



PetroShare Corp

Project: ADAMS COUNTY, CO
Site: S19-T1S-R65W
Well: CONNER 19-18-4NBH
Wellbore: OH
Design: PLAN #2



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

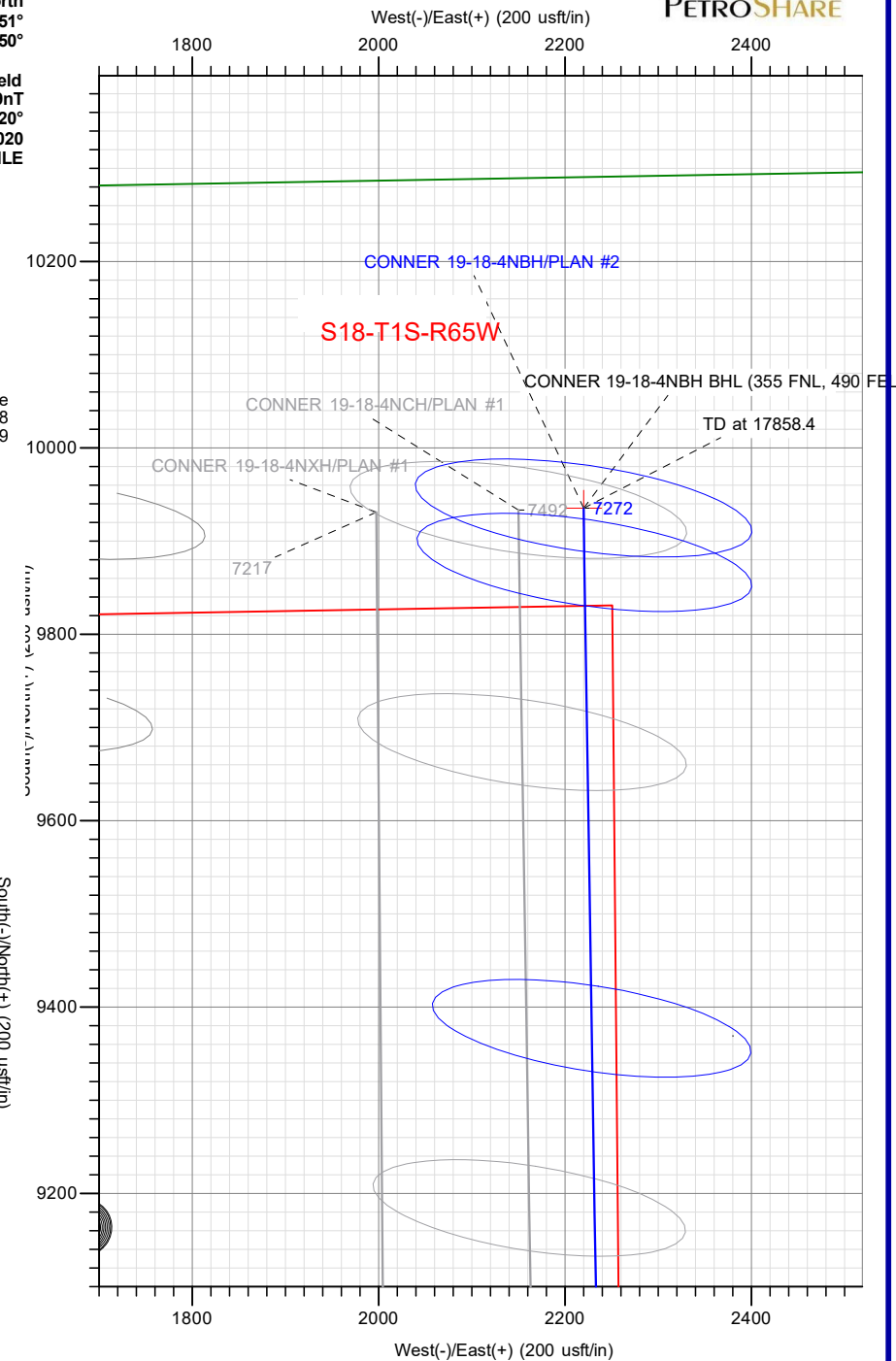
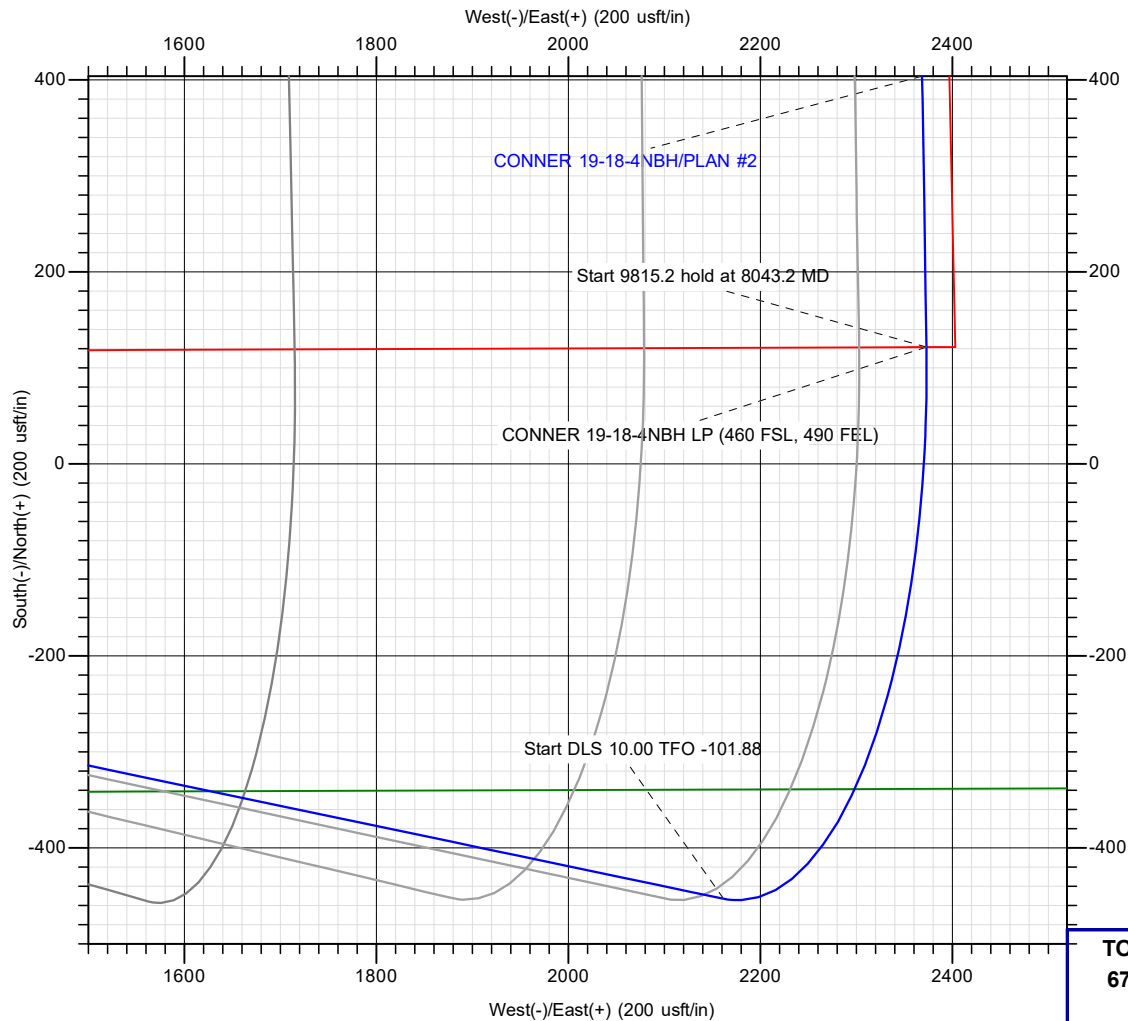
Magnetic Field
Strength: 51670.9nT
Dip Angle: 66.20°
Date: 12/31/2020
Model: HDGM2020_FILE



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

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CONNER 19-18-4NBH BHL (355 FNL, 490 FEL)	7272.0	9935.6	2220.0	1233491.12	3224454.88	39.971534	-104.699138
CONNER 19-18-4NBH LP (460 FSL, 490 FEL)	7272.0	121.6	2373.1	1223677.14	3224607.89	39.944590	-104.698909



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

Plan: PLAN #2 (CONNER 19-18-4NBH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 14:08, June 28 2021
Approved: _____
Date: _____



PetroShare Corp

Project: ADAMS COUNTY, CO
Site: S19-T1S-R65W
Well: CONNER 19-18-4NBH
Wellbore: OH
Design: PLAN #2



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

Magnetic Field
Strength: 51670.9nT
Dip Angle: 66.20°
Date: 12/31/2020
Model: HDGM2020_FILE

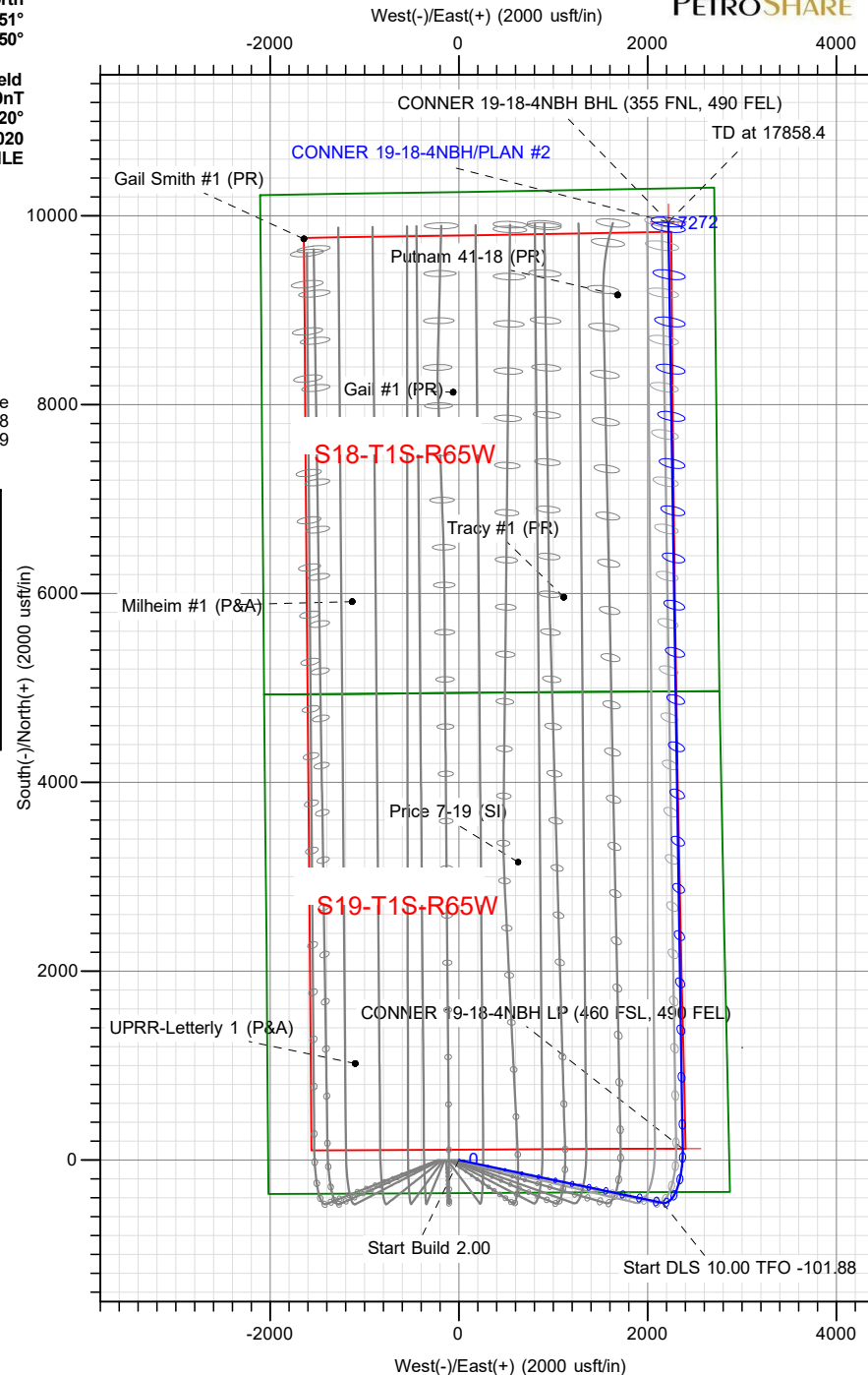
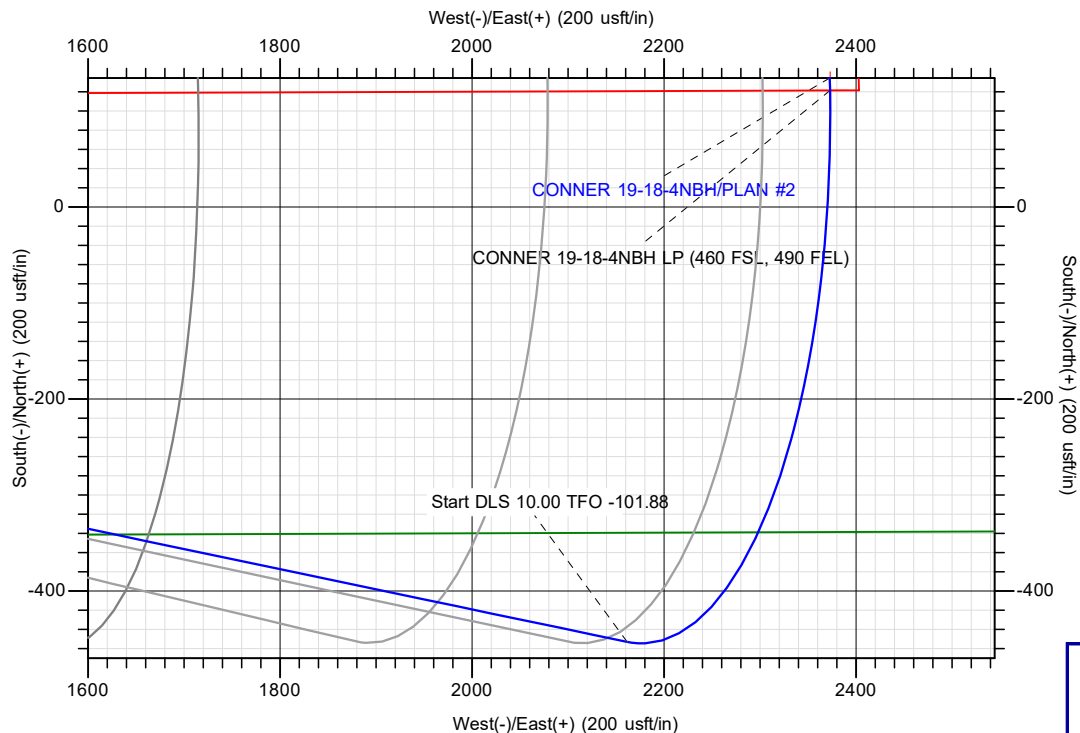
PROJECT DETAILS: ADAMS COUNTY, CO
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CONNER 19-18-4NBH BHL (355 FNL, 490 FEL)	7272.0	9935.6	2220.0	1233491.12	3224454.88	39.971534	-104.699138
CONNER 19-18-4NBH LP (460 FSL, 490 FEL)	7272.0	121.6	2373.1	1223677.14	3224607.89	39.944590	-104.698909

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0	
3	1566.8	21.34	101.83	1542.3	-40.3	192.2	2.00	101.83	2.6	
4	7097.2	21.34	101.83	6693.7	-452.9	2161.6	0.00	0.00	29.4	
5	8043.2	90.00	359.11	7272.0	121.6	2373.1	10.00	-101.88	636.2	CONNER 19-18-4NBH LP (460 FSL, 490 FEL)
6	17858.4	90.00	359.11	7272.0	9935.6	2220.0	0.00	0.00	180.6	CONNER 19-18-4NBH BHL (355 FNL, 490 FEL)



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

Plan: PLAN #2 (CONNER 19-18-4NBH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 14:06, June 28 2021
Approved: _____
Date: _____



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-4NBH

OH

Plan: PLAN #2

Standard Planning Report

28 June, 2021



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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 19-18-4NBH					
Well Position	+N/-S	1.2 usft	Northing:	1,223,555.52 usft	Latitude:	39.944315
	+E/-W	225.0 usft	Easting:	3,222,234.84 usft	Longitude:	-104.707376
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,142.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020_FILE	12/31/2020	8.02	66.20	51,670.90000000

Design	PLAN #2			
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	12.60

Plan Survey Tool Program	Date	6/28/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	17,858.4	PLAN #2 (OH)	MWD	
				OWSG MWD - Standard	

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	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,566.8	21.34	101.83	1,542.3	-40.3	192.2	2.00	2.00	0.00	101.83	
7,097.2	21.34	101.83	6,693.7	-452.9	2,161.6	0.00	0.00	0.00	0.00	
8,043.2	90.00	359.11	7,272.0	121.6	2,373.1	10.00	7.26	-10.86	-101.88	CONNER 19-18-4NBH
17,858.4	90.00	359.11	7,272.0	9,935.6	2,220.0	0.00	0.00	0.00	0.00	CONNER 19-18-4NBH

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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	2.00	101.83	600.0	-0.4	1.7	0.0	2.00	2.00	0.00
700.0	4.00	101.83	699.8	-1.4	6.8	0.1	2.00	2.00	0.00
800.0	6.00	101.83	799.5	-3.2	15.4	0.2	2.00	2.00	0.00
900.0	8.00	101.83	898.7	-5.7	27.3	0.4	2.00	2.00	0.00
1,000.0	10.00	101.83	997.5	-8.9	42.6	0.6	2.00	2.00	0.00
1,100.0	12.00	101.83	1,095.6	-12.8	61.3	0.8	2.00	2.00	0.00
1,200.0	14.00	101.83	1,193.1	-17.4	83.3	1.1	2.00	2.00	0.00
1,300.0	16.00	101.83	1,289.6	-22.8	108.6	1.5	2.00	2.00	0.00
1,400.0	18.00	101.83	1,385.3	-28.8	137.2	1.9	2.00	2.00	0.00
1,500.0	20.00	101.83	1,479.8	-35.4	169.1	2.3	2.00	2.00	0.00
1,566.8	21.34	101.83	1,542.3	-40.3	192.2	2.6	2.00	2.00	0.00
1,600.0	21.34	101.83	1,573.2	-42.7	204.0	2.8	0.00	0.00	0.00
1,700.0	21.34	101.83	1,666.4	-50.2	239.6	3.3	0.00	0.00	0.00
1,800.0	21.34	101.83	1,759.5	-57.7	275.2	3.7	0.00	0.00	0.00
1,900.0	21.34	101.83	1,852.7	-65.1	310.8	4.2	0.00	0.00	0.00
2,000.0	21.34	101.83	1,945.8	-72.6	346.4	4.7	0.00	0.00	0.00
2,100.0	21.34	101.83	2,039.0	-80.0	382.1	5.2	0.00	0.00	0.00
2,200.0	21.34	101.83	2,132.1	-87.5	417.7	5.7	0.00	0.00	0.00
2,300.0	21.34	101.83	2,225.3	-95.0	453.3	6.2	0.00	0.00	0.00
2,400.0	21.34	101.83	2,318.4	-102.4	488.9	6.7	0.00	0.00	0.00
2,500.0	21.34	101.83	2,411.6	-109.9	524.5	7.1	0.00	0.00	0.00
2,600.0	21.34	101.83	2,504.7	-117.3	560.1	7.6	0.00	0.00	0.00
2,700.0	21.34	101.83	2,597.8	-124.8	595.7	8.1	0.00	0.00	0.00
2,800.0	21.34	101.83	2,691.0	-132.3	631.3	8.6	0.00	0.00	0.00
2,900.0	21.34	101.83	2,784.1	-139.7	666.9	9.1	0.00	0.00	0.00
3,000.0	21.34	101.83	2,877.3	-147.2	702.6	9.6	0.00	0.00	0.00
3,100.0	21.34	101.83	2,970.4	-154.6	738.2	10.0	0.00	0.00	0.00
3,200.0	21.34	101.83	3,063.6	-162.1	773.8	10.5	0.00	0.00	0.00
3,300.0	21.34	101.83	3,156.7	-169.6	809.4	11.0	0.00	0.00	0.00
3,400.0	21.34	101.83	3,249.9	-177.0	845.0	11.5	0.00	0.00	0.00
3,500.0	21.34	101.83	3,343.0	-184.5	880.6	12.0	0.00	0.00	0.00
3,600.0	21.34	101.83	3,436.2	-191.9	916.2	12.5	0.00	0.00	0.00
3,700.0	21.34	101.83	3,529.3	-199.4	951.8	13.0	0.00	0.00	0.00
3,800.0	21.34	101.83	3,622.5	-206.9	987.4	13.4	0.00	0.00	0.00
3,900.0	21.34	101.83	3,715.6	-214.3	1,023.1	13.9	0.00	0.00	0.00
4,000.0	21.34	101.83	3,808.7	-221.8	1,058.7	14.4	0.00	0.00	0.00
4,100.0	21.34	101.83	3,901.9	-229.3	1,094.3	14.9	0.00	0.00	0.00
4,200.0	21.34	101.83	3,995.0	-236.7	1,129.9	15.4	0.00	0.00	0.00
4,300.0	21.34	101.83	4,088.2	-244.2	1,165.5	15.9	0.00	0.00	0.00
4,400.0	21.34	101.83	4,181.3	-251.6	1,201.1	16.3	0.00	0.00	0.00
4,500.0	21.34	101.83	4,274.5	-259.1	1,236.7	16.8	0.00	0.00	0.00
4,600.0	21.34	101.83	4,367.6	-266.6	1,272.3	17.3	0.00	0.00	0.00
4,700.0	21.34	101.83	4,460.8	-274.0	1,307.9	17.8	0.00	0.00	0.00
4,800.0	21.34	101.83	4,553.9	-281.5	1,343.6	18.3	0.00	0.00	0.00
4,900.0	21.34	101.83	4,647.1	-288.9	1,379.2	18.8	0.00	0.00	0.00
5,000.0	21.34	101.83	4,740.2	-296.4	1,414.8	19.3	0.00	0.00	0.00
5,100.0	21.34	101.83	4,833.3	-303.9	1,450.4	19.7	0.00	0.00	0.00
5,200.0	21.34	101.83	4,926.5	-311.3	1,486.0	20.2	0.00	0.00	0.00

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Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-4NBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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	21.34	101.83	5,019.6	-318.8	1,521.6	20.7	0.00	0.00	0.00
5,400.0	21.34	101.83	5,112.8	-326.2	1,557.2	21.2	0.00	0.00	0.00
5,500.0	21.34	101.83	5,205.9	-333.7	1,592.8	21.7	0.00	0.00	0.00
5,600.0	21.34	101.83	5,299.1	-341.2	1,628.4	22.2	0.00	0.00	0.00
5,700.0	21.34	101.83	5,392.2	-348.6	1,664.1	22.6	0.00	0.00	0.00
5,800.0	21.34	101.83	5,485.4	-356.1	1,699.7	23.1	0.00	0.00	0.00
5,900.0	21.34	101.83	5,578.5	-363.5	1,735.3	23.6	0.00	0.00	0.00
6,000.0	21.34	101.83	5,671.7	-371.0	1,770.9	24.1	0.00	0.00	0.00
6,100.0	21.34	101.83	5,764.8	-378.5	1,806.5	24.6	0.00	0.00	0.00
6,200.0	21.34	101.83	5,858.0	-385.9	1,842.1	25.1	0.00	0.00	0.00
6,300.0	21.34	101.83	5,951.1	-393.4	1,877.7	25.6	0.00	0.00	0.00
6,400.0	21.34	101.83	6,044.2	-400.8	1,913.3	26.0	0.00	0.00	0.00
6,500.0	21.34	101.83	6,137.4	-408.3	1,948.9	26.5	0.00	0.00	0.00
6,600.0	21.34	101.83	6,230.5	-415.8	1,984.6	27.0	0.00	0.00	0.00
6,700.0	21.34	101.83	6,323.7	-423.2	2,020.2	27.5	0.00	0.00	0.00
6,800.0	21.34	101.83	6,416.8	-430.7	2,055.8	28.0	0.00	0.00	0.00
6,900.0	21.34	101.83	6,510.0	-438.1	2,091.4	28.5	0.00	0.00	0.00
7,000.0	21.34	101.83	6,603.1	-445.6	2,127.0	28.9	0.00	0.00	0.00
7,097.2	21.34	101.83	6,693.7	-452.9	2,161.6	29.4	0.00	0.00	0.00
7,100.0	21.28	101.08	6,696.3	-453.1	2,162.6	29.4	10.00	-2.00	-26.96
7,200.0	21.58	73.50	6,789.6	-451.3	2,198.2	38.9	10.00	0.30	-27.59
7,300.0	25.88	50.85	6,881.3	-432.3	2,232.8	65.0	10.00	4.30	-22.64
7,400.0	32.63	35.62	6,968.6	-396.5	2,265.5	107.1	10.00	6.75	-15.23
7,500.0	40.62	25.48	7,048.9	-345.0	2,295.3	163.8	10.00	7.99	-10.14
7,600.0	49.24	18.28	7,119.7	-279.5	2,321.3	233.4	10.00	8.62	-7.20
7,700.0	58.21	12.77	7,178.8	-201.9	2,342.6	313.8	10.00	8.97	-5.51
7,800.0	67.37	8.25	7,224.5	-114.6	2,358.6	402.5	10.00	9.16	-4.52
7,900.0	76.64	4.30	7,255.4	-20.2	2,368.9	496.9	10.00	9.27	-3.95
8,000.0	85.96	0.65	7,270.5	78.5	2,373.1	594.1	10.00	9.33	-3.65
8,043.2	90.00	359.11	7,272.0	121.6	2,373.1	636.2	10.00	9.34	-3.57
CONNER 19-18-4NBH LP (460 FSL, 490 FEL)									
8,100.0	90.00	359.11	7,272.0	178.4	2,372.2	691.4	0.00	0.00	0.00
8,200.0	90.00	359.11	7,272.0	278.4	2,370.6	788.7	0.00	0.00	0.00
8,300.0	90.00	359.11	7,272.0	378.4	2,369.0	885.9	0.00	0.00	0.00
8,400.0	90.00	359.11	7,272.0	478.4	2,367.5	983.1	0.00	0.00	0.00
8,500.0	90.00	359.11	7,272.0	578.4	2,365.9	1,080.4	0.00	0.00	0.00
8,600.0	90.00	359.11	7,272.0	678.4	2,364.4	1,177.6	0.00	0.00	0.00
8,700.0	90.00	359.11	7,272.0	778.3	2,362.8	1,274.9	0.00	0.00	0.00
8,800.0	90.00	359.11	7,272.0	878.3	2,361.3	1,372.1	0.00	0.00	0.00
8,900.0	90.00	359.11	7,272.0	978.3	2,359.7	1,469.3	0.00	0.00	0.00
9,000.0	90.00	359.11	7,272.0	1,078.3	2,358.1	1,566.6	0.00	0.00	0.00
9,100.0	90.00	359.11	7,272.0	1,178.3	2,356.6	1,663.8	0.00	0.00	0.00
9,200.0	90.00	359.11	7,272.0	1,278.3	2,355.0	1,761.1	0.00	0.00	0.00
9,300.0	90.00	359.11	7,272.0	1,378.3	2,353.5	1,858.3	0.00	0.00	0.00
9,400.0	90.00	359.11	7,272.0	1,478.3	2,351.9	1,955.6	0.00	0.00	0.00
9,500.0	90.00	359.11	7,272.0	1,578.3	2,350.3	2,052.8	0.00	0.00	0.00
9,600.0	90.00	359.11	7,272.0	1,678.2	2,348.8	2,150.0	0.00	0.00	0.00
9,700.0	90.00	359.11	7,272.0	1,778.2	2,347.2	2,247.3	0.00	0.00	0.00
9,800.0	90.00	359.11	7,272.0	1,878.2	2,345.7	2,344.5	0.00	0.00	0.00
9,900.0	90.00	359.11	7,272.0	1,978.2	2,344.1	2,441.8	0.00	0.00	0.00
10,000.0	90.00	359.11	7,272.0	2,078.2	2,342.5	2,539.0	0.00	0.00	0.00
10,100.0	90.00	359.11	7,272.0	2,178.2	2,341.0	2,636.2	0.00	0.00	0.00
10,200.0	90.00	359.11	7,272.0	2,278.2	2,339.4	2,733.5	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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	359.11	7,272.0	2,378.2	2,337.9	2,830.7	0.00	0.00	0.00
10,400.0	90.00	359.11	7,272.0	2,478.1	2,336.3	2,928.0	0.00	0.00	0.00
10,500.0	90.00	359.11	7,272.0	2,578.1	2,334.8	3,025.2	0.00	0.00	0.00
10,600.0	90.00	359.11	7,272.0	2,678.1	2,333.2	3,122.5	0.00	0.00	0.00
10,700.0	90.00	359.11	7,272.0	2,778.1	2,331.6	3,219.7	0.00	0.00	0.00
10,800.0	90.00	359.11	7,272.0	2,878.1	2,330.1	3,316.9	0.00	0.00	0.00
10,900.0	90.00	359.11	7,272.0	2,978.1	2,328.5	3,414.2	0.00	0.00	0.00
11,000.0	90.00	359.11	7,272.0	3,078.1	2,327.0	3,511.4	0.00	0.00	0.00
11,100.0	90.00	359.11	7,272.0	3,178.1	2,325.4	3,608.7	0.00	0.00	0.00
11,200.0	90.00	359.11	7,272.0	3,278.0	2,323.8	3,705.9	0.00	0.00	0.00
11,300.0	90.00	359.11	7,272.0	3,378.0	2,322.3	3,803.1	0.00	0.00	0.00
11,400.0	90.00	359.11	7,272.0	3,478.0	2,320.7	3,900.4	0.00	0.00	0.00
11,500.0	90.00	359.11	7,272.0	3,578.0	2,319.2	3,997.6	0.00	0.00	0.00
11,600.0	90.00	359.11	7,272.0	3,678.0	2,317.6	4,094.9	0.00	0.00	0.00
11,700.0	90.00	359.11	7,272.0	3,778.0	2,316.0	4,192.1	0.00	0.00	0.00
11,800.0	90.00	359.11	7,272.0	3,878.0	2,314.5	4,289.4	0.00	0.00	0.00
11,900.0	90.00	359.11	7,272.0	3,978.0	2,312.9	4,386.6	0.00	0.00	0.00
12,000.0	90.00	359.11	7,272.0	4,077.9	2,311.4	4,483.8	0.00	0.00	0.00
12,100.0	90.00	359.11	7,272.0	4,177.9	2,309.8	4,581.1	0.00	0.00	0.00
12,200.0	90.00	359.11	7,272.0	4,277.9	2,308.2	4,678.3	0.00	0.00	0.00
12,300.0	90.00	359.11	7,272.0	4,377.9	2,306.7	4,775.6	0.00	0.00	0.00
12,400.0	90.00	359.11	7,272.0	4,477.9	2,305.1	4,872.8	0.00	0.00	0.00
12,500.0	90.00	359.11	7,272.0	4,577.9	2,303.6	4,970.0	0.00	0.00	0.00
12,600.0	90.00	359.11	7,272.0	4,677.9	2,302.0	5,067.3	0.00	0.00	0.00
12,700.0	90.00	359.11	7,272.0	4,777.9	2,300.5	5,164.5	0.00	0.00	0.00
12,800.0	90.00	359.11	7,272.0	4,877.9	2,298.9	5,261.8	0.00	0.00	0.00
12,900.0	90.00	359.11	7,272.0	4,977.8	2,297.3	5,359.0	0.00	0.00	0.00
13,000.0	90.00	359.11	7,272.0	5,077.8	2,295.8	5,456.3	0.00	0.00	0.00
13,100.0	90.00	359.11	7,272.0	5,177.8	2,294.2	5,553.5	0.00	0.00	0.00
13,200.0	90.00	359.11	7,272.0	5,277.8	2,292.7	5,650.7	0.00	0.00	0.00
13,300.0	90.00	359.11	7,272.0	5,377.8	2,291.1	5,748.0	0.00	0.00	0.00
13,400.0	90.00	359.11	7,272.0	5,477.8	2,289.5	5,845.2	0.00	0.00	0.00
13,500.0	90.00	359.11	7,272.0	5,577.8	2,288.0	5,942.5	0.00	0.00	0.00
13,600.0	90.00	359.11	7,272.0	5,677.8	2,286.4	6,039.7	0.00	0.00	0.00
13,700.0	90.00	359.11	7,272.0	5,777.7	2,284.9	6,136.9	0.00	0.00	0.00
13,800.0	90.00	359.11	7,272.0	5,877.7	2,283.3	6,234.2	0.00	0.00	0.00
13,900.0	90.00	359.11	7,272.0	5,977.7	2,281.7	6,331.4	0.00	0.00	0.00
14,000.0	90.00	359.11	7,272.0	6,077.7	2,280.2	6,428.7	0.00	0.00	0.00
14,100.0	90.00	359.11	7,272.0	6,177.7	2,278.6	6,525.9	0.00	0.00	0.00
14,200.0	90.00	359.11	7,272.0	6,277.7	2,277.1	6,623.2	0.00	0.00	0.00
14,300.0	90.00	359.11	7,272.0	6,377.7	2,275.5	6,720.4	0.00	0.00	0.00
14,400.0	90.00	359.11	7,272.0	6,477.7	2,274.0	6,817.6	0.00	0.00	0.00
14,500.0	90.00	359.11	7,272.0	6,577.6	2,272.4	6,914.9	0.00	0.00	0.00
14,600.0	90.00	359.11	7,272.0	6,677.6	2,270.8	7,012.1	0.00	0.00	0.00
14,700.0	90.00	359.11	7,272.0	6,777.6	2,269.3	7,109.4	0.00	0.00	0.00
14,800.0	90.00	359.11	7,272.0	6,877.6	2,267.7	7,206.6	0.00	0.00	0.00
14,900.0	90.00	359.11	7,272.0	6,977.6	2,266.2	7,303.8	0.00	0.00	0.00
15,000.0	90.00	359.11	7,272.0	7,077.6	2,264.6	7,401.1	0.00	0.00	0.00
15,100.0	90.00	359.11	7,272.0	7,177.6	2,263.0	7,498.3	0.00	0.00	0.00
15,200.0	90.00	359.11	7,272.0	7,277.6	2,261.5	7,595.6	0.00	0.00	0.00
15,300.0	90.00	359.11	7,272.0	7,377.5	2,259.9	7,692.8	0.00	0.00	0.00
15,400.0	90.00	359.11	7,272.0	7,477.5	2,258.4	7,790.1	0.00	0.00	0.00
15,500.0	90.00	359.11	7,272.0	7,577.5	2,256.8	7,887.3	0.00	0.00	0.00
15,600.0	90.00	359.11	7,272.0	7,677.5	2,255.2	7,984.5	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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	359.11	7,272.0	7,777.5	2,253.7	8,081.8	0.00	0.00	0.00
15,800.0	90.00	359.11	7,272.0	7,877.5	2,252.1	8,179.0	0.00	0.00	0.00
15,900.0	90.00	359.11	7,272.0	7,977.5	2,250.6	8,276.3	0.00	0.00	0.00
16,000.0	90.00	359.11	7,272.0	8,077.5	2,249.0	8,373.5	0.00	0.00	0.00
16,100.0	90.00	359.11	7,272.0	8,177.5	2,247.4	8,470.7	0.00	0.00	0.00
16,200.0	90.00	359.11	7,272.0	8,277.4	2,245.9	8,568.0	0.00	0.00	0.00
16,300.0	90.00	359.11	7,272.0	8,377.4	2,244.3	8,665.2	0.00	0.00	0.00
16,400.0	90.00	359.11	7,272.0	8,477.4	2,242.8	8,762.5	0.00	0.00	0.00
16,500.0	90.00	359.11	7,272.0	8,577.4	2,241.2	8,859.7	0.00	0.00	0.00
16,600.0	90.00	359.11	7,272.0	8,677.4	2,239.7	8,957.0	0.00	0.00	0.00
16,700.0	90.00	359.11	7,272.0	8,777.4	2,238.1	9,054.2	0.00	0.00	0.00
16,800.0	90.00	359.11	7,272.0	8,877.4	2,236.5	9,151.4	0.00	0.00	0.00
16,900.0	90.00	359.11	7,272.0	8,977.4	2,235.0	9,248.7	0.00	0.00	0.00
17,000.0	90.00	359.11	7,272.0	9,077.3	2,233.4	9,345.9	0.00	0.00	0.00
17,100.0	90.00	359.11	7,272.0	9,177.3	2,231.9	9,443.2	0.00	0.00	0.00
17,200.0	90.00	359.11	7,272.0	9,277.3	2,230.3	9,540.4	0.00	0.00	0.00
17,300.0	90.00	359.11	7,272.0	9,377.3	2,228.7	9,637.6	0.00	0.00	0.00
17,400.0	90.00	359.11	7,272.0	9,477.3	2,227.2	9,734.9	0.00	0.00	0.00
17,500.0	90.00	359.11	7,272.0	9,577.3	2,225.6	9,832.1	0.00	0.00	0.00
17,600.0	90.00	359.11	7,272.0	9,677.3	2,224.1	9,929.4	0.00	0.00	0.00
17,700.0	90.00	359.11	7,272.0	9,777.3	2,222.5	10,026.6	0.00	0.00	0.00
17,800.0	90.00	359.11	7,272.0	9,877.2	2,220.9	10,123.9	0.00	0.00	0.00
17,858.4	90.00	359.11	7,272.0	9,935.6	2,220.0	10,180.6	0.00	0.00	0.00
CONNER 19-18-4NBH BHL (355 FNL, 490 FEL)									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CONNER 19-18-4NBH E - plan hits target center - Point	0.00	0.00	7,272.0	9,935.6	2,220.0	1,233,491.12	3,224,454.88	39.971534	-104.699139
CONNER 19-18-4NBH L - plan hits target center - Point	0.00	0.00	7,272.0	121.6	2,373.1	1,223,677.14	3,224,607.89	39.944590	-104.698909



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-4NBH

OH

PLAN #2

Anticollision Report

28 June, 2021



Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	Offset TVD Reference:	Offset Datum

Reference	PLAN #2		
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	6/28/2021		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	17,858.4	PLAN #2 (OH)	MWD	OWSG MWD - Standard

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	500.0	500.0	225.0	221.0	56.280	CC, ES
CONNER 19-18-1CDH - OH - PLAN #1	1,000.0	964.0	291.1	280.2	26.608	SF
CONNER 19-18-1NBH - OH - PLAN #1	500.0	500.0	180.0	178.0	90.029	CC, ES
CONNER 19-18-1NBH - OH - PLAN #1	1,000.0	992.0	223.9	218.1	38.743	SF
CONNER 19-18-1NCH - OH - PLAN #1	500.0	500.0	195.0	193.0	97.534	CC, ES
CONNER 19-18-1NCH - OH - PLAN #1	1,000.0	983.9	243.2	237.5	42.304	SF
CONNER 19-18-1NXH - OH - PLAN #1	500.0	500.0	210.0	206.0	52.523	CC, ES
CONNER 19-18-1NXH - OH - PLAN #1	1,100.0	1,062.7	294.2	282.4	25.049	SF
CONNER 19-18-2CDH - OH - PLAN #1	500.0	500.0	164.9	163.0	82.519	CC, ES
CONNER 19-18-2CDH - OH - PLAN #1	1,100.0	1,091.6	227.4	221.0	35.561	SF
CONNER 19-18-2NBH - OH - PLAN #1	500.0	500.0	120.0	118.0	60.025	CC, ES
CONNER 19-18-2NBH - OH - PLAN #1	1,000.0	997.5	162.8	157.0	28.008	SF
CONNER 19-18-2NCH - OH - PLAN #1	500.0	500.0	135.0	131.0	33.767	CC, ES
CONNER 19-18-2NCH - OH - PLAN #1	1,000.0	997.5	177.8	168.2	18.534	SF
CONNER 19-18-2NXH - OH - PLAN #1	500.0	500.0	150.0	148.0	75.032	CC, ES
CONNER 19-18-2NXH - OH - PLAN #1	1,100.0	1,095.6	211.6	205.2	32.977	SF
CONNER 19-18-3CDH - OH - PLAN #1	500.0	500.0	105.0	101.0	26.265	CC, ES
CONNER 19-18-3CDH - OH - PLAN #1	1,000.0	997.5	147.8	138.2	15.405	SF
CONNER 19-18-3NBH - OH - PLAN #1	500.0	500.0	59.9	57.9	29.988	CC, ES
CONNER 19-18-3NBH - OH - PLAN #1	900.0	898.7	87.4	82.2	16.871	SF
CONNER 19-18-3NCH - OH - PLAN #1	500.0	500.0	75.0	71.0	18.753	CC, ES
CONNER 19-18-3NCH - OH - PLAN #1	900.0	898.7	102.4	93.8	11.917	SF
CONNER 19-18-3NXH - OH - PLAN #1	500.0	500.0	89.9	87.9	44.996	CC, ES
CONNER 19-18-3NXH - OH - PLAN #1	900.0	898.7	117.4	112.2	22.726	SF
CONNER 19-18-4CDH - OH - PLAN #1	500.0	500.0	45.0	41.0	11.245	CC, ES
CONNER 19-18-4CDH - OH - PLAN #1	17,800.0	18,014.8	682.7	349.5	2.049	SF
CONNER 19-18-4NCH - OH - PLAN #1	500.0	500.0	15.0	11.0	3.757	CC, ES
CONNER 19-18-4NCH - OH - PLAN #1	17,856.1	18,047.9	230.9	19.8	1.094	Level 2, SF
CONNER 19-18-4NXH - OH - PLAN #1	500.0	500.0	30.0	28.0	15.008	CC, ES
CONNER 19-18-4NXH - OH - PLAN #1	17,857.6	17,723.1	229.1	55.2	1.317	Level 3, SF
Gail #1 (PR) - EXISTING - NO SURVEYS (PR)						Out of range
Gail Smith #1 (PR) - EXISTING - NO SURVEYS (PR)						Out of range
Milheim #1 (P&A) - EXISTING - NO SURVEYS (P&A)						Out of range
Price 7-19 (SI) - EXISTING - NO SURVEYS (SI)						Out of range
Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)	17,094.3	7,203.0	548.7	355.3	2.838	CC, ES, SF
Tracy #1 (PR) - EXISTING - NO SURVEYS (PR)						Out of range
UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)						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 19-18-4NBH
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 19-18-4NBH	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 #2	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						

Offset Design													Offset Site Error:	
Survey Program: 0-MWD													Offset Well Error:	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.30	-1.2	-225.0	225.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.30	-1.2	-225.0	225.0	224.4	0.55	406.358		
200.0	200.0	200.0	200.0	1.0	1.0	-90.30	-1.2	-225.0	225.0	223.4	1.60	141.024		
300.0	300.0	300.0	300.0	1.5	1.5	-90.30	-1.2	-225.0	225.0	222.5	2.45	91.883		
400.0	400.0	400.0	400.0	1.9	1.9	-90.30	-1.2	-225.0	225.0	221.7	3.24	69.517		
500.0	500.0	500.0	500.0	2.3	2.3	-90.30	-1.2	-225.0	225.0	221.0	4.00	56.280	CC, ES	
600.0	600.0	600.0	600.0	2.8	2.7	167.95	-1.2	-225.0	226.7	221.6	5.04	44.978		
700.0	699.8	692.8	692.8	3.7	3.0	168.04	-1.7	-226.4	233.3	226.9	6.41	36.396		
800.0	799.5	784.8	784.7	4.6	3.8	168.00	-3.4	-230.5	246.3	238.2	8.15	30.220		
900.0	898.7	875.4	874.9	5.3	4.6	167.84	-6.0	-237.3	265.6	256.0	9.65	27.534		
1,000.0	997.5	964.0	963.1	6.0	5.3	167.59	-9.6	-246.5	291.1	280.2	10.94	26.608	SF	
1,100.0	1,095.6	1,050.3	1,048.5	6.7	6.0	167.29	-14.1	-257.8	322.6	310.5	12.09	26.684		
1,200.0	1,193.1	1,133.8	1,130.7	7.3	6.5	166.94	-19.3	-271.1	359.9	346.8	13.08	27.507		
1,300.0	1,289.6	1,218.2	1,213.5	7.8	6.8	166.57	-25.4	-286.6	402.5	388.6	13.88	29.009		
1,400.0	1,385.3	1,306.9	1,300.3	8.4	7.0	166.29	-32.0	-303.3	448.7	434.1	14.56	30.817		
1,500.0	1,479.8	1,394.0	1,385.6	8.9	7.3	166.10	-38.4	-319.7	497.8	482.6	15.26	32.627		
1,600.0	1,573.2	1,479.5	1,469.3	9.3	7.5	166.07	-44.7	-335.8	549.7	533.9	15.82	34.749		
1,700.0	1,666.4	1,564.5	1,552.6	9.5	7.7	166.22	-51.0	-351.8	602.3	585.9	16.32	36.892		
1,800.0	1,759.5	1,649.6	1,636.0	9.8	8.0	166.35	-57.3	-367.8	654.8	638.0	16.85	38.857		
1,900.0	1,852.7	1,734.7	1,719.3	10.2	8.3	166.46	-63.6	-383.8	707.4	690.0	17.39	40.666		
2,000.0	1,945.8	1,819.7	1,802.6	10.5	8.5	166.55	-69.9	-399.9	759.9	742.0	17.95	42.332		
2,100.0	2,039.0	1,904.8	1,885.9	11.0	8.8	166.63	-76.2	-415.9	812.5	794.0	18.52	43.866		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.29	-0.9	-180.0	180.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.29	-0.9	-180.0	180.0	179.7	0.28	649.652		
200.0	200.0	200.0	200.0	1.0	0.0	-90.29	-0.9	-180.0	180.0	179.2	0.80	225.563		
300.0	300.0	300.0	300.0	1.5	0.0	-90.29	-0.9	-180.0	180.0	178.7	1.22	146.974		
400.0	400.0	400.0	400.0	1.9	0.0	-90.29	-0.9	-180.0	180.0	178.3	1.62	111.202		
500.0	500.0	500.0	500.0	2.3	0.0	-90.29	-0.9	-180.0	180.0	178.0	2.00	90.029 CC, ES		
600.0	600.0	600.0	600.0	2.8	0.0	167.98	-0.9	-180.0	181.7	179.0	2.67	68.072		
700.0	699.8	699.8	699.8	3.7	0.0	168.30	-0.9	-180.0	186.8	183.1	3.64	51.350		
800.0	799.5	799.5	799.5	4.6	0.0	168.78	-0.9	-180.0	195.3	190.9	4.43	44.050		
900.0	898.7	898.7	898.7	5.3	0.0	169.39	-0.9	-180.0	207.3	202.2	5.14	40.316		
1,000.0	997.5	992.0	992.0	6.0	0.0	169.79	-1.8	-181.1	223.9	218.1	5.78	38.743 SF		
1,100.0	1,095.6	1,083.7	1,083.6	6.7	0.0	169.77	-4.6	-184.6	246.3	239.9	6.35	38.756		
1,200.0	1,193.1	1,173.5	1,173.1	7.3	0.0	169.44	-9.0	-190.2	274.3	267.4	6.88	39.889		
1,300.0	1,289.6	1,260.9	1,259.9	7.8	0.0	168.89	-15.0	-197.7	307.9	300.5	7.35	41.866		
1,400.0	1,385.3	1,351.5	1,349.7	8.4	0.0	168.28	-22.5	-207.1	346.2	338.4	7.82	44.262		
1,500.0	1,479.8	1,442.4	1,439.9	8.9	0.0	167.83	-30.0	-216.5	387.7	379.4	8.28	46.803		
1,600.0	1,573.2	1,532.0	1,528.7	9.3	0.0	167.58	-37.4	-225.8	432.1	423.5	8.59	50.280		
1,700.0	1,666.4	1,621.3	1,617.1	9.5	0.0	167.52	-44.8	-235.1	477.3	468.4	8.84	53.976		
1,800.0	1,759.5	1,710.5	1,705.6	9.8	0.0	167.47	-52.2	-244.3	522.4	513.3	9.11	57.356		
1,900.0	1,852.7	1,799.7	1,794.0	10.2	0.0	167.42	-59.5	-253.6	567.5	558.1	9.38	60.470		
2,000.0	1,945.8	1,889.0	1,882.5	10.5	0.0	167.39	-66.9	-262.9	612.6	602.9	9.67	63.336		
2,100.0	2,039.0	1,978.2	1,970.9	11.0	0.0	167.35	-74.3	-272.1	657.7	647.8	9.97	65.973		
2,200.0	2,132.1	2,067.5	2,059.4	11.5	0.0	167.33	-81.7	-281.4	702.8	692.6	10.28	68.399		
2,300.0	2,225.3	2,156.7	2,147.8	12.1	0.0	167.30	-89.0	-290.7	748.0	737.4	10.59	70.631		
2,400.0	2,318.4	2,245.9	2,236.3	12.8	0.0	167.28	-96.4	-299.9	793.1	782.2	10.91	72.685		
2,500.0	2,411.6	2,335.2	2,324.7	13.5	0.0	167.26	-103.8	-309.2	838.2	827.0	11.24	74.578		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.29	-1.0	-195.0	195.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.29	-1.0	-195.0	195.0	194.7	0.28	703.819		
200.0	200.0	200.0	200.0	1.0	0.0	-90.29	-1.0	-195.0	195.0	194.2	0.80	244.369		
300.0	300.0	300.0	300.0	1.5	0.0	-90.29	-1.0	-195.0	195.0	193.7	1.22	159.228		
400.0	400.0	400.0	400.0	1.9	0.0	-90.29	-1.0	-195.0	195.0	193.3	1.62	120.473		
500.0	500.0	500.0	500.0	2.3	0.0	-90.29	-1.0	-195.0	195.0	193.0	2.00	97.534 CC, ES		
600.0	600.0	600.0	600.0	2.8	0.0	167.98	-1.0	-195.0	196.7	194.0	2.67	73.691		
700.0	699.8	699.8	699.8	3.7	0.0	168.27	-1.0	-195.0	201.8	198.1	3.64	55.476		
800.0	799.5	799.5	799.5	4.6	0.0	168.72	-1.0	-195.0	210.3	205.9	4.43	47.442		
900.0	898.7	892.4	892.4	5.3	0.0	169.06	-1.7	-196.3	223.7	218.6	5.13	43.611		
1,000.0	997.5	983.9	983.8	6.0	0.0	169.14	-3.7	-200.2	243.2	237.5	5.75	42.304 SF		
1,100.0	1,095.6	1,073.5	1,073.1	6.7	0.0	169.00	-7.0	-206.5	268.8	262.5	6.31	42.611		
1,200.0	1,193.1	1,160.8	1,159.8	7.3	0.0	168.70	-11.4	-215.1	300.3	293.5	6.82	44.057		
1,300.0	1,289.6	1,245.3	1,243.5	7.8	0.0	168.30	-16.8	-225.6	337.5	330.2	7.28	46.362		
1,400.0	1,385.3	1,330.6	1,327.6	8.4	0.0	167.84	-23.4	-238.3	380.0	372.2	7.72	49.194		
1,500.0	1,479.8	1,419.5	1,415.2	8.9	0.0	167.47	-30.3	-251.8	425.9	417.7	8.18	52.085		
1,600.0	1,573.2	1,506.8	1,501.2	9.3	0.0	167.29	-37.2	-265.1	474.6	466.2	8.48	55.950		
1,700.0	1,666.4	1,593.7	1,586.8	9.5	0.0	167.30	-44.0	-278.3	524.1	515.3	8.73	60.051		
1,800.0	1,759.5	1,680.6	1,672.4	9.8	0.0	167.30	-50.9	-291.6	573.5	564.5	8.99	63.809		
1,900.0	1,852.7	1,767.5	1,758.1	10.2	0.0	167.31	-57.7	-304.8	622.9	613.7	9.26	67.277		
2,000.0	1,945.8	1,854.5	1,843.7	10.5	0.0	167.31	-64.5	-318.1	672.4	662.8	9.54	70.474		
2,100.0	2,039.0	1,941.4	1,929.4	11.0	0.0	167.31	-71.4	-331.3	721.8	712.0	9.83	73.420		
2,200.0	2,132.1	2,028.3	2,015.0	11.5	0.0	167.32	-78.2	-344.5	771.2	761.1	10.13	76.135		
2,300.0	2,225.3	2,115.3	2,100.7	12.1	0.0	167.32	-85.0	-357.8	820.6	810.2	10.44	78.637		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.29	-1.1	-209.9	210.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.29	-1.1	-209.9	210.0	209.4	0.55	379.250		
200.0	200.0	200.0	200.0	1.0	1.0	-90.29	-1.1	-209.9	210.0	208.4	1.60	131.615		
300.0	300.0	300.0	300.0	1.5	1.5	-90.29	-1.1	-209.9	210.0	207.5	2.45	85.752		
400.0	400.0	400.0	400.0	1.9	1.9	-90.29	-1.1	-209.9	210.0	206.7	3.24	64.878		
500.0	500.0	500.0	500.0	2.3	2.3	-90.29	-1.1	-209.9	210.0	206.0	4.00	52.523 CC, ES		
600.0	600.0	600.0	600.0	2.8	2.7	167.97	-1.1	-209.9	211.7	206.6	5.04	42.000		
700.0	699.8	699.8	699.8	3.7	3.1	168.23	-1.1	-209.9	216.8	210.4	6.37	34.016		
800.0	799.5	792.8	792.8	4.6	3.4	168.46	-1.7	-211.3	226.8	219.2	7.55	30.028		
900.0	898.7	884.6	884.4	5.3	4.2	168.50	-3.5	-215.4	243.1	234.0	9.13	26.627		
1,000.0	997.5	974.7	974.3	6.0	4.9	168.37	-6.4	-222.0	265.6	255.1	10.52	25.243		
1,100.0	1,095.6	1,062.7	1,061.7	6.7	5.6	168.12	-10.3	-230.9	294.2	282.4	11.74	25.049 SF		
1,200.0	1,193.1	1,148.1	1,146.3	7.3	6.2	167.79	-15.2	-242.0	328.6	315.8	12.84	25.596		
1,300.0	1,289.6	1,230.5	1,227.5	7.8	6.7	167.41	-20.8	-254.8	368.7	354.9	13.78	26.758		
1,400.0	1,385.3	1,314.2	1,309.5	8.4	7.0	167.00	-27.4	-269.7	414.0	399.4	14.52	28.511		
1,500.0	1,479.8	1,401.5	1,395.1	8.9	7.2	166.67	-34.4	-285.7	462.6	447.4	15.19	30.446		
1,600.0	1,573.2	1,487.3	1,479.2	9.3	7.5	166.53	-41.3	-301.3	514.0	498.3	15.76	32.625		
1,700.0	1,666.4	1,572.7	1,562.8	9.5	7.7	166.58	-48.2	-316.9	566.1	549.8	16.26	34.813		
1,800.0	1,759.5	1,658.0	1,646.5	9.8	7.9	166.63	-55.1	-332.5	618.2	601.4	16.79	36.820		
1,900.0	1,852.7	1,743.4	1,730.1	10.2	8.2	166.66	-61.9	-348.1	670.2	652.9	17.33	38.667		
2,000.0	1,945.8	1,828.8	1,813.8	10.5	8.5	166.70	-68.8	-363.7	722.3	704.4	17.89	40.369		
2,100.0	2,039.0	1,914.2	1,897.5	11.0	8.7	166.72	-75.7	-379.3	774.4	755.9	18.47	41.937		
2,200.0	2,132.1	1,999.5	1,981.1	11.5	9.0	166.75	-82.5	-394.9	826.5	807.4	19.05	43.381		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	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									
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	-90.30	-0.9	-164.9	164.9				
100.0	100.0	100.0	100.0	0.4	0.0	-90.30	-0.9	-164.9	164.9	164.7	0.28	595.444	
200.0	200.0	200.0	200.0	1.0	0.0	-90.30	-0.9	-164.9	164.9	164.2	0.80	206.744	
300.0	300.0	300.0	300.0	1.5	0.0	-90.30	-0.9	-164.9	164.9	163.7	1.22	134.713	
400.0	400.0	400.0	400.0	1.9	0.0	-90.30	-0.9	-164.9	164.9	163.3	1.62	101.926	
500.0	500.0	500.0	500.0	2.3	0.0	-90.30	-0.9	-164.9	164.9	163.0	2.00	82.519 CC, ES	
600.0	600.0	600.0	600.0	2.8	0.0	167.99	-0.9	-164.9	166.7	164.0	2.67	62.450	
700.0	699.8	699.8	699.8	3.7	0.0	168.33	-0.9	-164.9	171.8	168.1	3.64	47.222	
800.0	799.5	799.5	799.5	4.6	0.0	168.86	-0.9	-164.9	180.3	175.9	4.44	40.657	
900.0	898.7	898.7	898.7	5.3	0.0	169.52	-0.9	-164.9	192.3	187.2	5.14	37.383	
1,000.0	997.5	997.5	997.5	6.0	0.0	170.25	-0.9	-164.9	207.7	201.9	5.80	35.829	
1,100.0	1,095.6	1,091.6	1,091.6	6.7	0.0	170.66	-2.0	-165.8	227.4	221.0	6.39	35.561 SF	
1,200.0	1,193.1	1,184.2	1,184.1	7.3	0.0	170.50	-5.6	-168.4	252.2	245.2	6.94	36.349	
1,300.0	1,289.6	1,275.0	1,274.6	7.8	0.0	169.93	-11.5	-172.7	282.0	274.5	7.43	37.930	
1,400.0	1,385.3	1,368.9	1,368.0	8.4	0.0	169.28	-18.8	-178.1	315.9	308.0	7.92	39.896	
1,500.0	1,479.8	1,461.7	1,460.4	8.9	0.0	168.82	-26.1	-183.3	353.1	344.7	8.39	42.076	
1,600.0	1,573.2	1,553.3	1,551.5	9.3	0.0	168.56	-33.2	-188.6	393.3	384.6	8.71	45.166	
1,700.0	1,666.4	1,644.5	1,642.4	9.5	0.0	168.47	-40.3	-193.7	434.1	425.2	8.96	48.469	
1,800.0	1,759.5	1,735.8	1,733.2	9.8	0.0	168.39	-47.4	-198.9	475.0	465.8	9.23	51.486	
1,900.0	1,852.7	1,827.1	1,824.1	10.2	0.0	168.33	-54.6	-204.1	515.9	506.4	9.51	54.264	
2,000.0	1,945.8	1,918.3	1,914.9	10.5	0.0	168.27	-61.7	-209.3	556.7	546.9	9.80	56.820	
2,100.0	2,039.0	2,009.6	2,005.7	11.0	0.0	168.22	-68.8	-214.5	597.6	587.5	10.10	59.171	
2,200.0	2,132.1	2,100.9	2,096.6	11.5	0.0	168.18	-75.9	-219.7	638.5	628.1	10.41	61.331	
2,300.0	2,225.3	2,192.1	2,187.4	12.1	0.0	168.14	-83.0	-224.9	679.3	668.6	10.73	63.319	
2,400.0	2,318.4	2,283.4	2,278.3	12.8	0.0	168.11	-90.1	-230.1	720.2	709.2	11.06	65.147	
2,500.0	2,411.6	2,374.7	2,369.1	13.5	0.0	168.08	-97.3	-235.3	761.1	749.7	11.39	66.830	
2,600.0	2,504.7	2,465.9	2,459.9	14.2	0.0	168.06	-104.4	-240.5	802.0	790.2	11.73	68.382	
2,700.0	2,597.8	2,557.2	2,550.8	14.9	0.0	168.03	-111.5	-245.7	842.8	830.8	12.07	69.813	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)			
0.0	0.0	0.0	0.0	0.0	0.0	-90.29	-0.6	-120.0	120.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.29	-0.6	-120.0	120.0	119.7	0.28	433.155		
200.0	200.0	200.0	200.0	1.0	0.0	-90.29	-0.6	-120.0	120.0	119.2	0.80	150.393		
300.0	300.0	300.0	300.0	1.5	0.0	-90.29	-0.6	-120.0	120.0	118.8	1.22	97.993		
400.0	400.0	400.0	400.0	1.9	0.0	-90.29	-0.6	-120.0	120.0	118.4	1.62	74.142		
500.0	500.0	500.0	500.0	2.3	0.0	-90.29	-0.6	-120.0	120.0	118.0	2.00	60.025 CC, ES		
600.0	600.0	600.0	600.0	2.8	0.0	168.05	-0.6	-120.0	121.7	119.0	2.67	45.605		
700.0	699.8	699.8	699.8	3.7	0.0	168.52	-0.6	-120.0	126.8	123.2	3.64	34.850		
800.0	799.5	799.5	799.5	4.6	0.0	169.22	-0.6	-120.0	135.4	130.9	4.44	30.488		
900.0	898.7	898.7	898.7	5.3	0.0	170.06	-0.6	-120.0	147.4	142.2	5.15	28.591		
1,000.0	997.5	997.5	997.5	6.0	0.0	170.96	-0.6	-120.0	162.8	157.0	5.81	28.008 SF		
1,100.0	1,095.6	1,095.6	1,095.6	6.7	0.0	171.85	-0.6	-120.0	181.7	175.2	6.43	28.250		
1,200.0	1,193.1	1,193.1	1,193.1	7.3	0.0	172.69	-0.6	-120.0	204.0	196.9	7.02	29.067		
1,300.0	1,289.6	1,289.6	1,289.6	7.8	0.0	173.45	-0.6	-120.0	229.7	222.1	7.58	30.312		
1,400.0	1,385.3	1,390.8	1,390.8	8.4	0.0	173.93	-1.8	-119.1	257.8	249.7	8.13	31.723		
1,500.0	1,479.8	1,493.1	1,493.0	8.9	0.0	173.82	-5.8	-116.1	287.0	278.4	8.65	33.172		
1,600.0	1,573.2	1,595.8	1,595.3	9.3	0.0	173.31	-12.8	-110.8	317.0	308.0	8.98	35.288		
1,700.0	1,666.4	1,692.2	1,691.1	9.5	0.0	172.70	-21.1	-104.6	346.4	337.1	9.22	37.553		
1,800.0	1,759.5	1,787.8	1,786.1	9.8	0.0	172.19	-29.2	-98.5	375.7	366.3	9.49	39.610		
1,900.0	1,852.7	1,883.3	1,881.1	10.2	0.0	171.75	-37.4	-92.4	405.1	395.4	9.76	41.496		
2,000.0	1,945.8	1,978.8	1,976.1	10.5	0.0	171.37	-45.6	-86.2	434.6	424.5	10.05	43.222		
2,100.0	2,039.0	2,074.4	2,071.1	11.0	0.0	171.04	-53.8	-80.1	464.0	453.6	10.36	44.799		
2,200.0	2,132.1	2,169.9	2,166.1	11.5	0.0	170.74	-62.0	-73.9	493.4	482.8	10.67	46.240		
2,300.0	2,225.3	2,265.4	2,261.1	12.1	0.0	170.49	-70.2	-67.8	522.9	511.9	11.00	47.557		
2,400.0	2,318.4	2,361.0	2,356.1	12.8	0.0	170.25	-78.4	-61.7	552.4	541.0	11.33	48.760		
2,500.0	2,411.6	2,456.5	2,451.0	13.5	0.0	170.05	-86.6	-55.5	581.8	570.2	11.67	49.859		
2,600.0	2,504.7	2,552.1	2,546.0	14.2	0.0	169.86	-94.8	-49.4	611.3	599.3	12.02	50.865		
2,700.0	2,597.8	2,647.6	2,641.0	14.9	0.0	169.69	-102.9	-43.3	640.8	628.4	12.37	51.786		
2,800.0	2,691.0	2,743.1	2,736.0	15.7	0.0	169.53	-111.1	-37.1	670.3	657.6	12.74	52.630		
2,900.0	2,784.1	2,838.7	2,831.0	16.4	0.0	169.39	-119.3	-31.0	699.8	686.7	13.10	53.404		
3,000.0	2,877.3	2,934.2	2,926.0	17.2	0.0	169.26	-127.5	-24.8	729.3	715.8	13.48	54.115		
3,100.0	2,970.4	3,029.7	3,021.0	17.9	0.0	169.14	-135.7	-18.7	758.8	744.9	13.85	54.769		
3,200.0	3,063.6	3,125.3	3,116.0	18.6	0.0	169.02	-143.9	-12.6	788.3	774.1	14.24	55.371		
3,300.0	3,156.7	3,220.8	3,211.0	19.4	0.0	168.92	-152.1	-6.4	817.8	803.2	14.62	55.927		
3,400.0	3,249.9	3,316.4	3,305.9	20.2	0.0	168.82	-160.3	-0.3	847.3	832.3	15.01	56.440		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NCH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
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	-90.30	-0.7	-135.0	135.0				
100.0	100.0	100.0	100.0	0.4	0.4	-90.30	-0.7	-135.0	135.0	134.4	0.55	243.811	
200.0	200.0	200.0	200.0	1.0	1.0	-90.30	-0.7	-135.0	135.0	133.4	1.60	84.613	
300.0	300.0	300.0	300.0	1.5	1.5	-90.30	-0.7	-135.0	135.0	132.5	2.45	55.128	
400.0	400.0	400.0	400.0	1.9	1.9	-90.30	-0.7	-135.0	135.0	131.7	3.24	41.709	
500.0	500.0	500.0	500.0	2.3	2.3	-90.30	-0.7	-135.0	135.0	131.0	4.00	33.767	CC, ES
600.0	600.0	600.0	600.0	2.8	2.7	168.02	-0.7	-135.0	136.7	131.6	5.04	27.128	
700.0	699.8	699.8	699.8	3.7	3.1	168.44	-0.7	-135.0	141.8	135.4	6.37	22.257	
800.0	799.5	799.5	799.5	4.6	3.5	169.07	-0.7	-135.0	150.4	142.8	7.53	19.976	
900.0	898.7	898.7	898.7	5.3	3.9	169.84	-0.7	-135.0	162.3	153.8	8.59	18.901	
1,000.0	997.5	997.5	997.5	6.0	4.2	170.68	-0.7	-135.0	177.8	168.2	9.59	18.534	SF
1,100.0	1,095.6	1,095.6	1,095.6	6.7	4.6	171.53	-0.7	-135.0	196.6	186.1	10.55	18.637	
1,200.0	1,193.1	1,193.1	1,193.1	7.3	5.0	172.33	-0.7	-135.0	218.9	207.4	11.47	19.077	
1,300.0	1,289.6	1,290.8	1,290.8	7.8	5.3	172.74	-2.1	-134.9	244.4	232.0	12.33	19.814	
1,400.0	1,385.3	1,388.1	1,387.9	8.4	5.9	172.43	-6.9	-134.5	272.7	259.5	13.15	20.732	
1,500.0	1,479.8	1,483.8	1,483.3	8.9	6.3	171.68	-14.4	-134.0	303.9	289.9	13.94	21.794	
1,600.0	1,573.2	1,577.7	1,576.9	9.3	6.5	171.09	-22.1	-133.5	338.1	323.6	14.57	23.206	
1,700.0	1,666.4	1,671.3	1,670.2	9.5	6.8	170.69	-29.9	-133.0	373.1	358.0	15.14	24.641	
1,800.0	1,759.5	1,765.0	1,763.5	9.8	7.2	170.36	-37.7	-132.4	408.1	392.4	15.74	25.927	
1,900.0	1,852.7	1,858.6	1,856.9	10.2	7.5	170.08	-45.5	-131.9	443.2	426.8	16.36	27.092	
2,000.0	1,945.8	1,952.2	1,950.2	10.5	7.8	169.84	-53.2	-131.3	478.2	461.2	16.99	28.148	
2,100.0	2,039.0	2,045.9	2,043.5	11.0	8.1	169.63	-61.0	-130.8	513.2	495.6	17.63	29.106	
2,200.0	2,132.1	2,139.5	2,136.8	11.5	8.4	169.45	-68.8	-130.3	548.3	530.0	18.29	29.978	
2,300.0	2,225.3	2,233.2	2,230.2	12.1	8.8	169.29	-76.6	-129.7	583.3	564.4	18.96	30.771	
2,400.0	2,318.4	2,326.8	2,323.5	12.8	9.1	169.15	-84.3	-129.2	618.4	598.7	19.63	31.495	
2,500.0	2,411.6	2,420.5	2,416.8	13.5	9.4	169.02	-92.1	-128.7	653.4	633.1	20.32	32.157	
2,600.0	2,504.7	2,514.1	2,510.1	14.2	9.8	168.91	-99.9	-128.1	688.5	667.5	21.01	32.763	
2,700.0	2,597.8	2,607.8	2,603.4	14.9	10.1	168.81	-107.7	-127.6	723.5	701.8	21.72	33.318	
2,800.0	2,691.0	2,701.4	2,696.8	15.7	10.4	168.71	-115.4	-127.0	758.6	736.2	22.42	33.830	
2,900.0	2,784.1	2,795.1	2,790.1	16.4	10.8	168.63	-123.2	-126.5	793.6	770.5	23.14	34.300	
3,000.0	2,877.3	2,888.7	2,883.4	17.2	11.1	168.55	-131.0	-126.0	828.7	804.8	23.86	34.735	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	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
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	-90.29	-0.8	-150.0	150.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.29	-0.8	-150.0	150.0	149.7	0.28	541.444		
200.0	200.0	200.0	200.0	1.0	0.0	-90.29	-0.8	-150.0	150.0	149.2	0.80	187.992		
300.0	300.0	300.0	300.0	1.5	0.0	-90.29	-0.8	-150.0	150.0	148.8	1.22	122.493		
400.0	400.0	400.0	400.0	1.9	0.0	-90.29	-0.8	-150.0	150.0	148.4	1.62	92.679		
500.0	500.0	500.0	500.0	2.3	0.0	-90.29	-0.8	-150.0	150.0	148.0	2.00	75.032 CC, ES		
600.0	600.0	600.0	600.0	2.8	0.0	168.01	-0.8	-150.0	151.7	149.0	2.67	56.842		
700.0	699.8	699.8	699.8	3.7	0.0	168.39	-0.8	-150.0	156.8	153.2	3.64	43.103		
800.0	799.5	799.5	799.5	4.6	0.0	168.96	-0.8	-150.0	165.4	160.9	4.44	37.271		
900.0	898.7	898.7	898.7	5.3	0.0	169.67	-0.8	-150.0	177.3	172.2	5.15	34.455		
1,000.0	997.5	997.5	997.5	6.0	0.0	170.45	-0.8	-150.0	192.7	186.9	5.80	33.224		
1,100.0	1,095.6	1,095.6	1,095.6	6.7	0.0	171.25	-0.8	-150.0	211.6	205.2	6.42	32.977 SF		
1,200.0	1,193.1	1,190.7	1,190.7	7.3	0.0	171.66	-2.1	-150.5	234.3	227.3	6.99	33.547		
1,300.0	1,289.6	1,284.3	1,284.2	7.8	0.0	171.41	-6.2	-152.2	261.4	253.9	7.51	34.829		
1,400.0	1,385.3	1,376.7	1,376.2	8.4	0.0	170.70	-13.1	-155.1	292.9	284.9	7.99	36.660		
1,500.0	1,479.8	1,470.3	1,469.4	8.9	0.0	169.98	-21.0	-158.4	328.0	319.5	8.46	38.767		
1,600.0	1,573.2	1,562.7	1,561.5	9.3	0.0	169.51	-28.9	-161.6	366.1	357.3	8.77	41.748		
1,700.0	1,666.4	1,654.8	1,653.2	9.5	0.0	169.22	-36.8	-164.9	404.9	395.9	9.01	44.926		
1,800.0	1,759.5	1,746.9	1,744.9	9.8	0.0	168.98	-44.6	-168.1	443.8	434.5	9.28	47.828		
1,900.0	1,852.7	1,839.1	1,836.7	10.2	0.0	168.79	-52.5	-171.4	482.7	473.1	9.56	50.499		
2,000.0	1,945.8	1,931.2	1,928.4	10.5	0.0	168.62	-60.3	-174.7	521.5	511.7	9.85	52.954		
2,100.0	2,039.0	2,023.3	2,020.1	11.0	0.0	168.47	-68.1	-177.9	560.4	550.3	10.15	55.210		
2,200.0	2,132.1	2,115.4	2,111.9	11.5	0.0	168.35	-76.0	-181.2	599.3	588.8	10.46	57.282		
2,300.0	2,225.3	2,207.6	2,203.6	12.1	0.0	168.24	-83.8	-184.4	638.2	627.4	10.78	59.186		
2,400.0	2,318.4	2,299.7	2,295.3	12.8	0.0	168.14	-91.7	-187.7	677.0	665.9	11.11	60.936		
2,500.0	2,411.6	2,391.8	2,387.1	13.5	0.0	168.05	-99.5	-190.9	715.9	704.5	11.45	62.545		
2,600.0	2,504.7	2,484.0	2,478.8	14.2	0.0	167.97	-107.4	-194.2	754.8	743.0	11.79	64.026		
2,700.0	2,597.8	2,576.1	2,570.5	14.9	0.0	167.90	-115.2	-197.4	793.7	781.5	12.14	65.391		
2,800.0	2,691.0	2,668.2	2,662.3	15.7	0.0	167.84	-123.1	-200.7	832.6	820.1	12.49	66.650		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	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-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.27	-0.5	-105.0	105.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.27	-0.5	-105.0	105.0	104.4	0.55	189.668		
200.0	200.0	200.0	200.0	1.0	1.0	-90.27	-0.5	-105.0	105.0	103.4	1.59	65.820		
300.0	300.0	300.0	300.0	1.5	1.5	-90.27	-0.5	-105.0	105.0	102.5	2.45	42.883		
400.0	400.0	400.0	400.0	1.9	1.9	-90.27	-0.5	-105.0	105.0	101.7	3.24	32.443		
500.0	500.0	500.0	500.0	2.3	2.3	-90.27	-0.5	-105.0	105.0	101.0	4.00	26.265 CC, ES		
600.0	600.0	600.0	600.0	2.8	2.7	168.08	-0.5	-105.0	106.7	101.6	5.04	21.179		
700.0	699.8	699.8	699.8	3.7	3.1	168.62	-0.5	-105.0	111.8	105.4	6.37	17.553		
800.0	799.5	799.5	799.5	4.6	3.5	169.40	-0.5	-105.0	120.4	112.8	7.53	15.993		
900.0	898.7	898.7	898.7	5.3	3.9	170.33	-0.5	-105.0	132.4	123.8	8.59	15.408		
1,000.0	997.5	997.5	997.5	6.0	4.2	171.30	-0.5	-105.0	147.8	138.2	9.60	15.405 SF		
1,100.0	1,095.6	1,095.6	1,095.6	6.7	4.6	172.24	-0.5	-105.0	166.7	156.1	10.56	15.792		
1,200.0	1,193.1	1,193.1	1,193.1	7.3	5.0	173.11	-0.5	-105.0	189.0	177.5	11.48	16.463		
1,300.0	1,289.6	1,296.0	1,295.9	7.8	5.3	173.72	-1.4	-103.6	213.4	200.9	12.51	17.062		
1,400.0	1,385.3	1,400.1	1,399.9	8.4	5.6	173.87	-4.4	-99.2	238.1	224.4	13.67	17.425		
1,500.0	1,479.8	1,505.0	1,504.5	8.9	6.3	173.66	-9.6	-91.5	263.0	248.3	14.77	17.816		
1,600.0	1,573.2	1,610.8	1,609.4	9.3	7.0	173.20	-16.9	-80.6	288.0	272.4	15.61	18.448		
1,700.0	1,666.4	1,708.3	1,705.9	9.5	7.3	172.72	-24.8	-68.9	312.0	295.9	16.14	19.333		
1,800.0	1,759.5	1,805.3	1,801.9	9.8	7.6	172.31	-32.6	-57.2	336.1	319.4	16.70	20.125		
1,900.0	1,852.7	1,902.4	1,897.9	10.2	7.9	171.95	-40.5	-45.6	360.1	342.8	17.28	20.837		
2,000.0	1,945.8	1,999.4	1,993.9	10.5	8.2	171.64	-48.3	-33.9	384.2	366.3	17.89	21.479		
2,100.0	2,039.0	2,096.5	2,090.0	11.0	8.5	171.36	-56.1	-22.3	408.3	389.7	18.51	22.057		
2,200.0	2,132.1	2,193.5	2,186.0	11.5	8.9	171.12	-64.0	-10.7	432.3	413.2	19.15	22.578		
2,300.0	2,225.3	2,290.6	2,282.0	12.1	9.2	170.90	-71.8	1.0	456.4	436.6	19.80	23.048		
2,400.0	2,318.4	2,387.6	2,378.0	12.8	9.6	170.70	-79.7	12.6	480.5	460.0	20.47	23.473		
2,500.0	2,411.6	2,484.6	2,474.0	13.5	9.9	170.52	-87.5	24.3	504.6	483.5	21.15	23.857		
2,600.0	2,504.7	2,581.7	2,570.1	14.2	10.3	170.36	-95.3	35.9	528.7	506.9	21.84	24.205		
2,700.0	2,597.8	2,678.7	2,666.1	14.9	10.6	170.21	-103.2	47.6	552.8	530.3	22.54	24.521		
2,800.0	2,691.0	2,775.8	2,762.1	15.7	11.0	170.07	-111.0	59.2	576.9	553.7	23.25	24.808		
2,900.0	2,784.1	2,872.8	2,858.1	16.4	11.4	169.95	-118.8	70.9	601.0	577.0	23.97	25.070		
3,000.0	2,877.3	2,969.9	2,954.2	17.2	11.8	169.83	-126.7	82.5	625.1	600.4	24.70	25.308		
3,100.0	2,970.4	3,066.9	3,050.2	17.9	12.1	169.73	-134.5	94.2	649.2	623.8	25.44	25.525		
3,200.0	3,063.6	3,163.9	3,146.2	18.6	12.5	169.63	-142.4	105.8	673.4	647.2	26.18	25.725		
3,300.0	3,156.7	3,261.0	3,242.2	19.4	12.9	169.54	-150.2	117.4	697.5	670.6	26.92	25.908		
3,400.0	3,249.9	3,358.0	3,338.2	20.2	13.3	169.45	-158.0	129.1	721.6	693.9	27.67	26.076		
3,500.0	3,343.0	3,455.1	3,434.3	20.9	13.7	169.37	-165.9	140.7	745.7	717.3	28.43	26.230		
3,600.0	3,436.2	3,552.1	3,530.3	21.7	14.1	169.30	-173.7	152.4	769.8	740.6	29.19	26.372		
3,700.0	3,529.3	3,649.2	3,626.3	22.4	14.5	169.22	-181.5	164.0	794.0	764.0	29.96	26.504		
3,800.0	3,622.5	3,746.2	3,722.3	23.2	14.9	169.16	-189.4	175.7	818.1	787.4	30.73	26.625		
3,900.0	3,715.6	3,843.2	3,818.4	23.9	15.3	169.10	-197.2	187.3	842.2	810.7	31.50	26.738		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.30	-0.3	-59.9	59.9					
100.0	100.0	100.0	100.0	0.4	0.0	-90.30	-0.3	-59.9	59.9	59.7	0.28	216.380		
200.0	200.0	200.0	200.0	1.0	0.0	-90.30	-0.3	-59.9	59.9	59.1	0.80	75.130		
300.0	300.0	300.0	300.0	1.5	0.0	-90.30	-0.3	-59.9	59.9	58.7	1.22	48.955		
400.0	400.0	400.0	400.0	1.9	0.0	-90.30	-0.3	-59.9	59.9	58.3	1.62	37.040		
500.0	500.0	500.0	500.0	2.3	0.0	-90.30	-0.3	-59.9	59.9	57.9	2.00	29.988 CC, ES		
600.0	600.0	600.0	600.0	2.8	0.0	168.20	-0.3	-59.9	61.7	59.0	2.67	23.116		
700.0	699.8	699.8	699.8	3.7	0.0	169.10	-0.3	-59.9	66.8	63.1	3.64	18.339		
800.0	799.5	799.5	799.5	4.6	0.0	170.32	-0.3	-59.9	75.4	70.9	4.45	16.922		
900.0	898.7	898.7	898.7	5.3	0.0	171.63	-0.3	-59.9	87.4	82.2	5.18	16.871 SF		
1,000.0	997.5	1,000.9	1,000.9	6.0	0.0	172.64	-0.9	-58.3	101.2	95.4	5.85	17.297		
1,100.0	1,095.6	1,103.7	1,103.5	6.7	0.0	173.16	-2.7	-53.1	115.1	108.6	6.48	17.775		
1,200.0	1,193.1	1,207.0	1,206.4	7.3	0.0	173.33	-5.8	-44.5	129.0	121.9	7.06	18.269		
1,300.0	1,289.6	1,310.8	1,309.4	7.8	0.0	173.27	-10.2	-32.2	142.8	135.2	7.61	18.762		
1,400.0	1,385.3	1,415.1	1,412.4	8.4	0.0	173.02	-15.8	-16.4	156.6	148.4	8.14	19.244		
1,500.0	1,479.8	1,520.0	1,515.1	8.9	0.0	172.62	-22.8	3.0	170.3	161.6	8.64	19.710		
1,600.0	1,573.2	1,623.1	1,615.5	9.3	0.0	172.16	-30.7	25.4	183.9	175.0	8.95	20.547		
1,700.0	1,666.4	1,722.1	1,711.7	9.5	0.0	171.76	-38.6	47.6	197.6	188.4	9.21	21.464		
1,800.0	1,759.5	1,821.2	1,807.9	9.8	0.0	171.41	-46.6	69.8	211.3	201.8	9.49	22.275		
1,900.0	1,852.7	1,920.2	1,904.1	10.2	0.0	171.11	-54.5	92.0	225.0	215.2	9.78	23.007		
2,000.0	1,945.8	2,019.3	2,000.3	10.5	0.0	170.84	-62.4	114.3	238.7	228.6	10.09	23.665		
2,100.0	2,039.0	2,118.3	2,096.5	11.0	0.0	170.60	-70.3	136.5	252.4	242.0	10.41	24.257		
2,200.0	2,132.1	2,217.4	2,192.7	11.5	0.0	170.38	-78.2	158.7	266.1	255.4	10.74	24.789		
2,300.0	2,225.3	2,316.4	2,288.9	12.1	0.0	170.19	-86.2	180.9	279.8	268.8	11.08	25.267		
2,400.0	2,318.4	2,415.5	2,385.1	12.8	0.0	170.01	-94.1	203.1	293.6	282.1	11.42	25.697		
2,500.0	2,411.6	2,514.5	2,481.3	13.5	0.0	169.85	-102.0	225.3	307.3	295.5	11.78	26.083		
2,600.0	2,504.7	2,613.6	2,577.5	14.2	0.0	169.70	-109.9	247.6	321.0	308.8	12.14	26.431		
2,700.0	2,597.8	2,712.7	2,673.7	14.9	0.0	169.57	-117.8	269.8	334.7	322.2	12.52	26.743		
2,800.0	2,691.0	2,811.7	2,769.9	15.7	0.0	169.45	-125.8	292.0	348.4	335.5	12.89	27.026		
2,900.0	2,784.1	2,910.8	2,866.1	16.4	0.0	169.33	-133.7	314.2	362.2	348.9	13.28	27.280		
3,000.0	2,877.3	3,009.8	2,962.3	17.2	0.0	169.23	-141.6	336.4	375.9	362.2	13.66	27.510		
3,100.0	2,970.4	3,108.9	3,058.5	17.9	0.0	169.13	-149.5	358.7	389.6	375.6	14.06	27.718		
3,200.0	3,063.6	3,207.9	3,154.7	18.6	0.0	169.03	-157.4	380.9	403.3	388.9	14.45	27.906		
3,300.0	3,156.7	3,307.0	3,250.9	19.4	0.0	168.95	-165.4	403.1	417.1	402.2	14.85	28.077		
3,400.0	3,249.9	3,406.0	3,347.1	20.2	0.0	168.87	-173.3	425.3	430.8	415.5	15.26	28.232		
3,500.0	3,343.0	3,505.1	3,443.3	20.9	0.0	168.79	-181.2	447.5	444.5	428.9	15.67	28.373		
3,600.0	3,436.2	3,604.1	3,539.5	21.7	0.0	168.72	-189.1	469.8	458.3	442.2	16.08	28.502		
3,700.0	3,529.3	3,703.2	3,635.7	22.4	0.0	168.65	-197.0	492.0	472.0	455.5	16.49	28.619		
3,800.0	3,622.5	3,802.2	3,731.9	23.2	0.0	168.59	-205.0	514.2	485.7	468.8	16.91	28.725		
3,900.0	3,715.6	3,901.3	3,828.1	23.9	0.0	168.53	-212.9	536.4	499.5	482.1	17.33	28.823		
4,000.0	3,808.7	4,000.3	3,924.3	24.7	0.0	168.48	-220.8	558.6	513.2	495.5	17.75	28.912		
4,100.0	3,901.9	4,099.4	4,020.5	25.4	0.0	168.42	-228.7	580.9	526.9	508.8	18.17	28.993		
4,200.0	3,995.0	4,198.4	4,116.7	26.2	0.0	168.37	-236.6	603.1	540.7	522.1	18.60	29.068		
4,300.0	4,088.2	4,297.5	4,212.9	27.0	0.0	168.32	-244.6	625.3	554.4	535.4	19.03	29.137		
4,400.0	4,181.3	4,396.5	4,309.1	27.7	0.0	168.28	-252.5	647.5	568.1	548.7	19.46	29.199		
4,500.0	4,274.5	4,495.6	4,405.3	28.5	0.0	168.23	-260.4	669.7	581.9	562.0	19.89	29.257		
4,600.0	4,367.6	4,594.6	4,501.5	29.3	0.0	168.19	-268.3	692.0	595.6	575.3	20.32	29.311		
4,700.0	4,460.8	4,693.7	4,597.7	30.0	0.0	168.15	-276.2	714.2	609.4	588.6	20.76	29.359		
4,800.0	4,553.9	4,792.7	4,693.9	30.8	0.0	168.11	-284.2	736.4	623.1	601.9	21.19	29.405		
4,900.0	4,647.1	4,891.8	4,790.1	31.5	0.0	168.08	-292.1	758.6	636.8	615.2	21.63	29.446		
5,000.0	4,740.2	4,990.8	4,886.3	32.3	0.0	168.04	-300.0	780.8	650.6	628.5	22.06	29.485		
5,100.0	4,833.3	5,089.9	4,982.5	33.1	0.0	168.01	-307.9	803.1	664.3	641.8	22.50	29.520		

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 19-18-4NBH
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 19-18-4NBH	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 #2	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	4,926.5	5,188.9	5,078.7	33.8	0.0	167.98	-315.8	825.3	678.0	655.1	22.94	29.553		
5,300.0	5,019.6	5,288.0	5,174.9	34.6	0.0	167.95	-323.8	847.5	691.8	668.4	23.38	29.583		
5,400.0	5,112.8	5,387.0	5,271.1	35.4	0.0	167.92	-331.7	869.7	705.5	681.7	23.83	29.611		
5,500.0	5,205.9	5,486.1	5,367.3	36.1	0.0	167.89	-339.6	891.9	719.3	695.0	24.27	29.637		
5,600.0	5,299.1	5,585.1	5,463.5	36.9	0.0	167.86	-347.5	914.2	733.0	708.3	24.71	29.661		
5,700.0	5,392.2	5,684.2	5,559.7	37.7	0.0	167.83	-355.4	936.4	746.7	721.6	25.16	29.683		
5,800.0	5,485.4	5,783.2	5,655.9	38.4	0.0	167.81	-363.4	958.6	760.5	734.9	25.60	29.703		
5,900.0	5,578.5	5,882.3	5,752.1	39.2	0.0	167.78	-371.3	980.8	774.2	748.2	26.05	29.722		
6,000.0	5,671.7	5,981.3	5,848.3	39.9	0.0	167.76	-379.2	1,003.0	788.0	761.5	26.50	29.740		
6,100.0	5,764.8	6,080.4	5,944.5	40.7	0.0	167.74	-387.1	1,025.3	801.7	774.8	26.94	29.756		
6,200.0	5,858.0	6,179.4	6,040.7	41.5	0.0	167.72	-395.0	1,047.5	815.4	788.0	27.39	29.771		
6,300.0	5,951.1	6,278.5	6,136.9	42.2	0.0	167.69	-403.0	1,069.7	829.2	801.3	27.84	29.785		
6,400.0	6,044.2	6,377.5	6,233.1	43.0	0.0	167.67	-410.9	1,091.9	842.9	814.6	28.29	29.798		
6,500.0	6,137.4	6,476.6	6,329.3	43.8	0.0	167.65	-418.8	1,114.1	856.7	827.9	28.74	29.810		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	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-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.32	-0.4	-75.0	75.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.32	-0.4	-75.0	75.0	74.4	0.55	135.392		
200.0	200.0	200.0	200.0	1.0	1.0	-90.32	-0.4	-75.0	75.0	73.4	1.60	46.989		
300.0	300.0	300.0	300.0	1.5	1.5	-90.32	-0.4	-75.0	75.0	72.5	2.45	30.616		
400.0	400.0	400.0	400.0	1.9	1.9	-90.32	-0.4	-75.0	75.0	71.7	3.24	23.164		
500.0	500.0	500.0	500.0	2.3	2.3	-90.32	-0.4	-75.0	75.0	71.0	4.00	18.753 CC, ES		
600.0	600.0	600.0	600.0	2.8	2.7	168.12	-0.4	-75.0	76.7	71.6	5.04	15.225		
700.0	699.8	699.8	699.8	3.7	3.1	168.85	-0.4	-75.0	81.8	75.4	6.37	12.848		
800.0	799.5	799.5	799.5	4.6	3.5	169.89	-0.4	-75.0	90.4	82.9	7.53	12.009		
900.0	898.7	898.7	898.7	5.3	3.9	171.05	-0.4	-75.0	102.4	93.8	8.59	11.917 SF		
1,000.0	997.5	997.5	997.5	6.0	4.2	172.19	-0.4	-75.0	117.9	108.3	9.60	12.279		
1,100.0	1,095.6	1,100.1	1,100.1	6.7	4.6	173.05	-1.1	-73.4	135.2	124.5	10.74	12.588		
1,200.0	1,193.1	1,203.6	1,203.4	7.3	5.0	173.45	-3.2	-68.3	152.6	140.5	12.08	12.632		
1,300.0	1,289.6	1,307.6	1,307.1	7.8	5.8	173.53	-6.8	-59.7	170.0	156.7	13.32	12.764		
1,400.0	1,385.3	1,412.4	1,410.9	8.4	6.5	173.36	-11.8	-47.6	187.4	172.9	14.48	12.945		
1,500.0	1,479.8	1,517.7	1,514.9	8.9	7.2	173.01	-18.4	-31.9	204.8	189.2	15.58	13.146		
1,600.0	1,573.2	1,622.5	1,617.6	9.3	7.9	172.54	-26.3	-12.9	221.9	205.5	16.44	13.499		
1,700.0	1,666.4	1,721.0	1,714.0	9.5	8.3	172.11	-34.3	6.3	238.7	221.7	17.03	14.018		
1,800.0	1,759.5	1,819.6	1,810.3	9.8	8.6	171.74	-42.3	25.4	255.4	237.9	17.58	14.531		
1,900.0	1,852.7	1,918.2	1,906.7	10.2	8.8	171.41	-50.3	44.5	272.2	254.0	18.16	14.992		
2,000.0	1,945.8	2,016.8	2,003.1	10.5	9.1	171.12	-58.2	63.6	289.0	270.2	18.76	15.405		
2,100.0	2,039.0	2,115.3	2,099.5	11.0	9.5	170.86	-66.2	82.7	305.7	286.3	19.38	15.777		
2,200.0	2,132.1	2,213.9	2,195.8	11.5	9.8	170.63	-74.2	101.8	322.5	302.5	20.02	16.110		
2,300.0	2,225.3	2,312.5	2,292.2	12.1	10.1	170.43	-82.2	120.9	339.3	318.6	20.68	16.409		
2,400.0	2,318.4	2,411.1	2,388.6	12.8	10.4	170.24	-90.1	140.0	356.1	334.7	21.35	16.677		
2,500.0	2,411.6	2,509.6	2,485.0	13.5	10.8	170.07	-98.1	159.1	372.9	350.8	22.04	16.919		
2,600.0	2,504.7	2,608.2	2,581.3	14.2	11.2	169.91	-106.1	178.2	389.7	366.9	22.74	17.136		
2,700.0	2,597.8	2,706.8	2,677.7	14.9	11.6	169.77	-114.1	197.3	406.5	383.0	23.45	17.332		
2,800.0	2,691.0	2,805.4	2,774.1	15.7	12.0	169.64	-122.0	216.4	423.2	399.1	24.17	17.509		
2,900.0	2,784.1	2,903.9	2,870.5	16.4	12.4	169.51	-130.0	235.6	440.0	415.1	24.91	17.668		
3,000.0	2,877.3	3,002.5	2,966.8	17.2	12.8	169.40	-138.0	254.7	456.9	431.2	25.65	17.813		
3,100.0	2,970.4	3,101.1	3,063.2	17.9	13.3	169.30	-146.0	273.8	473.7	447.3	26.40	17.944		
3,200.0	3,063.6	3,199.7	3,159.6	18.6	13.7	169.20	-153.9	292.9	490.5	463.3	27.15	18.063		
3,300.0	3,156.7	3,298.2	3,256.0	19.4	14.2	169.11	-161.9	312.0	507.3	479.3	27.92	18.171		
3,400.0	3,249.9	3,396.8	3,352.3	20.2	14.7	169.02	-169.9	331.1	524.1	495.4	28.69	18.269		
3,500.0	3,343.0	3,495.4	3,448.7	20.9	15.1	168.94	-177.9	350.2	540.9	511.4	29.46	18.359		
3,600.0	3,436.2	3,594.0	3,545.1	21.7	15.6	168.87	-185.8	369.3	557.7	527.4	30.24	18.441		
3,700.0	3,529.3	3,692.5	3,641.5	22.4	16.1	168.79	-193.8	388.4	574.5	543.5	31.03	18.516		
3,800.0	3,622.5	3,791.1	3,737.9	23.2	16.6	168.73	-201.8	407.5	591.3	559.5	31.82	18.584		
3,900.0	3,715.6	3,889.7	3,834.2	23.9	17.1	168.66	-209.8	426.6	608.1	575.5	32.61	18.647		
4,000.0	3,808.7	3,988.3	3,930.6	24.7	17.6	168.60	-217.7	445.7	624.9	591.5	33.41	18.705		
4,100.0	3,901.9	4,086.8	4,027.0	25.4	18.0	168.55	-225.7	464.9	641.7	607.5	34.21	18.758		
4,200.0	3,995.0	4,185.4	4,123.4	26.2	18.5	168.49	-233.7	484.0	658.6	623.5	35.02	18.806		
4,300.0	4,088.2	4,284.0	4,219.7	27.0	19.0	168.44	-241.7	503.1	675.4	639.5	35.83	18.851		
4,400.0	4,181.3	4,382.6	4,316.1	27.7	19.5	168.39	-249.6	522.2	692.2	655.5	36.64	18.893		
4,500.0	4,274.5	4,481.1	4,412.5	28.5	20.0	168.35	-257.6	541.3	709.0	671.5	37.45	18.931		
4,600.0	4,367.6	4,579.7	4,508.9	29.3	20.5	168.30	-265.6	560.4	725.8	687.5	38.27	18.967		
4,700.0	4,460.8	4,678.3	4,605.2	30.0	21.0	168.26	-273.6	579.5	742.6	703.5	39.09	18.999		
4,800.0	4,553.9	4,776.9	4,701.6	30.8	21.5	168.22	-281.5	598.6	759.4	719.5	39.91	19.030		
4,900.0	4,647.1	4,875.4	4,798.0	31.5	22.0	168.18	-289.5	617.7	776.3	735.5	40.73	19.058		
5,000.0	4,740.2	4,974.0	4,894.4	32.3	22.5	168.15	-297.5	636.8	793.1	751.5	41.56	19.084		
5,100.0	4,833.3	5,072.6	4,990.7	33.1	23.0	168.11	-305.5	655.9	809.9	767.5	42.38	19.108		

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 19-18-4NBH
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 19-18-4NBH	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 #2	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-MWD												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	4,926.5	5,171.2	5,087.1	33.8	23.5	168.08	-313.4	675.0	826.7	783.5	43.21	19.131	
5,300.0	5,019.6	5,269.7	5,183.5	34.6	24.0	168.04	-321.4	694.2	843.5	799.5	44.04	19.152	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	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)						
0.0	0.0	0.0	0.0	0.0	0.0	-90.30	-0.5	-89.9	89.9					
100.0	100.0	100.0	100.0	0.4	0.0	-90.30	-0.5	-89.9	89.9	89.7	0.28	324.672		
200.0	200.0	200.0	200.0	1.0	0.0	-90.30	-0.5	-89.9	89.9	89.1	0.80	112.730		
300.0	300.0	300.0	300.0	1.5	0.0	-90.30	-0.5	-89.9	89.9	88.7	1.22	73.455		
400.0	400.0	400.0	400.0	1.9	0.0	-90.30	-0.5	-89.9	89.9	88.3	1.62	55.578		
500.0	500.0	500.0	500.0	2.3	0.0	-90.30	-0.5	-89.9	89.9	87.9	2.00	44.996 CC, ES		
600.0	600.0	600.0	600.0	2.8	0.0	168.09	-0.5	-89.9	91.7	89.0	2.67	34.354		
700.0	699.8	699.8	699.8	3.7	0.0	168.71	-0.5	-89.9	96.8	93.1	3.64	26.590		
800.0	799.5	799.5	799.5	4.6	0.0	169.60	-0.5	-89.9	105.3	100.9	4.44	23.700		
900.0	898.7	898.7	898.7	5.3	0.0	170.64	-0.5	-89.9	117.4	112.2	5.16	22.726 SF		
1,000.0	997.5	997.5	997.5	6.0	0.0	171.69	-0.5	-89.9	132.8	127.0	5.83	22.792		
1,100.0	1,095.6	1,095.6	1,095.6	6.7	0.0	172.68	-0.5	-89.9	151.7	145.3	6.45	23.526		
1,200.0	1,193.1	1,198.6	1,198.6	7.3	0.0	173.41	-1.3	-88.4	172.6	165.5	7.05	24.481		
1,300.0	1,289.6	1,302.5	1,302.3	7.8	0.0	173.68	-3.8	-83.6	193.6	186.0	7.62	25.412		
1,400.0	1,385.3	1,407.2	1,406.6	8.4	0.0	173.61	-8.1	-75.3	214.6	206.5	8.16	26.313		
1,500.0	1,479.8	1,512.6	1,511.2	8.9	0.0	173.30	-14.1	-63.6	235.8	227.1	8.68	27.180		
1,600.0	1,573.2	1,618.8	1,616.0	9.3	0.0	172.80	-22.1	-48.4	256.8	247.8	9.00	28.545		
1,700.0	1,666.4	1,718.2	1,713.6	9.5	0.0	172.27	-30.6	-32.0	276.4	267.2	9.24	29.907		
1,800.0	1,759.5	1,816.2	1,810.0	9.8	0.0	171.81	-38.9	-15.9	296.0	286.5	9.51	31.113		
1,900.0	1,852.7	1,914.3	1,906.3	10.2	0.0	171.40	-47.3	0.3	315.7	305.9	9.80	32.204		
2,000.0	1,945.8	2,012.3	2,002.6	10.5	0.0	171.05	-55.7	16.4	335.3	325.2	10.10	33.191		
2,100.0	2,039.0	2,110.3	2,098.9	11.0	0.0	170.73	-64.1	32.6	355.0	344.5	10.42	34.081		
2,200.0	2,132.1	2,208.3	2,195.3	11.5	0.0	170.45	-72.5	48.7	374.6	363.9	10.74	34.883		
2,300.0	2,225.3	2,306.4	2,291.6	12.1	0.0	170.19	-80.9	64.9	394.3	383.2	11.07	35.606		
2,400.0	2,318.4	2,404.4	2,387.9	12.8	0.0	169.96	-89.3	81.0	414.0	402.6	11.42	36.258		
2,500.0	2,411.6	2,502.4	2,484.3	13.5	0.0	169.75	-97.6	97.2	433.7	421.9	11.77	36.845		
2,600.0	2,504.7	2,600.5	2,580.6	14.2	0.0	169.56	-106.0	113.3	453.3	441.2	12.13	37.376		
2,700.0	2,597.8	2,698.5	2,676.9	14.9	0.0	169.38	-114.4	129.5	473.0	460.5	12.50	37.854		
2,800.0	2,691.0	2,796.5	2,773.2	15.7	0.0	169.22	-122.8	145.6	492.7	479.9	12.87	38.287		
2,900.0	2,784.1	2,894.6	2,869.6	16.4	0.0	169.07	-131.2	161.8	512.4	499.2	13.25	38.678		
3,000.0	2,877.3	2,992.6	2,965.9	17.2	0.0	168.93	-139.6	177.9	532.1	518.5	13.63	39.032		
3,100.0	2,970.4	3,090.6	3,062.2	17.9	0.0	168.81	-148.0	194.0	551.8	537.8	14.02	39.353		
3,200.0	3,063.6	3,188.7	3,158.6	18.6	0.0	168.69	-156.4	210.2	571.6	557.1	14.42	39.645		
3,300.0	3,156.7	3,286.7	3,254.9	19.4	0.0	168.57	-164.7	226.3	591.3	576.5	14.82	39.910		
3,400.0	3,249.9	3,384.7	3,351.2	20.2	0.0	168.47	-173.1	242.5	611.0	595.8	15.22	40.151		
3,500.0	3,343.0	3,482.8	3,447.5	20.9	0.0	168.37	-181.5	258.6	630.7	615.1	15.62	40.370		
3,600.0	3,436.2	3,580.8	3,543.9	21.7	0.0	168.28	-189.9	274.8	650.4	634.4	16.03	40.571		
3,700.0	3,529.3	3,678.8	3,640.2	22.4	0.0	168.19	-198.3	290.9	670.1	653.7	16.44	40.754		
3,800.0	3,622.5	3,776.9	3,736.5	23.2	0.0	168.11	-206.7	307.1	689.8	673.0	16.86	40.921		
3,900.0	3,715.6	3,874.9	3,832.9	23.9	0.0	168.03	-215.1	323.2	709.6	692.3	17.28	41.074		
4,000.0	3,808.7	3,972.9	3,929.2	24.7	0.0	167.96	-223.5	339.4	729.3	711.6	17.69	41.215		
4,100.0	3,901.9	4,071.0	4,025.5	25.4	0.0	167.89	-231.8	355.5	749.0	730.9	18.12	41.344		
4,200.0	3,995.0	4,169.0	4,121.8	26.2	0.0	167.83	-240.2	371.7	768.7	750.2	18.54	41.462		
4,300.0	4,088.2	4,267.0	4,218.2	27.0	0.0	167.76	-248.6	387.8	788.5	769.5	18.97	41.571		
4,400.0	4,181.3	4,365.0	4,314.5	27.7	0.0	167.71	-257.0	404.0	808.2	788.8	19.39	41.671		
4,500.0	4,274.5	4,463.1	4,410.8	28.5	0.0	167.65	-265.4	420.1	827.9	808.1	19.82	41.763		
4,600.0	4,367.6	4,561.1	4,507.2	29.3	0.0	167.60	-273.8	436.3	847.6	827.4	20.26	41.848		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	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-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.37	-0.3	-45.0	45.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.37	-0.3	-45.0	45.0	44.4	0.55	81.162		
200.0	200.0	200.0	200.0	1.0	1.0	-90.37	-0.3	-45.0	45.0	43.4	1.60	28.170		
300.0	300.0	300.0	300.0	1.5	1.5	-90.37	-0.3	-45.0	45.0	42.5	2.45	18.356		
400.0	400.0	400.0	400.0	1.9	1.9	-90.37	-0.3	-45.0	45.0	41.7	3.24	13.889		
500.0	500.0	500.0	500.0	2.3	2.3	-90.37	-0.3	-45.0	45.0	41.0	4.00	11.245 CC, ES		
600.0	600.0	600.0	600.0	2.8	2.7	168.24	-0.3	-45.0	46.7	41.6	5.03	9.273		
700.0	699.8	699.8	699.8	3.7	3.1	169.40	-0.3	-45.0	51.8	45.5	6.36	8.143		
800.0	799.5	799.5	799.5	4.6	3.5	170.90	-0.3	-45.0	60.4	52.9	7.52	8.029		
900.0	898.7	901.2	901.1	5.3	3.9	172.13	-0.8	-43.3	70.8	61.9	8.82	8.021		
1,000.0	997.5	1,003.3	1,003.1	6.0	4.5	172.87	-2.3	-38.0	81.1	70.8	10.34	7.842		
1,100.0	1,095.6	1,105.8	1,105.2	6.7	5.3	173.28	-4.7	-29.3	91.4	79.7	11.71	7.808		
1,200.0	1,193.1	1,208.7	1,207.3	7.3	6.1	173.46	-8.2	-17.0	101.7	88.7	12.96	7.843		
1,300.0	1,289.6	1,311.9	1,309.2	7.8	6.7	173.46	-12.7	-1.1	111.9	97.7	14.14	7.914		
1,400.0	1,385.3	1,415.6	1,410.8	8.4	7.4	173.34	-18.2	18.4	122.0	106.8	15.24	8.004		
1,500.0	1,479.8	1,519.6	1,512.1	8.9	8.0	173.11	-24.8	41.5	132.0	115.7	16.29	8.102		
1,600.0	1,573.2	1,622.9	1,611.7	9.3	8.6	172.82	-32.3	67.9	141.8	124.7	17.09	8.296		
1,700.0	1,666.4	1,722.5	1,707.4	9.5	8.9	172.54	-39.8	94.3	151.3	133.6	17.69	8.554		
1,800.0	1,759.5	1,822.0	1,803.0	9.8	9.2	172.29	-47.2	120.8	160.8	142.5	18.24	8.814		
1,900.0	1,852.7	1,921.6	1,898.7	10.2	9.5	172.07	-54.7	147.2	170.3	151.5	18.83	9.045		
2,000.0	1,945.8	2,021.1	1,994.4	10.5	9.8	171.88	-62.2	173.7	179.8	160.3	19.43	9.252		
2,100.0	2,039.0	2,120.7	2,090.1	11.0	10.1	171.70	-69.7	200.1	189.3	169.2	20.06	9.437		
2,200.0	2,132.1	2,220.2	2,185.7	11.5	10.5	171.54	-77.2	226.5	198.8	178.1	20.70	9.601		
2,300.0	2,225.3	2,319.7	2,281.4	12.1	10.8	171.40	-84.7	253.0	208.3	186.9	21.37	9.747		
2,400.0	2,318.4	2,419.3	2,377.1	12.8	11.2	171.26	-92.2	279.4	217.8	195.7	22.04	9.878		
2,500.0	2,411.6	2,518.8	2,472.8	13.5	11.7	171.14	-99.7	305.9	227.3	204.5	22.74	9.995		
2,600.0	2,504.7	2,618.4	2,568.5	14.2	12.1	171.03	-107.2	332.3	236.8	213.3	23.45	10.099		
2,700.0	2,597.8	2,717.9	2,664.1	14.9	12.6	170.93	-114.7	358.8	246.3	222.1	24.16	10.192		
2,800.0	2,691.0	2,817.5	2,759.8	15.7	13.2	170.83	-122.1	385.2	255.8	230.9	24.89	10.275		
2,900.0	2,784.1	2,917.0	2,855.5	16.4	13.7	170.74	-129.6	411.6	265.3	239.6	25.63	10.349		
3,000.0	2,877.3	3,016.6	2,951.2	17.2	14.3	170.66	-137.1	438.1	274.8	248.4	26.38	10.415		
3,100.0	2,970.4	3,116.1	3,046.8	17.9	14.8	170.59	-144.6	464.5	284.3	257.1	27.14	10.475		
3,200.0	3,063.6	3,215.7	3,142.5	18.6	15.4	170.51	-152.1	491.0	293.8	265.9	27.90	10.528		
3,300.0	3,156.7	3,315.2	3,238.2	19.4	16.0	170.45	-159.6	517.4	303.3	274.6	28.68	10.576		
3,400.0	3,249.9	3,414.8	3,333.9	20.2	16.6	170.38	-167.1	543.9	312.8	283.3	29.46	10.619		
3,500.0	3,343.0	3,514.3	3,429.5	20.9	17.2	170.32	-174.6	570.3	322.3	292.1	30.24	10.658		
3,600.0	3,436.2	3,613.9	3,525.2	21.7	17.7	170.27	-182.1	596.7	331.8	300.8	31.03	10.693		
3,700.0	3,529.3	3,713.4	3,620.9	22.4	18.3	170.21	-189.6	623.2	341.3	309.5	31.83	10.725		
3,800.0	3,622.5	3,812.9	3,716.6	23.2	18.9	170.16	-197.0	649.6	350.8	318.2	32.63	10.753		
3,900.0	3,715.6	3,912.5	3,812.3	23.9	19.5	170.12	-204.5	676.1	360.3	326.9	33.43	10.779		
4,000.0	3,808.7	4,012.0	3,907.9	24.7	20.1	170.07	-212.0	702.5	369.8	335.6	34.24	10.802		
4,100.0	3,901.9	4,111.6	4,003.6	25.4	20.7	170.03	-219.5	729.0	379.3	344.3	35.05	10.823		
4,200.0	3,995.0	4,211.1	4,099.3	26.2	21.3	169.99	-227.0	755.4	388.9	353.0	35.87	10.841		
4,300.0	4,088.2	4,310.7	4,195.0	27.0	21.9	169.95	-234.5	781.8	398.4	361.7	36.69	10.858		
4,400.0	4,181.3	4,410.2	4,290.6	27.7	22.5	169.91	-242.0	808.3	407.9	370.4	37.51	10.874		
4,500.0	4,274.5	4,509.8	4,386.3	28.5	23.1	169.88	-249.5	834.7	417.4	379.0	38.33	10.888		
4,600.0	4,367.6	4,609.3	4,482.0	29.3	23.7	169.84	-257.0	861.2	426.9	387.7	39.16	10.900		
4,700.0	4,460.8	4,708.9	4,577.7	30.0	24.3	169.81	-264.5	887.6	436.4	396.4	39.99	10.912		
4,800.0	4,553.9	4,808.4	4,673.4	30.8	24.9	169.78	-271.9	914.1	445.9	405.1	40.83	10.922		
4,900.0	4,647.1	4,908.0	4,769.0	31.5	25.5	169.75	-279.4	940.5	455.4	413.8	41.66	10.931		
5,000.0	4,740.2	5,007.5	4,864.7	32.3	26.1	169.72	-286.9	966.9	464.9	422.4	42.50	10.939		
5,100.0	4,833.3	5,107.1	4,960.4	33.1	26.7	169.70	-294.4	993.4	474.4	431.1	43.34	10.947		

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 19-18-4NBH
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 19-18-4NBH	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 #2	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-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	4,926.5	5,206.6	5,056.1	33.8	27.3	169.67	-301.9	1,019.8	483.9	439.8	44.18	10.954		
5,300.0	5,019.6	5,306.1	5,151.7	34.6	27.9	169.65	-309.4	1,046.3	493.5	448.4	45.02	10.960		
5,400.0	5,112.8	5,405.7	5,247.4	35.4	28.5	169.62	-316.9	1,072.7	503.0	457.1	45.87	10.965		
5,500.0	5,205.9	5,505.2	5,343.1	36.1	29.1	169.60	-324.4	1,099.1	512.5	465.8	46.72	10.970		
5,600.0	5,299.1	5,604.8	5,438.8	36.9	29.7	169.58	-331.9	1,125.6	522.0	474.4	47.56	10.974		
5,700.0	5,392.2	5,704.3	5,534.5	37.7	30.3	169.55	-339.4	1,152.0	531.5	483.1	48.41	10.978		
5,800.0	5,485.4	5,803.9	5,630.1	38.4	30.9	169.53	-346.8	1,178.5	541.0	491.7	49.26	10.982		
5,900.0	5,578.5	5,903.4	5,725.8	39.2	31.5	169.51	-354.3	1,204.9	550.5	500.4	50.12	10.985		
6,000.0	5,671.7	6,003.0	5,821.5	39.9	32.1	169.49	-361.8	1,231.4	560.0	509.1	50.97	10.987		
6,100.0	5,764.8	6,102.5	5,917.2	40.7	32.7	169.48	-369.3	1,257.8	569.5	517.7	51.82	10.990		
6,200.0	5,858.0	6,202.1	6,012.8	41.5	33.3	169.46	-376.8	1,284.2	579.0	526.4	52.68	10.992		
6,300.0	5,951.1	6,301.6	6,108.5	42.2	33.9	169.44	-384.3	1,310.7	588.6	535.0	53.54	10.994		
6,400.0	6,044.2	6,401.2	6,204.2	43.0	34.5	169.42	-391.8	1,337.1	598.1	543.7	54.39	10.995		
6,500.0	6,137.4	6,500.7	6,299.9	43.8	35.1	169.41	-399.3	1,363.6	607.6	552.3	55.25	10.996		
6,600.0	6,230.5	6,600.3	6,395.6	44.5	35.7	169.39	-406.8	1,390.0	617.1	561.0	56.11	10.997		
6,700.0	6,323.7	6,699.8	6,491.2	45.3	36.3	169.37	-414.3	1,416.5	626.6	569.6	56.97	10.998		
6,800.0	6,416.8	6,799.3	6,586.9	46.1	36.9	169.36	-421.8	1,442.9	636.1	578.3	57.83	10.999		
6,900.0	6,510.0	6,898.9	6,682.6	46.8	37.5	169.34	-429.2	1,469.3	645.6	586.9	58.70	10.999		
7,000.0	6,603.1	6,998.4	6,778.3	47.6	38.1	169.33	-436.7	1,495.8	655.1	595.6	59.56	11.000		
7,100.0	6,696.3	7,098.0	6,873.9	48.4	38.7	170.04	-444.2	1,522.2	664.6	604.2	60.42	11.000		
7,200.0	6,789.6	7,197.0	6,969.1	49.2	39.3	-164.07	-451.7	1,548.5	674.0	612.5	61.43	10.970		
7,300.0	6,881.3	7,293.8	7,062.3	49.9	39.9	-144.35	-457.3	1,574.2	683.4	620.6	62.82	10.879		
7,400.0	6,968.6	7,394.0	7,158.4	50.4	40.6	-132.28	-448.4	1,600.5	693.5	629.2	64.32	10.783		
7,500.0	7,048.9	7,499.6	7,256.6	50.8	41.0	-125.36	-420.4	1,626.9	704.0	638.3	65.73	10.710		
7,600.0	7,119.7	7,611.4	7,353.4	51.2	41.4	-121.45	-371.1	1,652.5	714.3	647.6	66.74	10.703		
7,700.0	7,178.8	7,729.9	7,443.9	51.4	41.8	-119.29	-298.7	1,675.9	724.0	656.7	67.24	10.767		
7,800.0	7,224.5	7,855.0	7,521.9	51.6	42.0	-118.18	-203.1	1,695.4	732.3	664.9	67.36	10.872		
7,900.0	7,255.4	7,986.3	7,580.4	51.7	42.1	-117.71	-86.7	1,709.0	738.6	671.2	67.39	10.959		
8,000.0	7,270.5	8,122.2	7,612.4	51.7	42.2	-117.61	44.9	1,715.2	742.3	674.5	67.77	10.954		
8,100.0	7,272.0	8,242.5	7,617.0	51.7	42.1	-117.66	165.0	1,714.0	743.3	674.7	68.54	10.844		
8,200.0	7,272.0	8,342.5	7,617.0	51.7	42.2	-117.64	265.0	1,711.9	743.7	674.3	69.37	10.721		
8,300.0	7,272.0	8,442.5	7,617.0	51.7	42.2	-117.62	364.9	1,709.9	744.1	673.8	70.34	10.580		
8,400.0	7,272.0	8,542.5	7,617.0	51.8	42.3	-117.61	464.9	1,707.8	744.5	673.1	71.44	10.422		
8,500.0	7,272.0	8,642.5	7,617.0	51.9	42.5	-117.59	564.9	1,705.8	745.0	672.3	72.67	10.252		
8,600.0	7,272.0	8,742.5	7,617.0	52.1	42.8	-117.57	664.9	1,703.8	745.4	671.4	74.02	10.071		
8,700.0	7,272.0	8,842.5	7,617.0	52.3	43.1	-117.55	764.9	1,701.7	745.8	670.3	75.48	9.881		
8,800.0	7,272.0	8,942.5	7,617.0	52.5	43.5	-117.54	864.8	1,699.7	746.3	669.2	77.05	9.686		
8,900.0	7,272.0	9,042.5	7,617.0	52.8	43.9	-117.52	964.8	1,697.6	746.7	668.0	78.72	9.486		
9,000.0	7,272.0	9,142.5	7,617.0	53.1	44.5	-117.50	1,064.8	1,695.6	747.1	666.6	80.48	9.283		
9,100.0	7,272.0	9,242.5	7,617.0	53.5	45.1	-117.49	1,164.8	1,693.6	747.5	665.2	82.34	9.079		
9,200.0	7,272.0	9,342.5	7,617.0	54.0	45.9	-117.47	1,264.7	1,691.5	748.0	663.7	84.27	8.875		
9,300.0	7,272.0	9,442.5	7,617.0	54.5	46.6	-117.45	1,364.7	1,689.5	748.4	662.1	86.29	8.673		
9,400.0	7,272.0	9,542.5	7,617.0	55.0	47.5	-117.43	1,464.7	1,687.4	748.8	660.4	88.38	8.473		
9,500.0	7,272.0	9,642.5	7,617.0	55.6	48.5	-117.42	1,564.7	1,685.4	749.2	658.7	90.53	8.276		
9,600.0	7,272.0	9,742.5	7,617.0	56.3	49.5	-117.40	1,664.7	1,683.3	749.7	656.9	92.75	8.083		
9,700.0	7,272.0	9,842.5	7,617.0	57.1	50.5	-117.38	1,764.6	1,681.3	750.1	655.1	95.02	7.894		
9,800.0	7,272.0	9,942.5	7,617.0	57.9	51.6	-117.37	1,864.6	1,679.3	750.5	653.2	97.35	7.710		
9,900.0	7,272.0	10,042.5	7,617.0	58.7	52.8	-117.35	1,964.6	1,677.2	751.0	651.2	99.73	7.530		
10,000.0	7,272.0	10,142.5	7,617.0	59.7	54.0	-117.33	2,064.6	1,675.2	751.4	649.2	102.16	7.355		
10,100.0	7,272.0	10,242.5	7,617.0	60.6	55.2	-117.32	2,164.5	1,673.1	751.8	647.2	104.63	7.186		
10,200.0	7,272.0	10,342.5	7,617.0	61.7	56.5	-117.30	2,264.5	1,671.1	752.2	645.1	107.14	7.021		
10,300.0	7,272.0	10,442.5	7,617.0	62.7	57.8	-117.28	2,364.5	1,669.1	752.7	643.0	109.69	6.862		

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 19-18-4NBH
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 19-18-4NBH	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 #2	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-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,272.0	10,542.5	7,617.0	63.9	59.1	-117.27	2,464.5	1,667.0	753.1	640.8	112.27	6.708		
10,500.0	7,272.0	10,642.5	7,617.0	65.0	60.4	-117.25	2,564.5	1,665.0	753.5	638.6	114.89	6.559		
10,600.0	7,272.0	10,742.5	7,617.0	66.2	61.8	-117.23	2,664.4	1,662.9	754.0	636.4	117.54	6.414		
10,700.0	7,272.0	10,842.5	7,617.0	67.4	63.2	-117.21	2,764.4	1,660.9	754.4	634.2	120.22	6.275		
10,800.0	7,272.0	10,942.4	7,617.0	68.7	64.6	-117.20	2,864.4	1,658.9	754.8	631.9	122.93	6.140		
10,900.0	7,272.0	11,042.4	7,617.0	70.0	66.1	-117.18	2,964.4	1,656.8	755.2	629.6	125.66	6.010		
11,000.0	7,272.0	11,142.4	7,617.0	71.3	67.5	-117.16	3,064.3	1,654.8	755.7	627.3	128.42	5.885		
11,100.0	7,272.0	11,242.4	7,617.0	72.7	69.0	-117.15	3,164.3	1,652.7	756.1	624.9	131.20	5.763		
11,200.0	7,272.0	11,342.4	7,617.0	74.0	70.5	-117.13	3,264.3	1,650.7	756.5	622.5	133.99	5.646		
11,300.0	7,272.0	11,442.4	7,617.0	75.4	72.0	-117.11	3,364.3	1,648.6	757.0	620.2	136.81	5.533		
11,400.0	7,272.0	11,542.4	7,617.0	76.8	73.5	-117.10	3,464.3	1,646.6	757.4	617.7	139.65	5.423		
11,500.0	7,272.0	11,642.4	7,617.0	78.2	75.0	-117.08	3,564.2	1,644.6	757.8	615.3	142.51	5.318		
11,600.0	7,272.0	11,742.4	7,617.0	79.7	76.5	-117.06	3,664.2	1,642.5	758.3	612.9	145.38	5.216		
11,700.0	7,272.0	11,842.4	7,617.0	81.1	78.1	-117.05	3,764.2	1,640.5	758.7	610.4	148.27	5.117		
11,800.0	7,272.0	11,942.4	7,617.0	82.6	79.6	-117.03	3,864.2	1,638.4	759.1	607.9	151.17	5.021		
11,900.0	7,272.0	12,042.4	7,617.0	84.1	81.2	-117.02	3,964.1	1,636.4	759.5	605.5	154.09	4.929		
12,000.0	7,272.0	12,142.4	7,617.0	85.6	82.8	-117.00	4,064.1	1,634.4	760.0	603.0	157.02	4.840		
12,100.0	7,272.0	12,242.4	7,617.0	87.1	84.4	-116.98	4,164.1	1,632.3	760.4	600.4	159.97	4.754		
12,200.0	7,272.0	12,342.4	7,617.0	88.6	85.9	-116.97	4,264.1	1,630.3	760.8	597.9	162.92	4.670		
12,300.0	7,272.0	12,442.4	7,617.0	90.2	87.5	-116.95	4,364.1	1,628.2	761.3	595.4	165.89	4.589		
12,400.0	7,272.0	12,542.4	7,617.0	91.7	89.1	-116.93	4,464.0	1,626.2	761.7	592.8	168.87	4.511		
12,500.0	7,272.0	12,642.4	7,617.0	93.3	90.7	-116.92	4,564.0	1,624.2	762.1	590.3	171.85	4.435		
12,600.0	7,272.0	12,742.4	7,617.0	94.8	92.4	-116.90	4,664.0	1,622.1	762.6	587.7	174.85	4.361		
12,700.0	7,272.0	12,842.4	7,617.0	96.4	94.0	-116.88	4,764.0	1,620.1	763.0	585.1	177.86	4.290		
12,800.0	7,272.0	12,942.4	7,617.0	98.0	95.6	-116.87	4,864.0	1,618.0	763.4	582.5	180.88	4.221		
12,900.0	7,272.0	13,042.4	7,617.0	99.5	97.2	-116.85	4,963.9	1,616.0	763.8	579.9	183.90	4.154		
13,000.0	7,272.0	13,142.4	7,617.0	101.1	98.9	-116.83	5,063.9	1,613.9	764.3	577.3	186.93	4.088		
13,100.0	7,272.0	13,242.4	7,617.0	102.7	100.5	-116.82	5,163.9	1,611.9	764.7	574.7	189.98	4.025		
13,200.0	7,272.0	13,342.4	7,617.0	104.3	102.1	-116.80	5,263.9	1,609.9	765.1	572.1	193.02	3.964		
13,300.0	7,272.0	13,442.4	7,617.0	105.9	103.8	-116.79	5,363.8	1,607.8	765.6	569.5	196.08	3.904		
13,400.0	7,272.0	13,542.4	7,617.0	107.5	105.4	-116.77	5,463.8	1,605.8	766.0	566.9	199.14	3.846		
13,500.0	7,272.0	13,642.4	7,617.0	109.2	107.1	-116.75	5,563.8	1,603.7	766.4	564.2	202.21	3.790		
13,600.0	7,272.0	13,742.4	7,617.0	110.8	108.8	-116.74	5,663.8	1,601.7	766.9	561.6	205.29	3.736		
13,700.0	7,272.0	13,842.4	7,617.0	112.4	110.4	-116.72	5,763.8	1,599.7	767.3	558.9	208.37	3.682		
13,800.0	7,272.0	13,942.4	7,617.0	114.0	112.1	-116.70	5,863.7	1,597.6	767.7	556.3	211.46	3.631		
13,900.0	7,272.0	14,042.4	7,617.0	115.7	113.8	-116.69	5,963.7	1,595.6	768.1	553.6	214.55	3.580		
14,000.0	7,272.0	14,142.4	7,617.0	117.3	115.4	-116.67	6,063.7	1,593.5	768.6	550.9	217.65	3.531		
14,100.0	7,272.0	14,242.4	7,617.0	119.0	117.1	-116.66	6,163.7	1,591.5	769.0	548.3	220.75	3.484		
14,200.0	7,272.0	14,342.4	7,617.0	120.6	118.8	-116.64	6,263.6	1,589.5	769.4	545.6	223.86	3.437		
14,300.0	7,272.0	14,442.4	7,617.0	122.3	120.5	-116.62	6,363.6	1,587.4	769.9	542.9	226.97	3.392		
14,400.0	7,272.0	14,542.4	7,617.0	123.9	122.1	-116.61	6,463.6	1,585.4	770.3	540.2	230.09	3.348		
14,500.0	7,272.0	14,642.4	7,617.0	125.6	123.8	-116.59	6,563.6	1,583.3	770.7	537.5	233.21	3.305		
14,600.0	7,272.0	14,742.4	7,617.0	127.2	125.5	-116.58	6,663.6	1,581.3	771.2	534.8	236.34	3.263		
14,700.0	7,272.0	14,842.4	7,617.0	128.9	127.2	-116.56	6,763.5	1,579.2	771.6	532.1	239.47	3.222		
14,800.0	7,272.0	14,942.4	7,617.0	130.6	128.9	-116.54	6,863.5	1,577.2	772.0	529.4	242.60	3.182		
14,900.0	7,272.0	15,042.4	7,617.0	132.2	130.6	-116.53	6,963.5	1,575.2	772.5	526.7	245.74	3.143		
15,000.0	7,272.0	15,142.4	7,617.0	133.9	132.3	-116.51	7,063.5	1,573.1	772.9	524.0	248.89	3.105		
15,100.0	7,272.0	15,242.4	7,617.0	135.6	134.0	-116.50	7,163.4	1,571.1	773.3	521.3	252.03	3.068		
15,200.0	7,272.0	15,342.4	7,617.0	137.3	135.7	-116.48	7,263.4	1,569.0	773.8	518.6	255.18	3.032		
15,300.0	7,272.0	15,442.4	7,617.0	138.9	137.4	-116.46	7,363.4	1,567.0	774.2	515.9	258.34	2.997		
15,400.0	7,272.0	15,542.4	7,617.0	140.6	139.1	-116.45	7,463.4	1,565.0	774.6	513.1	261.49	2.962		
15,500.0	7,272.0	15,642.4	7,617.0	142.3	140.8	-116.43	7,563.4	1,562.9	775.1	510.4	264.65	2.929		

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 19-18-4NBH
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 19-18-4NBH	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 #2	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-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,272.0	15,742.4	7,617.0	144.0	142.5	-116.42	7,663.3	1,560.9	775.5	507.7	267.82	2.896		
15,700.0	7,272.0	15,842.4	7,617.0	145.7	144.2	-116.40	7,763.3	1,558.8	775.9	504.9	270.98	2.863		
15,800.0	7,272.0	15,942.4	7,617.0	147.4	145.9	-116.38	7,863.3	1,556.8	776.3	502.2	274.15	2.832		
15,900.0	7,272.0	16,042.4	7,617.0	149.1	147.6	-116.37	7,963.3	1,554.8	776.8	499.5	277.32	2.801		
16,000.0	7,272.0	16,142.4	7,617.0	150.7	149.3	-116.35	8,063.2	1,552.7	777.2	496.7	280.50	2.771		
16,100.0	7,272.0	16,242.4	7,617.0	152.4	151.1	-116.34	8,163.2	1,550.7	777.6	494.0	283.68	2.741		
16,200.0	7,272.0	16,342.4	7,617.0	154.1	152.8	-116.32	8,263.2	1,548.6	778.1	491.2	286.86	2.712		
16,300.0	7,272.0	16,442.4	7,617.0	155.8	154.5	-116.31	8,363.2	1,546.6	778.5	488.5	290.04	2.684		
16,400.0	7,272.0	16,542.4	7,617.0	157.5	156.2	-116.29	8,463.2	1,544.5	778.9	485.7	293.23	2.656		
16,500.0	7,272.0	16,642.4	7,617.0	159.2	157.9	-116.27	8,563.1	1,542.5	779.4	483.0	296.42	2.629		
16,600.0	7,272.0	16,742.4	7,617.0	160.9	159.6	-116.26	8,663.1	1,540.5	779.8	480.2	299.61	2.603		
16,700.0	7,272.0	16,842.4	7,617.0	162.6	161.4	-116.24	8,763.1	1,538.4	780.2	477.4	302.80	2.577		
16,800.0	7,272.0	16,942.4	7,617.0	164.4	163.1	-116.23	8,863.1	1,536.4	780.7	474.7	306.00	2.551		
16,900.0	7,272.0	17,042.4	7,617.0	166.1	164.8	-116.21	8,963.0	1,534.3	781.1	471.9	309.19	2.526		
17,000.0	7,272.0	17,142.4	7,617.0	167.8	166.5	-116.20	9,063.0	1,532.3	781.5	469.1	312.39	2.502		
17,100.0	7,272.0	17,242.4	7,617.0	169.5	168.3	-116.18	9,163.0	1,530.3	782.0	466.4	315.59	2.478		
17,200.0	7,272.0	17,378.8	7,617.0	171.2	170.6	-116.26	9,299.5	1,530.7	780.3	459.2	321.08	2.430		
17,300.0	7,272.0	17,519.1	7,617.0	172.9	173.0	-116.62	9,439.5	1,539.2	773.5	447.9	325.61	2.375		
17,400.0	7,272.0	17,657.7	7,617.0	174.6	175.4	-117.25	9,577.1	1,555.7	761.5	432.8	328.73	2.317		
17,500.0	7,272.0	17,793.7	7,617.0	176.3	177.7	-118.18	9,711.0	1,579.4	744.6	414.2	330.40	2.254		
17,600.0	7,272.0	17,926.4	7,617.0	178.0	179.9	-119.43	9,840.1	1,609.9	723.0	392.4	330.60	2.187		
17,700.0	7,272.0	18,014.8	7,617.0	179.8	181.3	-120.47	9,925.1	1,633.8	698.2	366.5	331.64	2.105		
17,800.0	7,272.0	18,014.8	7,617.0	181.5	181.3	-120.47	9,925.1	1,633.8	682.7	349.5	333.20	2.049 SF		
17,857.1	7,272.0	18,014.8	7,617.0	182.5	181.3	-120.47	9,925.1	1,633.8	680.3	349.1	331.17	2.054		
17,858.4	7,272.0	18,014.8	7,617.0	182.5	181.3	-120.47	9,925.1	1,633.8	680.3	349.2	331.09	2.055		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	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-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.09	0.0	-15.0	15.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.09	0.0	-15.0	15.0	14.4	0.55	27.160		
200.0	200.0	200.0	200.0	1.0	1.0	-90.09	0.0	-15.0	15.0	13.4	1.59	9.422		
300.0	300.0	300.0	300.0	1.5	1.5	-90.09	0.0	-15.0	15.0	12.6	2.44	6.137		
400.0	400.0	400.0	400.0	1.9	1.9	-90.09	0.0	-15.0	15.0	11.8	3.23	4.642		
500.0	500.0	500.0	500.0	2.3	2.3	-90.09	0.0	-15.0	15.0	11.0	3.99	3.757 CC, ES		
600.0	600.0	600.0	600.0	2.8	2.7	169.31	0.0	-15.0	16.7	11.7	5.01	3.335		
700.0	699.8	700.6	700.5	3.7	3.1	171.12	-0.4	-13.3	20.1	13.5	6.63	3.040		
800.0	799.5	801.3	801.1	4.6	3.9	172.36	-1.5	-8.1	23.6	15.2	8.41	2.804		
900.0	898.7	902.1	901.5	5.3	4.8	173.25	-3.4	0.6	27.0	17.0	9.94	2.714		
1,000.0	997.5	1,003.0	1,001.7	6.0	5.6	173.91	-5.9	12.7	30.4	19.0	11.32	2.683		
1,100.0	1,095.6	1,104.1	1,101.5	6.7	6.3	174.40	-9.3	28.3	33.7	21.1	12.58	2.680		
1,200.0	1,193.1	1,205.3	1,200.8	7.3	6.9	174.77	-13.4	47.3	37.0	23.3	13.76	2.691		
1,300.0	1,289.6	1,306.6	1,299.4	7.8	7.5	175.05	-18.2	69.8	40.3	25.4	14.88	2.709		
1,400.0	1,385.3	1,408.0	1,397.3	8.4	8.1	175.27	-23.7	95.7	43.6	27.6	15.95	2.731		
1,500.0	1,479.8	1,509.6	1,494.4	8.9	8.6	175.43	-30.0	125.0	46.7	29.8	16.97	2.755		
1,600.0	1,573.2	1,611.2	1,590.4	9.3	9.2	175.54	-37.0	157.7	49.7	32.0	17.73	2.803		
1,700.0	1,666.4	1,711.4	1,684.2	9.5	9.4	175.50	-44.3	192.0	51.2	33.0	18.24	2.808		
1,800.0	1,759.5	1,811.4	1,777.9	9.8	9.7	175.47	-51.6	226.2	52.7	33.9	18.80	2.805		
1,900.0	1,852.7	1,911.4	1,871.6	10.2	10.0	175.43	-59.0	260.4	54.2	34.8	19.39	2.797		
2,000.0	1,945.8	2,011.4	1,965.3	10.5	10.3	175.40	-66.3	294.6	55.7	35.7	20.00	2.787		
2,100.0	2,039.0	2,111.4	2,058.9	11.0	10.7	175.37	-73.6	328.8	57.3	36.6	20.63	2.775		
2,200.0	2,132.1	2,211.4	2,152.6	11.5	11.2	175.34	-80.9	363.0	58.8	37.5	21.28	2.762		
2,300.0	2,225.3	2,311.4	2,246.3	12.1	11.7	175.32	-88.2	397.2	60.3	38.3	21.95	2.747		
2,400.0	2,318.4	2,411.3	2,339.9	12.8	12.3	175.29	-95.6	431.4	61.8	39.2	22.63	2.731		
2,500.0	2,411.6	2,511.3	2,433.6	13.5	13.0	175.27	-102.9	465.6	63.3	40.0	23.32	2.714		
2,600.0	2,504.7	2,611.3	2,527.3	14.2	13.6	175.24	-110.2	499.8	64.8	40.8	24.03	2.697		
2,700.0	2,597.8	2,711.3	2,621.0	14.9	14.3	175.22	-117.5	534.0	66.3	41.6	24.75	2.679		
2,800.0	2,691.0	2,811.3	2,714.6	15.7	15.0	175.20	-124.8	568.2	67.8	42.3	25.48	2.662		
2,900.0	2,784.1	2,911.3	2,808.3	16.4	15.7	175.18	-132.2	602.4	69.3	43.1	26.22	2.644		
3,000.0	2,877.3	3,011.3	2,902.0	17.2	16.4	175.16	-139.5	636.6	70.9	43.9	26.97	2.627		
3,100.0	2,970.4	3,111.3	2,995.6	17.9	17.1	175.14	-146.8	670.8	72.4	44.6	27.73	2.610		
3,200.0	3,063.6	3,211.3	3,089.3	18.6	17.8	175.12	-154.1	705.0	73.9	45.4	28.50	2.593		
3,300.0	3,156.7	3,311.2	3,183.0	19.4	18.6	175.10	-161.4	739.2	75.4	46.1	29.27	2.576		
3,400.0	3,249.9	3,411.2	3,276.7	20.2	19.3	175.09	-168.8	773.4	76.9	46.9	30.05	2.559		
3,500.0	3,343.0	3,511.2	3,370.3	20.9	20.0	175.07	-176.1	807.6	78.4	47.6	30.83	2.543		
3,600.0	3,436.2	3,611.2	3,464.0	21.7	20.7	175.06	-183.4	841.8	79.9	48.3	31.62	2.528		
3,700.0	3,529.3	3,711.2	3,557.7	22.4	21.5	175.04	-190.7	876.0	81.4	49.0	32.41	2.512		
3,800.0	3,622.5	3,811.2	3,651.3	23.2	22.2	175.03	-198.0	910.2	82.9	49.7	33.21	2.497		
3,900.0	3,715.6	3,911.2	3,745.0	23.9	22.9	175.01	-205.4	944.4	84.5	50.4	34.02	2.483		
4,000.0	3,808.7	4,011.2	3,838.7	24.7	23.6	175.00	-212.7	978.6	86.0	51.1	34.83	2.468		
4,100.0	3,901.9	4,111.2	3,932.4	25.4	24.4	174.99	-220.0	1,012.8	87.5	51.8	35.64	2.454		
4,200.0	3,995.0	4,211.1	4,026.0	26.2	25.1	174.97	-227.3	1,047.0	89.0	52.5	36.46	2.441		
4,300.0	4,088.2	4,311.1	4,119.7	27.0	25.8	174.96	-234.6	1,081.2	90.5	53.2	37.27	2.428		
4,400.0	4,181.3	4,411.1	4,213.4	27.7	26.6	174.95	-242.0	1,115.4	92.0	53.9	38.10	2.415		
4,500.0	4,274.5	4,511.1	4,307.0	28.5	27.3	174.94	-249.3	1,149.6	93.5	54.6	38.92	2.403		
4,600.0	4,367.6	4,611.1	4,400.7	29.3	28.0	174.93	-256.6	1,183.8	95.0	55.3	39.75	2.391		
4,700.0	4,460.8	4,711.1	4,494.4	30.0	28.8	174.92	-263.9	1,218.0	96.5	56.0	40.58	2.379		
4,800.0	4,553.9	4,811.1	4,588.1	30.8	29.5	174.91	-271.2	1,252.2	98.1	56.6	41.41	2.368		
4,900.0	4,647.1	4,911.1	4,681.7	31.5	30.2	174.90	-278.5	1,286.4	99.6	57.3	42.25	2.357		
5,000.0	4,740.2	5,011.1	4,775.4	32.3	31.0	174.89	-285.9	1,320.6	101.1	58.0	43.09	2.346		
5,100.0	4,833.3	5,111.0	4,869.1	33.1	31.7	174.88	-293.2	1,354.8	102.6	58.7	43.92	2.335		

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 19-18-4NBH
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 19-18-4NBH	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 #2	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-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	4,926.5	5,211.0	4,962.7	33.8	32.4	174.87	-300.5	1,389.0	104.1	59.3	44.77	2.325		
5,300.0	5,019.6	5,311.0	5,056.4	34.6	33.2	174.86	-307.8	1,423.2	105.6	60.0	45.61	2.315		
5,400.0	5,112.8	5,411.0	5,150.1	35.4	33.9	174.85	-315.1	1,457.4	107.1	60.7	46.45	2.306		
5,500.0	5,205.9	5,511.0	5,243.8	36.1	34.7	174.84	-322.5	1,491.6	108.6	61.3	47.30	2.297		
5,600.0	5,299.1	5,611.0	5,337.4	36.9	35.4	174.84	-329.8	1,525.8	110.1	62.0	48.15	2.288		
5,700.0	5,392.2	5,711.0	5,431.1	37.7	36.1	174.83	-337.1	1,560.0	111.7	62.7	49.00	2.279		
5,800.0	5,485.4	5,811.0	5,524.8	38.4	36.9	174.82	-344.4	1,594.2	113.2	63.3	49.85	2.270		
5,900.0	5,578.5	5,910.9	5,618.5	39.2	37.6	174.81	-351.7	1,628.4	114.7	64.0	50.70	2.262		
6,000.0	5,671.7	6,010.9	5,712.1	39.9	38.3	174.81	-359.1	1,662.6	116.2	64.6	51.55	2.254		
6,100.0	5,764.8	6,110.9	5,805.8	40.7	39.1	174.80	-366.4	1,696.8	117.7	65.3	52.41	2.246		
6,200.0	5,858.0	6,210.9	5,899.5	41.5	39.8	174.79	-373.7	1,731.0	119.2	65.9	53.27	2.238		
6,300.0	5,951.1	6,310.9	5,993.1	42.2	40.6	174.79	-381.0	1,765.2	120.7	66.6	54.12	2.230		
6,400.0	6,044.2	6,410.9	6,086.8	43.0	41.3	174.78	-388.3	1,799.4	122.2	67.2	54.98	2.223		
6,500.0	6,137.4	6,510.9	6,180.5	43.8	42.0	174.77	-395.7	1,833.6	123.7	67.9	55.84	2.216		
6,600.0	6,230.5	6,610.9	6,274.2	44.5	42.8	174.77	-403.0	1,867.8	125.3	68.6	56.70	2.209		
6,700.0	6,323.7	6,710.9	6,367.8	45.3	43.5	174.76	-410.3	1,902.0	126.8	69.2	57.56	2.202		
6,800.0	6,416.8	6,810.8	6,461.5	46.1	44.2	174.75	-417.6	1,936.2	128.3	69.9	58.42	2.196		
6,900.0	6,510.0	6,910.8	6,555.2	46.8	45.0	174.75	-424.9	1,970.5	129.8	70.5	59.28	2.189		
7,000.0	6,603.1	7,010.8	6,648.8	47.6	45.7	174.74	-432.3	2,004.7	131.3	71.1	60.15	2.183		
7,100.0	6,696.3	7,110.8	6,742.5	48.4	46.5	175.44	-439.6	2,038.9	132.8	71.8	61.01	2.177		
7,200.0	6,789.6	7,210.3	6,835.7	49.2	47.2	-162.64	-446.9	2,072.9	133.6	71.0	62.59	2.134		
7,300.0	6,881.3	7,307.2	6,926.5	49.9	47.9	-152.23	-453.7	2,106.0	136.3	68.9	67.35	2.024		
7,400.0	6,968.6	7,408.3	7,021.3	50.4	48.7	-150.64	-449.4	2,140.5	145.6	71.3	74.36	1.959		
7,500.0	7,048.9	7,515.9	7,119.9	50.8	49.4	-152.43	-425.4	2,176.0	160.4	81.4	79.06	2.029		
7,600.0	7,119.7	7,631.1	7,218.8	51.2	49.9	-155.20	-378.5	2,211.2	178.1	98.9	79.25	2.248		
7,700.0	7,178.8	7,754.7	7,312.9	51.4	50.4	-157.86	-306.0	2,244.3	196.1	121.5	74.65	2.628		
7,800.0	7,224.5	7,886.7	7,395.0	51.6	50.7	-160.00	-207.0	2,272.7	212.1	145.8	66.32	3.198		
7,900.0	7,255.4	8,026.2	7,456.3	51.7	50.9	-161.47	-83.7	2,293.1	224.0	167.1	56.92	3.935		
8,000.0	7,270.5	8,171.0	7,488.5	51.7	51.0	-162.21	56.8	2,302.6	230.2	179.0	51.22	4.495		
8,100.0	7,272.0	8,291.7	7,492.0	51.7	51.0	-162.31	177.3	2,302.0	230.9	179.2	51.72	4.465		
8,200.0	7,272.0	8,391.7	7,492.0	51.7	51.0	-162.31	277.3	2,300.4	230.9	178.2	52.69	4.383		
8,300.0	7,272.0	8,491.7	7,492.0	51.7	51.0	-162.31	377.3	2,298.9	230.9	177.2	53.71	4.299		
8,400.0	7,272.0	8,591.7	7,492.0	51.8	51.1	-162.31	477.3	2,297.3	230.9	176.1	54.78	4.216		
8,500.0	7,272.0	8,691.7	7,492.0	51.9	51.2	-162.31	577.3	2,295.8	230.9	175.0	55.88	4.132		
8,600.0	7,272.0	8,791.7	7,492.0	52.1	51.4	-162.31	677.3	2,294.2	230.9	173.9	57.02	4.050		
8,700.0	7,272.0	8,891.7	7,492.0	52.3	51.6	-162.31	777.3	2,292.7	230.9	172.7	58.20	3.968		
8,800.0	7,272.0	8,991.7	7,492.0	52.5	51.8	-162.31	877.2	2,291.1	230.9	171.5	59.41	3.887		
8,900.0	7,272.0	9,091.7	7,492.0	52.8	52.1	-162.31	977.2	2,289.5	230.9	170.3	60.66	3.807		
9,000.0	7,272.0	9,191.7	7,492.0	53.1	52.5	-162.31	1,077.2	2,288.0	230.9	169.0	61.93	3.728		
9,100.0	7,272.0	9,291.7	7,492.0	53.5	52.9	-162.31	1,177.2	2,286.4	230.9	167.7	63.24	3.652		
9,200.0	7,272.0	9,391.7	7,492.0	54.0	53.4	-162.31	1,277.2	2,284.9	230.9	166.4	64.56	3.577		
9,300.0	7,272.0	9,491.7	7,492.0	54.5	53.9	-162.31	1,377.2	2,283.3	230.9	165.0	65.92	3.503		
9,400.0	7,272.0	9,591.7	7,492.0	55.0	54.5	-162.31	1,477.2	2,281.8	230.9	163.6	67.29	3.431		
9,500.0	7,272.0	9,691.7	7,492.0	55.6	55.1	-162.31	1,577.2	2,280.2	230.9	162.2	68.69	3.362		
9,600.0	7,272.0	9,791.7	7,492.0	56.3	55.8	-162.32	1,677.1	2,278.6	230.9	160.8	70.11	3.294		
9,700.0	7,272.0	9,891.7	7,492.0	57.1	56.6	-162.32	1,777.1	2,277.1	230.9	159.4	71.55	3.227		
9,800.0	7,272.0	9,991.7	7,492.0	57.9	57.4	-162.32	1,877.1	2,275.5	230.9	157.9	73.01	3.163		
9,900.0	7,272.0	10,091.7	7,492.0	58.7	58.3	-162.32	1,977.1	2,274.0	230.9	156.4	74.48	3.100		
10,000.0	7,272.0	10,191.7	7,492.0	59.7	59.3	-162.32	2,077.1	2,272.4	230.9	154.9	75.97	3.040		
10,100.0	7,272.0	10,291.7	7,492.0	60.6	60.3	-162.32	2,177.1	2,270.9	230.9	153.4	77.47	2.981		
10,200.0	7,272.0	10,391.7	7,492.0	61.7	61.3	-162.32	2,277.1	2,269.3	230.9	151.9	78.99	2.923		
10,300.0	7,272.0	10,491.7	7,492.0	62.7	62.4	-162.32	2,377.1	2,267.7	230.9	150.4	80.52	2.868		

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 19-18-4NBH
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 19-18-4NBH	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 #2	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-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,272.0	10,591.7	7,492.0	63.9	63.6	-162.32	2,477.1	2,266.2	230.9	148.8	82.07	2.814		
10,500.0	7,272.0	10,691.7	7,492.0	65.0	64.8	-162.32	2,577.0	2,264.6	230.9	147.3	83.63	2.761		
10,600.0	7,272.0	10,791.7	7,492.0	66.2	66.0	-162.32	2,677.0	2,263.1	230.9	145.7	85.19	2.710		
10,700.0	7,272.0	10,891.7	7,492.0	67.4	67.2	-162.32	2,777.0	2,261.5	230.9	144.1	86.77	2.661		
10,800.0	7,272.0	10,991.7	7,492.0	68.7	68.5	-162.32	2,877.0	2,260.0	230.9	142.5	88.36	2.613		
10,900.0	7,272.0	11,091.7	7,492.0	70.0	69.8	-162.32	2,977.0	2,258.4	230.9	140.9	89.96	2.567		
11,000.0	7,272.0	11,191.7	7,492.0	71.3	71.1	-162.32	3,077.0	2,256.9	230.9	139.3	91.57	2.522		
11,100.0	7,272.0	11,291.7	7,492.0	72.7	72.5	-162.32	3,177.0	2,255.3	230.9	137.7	93.19	2.478		
11,200.0	7,272.0	11,391.7	7,492.0	74.0	73.9	-162.32	3,277.0	2,253.7	230.9	136.1	94.81	2.435		
11,300.0	7,272.0	11,491.7	7,492.0	75.4	75.3	-162.33	3,376.9	2,252.2	230.9	134.5	96.44	2.394		
11,400.0	7,272.0	11,591.7	7,492.0	76.8	76.7	-162.33	3,476.9	2,250.6	230.9	132.8	98.08	2.354		
11,500.0	7,272.0	11,691.7	7,492.0	78.2	78.1	-162.33	3,576.9	2,249.1	230.9	131.2	99.73	2.315		
11,600.0	7,272.0	11,791.7	7,492.0	79.7	79.6	-162.33	3,676.9	2,247.5	230.9	129.5	101.38	2.277		
11,700.0	7,272.0	11,891.7	7,492.0	81.1	81.0	-162.33	3,776.9	2,246.0	230.9	127.9	103.04	2.241		
11,800.0	7,272.0	11,991.7	7,492.0	82.6	82.5	-162.33	3,876.9	2,244.4	230.9	126.2	104.71	2.205		
11,900.0	7,272.0	12,091.7	7,492.0	84.1	84.0	-162.33	3,976.9	2,242.8	230.9	124.5	106.38	2.170		
12,000.0	7,272.0	12,191.7	7,492.0	85.6	85.5	-162.33	4,076.9	2,241.3	230.9	122.8	108.06	2.137		
12,100.0	7,272.0	12,291.7	7,492.0	87.1	87.0	-162.33	4,176.8	2,239.7	230.9	121.2	109.74	2.104		
12,200.0	7,272.0	12,391.7	7,492.0	88.6	88.5	-162.33	4,276.8	2,238.2	230.9	119.5	111.43	2.072		
12,300.0	7,272.0	12,491.7	7,492.0	90.2	90.1	-162.33	4,376.8	2,236.6	230.9	117.8	113.12	2.041		
12,400.0	7,272.0	12,591.7	7,492.0	91.7	91.6	-162.33	4,476.8	2,235.1	230.9	116.1	114.82	2.011		
12,500.0	7,272.0	12,691.7	7,492.0	93.3	93.2	-162.33	4,576.8	2,233.5	230.9	114.4	116.52	1.982		
12,600.0	7,272.0	12,791.7	7,492.0	94.8	94.7	-162.33	4,676.8	2,231.9	230.9	112.7	118.23	1.953		
12,700.0	7,272.0	12,891.7	7,492.0	96.4	96.3	-162.33	4,776.8	2,230.4	230.9	111.0	119.94	1.925		
12,800.0	7,272.0	12,991.7	7,492.0	98.0	97.9	-162.33	4,876.8	2,228.8	230.9	109.2	121.65	1.898		
12,900.0	7,272.0	13,091.7	7,492.0	99.5	99.5	-162.33	4,976.7	2,227.3	230.9	107.5	123.37	1.872		
13,000.0	7,272.0	13,191.7	7,492.0	101.1	101.1	-162.33	5,076.7	2,225.7	230.9	105.8	125.09	1.846		
13,100.0	7,272.0	13,291.7	7,492.0	102.7	102.7	-162.34	5,176.7	2,224.2	230.9	104.1	126.81	1.821		
13,200.0	7,272.0	13,391.7	7,492.0	104.3	104.3	-162.34	5,276.7	2,222.6	230.9	102.3	128.54	1.796		
13,300.0	7,272.0	13,491.7	7,492.0	105.9	105.9	-162.34	5,376.7	2,221.1	230.9	100.6	130.27	1.772		
13,400.0	7,272.0	13,591.7	7,492.0	107.5	107.5	-162.34	5,476.7	2,219.5	230.9	98.9	132.00	1.749		
13,500.0	7,272.0	13,691.7	7,492.0	109.2	109.1	-162.34	5,576.7	2,217.9	230.9	97.1	133.74	1.726		
13,600.0	7,272.0	13,791.7	7,492.0	110.8	110.7	-162.34	5,676.7	2,216.4	230.9	95.4	135.48	1.704		
13,700.0	7,272.0	13,891.7	7,492.0	112.4	112.4	-162.34	5,776.7	2,214.8	230.9	93.7	137.22	1.683		
13,800.0	7,272.0	13,991.7	7,492.0	114.0	114.0	-162.34	5,876.6	2,213.3	230.9	91.9	138.96	1.661		
13,900.0	7,272.0	14,091.7	7,492.0	115.7	115.6	-162.34	5,976.6	2,211.7	230.9	90.2	140.71	1.641		
14,000.0	7,272.0	14,191.7	7,492.0	117.3	117.3	-162.34	6,076.6	2,210.2	230.9	88.4	142.46	1.621		
14,100.0	7,272.0	14,291.7	7,492.0	119.0	118.9	-162.34	6,176.6	2,208.6	230.9	86.7	144.21	1.601		
14,200.0	7,272.0	14,391.7	7,492.0	120.6	120.6	-162.34	6,276.6	2,207.0	230.9	84.9	145.96	1.582		
14,300.0	7,272.0	14,491.7	7,492.0	122.3	122.2	-162.34	6,376.6	2,205.5	230.9	83.2	147.72	1.563		
14,400.0	7,272.0	14,591.7	7,492.0	123.9	123.9	-162.34	6,476.6	2,203.9	230.9	81.4	149.47	1.545		
14,500.0	7,272.0	14,691.7	7,492.0	125.6	125.5	-162.34	6,576.6	2,202.4	230.9	79.6	151.23	1.527		
14,600.0	7,272.0	14,791.7	7,492.0	127.2	127.2	-162.34	6,676.5	2,200.8	230.9	77.9	152.99	1.509		
14,700.0	7,272.0	14,891.7	7,492.0	128.9	128.9	-162.34	6,776.5	2,199.3	230.9	76.1	154.76	1.492 Level 3		
14,800.0	7,272.0	14,991.7	7,492.0	130.6	130.5	-162.34	6,876.5	2,197.7	230.9	74.4	156.52	1.475 Level 3		
14,900.0	7,272.0	15,091.7	7,492.0	132.2	132.2	-162.35	6,976.5	2,196.1	230.9	72.6	158.29	1.459 Level 3		
15,000.0	7,272.0	15,191.7	7,492.0	133.9	133.9	-162.35	7,076.5	2,194.6	230.9	70.8	160.06	1.442 Level 3		
15,100.0	7,272.0	15,291.7	7,492.0	135.6	135.5	-162.35	7,176.5	2,193.0	230.9	69.0	161.83	1.427 Level 3		
15,200.0	7,272.0	15,391.7	7,492.0	137.3	137.2	-162.35	7,276.5	2,191.5	230.9	67.3	163.60	1.411 Level 3		
15,300.0	7,272.0	15,491.7	7,492.0	138.9	138.9	-162.35	7,376.5	2,189.9	230.9	65.5	165.37	1.396 Level 3		
15,400.0	7,272.0	15,591.7	7,492.0	140.6	140.6	-162.35	7,476.4	2,188.4	230.9	63.7	167.14	1.381 Level 3		
15,500.0	7,272.0	15,691.7	7,492.0	142.3	142.3	-162.35	7,576.4	2,186.8	230.9	62.0	168.92	1.367 Level 3		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	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-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,272.0	15,791.7	7,492.0	144.0	143.9	-162.35	7,676.4	2,185.2	230.9	60.2	170.70	1.353 Level 3		
15,700.0	7,272.0	15,891.7	7,492.0	145.7	145.6	-162.35	7,776.4	2,183.7	230.9	58.4	172.47	1.339 Level 3		
15,800.0	7,272.0	15,991.7	7,492.0	147.4	147.3	-162.35	7,876.4	2,182.1	230.9	56.6	174.25	1.325 Level 3		
15,900.0	7,272.0	16,091.7	7,492.0	149.1	149.0	-162.35	7,976.4	2,180.6	230.9	54.8	176.03	1.311 Level 3		
16,000.0	7,272.0	16,191.7	7,492.0	150.7	150.7	-162.35	8,076.4	2,179.0	230.9	53.0	177.82	1.298 Level 3		
16,100.0	7,272.0	16,291.7	7,492.0	152.4	152.4	-162.35	8,176.4	2,177.5	230.9	51.3	179.60	1.285 Level 3		
16,200.0	7,272.0	16,391.7	7,492.0	154.1	154.1	-162.35	8,276.3	2,175.9	230.9	49.5	181.38	1.273 Level 3		
16,300.0	7,272.0	16,491.7	7,492.0	155.8	155.8	-162.35	8,376.3	2,174.4	230.9	47.7	183.17	1.260 Level 3		
16,400.0	7,272.0	16,591.7	7,492.0	157.5	157.5	-162.35	8,476.3	2,172.8	230.9	45.9	184.96	1.248 Level 2		
16,500.0	7,272.0	16,691.7	7,492.0	159.2	159.2	-162.35	8,576.3	2,171.2	230.9	44.1	186.74	1.236 Level 2		
16,600.0	7,272.0	16,791.7	7,492.0	160.9	160.9	-162.35	8,676.3	2,169.7	230.9	42.3	188.53	1.225 Level 2		
16,700.0	7,272.0	16,891.7	7,492.0	162.6	162.6	-162.36	8,776.3	2,168.1	230.9	40.5	190.32	1.213 Level 2		
16,800.0	7,272.0	16,991.7	7,492.0	164.4	164.3	-162.36	8,876.3	2,166.6	230.9	38.7	192.11	1.202 Level 2		
16,900.0	7,272.0	17,091.7	7,492.0	166.1	166.0	-162.36	8,976.3	2,165.0	230.9	37.0	193.90	1.191 Level 2		
17,000.0	7,272.0	17,191.7	7,492.0	167.8	167.7	-162.36	9,076.3	2,163.5	230.9	35.2	195.69	1.180 Level 2		
17,100.0	7,272.0	17,291.7	7,492.0	169.5	169.4	-162.36	9,176.2	2,161.9	230.9	33.4	197.49	1.169 Level 2		
17,200.0	7,272.0	17,391.7	7,492.0	171.2	171.2	-162.36	9,276.2	2,160.3	230.9	31.6	199.28	1.158 Level 2		
17,300.0	7,272.0	17,491.7	7,492.0	172.9	172.9	-162.36	9,376.2	2,158.8	230.9	29.8	201.07	1.148 Level 2		
17,400.0	7,272.0	17,591.7	7,492.0	174.6	174.6	-162.36	9,476.2	2,157.2	230.9	28.0	202.87	1.138 Level 2		
17,500.0	7,272.0	17,691.7	7,492.0	176.3	176.3	-162.36	9,576.2	2,155.7	230.9	26.2	204.67	1.128 Level 2		
17,600.0	7,272.0	17,791.7	7,492.0	178.0	178.0	-162.36	9,676.2	2,154.1	230.9	24.4	206.46	1.118 Level 2		
17,700.0	7,272.0	17,891.7	7,492.0	179.8	179.7	-162.36	9,776.2	2,152.6	230.9	22.6	208.26	1.108 Level 2		
17,800.0	7,272.0	17,991.7	7,492.0	181.5	181.4	-162.36	9,876.2	2,151.0	230.9	20.8	210.06	1.099 Level 2		
17,856.1	7,272.0	18,047.9	7,492.0	182.4	182.4	-162.36	9,932.3	2,150.1	230.9	19.8	211.07	1.094 Level 2, SF		
17,858.4	7,272.0	18,049.1	7,492.0	182.5	182.4	-162.36	9,933.6	2,150.1	230.9	19.9	210.96	1.094 Level 2		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	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	-90.30	-0.2	-30.0	30.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.30	-0.2	-30.0	30.0	29.7	0.28	108.291		
200.0	200.0	200.0	200.0	1.0	0.0	-90.30	-0.2	-30.0	30.0	29.2	0.80	37.600		
300.0	300.0	300.0	300.0	1.5	0.0	-90.30	-0.2	-30.0	30.0	28.8	1.22	24.500		
400.0	400.0	400.0	400.0	1.9	0.0	-90.30	-0.2	-30.0	30.0	28.4	1.62	18.537		
500.0	500.0	500.0	500.0	2.3	0.0	-90.30	-0.2	-30.0	30.0	28.0	2.00	15.008 CC, ES		
600.0	600.0	600.0	600.0	2.8	0.0	168.52	-0.2	-30.0	31.7	29.0	2.66	11.900		
700.0	699.8	699.8	699.8	3.7	0.0	170.12	-0.2	-30.0	36.9	33.2	3.65	10.105		
800.0	799.5	801.0	801.0	4.6	0.0	171.63	-0.6	-28.3	43.7	39.3	4.47	9.784		
900.0	898.7	902.4	902.2	5.3	0.0	172.61	-1.8	-23.0	50.6	45.4	5.20	9.734		
1,000.0	997.5	1,004.1	1,003.5	6.0	0.0	173.26	-3.9	-14.3	57.5	51.6	5.86	9.799		
1,100.0	1,095.6	1,106.0	1,104.6	6.7	0.0	173.68	-6.8	-2.1	64.2	57.8	6.48	9.918		
1,200.0	1,193.1	1,208.1	1,205.5	7.3	0.0	173.94	-10.5	13.7	71.0	63.9	7.06	10.062		
1,300.0	1,289.6	1,310.5	1,305.9	7.8	0.0	174.08	-15.1	33.1	77.7	70.1	7.60	10.215		
1,400.0	1,385.3	1,413.2	1,405.9	8.4	0.0	174.13	-20.5	55.9	84.3	76.1	8.13	10.370		
1,500.0	1,479.8	1,516.1	1,505.1	8.9	0.0	174.10	-26.8	82.4	90.8	82.1	8.63	10.521		
1,600.0	1,573.2	1,619.3	1,603.6	9.3	0.0	174.01	-33.9	112.3	97.0	88.1	8.92	10.870		
1,700.0	1,666.4	1,721.7	1,700.2	9.5	0.0	173.72	-41.7	145.3	100.6	91.4	9.15	10.997		
1,800.0	1,759.5	1,821.7	1,794.3	9.8	0.0	173.39	-49.5	178.3	103.3	93.8	9.43	10.954		
1,900.0	1,852.7	1,921.6	1,888.3	10.2	0.0	173.08	-57.3	211.4	105.9	96.2	9.72	10.899		
2,000.0	1,945.8	2,021.6	1,982.3	10.5	0.0	172.78	-65.1	244.4	108.6	98.6	10.03	10.834		
2,100.0	2,039.0	2,121.6	2,076.3	11.0	0.0	172.49	-73.0	277.4	111.3	101.0	10.34	10.761		
2,200.0	2,132.1	2,221.5	2,170.3	11.5	0.0	172.22	-80.8	310.5	114.0	103.3	10.67	10.681		
2,300.0	2,225.3	2,321.5	2,264.4	12.1	0.0	171.97	-88.6	343.5	116.7	105.7	11.01	10.597		
2,400.0	2,318.4	2,421.5	2,358.4	12.8	0.0	171.72	-96.4	376.6	119.4	108.0	11.36	10.510		
2,500.0	2,411.6	2,521.4	2,452.4	13.5	0.0	171.48	-104.3	409.6	122.1	110.4	11.71	10.421		
2,600.0	2,504.7	2,621.4	2,546.4	14.2	0.0	171.26	-112.1	442.6	124.8	112.7	12.08	10.331		
2,700.0	2,597.8	2,721.3	2,640.4	14.9	0.0	171.04	-119.9	475.7	127.5	115.0	12.45	10.240		
2,800.0	2,691.0	2,821.3	2,734.5	15.7	0.0	170.84	-127.7	508.7	130.2	117.3	12.83	10.149		
2,900.0	2,784.1	2,921.3	2,828.5	16.4	0.0	170.64	-135.6	541.8	132.9	119.7	13.21	10.059		
3,000.0	2,877.3	3,021.2	2,922.5	17.2	0.0	170.45	-143.4	574.8	135.6	122.0	13.60	9.970		
3,100.0	2,970.4	3,121.2	3,016.5	17.9	0.0	170.26	-151.2	607.8	138.3	124.3	13.99	9.882		
3,200.0	3,063.6	3,221.1	3,110.5	18.6	0.0	170.09	-159.0	640.9	141.0	126.6	14.39	9.796		
3,300.0	3,156.7	3,321.1	3,204.5	19.4	0.0	169.92	-166.9	673.9	143.7	128.9	14.79	9.712		
3,400.0	3,249.9	3,421.1	3,298.6	20.2	0.0	169.76	-174.7	707.0	146.4	131.2	15.20	9.629		
3,500.0	3,343.0	3,521.0	3,392.6	20.9	0.0	169.60	-182.5	740.0	149.1	133.5	15.61	9.549		
3,600.0	3,436.2	3,621.0	3,486.6	21.7	0.0	169.45	-190.3	773.0	151.8	135.8	16.03	9.471		
3,700.0	3,529.3	3,721.0	3,580.6	22.4	0.0	169.30	-198.2	806.1	154.5	138.1	16.45	9.394		
3,800.0	3,622.5	3,820.9	3,674.6	23.2	0.0	169.16	-206.0	839.1	157.2	140.4	16.87	9.320		
3,900.0	3,715.6	3,920.9	3,768.7	23.9	0.0	169.02	-213.8	872.2	160.0	142.7	17.30	9.248		
4,000.0	3,808.7	4,020.8	3,862.7	24.7	0.0	168.89	-221.6	905.2	162.7	144.9	17.72	9.178		
4,100.0	3,901.9	4,120.8	3,956.7	25.4	0.0	168.76	-229.5	938.2	165.4	147.2	18.15	9.110		
4,200.0	3,995.0	4,220.8	4,050.7	26.2	0.0	168.64	-237.3	971.3	168.1	149.5	18.59	9.044		
4,300.0	4,088.2	4,320.7	4,144.7	27.0	0.0	168.52	-245.1	1,004.3	170.8	151.8	19.02	8.980		
4,400.0	4,181.3	4,420.7	4,238.8	27.7	0.0	168.41	-252.9	1,037.4	173.5	154.1	19.46	8.917		
4,500.0	4,274.5	4,520.7	4,332.8	28.5	0.0	168.29	-260.8	1,070.4	176.3	156.4	19.90	8.857		
4,600.0	4,367.6	4,620.6	4,426.8	29.3	0.0	168.18	-268.6	1,103.4	179.0	158.6	20.34	8.799		
4,700.0	4,460.8	4,720.6	4,520.8	30.0	0.0	168.08	-276.4	1,136.5	181.7	160.9	20.78	8.742		
4,800.0	4,553.9	4,820.5	4,614.8	30.8	0.0	167.98	-284.2	1,169.5	184.4	163.2	21.23	8.687		
4,900.0	4,647.1	4,920.5	4,708.9	31.5	0.0	167.88	-292.1	1,202.6	187.1	165.5	21.68	8.633		
5,000.0	4,740.2	5,020.5	4,802.9	32.3	0.0	167.78	-299.9	1,235.6	189.9	167.7	22.12	8.581		
5,100.0	4,833.3	5,120.4	4,896.9	33.1	0.0	167.69	-307.7	1,268.6	192.6	170.0	22.57	8.531		

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 19-18-4NBH
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 19-18-4NBH	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 #2	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	4,926.5	5,220.4	4,990.9	33.8	0.0	167.60	-315.5	1,301.7	195.3	172.3	23.03	8.482		
5,300.0	5,019.6	5,320.4	5,084.9	34.6	0.0	167.51	-323.4	1,334.7	198.0	174.5	23.48	8.435		
5,400.0	5,112.8	5,420.3	5,179.0	35.4	0.0	167.42	-331.2	1,367.8	200.8	176.8	23.93	8.389		
5,500.0	5,205.9	5,520.3	5,273.0	36.1	0.0	167.34	-339.0	1,400.8	203.5	179.1	24.39	8.344		
5,600.0	5,299.1	5,620.2	5,367.0	36.9	0.0	167.25	-346.8	1,433.8	206.2	181.4	24.84	8.300		
5,700.0	5,392.2	5,720.2	5,461.0	37.7	0.0	167.18	-354.7	1,466.9	208.9	183.6	25.30	8.258		
5,800.0	5,485.4	5,820.2	5,555.0	38.4	0.0	167.10	-362.5	1,499.9	211.6	185.9	25.76	8.217		
5,900.0	5,578.5	5,920.1	5,649.1	39.2	0.0	167.02	-370.3	1,533.0	214.4	188.2	26.22	8.177		
6,000.0	5,671.7	6,020.1	5,743.1	39.9	0.0	166.95	-378.1	1,566.0	217.1	190.4	26.68	8.138		
6,100.0	5,764.8	6,120.1	5,837.1	40.7	0.0	166.88	-386.0	1,599.0	219.8	192.7	27.14	8.100		
6,200.0	5,858.0	6,220.0	5,931.1	41.5	0.0	166.81	-393.8	1,632.1	222.6	195.0	27.60	8.064		
6,300.0	5,951.1	6,320.0	6,025.1	42.2	0.0	166.74	-401.6	1,665.1	225.3	197.2	28.06	8.028		
6,400.0	6,044.2	6,419.9	6,119.1	43.0	0.0	166.67	-409.5	1,698.2	228.0	199.5	28.53	7.993		
6,500.0	6,137.4	6,519.9	6,213.2	43.8	0.0	166.61	-417.3	1,731.2	230.7	201.7	28.99	7.959		
6,600.0	6,230.5	6,619.9	6,307.2	44.5	0.0	166.54	-425.1	1,764.2	233.5	204.0	29.45	7.926		
6,700.0	6,323.7	6,719.8	6,401.2	45.3	0.0	166.48	-432.9	1,797.3	236.2	206.3	29.92	7.894		
6,800.0	6,416.8	6,819.8	6,495.2	46.1	0.0	166.42	-440.8	1,830.3	238.9	208.5	30.39	7.863		
6,900.0	6,510.0	6,919.8	6,589.2	46.8	0.0	166.36	-448.6	1,863.4	241.6	210.8	30.85	7.832		
7,000.0	6,603.1	7,020.4	6,684.0	47.6	0.0	166.91	-453.9	1,896.6	244.3	213.1	31.22	7.826		
7,100.0	6,696.3	7,118.5	6,776.0	48.4	0.0	171.65	-443.8	1,928.8	247.2	216.1	31.09	7.951		
7,200.0	6,789.6	7,211.4	6,860.5	49.2	0.0	-156.84	-419.1	1,958.3	252.2	221.2	31.05	8.122		
7,300.0	6,881.3	7,300.0	6,936.6	49.9	0.0	-130.87	-382.4	1,984.6	259.1	227.7	31.40	8.252		
7,400.0	6,968.6	7,388.0	7,006.0	50.4	0.0	-112.89	-334.1	2,008.6	267.0	235.2	31.82	8.392		
7,500.0	7,048.9	7,472.6	7,065.5	50.8	0.0	-100.83	-277.6	2,029.0	275.2	243.3	31.93	8.621		
7,600.0	7,119.7	7,555.6	7,115.6	51.2	0.0	-92.54	-213.8	2,046.0	283.0	251.3	31.68	8.932		
7,700.0	7,178.8	7,637.1	7,155.8	51.4	0.0	-86.80	-144.3	2,059.6	289.7	258.5	31.20	9.285		
7,800.0	7,224.5	7,717.6	7,186.1	51.6	0.0	-82.92	-70.4	2,069.6	294.9	264.3	30.66	9.621		
7,900.0	7,255.4	7,800.0	7,206.7	51.7	0.0	-80.54	9.0	2,076.1	298.3	268.0	30.27	9.853		
8,000.0	7,270.5	7,876.9	7,216.0	51.7	0.0	-79.49	85.2	2,078.8	299.5	269.4	30.08	9.955		
8,100.0	7,272.0	7,967.7	7,217.0	51.7	0.0	-79.40	176.0	2,078.4	298.9	268.7	30.23	9.887		
8,200.0	7,272.0	8,067.7	7,217.0	51.7	0.0	-79.37	276.0	2,077.5	298.2	267.7	30.48	9.782		
8,300.0	7,272.0	8,167.7	7,217.0	51.7	0.0	-79.35	376.0	2,076.7	297.5	266.6	30.83	9.649		
8,400.0	7,272.0	8,267.7	7,217.0	51.8	0.0	-79.32	476.0	2,075.9	296.8	265.5	31.27	9.491		
8,500.0	7,272.0	8,367.7	7,217.0	51.9	0.0	-79.29	576.0	2,075.1	296.0	264.2	31.80	9.310		
8,600.0	7,272.0	8,467.7	7,217.0	52.1	0.0	-79.27	676.0	2,074.2	295.3	262.9	32.41	9.112		
8,700.0	7,272.0	8,567.7	7,217.0	52.3	0.0	-79.24	776.0	2,073.4	294.6	261.5	33.10	8.899		
8,800.0	7,272.0	8,667.7	7,217.0	52.5	0.0	-79.21	876.0	2,072.6	293.9	260.0	33.87	8.676		
8,900.0	7,272.0	8,767.6	7,217.0	52.8	0.0	-79.19	975.9	2,071.7	293.2	258.5	34.71	8.446		
9,000.0	7,272.0	8,867.6	7,217.0	53.1	0.0	-79.16	1,075.9	2,070.9	292.4	256.8	35.61	8.212		
9,100.0	7,272.0	8,967.6	7,217.0	53.5	0.0	-79.13	1,175.9	2,070.1	291.7	255.1	36.58	7.976		
9,200.0	7,272.0	9,067.6	7,217.0	54.0	0.0	-79.11	1,275.9	2,069.3	291.0	253.4	37.60	7.740		
9,300.0	7,272.0	9,167.6	7,217.0	54.5	0.0	-79.08	1,375.9	2,068.4	290.3	251.6	38.67	7.508		
9,400.0	7,272.0	9,267.6	7,217.0	55.0	0.0	-79.05	1,475.9	2,067.6	289.6	249.8	39.78	7.279		
9,500.0	7,272.0	9,367.6	7,217.0	55.6	0.0	-79.02	1,575.9	2,066.8	288.8	247.9	40.94	7.055		
9,600.0	7,272.0	9,467.6	7,217.0	56.3	0.0	-79.00	1,675.9	2,066.0	288.1	246.0	42.14	6.837		
9,700.0	7,272.0	9,567.6	7,217.0	57.1	0.0	-78.97	1,775.9	2,065.1	287.4	244.0	43.38	6.626		
9,800.0	7,272.0	9,667.6	7,217.0	57.9	0.0	-78.94	1,875.9	2,064.3	286.7	242.0	44.65	6.421		
9,900.0	7,272.0	9,767.6	7,217.0	58.7	0.0	-78.91	1,975.9	2,063.5	286.0	240.0	45.95	6.224		
10,000.0	7,272.0	9,867.6	7,217.0	59.7	0.0	-78.88	2,075.9	2,062.7	285.3	238.0	47.27	6.034		
10,100.0	7,272.0	9,967.6	7,217.0	60.6	0.0	-78.85	2,175.9	2,061.8	284.5	235.9	48.62	5.852		
10,200.0	7,272.0	10,067.6	7,217.0	61.7	0.0	-78.83	2,275.9	2,061.0	283.8	233.8	50.00	5.676		
10,300.0	7,272.0	10,167.6	7,217.0	62.7	0.0	-78.80	2,375.9	2,060.2	283.1	231.7	51.40	5.508		

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 19-18-4NBH
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 19-18-4NBH	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 #2	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		
10,400.0	7,272.0	10,267.6	7,217.0	63.9	0.0	-78.77	2,475.9	2,059.3	282.4	229.6	52.81	5.347		
10,500.0	7,272.0	10,367.6	7,217.0	65.0	0.0	-78.74	2,575.8	2,058.5	281.7	227.4	54.25	5.192		
10,600.0	7,272.0	10,467.6	7,217.0	66.2	0.0	-78.71	2,675.8	2,057.7	280.9	225.2	55.70	5.044		
10,700.0	7,272.0	10,567.6	7,217.0	67.4	0.0	-78.68	2,775.8	2,056.9	280.2	223.1	57.17	4.902		
10,800.0	7,272.0	10,667.6	7,217.0	68.7	0.0	-78.65	2,875.8	2,056.0	279.5	220.9	58.65	4.766		
10,900.0	7,272.0	10,767.6	7,217.0	70.0	0.0	-78.62	2,975.8	2,055.2	278.8	218.6	60.14	4.635		
11,000.0	7,272.0	10,867.6	7,217.0	71.3	0.0	-78.59	3,075.8	2,054.4	278.1	216.4	61.65	4.511		
11,100.0	7,272.0	10,967.6	7,217.0	72.7	0.0	-78.56	3,175.8	2,053.6	277.4	214.2	63.17	4.391		
11,200.0	7,272.0	11,067.6	7,217.0	74.0	0.0	-78.53	3,275.8	2,052.7	276.6	211.9	64.70	4.276		
11,300.0	7,272.0	11,167.6	7,217.0	75.4	0.0	-78.50	3,375.8	2,051.9	275.9	209.7	66.23	4.166		
11,400.0	7,272.0	11,267.6	7,217.0	76.8	0.0	-78.47	3,475.8	2,051.1	275.2	207.4	67.78	4.060		
11,500.0	7,272.0	11,367.6	7,217.0	78.2	0.0	-78.44	3,575.8	2,050.2	274.5	205.1	69.34	3.959		
11,600.0	7,272.0	11,467.6	7,217.0	79.7	0.0	-78.41	3,675.8	2,049.4	273.8	202.9	70.90	3.861		
11,700.0	7,272.0	11,567.6	7,217.0	81.1	0.0	-78.38	3,775.8	2,048.6	273.1	200.6	72.47	3.768		
11,800.0	7,272.0	11,667.6	7,217.0	82.6	0.0	-78.35	3,875.8	2,047.8	272.3	198.3	74.05	3.678		
11,900.0	7,272.0	11,767.6	7,217.0	84.1	0.0	-78.32	3,975.8	2,046.9	271.6	196.0	75.63	3.591		
12,000.0	7,272.0	11,867.6	7,217.0	85.6	0.0	-78.29	4,075.8	2,046.1	270.9	193.7	77.22	3.508		
12,100.0	7,272.0	11,967.6	7,217.0	87.1	0.0	-78.25	4,175.7	2,045.3	270.2	191.4	78.81	3.428		
12,200.0	7,272.0	12,067.6	7,217.0	88.6	0.0	-78.22	4,275.7	2,044.5	269.5	189.1	80.41	3.351		
12,300.0	7,272.0	12,167.6	7,217.0	90.2	0.0	-78.19	4,375.7	2,043.6	268.8	186.7	82.02	3.277		
12,400.0	7,272.0	12,267.6	7,217.0	91.7	0.0	-78.16	4,475.7	2,042.8	268.0	184.4	83.63	3.205		
12,500.0	7,272.0	12,367.6	7,217.0	93.3	0.0	-78.13	4,575.7	2,042.0	267.3	182.1	85.24	3.136		
12,600.0	7,272.0	12,467.5	7,217.0	94.8	0.0	-78.09	4,675.7	2,041.2	266.6	179.7	86.86	3.069		
12,700.0	7,272.0	12,567.5	7,217.0	96.4	0.0	-78.06	4,775.7	2,040.3	265.9	177.4	88.48	3.005		
12,800.0	7,272.0	12,667.5	7,217.0	98.0	0.0	-78.03	4,875.7	2,039.5	265.2	175.1	90.11	2.943		
12,900.0	7,272.0	12,767.5	7,217.0	99.5	0.0	-78.00	4,975.7	2,038.7	264.5	172.7	91.73	2.883		
13,000.0	7,272.0	12,867.5	7,217.0	101.1	0.0	-77.96	5,075.7	2,037.8	263.7	170.4	93.36	2.825		
13,100.0	7,272.0	12,967.5	7,217.0	102.7	0.0	-77.93	5,175.7	2,037.0	263.0	168.0	95.00	2.769		
13,200.0	7,272.0	13,067.5	7,217.0	104.3	0.0	-77.90	5,275.7	2,036.2	262.3	165.7	96.63	2.714		
13,300.0	7,272.0	13,167.5	7,217.0	105.9	0.0	-77.86	5,375.7	2,035.4	261.6	163.3	98.27	2.662		
13,400.0	7,272.0	13,267.5	7,217.0	107.5	0.0	-77.83	5,475.7	2,034.5	260.9	161.0	99.92	2.611		
13,500.0	7,272.0	13,367.5	7,217.0	109.2	0.0	-77.79	5,575.7	2,033.7	260.2	158.6	101.56	2.562		
13,600.0	7,272.0	13,467.5	7,217.0	110.8	0.0	-77.76	5,675.7	2,032.9	259.4	156.2	103.20	2.514		
13,700.0	7,272.0	13,567.5	7,217.0	112.4	0.0	-77.73	5,775.7	2,032.1	258.7	153.9	104.85	2.468		
13,800.0	7,272.0	13,667.5	7,217.0	114.0	0.0	-77.69	5,875.6	2,031.2	258.0	151.5	106.50	2.423		
13,900.0	7,272.0	13,767.5	7,217.0	115.7	0.0	-77.66	5,975.6	2,030.4	257.3	149.1	108.15	2.379		
14,000.0	7,272.0	13,867.5	7,217.0	117.3	0.0	-77.62	6,075.6	2,029.6	256.6	146.8	109.81	2.337		
14,100.0	7,272.0	13,967.5	7,217.0	119.0	0.0	-77.59	6,175.6	2,028.8	255.9	144.4	111.46	2.296		
14,200.0	7,272.0	14,067.5	7,217.0	120.6	0.0	-77.55	6,275.6	2,027.9	255.2	142.0	113.12	2.256		
14,300.0	7,272.0	14,167.5	7,217.0	122.3	0.0	-77.52	6,375.6	2,027.1	254.4	139.7	114.78	2.217		
14,400.0	7,272.0	14,267.5	7,217.0	123.9	0.0	-77.48	6,475.6	2,026.3	253.7	137.3	116.43	2.179		
14,500.0	7,272.0	14,367.5	7,217.0	125.6	0.0	-77.44	6,575.6	2,025.4	253.0	134.9	118.09	2.142		
14,600.0	7,272.0	14,467.5	7,217.0	127.2	0.0	-77.41	6,675.6	2,024.6	252.3	132.5	119.75	2.107		
14,700.0	7,272.0	14,567.5	7,217.0	128.9	0.0	-77.37	6,775.6	2,023.8	251.6	130.2	121.42	2.072		
14,800.0	7,272.0	14,667.5	7,217.0	130.6	0.0	-77.34	6,875.6	2,023.0	250.9	127.8	123.08	2.038		
14,900.0	7,272.0	14,767.5	7,217.0	132.2	0.0	-77.30	6,975.6	2,022.1	250.1	125.4	124.74	2.005		
15,000.0	7,272.0	14,867.5	7,217.0	133.9	0.0	-77.26	7,075.6	2,021.3	249.4	123.0	126.41	1.973		
15,100.0	7,272.0	14,967.5	7,217.0	135.6	0.0	-77.22	7,175.6	2,020.5	248.7	120.6	128.07	1.942		
15,200.0	7,272.0	15,067.5	7,217.0	137.3	0.0	-77.19	7,275.6	2,019.7	248.0	118.3	129.74	1.912		
15,300.0	7,272.0	15,167.5	7,217.0	138.9	0.0	-77.15	7,375.6	2,018.8	247.3	115.9	131.41	1.882		
15,400.0	7,272.0	15,267.5	7,217.0	140.6	0.0	-77.11	7,475.5	2,018.0	246.6	113.5	133.08	1.853		
15,500.0	7,272.0	15,367.5	7,217.0	142.3	0.0	-77.07	7,575.5	2,017.2	245.9	111.1	134.74	1.825		

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 19-18-4NBH
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 19-18-4NBH	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 #2	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		
15,600.0	7,272.0	15,467.5	7,217.0	144.0	0.0	-77.03	7,675.5	2,016.4	245.2	108.7	136.41	1.797		
15,700.0	7,272.0	15,567.5	7,217.0	145.7	0.0	-77.00	7,775.5	2,015.5	244.4	106.4	138.08	1.770		
15,800.0	7,272.0	15,667.5	7,217.0	147.4	0.0	-76.96	7,875.5	2,014.7	243.7	104.0	139.75	1.744		
15,900.0	7,272.0	15,767.5	7,217.0	149.1	0.0	-76.92	7,975.5	2,013.9	243.0	101.6	141.42	1.718		
16,000.0	7,272.0	15,867.5	7,217.0	150.7	0.0	-76.88	8,075.5	2,013.0	242.3	99.2	143.09	1.693		
16,100.0	7,272.0	15,967.5	7,217.0	152.4	0.0	-76.84	8,175.5	2,012.2	241.6	96.8	144.76	1.669		
16,200.0	7,272.0	16,067.5	7,217.0	154.1	0.0	-76.80	8,275.5	2,011.4	240.9	94.4	146.43	1.645		
16,300.0	7,272.0	16,167.5	7,217.0	155.8	0.0	-76.76	8,375.5	2,010.6	240.2	92.1	148.10	1.622		
16,400.0	7,272.0	16,267.4	7,217.0	157.5	0.0	-76.72	8,475.5	2,009.7	239.4	89.7	149.77	1.599		
16,500.0	7,272.0	16,367.4	7,217.0	159.2	0.0	-76.68	8,575.5	2,008.9	238.7	87.3	151.45	1.576		
16,600.0	7,272.0	16,467.4	7,217.0	160.9	0.0	-76.64	8,675.5	2,008.1	238.0	84.9	153.12	1.555		
16,700.0	7,272.0	16,567.4	7,217.0	162.6	0.0	-76.60	8,775.5	2,007.3	237.3	82.5	154.79	1.533		
16,800.0	7,272.0	16,667.4	7,217.0	164.4	0.0	-76.56	8,875.5	2,006.4	236.6	80.1	156.46	1.512		
16,900.0	7,272.0	16,767.4	7,217.0	166.1	0.0	-76.52	8,975.5	2,005.6	235.9	77.8	158.13	1.492 Level 3		
17,000.0	7,272.0	16,867.4	7,217.0	167.8	0.0	-76.47	9,075.5	2,004.8	235.2	75.4	159.80	1.472 Level 3		
17,100.0	7,272.0	16,967.4	7,217.0	169.5	0.0	-76.43	9,175.4	2,003.9	234.5	73.0	161.47	1.452 Level 3		
17,200.0	7,272.0	17,067.4	7,217.0	171.2	0.0	-76.39	9,275.4	2,003.1	233.7	70.6	163.15	1.433 Level 3		
17,300.0	7,272.0	17,167.4	7,217.0	172.9	0.0	-76.35	9,375.4	2,002.3	233.0	68.2	164.82	1.414 Level 3		
17,400.0	7,272.0	17,267.4	7,217.0	174.6	0.0	-76.31	9,475.4	2,001.5	232.3	65.8	166.49	1.395 Level 3		
17,500.0	7,272.0	17,367.4	7,217.0	176.3	0.0	-76.26	9,575.4	2,000.6	231.6	63.5	168.16	1.377 Level 3		
17,600.0	7,272.0	17,467.4	7,217.0	178.0	0.0	-76.22	9,675.4	1,999.8	230.9	61.1	169.83	1.360 Level 3		
17,700.0	7,272.0	17,567.4	7,217.0	179.8	0.0	-76.18	9,775.4	1,999.0	230.2	58.7	171.50	1.342 Level 3		
17,800.0	7,272.0	17,667.4	7,217.0	181.5	0.0	-76.13	9,875.4	1,998.2	229.5	56.3	173.17	1.325 Level 3		
17,857.6	7,272.0	17,723.1	7,217.0	182.5	0.0	-76.11	9,931.1	1,997.7	229.1	55.2	173.92	1.317 Level 3, SF		
17,858.4	7,272.0	17,723.1	7,217.0	182.5	0.0	-76.11	9,931.1	1,997.7	229.1	55.2	173.84	1.318 Level 3		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)												Offset Site Error:	0.0 usft
Survey Program: 100-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
16,500.0	7,272.0	7,203.0	7,203.0	159.2	26.8	-90.00	9,163.1	1,683.3	808.9	652.4	156.43	5.171	
16,600.0	7,272.0	7,203.0	7,203.0	160.9	26.8	-90.00	9,163.1	1,683.3	738.5	573.4	165.10	4.473	
16,700.0	7,272.0	7,203.0	7,203.0	162.6	26.8	-90.00	9,163.1	1,683.3	675.7	501.5	174.17	3.879	
16,800.0	7,272.0	7,203.0	7,203.0	164.4	26.8	-90.00	9,163.1	1,683.3	622.6	439.7	182.91	3.404	
16,900.0	7,272.0	7,203.0	7,203.0	166.1	26.8	-90.00	9,163.1	1,683.3	582.1	392.0	190.05	3.063	
17,000.0	7,272.0	7,203.0	7,203.0	167.8	26.8	-90.00	9,163.1	1,683.3	556.7	362.8	193.93	2.871	
17,094.3	7,272.0	7,203.0	7,203.0	169.4	26.8	-90.00	9,163.1	1,683.3	548.7	355.3	193.35	2.838	CC, ES, SF
17,100.0	7,272.0	7,203.0	7,203.0	169.5	26.8	-90.00	9,163.1	1,683.3	548.7	355.5	193.17	2.841	
17,200.0	7,272.0	7,203.0	7,203.0	171.2	26.8	-90.00	9,163.1	1,683.3	558.8	371.3	187.42	2.981	
17,300.0	7,272.0	7,203.0	7,203.0	172.9	26.8	-90.00	9,163.1	1,683.3	586.0	408.2	177.73	3.297	
17,400.0	7,272.0	7,203.0	7,203.0	174.6	26.8	-90.00	9,163.1	1,683.3	628.1	462.2	165.90	3.786	
17,500.0	7,272.0	7,203.0	7,203.0	176.3	26.8	-90.00	9,163.1	1,683.3	682.4	528.7	153.63	4.442	
17,600.0	7,272.0	7,203.0	7,203.0	178.0	26.8	-90.00	9,163.1	1,683.3	746.2	604.1	142.04	5.253	
17,700.0	7,272.0	7,203.0	7,203.0	179.8	26.8	-90.00	9,163.1	1,683.3	817.3	685.6	131.66	6.207	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 13' KB @ 5155.0usft

Offset Depths are relative to Offset Datum

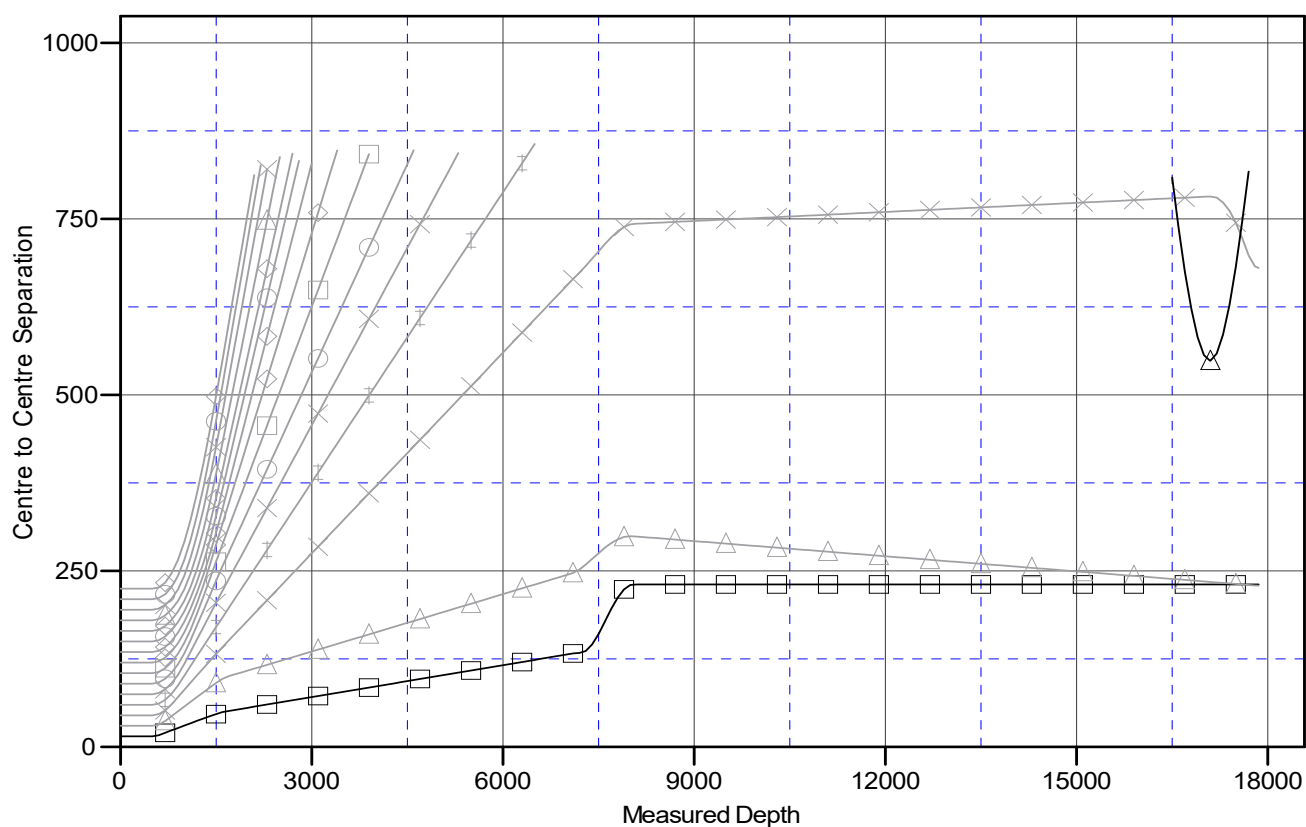
Central Meridian is -105.500000

Coordinates are relative to: CONNER 19-18-4NBH

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.51°

Ladder Plot



LEGEND

CONNER 19-18-4CDH, OHPLAN#1V0	CONNER 19-18-1NBH, OHPLAN#1V0	CONNER 19-18-1NBH, OHPLAN#1V0
CONNER 19-18-2NBH, OHPLAN#1V0	CONNER 19-18-2NBH, OHPLAN#1V0	CONNER 19-18-2NBH, OHPLAN#1V0
Putnam1-18(PR)EXTING.NOSURVEYS (PR)V0	CONNER 19-18-3NBH, OHPLAN#1V0	CONNER 19-18-3NBH, OHPLAN#1V0
CONNER 19-18-4NBH, OHPLAN#1V0	CONNER 19-18-3NBH, OHPLAN#1V0	CONNER 19-18-3NBH, OHPLAN#1V0
CONNER 19-18-1NBH, OHPLAN#1V0	CONNER 19-18-1NBH, OHPLAN#1V0	CONNER 19-18-1NBH, OHPLAN#1V0
CONNER 19-18-2NBH, OHPLAN#1V0	CONNER 19-18-2NBH, OHPLAN#1V0	CONNER 19-18-2NBH, OHPLAN#1V0

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NBH
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 19-18-4NBH	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 #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 13' KB @ 5155.0usft

Offset Depths are relative to Offset Datum

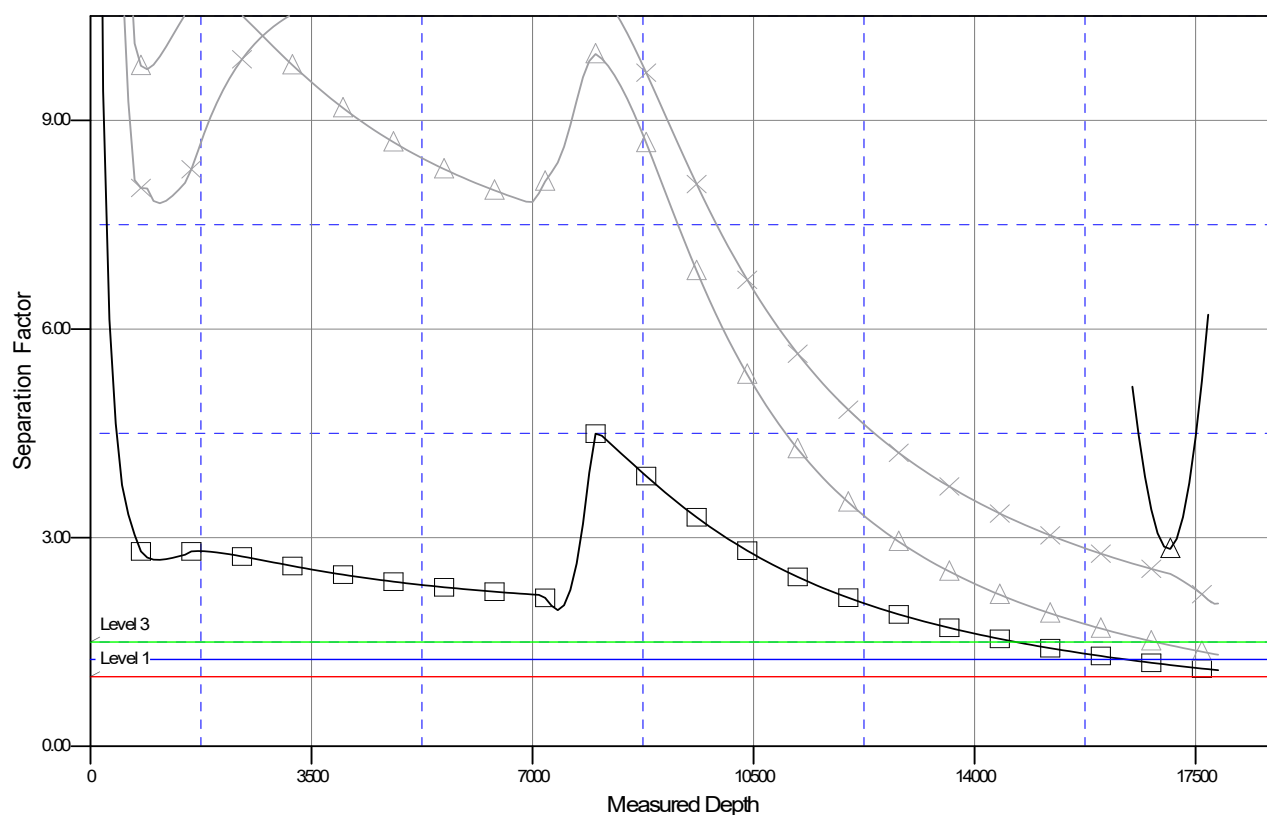
Central Meridian is -105.500000

Coordinates are relative to: CONNER 19-18-4NBH

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.51°

Separation Factor Plot



LEGEND

CONNER 19-18-4CDH, OHPLAN#1 V0	CONNER 19-18-1NBH, OHPLAN#1 V0	CONNER 19-18-1NBH, OHPLAN#1 V0
CONNER 19-18-2NBH, OHPLAN#1 V0	CONNER 19-18-2NBH, OHPLAN#1 V0	CONNER 19-18-4NBH, OHPLAN#1 V0
Pubant1-18(PR)EXSTNG.NOSURVEYS (PR) V0	CONNER 19-18-3NBH, OHPLAN#1 V0	CONNER 19-18-3NBH, OHPLAN#1 V0
CONNER 19-18-4NBH, OHPLAN#1 V0	CONNER 19-18-1CDH, OHPLAN#1 V0	CONNER 19-18-3NBH, OHPLAN#1 V0
CONNER 19-18-1NBH, OHPLAN#1 V0	CONNER 19-18-3CDH, OHPLAN#1 V0	
CONNER 19-18-2NBH, OHPLAN#1 V0	CONNER 19-18-2CDH, OHPLAN#1 V0	