,720.8	1,698.3	22.56	76.269	
6,000.0	5,927.9	5,685.6	5,590.6	26.2	0.0	-152.66	-353.7	967.3	1,754.9	1,731.9	22.94	76.504	
6,100.0	6,026.4	5,779.6	5,682.5	26.6	0.0	-152.64	-361.2	985.4	1,788.9	1,765.6	23.31	76.729	
6,200.0	6,125.0	5,873.7	5,774.5	27.1	0.0	-152.63	-368.8	1,003.6	1,823.0	1,799.3	23.69	76.946	
6,300.0	6,223.5	5,967.7	5,866.4	27.6	0.0	-152.61	-376.4	1,021.8	1,857.0	1,832.9	24.07	77.155	
6,400.0	6,322.0	6,061.7	5,958.4	28.0	0.0	-152.60	-384.0	1,039.9	1,891.0	1,866.6	24.45	77.357	
6,500.0	6,420.5	6,155.7	6,050.3	28.5	0.0	-152.59	-391.6	1,058.1	1,925.1	1,900.3	24.82	77.552	
6,600.0	6,519.0	6,249.8	6,142.2	29.0	0.0	-152.58	-399.2	1,076.3	1,959.1	1,933.9	25.20	77.739	
6,700.0	6,617.6	6,343.8	6,234.2	29.4	0.0	-152.56	-406.8	1,094.5	1,993.2	1,967.6	25.58	77.920	
6,800.0	6,716.1	6,437.8	6,326.1	29.9	0.0	-152.55	-414.4	1,112.6	2,027.2	2,001.2	25.96	78.095	
6,900.0	6,814.6	6,531.8	6,418.1	30.4	0.0	-152.54	-422.0	1,130.8	2,061.2	2,034.9	26.34	78.264	
7,000.0	6,913.2	6,625.8	6,510.0	30.8	0.0	-171.94	-429.6	1,149.0	2,095.3	2,068.6	26.71	78.452	
7,100.0	7,011.6	6,718.7	6,600.7	31.3	0.0	132.35	-437.1	1,166.9	2,129.2	2,102.2	27.04	78.739	
7,200.0	7,107.5	6,807.6	6,687.7	31.8	0.0	109.79	-444.3	1,184.1	2,162.5	2,135.2	27.32	79.146	
7,300.0	7,197.9	6,889.9	6,768.2	32.1	0.0	99.62	-450.9	1,200.0	2,194.7	2,167.2	27.54	79.682	
14,900.0	7,492.0	14,946.9	7,457.0	131.8	0.0	89.10	7,141.9	1,163.6	2,223.6	2,092.3	131.29	16.936	
15,000.0	7,492.0	15,046.9	7,457.0	133.5	0.0	89.10	7,241.9	1,161.3	2,222.2	2,089.2	133.02	16.706	
15,100.0	7,492.0	15,146.9	7,457.0	135.2	0.0	89.10	7,341.8	1,159.0	2,220.8	2,086.0	134.74	16.482	
15,200.0	7,492.0	15,246.9	7,457.0	136.9	0.0	89.10	7,441.8	1,156.8	2,219.3	2,082.9	136.47	16.263	
15,300.0	7,492.0	15,346.8	7,457.0	138.6	0.0	89.10	7,541.8	1,154.5	2,217.9	2,079.7	138.19	16.049	
15,400.0	7,492.0	15,446.8	7,457.0	140.4	0.0	89.10	7,641.7	1,152.3	2,216.5	2,076.6	139.92	15.841	
15,500.0	7,492.0	15,546.8	7,457.0	142.1	0.0	89.09	7,741.7	1,150.0	2,215.1	2,073.4	141.65	15.637	
15,600.0	7,492.0	15,646.8	7,457.0	143.8	0.0	89.09	7,841.7	1,147.8	2,213.6	2,070.2	143.38	15.439	
15,700.0	7,492.0	15,746.8	7,457.0	145.5	0.0	89.09	7,941.6	1,145.5	2,212.2	2,067.1	145.11	15.245	
15,800.0	7,492.0	15,846.8	7,457.0	147.3	0.0	89.09	8,041.6	1,143.3	2,210.8	2,063.9	146.84	15.055	
15,900.0	7,492.0	15,946.8	7,457.0	149.0	0.0	89.09	8,141.5	1,141.0	2,209.3	2,060.8	148.57	14.870	
16,000.0	7,492.0	16,046.8	7,457.0	150.7	0.0	89.09	8,241.5	1,138.7	2,207.9	2,057.6	150.31	14.689	
16,100.0	7,492.0	16,146.8	7,457.0	152.4	0.0	89.09	8,341.5	1,136.5	2,206.5	2,054.4	152.04	14.512	
16,200.0	7,492.0	16,246.8	7,457.0	154.2	0.0	89.09	8,441.4	1,134.2	2,205.1	2,051.3	153.78	14.339	
16,300.0	7,492.0	16,346.7	7,457.0	155.9	0.0	89.09	8,541.4	1,132.0	2,203.6	2,048.1	155.51	14.170	
16,400.0	7,492.0	16,446.7	7,457.0	157.6	0.0	89.09	8,641.4	1,129.7	2,202.2	2,044.9	157.25	14.005	
16,500.0	7,492.0	16,546.7	7,457.0	159.4	0.0	89.09	8,741.3	1,127.5	2,200.8	2,041.8	158.98	13.843	
16,600.0	7,492.0	16,646.7	7,457.0	161.1	0.0	89.09	8,841.3	1,125.2	2,199.3	2,038.6	160.72	13.684	
16,700.0	7,492.0	16,746.7	7,457.0	162.8	0.0	89.09	8,941.3	1,123.0	2,197.9	2,035.5	162.46	13.529	
16,800.0	7,492.0	16,846.7	7,457.0	164.6	0.0	89.09	9,041.2	1,120.7	2,196.5	2,032.3	164.20	13.377	
16,900.0	7,492.0	16,946.7	7,457.0	166.3	0.0	89.09	9,141.2	1,118.4	2,195.1	2,029.1	165.94	13.228	
17,000.0	7,492.0	17,046.7	7,457.0	168.0	0.0	89.09	9,241.2	1,116.2	2,193.6	2,026.0	167.68	13.082	
17,100.0	7,492.0	17,146.7	7,457.0	169.8	0.0	89.09	9,341.1	1,113.9	2,192.2	2,022.8	169.42	12.940	
17,200.0	7,492.0	17,246.7	7,457.0	171.5	0.0	89.08	9,441.1	1,111.7	2,190.8	2,019.6	171.16	12.800	
17,300.0	7,492.0	17,346.6	7,457.0	173.2	0.0	89.08	9,541.0	1,109.4	2,189.3	2,016.4	172.90	12.662	
17,400.0	7,492.0	17,446.6	7,457.0	175.0	0.0	89.08	9,641.0	1,107.2	2,187.9	2,013.3	174.64	12.528	
17,500.0	7,492.0	17,546.6	7,457.0	176.7	0.0	89.08	9,741.0	1,104.9	2,186.5	2,010.1	176.38	12.396	
17,600.0	7,492.0	17,646.6	7,457.0	178.5	0.0	89.08	9,840.9	1,102.7	2,185.1	2,006.9	178.13	12.267	
17,686.9	7,492.0	17,720.0	7,457.0	180.0	0.0	89.08	9,914.3	1,101.0	2,183.9	2,004.3	179.58	12.161 SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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	89.72	0.5	105.0	105.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.72	0.5	105.0	105.0	104.7	0.28	379.169		
200.0	200.0	200.0	200.0	1.0	0.0	89.72	0.5	105.0	105.0	104.2	0.80	131.645		
300.0	300.0	300.0	300.0	1.5	0.0	89.72	0.5	105.0	105.0	103.8	1.22	85.776		
400.0	400.0	400.0	400.0	1.9	0.0	89.72	0.5	105.0	105.0	103.4	1.62	64.897		
500.0	500.0	500.0	500.0	2.3	0.0	89.72	0.5	105.0	105.0	103.0	2.00	52.540		
600.0	600.0	600.0	600.0	2.7	0.0	89.72	0.5	105.0	105.0	102.6	2.37	44.264		
700.0	700.0	700.0	700.0	3.1	0.0	89.72	0.5	105.0	105.0	102.3	2.74	38.297		
800.0	800.0	800.0	800.0	3.5	0.0	89.72	0.5	105.0	105.0	101.9	3.11	33.776 CC, ES		
900.0	900.0	900.0	900.0	3.8	0.0	-153.39	0.5	105.0	106.6	103.0	3.53	30.229		
1,000.0	999.8	999.8	999.8	4.7	0.0	-154.55	0.5	105.0	111.3	106.8	4.50	24.719		
1,100.0	1,099.5	1,099.5	1,099.5	5.5	0.0	-156.29	0.5	105.0	119.2	113.9	5.34	22.322		
1,200.0	1,198.7	1,195.0	1,195.0	6.2	0.0	-157.89	-0.2	106.4	131.8	125.7	6.08	21.672		
1,300.0	1,297.5	1,289.4	1,289.2	6.8	0.0	-158.94	-2.4	110.6	150.5	143.8	6.68	22.542		
1,400.0	1,396.0	1,382.4	1,382.0	7.0	0.0	-159.43	-5.9	117.3	173.2	166.3	6.91	25.067		
1,500.0	1,494.5	1,474.3	1,473.2	7.3	0.0	-159.30	-10.7	126.7	198.5	191.4	7.17	27.688		
1,600.0	1,593.0	1,564.7	1,562.7	7.6	0.0	-158.77	-16.8	138.4	226.4	219.0	7.43	30.477		
1,700.0	1,691.5	1,655.1	1,651.7	7.9	0.0	-157.99	-24.2	152.5	256.7	249.0	7.69	33.374		
1,800.0	1,790.1	1,750.1	1,745.0	8.2	0.0	-157.23	-32.3	168.2	287.8	279.8	7.99	36.022		
1,900.0	1,888.6	1,845.0	1,838.3	8.5	0.0	-156.63	-40.4	183.8	319.0	310.7	8.30	38.442		
2,000.0	1,987.1	1,940.0	1,931.6	8.8	0.0	-156.13	-48.5	199.5	350.2	341.6	8.61	40.658		
2,100.0	2,085.6	2,035.0	2,024.9	9.1	0.0	-155.71	-56.7	215.1	381.4	372.5	8.93	42.688		
2,200.0	2,184.1	2,130.0	2,118.3	9.5	0.0	-155.36	-64.8	230.7	412.6	403.4	9.26	44.553		
2,300.0	2,282.7	2,224.9	2,211.6	9.8	0.0	-155.06	-72.9	246.4	443.8	434.3	9.59	46.268		
2,400.0	2,381.2	2,319.9	2,304.9	10.2	0.0	-154.79	-81.0	262.0	475.1	465.2	9.93	47.848		
2,500.0	2,479.7	2,414.9	2,398.2	10.5	0.0	-154.56	-89.2	277.7	506.4	496.1	10.27	49.307		
2,600.0	2,578.2	2,509.9	2,491.5	10.9	0.0	-154.36	-97.3	293.3	537.6	527.0	10.61	50.658		
2,700.0	2,676.7	2,604.8	2,584.9	11.3	0.0	-154.17	-105.4	309.0	568.9	557.9	10.96	51.909		
2,800.0	2,775.3	2,699.8	2,678.2	11.7	0.0	-154.01	-113.5	324.6	600.2	588.8	11.31	53.072		
2,900.0	2,873.8	2,794.8	2,771.5	12.1	0.0	-153.86	-121.7	340.3	631.4	619.8	11.66	54.153		
3,000.0	2,972.3	2,889.7	2,864.8	12.5	0.0	-153.73	-129.8	355.9	662.7	650.7	12.01	55.162		
3,100.0	3,070.8	2,984.7	2,958.1	13.0	0.0	-153.61	-137.9	371.6	694.0	681.6	12.37	56.103		
3,200.0	3,169.3	3,079.7	3,051.5	13.4	0.0	-153.50	-146.1	387.2	725.3	712.5	12.73	56.984		
3,300.0	3,267.9	3,174.7	3,144.8	13.8	0.0	-153.40	-154.2	402.8	756.6	743.5	13.09	57.809		
3,400.0	3,366.4	3,269.6	3,238.1	14.3	0.0	-153.30	-162.3	418.5	787.8	774.4	13.45	58.584		
3,500.0	3,464.9	3,364.6	3,331.4	14.7	0.0	-153.22	-170.4	434.1	819.1	805.3	13.81	59.312		
3,600.0	3,563.4	3,459.6	3,424.8	15.2	0.0	-153.14	-178.6	449.8	850.4	836.3	14.17	59.997		
3,700.0	3,661.9	3,554.5	3,518.1	15.6	0.0	-153.06	-186.7	465.4	881.7	867.2	14.54	60.643		
3,800.0	3,760.5	3,649.5	3,611.4	16.1	0.0	-152.99	-194.8	481.1	913.0	898.1	14.91	61.252		
3,900.0	3,859.0	3,744.5	3,704.7	16.5	0.0	-152.93	-202.9	496.7	944.3	929.0	15.27	61.829		
4,000.0	3,957.5	3,839.5	3,798.0	17.0	0.0	-152.87	-211.1	512.4	975.6	960.0	15.64	62.374		
4,100.0	4,056.0	3,934.4	3,891.4	17.4	0.0	-152.81	-219.2	528.0	1,006.9	990.9	16.01	62.890		
4,200.0	4,154.5	4,029.4	3,984.7	17.9	0.0	-152.76	-227.3	543.6	1,038.2	1,021.8	16.38	63.380		
4,300.0	4,253.1	4,124.4	4,078.0	18.3	0.0	-152.71	-235.4	559.3	1,069.5	1,052.8	16.75	63.846		
4,400.0	4,351.6	4,219.3	4,171.3	18.8	0.0	-152.66	-243.6	574.9	1,100.8	1,083.7	17.12	64.288		
4,500.0	4,450.1	4,314.3	4,264.6	19.3	0.0	-152.62	-251.7	590.6	1,132.1	1,114.6	17.50	64.709		
4,600.0	4,548.6	4,409.3	4,358.0	19.7	0.0	-152.57	-259.8	606.2	1,163.4	1,145.5	17.87	65.110		
4,700.0	4,647.2	4,504.3	4,451.3	20.2	0.0	-152.53	-267.9	621.9	1,194.7	1,176.5	18.24	65.492		
4,800.0	4,745.7	4,599.2	4,544.6	20.6	0.0	-152.50	-276.1	637.5	1,226.0	1,207.4	18.62	65.857		
4,900.0	4,844.2	4,694.2	4,637.9	21.1	0.0	-152.46	-284.2	653.2	1,257.3	1,238.3	18.99	66.205		
5,000.0	4,942.7	4,789.2	4,731.2	21.6	0.0	-152.43	-292.3	668.8	1,288.6	1,269.2	19.37	66.538		
5,100.0	5,041.2	4,884.1	4,824.6	22.0	0.0	-152.39	-300.4	684.5	1,319.9	1,300.2	19.74	66.856		

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 19-18-1NCH
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 19-18-1NCH	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	5,139.8	4,979.1	4,917.9	22.5	0.0	-152.36	-308.6	700.1	1,351.2	1,331.1	20.12	67.161		
5,300.0	5,238.3	5,074.1	5,011.2	22.9	0.0	-152.33	-316.7	715.7	1,382.5	1,362.0	20.50	67.454		
5,400.0	5,336.8	5,169.1	5,104.5	23.4	0.0	-152.30	-324.8	731.4	1,413.8	1,393.0	20.87	67.734		
5,500.0	5,435.3	5,264.0	5,197.8	23.9	0.0	-152.28	-332.9	747.0	1,445.1	1,423.9	21.25	68.003		
5,600.0	5,533.8	5,359.0	5,291.2	24.3	0.0	-152.25	-341.1	762.7	1,476.4	1,454.8	21.63	68.261		
5,700.0	5,632.4	5,454.0	5,384.5	24.8	0.0	-152.22	-349.2	778.3	1,507.7	1,485.7	22.01	68.509		
5,800.0	5,730.9	5,548.9	5,477.8	25.3	0.0	-152.20	-357.3	794.0	1,539.1	1,516.7	22.39	68.747		
5,900.0	5,829.4	5,643.9	5,571.1	25.7	0.0	-152.18	-365.4	809.6	1,570.4	1,547.6	22.77	68.976		
6,000.0	5,927.9	5,738.9	5,664.5	26.2	0.0	-152.16	-373.6	825.3	1,601.7	1,578.5	23.15	69.197		
6,100.0	6,026.4	5,833.9	5,757.8	26.6	0.0	-152.13	-381.7	840.9	1,633.0	1,609.4	23.53	69.409		
6,200.0	6,125.0	5,928.8	5,851.1	27.1	0.0	-152.11	-389.8	856.5	1,664.3	1,640.4	23.91	69.614		
6,300.0	6,223.5	6,023.8	5,944.4	27.6	0.0	-152.09	-397.9	872.2	1,695.6	1,671.3	24.29	69.811		
6,400.0	6,322.0	6,118.8	6,037.7	28.0	0.0	-152.07	-406.1	887.8	1,726.9	1,702.2	24.67	70.002		
6,500.0	6,420.5	6,213.7	6,131.1	28.5	0.0	-152.06	-414.2	903.5	1,758.2	1,733.1	25.05	70.185		
6,600.0	6,519.0	6,308.7	6,224.4	29.0	0.0	-152.04	-422.3	919.1	1,789.5	1,764.1	25.43	70.363		
6,700.0	6,617.6	6,403.7	6,317.7	29.4	0.0	-152.02	-430.4	934.8	1,820.8	1,795.0	25.81	70.534		
6,800.0	6,716.1	6,498.7	6,411.0	29.9	0.0	-152.01	-438.6	950.4	1,852.1	1,825.9	26.20	70.699		
6,900.0	6,814.6	6,593.6	6,504.3	30.4	0.0	-151.99	-446.7	966.1	1,883.4	1,856.8	26.58	70.859		
7,000.0	6,913.2	6,688.6	6,597.6	30.8	0.0	-171.28	-454.8	981.7	1,914.8	1,887.8	26.95	71.036		
7,100.0	7,011.6	6,784.3	6,691.9	31.3	0.0	133.20	-457.4	997.5	1,946.1	1,918.8	27.29	71.320		
7,200.0	7,107.5	6,881.9	6,787.2	31.8	0.0	110.46	-443.8	1,013.3	1,976.6	1,949.1	27.55	71.747		
7,300.0	7,197.9	6,982.0	6,881.1	32.1	0.0	99.91	-413.1	1,028.7	2,005.5	1,977.8	27.75	72.283		
7,400.0	7,280.0	7,085.2	6,970.8	32.4	0.0	93.61	-364.6	1,043.3	2,031.9	2,004.0	27.89	72.844		
7,500.0	7,351.3	7,191.7	7,053.0	32.5	0.0	89.37	-298.3	1,056.4	2,054.8	2,026.8	28.01	73.351		
7,600.0	7,409.7	7,301.7	7,123.6	32.6	0.0	86.42	-215.0	1,067.5	2,073.7	2,045.5	28.13	73.716		
7,700.0	7,453.4	7,414.7	7,178.5	32.6	0.0	84.43	-116.8	1,075.9	2,087.8	2,059.5	28.27	73.858		
7,800.0	7,481.1	7,530.0	7,213.9	32.6	0.0	83.23	-7.4	1,080.9	2,096.8	2,068.3	28.45	73.711		
7,900.0	7,491.9	7,646.5	7,227.0	32.6	0.0	82.76	108.2	1,082.1	2,100.2	2,071.6	28.67	73.244		
8,000.0	7,492.0	7,747.5	7,227.0	32.7	0.0	82.75	209.2	1,081.3	2,100.3	2,071.3	28.96	72.525		
8,100.0	7,492.0	7,847.5	7,227.0	32.8	0.0	82.75	309.2	1,080.4	2,100.3	2,070.9	29.35	71.558		
8,200.0	7,492.0	7,947.5	7,227.0	33.0	0.0	82.75	409.2	1,079.6	2,100.3	2,070.4	29.84	70.380		
8,300.0	7,492.0	8,047.5	7,227.0	33.4	0.0	82.75	509.2	1,078.8	2,100.3	2,069.9	30.43	69.028		
8,400.0	7,492.0	8,147.5	7,227.0	33.9	0.0	82.75	609.2	1,078.0	2,100.3	2,069.2	31.10	67.535		
8,500.0	7,492.0	8,247.5	7,227.0	34.6	0.0	82.75	709.2	1,077.1	2,100.3	2,068.4	31.85	65.934		
8,600.0	7,492.0	8,347.5	7,227.0	35.3	0.0	82.75	809.2	1,076.3	2,100.3	2,067.6	32.69	64.255		
8,700.0	7,492.0	8,447.5	7,227.0	36.1	0.0	82.75	909.2	1,075.5	2,100.3	2,066.7	33.59	62.526		
8,800.0	7,492.0	8,547.5	7,227.0	37.1	0.0	82.75	1,009.2	1,074.7	2,100.3	2,065.7	34.56	60.773		
8,900.0	7,492.0	8,647.5	7,227.0	38.0	0.0	82.75	1,109.2	1,073.8	2,100.3	2,064.7	35.59	59.015		
9,000.0	7,492.0	8,747.5	7,227.0	39.1	0.0	82.75	1,209.2	1,073.0	2,100.3	2,063.6	36.67	57.269		
9,100.0	7,492.0	8,847.5	7,227.0	40.2	0.0	82.75	1,309.2	1,072.2	2,100.3	2,062.5	37.81	55.550		
9,200.0	7,492.0	8,947.5	7,227.0	41.3	0.0	82.75	1,409.2	1,071.4	2,100.3	2,061.3	38.99	53.867		
9,300.0	7,492.0	9,047.5	7,227.0	42.5	0.0	82.75	1,509.2	1,070.5	2,100.3	2,060.1	40.21	52.229		
9,400.0	7,492.0	9,147.5	7,227.0	43.8	0.0	82.75	1,609.2	1,069.7	2,100.3	2,058.8	41.47	50.640		
9,500.0	7,492.0	9,247.5	7,227.0	45.0	0.0	82.75	1,709.2	1,068.9	2,100.3	2,057.5	42.77	49.105		
9,600.0	7,492.0	9,347.5	7,227.0	46.3	0.0	82.75	1,809.2	1,068.0	2,100.3	2,056.2	44.10	47.627		
9,700.0	7,492.0	9,447.5	7,227.0	47.7	0.0	82.75	1,909.2	1,067.2	2,100.3	2,054.8	45.46	46.205		
9,800.0	7,492.0	9,547.5	7,227.0	49.0	0.0	82.75	2,009.2	1,066.4	2,100.3	2,053.4	46.84	44.840		
9,900.0	7,492.0	9,647.5	7,227.0	50.4	0.0	82.75	2,109.2	1,065.6	2,100.3	2,052.0	48.25	43.531		
10,000.0	7,492.0	9,747.5	7,227.0	51.8	0.0	82.75	2,209.2	1,064.7	2,100.3	2,050.6	49.68	42.278		
10,100.0	7,492.0	9,847.5	7,227.0	53.2	0.0	82.75	2,309.1	1,063.9	2,100.3	2,049.2	51.13	41.079		
10,200.0	7,492.0	9,947.5	7,227.0	54.7	0.0	82.75	2,409.1	1,063.1	2,100.3	2,047.7	52.60	39.932		
10,300.0	7,492.0	10,047.5	7,227.0	56.1	0.0	82.75	2,509.1	1,062.3	2,100.3	2,046.2	54.08	38.835		

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 19-18-1NCH
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 19-18-1NCH	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)						
10,400.0	7,492.0	10,147.5	7,227.0	57.6	0.0	82.75	2,609.1	1,061.4	2,100.3	2,044.7	55.58	37.785		
10,500.0	7,492.0	10,247.5	7,227.0	59.1	0.0	82.75	2,709.1	1,060.6	2,100.3	2,043.2	57.10	36.782		
10,600.0	7,492.0	10,347.5	7,227.0	60.6	0.0	82.75	2,809.1	1,059.8	2,100.3	2,041.7	58.63	35.823		
10,700.0	7,492.0	10,447.5	7,227.0	62.2	0.0	82.75	2,909.1	1,058.9	2,100.3	2,040.1	60.17	34.905		
10,800.0	7,492.0	10,547.5	7,227.0	63.7	0.0	82.75	3,009.1	1,058.1	2,100.3	2,038.6	61.73	34.026		
10,900.0	7,492.0	10,647.5	7,227.0	65.2	0.0	82.75	3,109.1	1,057.3	2,100.3	2,037.0	63.29	33.185		
11,000.0	7,492.0	10,747.5	7,227.0	66.8	0.0	82.75	3,209.1	1,056.5	2,100.3	2,035.4	64.86	32.380		
11,100.0	7,492.0	10,847.5	7,227.0	68.4	0.0	82.75	3,309.1	1,055.6	2,100.3	2,033.8	66.45	31.609		
11,200.0	7,492.0	10,947.5	7,227.0	70.0	0.0	82.75	3,409.1	1,054.8	2,100.3	2,032.3	68.04	30.870		
11,300.0	7,492.0	11,047.5	7,227.0	71.5	0.0	82.75	3,509.1	1,054.0	2,100.3	2,030.7	69.64	30.161		
11,400.0	7,492.0	11,147.5	7,227.0	73.1	0.0	82.75	3,609.1	1,053.2	2,100.3	2,029.0	71.24	29.480		
11,500.0	7,492.0	11,247.5	7,227.0	74.7	0.0	82.75	3,709.1	1,052.3	2,100.3	2,027.4	72.86	28.828		
11,600.0	7,492.0	11,347.5	7,227.0	76.4	0.0	82.75	3,809.1	1,051.5	2,100.3	2,025.8	74.48	28.201		
11,700.0	7,492.0	11,447.5	7,227.0	78.0	0.0	82.75	3,909.1	1,050.7	2,100.3	2,024.2	76.10	27.598		
11,800.0	7,492.0	11,547.5	7,227.0	79.6	0.0	82.75	4,009.1	1,049.9	2,100.3	2,022.6	77.73	27.019		
11,900.0	7,492.0	11,647.5	7,227.0	81.2	0.0	82.75	4,109.1	1,049.0	2,100.3	2,020.9	79.37	26.462		
12,000.0	7,492.0	11,747.5	7,227.0	82.9	0.0	82.75	4,209.1	1,048.2	2,100.3	2,019.3	81.01	25.925		
12,100.0	7,492.0	11,847.5	7,227.0	84.5	0.0	82.75	4,309.1	1,047.4	2,100.3	2,017.6	82.66	25.409		
12,200.0	7,492.0	11,947.5	7,227.0	86.1	0.0	82.75	4,409.1	1,046.5	2,100.3	2,016.0	84.31	24.911		
12,300.0	7,492.0	12,047.5	7,227.0	87.8	0.0	82.75	4,509.1	1,045.7	2,100.3	2,014.3	85.97	24.432		
12,400.0	7,492.0	12,147.5	7,227.0	89.5	0.0	82.75	4,609.1	1,044.9	2,100.3	2,012.7	87.63	23.969		
12,500.0	7,492.0	12,247.5	7,227.0	91.1	0.0	82.75	4,709.1	1,044.1	2,100.3	2,011.0	89.29	23.523		
12,600.0	7,492.0	12,347.5	7,227.0	92.8	0.0	82.75	4,809.1	1,043.2	2,100.3	2,009.3	90.95	23.092		
12,700.0	7,492.0	12,447.5	7,227.0	94.4	0.0	82.75	4,909.1	1,042.4	2,100.3	2,007.7	92.62	22.676		
12,800.0	7,492.0	12,547.5	7,227.0	96.1	0.0	82.75	5,009.1	1,041.6	2,100.3	2,006.0	94.30	22.273		
12,900.0	7,492.0	12,647.5	7,227.0	97.8	0.0	82.75	5,109.1	1,040.8	2,100.3	2,004.3	95.97	21.885		
13,000.0	7,492.0	12,747.5	7,227.0	99.5	0.0	82.75	5,209.0	1,039.9	2,100.3	2,002.7	97.65	21.508		
13,100.0	7,492.0	12,847.5	7,227.0	101.1	0.0	82.75	5,309.0	1,039.1	2,100.3	2,001.0	99.33	21.144		
13,200.0	7,492.0	12,947.5	7,227.0	102.8	0.0	82.75	5,409.0	1,038.3	2,100.3	1,999.3	101.02	20.792		
13,300.0	7,492.0	13,047.5	7,227.0	104.5	0.0	82.75	5,509.0	1,037.5	2,100.3	1,997.6	102.70	20.451		
13,400.0	7,492.0	13,147.5	7,227.0	106.2	0.0	82.75	5,609.0	1,036.6	2,100.3	1,995.9	104.39	20.120		
13,500.0	7,492.0	13,247.5	7,227.0	107.9	0.0	82.75	5,709.0	1,035.8	2,100.3	1,994.2	106.08	19.799		
13,600.0	7,492.0	13,347.5	7,227.0	109.6	0.0	82.75	5,809.0	1,035.0	2,100.3	1,992.5	107.77	19.488		
13,700.0	7,492.0	13,447.5	7,227.0	111.3	0.0	82.75	5,909.0	1,034.1	2,100.3	1,990.8	109.47	19.187		
13,800.0	7,492.0	13,547.5	7,227.0	113.0	0.0	82.75	6,009.0	1,033.3	2,100.3	1,989.1	111.16	18.894		
13,900.0	7,492.0	13,647.5	7,227.0	114.7	0.0	82.75	6,109.0	1,032.5	2,100.3	1,987.4	112.86	18.609		
14,000.0	7,492.0	13,747.5	7,227.0	116.4	0.0	82.75	6,209.0	1,031.7	2,100.3	1,985.7	114.56	18.333		
14,100.0	7,492.0	13,847.5	7,227.0	118.1	0.0	82.75	6,309.0	1,030.8	2,100.3	1,984.0	116.26	18.065		
14,200.0	7,492.0	13,947.5	7,227.0	119.8	0.0	82.75	6,409.0	1,030.0	2,100.3	1,982.3	117.97	17.804		
14,300.0	7,492.0	14,047.5	7,227.0	121.5	0.0	82.75	6,509.0	1,029.2	2,100.3	1,980.6	119.67	17.551		
14,400.0	7,492.0	14,147.5	7,227.0	123.2	0.0	82.75	6,609.0	1,028.4	2,100.3	1,978.9	121.38	17.304		
14,500.0	7,492.0	14,247.5	7,227.0	124.9	0.0	82.75	6,709.0	1,027.5	2,100.3	1,977.2	123.09	17.064		
14,600.0	7,492.0	14,347.5	7,227.0	126.6	0.0	82.75	6,809.0	1,026.7	2,100.3	1,975.5	124.79	16.830		
14,700.0	7,492.0	14,447.5	7,227.0	128.3	0.0	82.75	6,909.0	1,025.9	2,100.3	1,973.8	126.51	16.603		
14,800.0	7,492.0	14,547.5	7,227.0	130.0	0.0	82.75	7,009.0	1,025.1	2,100.3	1,972.1	128.22	16.381		
14,900.0	7,492.0	14,647.5	7,227.0	131.8	0.0	82.75	7,109.0	1,024.2	2,100.3	1,970.4	129.93	16.165		
15,000.0	7,492.0	14,747.5	7,227.0	133.5	0.0	82.75	7,209.0	1,023.4	2,100.3	1,968.7	131.64	15.955		
15,100.0	7,492.0	14,847.5	7,227.0	135.2	0.0	82.75	7,309.0	1,022.6	2,100.3	1,967.0	133.36	15.749		
15,200.0	7,492.0	14,947.5	7,227.0	136.9	0.0	82.75	7,409.0	1,021.7	2,100.3	1,965.2	135.07	15.549		
15,300.0	7,492.0	15,047.5	7,227.0	138.6	0.0	82.75	7,509.0	1,020.9	2,100.3	1,963.5	136.79	15.354		
15,400.0	7,492.0	15,147.5	7,227.0	140.4	0.0	82.75	7,609.0	1,020.1	2,100.3	1,961.8	138.51	15.164		
15,500.0	7,492.0	15,247.5	7,227.0	142.1	0.0	82.75	7,709.0	1,019.3	2,100.3	1,960.1	140.23	14.978		

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 19-18-1NCH
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 19-18-1NCH	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		
15,600.0	7,492.0	15,347.5	7,227.0	143.8	0.0	82.75	7,809.0	1,018.4	2,100.3	1,958.4	141.95	14.796		
15,700.0	7,492.0	15,447.5	7,227.0	145.5	0.0	82.75	7,909.0	1,017.6	2,100.3	1,956.6	143.67	14.619		
15,800.0	7,492.0	15,547.5	7,227.0	147.3	0.0	82.75	8,009.0	1,016.8	2,100.3	1,954.9	145.39	14.446		
15,900.0	7,492.0	15,647.5	7,227.0	149.0	0.0	82.75	8,108.9	1,016.0	2,100.3	1,953.2	147.11	14.277		
16,000.0	7,492.0	15,747.5	7,227.0	150.7	0.0	82.75	8,208.9	1,015.1	2,100.3	1,951.5	148.84	14.112		
16,100.0	7,492.0	15,847.5	7,227.0	152.4	0.0	82.75	8,308.9	1,014.3	2,100.3	1,949.8	150.56	13.950		
16,200.0	7,492.0	15,947.5	7,227.0	154.2	0.0	82.75	8,408.9	1,013.5	2,100.3	1,948.0	152.28	13.792		
16,300.0	7,492.0	16,047.5	7,227.0	155.9	0.0	82.75	8,508.9	1,012.7	2,100.3	1,946.3	154.01	13.638		
16,400.0	7,492.0	16,147.5	7,227.0	157.6	0.0	82.75	8,608.9	1,011.8	2,100.3	1,944.6	155.73	13.487		
16,500.0	7,492.0	16,247.5	7,227.0	159.4	0.0	82.75	8,708.9	1,011.0	2,100.3	1,942.9	157.46	13.339		
16,600.0	7,492.0	16,347.5	7,227.0	161.1	0.0	82.75	8,808.9	1,010.2	2,100.3	1,941.1	159.19	13.194		
16,700.0	7,492.0	16,447.5	7,227.0	162.8	0.0	82.75	8,908.9	1,009.3	2,100.3	1,939.4	160.92	13.052		
16,800.0	7,492.0	16,547.5	7,227.0	164.6	0.0	82.75	9,008.9	1,008.5	2,100.3	1,937.7	162.64	12.914		
16,900.0	7,492.0	16,647.5	7,227.0	166.3	0.0	82.75	9,108.9	1,007.7	2,100.3	1,935.9	164.37	12.778		
17,000.0	7,492.0	16,747.5	7,227.0	168.0	0.0	82.75	9,208.9	1,006.9	2,100.3	1,934.2	166.10	12.645		
17,100.0	7,492.0	16,847.5	7,227.0	169.8	0.0	82.75	9,308.9	1,006.0	2,100.3	1,932.5	167.83	12.514		
17,200.0	7,492.0	16,947.5	7,227.0	171.5	0.0	82.75	9,408.9	1,005.2	2,100.3	1,930.8	169.56	12.387		
17,300.0	7,492.0	17,047.5	7,227.0	173.2	0.0	82.75	9,508.9	1,004.4	2,100.3	1,929.0	171.30	12.261		
17,400.0	7,492.0	17,147.5	7,227.0	175.0	0.0	82.75	9,608.9	1,003.6	2,100.3	1,927.3	173.03	12.139		
17,500.0	7,492.0	17,247.5	7,227.0	176.7	0.0	82.75	9,708.9	1,002.7	2,100.3	1,925.6	174.76	12.018		
17,600.0	7,492.0	17,347.5	7,227.0	178.5	0.0	82.75	9,808.9	1,001.9	2,100.3	1,923.8	176.49	11.900		
17,686.9	7,492.0	17,434.5	7,227.0	180.0	0.0	82.75	9,895.8	1,001.2	2,100.3	1,922.3	178.00	11.800 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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	89.74	0.7	150.0	150.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.74	0.7	150.0	150.0	149.7	0.28	541.649		
200.0	200.0	200.0	200.0	1.0	0.0	89.74	0.7	150.0	150.0	149.2	0.80	188.053		
300.0	300.0	300.0	300.0	1.5	0.0	89.74	0.7	150.0	150.0	148.8	1.22	122.527		
400.0	400.0	400.0	400.0	1.9	0.0	89.74	0.7	150.0	150.0	148.4	1.62	92.702		
500.0	500.0	500.0	500.0	2.3	0.0	89.74	0.7	150.0	150.0	148.0	2.00	75.049		
600.0	600.0	600.0	600.0	2.7	0.0	89.74	0.7	150.0	150.0	147.6	2.37	63.226		
700.0	700.0	700.0	700.0	3.1	0.0	89.74	0.7	150.0	150.0	147.2	2.74	54.702		
800.0	800.0	800.0	800.0	3.5	0.0	89.74	0.7	150.0	150.0	146.9	3.11	48.244 CC, ES		
900.0	900.0	895.1	895.1	3.8	0.0	-153.05	0.3	151.5	153.1	149.6	3.52	43.492		
1,000.0	999.8	989.7	989.5	4.7	0.0	-153.30	-1.0	156.0	162.6	158.1	4.48	36.308		
1,100.0	1,099.5	1,083.1	1,082.6	5.5	0.0	-153.64	-3.1	163.4	178.2	172.9	5.28	33.770		
1,200.0	1,198.7	1,174.9	1,173.8	6.2	0.0	-154.00	-6.0	173.5	200.0	194.0	5.98	33.462 SF		
1,300.0	1,297.5	1,264.6	1,262.5	6.8	0.0	-154.35	-9.6	186.1	227.7	221.2	6.53	34.855		
1,400.0	1,396.0	1,352.3	1,348.9	7.0	0.0	-154.75	-13.8	201.0	259.6	252.9	6.75	38.460		
1,500.0	1,494.5	1,438.2	1,433.0	7.3	0.0	-154.88	-18.6	218.1	294.2	287.2	6.99	42.066		
1,600.0	1,593.0	1,522.3	1,514.7	7.6	0.0	-154.83	-24.0	237.1	331.5	324.2	7.23	45.816		
1,700.0	1,691.5	1,605.4	1,594.8	7.9	0.0	-154.66	-30.0	258.2	371.2	363.8	7.48	49.657		
1,800.0	1,790.1	1,696.6	1,682.6	8.2	0.0	-154.46	-36.8	282.3	412.0	404.3	7.77	53.021		
1,900.0	1,888.6	1,787.9	1,770.3	8.5	0.0	-154.29	-43.6	306.5	452.9	444.8	8.07	56.093		
2,000.0	1,987.1	1,879.2	1,858.1	8.8	0.0	-154.15	-50.5	330.6	493.7	485.3	8.38	58.903		
2,100.0	2,085.6	1,970.5	1,945.9	9.1	0.0	-154.03	-57.3	354.8	534.5	525.8	8.69	61.477		
2,200.0	2,184.1	2,061.8	2,033.6	9.5	0.0	-153.93	-64.2	378.9	575.3	566.3	9.01	63.841		
2,300.0	2,282.7	2,153.1	2,121.4	9.8	0.0	-153.84	-71.0	403.0	616.1	606.8	9.33	66.014		
2,400.0	2,381.2	2,244.3	2,209.2	10.2	0.0	-153.76	-77.8	427.2	657.0	647.3	9.66	68.018		
2,500.0	2,479.7	2,335.6	2,296.9	10.5	0.0	-153.70	-84.7	451.3	697.8	687.8	9.99	69.868		
2,600.0	2,578.2	2,426.9	2,384.7	10.9	0.0	-153.64	-91.5	475.5	738.6	728.3	10.32	71.580		
2,700.0	2,676.7	2,518.2	2,472.5	11.3	0.0	-153.58	-98.4	499.6	779.4	768.8	10.65	73.167		
2,800.0	2,775.3	2,609.5	2,560.2	11.7	0.0	-153.53	-105.2	523.8	820.3	809.3	10.99	74.641		
2,900.0	2,873.8	2,700.8	2,648.0	12.1	0.0	-153.49	-112.0	547.9	861.1	849.8	11.33	76.012		
3,000.0	2,972.3	2,792.1	2,735.8	12.5	0.0	-153.45	-118.9	572.1	901.9	890.3	11.67	77.291		
3,100.0	3,070.8	2,883.3	2,823.5	13.0	0.0	-153.41	-125.7	596.2	942.8	930.7	12.01	78.485		
3,200.0	3,169.3	2,974.6	2,911.3	13.4	0.0	-153.38	-132.6	620.4	983.6	971.2	12.36	79.601		
3,300.0	3,267.9	3,065.9	2,999.1	13.8	0.0	-153.35	-139.4	644.5	1,024.4	1,011.7	12.70	80.647		
3,400.0	3,366.4	3,157.2	3,086.8	14.3	0.0	-153.32	-146.2	668.7	1,065.2	1,052.2	13.05	81.628		
3,500.0	3,464.9	3,248.5	3,174.6	14.7	0.0	-153.29	-153.1	692.8	1,106.1	1,092.7	13.40	82.551		
3,600.0	3,563.4	3,339.8	3,262.4	15.2	0.0	-153.27	-159.9	716.9	1,146.9	1,133.1	13.75	83.418		
3,700.0	3,661.9	3,431.0	3,350.1	15.6	0.0	-153.24	-166.8	741.1	1,187.7	1,173.6	14.10	84.236		
3,800.0	3,760.5	3,522.3	3,437.9	16.1	0.0	-153.22	-173.6	765.2	1,228.6	1,214.1	14.45	85.007		
3,900.0	3,859.0	3,613.6	3,525.7	16.5	0.0	-153.20	-180.4	789.4	1,269.4	1,254.6	14.81	85.736		
4,000.0	3,957.5	3,704.9	3,613.4	17.0	0.0	-153.18	-187.3	813.5	1,310.2	1,295.1	15.16	86.425		
4,100.0	4,056.0	3,796.2	3,701.2	17.4	0.0	-153.16	-194.1	837.7	1,351.0	1,335.5	15.52	87.077		
4,200.0	4,154.5	3,887.5	3,789.0	17.9	0.0	-153.15	-201.0	861.8	1,391.9	1,376.0	15.87	87.696		
4,300.0	4,253.1	3,978.7	3,876.7	18.3	0.0	-153.13	-207.8	886.0	1,432.7	1,416.5	16.23	88.282		
4,400.0	4,351.6	4,070.0	3,964.5	18.8	0.0	-153.12	-214.6	910.1	1,473.5	1,456.9	16.59	88.840		
4,500.0	4,450.1	4,161.3	4,052.3	19.3	0.0	-153.10	-221.5	934.3	1,514.4	1,497.4	16.94	89.370		
4,600.0	4,548.6	4,252.6	4,140.0	19.7	0.0	-153.09	-228.3	958.4	1,555.2	1,537.9	17.30	89.874		
4,700.0	4,647.2	4,343.9	4,227.8	20.2	0.0	-153.08	-235.2	982.6	1,596.0	1,578.4	17.66	90.355		
4,800.0	4,745.7	4,435.2	4,315.6	20.6	0.0	-153.07	-242.0	1,006.7	1,636.9	1,618.8	18.02	90.813		
4,900.0	4,844.2	4,526.4	4,403.3	21.1	0.0	-153.05	-248.8	1,030.8	1,677.7	1,659.3	18.39	91.249		
5,000.0	4,942.7	4,617.7	4,491.1	21.6	0.0	-153.04	-255.7	1,055.0	1,718.5	1,699.8	18.75	91.667		
5,100.0	5,041.2	4,709.0	4,578.9	22.0	0.0	-153.03	-262.5	1,079.1	1,759.3	1,740.2	19.11	92.065		

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 19-18-1NCH
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 19-18-1NCH	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									
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
5,200.0	5,139.8	4,800.3	4,666.6	22.5	0.0	-153.02	-269.4	1,103.3	1,800.2	1,780.7	19.47	92.447	
5,300.0	5,238.3	4,891.6	4,754.4	22.9	0.0	-153.01	-276.2	1,127.4	1,841.0	1,821.2	19.84	92.811	
5,400.0	5,336.8	4,982.9	4,842.2	23.4	0.0	-153.01	-283.0	1,151.6	1,881.8	1,861.6	20.20	93.161	
5,500.0	5,435.3	5,074.2	4,929.9	23.9	0.0	-153.00	-289.9	1,175.7	1,922.7	1,902.1	20.56	93.495	
5,600.0	5,533.8	5,165.4	5,017.7	24.3	0.0	-152.99	-296.7	1,199.9	1,963.5	1,942.6	20.93	93.816	
5,700.0	5,632.4	5,256.7	5,105.5	24.8	0.0	-152.98	-303.6	1,224.0	2,004.3	1,983.0	21.29	94.124	
5,800.0	5,730.9	5,348.0	5,193.2	25.3	0.0	-152.97	-310.4	1,248.2	2,045.2	2,023.5	21.66	94.419	
5,900.0	5,829.4	5,439.3	5,281.0	25.7	0.0	-152.97	-317.2	1,272.3	2,086.0	2,064.0	22.03	94.703	
6,000.0	5,927.9	5,530.6	5,368.8	26.2	0.0	-152.96	-324.1	1,296.5	2,126.8	2,104.4	22.39	94.975	
6,100.0	6,026.4	5,621.9	5,456.5	26.6	0.0	-152.95	-330.9	1,320.6	2,167.7	2,144.9	22.76	95.237	
6,200.0	6,125.0	5,713.1	5,544.3	27.1	0.0	-152.94	-337.8	1,344.7	2,208.5	2,185.4	23.13	95.489	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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	1.0	195.0	195.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.71	1.0	195.0	195.0	194.7	0.28	703.860		
200.0	200.0	200.0	200.0	1.0	0.0	89.71	1.0	195.0	195.0	194.2	0.80	244.381		
300.0	300.0	300.0	300.0	1.5	0.0	89.71	1.0	195.0	195.0	193.7	1.22	159.234		
400.0	400.0	400.0	400.0	1.9	0.0	89.71	1.0	195.0	195.0	193.3	1.62	120.477		
500.0	500.0	500.0	500.0	2.3	0.0	89.71	1.0	195.0	195.0	193.0	2.00	97.537	CC, ES	
600.0	600.0	593.7	593.7	2.7	0.0	89.80	0.7	196.5	196.6	194.2	2.37	82.891		
700.0	700.0	687.3	687.1	3.1	0.0	90.08	-0.3	200.9	201.4	198.6	2.74	73.598		
800.0	800.0	780.4	779.9	3.5	0.0	90.50	-1.8	208.4	209.3	206.3	3.09	67.690		
900.0	900.0	872.7	871.7	3.8	0.0	-151.74	-4.0	218.7	222.0	218.5	3.49	63.558		
1,000.0	999.8	963.7	961.7	4.7	0.0	-151.49	-6.7	231.6	240.9	236.5	4.42	54.508		
1,100.0	1,099.5	1,052.9	1,049.4	5.5	0.0	-151.42	-9.9	247.0	265.7	260.5	5.18	51.263		
1,200.0	1,198.7	1,139.7	1,134.4	6.2	0.0	-151.46	-13.6	264.6	296.4	290.6	5.85	50.710	SF	
1,300.0	1,297.5	1,223.7	1,216.1	6.8	0.0	-151.57	-17.6	284.0	332.7	326.4	6.37	52.243		
1,400.0	1,396.0	1,300.0	1,289.6	7.0	0.0	-151.94	-21.7	303.6	373.0	366.5	6.54	57.003		
1,500.0	1,494.5	1,385.1	1,371.1	7.3	0.0	-152.20	-26.8	327.7	415.7	408.9	6.80	61.142		
1,600.0	1,593.0	1,462.8	1,444.7	7.6	0.0	-152.33	-31.8	351.8	460.8	453.8	7.02	65.613		
1,700.0	1,691.5	1,538.3	1,515.7	7.9	0.0	-152.38	-37.1	377.1	508.3	501.1	7.24	70.164		
1,800.0	1,790.1	1,623.3	1,595.1	8.2	0.0	-152.39	-43.4	406.9	557.2	549.7	7.52	74.092		
1,900.0	1,888.6	1,710.5	1,676.5	8.5	0.0	-152.40	-49.8	437.6	606.2	598.4	7.81	77.577		
2,000.0	1,987.1	1,797.7	1,757.9	8.8	0.0	-152.40	-56.2	468.2	655.1	647.0	8.11	80.761		
2,100.0	2,085.6	1,884.9	1,839.3	9.1	0.0	-152.41	-62.6	498.8	704.1	695.7	8.41	83.674		
2,200.0	2,184.1	1,972.1	1,920.7	9.5	0.0	-152.41	-69.0	529.4	753.1	744.3	8.72	86.345		
2,300.0	2,282.7	2,059.3	2,002.1	9.8	0.0	-152.41	-75.4	560.0	802.0	793.0	9.03	88.799		
2,400.0	2,381.2	2,146.5	2,083.5	10.2	0.0	-152.42	-81.8	590.6	851.0	841.6	9.35	91.058		
2,500.0	2,479.7	2,233.7	2,164.9	10.5	0.0	-152.42	-88.2	621.2	899.9	890.3	9.66	93.141		
2,600.0	2,578.2	2,320.9	2,246.2	10.9	0.0	-152.42	-94.6	651.8	948.9	938.9	9.98	95.067		
2,700.0	2,676.7	2,408.1	2,327.6	11.3	0.0	-152.42	-101.0	682.4	997.9	987.5	10.30	96.849		
2,800.0	2,775.3	2,495.3	2,409.0	11.7	0.0	-152.43	-107.4	713.1	1,046.8	1,036.2	10.63	98.503		
2,900.0	2,873.8	2,582.5	2,490.4	12.1	0.0	-152.43	-113.8	743.7	1,095.8	1,084.8	10.95	100.040		
3,000.0	2,972.3	2,669.7	2,571.8	12.5	0.0	-152.43	-120.2	774.3	1,144.7	1,133.4	11.28	101.470		
3,100.0	3,070.8	2,756.9	2,653.2	13.0	0.0	-152.43	-126.6	804.9	1,193.7	1,182.1	11.61	102.804		
3,200.0	3,169.3	2,844.1	2,734.6	13.4	0.0	-152.43	-133.0	835.5	1,242.6	1,230.7	11.94	104.050		
3,300.0	3,267.9	2,931.3	2,816.0	13.8	0.0	-152.44	-139.4	866.1	1,291.6	1,279.3	12.28	105.215		
3,400.0	3,366.4	3,018.5	2,897.4	14.3	0.0	-152.44	-145.8	896.7	1,340.6	1,327.9	12.61	106.307		
3,500.0	3,464.9	3,105.7	2,978.8	14.7	0.0	-152.44	-152.2	927.3	1,389.5	1,376.6	12.95	107.332		
3,600.0	3,563.4	3,192.8	3,060.2	15.2	0.0	-152.44	-158.6	957.9	1,438.5	1,425.2	13.28	108.294		
3,700.0	3,661.9	3,280.0	3,141.6	15.6	0.0	-152.44	-165.0	988.6	1,487.4	1,473.8	13.62	109.200		
3,800.0	3,760.5	3,367.2	3,223.0	16.1	0.0	-152.44	-171.4	1,019.2	1,536.4	1,522.4	13.96	110.052		
3,900.0	3,859.0	3,454.4	3,304.4	16.5	0.0	-152.44	-177.8	1,049.8	1,585.3	1,571.0	14.30	110.857		
4,000.0	3,957.5	3,541.6	3,385.8	17.0	0.0	-152.44	-184.2	1,080.4	1,634.3	1,619.7	14.64	111.616		
4,100.0	4,056.0	3,628.8	3,467.2	17.4	0.0	-152.44	-190.6	1,111.0	1,683.3	1,668.3	14.98	112.334		
4,200.0	4,154.5	3,716.0	3,548.6	17.9	0.0	-152.44	-197.0	1,141.6	1,732.2	1,716.9	15.33	113.013		
4,300.0	4,253.1	3,803.2	3,630.0	18.3	0.0	-152.45	-203.4	1,172.2	1,781.2	1,765.5	15.67	113.656		
4,400.0	4,351.6	3,890.4	3,711.3	18.8	0.0	-152.45	-209.8	1,202.8	1,830.1	1,814.1	16.02	114.266		
4,500.0	4,450.1	3,977.6	3,792.7	19.3	0.0	-152.45	-216.2	1,233.4	1,879.1	1,862.7	16.36	114.845		
4,600.0	4,548.6	4,064.8	3,874.1	19.7	0.0	-152.45	-222.6	1,264.1	1,928.1	1,911.3	16.71	115.394		
4,700.0	4,647.2	4,152.0	3,955.5	20.2	0.0	-152.45	-229.0	1,294.7	1,977.0	1,960.0	17.06	115.916		
4,800.0	4,745.7	4,239.2	4,036.9	20.6	0.0	-152.45	-235.4	1,325.3	2,026.0	2,008.6	17.40	116.413		
4,900.0	4,844.2	4,326.4	4,118.3	21.1	0.0	-152.45	-241.9	1,355.9	2,074.9	2,057.2	17.75	116.886		
5,000.0	4,942.7	4,413.6	4,199.7	21.6	0.0	-152.45	-248.3	1,386.5	2,123.9	2,105.8	18.10	117.337		
5,100.0	5,041.2	4,500.8	4,281.1	22.0	0.0	-152.45	-254.7	1,417.1	2,172.8	2,154.4	18.45	117.766		

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 19-18-1NCH
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 19-18-1NCH	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							
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
5,200.0	5,139.8	4,588.0	4,362.5	22.5	0.0	-152.45	-261.1	1,447.7	2,221.8	2,203.0	18.80	118.176	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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		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	89.69	1.0	180.0	180.0				
100.0	100.0	100.0	100.0	0.4	0.0	89.69	1.0	180.0	180.0	179.7	0.28	649.579	
200.0	200.0	200.0	200.0	1.0	0.0	89.69	1.0	180.0	180.0	179.2	0.80	225.541	
300.0	300.0	300.0	300.0	1.5	0.0	89.69	1.0	180.0	180.0	178.7	1.22	146.962	
400.0	400.0	400.0	400.0	1.9	0.0	89.69	1.0	180.0	180.0	178.3	1.62	111.194	
500.0	500.0	500.0	500.0	2.3	0.0	89.69	1.0	180.0	180.0	178.0	2.00	90.023	
600.0	600.0	600.0	600.0	2.7	0.0	89.69	1.0	180.0	180.0	177.6	2.37	75.844 CC, ES	
700.0	700.0	694.2	694.2	3.1	0.0	89.80	0.6	181.5	181.6	178.8	2.74	66.249	
800.0	800.0	788.2	788.0	3.5	0.0	90.10	-0.3	186.0	186.4	183.3	3.10	60.098	
900.0	900.0	881.6	881.2	3.8	0.0	-152.26	-1.9	193.5	195.9	192.4	3.51	55.897	
1,000.0	999.8	973.9	972.9	4.7	0.0	-152.14	-4.1	203.8	211.7	207.3	4.44	47.662	
1,100.0	1,099.5	1,064.6	1,062.6	5.5	0.0	-152.19	-6.9	216.7	233.6	228.4	5.22	44.761	
1,200.0	1,198.7	1,153.1	1,149.7	6.2	0.0	-152.34	-10.2	232.0	261.4	255.5	5.89	44.361 SF	
1,300.0	1,297.5	1,239.1	1,233.9	6.8	0.0	-152.55	-13.9	249.4	295.0	288.6	6.43	45.897	
1,400.0	1,396.0	1,322.8	1,315.2	7.0	0.0	-152.97	-18.0	268.7	332.7	326.0	6.63	50.141	
1,500.0	1,494.5	1,400.0	1,389.6	7.3	0.0	-153.20	-22.3	288.5	372.9	366.1	6.84	54.486	
1,600.0	1,593.0	1,484.4	1,470.4	7.6	0.0	-153.32	-27.4	312.4	415.6	408.5	7.10	58.553	
1,700.0	1,691.5	1,562.1	1,544.1	7.9	0.0	-153.34	-32.6	336.4	460.7	453.3	7.32	62.912	
1,800.0	1,790.1	1,638.9	1,616.3	8.2	0.0	-153.29	-38.1	362.1	508.1	500.5	7.55	67.296	
1,900.0	1,888.6	1,726.4	1,698.2	8.5	0.0	-153.22	-44.5	392.3	556.4	548.6	7.84	70.951	
2,000.0	1,987.1	1,814.0	1,780.1	8.8	0.0	-153.16	-51.0	422.4	604.7	596.6	8.14	74.294	
2,100.0	2,085.6	1,901.5	1,862.1	9.1	0.0	-153.11	-57.4	452.6	653.1	644.6	8.44	77.358	
2,200.0	2,184.1	1,989.0	1,944.0	9.5	0.0	-153.06	-63.9	482.7	701.4	692.6	8.75	80.172	
2,300.0	2,282.7	2,076.6	2,025.9	9.8	0.0	-153.02	-70.3	512.9	749.7	740.7	9.06	82.760	
2,400.0	2,381.2	2,164.1	2,107.9	10.2	0.0	-152.99	-76.8	543.0	798.1	788.7	9.37	85.145	
2,500.0	2,479.7	2,251.7	2,189.8	10.5	0.0	-152.96	-83.3	573.1	846.4	836.7	9.69	87.348	
2,600.0	2,578.2	2,339.2	2,271.7	10.9	0.0	-152.93	-89.7	603.3	894.7	884.7	10.01	89.387	
2,700.0	2,676.7	2,426.8	2,353.7	11.3	0.0	-152.91	-96.2	633.4	943.1	932.7	10.33	91.276	
2,800.0	2,775.3	2,514.3	2,435.6	11.7	0.0	-152.88	-102.6	663.6	991.4	980.7	10.66	93.031	
2,900.0	2,873.8	2,601.8	2,517.5	12.1	0.0	-152.86	-109.1	693.7	1,039.7	1,028.7	10.98	94.663	
3,000.0	2,972.3	2,689.4	2,599.5	12.5	0.0	-152.85	-115.5	723.9	1,088.1	1,076.7	11.31	96.184	
3,100.0	3,070.8	2,776.9	2,681.4	13.0	0.0	-152.83	-122.0	754.0	1,136.4	1,124.7	11.64	97.604	
3,200.0	3,169.3	2,864.5	2,763.3	13.4	0.0	-152.81	-128.4	784.2	1,184.7	1,172.7	11.98	98.932	
3,300.0	3,267.9	2,952.0	2,845.3	13.8	0.0	-152.80	-134.9	814.3	1,233.1	1,220.7	12.31	100.176	
3,400.0	3,366.4	3,039.6	2,927.2	14.3	0.0	-152.79	-141.4	844.5	1,281.4	1,268.7	12.64	101.342	
3,500.0	3,464.9	3,127.1	3,009.1	14.7	0.0	-152.78	-147.8	874.6	1,329.7	1,316.7	12.98	102.437	
3,600.0	3,563.4	3,214.7	3,091.1	15.2	0.0	-152.76	-154.3	904.8	1,378.1	1,364.7	13.32	103.467	
3,700.0	3,661.9	3,302.2	3,173.0	15.6	0.0	-152.75	-160.7	934.9	1,426.4	1,412.7	13.66	104.436	
3,800.0	3,760.5	3,389.7	3,255.0	16.1	0.0	-152.74	-167.2	965.1	1,474.7	1,460.7	14.00	105.351	
3,900.0	3,859.0	3,477.3	3,336.9	16.5	0.0	-152.74	-173.6	995.2	1,523.1	1,508.7	14.34	106.214	
4,000.0	3,957.5	3,564.8	3,418.8	17.0	0.0	-152.73	-180.1	1,025.4	1,571.4	1,556.7	14.68	107.030	
4,100.0	4,056.0	3,652.4	3,500.8	17.4	0.0	-152.72	-186.6	1,055.5	1,619.7	1,604.7	15.03	107.802	
4,200.0	4,154.5	3,739.9	3,582.7	17.9	0.0	-152.71	-193.0	1,085.6	1,668.1	1,652.7	15.37	108.532	
4,300.0	4,253.1	3,827.5	3,664.6	18.3	0.0	-152.70	-199.5	1,115.8	1,716.4	1,700.7	15.71	109.225	
4,400.0	4,351.6	3,915.0	3,746.6	18.8	0.0	-152.70	-205.9	1,145.9	1,764.7	1,748.7	16.06	109.883	
4,500.0	4,450.1	4,002.5	3,828.5	19.3	0.0	-152.69	-212.4	1,176.1	1,813.1	1,796.6	16.41	110.508	
4,600.0	4,548.6	4,090.1	3,910.4	19.7	0.0	-152.69	-218.8	1,206.2	1,861.4	1,844.6	16.75	111.101	
4,700.0	4,647.2	4,177.6	3,992.4	20.2	0.0	-152.68	-225.3	1,236.4	1,909.7	1,892.6	17.10	111.666	
4,800.0	4,745.7	4,265.2	4,074.3	20.6	0.0	-152.67	-231.8	1,266.5	1,958.1	1,940.6	17.45	112.204	
4,900.0	4,844.2	4,352.7	4,156.2	21.1	0.0	-152.67	-238.2	1,296.7	2,006.4	1,988.6	17.80	112.717	
5,000.0	4,942.7	4,440.3	4,238.2	21.6	0.0	-152.66	-244.7	1,326.8	2,054.7	2,036.6	18.15	113.206	
5,100.0	5,041.2	4,527.8	4,320.1	22.0	0.0	-152.66	-251.1	1,357.0	2,103.1	2,084.6	18.50	113.672	

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 19-18-1NCH
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 19-18-1NCH	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	5,139.8	4,615.3	4,402.0	22.5	0.0	-152.65	-257.6	1,387.1	2,151.4	2,132.5	18.85	114.118	
5,300.0	5,238.3	4,702.9	4,484.0	22.9	0.0	-152.65	-264.0	1,417.3	2,199.7	2,180.5	19.20	114.543	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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		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	89.71	0.8	165.0	165.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.71	0.8	165.0	165.0	164.7	0.28	595.563		
200.0	200.0	200.0	200.0	1.0	0.0	89.71	0.8	165.0	165.0	164.2	0.80	206.780		
300.0	300.0	300.0	300.0	1.5	0.0	89.71	0.8	165.0	165.0	163.7	1.22	134.733		
400.0	400.0	400.0	400.0	1.9	0.0	89.71	0.8	165.0	165.0	163.3	1.62	101.939		
500.0	500.0	500.0	500.0	2.3	0.0	89.71	0.8	165.0	165.0	163.0	2.00	82.529		
600.0	600.0	600.0	600.0	2.7	0.0	89.71	0.8	165.0	165.0	162.6	2.37	69.529		
700.0	700.0	700.0	700.0	3.1	0.0	89.71	0.8	165.0	165.0	162.2	2.74	60.156	CC, ES	
800.0	800.0	794.7	794.6	3.5	0.0	89.84	0.5	166.5	166.6	163.5	3.11	53.613		
900.0	900.0	889.0	888.9	3.8	0.0	-152.69	-0.6	171.0	172.9	169.4	3.51	49.206		
1,000.0	999.8	982.5	982.1	4.7	0.0	-152.72	-2.4	178.5	185.6	181.1	4.46	41.594		
1,100.0	1,099.5	1,074.6	1,073.6	5.5	0.0	-152.90	-4.8	188.8	204.4	199.1	5.25	38.930		
1,200.0	1,198.7	1,164.9	1,162.8	6.2	0.0	-153.15	-7.8	201.6	229.2	223.3	5.94	38.612	SF	
1,300.0	1,297.5	1,252.7	1,249.3	6.8	0.0	-153.44	-11.4	216.7	260.0	253.5	6.48	40.103		
1,400.0	1,396.0	1,338.4	1,333.2	7.0	0.0	-153.87	-15.5	233.9	294.8	288.1	6.69	44.041		
1,500.0	1,494.5	1,422.3	1,414.7	7.3	0.0	-154.08	-20.0	253.1	332.3	325.4	6.93	47.935		
1,600.0	1,593.0	1,500.0	1,489.6	7.6	0.0	-154.13	-24.7	272.9	372.4	365.3	7.14	52.130		
1,700.0	1,691.5	1,584.1	1,570.2	7.9	0.0	-154.09	-30.4	296.7	415.0	407.6	7.40	56.092		
1,800.0	1,790.1	1,662.0	1,644.0	8.2	0.0	-153.97	-36.0	320.7	459.9	452.3	7.62	60.322		
1,900.0	1,888.6	1,745.5	1,722.6	8.5	0.0	-153.80	-42.5	348.1	506.7	498.8	7.89	64.230		
2,000.0	1,987.1	1,833.7	1,805.6	8.8	0.0	-153.64	-49.5	377.3	553.8	545.6	8.19	67.632		
2,100.0	2,085.6	1,922.0	1,888.6	9.1	0.0	-153.51	-56.4	406.4	600.8	592.3	8.49	70.753		
2,200.0	2,184.1	2,010.2	1,971.6	9.5	0.0	-153.39	-63.3	435.6	647.8	639.0	8.80	73.620		
2,300.0	2,282.7	2,098.5	2,054.6	9.8	0.0	-153.30	-70.2	464.8	694.8	685.7	9.11	76.260		
2,400.0	2,381.2	2,186.7	2,137.6	10.2	0.0	-153.21	-77.1	493.9	741.9	732.5	9.43	78.695		
2,500.0	2,479.7	2,275.0	2,220.6	10.5	0.0	-153.14	-84.0	523.1	788.9	779.2	9.75	80.945		
2,600.0	2,578.2	2,363.2	2,303.6	10.9	0.0	-153.07	-90.9	552.3	836.0	825.9	10.07	83.028		
2,700.0	2,676.7	2,451.4	2,386.6	11.3	0.0	-153.01	-97.8	581.4	883.0	872.6	10.39	84.960		
2,800.0	2,775.3	2,539.7	2,469.6	11.7	0.0	-152.96	-104.7	610.6	930.0	919.3	10.72	86.756		
2,900.0	2,873.8	2,627.9	2,552.6	12.1	0.0	-152.91	-111.6	639.8	977.1	966.0	11.05	88.428		
3,000.0	2,972.3	2,716.2	2,635.6	12.5	0.0	-152.87	-118.5	668.9	1,024.1	1,012.7	11.38	89.987		
3,100.0	3,070.8	2,804.4	2,718.6	13.0	0.0	-152.83	-125.4	698.1	1,071.1	1,059.4	11.71	91.443		
3,200.0	3,169.3	2,892.7	2,801.6	13.4	0.0	-152.79	-132.3	727.3	1,118.2	1,106.1	12.05	92.805		
3,300.0	3,267.9	2,980.9	2,884.6	13.8	0.0	-152.76	-139.3	756.4	1,165.2	1,152.8	12.39	94.082		
3,400.0	3,366.4	3,069.2	2,967.6	14.3	0.0	-152.72	-146.2	785.6	1,212.3	1,199.5	12.72	95.279		
3,500.0	3,464.9	3,157.4	3,050.6	14.7	0.0	-152.70	-153.1	814.8	1,259.3	1,246.2	13.06	96.405		
3,600.0	3,563.4	3,245.6	3,133.6	15.2	0.0	-152.67	-160.0	843.9	1,306.3	1,292.9	13.40	97.464		
3,700.0	3,661.9	3,333.9	3,216.6	15.6	0.0	-152.64	-166.9	873.1	1,353.4	1,339.6	13.74	98.463		
3,800.0	3,760.5	3,422.1	3,299.6	16.1	0.0	-152.62	-173.8	902.3	1,400.4	1,386.3	14.09	99.404		
3,900.0	3,859.0	3,510.4	3,382.6	16.5	0.0	-152.60	-180.7	931.4	1,447.4	1,433.0	14.43	100.294		
4,000.0	3,957.5	3,598.6	3,465.6	17.0	0.0	-152.58	-187.6	960.6	1,494.5	1,479.7	14.78	101.135		
4,100.0	4,056.0	3,686.9	3,548.6	17.4	0.0	-152.56	-194.5	989.8	1,541.5	1,526.4	15.12	101.932		
4,200.0	4,154.5	3,775.1	3,631.6	17.9	0.0	-152.54	-201.4	1,018.9	1,588.6	1,573.1	15.47	102.687		
4,300.0	4,253.1	3,863.3	3,714.5	18.3	0.0	-152.53	-208.3	1,048.1	1,635.6	1,619.8	15.82	103.403		
4,400.0	4,351.6	3,951.6	3,797.5	18.8	0.0	-152.51	-215.2	1,077.3	1,682.7	1,666.5	16.17	104.083		
4,500.0	4,450.1	4,039.8	3,880.5	19.3	0.0	-152.49	-222.2	1,106.4	1,729.7	1,713.2	16.52	104.729		
4,600.0	4,548.6	4,128.1	3,963.5	19.7	0.0	-152.48	-229.1	1,135.6	1,776.7	1,759.9	16.87	105.344		
4,700.0	4,647.2	4,216.3	4,046.5	20.2	0.0	-152.47	-236.0	1,164.8	1,823.8	1,806.6	17.22	105.930		
4,800.0	4,745.7	4,304.6	4,129.5	20.6	0.0	-152.45	-242.9	1,193.9	1,870.8	1,853.2	17.57	106.488		
4,900.0	4,844.2	4,392.8	4,212.5	21.1	0.0	-152.44	-249.8	1,223.1	1,917.9	1,899.9	17.92	107.020		
5,000.0	4,942.7	4,481.1	4,295.5	21.6	0.0	-152.43	-256.7	1,252.3	1,964.9	1,946.6	18.27	107.528		
5,100.0	5,041.2	4,569.3	4,378.5	22.0	0.0	-152.42	-263.6	1,281.4	2,011.9	1,993.3	18.63	108.013		

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 19-18-1NCH
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 19-18-1NCH	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	5,139.8	4,657.5	4,461.5	22.5	0.0	-152.41	-270.5	1,310.6	2,059.0	2,040.0	18.98	108.476		
5,300.0	5,238.3	4,745.8	4,544.5	22.9	0.0	-152.40	-277.4	1,339.8	2,106.0	2,086.7	19.34	108.919		
5,400.0	5,336.8	4,834.0	4,627.5	23.4	0.0	-152.39	-284.3	1,368.9	2,153.1	2,133.4	19.69	109.343		
5,500.0	5,435.3	4,922.3	4,710.5	23.9	0.0	-152.38	-291.2	1,398.1	2,200.1	2,180.1	20.05	109.749		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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		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)						
14,100.0	7,492.0	7,423.0	7,423.0	118.1	27.6	90.00	8,133.1	135.1	2,191.2	2,084.8	106.41	20.592		
14,200.0	7,492.0	7,423.0	7,423.0	119.8	27.6	90.00	8,133.1	135.1	2,108.3	1,998.9	109.44	19.264		
14,300.0	7,492.0	7,423.0	7,423.0	121.5	27.6	90.00	8,133.1	135.1	2,027.0	1,914.3	112.69	17.988		
14,400.0	7,492.0	7,423.0	7,423.0	123.2	27.6	90.00	8,133.1	135.1	1,947.4	1,831.3	116.15	16.766		
14,500.0	7,492.0	7,423.0	7,423.0	124.9	27.6	90.00	8,133.1	135.1	1,869.8	1,750.0	119.84	15.602		
14,600.0	7,492.0	7,423.0	7,423.0	126.6	27.6	90.00	8,133.1	135.1	1,794.4	1,670.6	123.77	14.498		
14,700.0	7,492.0	7,423.0	7,423.0	128.3	27.6	90.00	8,133.1	135.1	1,721.5	1,593.6	127.92	13.458		
14,800.0	7,492.0	7,423.0	7,423.0	130.0	27.6	90.00	8,133.1	135.1	1,651.4	1,519.2	132.29	12.483		
14,900.0	7,492.0	7,423.0	7,423.0	131.8	27.6	90.00	8,133.1	135.1	1,584.6	1,447.7	136.86	11.578		
15,000.0	7,492.0	7,423.0	7,423.0	133.5	27.6	90.00	8,133.1	135.1	1,521.4	1,379.8	141.60	10.745		
15,100.0	7,492.0	7,423.0	7,423.0	135.2	27.6	90.00	8,133.1	135.1	1,462.3	1,315.9	146.44	9.986		
15,200.0	7,492.0	7,423.0	7,423.0	136.9	27.6	90.00	8,133.1	135.1	1,407.9	1,256.5	151.33	9.304		
15,300.0	7,492.0	7,423.0	7,423.0	138.6	27.6	90.00	8,133.1	135.1	1,358.6	1,202.5	156.15	8.701		
15,400.0	7,492.0	7,423.0	7,423.0	140.4	27.6	90.00	8,133.1	135.1	1,315.1	1,154.3	160.78	8.179		
15,500.0	7,492.0	7,423.0	7,423.0	142.1	27.6	90.00	8,133.1	135.1	1,278.0	1,112.9	165.09	7.741		
15,600.0	7,492.0	7,423.0	7,423.0	143.8	27.6	90.00	8,133.1	135.1	1,247.8	1,078.9	168.91	7.387		
15,700.0	7,492.0	7,423.0	7,423.0	145.5	27.6	90.00	8,133.1	135.1	1,225.0	1,052.9	172.07	7.119		
15,800.0	7,492.0	7,423.0	7,423.0	147.3	27.6	90.00	8,133.1	135.1	1,210.1	1,035.7	174.44	6.937		
15,900.0	7,492.0	7,423.0	7,423.0	149.0	27.6	90.00	8,133.1	135.1	1,203.3	1,027.4	175.90	6.841		
15,931.5	7,492.0	7,423.0	7,423.0	149.5	27.6	90.00	8,133.1	135.1	1,202.9	1,026.8	176.16	6.829	CC, ES, SF	
16,000.0	7,492.0	7,423.0	7,423.0	150.7	27.6	90.00	8,133.1	135.1	1,204.9	1,028.5	176.39	6.831		
16,100.0	7,492.0	7,423.0	7,423.0	152.4	27.6	90.00	8,133.1	135.1	1,214.7	1,038.8	175.91	6.905		
16,200.0	7,492.0	7,423.0	7,423.0	154.2	27.6	90.00	8,133.1	135.1	1,232.5	1,058.0	174.52	7.063		
16,300.0	7,492.0	7,423.0	7,423.0	155.9	27.6	90.00	8,133.1	135.1	1,258.1	1,085.8	172.32	7.301		
16,400.0	7,492.0	7,423.0	7,423.0	157.6	27.6	90.00	8,133.1	135.1	1,290.9	1,121.5	169.46	7.618		
16,500.0	7,492.0	7,423.0	7,423.0	159.4	27.6	90.00	8,133.1	135.1	1,330.5	1,164.4	166.08	8.011		
16,600.0	7,492.0	7,423.0	7,423.0	161.1	27.6	90.00	8,133.1	135.1	1,376.2	1,213.9	162.34	8.477		
16,700.0	7,492.0	7,423.0	7,423.0	162.8	27.6	90.00	8,133.1	135.1	1,427.5	1,269.1	158.38	9.013		
16,800.0	7,492.0	7,423.0	7,423.0	164.6	27.6	90.00	8,133.1	135.1	1,483.7	1,329.4	154.30	9.616		
16,900.0	7,492.0	7,423.0	7,423.0	166.3	27.6	90.00	8,133.1	135.1	1,544.4	1,394.2	150.21	10.281		
17,000.0	7,492.0	7,423.0	7,423.0	168.0	27.6	90.00	8,133.1	135.1	1,609.0	1,462.8	146.18	11.007		
17,100.0	7,492.0	7,423.0	7,423.0	169.8	27.6	90.00	8,133.1	135.1	1,677.0	1,534.8	142.25	11.790		
17,200.0	7,492.0	7,423.0	7,423.0	171.5	27.6	90.00	8,133.1	135.1	1,748.2	1,609.7	138.47	12.625		
17,300.0	7,492.0	7,423.0	7,423.0	173.2	27.6	90.00	8,133.1	135.1	1,822.1	1,687.2	134.85	13.511		
17,400.0	7,492.0	7,423.0	7,423.0	175.0	27.6	90.00	8,133.1	135.1	1,898.3	1,766.9	131.42	14.444		
17,500.0	7,492.0	7,423.0	7,423.0	176.7	27.6	90.00	8,133.1	135.1	1,976.7	1,848.5	128.17	15.422		
17,600.0	7,492.0	7,423.0	7,423.0	178.5	27.6	90.00	8,133.1	135.1	2,056.9	1,931.8	125.11	16.441		
17,686.9	7,492.0	7,423.0	7,423.0	180.0	27.6	90.00	8,133.1	135.1	2,128.1	2,005.5	122.60	17.358		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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
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	
15,400.0	7,492.0	7,423.0	7,423.0	140.4	27.6	-90.00	9,758.4	-1,446.2	2,200.2	2,138.8	61.37	35.853		
15,500.0	7,492.0	7,423.0	7,423.0	142.1	27.6	-90.00	9,758.4	-1,446.2	2,101.6	2,039.8	61.87	33.971		
15,600.0	7,492.0	7,423.0	7,423.0	143.8	27.6	-90.00	9,758.4	-1,446.2	2,003.2	1,940.8	62.46	32.071		
15,700.0	7,492.0	7,423.0	7,423.0	145.5	27.6	-90.00	9,758.4	-1,446.2	1,905.0	1,841.8	63.18	30.154		
15,800.0	7,492.0	7,423.0	7,423.0	147.3	27.6	-90.00	9,758.4	-1,446.2	1,806.9	1,742.9	64.03	28.219		
15,900.0	7,492.0	7,423.0	7,423.0	149.0	27.6	-90.00	9,758.4	-1,446.2	1,709.1	1,644.0	65.06	26.268		
16,000.0	7,492.0	7,423.0	7,423.0	150.7	27.6	-90.00	9,758.4	-1,446.2	1,611.6	1,545.2	66.31	24.304		
16,100.0	7,492.0	7,423.0	7,423.0	152.4	27.6	-90.00	9,758.4	-1,446.2	1,514.3	1,446.5	67.81	22.331		
16,200.0	7,492.0	7,423.0	7,423.0	154.2	27.6	-90.00	9,758.4	-1,446.2	1,417.5	1,347.8	69.64	20.354		
16,300.0	7,492.0	7,423.0	7,423.0	155.9	27.6	-90.00	9,758.4	-1,446.2	1,321.1	1,249.2	71.87	18.382		
16,400.0	7,492.0	7,423.0	7,423.0	157.6	27.6	-90.00	9,758.4	-1,446.2	1,225.3	1,150.7	74.59	16.427		
16,500.0	7,492.0	7,423.0	7,423.0	159.4	27.6	-90.00	9,758.4	-1,446.2	1,130.2	1,052.3	77.94	14.501		
16,600.0	7,492.0	7,423.0	7,423.0	161.1	27.6	-90.00	9,758.4	-1,446.2	1,036.1	954.0	82.08	12.623		
16,700.0	7,492.0	7,423.0	7,423.0	162.8	27.6	-90.00	9,758.4	-1,446.2	943.1	855.9	87.22	10.813		
16,800.0	7,492.0	7,423.0	7,423.0	164.6	27.6	-90.00	9,758.4	-1,446.2	851.8	758.2	93.65	9.095		
16,900.0	7,492.0	7,423.0	7,423.0	166.3	27.6	-90.00	9,758.4	-1,446.2	762.7	660.9	101.74	7.496		
17,000.0	7,492.0	7,423.0	7,423.0	168.0	27.6	-90.00	9,758.4	-1,446.2	676.5	564.6	111.96	6.043		
17,100.0	7,492.0	7,423.0	7,423.0	169.8	27.6	-90.00	9,758.4	-1,446.2	594.8	469.9	124.86	4.764		
17,200.0	7,492.0	7,423.0	7,423.0	171.5	27.6	-90.00	9,758.4	-1,446.2	519.4	378.5	140.93	3.686		
17,300.0	7,492.0	7,423.0	7,423.0	173.2	27.6	-90.00	9,758.4	-1,446.2	453.7	293.6	160.10	2.834		
17,400.0	7,492.0	7,423.0	7,423.0	175.0	27.6	-90.00	9,758.4	-1,446.2	402.4	221.7	180.68	2.227		
17,500.0	7,492.0	7,423.0	7,423.0	176.7	27.6	-90.00	9,758.4	-1,446.2	371.5	173.5	198.00	1.876		
17,569.7	7,492.0	7,423.0	7,423.0	177.9	27.6	-90.00	9,758.4	-1,446.2	364.9	160.2	204.64	1.783 CC, ES		
17,600.0	7,492.0	7,423.0	7,423.0	178.5	27.6	-90.00	9,758.4	-1,446.2	366.1	160.5	205.64	1.780 SF		
17,686.9	7,492.0	7,423.0	7,423.0	180.0	27.6	-90.00	9,758.4	-1,446.2	383.3	180.9	202.32	1.894		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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		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)						
11,600.0	7,492.0	7,423.0	7,423.0	76.4	27.6	90.00	5,916.0	-934.4	2,126.4	2,064.5	61.85	34.377		
11,700.0	7,492.0	7,423.0	7,423.0	78.0	27.6	90.00	5,916.0	-934.4	2,026.5	1,964.5	62.01	32.678		
11,800.0	7,492.0	7,423.0	7,423.0	79.6	27.6	90.00	5,916.0	-934.4	1,926.7	1,864.5	62.19	30.981		
11,900.0	7,492.0	7,423.0	7,423.0	81.2	27.6	90.00	5,916.0	-934.4	1,826.9	1,764.5	62.39	29.284		
12,000.0	7,492.0	7,423.0	7,423.0	82.9	27.6	90.00	5,916.0	-934.4	1,727.1	1,664.5	62.60	27.588		
12,100.0	7,492.0	7,423.0	7,423.0	84.5	27.6	90.00	5,916.0	-934.4	1,627.4	1,564.5	62.85	25.893		
12,200.0	7,492.0	7,423.0	7,423.0	86.1	27.6	90.00	5,916.0	-934.4	1,527.6	1,464.5	63.13	24.200		
12,300.0	7,492.0	7,423.0	7,423.0	87.8	27.6	90.00	5,916.0	-934.4	1,427.9	1,364.5	63.44	22.507		
12,400.0	7,492.0	7,423.0	7,423.0	89.5	27.6	90.00	5,916.0	-934.4	1,328.3	1,264.5	63.81	20.816		
12,500.0	7,492.0	7,423.0	7,423.0	91.1	27.6	90.00	5,916.0	-934.4	1,228.7	1,164.4	64.24	19.126		
12,600.0	7,492.0	7,423.0	7,423.0	92.8	27.6	90.00	5,916.0	-934.4	1,129.2	1,064.4	64.76	17.437		
12,700.0	7,492.0	7,423.0	7,423.0	94.4	27.6	90.00	5,916.0	-934.4	1,029.7	964.4	65.38	15.750		
12,800.0	7,492.0	7,423.0	7,423.0	96.1	27.6	90.00	5,916.0	-934.4	930.4	864.3	66.15	14.064		
12,900.0	7,492.0	7,423.0	7,423.0	97.8	27.6	90.00	5,916.0	-934.4	831.3	764.1	67.14	12.382		
13,000.0	7,492.0	7,423.0	7,423.0	99.5	27.6	90.00	5,916.0	-934.4	732.4	664.0	68.42	10.704		
13,100.0	7,492.0	7,423.0	7,423.0	101.1	27.6	90.00	5,916.0	-934.4	633.8	563.6	70.17	9.032		
13,200.0	7,492.0	7,423.0	7,423.0	102.8	27.6	90.00	5,916.0	-934.4	535.8	463.1	72.65	7.374		
13,300.0	7,492.0	7,423.0	7,423.0	104.5	27.6	90.00	5,916.0	-934.4	438.6	362.3	76.40	5.742		
13,400.0	7,492.0	7,423.0	7,423.0	106.2	27.6	90.00	5,916.0	-934.4	343.2	260.7	82.46	4.161		
13,500.0	7,492.0	7,423.0	7,423.0	107.9	27.6	90.00	5,916.0	-934.4	251.2	158.0	93.22	2.695		
13,600.0	7,492.0	7,423.0	7,423.0	109.6	27.6	90.00	5,916.0	-934.4	168.7	55.1	113.53	1.486	Level 3	
13,700.0	7,492.0	7,423.0	7,423.0	111.3	27.6	90.00	5,916.0	-934.4	117.4	-20.8	138.19	0.850	Level 1	
13,723.3	7,492.0	7,423.0	7,423.0	111.7	27.6	90.00	5,916.0	-934.4	115.1	-23.0	138.14	0.833	Level 1, CC, ES, SF	
13,800.0	7,492.0	7,423.0	7,423.0	113.0	27.6	90.00	5,916.0	-934.4	138.3	22.8	115.56	1.197	Level 2	
13,900.0	7,492.0	7,423.0	7,423.0	114.7	27.6	90.00	5,916.0	-934.4	210.9	125.2	85.74	2.460		
14,000.0	7,492.0	7,423.0	7,423.0	116.4	27.6	90.00	5,916.0	-934.4	299.7	227.9	71.76	4.177		
14,100.0	7,492.0	7,423.0	7,423.0	118.1	27.6	90.00	5,916.0	-934.4	393.9	328.5	65.44	6.020		
14,200.0	7,492.0	7,423.0	7,423.0	119.8	27.6	90.00	5,916.0	-934.4	490.4	428.0	62.41	7.858		
14,300.0	7,492.0	7,423.0	7,423.0	121.5	27.6	90.00	5,916.0	-934.4	588.1	527.2	60.89	9.659		
14,400.0	7,492.0	7,423.0	7,423.0	123.2	27.6	90.00	5,916.0	-934.4	686.4	626.3	60.10	11.422		
14,500.0	7,492.0	7,423.0	7,423.0	124.9	27.6	90.00	5,916.0	-934.4	785.2	725.5	59.70	13.153		
14,600.0	7,492.0	7,423.0	7,423.0	126.6	27.6	90.00	5,916.0	-934.4	884.2	824.7	59.50	14.861		
14,700.0	7,492.0	7,423.0	7,423.0	128.3	27.6	90.00	5,916.0	-934.4	983.5	924.1	59.42	16.550		
14,800.0	7,492.0	7,423.0	7,423.0	130.0	27.6	90.00	5,916.0	-934.4	1,082.9	1,023.4	59.42	18.224		
14,900.0	7,492.0	7,423.0	7,423.0	131.8	27.6	90.00	5,916.0	-934.4	1,182.3	1,122.9	59.46	19.886		
15,000.0	7,492.0	7,423.0	7,423.0	133.5	27.6	90.00	5,916.0	-934.4	1,281.9	1,222.4	59.52	21.538		
15,100.0	7,492.0	7,423.0	7,423.0	135.2	27.6	90.00	5,916.0	-934.4	1,381.5	1,321.9	59.60	23.181		
15,200.0	7,492.0	7,423.0	7,423.0	136.9	27.6	90.00	5,916.0	-934.4	1,481.2	1,421.5	59.69	24.817		
15,300.0	7,492.0	7,423.0	7,423.0	138.6	27.6	90.00	5,916.0	-934.4	1,580.9	1,521.1	59.78	26.445		
15,400.0	7,492.0	7,423.0	7,423.0	140.4	27.6	90.00	5,916.0	-934.4	1,680.7	1,620.8	59.88	28.068		
15,500.0	7,492.0	7,423.0	7,423.0	142.1	27.6	90.00	5,916.0	-934.4	1,780.4	1,720.5	59.98	29.685		
15,600.0	7,492.0	7,423.0	7,423.0	143.8	27.6	90.00	5,916.0	-934.4	1,880.2	1,820.2	60.08	31.297		
15,700.0	7,492.0	7,423.0	7,423.0	145.5	27.6	90.00	5,916.0	-934.4	1,980.1	1,919.9	60.18	32.904		
15,800.0	7,492.0	7,423.0	7,423.0	147.3	27.6	90.00	5,916.0	-934.4	2,079.9	2,019.6	60.28	34.505		
15,900.0	7,492.0	7,423.0	7,423.0	149.0	27.6	90.00	5,916.0	-934.4	2,179.8	2,119.4	60.38	36.103		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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		
9,800.0	7,492.0	7,423.0	7,423.0	49.0	27.6	90.00	3,157.3	823.6	2,178.5	2,102.9	75.62	28.807		
9,900.0	7,492.0	7,423.0	7,423.0	50.4	27.6	90.00	3,157.3	823.6	2,127.4	2,050.3	77.13	27.583		
10,000.0	7,492.0	7,423.0	7,423.0	51.8	27.6	90.00	3,157.3	823.6	2,079.9	2,001.2	78.67	26.437		
10,100.0	7,492.0	7,423.0	7,423.0	53.2	27.6	90.00	3,157.3	823.6	2,036.2	1,955.9	80.25	25.374		
10,200.0	7,492.0	7,423.0	7,423.0	54.7	27.6	90.00	3,157.3	823.6	1,996.5	1,914.7	81.83	24.398		
10,300.0	7,492.0	7,423.0	7,423.0	56.1	27.6	90.00	3,157.3	823.6	1,961.1	1,877.7	83.41	23.512		
10,400.0	7,492.0	7,423.0	7,423.0	57.6	27.6	90.00	3,157.3	823.6	1,930.3	1,845.3	84.96	22.720		
10,500.0	7,492.0	7,423.0	7,423.0	59.1	27.6	90.00	3,157.3	823.6	1,904.2	1,817.7	86.46	22.023		
10,600.0	7,492.0	7,423.0	7,423.0	60.6	27.6	90.00	3,157.3	823.6	1,883.0	1,795.1	87.90	21.422		
10,700.0	7,492.0	7,423.0	7,423.0	62.2	27.6	90.00	3,157.3	823.6	1,867.0	1,777.8	89.25	20.919		
10,800.0	7,492.0	7,423.0	7,423.0	63.7	27.6	90.00	3,157.3	823.6	1,856.3	1,765.8	90.49	20.514		
10,900.0	7,492.0	7,423.0	7,423.0	65.2	27.6	90.00	3,157.3	823.6	1,850.9	1,759.3	91.60	20.206		
10,950.1	7,492.0	7,423.0	7,423.0	66.0	27.6	90.00	3,157.3	823.6	1,850.2	1,758.1	92.11	20.087 CC, ES		
11,000.0	7,492.0	7,423.0	7,423.0	66.8	27.6	90.00	3,157.3	823.6	1,850.9	1,758.3	92.58	19.993		
11,100.0	7,492.0	7,423.0	7,423.0	68.4	27.6	90.00	3,157.3	823.6	1,856.3	1,762.9	93.40	19.874		
11,200.0	7,492.0	7,423.0	7,423.0	70.0	27.6	90.00	3,157.3	823.6	1,867.0	1,772.9	94.07	19.847 SF		
11,300.0	7,492.0	7,423.0	7,423.0	71.5	27.6	90.00	3,157.3	823.6	1,883.0	1,788.4	94.58	19.908		
11,400.0	7,492.0	7,423.0	7,423.0	73.1	27.6	90.00	3,157.3	823.6	1,904.1	1,809.2	94.94	20.055		
11,500.0	7,492.0	7,423.0	7,423.0	74.7	27.6	90.00	3,157.3	823.6	1,930.2	1,835.0	95.16	20.284		
11,600.0	7,492.0	7,423.0	7,423.0	76.4	27.6	90.00	3,157.3	823.6	1,961.0	1,865.8	95.23	20.592		
11,700.0	7,492.0	7,423.0	7,423.0	78.0	27.6	90.00	3,157.3	823.6	1,996.4	1,901.2	95.19	20.973		
11,800.0	7,492.0	7,423.0	7,423.0	79.6	27.6	90.00	3,157.3	823.6	2,036.1	1,941.0	95.03	21.426		
11,900.0	7,492.0	7,423.0	7,423.0	81.2	27.6	90.00	3,157.3	823.6	2,079.8	1,985.0	94.77	21.945		
12,000.0	7,492.0	7,423.0	7,423.0	82.9	27.6	90.00	3,157.3	823.6	2,127.3	2,032.9	94.44	22.526		
12,100.0	7,492.0	7,423.0	7,423.0	84.5	27.6	90.00	3,157.3	823.6	2,178.4	2,084.4	94.03	23.167		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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	-41.38	1,023.9	-902.1	1,366.4					
100.0	100.0	31.0	31.0	0.4	0.3	-41.38	1,023.9	-902.1	1,364.6	1,364.4	0.27	5,056.448		
200.0	200.0	131.0	131.0	1.0	1.1	-41.38	1,023.9	-902.1	1,364.6	1,363.6	1.00	1,371.003		
300.0	300.0	231.0	231.0	1.5	1.5	-41.38	1,023.9	-902.1	1,364.6	1,362.9	1.71	797.844		
400.0	400.0	331.0	331.0	1.9	1.9	-41.38	1,023.9	-902.1	1,364.6	1,362.2	2.43	562.347		
500.0	500.0	431.0	431.0	2.3	2.3	-41.38	1,023.9	-902.1	1,364.6	1,361.5	3.14	434.140		
600.0	600.0	531.0	531.0	2.7	2.7	-41.38	1,023.9	-902.1	1,364.6	1,360.8	3.86	353.525		
700.0	700.0	631.0	631.0	3.1	3.1	-41.38	1,023.9	-902.1	1,364.6	1,360.1	4.58	298.156		
800.0	800.0	731.0	731.0	3.5	3.5	-41.38	1,023.9	-902.1	1,364.6	1,359.3	5.29	257.780		
900.0	900.0	831.0	831.0	3.8	3.9	76.00	1,023.9	-902.1	1,364.2	1,358.2	6.06	225.218		
1,000.0	999.8	930.8	930.8	4.7	4.2	76.24	1,023.9	-902.1	1,363.0	1,356.0	6.93	196.561		
1,100.0	1,099.5	1,030.5	1,030.5	5.5	4.6	76.63	1,023.9	-902.1	1,360.9	1,353.1	7.77	175.063		
1,200.0	1,198.7	1,129.7	1,129.7	6.2	5.0	77.19	1,023.9	-902.1	1,358.1	1,349.5	8.59	158.112		
1,300.0	1,297.5	1,228.5	1,228.5	6.8	5.3	77.88	1,023.9	-902.1	1,354.7	1,345.3	9.37	144.574		
1,400.0	1,396.0	1,327.0	1,327.0	7.0	5.7	78.59	1,023.9	-902.1	1,351.2	1,341.1	10.08	134.069		
1,500.0	1,494.5	1,425.5	1,425.5	7.3	6.0	79.29	1,023.9	-902.1	1,347.8	1,337.0	10.83	124.410		
1,600.0	1,593.0	1,524.0	1,524.0	7.6	6.4	80.00	1,023.9	-902.1	1,344.7	1,333.1	11.60	115.939		
1,700.0	1,691.5	1,622.5	1,622.5	7.9	6.7	80.71	1,023.9	-902.1	1,341.8	1,329.4	12.37	108.469		
1,800.0	1,790.1	1,721.1	1,721.1	8.2	7.1	81.42	1,023.9	-902.1	1,339.1	1,325.9	13.15	101.844		
1,900.0	1,888.6	1,819.6	1,819.6	8.5	7.5	82.14	1,023.9	-902.1	1,336.6	1,322.7	13.93	95.939		
2,000.0	1,987.1	1,918.1	1,918.1	8.8	7.8	82.85	1,023.9	-902.1	1,334.3	1,319.6	14.72	90.650		
2,100.0	2,085.6	2,016.6	2,016.6	9.1	8.2	83.58	1,023.9	-902.1	1,332.3	1,316.8	15.51	85.892		
2,200.0	2,184.1	2,115.1	2,115.1	9.5	8.5	84.30	1,023.9	-902.1	1,330.4	1,314.1	16.31	81.593		
2,300.0	2,282.7	2,213.7	2,213.7	9.8	8.9	85.02	1,023.9	-902.1	1,328.8	1,311.7	17.10	77.694		
2,400.0	2,381.2	2,312.2	2,312.2	10.2	9.2	85.75	1,023.9	-902.1	1,327.4	1,309.5	17.90	74.144		
2,500.0	2,479.7	2,410.7	2,410.7	10.5	9.6	86.48	1,023.9	-902.1	1,326.2	1,307.5	18.71	70.903		
2,600.0	2,578.2	2,509.2	2,509.2	10.9	10.0	87.21	1,023.9	-902.1	1,325.3	1,305.8	19.51	67.933		
2,700.0	2,676.7	2,607.7	2,607.7	11.3	10.3	87.94	1,023.9	-902.1	1,324.5	1,304.2	20.31	65.204		
2,800.0	2,775.3	2,706.3	2,706.3	11.7	10.7	88.67	1,023.9	-902.1	1,324.0	1,302.9	21.12	62.691		
2,900.0	2,873.8	2,804.8	2,804.8	12.1	11.0	89.40	1,023.9	-902.1	1,323.7	1,301.8	21.93	60.369		
2,982.6	2,955.2	2,886.2	2,886.2	12.5	11.3	90.00	1,023.9	-902.1	1,323.7	1,301.1	22.59	58.583		
3,000.0	2,972.3	2,903.3	2,903.3	12.5	11.4	90.13	1,023.9	-902.1	1,323.7	1,300.9	22.74	58.221		
3,100.0	3,070.8	3,001.8	3,001.8	13.0	11.7	90.86	1,023.9	-902.1	1,323.8	1,300.3	23.54	56.227		
3,200.0	3,169.3	3,100.3	3,100.3	13.4	12.1	91.59	1,023.9	-902.1	1,324.2	1,299.8	24.35	54.375		
3,300.0	3,267.9	3,198.9	3,198.9	13.8	12.4	92.32	1,023.9	-902.1	1,324.8	1,299.6	25.16	52.649		
3,400.0	3,366.4	3,297.4	3,297.4	14.3	12.8	93.05	1,023.9	-902.1	1,325.6	1,299.6	25.97	51.039		
3,500.0	3,464.9	3,395.9	3,395.9	14.7	13.1	93.78	1,023.9	-902.1	1,326.6	1,299.8	26.78	49.535		
3,600.0	3,563.4	3,494.4	3,494.4	15.2	13.5	94.50	1,023.9	-902.1	1,327.9	1,300.3	27.59	48.128		
3,700.0	3,661.9	3,592.9	3,592.9	15.6	13.9	95.23	1,023.9	-902.1	1,329.4	1,301.0	28.40	46.809		
3,800.0	3,760.5	3,691.5	3,691.5	16.1	14.2	95.95	1,023.9	-902.1	1,331.1	1,301.8	29.21	45.571		
3,900.0	3,859.0	3,790.0	3,790.0	16.5	14.6	96.68	1,023.9	-902.1	1,333.0	1,302.9	30.02	44.407		
4,000.0	3,957.5	3,888.5	3,888.5	17.0	14.9	97.40	1,023.9	-902.1	1,335.1	1,304.3	30.82	43.313		
4,100.0	4,056.0	3,987.0	3,987.0	17.4	15.3	98.11	1,023.9	-902.1	1,337.4	1,305.8	31.63	42.282		
4,200.0	4,154.5	4,085.5	4,085.5	17.9	15.6	98.83	1,023.9	-902.1	1,340.0	1,307.6	32.44	41.310		
4,300.0	4,253.1	4,184.1	4,184.1	18.3	16.0	99.54	1,023.9	-902.1	1,342.8	1,309.5	33.24	40.393		
4,400.0	4,351.6	4,282.6	4,282.6	18.8	16.3	100.25	1,023.9	-902.1	1,345.8	1,311.7	34.05	39.526		
4,500.0	4,450.1	4,381.1	4,381.1	19.3	16.7	100.96	1,023.9	-902.1	1,349.0	1,314.1	34.85	38.707		
4,600.0	4,548.6	4,479.6	4,479.6	19.7	17.0	101.66	1,023.9	-902.1	1,352.4	1,316.7	35.65	37.932		
4,700.0	4,647.2	4,578.2	4,578.2	20.2	17.4	102.36	1,023.9	-902.1	1,356.0	1,319.5	36.45	37.198		
4,800.0	4,745.7	4,676.7	4,676.7	20.6	17.7	103.05	1,023.9	-902.1	1,359.8	1,322.6	37.25	36.501		
4,900.0	4,844.2	4,775.2	4,775.2	21.1	18.1	103.75	1,023.9	-902.1	1,363.8	1,325.8	38.05	35.841		
5,000.0	4,942.7	4,873.7	4,873.7	21.6	18.5	104.43	1,023.9	-902.1	1,368.1	1,329.2	38.85	35.215		

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 19-18-1NCH
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 19-18-1NCH	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		
5,100.0	5,041.2	4,972.2	4,972.2	22.0	18.8	105.12	1,023.9	-902.1	1,372.5	1,332.9	39.65	34.620		
5,200.0	5,139.8	5,070.8	5,070.8	22.5	19.2	105.80	1,023.9	-902.1	1,377.1	1,336.7	40.44	34.054		
5,300.0	5,238.3	5,169.3	5,169.3	22.9	19.5	106.47	1,023.9	-902.1	1,382.0	1,340.7	41.23	33.516		
5,400.0	5,336.8	5,267.8	5,267.8	23.4	19.9	107.14	1,023.9	-902.1	1,387.0	1,345.0	42.02	33.005		
5,500.0	5,435.3	5,366.3	5,366.3	23.9	20.2	107.80	1,023.9	-902.1	1,392.2	1,349.4	42.81	32.517		
5,600.0	5,533.8	5,464.8	5,464.8	24.3	20.6	108.47	1,023.9	-902.1	1,397.6	1,354.0	43.60	32.054		
5,700.0	5,632.4	5,563.4	5,563.4	24.8	20.9	109.12	1,023.9	-902.1	1,403.2	1,358.8	44.39	31.611		
5,800.0	5,730.9	5,661.9	5,661.9	25.3	21.3	109.77	1,023.9	-902.1	1,409.0	1,363.8	45.17	31.190		
5,900.0	5,829.4	5,760.4	5,760.4	25.7	21.6	110.41	1,023.9	-902.1	1,415.0	1,369.0	45.96	30.788		
6,000.0	5,927.9	5,858.9	5,858.9	26.2	22.0	111.05	1,023.9	-902.1	1,421.1	1,374.4	46.74	30.404		
6,100.0	6,026.4	5,957.4	5,957.4	26.6	22.3	111.69	1,023.9	-902.1	1,427.4	1,379.9	47.52	30.038		
6,200.0	6,125.0	6,056.0	6,056.0	27.1	22.7	112.32	1,023.9	-902.1	1,433.9	1,385.6	48.30	29.689		
6,300.0	6,223.5	6,154.5	6,154.5	27.6	23.0	112.94	1,023.9	-902.1	1,440.6	1,391.5	49.08	29.355		
6,400.0	6,322.0	6,253.0	6,253.0	28.0	23.4	113.56	1,023.9	-902.1	1,447.5	1,397.6	49.85	29.036		
6,500.0	6,420.5	6,351.5	6,351.5	28.5	23.8	114.17	1,023.9	-902.1	1,454.5	1,403.9	50.63	28.731		
6,600.0	6,519.0	6,450.0	6,450.0	29.0	24.1	114.77	1,023.9	-902.1	1,461.7	1,410.3	51.40	28.439		
6,700.0	6,617.6	6,548.6	6,548.6	29.4	24.5	115.37	1,023.9	-902.1	1,469.0	1,416.9	52.17	28.160		
6,800.0	6,716.1	6,647.1	6,647.1	29.9	24.8	115.97	1,023.9	-902.1	1,476.5	1,423.6	52.94	27.893		
6,900.0	6,814.6	6,745.6	6,745.6	30.4	25.2	116.55	1,023.9	-902.1	1,484.2	1,430.5	53.70	27.637		
7,000.0	6,913.2	6,844.2	6,844.2	30.8	25.5	98.84	1,023.9	-902.1	1,491.2	1,436.7	54.47	27.375		
7,100.0	7,011.6	6,942.6	6,942.6	31.3	25.9	46.93	1,023.9	-902.1	1,485.0	1,429.5	55.45	26.781		
7,200.0	7,107.5	7,038.5	7,038.5	31.8	26.2	27.74	1,023.9	-902.1	1,461.7	1,405.3	56.42	25.906		
7,300.0	7,197.9	7,128.9	7,128.9	32.1	26.5	20.68	1,023.9	-902.1	1,422.1	1,364.8	57.28	24.826		
7,400.0	7,280.0	7,211.0	7,211.0	32.4	26.8	17.84	1,023.9	-902.1	1,367.3	1,309.3	58.02	23.567		
7,500.0	7,351.3	7,282.3	7,282.3	32.5	27.1	17.22	1,023.9	-902.1	1,299.1	1,240.5	58.62	22.160		
7,600.0	7,409.7	7,340.7	7,340.7	32.6	27.3	18.52	1,023.9	-902.1	1,219.4	1,160.3	59.09	20.636		
7,700.0	7,453.4	7,384.4	7,384.4	32.6	27.5	22.72	1,023.9	-902.1	1,130.7	1,071.3	59.43	19.026		
7,800.0	7,481.1	7,412.1	7,412.1	32.6	27.6	34.56	1,023.9	-902.1	1,035.7	976.1	59.66	17.361		
7,900.0	7,491.9	7,422.9	7,422.9	32.6	27.6	79.42	1,023.9	-902.1	937.2	877.4	59.79	15.675		
8,000.0	7,492.0	7,423.0	7,423.0	32.7	27.6	90.00	1,023.9	-902.1	837.9	778.1	59.89	13.992		
8,100.0	7,492.0	7,423.0	7,423.0	32.8	27.6	90.00	1,023.9	-902.1	738.9	678.9	60.01	12.313		
8,200.0	7,492.0	7,423.0	7,423.0	33.0	27.6	90.00	1,023.9	-902.1	640.1	579.9	60.17	10.639		
8,300.0	7,492.0	7,423.0	7,423.0	33.4	27.6	90.00	1,023.9	-902.1	541.7	481.4	60.38	8.972		
8,400.0	7,492.0	7,423.0	7,423.0	33.9	27.6	90.00	1,023.9	-902.1	444.2	383.5	60.70	7.318		
8,500.0	7,492.0	7,423.0	7,423.0	34.6	27.6	90.00	1,023.9	-902.1	347.9	286.7	61.18	5.687		
8,600.0	7,492.0	7,423.0	7,423.0	35.3	27.6	90.00	1,023.9	-902.1	254.6	192.6	62.00	4.107		
8,700.0	7,492.0	7,423.0	7,423.0	36.1	27.6	90.00	1,023.9	-902.1	169.2	105.8	63.40	2.668		
8,800.0	7,492.0	7,423.0	7,423.0	37.1	27.6	90.00	1,023.9	-902.1	111.4	47.4	63.96	1.741		
8,831.1	7,492.0	7,423.0	7,423.0	37.4	27.6	90.00	1,023.9	-902.1	106.9	44.2	62.75	1.704 CC, ES, SF		
8,900.0	7,492.0	7,423.0	7,423.0	38.0	27.6	90.00	1,023.9	-902.1	127.2	68.2	59.03	2.155		
9,000.0	7,492.0	7,423.0	7,423.0	39.1	27.6	90.00	1,023.9	-902.1	199.9	142.5	57.42	3.482		
9,100.0	7,492.0	7,423.0	7,423.0	40.2	27.6	90.00	1,023.9	-902.1	289.4	231.9	57.52	5.031		
9,200.0	7,492.0	7,423.0	7,423.0	41.3	27.6	90.00	1,023.9	-902.1	384.1	326.3	57.78	6.647		
9,300.0	7,492.0	7,423.0	7,423.0	42.5	27.6	90.00	1,023.9	-902.1	480.9	422.9	58.00	8.292		
9,400.0	7,492.0	7,423.0	7,423.0	43.8	27.6	90.00	1,023.9	-902.1	578.9	520.7	58.18	9.950		
9,500.0	7,492.0	7,423.0	7,423.0	45.0	27.6	90.00	1,023.9	-902.1	677.4	619.1	58.32	11.616		
9,600.0	7,492.0	7,423.0	7,423.0	46.3	27.6	90.00	1,023.9	-902.1	776.3	717.9	58.43	13.286		
9,700.0	7,492.0	7,423.0	7,423.0	47.7	27.6	90.00	1,023.9	-902.1	875.5	816.9	58.52	14.959		
9,800.0	7,492.0	7,423.0	7,423.0	49.0	27.6	90.00	1,023.9	-902.1	974.8	916.2	58.61	16.633		
9,900.0	7,492.0	7,423.0	7,423.0	50.4	27.6	90.00	1,023.9	-902.1	1,074.2	1,015.6	58.68	18.308		
10,000.0	7,492.0	7,423.0	7,423.0	51.8	27.6	90.00	1,023.9	-902.1	1,173.8	1,115.0	58.74	19.983		
10,100.0	7,492.0	7,423.0	7,423.0	53.2	27.6	90.00	1,023.9	-902.1	1,273.4	1,214.6	58.80	21.657		

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

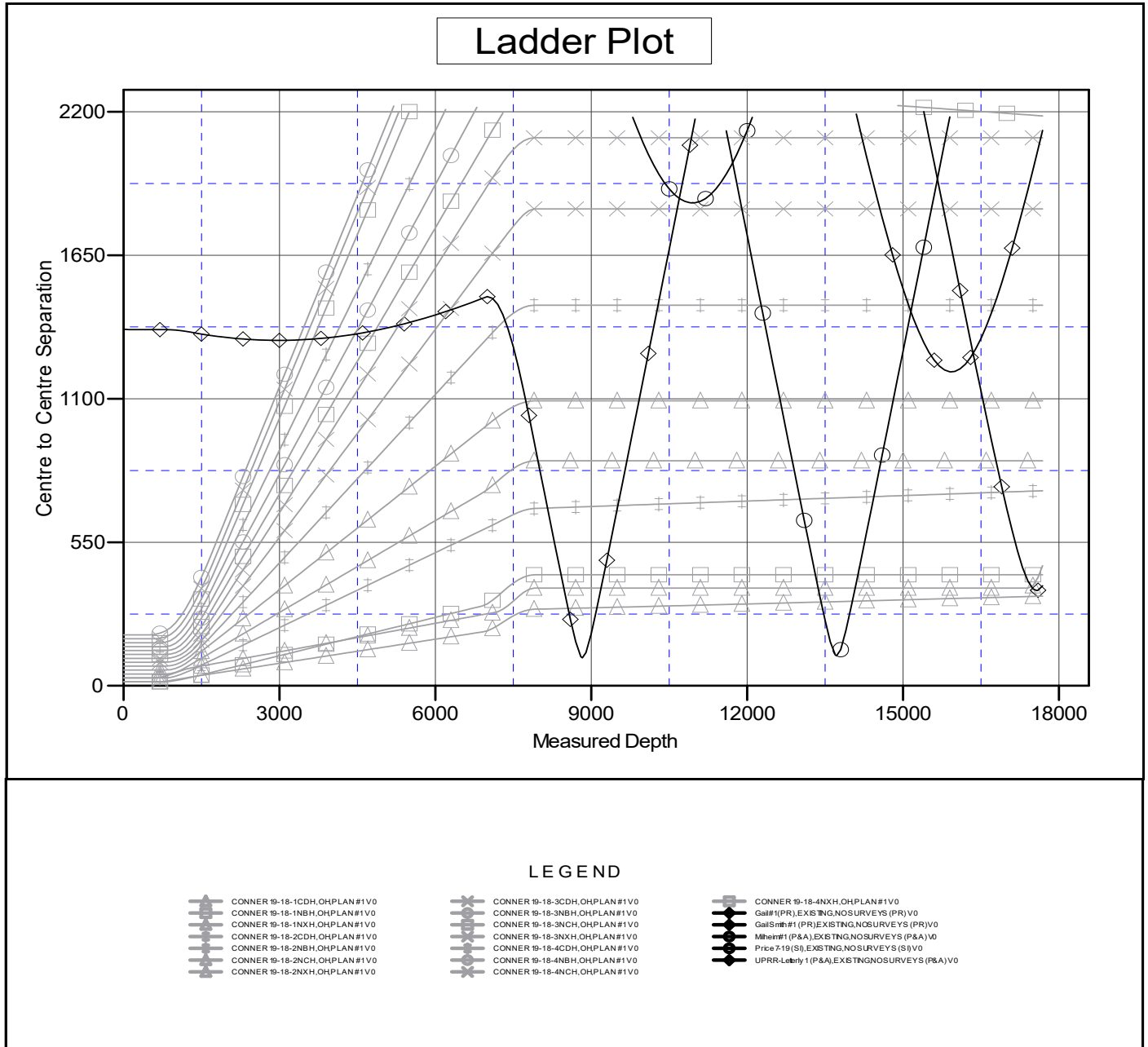
Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-1NCH	Survey Calculation Method:	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		Highside Toolface (°)	Offset Wellbore Centre		Distance				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)	Separation Factor	
10,200.0	7,492.0	7,423.0	7,423.0	54.7	27.6	90.00	1,023.9	-902.1	1,373.1	1,314.2	58.85	23.331	
10,300.0	7,492.0	7,423.0	7,423.0	56.1	27.6	90.00	1,023.9	-902.1	1,472.8	1,413.9	58.90	25.004	
10,400.0	7,492.0	7,423.0	7,423.0	57.6	27.6	90.00	1,023.9	-902.1	1,572.5	1,513.6	58.95	26.677	
10,500.0	7,492.0	7,423.0	7,423.0	59.1	27.6	90.00	1,023.9	-902.1	1,672.3	1,613.3	58.99	28.348	
10,600.0	7,492.0	7,423.0	7,423.0	60.6	27.6	90.00	1,023.9	-902.1	1,772.1	1,713.1	59.04	30.018	
10,700.0	7,492.0	7,423.0	7,423.0	62.2	27.6	90.00	1,023.9	-902.1	1,872.0	1,812.9	59.08	31.686	
10,800.0	7,492.0	7,423.0	7,423.0	63.7	27.6	90.00	1,023.9	-902.1	1,971.8	1,912.7	59.12	33.353	
10,900.0	7,492.0	7,423.0	7,423.0	65.2	27.6	90.00	1,023.9	-902.1	2,071.7	2,012.5	59.16	35.018	
11,000.0	7,492.0	7,423.0	7,423.0	66.8	27.6	90.00	1,023.9	-902.1	2,171.5	2,112.3	59.20	36.682	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-1NCH
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 19-18-1NCH	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 19-18-1NCH
 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 19-18-1NCH
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 19-18-1NCH	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

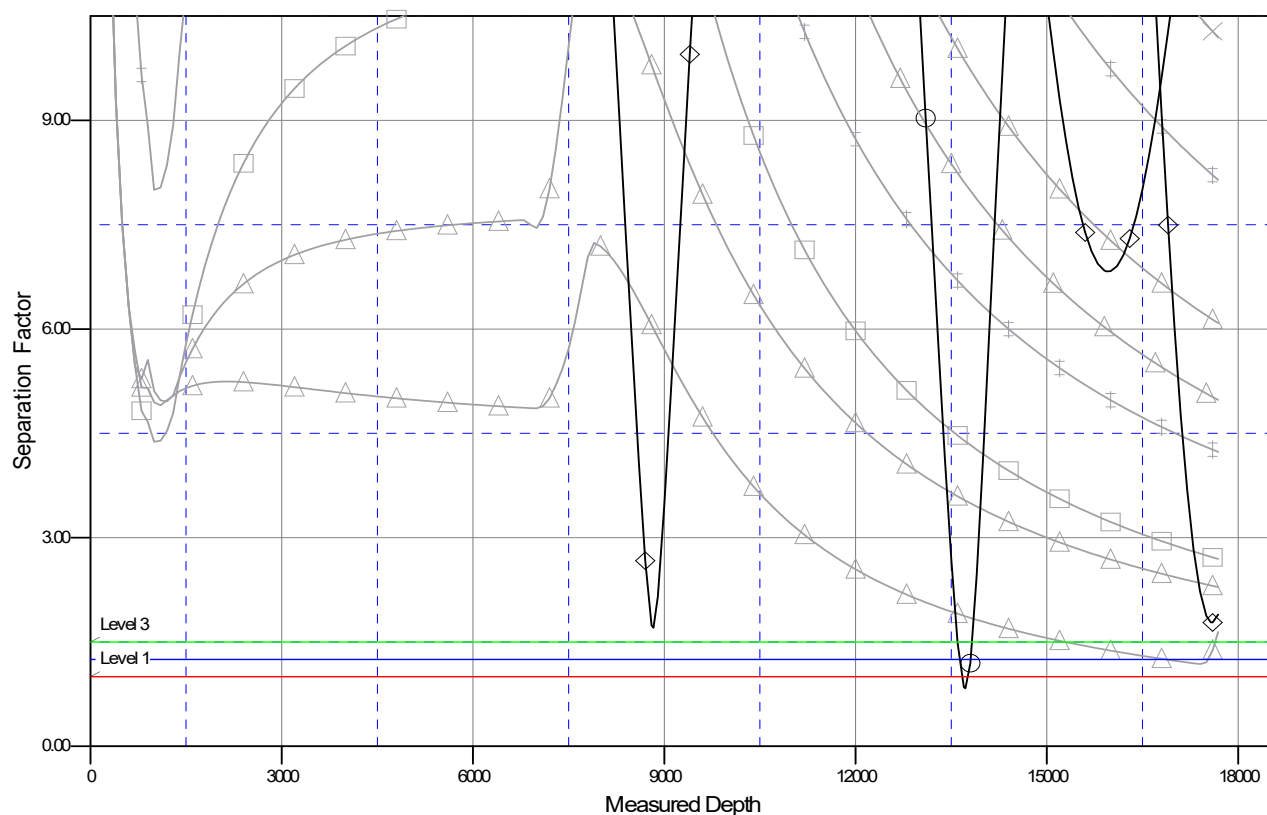
Central Meridian is -105.500000

Coordinates are relative to: CONNER 19-18-1NCH

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 19-18-1NXH,OHPLAN#1V0
 CONNER 19-18-2CDH,OHPLAN#1V0
 CONNER 19-18-2NBH,OHPLAN#1V0
 CONNER 19-18-2NCH,OHPLAN#1V0
 CONNER 19-18-2NXH,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
 Gail#1(PR),EXISTING,NOSURVEYS (PR)V0
 Gail#1(PR),EXISTING,NOSURVEYS (PR)V0
 Mithem#1 (P&A),EXISTING,NOSURVEYS (P&A)V0
 Price 7-19 (S),EXISTING,NOSURVEYS (S)V0
 UPRR-Laberty 1 (P&A),EXISTING,NOSURVEYS (P&A)V0