ENSIGN Directional

PetroShare Corp

SEC.3-T1S-R67W
SHOOK PAD 3-1S-67W
SHOOK 3-10-2NCH

Wellbore #1
PLAN 1 (FEB 5, 2016)

Anticollision Report

22 February, 2016

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Reference PLAN 1 (FEB 5, 2016)

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0 ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 2/22/2016

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	13,785.9	PLAN 1 (FEB 5, 2016) (Wellbore #1)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
SHOOK PAD 3-1S-67W						
SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	200.0	200.0	117.7	117.0	174.525	CC, ES
SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,200.0	1,155.8	230.3	224.7	41.129	SF
SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,000.0	1,000.0	58.8	54.6	13.778	CC, ES
SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,200.0	1,198.0	62.0	56.9	12.172	SF
SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 201	600.0	600.0	89.7	87.2	36.265	CC, ES
SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,089.1	114.6	110.0	24.751	SF
SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016	400.0	400.0	103.7	102.1	65.892	CC, ES
SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,100.0	1,078.7	156.1	151.3	32.748	SF
SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	800.0	800.0	72.9	69.5	21.608	CC, ES
SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,200.0	1,193.7	87.8	82.7	17.371	SF
SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 201	800.0	800.0	44.8	41.5	13.297	CC, ES
SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 201	13,785.9	13,588.4	910.5	655.5	3.570	SF
SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,200.0	1,200.0	44.8	39.7	8.672	CC, ES
SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,300.0	1,299.4	46.1	40.5	8.283	SF
SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 201	1,200.0	1,200.0	28.0	22.8	5.420	CC, ES
SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 201	1,300.0	1,300.0	28.6	23.0	5.122	SF
SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 201	1,000.0	1,000.0	16.8	12.5	3.937	CC, ES
SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 201	13,785.9	13,688.7	310.0	59.9	1.239	Level 2, SF
SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 201	1,200.0	1,200.0	14.0	8.8	2.710	CC, ES
SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 201	13,785.9	13,944.0	329.1	93.5	1.397	Level 3, SF
SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 201	600.0	600.0	61.6	59.2	24.932	CC, ES
SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 201	900.0	895.0	72.6	68.8	19.361	SF
SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 201	800.0	800.0	30.8	27.5	9.142	CC, ES
SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 201	13,785.9	13,987.8	599.9	344.3	2.347	SF
SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 201	400.0	400.0	75.7	74.1	48.083	CC, ES
SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 201	800.0	788.6	100.3	97.0	30.336	SF

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 2016)

Survey Program: 0-MWD

Offset Site Error: 0.0 ft

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.1	-117.7	117.7				
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-117.7	117.7	117.5	0.22	523.576	

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

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-117.7	117.7	117.0	0.67	174.525	CC, ES
300.0	300.0	297.6	297.6	0.6	0.5	-90.34	-0.7	-118.7	118.7	117.6	1.10	107.889	
400.0	400.0	395.1	395.0	0.8	0.7	-91.41	-3.0	-121.6	121.8	120.2	1.53	79.649	
500.0	500.0	492.3	492.0	1.0	1.0	-93.08	-6.8	-126.5	126.9	125.0	1.98	64.223	
600.0	600.0	589.1	588.5	1.2	1.2	-95.18	-12.1	-133.3	134.4	131.9	2.44	54.977	
700.0	700.0	685.5	684.2	1.5	1.5	-97.56	-18.8	-142.0	144.1	141.2	2.93	49.191	
800.0	800.0	781.2	779.0	1.7	1.8	-100.04	-27.0	-152.5	156.3	152.9	3.43	45.524	
900.0	900.0	876.2	872.7	1.9	2.1	-102.50	-36.6	-164.8	171.0	167.1	3.95	43.248	
1,000.0	1,000.0	970.4	965.2	2.1	2.5	-104.85	-47.4	-178.8	188.3	183.8	4.49	41.928	
1,100.0	1,100.0	1,063.6	1,056.3	2.4	2.9	-107.03	-59.6	-194.5	208.0	203.0	5.04	41.284	
1,200.0	1,200.0	1,155.8	1,145.8	2.6	3.3	-109.00	-72.9	-211.7	230.3	224.7	5.60	41.129	SF
1,300.0	1,300.0	1,246.9	1,233.8	2.8	3.8	96.10	-87.4	-230.3	255.2	249.5	5.72	44.615	
1,400.0	1,399.9	1,336.9	1,320.2	3.0	4.3	94.84	-102.9	-250.3	282.6	276.5	6.16	45.913	
1,500.0	1,499.7	1,425.7	1,404.7	3.1	4.9	94.05	-119.5	-271.7	312.5	305.9	6.61	47.283	
1,567.6	1,567.0	1,484.9	1,460.8	3.3	5.2	93.71	-131.2	-286.8	334.0	327.0	6.93	48.217	
1,600.0	1,599.3	1,513.1	1,487.4	3.3	5.4	93.75	-137.0	-294.2	344.6	337.5	7.09	48.638	
1,700.0	1,698.8	1,600.0	1,568.9	3.6	6.0	93.78	-155.5	-318.1	378.8	371.3	7.59	49.926	
1,800.0	1,798.4	1,683.9	1,646.9	3.8	6.6	93.74	-174.5	-342.5	415.1	407.0	8.10	51.240	
1,900.0	1,897.9	1,767.2	1,723.6	4.0	7.3	93.63	-194.4	-368.1	453.3	444.7	8.63	52.550	
2,000.0	1,997.4	1,849.0	1,798.3	4.3	8.0	93.48	-214.9	-394.5	493.4	484.3	9.16	53.876	
2,100.0	2,097.0	1,934.3	1,875.4	4.5	8.7	93.30	-237.1	-423.2	535.3	525.5	9.72	55.095	
2,200.0	2,196.5	2,025.0	1,957.3	4.8	9.5	93.12	-261.0	-453.9	577.4	567.1	10.29	56.105	
2,300.0	2,296.0	2,115.7	2,039.3	5.0	10.3	92.97	-284.8	-484.7	619.4	608.6	10.87	56.968	
2,400.0	2,395.6	2,206.4	2,121.2	5.3	11.1	92.84	-308.7	-515.4	661.5	650.1	11.46	57.713	
2,500.0	2,495.1	2,297.1	2,203.1	5.5	11.9	92.72	-332.5	-546.1	703.6	691.6	12.06	58.358	
2,600.0	2,594.7	2,387.8	2,285.1	5.8	12.7	92.62	-356.4	-576.8	745.7	733.1	12.66	58.919	
2,700.0	2,694.2	2,478.5	2,367.0	6.1	13.5	92.52	-380.2	-607.6	787.9	774.6	13.26	59.413	
2,800.0	2,793.7	2,569.2	2,449.0	6.4	14.3	92.44	-404.1	-638.3	830.0	816.1	13.87	59.849	
2,900.0	2,893.3	2,659.9	2,530.9	6.6	15.1	92.36	-427.9	-669.0	872.1	857.6	14.48	60.236	
3,000.0	2,992.8	2,750.6	2,612.8	6.9	15.9	92.30	-451.8	-699.7	914.2	899.1	15.09	60.581	
3,100.0	3,092.3	2,841.3	2,694.8	7.2	16.7	92.23	-475.6	-730.4	956.3	940.6	15.70	60.891	
3,200.0	3,191.9	2,932.0	2,776.7	7.5	17.5	92.18	-499.5	-761.2	998.4	982.1	16.32	61.169	

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

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-58.8	58.8				
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-58.8	58.8	58.6	0.22	261.788	
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-58.8	58.8	58.2	0.67	87.263	
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-58.8	58.8	57.7	1.12	52.358	
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-58.8	58.8	57.3	1.57	37.398	
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	0.0	-58.8	58.8	56.8	2.02	29.088	
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	0.0	-58.8	58.8	56.4	2.47	23.799	
700.0	700.0	700.0	700.0	1.5	1.5	-89.98	0.0	-58.8	58.8	55.9	2.92	20.138	
800.0	800.0	800.0	800.0	1.7	1.7	-89.98	0.0	-58.8	58.8	55.5	3.37	17.453	
900.0	900.0	900.0	900.0	1.9	1.9	-89.98	0.0	-58.8	58.8	55.0	3.82	15.399	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.98	0.0	-58.8	58.8	54.6	4.27	13.778	CC, ES
1,100.0	1,100.0	1,099.1	1,099.1	2.4	2.3	-90.98	-1.0	-59.6	59.6	54.9	4.69	12.704	
1,200.0	1,200.0	1,198.0	1,197.9	2.6	2.5	-93.83	-4.1	-61.8	62.0	56.9	5.10	12.172	SF
1,300.0	1,300.0	1,296.8	1,296.5	2.8	2.7	109.87	-9.3	-65.6	66.8	61.3	5.48	12.184	
1,400.0	1,399.9	1,395.2	1,394.5	3.0	2.9	107.53	-16.5	-70.8	74.3	68.5	5.86	12.695	
1,500.0	1,499.7	1,493.2	1,491.8	3.1	3.1	106.08	-25.7	-77.5	84.6	78.3	6.25	13.528	
1,567.6	1,567.0	1,559.1	1,557.1	3.3	3.3	105.52	-33.1	-82.8	93.0	86.4	6.54	14.222	
1,600.0	1,599.3	1,590.6	1,588.3	3.3	3.4	105.34	-36.9	-85.5	97.4	90.7	6.67	14.586	
1,700.0	1,698.8	1,687.6	1,683.8	3.6	3.7	104.30	-50.0	-95.0	112.2	105.0	7.12	15.745	
1,800.0	1,798.4	1,783.8	1,778.3	3.8	4.0	102.78	-64.9	-105.8	128.9	121.3	7.60	16.967	
1,900.0	1,897.9	1,879.3	1,871.5	4.0	4.3	101.01	-81.6	-117.9	147.6	139.6	8.09	18.247	
2,000.0	1,997.4	1,973.8	1,963.3	4.3	4.7	99.15	-100.0	-131.2	168.4	159.8	8.60	19.580	
2,100.0	2,097.0	2,067.4	2,053.6	4.5	5.1	97.29	-120.1	-145.6	191.3	182.2	9.13	20.965	
2,200.0	2,196.5	2,159.9	2,142.2	4.8	5.6	95.50	-141.6	-161.2	216.4	206.7	9.66	22.395	
2,300.0	2,296.0	2,251.2	2,229.0	5.0	6.1	93.80	-164.6	-177.8	243.6	233.4	10.21	23.868	
2,400.0	2,395.6	2,341.3	2,313.9	5.3	6.6	92.21	-188.9	-195.4	272.9	262.2	10.75	25.378	
2,500.0	2,495.1	2,430.0	2,396.9	5.5	7.1	90.73	-214.4	-213.8	304.4	293.1	11.31	26.919	
2,600.0	2,594.7	2,517.4	2,477.8	5.8	7.7	89.37	-241.0	-233.1	338.0	326.1	11.86	28.489	
2,700.0	2,694.2	2,603.8	2,557.1	6.1	8.4	88.11	-268.9	-253.2	373.7	361.2	12.43	30.070	
2,800.0	2,793.7	2,696.5	2,641.8	6.4	9.0	86.93	-299.4	-275.3	410.3	397.3	13.01	31.543	
2,900.0	2,893.3	2,789.3	2,726.6	6.6	9.7	85.94	-329.9	-297.3	447.1	433.5	13.59	32.889	
3,000.0	2,992.8	2,882.0	2,811.3	6.9	10.5	85.10	-360.5	-319.4	483.9	469.8	14.18	34.121	
3,100.0	3,092.3	2,974.7	2,896.1	7.2	11.2	84.38	-391.0	-341.5	520.9	506.1	14.78	35.252	
3,200.0	3,191.9	3,067.5	2,980.8	7.5	11.9	83.76	-421.5	-363.5	557.9	542.5	15.37	36.292	
3,300.0	3,291.4	3,160.2	3,065.5	7.7	12.6	83.21	-452.0	-385.6	595.0	579.0	15.97	37.251	
3,400.0	3,391.0	3,253.0	3,150.3	8.0	13.4	82.73	-482.6	-407.7	632.1	615.5	16.57	38.137	
3,500.0	3,490.5	3,345.7	3,235.0	8.3	14.1	82.30	-513.1	-429.7	669.2	652.0	17.18	38.957	
3,600.0	3,590.0	3,438.4	3,319.8	8.6	14.8	81.91	-543.6	-451.8	706.4	688.6	17.78	39.718	
3,700.0	3,689.6	3,531.2	3,404.5	8.9	15.6	81.56	-574.2	-473.9	743.6	725.2	18.39	40.426	
3,800.0	3,789.1	3,623.9	3,489.3	9.1	16.3	81.25	-604.7	-495.9	780.8	761.8	19.00	41.086	
3,900.0	3,888.6	3,716.6	3,574.0	9.4	17.1	80.97	-635.2	-518.0	818.0	798.4	19.62	41.702	
4,000.0	3,988.2	3,809.4	3,658.7	9.7	17.8	80.71	-665.7	-540.1	855.2	835.0	20.23	42.278	
4,100.0	4,087.7	3,902.1	3,743.5	10.0	18.6	80.47	-696.3	-562.1	892.5	871.6	20.84	42.818	
4,200.0	4,187.3	3,994.9	3,828.2	10.3	19.3	80.25	-726.8	-584.2	929.8	908.3	21.46	43.325	
4,300.0	4,286.8	4,087.6	3,913.0	10.6	20.1	80.05	-757.3	-606.2	967.0	945.0	22.08	43.802	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-89.7	89.7				
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-89.7	89.7	89.4	0.22	398.915	
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-89.7	89.7	89.0	0.67	132.972	
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-89.7	89.7	88.5	1.12	79.783	
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-89.7	89.7	88.1	1.57	56.988	
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	0.0	-89.7	89.7	87.6	2.02	44.324	
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	0.0	-89.7	89.7	87.2	2.47	36.265	CC, ES
700.0	700.0	698.3	698.3	1.5	1.4	-90.54	-0.9	-90.6	90.6	87.7	2.90	31.287	
800.0	800.0	796.6	796.5	1.7	1.6	-92.17	-3.5	-93.2	93.4	90.1	3.31	28.248	
900.0	900.0	894.5	894.2	1.9	1.8	-94.67	-8.0	-97.7	98.2	94.5	3.73	26.324	
1,000.0	1,000.0	992.1	991.4	2.1	2.0	-97.76	-14.2	-103.9	105.2	101.0	4.17	25.222	
1,100.0	1,100.0	1,089.1	1,087.8	2.4	2.3	-101.15	-22.0	-111.8	114.6	110.0	4.63	24.751	SF
1,200.0	1,200.0	1,185.6	1,183.3	2.6	2.6	-104.59	-31.6	-121.4	126.5	121.4	5.11	24.775	
1,300.0	1,300.0	1,281.3	1,277.7	2.8	2.9	99.39	-42.7	-132.6	141.3	135.8	5.49	25.753	
1,400.0	1,399.9	1,376.3	1,371.0	3.0	3.2	97.43	-55.5	-145.3	158.9	153.0	5.90	26.911	
1,500.0	1,499.7	1,470.4	1,462.9	3.1	3.6	96.27	-69.7	-159.6	179.1	172.7	6.34	28.242	
1,567.6	1,567.0	1,533.5	1,524.3	3.3	3.8	95.83	-80.1	-170.1	194.1	187.5	6.65	29.195	
1,600.0	1,599.3	1,563.6	1,553.4	3.3	4.0	95.78	-85.3	-175.3	201.7	194.9	6.80	29.654	
1,700.0	1,698.8	1,655.7	1,642.3	3.6	4.4	95.48	-102.3	-192.3	226.6	219.3	7.29	31.091	
1,800.0	1,798.4	1,746.8	1,729.6	3.8	4.9	95.03	-120.6	-210.7	253.6	245.8	7.79	32.551	
1,900.0	1,897.9	1,836.6	1,815.1	4.0	5.4	94.49	-140.1	-230.2	282.7	274.3	8.31	34.031	
2,000.0	1,997.4	1,925.2	1,898.8	4.3	6.0	93.90	-160.6	-250.8	313.8	305.0	8.83	35.528	
2,100.0	2,097.0	2,012.5	1,980.5	4.5	6.5	93.29	-182.2	-272.5	347.0	337.7	9.37	37.041	
2,200.0	2,196.5	2,100.0	2,061.7	4.8	7.2	92.65	-205.2	-295.6	382.3	372.4	9.92	38.546	
2,300.0	2,296.0	2,182.8	2,137.9	5.0	7.8	92.05	-228.2	-318.6	419.5	409.0	10.46	40.093	
2,400.0	2,395.6	2,267.7	2,215.3	5.3	8.5	91.44	-252.9	-343.4	458.6	447.6	11.02	41.603	
2,500.0	2,495.1	2,359.4	2,298.5	5.5	9.2	90.85	-280.0	-370.5	498.4	486.8	11.61	42.926	
2,600.0	2,594.7	2,451.0	2,381.8	5.8	10.0	90.36	-307.0	-397.7	538.1	525.9	12.20	44.114	
2,700.0	2,694.2	2,542.7	2,465.0	6.1	10.7	89.93	-334.1	-424.8	578.0	565.2	12.79	45.178	
2,800.0	2,793.7	2,634.4	2,548.3	6.4	11.5	89.55	-361.1	-452.0	617.8	604.4	13.39	46.133	
2,900.0	2,893.3	2,726.0	2,631.6	6.6	12.2	89.22	-388.2	-479.1	657.6	643.6	13.99	46.996	
3,000.0	2,992.8	2,817.7	2,714.8	6.9	13.0	88.93	-415.3	-506.3	697.5	682.9	14.60	47.778	
3,100.0	3,092.3	2,909.3	2,798.1	7.2	13.8	88.67	-442.3	-533.4	737.4	722.2	15.21	48.489	
3,200.0	3,191.9	3,001.0	2,881.3	7.5	14.6	88.44	-469.4	-560.6	777.3	761.5	15.82	49.137	
3,300.0	3,291.4	3,092.6	2,964.6	7.7	15.3	88.23	-496.4	-587.7	817.2	800.8	16.43	49.731	
3,400.0	3,391.0	3,184.3	3,047.8	8.0	16.1	88.04	-523.5	-614.8	857.1	840.0	17.05	50.276	
3,500.0	3,490.5	3,275.9	3,131.1	8.3	16.9	87.86	-550.5	-642.0	897.0	879.3	17.67	50.778	
3,600.0	3,590.0	3,367.6	3,214.4	8.6	17.7	87.70	-577.6	-669.1	936.9	918.7	18.28	51.242	
3,700.0	3,689.6	3,459.2	3,297.6	8.9	18.4	87.56	-604.7	-696.3	976.9	958.0	18.91	51.672	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-103.7	103.7				
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-103.7	103.7	103.4	0.22	461.245	
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-103.7	103.7	103.0	0.67	153.748	
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-103.7	103.7	102.5	1.12	92.249	
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-103.7	103.7	102.1	1.57	65.892	CC, ES
500.0	500.0	498.0	498.0	1.0	1.0	-90.43	-0.8	-104.6	104.6	102.6	2.00	52.402	
600.0	600.0	595.8	595.7	1.2	1.2	-91.74	-3.3	-107.5	107.6	105.2	2.41	44.575	
700.0	700.0	693.4	693.1	1.5	1.4	-93.76	-7.4	-112.2	112.6	109.8	2.85	39.550	
800.0	800.0	790.6	789.9	1.7	1.6	-96.29	-13.1	-118.7	119.8	116.5	3.30	36.322	
900.0	900.0	887.3	886.0	1.9	1.9	-99.11	-20.4	-127.1	129.4	125.7	3.77	34.328	
1,000.0	1,000.0	983.4	981.1	2.1	2.2	-102.02	-29.2	-137.2	141.5	137.2	4.26	33.214	
1,100.0	1,100.0	1,078.7	1,075.2	2.4	2.5	-104.86	-39.5	-149.0	156.1	151.3	4.77	32.748	SF
1,200.0	1,200.0	1,173.2	1,168.0	2.6	2.8	-107.52	-51.3	-162.4	173.3	168.0	5.29	32.765	
1,300.0	1,300.0	1,266.8	1,259.4	2.8	3.2	97.10	-64.4	-177.4	193.2	187.6	5.58	34.651	
1,400.0	1,399.9	1,359.5	1,349.4	3.0	3.7	95.55	-78.8	-194.0	215.9	209.8	6.01	35.941	
1,500.0	1,499.7	1,451.1	1,437.9	3.1	4.1	94.62	-94.5	-211.9	241.0	234.5	6.45	37.343	
1,567.6	1,567.0	1,512.4	1,496.7	3.3	4.4	94.26	-105.8	-224.8	259.3	252.6	6.77	38.321	
1,600.0	1,599.3	1,541.6	1,524.6	3.3	4.6	94.26	-111.3	-231.2	268.5	261.6	6.93	38.769	
1,700.0	1,698.8	1,630.8	1,609.6	3.6	5.1	94.17	-129.3	-251.7	298.2	290.7	7.42	40.182	
1,800.0	1,798.4	1,718.8	1,692.7	3.8	5.7	93.97	-148.2	-273.4	329.9	322.0	7.93	41.606	
1,900.0	1,897.9	1,805.4	1,773.9	4.0	6.3	93.71	-168.1	-296.2	363.7	355.3	8.45	43.042	
2,000.0	1,997.4	1,890.7	1,853.1	4.3	6.9	93.39	-188.9	-320.0	399.6	390.6	8.98	44.480	
2,100.0	2,097.0	1,974.5	1,930.3	4.5	7.5	93.04	-210.4	-344.6	437.3	427.8	9.52	45.924	
2,200.0	2,196.5	2,056.9	2,005.4	4.8	8.2	92.68	-232.7	-370.1	477.1	467.0	10.07	47.382	
2,300.0	2,296.0	2,145.8	2,085.9	5.0	8.9	92.30	-257.5	-398.5	518.1	507.5	10.64	48.678	
2,400.0	2,395.6	2,236.9	2,168.4	5.3	9.7	91.96	-283.0	-427.6	559.2	548.0	11.23	49.808	
2,500.0	2,495.1	2,328.0	2,250.9	5.5	10.5	91.67	-308.4	-456.8	600.3	588.5	11.82	50.801	
2,600.0	2,594.7	2,419.1	2,333.4	5.8	11.3	91.41	-333.9	-485.9	641.5	629.1	12.41	51.680	
2,700.0	2,694.2	2,510.2	2,415.9	6.1	12.1	91.19	-359.3	-515.1	682.6	669.6	13.01	52.460	
2,800.0	2,793.7	2,601.3	2,498.3	6.4	12.8	90.99	-384.8	-544.2	723.8	710.1	13.62	53.157	
2,900.0	2,893.3	2,692.5	2,580.8	6.6	13.6	90.82	-410.2	-573.3	764.9	750.7	14.22	53.782	
3,000.0	2,992.8	2,783.6	2,663.3	6.9	14.4	90.66	-435.7	-602.5	806.1	791.2	14.83	54.344	
3,100.0	3,092.3	2,874.7	2,745.8	7.2	15.2	90.51	-461.2	-631.6	847.2	831.8	15.45	54.854	
3,200.0	3,191.9	2,965.8	2,828.3	7.5	16.0	90.38	-486.6	-660.8	888.4	872.4	16.06	55.317	
3,300.0	3,291.4	3,056.9	2,910.8	7.7	16.8	90.27	-512.1	-689.9	929.6	912.9	16.68	55.739	
3,400.0	3,391.0	3,148.0	2,993.3	8.0	17.6	90.16	-537.5	-719.1	970.8	953.5	17.30	56.126	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.0	-72.9	72.9				
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-72.9	72.9	72.6	0.22	324.118	
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-72.9	72.9	72.2	0.67	108.039	
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-72.9	72.9	71.7	1.12	64.824	
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-72.9	72.9	71.3	1.57	46.303	
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.0	-72.9	72.9	70.8	2.02	36.013	
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.0	-72.9	72.9	70.4	2.47	29.465	
700.0	700.0	700.0	700.0	1.5	1.5	-89.97	0.0	-72.9	72.9	69.9	2.92	24.932	
800.0	800.0	800.0	800.0	1.7	1.7	-89.97	0.0	-72.9	72.9	69.5	3.37	21.608	CC, ES
900.0	900.0	898.7	898.7	1.9	1.9	-90.72	-0.9	-73.7	73.7	69.9	3.79	19.428	
1,000.0	1,000.0	997.4	997.3	2.1	2.1	-92.87	-3.8	-76.2	76.3	72.1	4.20	18.174	
1,100.0	1,100.0	1,095.7	1,095.4	2.4	2.3	-96.12	-8.6	-80.3	80.9	76.3	4.62	17.524	
1,200.0	1,200.0	1,193.7	1,193.0	2.6	2.5	-100.06	-15.3	-86.1	87.8	82.7	5.05	17.371	SF
1,300.0	1,300.0	1,291.2	1,289.8	2.8	2.7	103.29	-23.8	-93.5	97.3	91.9	5.45	17.845	
1,400.0	1,399.9	1,388.1	1,385.8	3.0	3.0	100.89	-34.1	-102.5	109.8	103.9	5.85	18.762	
1,500.0	1,499.7	1,484.4	1,480.8	3.1	3.3	99.47	-46.2	-112.9	125.0	118.7	6.27	19.926	
1,567.6	1,567.0	1,549.1	1,544.3	3.3	3.5	98.95	-55.3	-120.8	136.7	130.1	6.57	20.801	
1,600.0	1,599.3	1,580.0	1,574.6	3.3	3.6	98.83	-59.9	-124.8	142.7	135.9	6.72	21.240	
1,700.0	1,698.8	1,674.7	1,667.1	3.6	3.9	98.24	-75.3	-138.2	162.6	155.4	7.19	22.618	
1,800.0	1,798.4	1,768.6	1,758.2	3.8	4.3	97.40	-92.3	-152.9	184.5	176.9	7.68	24.039	
1,900.0	1,897.9	1,861.4	1,847.8	4.0	4.8	96.43	-110.7	-168.8	208.7	200.5	8.18	25.495	
2,000.0	1,997.4	1,953.2	1,935.7	4.3	5.2	95.39	-130.5	-186.0	234.9	226.2	8.70	26.982	
2,100.0	2,097.0	2,043.7	2,021.9	4.5	5.7	94.34	-151.6	-204.3	263.2	254.0	9.24	28.496	
2,200.0	2,196.5	2,133.0	2,106.1	4.8	6.3	93.31	-173.9	-223.7	293.6	283.8	9.78	30.035	
2,300.0	2,296.0	2,221.0	2,188.4	5.0	6.8	92.31	-197.4	-244.0	326.1	315.8	10.32	31.593	
2,400.0	2,395.6	2,307.5	2,268.7	5.3	7.4	91.35	-221.8	-265.2	360.6	349.8	10.87	33.168	
2,500.0	2,495.1	2,399.6	2,353.6	5.5	8.1	90.43	-248.8	-288.6	396.5	385.1	11.45	34.635	
2,600.0	2,594.7	2,492.7	2,439.4	5.8	8.8	89.64	-276.1	-312.2	432.5	420.5	12.03	35.950	
2,700.0	2,694.2	2,585.9	2,525.3	6.1	9.5	88.98	-303.3	-335.9	468.5	455.9	12.62	37.133	
2,800.0	2,793.7	2,679.0	2,611.2	6.4	10.2	88.41	-330.6	-359.5	504.6	491.4	13.21	38.203	
2,900.0	2,893.3	2,772.2	2,697.0	6.6	10.9	87.92	-357.9	-383.2	540.7	526.9	13.80	39.172	
3,000.0	2,992.8	2,865.4	2,782.9	6.9	11.6	87.48	-385.2	-406.8	576.9	562.5	14.40	40.054	
3,100.0	3,092.3	2,958.5	2,868.8	7.2	12.3	87.10	-412.5	-430.5	613.0	598.0	15.00	40.859	
3,200.0	3,191.9	3,051.7	2,954.7	7.5	13.0	86.76	-439.8	-454.2	649.2	633.6	15.61	41.596	
3,300.0	3,291.4	3,144.8	3,040.5	7.7	13.8	86.46	-467.1	-477.8	685.4	669.2	16.21	42.272	
3,400.0	3,391.0	3,238.0	3,126.4	8.0	14.5	86.19	-494.3	-501.5	721.7	704.8	16.82	42.895	
3,500.0	3,490.5	3,331.1	3,212.3	8.3	15.2	85.94	-521.6	-525.1	757.9	740.5	17.44	43.470	
3,600.0	3,590.0	3,424.3	3,298.1	8.6	15.9	85.72	-548.9	-548.8	794.1	776.1	18.05	44.002	
3,700.0	3,689.6	3,517.4	3,384.0	8.9	16.7	85.51	-576.2	-572.4	830.4	811.7	18.66	44.496	
3,800.0	3,789.1	3,610.6	3,469.9	9.1	17.4	85.33	-603.5	-596.1	866.7	847.4	19.28	44.955	
3,900.0	3,888.6	3,703.8	3,555.8	9.4	18.1	85.15	-630.8	-619.7	902.9	883.0	19.90	45.383	
4,000.0	3,988.2	3,796.9	3,641.6	9.7	18.8	85.00	-658.0	-643.4	939.2	918.7	20.51	45.783	
4,100.0	4,087.7	3,890.1	3,727.5	10.0	19.6	84.85	-685.3	-667.1	975.5	954.4	21.13	46.158	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.04	0.0	44.8	44.8				
100.0	100.0	100.0	100.0	0.1	0.1	90.04	0.0	44.8	44.8	44.6	0.22	199.457	
200.0	200.0	200.0	200.0	0.3	0.3	90.04	0.0	44.8	44.8	44.2	0.67	66.486	
300.0	300.0	300.0	300.0	0.6	0.6	90.04	0.0	44.8	44.8	43.7	1.12	39.891	
400.0	400.0	400.0	400.0	0.8	0.8	90.04	0.0	44.8	44.8	43.3	1.57	28.494	
500.0	500.0	500.0	500.0	1.0	1.0	90.04	0.0	44.8	44.8	42.8	2.02	22.162	
600.0	600.0	600.0	600.0	1.2	1.2	90.04	0.0	44.8	44.8	42.4	2.47	18.132	
700.0	700.0	700.0	700.0	1.5	1.5	90.04	0.0	44.8	44.8	41.9	2.92	15.343	
800.0	800.0	800.0	800.0	1.7	1.7	90.04	0.0	44.8	44.8	41.5	3.37	13.297	CC, ES
900.0	900.0	898.9	898.9	1.9	1.9	90.75	-0.6	46.0	46.0	42.2	3.80	12.107	
1,000.0	1,000.0	997.7	997.7	2.1	2.1	92.66	-2.3	49.4	49.5	45.3	4.21	11.751	
1,100.0	1,100.0	1,096.3	1,096.0	2.4	2.3	95.31	-5.1	55.1	55.5	50.9	4.64	11.970	
1,200.0	1,200.0	1,194.4	1,193.7	2.6	2.5	98.17	-9.1	63.1	64.0	59.0	5.07	12.637	
1,300.0	1,300.0	1,292.2	1,290.8	2.8	2.7	-52.80	-14.1	73.2	74.3	68.9	5.47	13.582	
1,400.0	1,399.9	1,389.6	1,387.2	3.0	3.0	-52.14	-20.2	85.5	85.5	79.7	5.86	14.590	
1,500.0	1,499.7	1,486.6	1,482.9	3.1	3.3	-52.40	-27.3	100.0	97.6	91.3	6.27	15.566	
1,567.6	1,567.0	1,552.3	1,547.5	3.3	3.5	-52.94	-32.8	111.0	106.2	99.6	6.56	16.195	
1,600.0	1,599.3	1,584.4	1,579.0	3.3	3.6	-53.31	-35.5	116.5	110.3	103.6	6.70	16.465	
1,700.0	1,698.8	1,683.6	1,676.3	3.6	4.0	-54.29	-44.0	133.6	123.1	115.9	7.15	17.206	
1,800.0	1,798.4	1,782.8	1,773.6	3.8	4.4	-55.09	-52.5	150.7	135.9	128.3	7.62	17.827	
1,900.0	1,897.9	1,881.9	1,870.9	4.0	4.8	-55.75	-60.9	167.8	148.7	140.6	8.11	18.343	
2,000.0	1,997.4	1,981.1	1,968.2	4.3	5.1	-56.31	-69.4	184.9	161.6	153.0	8.61	18.777	
2,100.0	2,097.0	2,080.2	2,065.5	4.5	5.5	-56.78	-77.9	202.0	174.4	165.3	9.11	19.143	
2,200.0	2,196.5	2,179.4	2,162.8	4.8	5.9	-57.19	-86.3	219.1	187.3	177.7	9.63	19.455	
2,300.0	2,296.0	2,278.6	2,260.1	5.0	6.3	-57.55	-94.8	236.2	200.2	190.0	10.15	19.721	
2,400.0	2,395.6	2,377.7	2,357.5	5.3	6.8	-57.86	-103.2	253.3	213.1	202.4	10.68	19.949	
2,500.0	2,495.1	2,476.9	2,454.8	5.5	7.2	-58.14	-111.7	270.4	226.0	214.7	11.22	20.146	
2,600.0	2,594.7	2,576.0	2,552.1	5.8	7.6	-58.39	-120.2	287.5	238.8	227.1	11.76	20.317	
2,700.0	2,694.2	2,675.2	2,649.4	6.1	8.0	-58.61	-128.6	304.6	251.7	239.4	12.30	20.467	
2,800.0	2,793.7	2,774.4	2,746.7	6.4	8.4	-58.81	-137.1	321.7	264.6	251.8	12.85	20.598	
2,900.0	2,893.3	2,873.5	2,844.0	6.6	8.8	-58.99	-145.6	338.8	277.5	264.2	13.40	20.714	
3,000.0	2,992.8	2,972.7	2,941.3	6.9	9.3	-59.16	-154.0	355.9	290.5	276.5	13.95	20.816	
3,100.0	3,092.3	3,071.8	3,038.6	7.2	9.7	-59.31	-162.5	373.0	303.4	288.9	14.51	20.907	
3,200.0	3,191.9	3,171.0	3,135.9	7.5	10.1	-59.45	-171.0	390.1	316.3	301.2	15.07	20.988	
3,300.0	3,291.4	3,270.2	3,233.2	7.7	10.5	-59.58	-179.4	407.2	329.2	313.6	15.63	21.061	
3,400.0	3,391.0	3,369.3	3,330.5	8.0	10.9	-59.70	-187.9	424.3	342.1	325.9	16.19	21.126	
3,500.0	3,490.5	3,468.5	3,427.8	8.3	11.4	-59.81	-196.4	441.3	355.0	338.3	16.76	21.185	
3,600.0	3,590.0	3,567.6	3,525.1	8.6	11.8	-59.91	-204.8	458.4	367.9	350.6	17.32	21.238	
3,700.0	3,689.6	3,666.8	3,622.5	8.9	12.2	-60.01	-213.3	475.5	380.8	363.0	17.89	21.287	
3,800.0	3,789.1	3,766.0	3,719.8	9.1	12.7	-60.09	-221.8	492.6	393.8	375.3	18.46	21.331	
3,900.0	3,888.6	3,865.1	3,817.1	9.4	13.1	-60.18	-230.2	509.7	406.7	387.7	19.03	21.371	
4,000.0	3,988.2	3,964.3	3,914.4	9.7	13.5	-60.26	-238.7	526.8	419.6	400.0	19.60	21.407	
4,100.0	4,087.7	4,063.4	4,011.7	10.0	13.9	-60.33	-247.1	543.9	432.5	412.3	20.17	21.441	
4,200.0	4,187.3	4,162.6	4,109.0	10.3	14.4	-60.40	-255.6	561.0	445.4	424.7	20.75	21.472	
4,300.0	4,286.8	4,261.8	4,206.3	10.6	14.8	-60.47	-264.1	578.1	458.4	437.0	21.32	21.501	
4,400.0	4,386.3	4,360.9	4,303.6	10.9	15.2	-60.53	-272.5	595.2	471.3	449.4	21.89	21.527	
4,500.0	4,485.9	4,460.1	4,400.9	11.1	15.6	-60.59	-281.0	612.3	484.2	461.7	22.47	21.551	
4,600.0	4,585.4	4,559.2	4,498.2	11.4	16.1	-60.64	-289.5	629.4	497.1	474.1	23.04	21.574	
4,700.0	4,684.9	4,658.4	4,595.5	11.7	16.5	-60.69	-297.9	646.5	510.1	486.4	23.62	21.595	
4,800.0	4,784.5	4,757.6	4,692.8	12.0	16.9	-60.74	-306.4	663.6	523.0	498.8	24.20	21.614	
4,900.0	4,884.0	4,856.7	4,790.2	12.3	17.4	-60.79	-314.9	680.7	535.9	511.1	24.77	21.632	
5,000.0	4,983.6	4,955.9	4,887.5	12.6	17.8	-60.84	-323.3	697.8	548.8	523.5	25.35	21.649	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,083.1	5,055.1	4,984.8	12.9	18.2	-60.88	-331.8	714.9	561.7	535.8	25.93	21.665	
5,200.0	5,182.6	5,154.2	5,082.1	13.2	18.7	-60.92	-340.3	732.0	574.7	548.2	26.51	21.680	
5,300.0	5,282.2	5,253.4	5,179.4	13.4	19.1	-60.96	-348.7	749.1	587.6	560.5	27.09	21.694	
5,400.0	5,381.7	5,352.5	5,276.7	13.7	19.5	-61.00	-357.2	766.2	600.5	572.9	27.67	21.706	
5,500.0	5,481.2	5,451.7	5,374.0	14.0	19.9	-61.04	-365.6	783.3	613.5	585.2	28.25	21.719	
5,600.0	5,580.8	5,550.9	5,471.3	14.3	20.4	-61.07	-374.1	800.4	626.4	597.6	28.83	21.730	
5,700.0	5,680.3	5,650.0	5,568.6	14.6	20.8	-61.10	-382.6	817.5	639.3	609.9	29.41	21.741	
5,800.0	5,779.8	5,749.2	5,665.9	14.9	21.2	-61.14	-391.0	834.5	652.2	622.2	29.99	21.751	
5,900.0	5,879.4	5,848.3	5,763.2	15.2	21.7	-61.17	-399.5	851.6	665.2	634.6	30.57	21.761	
6,000.0	5,978.9	5,947.5	5,860.5	15.5	22.1	-61.20	-408.0	868.7	678.1	646.9	31.15	21.770	
6,100.0	6,078.5	6,046.7	5,957.9	15.8	22.5	-61.23	-416.4	885.8	691.0	659.3	31.73	21.778	
6,200.0	6,178.0	6,145.8	6,055.2	16.1	23.0	-61.25	-424.9	902.9	703.9	671.6	32.31	21.786	
6,300.0	6,277.5	6,245.0	6,152.5	16.3	23.4	-61.28	-433.4	920.0	716.9	684.0	32.89	21.794	
6,400.0	6,377.1	6,344.1	6,249.8	16.6	23.8	-61.31	-441.8	937.1	729.8	696.3	33.47	21.801	
6,500.0	6,476.6	6,443.3	6,347.1	16.9	24.3	-61.33	-450.3	954.2	742.7	708.7	34.06	21.808	
6,600.0	6,576.1	6,542.5	6,444.4	17.2	24.7	-61.35	-458.8	971.3	755.6	721.0	34.64	21.815	
6,700.0	6,675.7	6,641.6	6,541.7	17.5	25.1	-61.38	-467.2	988.4	768.6	733.4	35.22	21.821	
6,800.0	6,775.2	6,740.8	6,639.0	17.8	25.6	-61.40	-475.7	1,005.5	781.5	745.7	35.80	21.827	
6,900.0	6,874.8	6,839.9	6,736.3	18.1	26.0	-61.42	-484.2	1,022.6	794.4	758.0	36.39	21.833	
7,000.0	6,974.3	6,937.0	6,831.0	18.4	26.4	-61.09	-497.3	1,039.2	807.5	770.5	36.93	21.866	
7,046.8	7,020.8	6,981.5	6,873.5	18.5	26.6	-60.63	-507.6	1,046.8	813.7	776.6	37.15	21.902	
7,050.0	7,024.1	6,984.5	6,876.4	18.5	26.7	-61.73	-508.4	1,047.3	814.1	777.0	37.16	21.908	
7,100.0	7,073.6	7,031.3	6,920.4	18.7	26.9	-71.10	-522.3	1,055.0	820.9	783.6	37.33	21.991	
7,150.0	7,122.6	7,077.6	6,963.0	18.9	27.2	-74.48	-538.9	1,062.5	827.7	790.1	37.56	22.034	
7,200.0	7,170.8	7,123.4	7,004.0	19.1	27.5	-75.86	-558.0	1,069.8	834.4	796.5	37.86	22.040	
7,250.0	7,218.0	7,168.9	7,043.4	19.4	27.8	-76.38	-579.6	1,076.8	841.0	802.8	38.22	22.006	
7,300.0	7,263.9	7,213.9	7,081.0	19.7	28.1	-76.45	-603.5	1,083.5	847.6	808.9	38.64	21.934	
7,350.0	7,308.3	7,258.7	7,116.8	20.0	28.4	-76.28	-629.5	1,089.8	853.9	814.8	39.13	21.824	
7,400.0	7,351.0	7,303.1	7,150.7	20.3	28.7	-75.97	-657.5	1,095.9	860.1	820.4	39.68	21.676	
7,450.0	7,391.9	7,347.2	7,182.7	20.7	29.1	-75.59	-687.4	1,101.6	866.0	825.7	40.30	21.489	
7,500.0	7,430.6	7,391.0	7,212.5	21.2	29.5	-75.17	-719.0	1,106.9	871.6	830.6	40.99	21.263	
7,550.0	7,467.0	7,434.7	7,240.3	21.6	29.8	-74.73	-752.3	1,111.9	876.9	835.2	41.76	21.000	
7,600.0	7,501.0	7,478.1	7,265.9	22.1	30.2	-74.31	-787.0	1,116.5	881.9	839.3	42.60	20.701	
7,650.0	7,532.3	7,521.3	7,289.3	22.7	30.7	-73.90	-823.1	1,120.8	886.5	843.0	43.53	20.367	
7,700.0	7,560.8	7,564.3	7,310.5	23.2	31.1	-73.52	-860.4	1,124.6	890.7	846.2	44.53	20.001	
7,750.0	7,586.4	7,607.2	7,329.3	23.9	31.5	-73.17	-898.8	1,128.0	894.5	848.9	45.63	19.605	
7,800.0	7,608.9	7,650.0	7,345.7	24.5	32.0	-72.86	-938.1	1,131.1	897.8	851.0	46.81	19.182	
7,850.0	7,628.3	7,692.7	7,359.9	25.1	32.4	-72.59	-978.3	1,133.7	900.7	852.6	48.07	18.736	
7,900.0	7,644.4	7,735.3	7,371.6	25.8	32.9	-72.37	-1,019.2	1,135.9	903.1	853.7	49.42	18.272	
7,950.0	7,657.2	7,777.8	7,380.8	26.5	33.4	-72.19	-1,060.7	1,137.7	905.0	854.1	50.85	17.795	
8,000.0	7,666.5	7,820.3	7,387.7	27.3	33.9	-72.07	-1,102.6	1,139.0	906.4	854.0	52.36	17.311	
8,050.0	7,672.5	7,862.7	7,392.0	28.0	34.4	-71.99	-1,144.8	1,139.9	907.3	853.3	53.93	16.824	
8,100.0	7,674.9	7,905.2	7,393.9	28.8	34.9	-71.96	-1,187.2	1,140.4	907.6	852.1	55.55	16.339	
8,110.3	7,675.0	7,913.9	7,394.0	28.9	35.0	-71.96	-1,195.9	1,140.4	907.6	851.7	55.89	16.240	
8,200.0	7,675.0	8,003.2	7,394.0	30.3	36.1	-71.97	-1,285.2	1,140.8	907.7	849.2	58.52	15.510	
8,300.0	7,675.0	8,103.2	7,394.0	31.9	37.4	-71.97	-1,385.2	1,141.1	907.7	846.2	61.55	14.749	
8,400.0	7,675.0	8,203.2	7,394.0	33.5	38.8	-71.97	-1,485.2	1,141.5	907.8	843.1	64.64	14.044	
8,500.0	7,675.0	8,303.2	7,394.0	35.1	40.2	-71.97	-1,585.1	1,141.8	907.8	840.0	67.79	13.392	
8,600.0	7,675.0	8,403.2	7,394.0	36.8	41.6	-71.97	-1,685.1	1,142.2	907.9	836.9	70.99	12.789	
8,700.0	7,675.0	8,503.2	7,394.0	38.5	43.1	-71.97	-1,785.1	1,142.5	907.9	833.7	74.23	12.231	
8,800.0	7,675.0	8,603.2	7,394.0	40.2	44.6	-71.97	-1,885.1	1,142.9	908.0	830.5	77.51	11.714	
8,900.0	7,675.0	8,703.2	7,394.0	41.9	46.2	-71.97	-1,985.1	1,143.2	908.0	827.2	80.83	11.234	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,000.0	7,675.0	8,803.2	7,394.0	43.7	47.8	-71.97	-2,085.1	1,143.6	908.1	823.9	84.18	10.788	
9,100.0	7,675.0	8,903.2	7,394.0	45.4	49.4	-71.98	-2,185.1	1,143.9	908.1	820.6	87.55	10.373	
9,200.0	7,675.0	9,003.2	7,394.0	47.2	51.0	-71.98	-2,285.1	1,144.3	908.2	817.2	90.94	9.986	
9,300.0	7,675.0	9,103.2	7,394.0	49.0	52.6	-71.98	-2,385.1	1,144.6	908.2	813.9	94.36	9.625	
9,400.0	7,675.0	9,203.2	7,394.0	50.8	54.3	-71.98	-2,485.1	1,145.0	908.3	810.5	97.79	9.288	
9,500.0	7,675.0	9,303.2	7,394.0	52.6	55.9	-71.98	-2,585.1	1,145.3	908.3	807.1	101.24	8.972	
9,600.0	7,675.0	9,403.2	7,394.0	54.4	57.6	-71.98	-2,685.1	1,145.7	908.4	803.7	104.71	8.675	
9,700.0	7,675.0	9,503.2	7,394.0	56.2	59.3	-71.98	-2,785.1	1,146.0	908.4	800.2	108.19	8.397	
9,800.0	7,675.0	9,603.2	7,394.0	58.0	61.0	-71.98	-2,885.1	1,146.4	908.5	796.8	111.68	8.135	
9,900.0	7,675.0	9,703.2	7,394.0	59.9	62.8	-71.98	-2,985.1	1,146.7	908.5	793.4	115.18	7.888	
10,000.0	7,675.0	9,803.2	7,394.0	61.7	64.5	-71.98	-3,085.1	1,147.1	908.6	789.9	118.70	7.655	
10,100.0	7,675.0	9,903.2	7,394.0	63.5	66.3	-71.99	-3,185.1	1,147.4	908.6	786.4	122.22	7.434	
10,200.0	7,675.0	10,003.2	7,394.0	65.4	68.0	-71.99	-3,285.1	1,147.8	908.7	782.9	125.75	7.226	
10,300.0	7,675.0	10,103.2	7,394.0	67.2	69.8	-71.99	-3,385.1	1,148.1	908.7	779.4	129.29	7.029	
10,400.0	7,675.0	10,203.2	7,394.0	69.1	71.6	-71.99	-3,485.1	1,148.5	908.8	775.9	132.84	6.841	
10,500.0	7,675.0	10,303.2	7,394.0	70.9	73.3	-71.99	-3,585.1	1,148.8	908.8	772.4	136.39	6.663	
10,600.0	7,675.0	10,403.2	7,394.0	72.8	75.1	-71.99	-3,685.1	1,149.2	908.9	768.9	139.95	6.494	
10,700.0	7,675.0	10,503.2	7,394.0	74.6	76.9	-71.99	-3,785.1	1,149.5	908.9	765.4	143.52	6.333	
10,800.0	7,675.0	10,603.2	7,394.0	76.5	78.7	-71.99	-3,885.1	1,149.9	909.0	761.9	147.09	6.180	
10,900.0	7,675.0	10,703.2	7,394.0	78.4	80.5	-71.99	-3,985.1	1,150.2	909.0	758.4	150.66	6.034	
11,000.0	7,675.0	10,803.2	7,394.0	80.2	82.3	-71.99	-4,085.1	1,150.6	909.1	754.8	154.24	5.894	
11,100.0	7,675.0	10,903.2	7,394.0	82.1	84.1	-72.00	-4,185.1	1,150.9	909.1	751.3	157.83	5.760	
11,200.0	7,675.0	11,003.2	7,394.0	84.0	86.0	-72.00	-4,285.1	1,151.3	909.2	747.8	161.42	5.633	
11,300.0	7,675.0	11,103.2	7,394.0	85.8	87.8	-72.00	-4,385.1	1,151.6	909.2	744.2	165.01	5.510	
11,400.0	7,675.0	11,203.2	7,394.0	87.7	89.6	-72.00	-4,485.1	1,152.0	909.3	740.7	168.60	5.393	
11,500.0	7,675.0	11,303.2	7,394.0	89.6	91.4	-72.00	-4,585.1	1,152.3	909.3	737.1	172.20	5.281	
11,600.0	7,675.0	11,403.2	7,394.0	91.5	93.3	-72.00	-4,685.1	1,152.7	909.4	733.6	175.81	5.173	
11,700.0	7,675.0	11,503.2	7,394.0	93.3	95.1	-72.00	-4,785.1	1,153.0	909.4	730.0	179.41	5.069	
11,800.0	7,675.0	11,603.2	7,394.0	95.2	96.9	-72.00	-4,885.1	1,153.4	909.5	726.5	183.02	4.969	
11,900.0	7,675.0	11,703.2	7,394.0	97.1	98.8	-72.00	-4,985.1	1,153.7	909.5	722.9	186.63	4.874	
12,000.0	7,675.0	11,803.2	7,394.0	99.0	100.6	-72.01	-5,085.1	1,154.1	909.6	719.4	190.24	4.781	
12,100.0	7,675.0	11,903.2	7,394.0	100.9	102.5	-72.01	-5,185.1	1,154.4	909.6	715.8	193.86	4.692	
12,200.0	7,675.0	12,003.2	7,394.0	102.8	104.3	-72.01	-5,285.1	1,154.8	909.7	712.2	197.47	4.607	
12,300.0	7,675.0	12,103.2	7,394.0	104.7	106.2	-72.01	-5,385.1	1,155.1	909.7	708.7	201.09	4.524	
12,400.0	7,675.0	12,203.2	7,394.0	106.5	108.0	-72.01	-5,485.1	1,155.5	909.8	705.1	204.71	4.444	
12,500.0	7,675.0	12,303.2	7,394.0	108.4	109.9	-72.01	-5,585.1	1,155.8	909.8	701.5	208.34	4.367	
12,600.0	7,675.0	12,403.2	7,394.0	110.3	111.7	-72.01	-5,685.1	1,156.2	909.9	697.9	211.96	4.293	
12,700.0	7,675.0	12,503.2	7,394.0	112.2	113.6	-72.01	-5,785.1	1,156.5	909.9	694.4	215.59	4.221	
12,800.0	7,675.0	12,603.2	7,394.0	114.1	115.5	-72.01	-5,885.1	1,156.9	910.0	690.8	219.22	4.151	
12,900.0	7,675.0	12,703.2	7,394.0	116.0	117.3	-72.01	-5,985.1	1,157.2	910.0	687.2	222.85	4.084	
13,000.0	7,675.0	12,803.2	7,394.0	117.9	119.2	-72.02	-6,085.1	1,157.6	910.1	683.6	226.48	4.018	
13,100.0	7,675.0	12,903.2	7,394.0	119.8	121.1	-72.02	-6,185.1	1,157.9	910.2	680.0	230.11	3.955	
13,200.0	7,675.0	13,003.2	7,394.0	121.7	122.9	-72.02	-6,285.1	1,158.3	910.2	676.5	233.74	3.894	
13,300.0	7,675.0	13,103.2	7,394.0	123.6	124.8	-72.02	-6,385.1	1,158.6	910.3	672.9	237.38	3.835	
13,400.0	7,675.0	13,203.2	7,394.0	125.5	126.7	-72.02	-6,485.1	1,159.0	910.3	669.3	241.02	3.777	
13,500.0	7,675.0	13,303.2	7,394.0	127.4	128.5	-72.02	-6,585.1	1,159.3	910.4	665.7	244.65	3.721	
13,600.0	7,675.0	13,403.2	7,394.0	129.3	130.4	-72.02	-6,685.1	1,159.7	910.4	662.1	248.29	3.667	
13,700.0	7,675.0	13,503.2	7,394.0	131.2	132.3	-72.02	-6,785.1	1,160.0	910.5	658.5	251.93	3.614	
13,785.9	7,675.0	13,588.4	7,394.0	132.8	133.9	-72.02	-6,870.4	1,160.3	910.5	655.5	255.05	3.570	SF

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-44.8	44.8				
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-44.8	44.8	44.6	0.22	199.457	
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-44.8	44.8	44.2	0.67	66.486	
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-44.8	44.8	43.7	1.12	39.891	
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-44.8	44.8	43.3	1.57	28.494	
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	0.0	-44.8	44.8	42.8	2.02	22.162	
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	0.0	-44.8	44.8	42.4	2.47	18.132	
700.0	700.0	700.0	700.0	1.5	1.5	-89.98	0.0	-44.8	44.8	41.9	2.92	15.343	
800.0	800.0	800.0	800.0	1.7	1.7	-89.98	0.0	-44.8	44.8	41.5	3.37	13.297	
900.0	900.0	900.0	900.0	1.9	1.9	-89.98	0.0	-44.8	44.8	41.0	3.82	11.733	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.98	0.0	-44.8	44.8	40.6	4.27	10.498	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-89.98	0.0	-44.8	44.8	40.1	4.72	9.498	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-89.98	0.0	-44.8	44.8	39.7	5.17	8.672	CC, ES
1,300.0	1,300.0	1,299.4	1,299.4	2.8	2.8	117.03	-1.1	-45.5	46.1	40.5	5.56	8.283	SF
1,400.0	1,399.9	1,398.7	1,398.6	3.0	3.0	117.13	-4.4	-47.4	49.8	43.9	5.92	8.425	
1,500.0	1,499.7	1,497.8	1,497.5	3.1	3.1	117.26	-10.0	-50.7	56.1	49.8	6.29	8.925	
1,567.6	1,567.0	1,564.7	1,564.1	3.3	3.3	117.34	-15.0	-53.6	61.7	55.2	6.55	9.425	
1,600.0	1,599.3	1,596.7	1,595.9	3.3	3.3	117.32	-17.7	-55.3	64.8	58.1	6.68	9.699	
1,700.0	1,698.8	1,695.2	1,693.8	3.6	3.6	116.12	-27.6	-61.1	75.0	67.9	7.10	10.569	
1,800.0	1,798.4	1,793.4	1,791.0	3.8	3.8	113.79	-39.6	-68.1	86.7	79.1	7.55	11.487	
1,900.0	1,897.9	1,891.0	1,887.2	4.0	4.1	110.83	-53.7	-76.4	99.9	91.9	8.02	12.462	
2,000.0	1,997.4	1,988.0	1,982.4	4.3	4.4	107.60	-69.8	-85.8	115.0	106.5	8.51	13.503	
2,100.0	2,097.0	2,084.2	2,076.3	4.5	4.7	104.33	-87.8	-96.4	132.0	123.0	9.03	14.617	
2,200.0	2,196.5	2,179.6	2,168.9	4.8	5.1	101.17	-107.7	-108.1	151.1	141.6	9.56	15.807	
2,300.0	2,296.0	2,274.0	2,259.9	5.0	5.5	98.21	-129.3	-120.8	172.4	162.3	10.10	17.071	
2,400.0	2,395.6	2,367.3	2,349.2	5.3	5.9	95.47	-152.6	-134.5	196.0	185.3	10.65	18.404	
2,500.0	2,495.1	2,459.4	2,436.7	5.5	6.4	92.97	-177.4	-149.0	221.8	210.6	11.20	19.801	
2,600.0	2,594.7	2,550.3	2,522.4	5.8	6.9	90.71	-203.7	-164.5	249.8	238.1	11.76	21.253	
2,700.0	2,694.2	2,639.9	2,606.0	6.1	7.5	88.68	-231.2	-180.7	280.1	267.8	12.31	22.752	
2,800.0	2,793.7	2,729.4	2,688.9	6.4	8.0	86.82	-260.4	-197.8	312.6	299.7	12.87	24.288	
2,900.0	2,893.3	2,823.2	2,775.5	6.6	8.7	85.18	-291.6	-216.1	345.9	332.5	13.45	25.723	
3,000.0	2,992.8	2,917.1	2,862.1	6.9	9.3	83.82	-322.7	-234.4	379.5	365.4	14.03	27.055	
3,100.0	3,092.3	3,011.0	2,948.7	7.2	10.0	82.69	-353.9	-252.7	413.2	398.5	14.61	28.286	
3,200.0	3,191.9	3,104.8	3,035.4	7.5	10.7	81.72	-385.1	-271.0	447.0	431.8	15.19	29.425	
3,300.0	3,291.4	3,198.7	3,122.0	7.7	11.4	80.89	-416.2	-289.3	480.9	465.1	15.78	30.479	
3,400.0	3,391.0	3,292.5	3,208.6	8.0	12.1	80.17	-447.4	-307.6	514.9	498.5	16.37	31.456	
3,500.0	3,490.5	3,386.4	3,295.3	8.3	12.7	79.54	-478.5	-325.9	548.9	532.0	16.96	32.363	
3,600.0	3,590.0	3,480.3	3,381.9	8.6	13.4	78.98	-509.7	-344.2	583.0	565.5	17.56	33.208	
3,700.0	3,689.6	3,574.1	3,468.5	8.9	14.1	78.48	-540.8	-362.5	617.2	599.0	18.15	33.996	
3,800.0	3,789.1	3,668.0	3,555.1	9.1	14.8	78.04	-572.0	-380.8	651.4	632.6	18.75	34.732	
3,900.0	3,888.6	3,761.8	3,641.8	9.4	15.5	77.64	-603.1	-399.1	685.6	666.2	19.36	35.420	
4,000.0	3,988.2	3,855.7	3,728.4	9.7	16.2	77.27	-634.3	-417.4	719.8	699.9	19.96	36.065	
4,100.0	4,087.7	3,949.6	3,815.0	10.0	17.0	76.95	-665.4	-435.7	754.1	733.6	20.56	36.671	
4,200.0	4,187.3	4,043.4	3,901.6	10.3	17.7	76.64	-696.6	-454.0	788.4	767.2	21.17	37.240	
4,300.0	4,286.8	4,137.3	3,988.3	10.6	18.4	76.37	-727.8	-472.3	822.7	800.9	21.78	37.776	
4,400.0	4,386.3	4,231.1	4,074.9	10.9	19.1	76.11	-758.9	-490.6	857.0	834.7	22.39	38.281	
4,500.0	4,485.9	4,325.0	4,161.5	11.1	19.8	75.88	-790.1	-508.9	891.4	868.4	23.00	38.758	
4,600.0	4,585.4	4,418.9	4,248.2	11.4	20.5	75.66	-821.2	-527.2	925.7	902.1	23.61	39.210	
4,700.0	4,684.9	4,512.7	4,334.8	11.7	21.2	75.46	-852.4	-545.5	960.1	935.9	24.22	39.637	
4,800.0	4,784.5	4,606.6	4,421.4	12.0	21.9	75.27	-883.5	-563.8	994.5	969.6	24.84	40.042	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-28.0	28.0				
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-28.0	28.0	27.8	0.22	124.661	
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-28.0	28.0	27.3	0.67	41.554	
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-28.0	28.0	26.9	1.12	24.932	
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-28.0	28.0	26.4	1.57	17.809	
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	0.0	-28.0	28.0	26.0	2.02	13.851	
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	0.0	-28.0	28.0	25.5	2.47	11.333	
700.0	700.0	700.0	700.0	1.5	1.5	-89.98	0.0	-28.0	28.0	25.1	2.92	9.589	
800.0	800.0	800.0	800.0	1.7	1.7	-89.98	0.0	-28.0	28.0	24.6	3.37	8.311	
900.0	900.0	900.0	900.0	1.9	1.9	-89.98	0.0	-28.0	28.0	24.2	3.82	7.333	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.98	0.0	-28.0	28.0	23.7	4.27	6.561	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-89.98	0.0	-28.0	28.0	23.3	4.72	5.936	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-89.98	0.0	-28.0	28.0	22.8	5.17	5.420	CC, ES
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	119.32	0.0	-28.0	28.6	23.0	5.59	5.122	SF
1,400.0	1,399.9	1,399.9	1,399.9	3.0	3.0	125.68	0.0	-28.0	30.8	24.8	5.99	5.132	
1,500.0	1,499.7	1,499.6	1,499.5	3.1	3.2	132.25	-1.2	-28.6	35.2	28.8	6.37	5.519	
1,567.6	1,567.0	1,566.9	1,566.9	3.3	3.4	135.15	-3.3	-29.5	39.5	32.9	6.61	5.979	
1,600.0	1,599.3	1,599.2	1,599.1	3.3	3.4	136.05	-4.7	-30.2	41.9	35.2	6.73	6.226	
1,700.0	1,698.8	1,698.8	1,698.5	3.6	3.6	136.26	-10.6	-32.8	49.4	42.3	7.12	6.945	
1,800.0	1,798.4	1,798.3	1,797.6	3.8	3.8	133.82	-18.9	-36.6	57.2	49.7	7.53	7.604	
1,900.0	1,897.9	1,897.6	1,896.2	4.0	4.0	129.73	-29.5	-41.4	65.6	57.6	7.96	8.234	
2,000.0	1,997.4	1,996.5	1,994.1	4.3	4.2	124.67	-42.3	-47.2	74.9	66.4	8.43	8.880	
2,100.0	2,097.0	2,095.0	2,091.2	4.5	4.5	119.16	-57.4	-54.0	85.5	76.6	8.93	9.581	
2,200.0	2,196.5	2,192.8	2,187.1	4.8	4.8	113.58	-74.7	-61.8	98.0	88.5	9.45	10.369	
2,300.0	2,296.0	2,289.9	2,281.9	5.0	5.1	108.23	-94.0	-70.6	112.5	102.5	9.99	11.263	
2,400.0	2,395.6	2,386.1	2,375.2	5.3	5.5	103.26	-115.3	-80.2	129.3	118.8	10.54	12.269	
2,500.0	2,495.1	2,481.4	2,467.0	5.5	5.8	98.76	-138.5	-90.7	148.5	137.4	11.09	13.386	
2,600.0	2,594.7	2,575.6	2,557.1	5.8	6.3	94.76	-163.5	-102.0	170.2	158.5	11.65	14.607	
2,700.0	2,694.2	2,668.7	2,645.5	6.1	6.8	91.23	-190.2	-114.1	194.4	182.1	12.21	15.920	
2,800.0	2,793.7	2,760.5	2,731.9	6.4	7.3	88.13	-218.4	-126.9	221.0	208.2	12.76	17.311	
2,900.0	2,893.3	2,853.3	2,818.6	6.6	7.8	85.38	-248.6	-140.5	249.7	236.4	13.32	18.750	
3,000.0	2,992.8	2,948.3	2,907.3	6.9	8.4	83.11	-279.8	-154.7	279.2	265.4	13.88	20.112	
3,100.0	3,092.3	3,043.4	2,995.9	7.2	9.0	81.27	-311.0	-168.8	309.1	294.6	14.45	21.389	
3,200.0	3,191.9	3,138.4	3,084.6	7.5	9.6	79.75	-342.1	-182.9	339.1	324.1	15.02	22.582	
3,300.0	3,291.4	3,233.4	3,173.2	7.7	10.2	78.48	-373.3	-197.0	369.4	353.8	15.59	23.695	
3,400.0	3,391.0	3,328.4	3,261.8	8.0	10.9	77.40	-404.5	-211.1	399.7	383.6	16.16	24.734	
3,500.0	3,490.5	3,423.5	3,350.5	8.3	11.5	76.47	-435.7	-225.2	430.2	413.5	16.74	25.703	
3,600.0	3,590.0	3,518.5	3,439.1	8.6	12.1	75.67	-466.8	-239.3	460.8	443.5	17.32	26.609	
3,700.0	3,689.6	3,613.5	3,527.8	8.9	12.8	74.96	-498.0	-253.4	491.5	473.6	17.90	27.457	
3,800.0	3,789.1	3,708.5	3,616.4	9.1	13.4	74.34	-529.2	-267.5	522.2	503.7	18.48	28.251	
3,900.0	3,888.6	3,803.5	3,705.1	9.4	14.1	73.79	-560.4	-281.6	553.0	533.9	19.07	28.995	
4,000.0	3,988.2	3,898.6	3,793.7	9.7	14.8	73.29	-591.5	-295.8	583.8	564.1	19.66	29.694	
4,100.0	4,087.7	3,993.6	3,882.4	10.0	15.4	72.84	-622.7	-309.9	614.6	594.4	20.25	30.350	
4,200.0	4,187.3	4,088.6	3,971.0	10.3	16.1	72.44	-653.9	-324.0	645.5	624.6	20.84	30.969	
4,300.0	4,286.8	4,183.6	4,059.7	10.6	16.7	72.08	-685.1	-338.1	676.4	654.9	21.44	31.552	
4,400.0	4,386.3	4,278.6	4,148.3	10.9	17.4	71.74	-716.2	-352.2	707.3	685.3	22.03	32.103	
4,500.0	4,485.9	4,373.7	4,236.9	11.1	18.1	71.43	-747.4	-366.3	738.2	715.6	22.63	32.624	
4,600.0	4,585.4	4,468.7	4,325.6	11.4	18.8	71.15	-778.6	-380.4	769.2	746.0	23.23	33.116	
4,700.0	4,684.9	4,563.7	4,414.2	11.7	19.4	70.89	-809.8	-394.5	800.2	776.3	23.83	33.583	
4,800.0	4,784.5	4,658.7	4,502.9	12.0	20.1	70.65	-840.9	-408.6	831.2	806.7	24.43	34.026	
4,900.0	4,884.0	4,753.8	4,591.5	12.3	20.8	70.43	-872.1	-422.7	862.2	837.1	25.03	34.447	
5,000.0	4,983.6	4,848.8	4,680.2	12.6	21.4	70.22	-903.3	-436.9	893.2	867.5	25.63	34.848	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,083.1	4,943.8	4,768.8	12.9	22.1	70.03	-934.5	-451.0	924.2	898.0	26.23	35.229	
5,200.0	5,182.6	5,038.8	4,857.5	13.2	22.8	69.85	-965.6	-465.1	955.2	928.4	26.84	35.592	
5,300.0	5,282.2	5,133.8	4,946.1	13.4	23.5	69.68	-996.8	-479.2	986.3	958.8	27.44	35.938	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.04	0.0	16.8	16.8	16.8	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	90.04	0.0	16.8	16.8	16.6	0.22	74.797	
200.0	200.0	200.0	200.0	0.3	0.3	90.04	0.0	16.8	16.8	16.1	0.67	24.932	
300.0	300.0	300.0	300.0	0.6	0.6	90.04	0.0	16.8	16.8	15.7	1.12	14.959	
400.0	400.0	400.0	400.0	0.8	0.8	90.04	0.0	16.8	16.8	15.2	1.57	10.685	
500.0	500.0	500.0	500.0	1.0	1.0	90.04	0.0	16.8	16.8	14.8	2.02	8.311	
600.0	600.0	600.0	600.0	1.2	1.2	90.04	0.0	16.8	16.8	14.3	2.47	6.800	
700.0	700.0	700.0	700.0	1.5	1.5	90.04	0.0	16.8	16.8	13.9	2.92	5.754	
800.0	800.0	800.0	800.0	1.7	1.7	90.04	0.0	16.8	16.8	13.4	3.37	4.986	
900.0	900.0	900.0	900.0	1.9	1.9	90.04	0.0	16.8	16.8	13.0	3.82	4.400	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.04	0.0	16.8	16.8	12.5	4.27	3.937	CC, ES
1,100.0	1,100.0	1,099.7	1,099.7	2.4	2.3	93.00	-0.9	17.7	17.8	13.1	4.70	3.783	
1,200.0	1,200.0	1,199.2	1,199.1	2.6	2.5	100.16	-3.7	20.5	20.8	15.7	5.10	4.084	
1,300.0	1,300.0	1,298.5	1,298.2	2.8	2.7	-46.87	-8.2	25.1	25.5	20.1	5.49	4.654	
1,400.0	1,399.9	1,397.7	1,397.0	3.0	2.9	-44.03	-14.6	31.5	30.9	25.0	5.86	5.272	
1,500.0	1,499.7	1,497.1	1,495.7	3.1	3.2	-43.23	-22.7	39.6	36.6	30.3	6.25	5.853	
1,567.6	1,567.0	1,564.6	1,562.7	3.3	3.3	-44.05	-28.4	45.4	39.7	33.1	6.52	6.081	
1,600.0	1,599.3	1,597.0	1,594.9	3.3	3.4	-44.70	-31.1	48.1	40.9	34.3	6.65	6.151	
1,700.0	1,698.8	1,696.9	1,694.1	3.6	3.7	-46.46	-39.6	56.6	44.9	37.8	7.08	6.338	
1,800.0	1,798.4	1,796.8	1,793.3	3.8	3.9	-47.94	-48.1	65.2	48.9	41.4	7.53	6.494	
1,900.0	1,897.9	1,896.7	1,892.4	4.0	4.2	-49.19	-56.5	73.7	52.9	44.9	7.99	6.625	
2,000.0	1,997.4	1,996.6	1,991.6	4.3	4.5	-50.26	-65.0	82.2	57.0	48.5	8.46	6.733	
2,100.0	2,097.0	2,096.5	2,090.8	4.5	4.8	-51.19	-73.5	90.7	61.1	52.1	8.95	6.824	
2,200.0	2,196.5	2,196.5	2,190.0	4.8	5.1	-52.00	-82.0	99.3	65.1	55.7	9.44	6.900	
2,300.0	2,296.0	2,296.4	2,289.2	5.0	5.4	-52.72	-90.4	107.8	69.2	59.3	9.94	6.964	
2,400.0	2,395.6	2,396.3	2,388.4	5.3	5.7	-53.36	-98.9	116.3	73.3	62.9	10.45	7.018	
2,500.0	2,495.1	2,496.2	2,487.6	5.5	6.0	-53.93	-107.4	124.8	77.5	66.5	10.97	7.064	
2,600.0	2,594.7	2,596.1	2,586.8	5.8	6.3	-54.44	-115.9	133.4	81.6	70.1	11.49	7.103	
2,700.0	2,694.2	2,696.0	2,685.9	6.1	6.6	-54.90	-124.3	141.9	85.7	73.7	12.01	7.136	
2,800.0	2,793.7	2,795.9	2,785.1	6.4	6.9	-55.33	-132.8	150.4	89.8	77.3	12.54	7.165	
2,900.0	2,893.3	2,895.8	2,884.3	6.6	7.2	-55.71	-141.3	158.9	94.0	80.9	13.07	7.189	
3,000.0	2,992.8	2,995.8	2,983.5	6.9	7.5	-56.06	-149.7	167.5	98.1	84.5	13.61	7.211	
3,100.0	3,092.3	3,095.7	3,082.7	7.2	7.8	-56.38	-158.2	176.0	102.3	88.1	14.15	7.229	
3,200.0	3,191.9	3,195.6	3,181.9	7.5	8.1	-56.68	-166.7	184.5	106.4	91.7	14.69	7.245	
3,300.0	3,291.4	3,295.5	3,281.1	7.7	8.5	-56.96	-175.2	193.0	110.6	95.3	15.23	7.259	
3,400.0	3,391.0	3,395.4	3,380.2	8.0	8.8	-57.21	-183.6	201.6	114.7	98.9	15.78	7.271	
3,500.0	3,490.5	3,495.3	3,479.4	8.3	9.1	-57.45	-192.1	210.1	118.9	102.5	16.32	7.282	
3,600.0	3,590.0	3,595.2	3,578.6	8.6	9.4	-57.67	-200.6	218.6	123.0	106.1	16.87	7.291	
3,700.0	3,689.6	3,695.2	3,677.8	8.9	9.7	-57.88	-209.0	227.1	127.2	109.7	17.42	7.299	
3,800.0	3,789.1	3,795.1	3,777.0	9.1	10.0	-58.07	-217.5	235.7	131.3	113.4	17.97	7.306	
3,900.0	3,888.6	3,895.0	3,876.2	9.4	10.4	-58.25	-226.0	244.2	135.5	117.0	18.53	7.313	
4,000.0	3,988.2	3,994.9	3,975.4	9.7	10.7	-58.42	-234.5	252.7	139.7	120.6	19.08	7.318	
4,100.0	4,087.7	4,094.8	4,074.6	10.0	11.0	-58.58	-242.9	261.2	143.8	124.2	19.64	7.323	
4,200.0	4,187.3	4,194.7	4,173.7	10.3	11.3	-58.74	-251.4	269.7	148.0	127.8	20.19	7.328	
4,300.0	4,286.8	4,294.6	4,272.9	10.6	11.6	-58.88	-259.9	278.3	152.1	131.4	20.75	7.332	
4,400.0	4,386.3	4,394.5	4,372.1	10.9	11.9	-59.02	-268.3	286.8	156.3	135.0	21.31	7.335	
4,500.0	4,485.9	4,494.5	4,471.3	11.1	12.3	-59.15	-276.8	295.3	160.5	138.6	21.87	7.338	
4,600.0	4,585.4	4,594.4	4,570.5	11.4	12.6	-59.27	-285.3	303.8	164.6	142.2	22.43	7.341	
4,700.0	4,684.9	4,694.3	4,669.7	11.7	12.9	-59.39	-293.8	312.4	168.8	145.8	22.99	7.343	
4,800.0	4,784.5	4,794.2	4,768.9	12.0	13.2	-59.50	-302.2	320.9	173.0	149.4	23.55	7.345	
4,900.0	4,884.0	4,894.1	4,868.1	12.3	13.5	-59.60	-310.7	329.4	177.1	153.0	24.11	7.347	
5,000.0	4,983.6	4,994.0	4,967.2	12.6	13.9	-59.70	-319.2	337.9	181.3	156.6	24.67	7.349	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,083.1	5,093.9	5,066.4	12.9	14.2	-59.80	-327.6	346.5	185.5	160.3	25.24	7.350	
5,200.0	5,182.6	5,193.8	5,165.6	13.2	14.5	-59.89	-336.1	355.0	189.7	163.9	25.80	7.351	
5,300.0	5,282.2	5,293.8	5,264.8	13.4	14.8	-59.98	-344.6	363.5	193.8	167.5	26.36	7.353	
5,400.0	5,381.7	5,393.7	5,364.0	13.7	15.1	-60.06	-353.1	372.0	198.0	171.1	26.93	7.353	
5,500.0	5,481.2	5,493.6	5,463.2	14.0	15.5	-60.14	-361.5	380.6	202.2	174.7	27.49	7.354	
5,600.0	5,580.8	5,593.5	5,562.4	14.3	15.8	-60.22	-370.0	389.1	206.3	178.3	28.05	7.355	
5,700.0	5,680.3	5,693.4	5,661.6	14.6	16.1	-60.30	-378.5	397.6	210.5	181.9	28.62	7.356	
5,800.0	5,779.8	5,793.3	5,760.7	14.9	16.4	-60.37	-387.0	406.1	214.7	185.5	29.19	7.356	
5,900.0	5,879.4	5,893.2	5,859.9	15.2	16.8	-60.44	-395.4	414.7	218.9	189.1	29.75	7.357	
6,000.0	5,978.9	5,993.1	5,959.1	15.5	17.1	-60.50	-403.9	423.2	223.0	192.7	30.32	7.357	
6,100.0	6,078.5	6,093.1	6,058.3	15.8	17.4	-60.57	-412.4	431.7	227.2	196.3	30.88	7.357	
6,200.0	6,178.0	6,193.0	6,157.5	16.1	17.7	-60.63	-420.8	440.2	231.4	199.9	31.45	7.357	
6,300.0	6,277.5	6,292.9	6,256.7	16.3	18.0	-60.69	-429.3	448.8	235.6	203.5	32.02	7.358	
6,400.0	6,377.1	6,392.8	6,355.9	16.6	18.4	-60.75	-437.8	457.3	239.7	207.2	32.58	7.358	
6,500.0	6,476.6	6,492.7	6,455.0	16.9	18.7	-60.80	-446.3	465.8	243.9	210.8	33.15	7.358	
6,600.0	6,576.1	6,592.6	6,554.2	17.2	19.0	-60.85	-454.7	474.3	248.1	214.4	33.72	7.358	
6,700.0	6,675.7	6,692.5	6,653.4	17.5	19.3	-60.91	-463.2	482.8	252.3	218.0	34.28	7.358	
6,800.0	6,775.2	6,792.4	6,752.6	17.8	19.7	-60.96	-471.7	491.4	256.4	221.6	34.85	7.358	
6,900.0	6,874.8	6,892.4	6,851.8	18.1	20.0	-61.00	-480.1	499.9	260.6	225.2	35.42	7.358	
7,000.0	6,974.3	6,991.7	6,950.3	18.4	20.3	-60.79	-489.8	508.4	264.8	228.9	35.97	7.363	
7,046.8	7,020.8	7,037.5	6,995.2	18.5	20.5	-59.93	-497.7	512.2	267.0	230.8	36.16	7.383	
7,050.0	7,024.1	7,040.6	6,998.3	18.5	20.5	-61.00	-498.4	512.5	267.1	231.0	36.17	7.386	
7,100.0	7,073.6	7,089.1	7,045.1	18.7	20.7	-70.07	-510.1	516.6	269.6	233.2	36.36	7.415	
7,150.0	7,122.6	7,137.1	7,090.6	18.9	20.9	-73.17	-524.9	520.5	272.1	235.5	36.60	7.435	
7,200.0	7,170.8	7,184.8	7,134.8	19.1	21.2	-74.29	-542.6	524.3	274.8	237.9	36.91	7.444	
7,250.0	7,218.0	7,232.2	7,177.3	19.4	21.5	-74.56	-563.0	528.1	277.4	240.2	37.28	7.443	
7,300.0	7,263.9	7,279.2	7,218.2	19.7	21.8	-74.41	-586.0	531.6	280.1	242.4	37.70	7.431	
7,350.0	7,308.3	7,326.0	7,257.2	20.0	22.2	-74.03	-611.5	535.1	282.8	244.6	38.18	7.408	
7,400.0	7,351.0	7,372.4	7,294.2	20.3	22.5	-73.54	-639.3	538.3	285.4	246.7	38.71	7.374	
7,450.0	7,391.9	7,418.6	7,329.2	20.7	22.9	-72.98	-669.3	541.4	288.0	248.7	39.30	7.328	
7,500.0	7,430.6	7,464.6	7,362.1	21.2	23.3	-72.41	-701.3	544.4	290.5	250.6	39.96	7.271	
7,550.0	7,467.0	7,510.3	7,392.6	21.6	23.8	-71.84	-735.2	547.1	292.9	252.2	40.68	7.201	
7,600.0	7,501.0	7,555.8	7,420.8	22.1	24.2	-71.29	-770.9	549.6	295.2	253.7	41.46	7.119	
7,650.0	7,532.3	7,600.0	7,446.0	22.7	24.7	-70.79	-807.1	551.9	297.3	255.0	42.31	7.027	
7,700.0	7,560.8	7,646.4	7,470.0	23.2	25.2	-70.30	-846.7	554.1	299.3	256.0	43.26	6.918	
7,750.0	7,586.4	7,691.4	7,490.8	23.9	25.8	-69.88	-886.6	556.0	301.0	256.8	44.27	6.800	
7,800.0	7,608.9	7,736.3	7,509.0	24.5	26.3	-69.50	-927.6	557.7	302.6	257.3	45.37	6.670	
7,850.0	7,628.3	7,781.1	7,524.6	25.1	26.9	-69.18	-969.5	559.2	304.0	257.4	46.55	6.531	
7,900.0	7,644.4	7,825.8	7,537.5	25.8	27.5	-68.91	-1,012.3	560.5	305.1	257.3	47.80	6.383	
7,950.0	7,657.2	7,870.4	7,547.7	26.5	28.1	-68.70	-1,055.7	561.5	306.0	256.9	49.14	6.228	
8,000.0	7,666.5	7,915.0	7,555.2	27.3	28.7	-68.55	-1,099.7	562.3	306.7	256.2	50.55	6.068	
8,050.0	7,672.5	7,959.5	7,559.9	28.0	29.3	-68.46	-1,144.0	562.9	307.2	255.1	52.03	5.903	
8,100.0	7,674.9	8,004.1	7,561.9	28.8	30.0	-68.43	-1,188.4	563.2	307.3	253.8	53.58	5.736	
8,110.3	7,675.0	8,013.2	7,562.0	28.9	30.1	-68.43	-1,197.6	563.2	307.3	253.4	53.90	5.702	
8,200.0	7,675.0	8,102.8	7,562.0	30.3	31.4	-68.43	-1,287.2	563.5	307.4	250.9	56.52	5.438	
8,300.0	7,675.0	8,202.8	7,562.0	31.9	32.9	-68.43	-1,387.2	563.9	307.4	247.9	59.52	5.165	
8,400.0	7,675.0	8,302.8	7,562.0	33.5	34.5	-68.44	-1,487.2	564.2	307.5	244.9	62.59	4.913	
8,500.0	7,675.0	8,402.8	7,562.0	35.1	36.1	-68.44	-1,587.2	564.6	307.5	241.8	65.70	4.680	
8,600.0	7,675.0	8,502.8	7,562.0	36.8	37.7	-68.44	-1,687.2	564.9	307.6	238.7	68.87	4.466	
8,700.0	7,675.0	8,602.8	7,562.0	38.5	39.3	-68.45	-1,787.2	565.3	307.6	235.5	72.08	4.268	
8,800.0	7,675.0	8,702.8	7,562.0	40.2	41.0	-68.45	-1,887.2	565.6	307.7	232.3	75.32	4.085	
8,900.0	7,675.0	8,802.8	7,562.0	41.9	42.7	-68.46	-1,987.2	566.0	307.7	229.1	78.60	3.915	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,000.0	7,675.0	8,902.8	7,562.0	43.7	44.4	-68.46	-2,087.2	566.3	307.8	225.9	81.90	3.758	
9,100.0	7,675.0	9,002.8	7,562.0	45.4	46.1	-68.46	-2,187.2	566.7	307.8	222.6	85.23	3.611	
9,200.0	7,675.0	9,102.8	7,562.0	47.2	47.9	-68.47	-2,287.2	567.0	307.9	219.3	88.58	3.475	
9,300.0	7,675.0	9,202.8	7,562.0	49.0	49.6	-68.47	-2,387.2	567.4	307.9	215.9	91.95	3.349	
9,400.0	7,675.0	9,302.8	7,562.0	50.8	51.4	-68.47	-2,487.2	567.7	307.9	212.6	95.34	3.230	
9,500.0	7,675.0	9,402.8	7,562.0	52.6	53.2	-68.48	-2,587.2	568.1	308.0	209.3	98.74	3.119	
9,600.0	7,675.0	9,502.8	7,562.0	54.4	54.9	-68.48	-2,687.2	568.4	308.0	205.9	102.16	3.015	
9,700.0	7,675.0	9,602.8	7,562.0	56.2	56.7	-68.48	-2,787.2	568.7	308.1	202.5	105.59	2.918	
9,800.0	7,675.0	9,702.8	7,562.0	58.0	58.5	-68.49	-2,887.2	569.1	308.1	199.1	109.03	2.826	
9,900.0	7,675.0	9,802.8	7,562.0	59.9	60.3	-68.49	-2,987.2	569.4	308.2	195.7	112.48	2.740	
10,000.0	7,675.0	9,902.8	7,562.0	61.7	62.1	-68.49	-3,087.2	569.8	308.2	192.3	115.94	2.658	
10,100.0	7,675.0	10,002.8	7,562.0	63.5	64.0	-68.50	-3,187.2	570.1	308.3	188.9	119.41	2.582	
10,200.0	7,675.0	10,102.8	7,562.0	65.4	65.8	-68.50	-3,287.2	570.5	308.3	185.4	122.89	2.509	
10,300.0	7,675.0	10,202.8	7,562.0	67.2	67.6	-68.50	-3,387.2	570.8	308.4	182.0	126.37	2.440	
10,400.0	7,675.0	10,302.8	7,562.0	69.1	69.5	-68.51	-3,487.2	571.2	308.4	178.5	129.87	2.375	
10,500.0	7,675.0	10,402.8	7,562.0	70.9	71.3	-68.51	-3,587.2	571.5	308.5	175.1	133.37	2.313	
10,600.0	7,675.0	10,502.8	7,562.0	72.8	73.1	-68.51	-3,687.2	571.9	308.5	171.6	136.87	2.254	
10,700.0	7,675.0	10,602.8	7,562.0	74.6	75.0	-68.52	-3,787.2	572.2	308.6	168.2	140.38	2.198	
10,800.0	7,675.0	10,702.8	7,562.0	76.5	76.8	-68.52	-3,887.2	572.6	308.6	164.7	143.90	2.145	
10,900.0	7,675.0	10,802.8	7,562.0	78.4	78.7	-68.52	-3,987.2	572.9	308.7	161.2	147.41	2.094	
11,000.0	7,675.0	10,902.8	7,562.0	80.2	80.5	-68.53	-4,087.2	573.3	308.7	157.8	150.94	2.045	
11,100.0	7,675.0	11,002.8	7,562.0	82.1	82.4	-68.53	-4,187.2	573.6	308.7	154.3	154.47	1.999	
11,200.0	7,675.0	11,102.8	7,562.0	84.0	84.3	-68.53	-4,287.2	574.0	308.8	150.8	158.00	1.954	
11,300.0	7,675.0	11,202.8	7,562.0	85.8	86.1	-68.54	-4,387.2	574.3	308.8	147.3	161.53	1.912	
11,400.0	7,675.0	11,302.8	7,562.0	87.7	88.0	-68.54	-4,487.2	574.7	308.9	143.8	165.07	1.871	
11,500.0	7,675.0	11,402.8	7,562.0	89.6	89.9	-68.54	-4,587.2	575.0	308.9	140.3	168.61	1.832	
11,600.0	7,675.0	11,502.8	7,562.0	91.5	91.7	-68.55	-4,687.2	575.4	309.0	136.8	172.16	1.795	
11,700.0	7,675.0	11,602.8	7,562.0	93.3	93.6	-68.55	-4,787.2	575.7	309.0	133.3	175.71	1.759	
11,800.0	7,675.0	11,702.8	7,562.0	95.2	95.5	-68.55	-4,887.2	576.1	309.1	129.8	179.26	1.724	
11,900.0	7,675.0	11,802.8	7,562.0	97.1	97.3	-68.56	-4,987.2	576.4	309.1	126.3	182.81	1.691	
12,000.0	7,675.0	11,902.8	7,562.0	99.0	99.2	-68.56	-5,087.2	576.8	309.2	122.8	186.37	1.659	
12,100.0	7,675.0	12,002.8	7,562.0	100.9	101.1	-68.57	-5,187.2	577.1	309.2	119.3	189.92	1.628	
12,200.0	7,675.0	12,102.8	7,562.0	102.8	103.0	-68.57	-5,287.2	577.4	309.3	115.8	193.48	1.598	
12,300.0	7,675.0	12,202.8	7,562.0	104.7	104.9	-68.57	-5,387.2	577.8	309.3	112.3	197.04	1.570	
12,400.0	7,675.0	12,302.8	7,562.0	106.5	106.7	-68.58	-5,487.2	578.1	309.4	108.7	200.61	1.542	
12,500.0	7,675.0	12,402.8	7,562.0	108.4	108.6	-68.58	-5,587.2	578.5	309.4	105.2	204.17	1.515	
12,600.0	7,675.0	12,502.8	7,562.0	110.3	110.5	-68.58	-5,687.2	578.8	309.4	101.7	207.74	1.490	Level 3
12,700.0	7,675.0	12,602.8	7,562.0	112.2	112.4	-68.59	-5,787.2	579.2	309.5	98.2	211.31	1.465	Level 3
12,800.0	7,675.0	12,702.8	7,562.0	114.1	114.3	-68.59	-5,887.2	579.5	309.5	94.7	214.88	1.441	Level 3
12,900.0	7,675.0	12,802.8	7,562.0	116.0	116.2	-68.59	-5,987.2	579.9	309.6	91.1	218.45	1.417	Level 3
13,000.0	7,675.0	12,902.8	7,562.0	117.9	118.0	-68.60	-6,087.2	580.2	309.6	87.6	222.02	1.395	Level 3
13,100.0	7,675.0	13,002.8	7,562.0	119.8	119.9	-68.60	-6,187.2	580.6	309.7	84.1	225.60	1.373	Level 3
13,200.0	7,675.0	13,102.8	7,562.0	121.7	121.8	-68.60	-6,287.2	580.9	309.7	80.6	229.17	1.352	Level 3
13,300.0	7,675.0	13,202.8	7,562.0	123.6	123.7	-68.61	-6,387.2	581.3	309.8	77.0	232.75	1.331	Level 3
13,400.0	7,675.0	13,302.8	7,562.0	125.5	125.6	-68.61	-6,487.2	581.6	309.8	73.5	236.33	1.311	Level 3
13,500.0	7,675.0	13,402.8	7,562.0	127.4	127.5	-68.61	-6,587.1	582.0	309.9	70.0	239.91	1.292	Level 3
13,600.0	7,675.0	13,502.8	7,562.0	129.3	129.4	-68.62	-6,687.1	582.3	309.9	66.4	243.49	1.273	Level 3
13,700.0	7,675.0	13,602.8	7,562.0	131.2	131.3	-68.62	-6,787.1	582.7	310.0	62.9	247.07	1.255	Level 3
13,785.9	7,675.0	13,688.7	7,562.0	132.8	132.9	-68.62	-6,873.0	583.0	310.0	59.9	250.14	1.239	Level 2, SF

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-14.0	14.0	14.0	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-14.0	14.0	13.8	0.22	62.330	
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-14.0	14.0	13.3	0.67	20.777	
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-14.0	14.0	12.9	1.12	12.466	
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-14.0	14.0	12.4	1.57	8.904	
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	0.0	-14.0	14.0	12.0	2.02	6.926	
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	0.0	-14.0	14.0	11.5	2.47	5.666	
700.0	700.0	700.0	700.0	1.5	1.5	-89.98	0.0	-14.0	14.0	11.1	2.92	4.795	
800.0	800.0	800.0	800.0	1.7	1.7	-89.98	0.0	-14.0	14.0	10.6	3.37	4.155	
900.0	900.0	900.0	900.0	1.9	1.9	-89.98	0.0	-14.0	14.0	10.2	3.82	3.666	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.98	0.0	-14.0	14.0	9.7	4.27	3.281	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-89.98	0.0	-14.0	14.0	9.3	4.72	2.968	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-89.98	0.0	-14.0	14.0	8.8	5.17	2.710	CC, ES
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	121.55	0.0	-14.0	14.7	9.1	5.59	2.620	
1,400.0	1,399.9	1,399.9	1,399.9	3.0	3.0	132.84	0.0	-14.0	17.0	11.0	5.99	2.844	
1,500.0	1,499.7	1,499.9	1,499.9	3.1	3.2	142.33	-1.3	-14.0	21.4	15.1	6.37	3.365	
1,567.6	1,567.0	1,567.6	1,567.6	3.3	3.3	145.66	-3.7	-14.0	25.1	18.5	6.61	3.802	
1,600.0	1,599.3	1,600.1	1,600.0	3.3	3.4	146.49	-5.2	-14.0	26.9	20.2	6.73	4.007	
1,700.0	1,698.8	1,700.3	1,700.0	3.6	3.6	145.80	-11.8	-14.0	31.7	24.6	7.10	4.468	
1,800.0	1,798.4	1,800.4	1,799.7	3.8	3.8	142.52	-20.3	-14.0	35.6	28.1	7.51	4.749	
1,900.0	1,897.9	1,900.3	1,899.2	4.0	4.0	139.76	-28.9	-14.0	39.6	31.7	7.93	4.997	
2,000.0	1,997.4	2,000.2	1,998.8	4.3	4.2	137.51	-37.5	-14.0	43.6	35.3	8.36	5.218	
2,100.0	2,097.0	2,100.1	2,098.3	4.5	4.4	135.64	-46.1	-14.0	47.7	38.9	8.81	5.415	
2,200.0	2,196.5	2,200.0	2,197.8	4.8	4.6	134.06	-54.7	-14.0	51.8	42.6	9.28	5.589	
2,300.0	2,296.0	2,299.9	2,297.4	5.0	4.9	132.72	-63.2	-13.9	56.0	46.3	9.75	5.745	
2,400.0	2,395.6	2,399.8	2,396.9	5.3	5.1	131.57	-71.8	-13.9	60.2	50.0	10.23	5.883	
2,500.0	2,495.1	2,499.7	2,496.4	5.5	5.3	130.56	-80.4	-13.9	64.4	53.7	10.73	6.006	
2,600.0	2,594.7	2,599.6	2,596.0	5.8	5.6	129.68	-89.0	-13.9	68.6	57.4	11.22	6.116	
2,700.0	2,694.2	2,699.5	2,695.5	6.1	5.8	128.90	-97.6	-13.9	72.9	61.2	11.73	6.214	
2,800.0	2,793.7	2,799.4	2,795.0	6.4	6.1	128.21	-106.2	-13.9	77.1	64.9	12.24	6.303	
2,900.0	2,893.3	2,899.3	2,894.6	6.6	6.3	127.59	-114.8	-13.9	81.4	68.6	12.75	6.383	
3,000.0	2,992.8	2,999.2	2,994.1	6.9	6.6	127.03	-123.4	-13.9	85.7	72.4	13.27	6.455	
3,100.0	3,092.3	3,099.1	3,093.6	7.2	6.9	126.52	-132.0	-13.9	90.0	76.2	13.79	6.521	
3,200.0	3,191.9	3,199.0	3,193.2	7.5	7.1	126.06	-140.5	-13.9	94.2	79.9	14.32	6.581	
3,300.0	3,291.4	3,298.9	3,292.7	7.7	7.4	125.65	-149.1	-13.9	98.5	83.7	14.85	6.636	
3,400.0	3,391.0	3,398.8	3,392.3	8.0	7.6	125.26	-157.7	-13.9	102.8	87.5	15.38	6.686	
3,500.0	3,490.5	3,498.7	3,491.8	8.3	7.9	124.91	-166.3	-13.8	107.1	91.2	15.91	6.732	
3,600.0	3,590.0	3,598.7	3,591.3	8.6	8.2	124.58	-174.9	-13.8	111.4	95.0	16.45	6.775	
3,700.0	3,689.6	3,698.6	3,690.9	8.9	8.4	124.28	-183.5	-13.8	115.7	98.8	16.99	6.814	
3,800.0	3,789.1	3,798.5	3,790.4	9.1	8.7	124.00	-192.1	-13.8	120.1	102.5	17.53	6.850	
3,900.0	3,888.6	3,898.4	3,889.9	9.4	9.0	123.74	-200.7	-13.8	124.4	106.3	18.07	6.884	
4,000.0	3,988.2	3,998.3	3,989.5	9.7	9.2	123.49	-209.3	-13.8	128.7	110.1	18.61	6.915	
4,100.0	4,087.7	4,098.2	4,089.0	10.0	9.5	123.27	-217.9	-13.8	133.0	113.9	19.15	6.945	
4,200.0	4,187.3	4,198.1	4,188.5	10.3	9.8	123.05	-226.4	-13.8	137.3	117.6	19.70	6.972	
4,300.0	4,286.8	4,298.0	4,288.1	10.6	10.0	122.85	-235.0	-13.8	141.7	121.4	20.24	6.997	
4,400.0	4,386.3	4,397.9	4,387.6	10.9	10.3	122.67	-243.6	-13.8	146.0	125.2	20.79	7.021	
4,500.0	4,485.9	4,497.8	4,487.1	11.1	10.6	122.49	-252.2	-13.8	150.3	129.0	21.34	7.044	
4,600.0	4,585.4	4,597.7	4,586.7	11.4	10.9	122.32	-260.8	-13.8	154.6	132.7	21.89	7.065	
4,700.0	4,684.9	4,697.6	4,686.2	11.7	11.1	122.16	-269.4	-13.7	159.0	136.5	22.44	7.085	
4,800.0	4,784.5	4,797.5	4,785.7	12.0	11.4	122.01	-278.0	-13.7	163.3	140.3	22.99	7.104	
4,900.0	4,884.0	4,897.4	4,885.3	12.3	11.7	121.87	-286.6	-13.7	167.6	144.1	23.54	7.121	
5,000.0	4,983.6	4,997.3	4,984.8	12.6	12.0	121.73	-295.2	-13.7	171.9	147.9	24.09	7.138	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,083.1	5,097.2	5,084.4	12.9	12.2	121.61	-303.8	-13.7	176.3	151.6	24.64	7.154	
5,200.0	5,182.6	5,197.1	5,183.9	13.2	12.5	121.48	-312.3	-13.7	180.6	155.4	25.19	7.169	
5,300.0	5,282.2	5,297.0	5,283.4	13.4	12.8	121.37	-320.9	-13.7	184.9	159.2	25.75	7.183	
5,400.0	5,381.7	5,396.9	5,383.0	13.7	13.1	121.26	-329.5	-13.7	189.3	163.0	26.30	7.197	
5,500.0	5,481.2	5,496.9	5,482.5	14.0	13.3	121.15	-338.1	-13.7	193.6	166.8	26.86	7.210	
5,600.0	5,580.8	5,596.8	5,582.0	14.3	13.6	121.05	-346.7	-13.7	198.0	170.5	27.41	7.222	
5,700.0	5,680.3	5,696.7	5,681.6	14.6	13.9	120.95	-355.3	-13.7	202.3	174.3	27.96	7.234	
5,800.0	5,779.8	5,796.6	5,781.1	14.9	14.2	120.86	-363.9	-13.7	206.6	178.1	28.52	7.245	
5,900.0	5,879.4	5,896.5	5,880.6	15.2	14.4	120.77	-372.5	-13.6	211.0	181.9	29.08	7.256	
6,000.0	5,978.9	5,996.4	5,980.2	15.5	14.7	120.68	-381.1	-13.6	215.3	185.7	29.63	7.266	
6,100.0	6,078.5	6,096.3	6,079.7	15.8	15.0	120.60	-389.7	-13.6	219.6	189.5	30.19	7.276	
6,200.0	6,178.0	6,196.2	6,179.2	16.1	15.3	120.52	-398.2	-13.6	224.0	193.2	30.75	7.285	
6,300.0	6,277.5	6,296.1	6,278.8	16.3	15.5	120.44	-406.8	-13.6	228.3	197.0	31.30	7.294	
6,400.0	6,377.1	6,396.0	6,378.3	16.6	15.8	120.37	-415.4	-13.6	232.7	200.8	31.86	7.303	
6,500.0	6,476.6	6,495.9	6,477.8	16.9	16.1	120.30	-424.0	-13.6	237.0	204.6	32.42	7.311	
6,600.0	6,576.1	6,595.8	6,577.4	17.2	16.4	120.23	-432.6	-13.6	241.3	208.4	32.98	7.319	
6,700.0	6,675.7	6,695.7	6,676.9	17.5	16.6	120.17	-441.2	-13.6	245.7	212.1	33.53	7.326	
6,800.0	6,775.2	6,795.6	6,776.5	17.8	16.9	120.10	-449.8	-13.6	250.0	215.9	34.09	7.334	
6,900.0	6,874.8	6,895.5	6,876.0	18.1	17.2	120.04	-458.4	-13.6	254.4	219.7	34.65	7.341	
7,000.0	6,974.3	6,995.4	6,975.5	18.4	17.5	119.98	-467.0	-13.6	258.7	223.5	35.21	7.348	
7,046.8	7,020.8	7,042.2	7,022.1	18.5	17.6	119.96	-471.0	-13.5	260.7	225.3	35.47	7.351	
7,050.0	7,024.1	7,045.4	7,025.3	18.5	17.6	118.78	-471.3	-13.5	260.9	225.4	35.49	7.351	
7,100.0	7,073.6	7,095.3	7,075.0	18.7	17.8	108.52	-475.6	-13.5	263.2	227.4	35.77	7.357	
7,150.0	7,122.6	7,144.9	7,124.5	18.9	17.9	105.00	-479.8	-13.5	265.7	229.6	36.05	7.371	
7,200.0	7,170.8	7,194.1	7,173.4	19.1	18.0	104.16	-484.0	-13.5	268.7	232.4	36.31	7.400	
7,250.0	7,218.0	7,244.9	7,224.0	19.4	18.2	104.71	-489.6	-13.5	272.2	235.7	36.58	7.443	
7,300.0	7,263.9	7,297.1	7,275.3	19.7	18.4	105.70	-498.9	-13.5	276.2	239.3	36.88	7.488	
7,350.0	7,308.3	7,350.3	7,326.8	20.0	18.6	106.91	-512.2	-13.5	280.4	243.2	37.23	7.531	
7,400.0	7,351.0	7,404.4	7,377.9	20.3	18.9	108.20	-529.6	-13.4	284.8	247.2	37.62	7.572	
7,450.0	7,391.9	7,459.4	7,428.6	20.7	19.2	109.52	-551.3	-13.4	289.5	251.4	38.04	7.609	
7,500.0	7,430.6	7,515.5	7,478.2	21.2	19.6	110.83	-577.2	-13.3	294.2	255.7	38.51	7.639	
7,550.0	7,467.0	7,572.5	7,526.5	21.6	20.0	112.09	-607.6	-13.2	298.9	259.9	39.02	7.661	
7,600.0	7,501.0	7,630.6	7,573.1	22.1	20.5	113.28	-642.3	-13.1	303.6	264.0	39.58	7.671	
7,650.0	7,532.3	7,689.7	7,617.3	22.7	21.0	114.39	-681.4	-12.9	308.2	268.0	40.20	7.665	
7,700.0	7,560.8	7,749.7	7,658.9	23.2	21.6	115.40	-724.6	-12.8	312.5	271.6	40.89	7.642	
7,750.0	7,586.4	7,810.6	7,697.2	23.9	22.3	116.32	-772.0	-12.7	316.5	274.9	41.66	7.598	
7,800.0	7,608.9	7,872.4	7,731.8	24.5	23.0	117.12	-823.1	-12.5	320.2	277.7	42.53	7.530	
7,850.0	7,628.3	7,934.9	7,762.2	25.1	23.8	117.81	-877.8	-12.3	323.5	280.0	43.49	7.438	
7,900.0	7,644.4	7,998.1	7,788.0	25.8	24.6	118.39	-935.5	-12.1	326.2	281.7	44.56	7.321	
7,950.0	7,657.2	8,061.9	7,808.7	26.5	25.5	118.84	-995.8	-11.9	328.4	282.7	45.75	7.179	
8,000.0	7,666.5	8,126.2	7,824.1	27.3	26.4	119.17	-1,058.1	-11.7	330.1	283.0	47.06	7.014	
8,050.0	7,672.5	8,190.7	7,833.9	28.0	27.4	119.38	-1,121.9	-11.5	331.1	282.6	48.48	6.829	
8,100.0	7,674.9	8,255.4	7,837.9	28.8	28.4	119.46	-1,186.4	-11.2	331.5	281.4	50.03	6.626	
8,110.3	7,675.0	8,268.4	7,838.0	28.9	28.6	119.46	-1,199.4	-11.2	331.5	281.1	50.35	6.583	
8,200.0	7,675.0	8,358.1	7,838.0	30.3	30.0	119.46	-1,289.2	-10.9	331.4	278.6	52.84	6.272	
8,300.0	7,675.0	8,458.1	7,838.0	31.9	31.6	119.46	-1,389.2	-10.5	331.4	275.7	55.68	5.952	
8,400.0	7,675.0	8,558.1	7,838.0	33.5	33.2	119.47	-1,489.2	-10.2	331.3	272.8	58.58	5.657	
8,500.0	7,675.0	8,658.1	7,838.0	35.1	34.9	119.47	-1,589.2	-9.9	331.3	269.8	61.53	5.385	
8,600.0	7,675.0	8,758.1	7,838.0	36.8	36.6	119.48	-1,689.2	-9.5	331.3	266.7	64.52	5.134	
8,700.0	7,675.0	8,858.1	7,838.0	38.5	38.3	119.48	-1,789.2	-9.2	331.2	263.7	67.56	4.903	
8,800.0	7,675.0	8,958.1	7,838.0	40.2	40.0	119.48	-1,889.2	-8.8	331.2	260.5	70.63	4.689	
8,900.0	7,675.0	9,058.1	7,838.0	41.9	41.7	119.49	-1,989.2	-8.5	331.1	257.4	73.73	4.491	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,000.0	7,675.0	9,158.1	7,838.0	43.7	43.5	119.49	-2,089.2	-8.1	331.1	254.2	76.85	4.308	
9,100.0	7,675.0	9,258.1	7,838.0	45.4	45.3	119.50	-2,189.2	-7.8	331.0	251.0	80.00	4.138	
9,200.0	7,675.0	9,358.1	7,838.0	47.2	47.0	119.50	-2,289.2	-7.4	331.0	247.8	83.17	3.980	
9,300.0	7,675.0	9,458.1	7,838.0	49.0	48.8	119.51	-2,389.2	-7.1	331.0	244.6	86.36	3.833	
9,400.0	7,675.0	9,558.1	7,838.0	50.8	50.6	119.51	-2,489.2	-6.8	330.9	241.4	89.56	3.695	
9,500.0	7,675.0	9,658.1	7,838.0	52.6	52.4	119.51	-2,589.2	-6.4	330.9	238.1	92.78	3.566	
9,600.0	7,675.0	9,758.1	7,838.0	54.4	54.3	119.52	-2,689.2	-6.1	330.8	234.8	96.01	3.446	
9,700.0	7,675.0	9,858.1	7,838.0	56.2	56.1	119.52	-2,789.2	-5.7	330.8	231.5	99.25	3.333	
9,800.0	7,675.0	9,958.1	7,838.0	58.0	57.9	119.53	-2,889.2	-5.4	330.8	228.3	102.50	3.227	
9,900.0	7,675.0	10,058.1	7,838.0	59.9	59.8	119.53	-2,989.2	-5.0	330.7	224.9	105.77	3.127	
10,000.0	7,675.0	10,158.1	7,838.0	61.7	61.6	119.53	-3,089.2	-4.7	330.7	221.6	109.04	3.033	
10,100.0	7,675.0	10,258.1	7,838.0	63.5	63.4	119.54	-3,189.2	-4.3	330.6	218.3	112.32	2.944	
10,200.0	7,675.0	10,358.1	7,838.0	65.4	65.3	119.54	-3,289.2	-4.0	330.6	215.0	115.60	2.860	
10,300.0	7,675.0	10,458.1	7,838.0	67.2	67.1	119.55	-3,389.2	-3.6	330.5	211.7	118.90	2.780	
10,400.0	7,675.0	10,558.1	7,838.0	69.1	69.0	119.55	-3,489.2	-3.3	330.5	208.3	122.20	2.705	
10,500.0	7,675.0	10,658.1	7,838.0	70.9	70.8	119.55	-3,589.2	-3.0	330.5	205.0	125.50	2.633	
10,600.0	7,675.0	10,758.1	7,838.0	72.8	72.7	119.56	-3,689.2	-2.6	330.4	201.6	128.81	2.565	
10,700.0	7,675.0	10,858.1	7,838.0	74.6	74.6	119.56	-3,789.2	-2.3	330.4	198.3	132.12	2.501	
10,800.0	7,675.0	10,958.1	7,838.0	76.5	76.4	119.57	-3,889.2	-1.9	330.3	194.9	135.44	2.439	
10,900.0	7,675.0	11,058.1	7,838.0	78.4	78.3	119.57	-3,989.2	-1.6	330.3	191.5	138.77	2.380	
11,000.0	7,675.0	11,158.1	7,838.0	80.2	80.2	119.57	-4,089.2	-1.2	330.3	188.2	142.09	2.324	
11,100.0	7,675.0	11,258.1	7,838.0	82.1	82.0	119.58	-4,189.2	-0.9	330.2	184.8	145.42	2.271	
11,200.0	7,675.0	11,358.1	7,838.0	84.0	83.9	119.58	-4,289.2	-0.5	330.2	181.4	148.76	2.220	
11,300.0	7,675.0	11,458.1	7,838.0	85.8	85.8	119.59	-4,389.2	-0.2	330.1	178.0	152.09	2.171	
11,400.0	7,675.0	11,558.1	7,838.0	87.7	87.7	119.59	-4,489.2	0.2	330.1	174.7	155.43	2.124	
11,500.0	7,675.0	11,658.1	7,838.0	89.6	89.6	119.60	-4,589.2	0.5	330.0	171.3	158.77	2.079	
11,600.0	7,675.0	11,758.1	7,838.0	91.5	91.4	119.60	-4,689.2	0.8	330.0	167.9	162.12	2.036	
11,700.0	7,675.0	11,858.1	7,838.0	93.3	93.3	119.60	-4,789.2	1.2	330.0	164.5	165.46	1.994	
11,800.0	7,675.0	11,958.1	7,838.0	95.2	95.2	119.61	-4,889.2	1.5	329.9	161.1	168.81	1.954	
11,900.0	7,675.0	12,058.1	7,838.0	97.1	97.1	119.61	-4,989.2	1.9	329.9	157.7	172.16	1.916	
12,000.0	7,675.0	12,158.1	7,838.0	99.0	99.0	119.62	-5,089.2	2.2	329.8	154.3	175.51	1.879	
12,100.0	7,675.0	12,258.1	7,838.0	100.9	100.9	119.62	-5,189.1	2.6	329.8	150.9	178.87	1.844	
12,200.0	7,675.0	12,358.1	7,838.0	102.8	102.8	119.62	-5,289.1	2.9	329.8	147.5	182.22	1.810	
12,300.0	7,675.0	12,458.1	7,838.0	104.7	104.6	119.63	-5,389.1	3.3	329.7	144.1	185.58	1.777	
12,400.0	7,675.0	12,558.1	7,838.0	106.5	106.5	119.63	-5,489.1	3.6	329.7	140.7	188.94	1.745	
12,500.0	7,675.0	12,658.1	7,838.0	108.4	108.4	119.64	-5,589.1	4.0	329.6	137.3	192.30	1.714	
12,600.0	7,675.0	12,758.1	7,838.0	110.3	110.3	119.64	-5,689.1	4.3	329.6	133.9	195.66	1.684	
12,700.0	7,675.0	12,858.1	7,838.0	112.2	112.2	119.64	-5,789.1	4.6	329.5	130.5	199.02	1.656	
12,800.0	7,675.0	12,958.1	7,838.0	114.1	114.1	119.65	-5,889.1	5.0	329.5	127.1	202.39	1.628	
12,900.0	7,675.0	13,058.1	7,838.0	116.0	116.0	119.65	-5,989.1	5.3	329.5	123.7	205.75	1.601	
13,000.0	7,675.0	13,158.1	7,838.0	117.9	117.9	119.66	-6,089.1	5.7	329.4	120.3	209.12	1.575	
13,100.0	7,675.0	13,258.1	7,838.0	119.8	119.8	119.66	-6,189.1	6.0	329.4	116.9	212.48	1.550	
13,200.0	7,675.0	13,358.1	7,838.0	121.7	121.7	119.67	-6,289.1	6.4	329.3	113.5	215.85	1.526	
13,300.0	7,675.0	13,458.1	7,838.0	123.6	123.6	119.67	-6,389.1	6.7	329.3	110.1	219.22	1.502	
13,400.0	7,675.0	13,558.1	7,838.0	125.5	125.5	119.67	-6,489.1	7.1	329.3	106.7	222.59	1.479	Level 3
13,500.0	7,675.0	13,658.1	7,838.0	127.4	127.4	119.68	-6,589.1	7.4	329.2	103.3	225.96	1.457	Level 3
13,600.0	7,675.0	13,758.1	7,838.0	129.3	129.3	119.68	-6,689.1	7.8	329.2	99.8	229.33	1.435	Level 3
13,700.0	7,675.0	13,858.1	7,838.0	131.2	131.2	119.69	-6,789.1	8.1	329.1	96.4	232.70	1.414	Level 3
13,785.9	7,675.0	13,944.0	7,838.0	132.8	132.8	119.69	-6,875.0	8.4	329.1	93.5	235.59	1.397	Level 3, SF

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.04	0.0	61.6	61.6				
100.0	100.0	100.0	100.0	0.1	0.1	90.04	0.0	61.6	61.6	61.4	0.22	274.254	
200.0	200.0	200.0	200.0	0.3	0.3	90.04	0.0	61.6	61.6	61.0	0.67	91.418	
300.0	300.0	300.0	300.0	0.6	0.6	90.04	0.0	61.6	61.6	60.5	1.12	54.851	
400.0	400.0	400.0	400.0	0.8	0.8	90.04	0.0	61.6	61.6	60.1	1.57	39.179	
500.0	500.0	500.0	500.0	1.0	1.0	90.04	0.0	61.6	61.6	59.6	2.02	30.473	
600.0	600.0	600.0	600.0	1.2	1.2	90.04	0.0	61.6	61.6	59.2	2.47	24.932	CC, ES
700.0	700.0	698.5	698.5	1.5	1.4	90.46	-0.5	62.8	62.8	59.9	2.90	21.665	
800.0	800.0	796.9	796.8	1.7	1.6	91.64	-1.9	66.4	66.5	63.1	3.32	20.020	
900.0	900.0	895.0	894.7	1.9	1.8	93.34	-4.2	72.2	72.6	68.8	3.75	19.361	SF
1,000.0	1,000.0	992.7	992.0	2.1	2.1	95.28	-7.4	80.4	81.1	77.0	4.18	19.408	
1,100.0	1,100.0	1,089.9	1,088.6	2.4	2.3	97.24	-11.5	90.8	92.3	87.7	4.62	19.969	
1,200.0	1,200.0	1,186.5	1,184.2	2.6	2.6	99.07	-16.5	103.4	105.9	100.9	5.07	20.910	
1,300.0	1,300.0	1,282.4	1,278.8	2.8	2.9	-52.63	-22.3	118.2	121.4	115.9	5.49	22.123	
1,400.0	1,399.9	1,377.9	1,372.6	3.0	3.2	-52.20	-29.0	135.1	137.7	131.8	5.89	23.371	
1,500.0	1,499.7	1,474.1	1,466.5	3.1	3.6	-52.42	-36.5	154.2	154.7	148.4	6.31	24.497	
1,567.6	1,567.0	1,540.7	1,531.5	3.3	3.9	-52.91	-41.8	167.8	165.7	159.1	6.62	25.048	
1,600.0	1,599.3	1,572.7	1,562.7	3.3	4.0	-53.26	-44.4	174.3	170.8	164.1	6.76	25.260	
1,700.0	1,698.8	1,671.4	1,659.0	3.6	4.5	-54.22	-52.3	194.4	186.6	179.4	7.23	25.818	
1,800.0	1,798.4	1,770.1	1,755.3	3.8	4.9	-55.03	-60.3	214.5	202.5	194.8	7.71	26.256	
1,900.0	1,897.9	1,868.8	1,851.6	4.0	5.3	-55.72	-68.2	234.6	218.4	210.2	8.21	26.603	
2,000.0	1,997.4	1,967.5	1,947.9	4.3	5.8	-56.31	-76.1	254.7	234.3	225.6	8.72	26.879	
2,100.0	2,097.0	2,066.2	2,044.2	4.5	6.2	-56.83	-84.0	274.8	250.3	241.0	9.24	27.099	
2,200.0	2,196.5	2,164.9	2,140.5	4.8	6.7	-57.29	-92.0	294.9	266.2	256.5	9.76	27.274	
2,300.0	2,296.0	2,263.6	2,236.8	5.0	7.2	-57.70	-99.9	315.0	282.2	271.9	10.29	27.413	
2,400.0	2,395.6	2,362.3	2,333.1	5.3	7.6	-58.06	-107.8	335.1	298.2	287.4	10.83	27.524	
2,500.0	2,495.1	2,461.0	2,429.4	5.5	8.1	-58.39	-115.7	355.3	314.2	302.8	11.38	27.612	
2,600.0	2,594.7	2,559.7	2,525.7	5.8	8.5	-58.68	-123.6	375.4	330.2	318.3	11.93	27.683	
2,700.0	2,694.2	2,658.4	2,622.0	6.1	9.0	-58.95	-131.6	395.5	346.2	333.8	12.48	27.738	
2,800.0	2,793.7	2,757.1	2,718.3	6.4	9.5	-59.19	-139.5	415.6	362.3	349.2	13.04	27.782	
2,900.0	2,893.3	2,855.8	2,814.6	6.6	10.0	-59.41	-147.4	435.7	378.3	364.7	13.60	27.816	
3,000.0	2,992.8	2,954.5	2,910.9	6.9	10.4	-59.62	-155.3	455.8	394.3	380.2	14.16	27.842	
3,100.0	3,092.3	3,053.2	3,007.2	7.2	10.9	-59.81	-163.3	475.9	410.4	395.6	14.73	27.862	
3,200.0	3,191.9	3,151.8	3,103.5	7.5	11.4	-59.98	-171.2	496.0	426.4	411.1	15.30	27.876	
3,300.0	3,291.4	3,250.5	3,199.8	7.7	11.8	-60.14	-179.1	516.1	442.5	426.6	15.87	27.886	
3,400.0	3,391.0	3,349.2	3,296.1	8.0	12.3	-60.30	-187.0	536.2	458.5	442.1	16.44	27.893	
3,500.0	3,490.5	3,447.9	3,392.4	8.3	12.8	-60.44	-194.9	556.4	474.6	457.6	17.01	27.896	
3,600.0	3,590.0	3,546.6	3,488.7	8.6	13.2	-60.57	-202.9	576.5	490.6	473.0	17.59	27.897	
3,700.0	3,689.6	3,645.3	3,585.0	8.9	13.7	-60.69	-210.8	596.6	506.7	488.5	18.16	27.896	
3,800.0	3,789.1	3,744.0	3,681.3	9.1	14.2	-60.80	-218.7	616.7	522.7	504.0	18.74	27.894	
3,900.0	3,888.6	3,842.7	3,777.6	9.4	14.7	-60.91	-226.6	636.8	538.8	519.5	19.32	27.890	
4,000.0	3,988.2	3,941.4	3,873.9	9.7	15.1	-61.02	-234.6	656.9	554.9	535.0	19.90	27.885	
4,100.0	4,087.7	4,040.1	3,970.2	10.0	15.6	-61.11	-242.5	677.0	570.9	550.5	20.48	27.879	
4,200.0	4,187.3	4,138.8	4,066.5	10.3	16.1	-61.20	-250.4	697.1	587.0	565.9	21.06	27.872	
4,300.0	4,286.8	4,237.5	4,162.8	10.6	16.6	-61.29	-258.3	717.2	603.1	581.4	21.64	27.865	
4,400.0	4,386.3	4,336.2	4,259.1	10.9	17.0	-61.37	-266.3	737.3	619.1	596.9	22.23	27.857	
4,500.0	4,485.9	4,434.9	4,355.4	11.1	17.5	-61.45	-274.2	757.5	635.2	612.4	22.81	27.849	
4,600.0	4,585.4	4,533.6	4,451.7	11.4	18.0	-61.52	-282.1	777.6	651.3	627.9	23.39	27.840	
4,700.0	4,684.9	4,632.3	4,548.0	11.7	18.5	-61.59	-290.0	797.7	667.4	643.4	23.98	27.831	
4,800.0	4,784.5	4,731.0	4,644.4	12.0	18.9	-61.66	-297.9	817.8	683.4	658.9	24.56	27.822	
4,900.0	4,884.0	4,829.7	4,740.7	12.3	19.4	-61.72	-305.9	837.9	699.5	674.4	25.15	27.813	
5,000.0	4,983.6	4,928.4	4,837.0	12.6	19.9	-61.78	-313.8	858.0	715.6	689.9	25.74	27.804	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,083.1	5,027.1	4,933.3	12.9	20.4	-61.84	-321.7	878.1	731.7	705.3	26.32	27.795	
5,200.0	5,182.6	5,125.8	5,029.6	13.2	20.8	-61.90	-329.6	898.2	747.7	720.8	26.91	27.786	
5,300.0	5,282.2	5,224.5	5,125.9	13.4	21.3	-61.95	-337.6	918.3	763.8	736.3	27.50	27.777	
5,400.0	5,381.7	5,323.2	5,222.2	13.7	21.8	-62.00	-345.5	938.5	779.9	751.8	28.09	27.768	
5,500.0	5,481.2	5,421.9	5,318.5	14.0	22.3	-62.05	-353.4	958.6	796.0	767.3	28.68	27.759	
5,600.0	5,580.8	5,520.6	5,414.8	14.3	22.7	-62.10	-361.3	978.7	812.1	782.8	29.26	27.750	
5,700.0	5,680.3	5,619.3	5,511.1	14.6	23.2	-62.15	-369.2	998.8	828.1	798.3	29.85	27.741	
5,800.0	5,779.8	5,718.0	5,607.4	14.9	23.7	-62.19	-377.2	1,018.9	844.2	813.8	30.44	27.732	
5,900.0	5,879.4	5,816.7	5,703.7	15.2	24.2	-62.23	-385.1	1,039.0	860.3	829.3	31.03	27.723	
6,000.0	5,978.9	5,915.4	5,800.0	15.5	24.6	-62.27	-393.0	1,059.1	876.4	844.8	31.62	27.715	
6,100.0	6,078.5	6,014.0	5,896.3	15.8	25.1	-62.31	-400.9	1,079.2	892.5	860.3	32.21	27.706	
6,200.0	6,178.0	6,112.7	5,992.6	16.1	25.6	-62.35	-408.9	1,099.3	908.6	875.8	32.80	27.698	
6,300.0	6,277.5	6,211.4	6,088.9	16.3	26.1	-62.38	-416.8	1,119.4	924.6	891.2	33.39	27.689	
6,400.0	6,377.1	6,310.1	6,185.2	16.6	26.5	-62.42	-424.7	1,139.6	940.7	906.7	33.98	27.681	
6,500.0	6,476.6	6,408.8	6,281.5	16.9	27.0	-62.45	-432.6	1,159.7	956.8	922.2	34.58	27.673	
6,600.0	6,576.1	6,507.5	6,377.8	17.2	27.5	-62.49	-440.6	1,179.8	972.9	937.7	35.17	27.665	
6,700.0	6,675.7	6,606.2	6,474.1	17.5	28.0	-62.52	-448.5	1,199.9	989.0	953.2	35.76	27.658	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.03	0.0	30.8	30.8				
100.0	100.0	100.0	100.0	0.1	0.1	90.03	0.0	30.8	30.8	30.6	0.22	137.127	
200.0	200.0	200.0	200.0	0.3	0.3	90.03	0.0	30.8	30.8	30.1	0.67	45.709	
300.0	300.0	300.0	300.0	0.6	0.6	90.03	0.0	30.8	30.8	29.7	1.12	27.425	
400.0	400.0	400.0	400.0	0.8	0.8	90.03	0.0	30.8	30.8	29.2	1.57	19.590	
500.0	500.0	500.0	500.0	1.0	1.0	90.03	0.0	30.8	30.8	28.8	2.02	15.236	
600.0	600.0	600.0	600.0	1.2	1.2	90.03	0.0	30.8	30.8	28.3	2.47	12.466	
700.0	700.0	700.0	700.0	1.5	1.5	90.03	0.0	30.8	30.8	27.9	2.92	10.548	
800.0	800.0	800.0	800.0	1.7	1.7	90.03	0.0	30.8	30.8	27.5	3.37	9.142	CC, ES
900.0	900.0	899.3	899.3	1.9	1.9	91.30	-0.7	31.9	31.9	28.1	3.80	8.403	
1,000.0	1,000.0	998.5	998.4	2.1	2.1	94.63	-2.8	35.1	35.3	31.1	4.21	8.377	
1,100.0	1,100.0	1,097.4	1,097.1	2.4	2.3	98.93	-6.4	40.5	41.1	36.5	4.63	8.870	
1,200.0	1,200.0	1,195.9	1,195.2	2.6	2.5	103.21	-11.3	48.0	49.5	44.4	5.06	9.781	
1,300.0	1,300.0	1,294.0	1,292.6	2.8	2.7	-46.88	-17.5	57.5	59.7	54.2	5.47	10.915	
1,400.0	1,399.9	1,392.6	1,390.2	3.0	3.0	-45.77	-25.0	69.0	70.3	64.5	5.86	12.006	
1,500.0	1,499.7	1,492.1	1,488.8	3.1	3.3	-46.18	-32.9	80.9	79.6	73.3	6.26	12.707	
1,567.6	1,567.0	1,559.5	1,555.5	3.3	3.5	-47.14	-38.1	89.0	84.8	78.3	6.55	12.954	
1,600.0	1,599.3	1,591.8	1,587.4	3.3	3.6	-47.73	-40.7	92.9	87.1	80.4	6.69	13.030	
1,700.0	1,698.8	1,691.5	1,686.1	3.6	3.9	-49.34	-48.5	104.8	94.4	87.2	7.13	13.229	
1,800.0	1,798.4	1,791.2	1,784.8	3.8	4.2	-50.73	-56.3	116.7	101.7	94.1	7.60	13.385	
1,900.0	1,897.9	1,890.9	1,883.5	4.0	4.5	-51.93	-64.2	128.7	109.0	100.9	8.07	13.506	
2,000.0	1,997.4	1,990.6	1,982.1	4.3	4.9	-52.98	-72.0	140.6	116.4	107.8	8.56	13.600	
2,100.0	2,097.0	2,090.3	2,080.8	4.5	5.2	-53.90	-79.8	152.6	123.8	114.8	9.06	13.673	
2,200.0	2,196.5	2,190.1	2,179.5	4.8	5.5	-54.72	-87.7	164.5	131.3	121.7	9.56	13.728	
2,300.0	2,296.0	2,289.8	2,278.2	5.0	5.9	-55.45	-95.5	176.5	138.7	128.7	10.08	13.770	
2,400.0	2,395.6	2,389.5	2,376.8	5.3	6.2	-56.11	-103.3	188.4	146.2	135.6	10.60	13.800	
2,500.0	2,495.1	2,489.2	2,475.5	5.5	6.6	-56.70	-111.2	200.4	153.8	142.6	11.12	13.823	
2,600.0	2,594.7	2,588.9	2,574.2	5.8	6.9	-57.24	-119.0	212.3	161.3	149.6	11.66	13.838	
2,700.0	2,694.2	2,688.6	2,672.9	6.1	7.2	-57.73	-126.8	224.3	168.8	156.6	12.19	13.848	
2,800.0	2,793.7	2,788.3	2,771.5	6.4	7.6	-58.17	-134.7	236.2	176.4	163.7	12.73	13.854	
2,900.0	2,893.3	2,888.0	2,870.2	6.6	7.9	-58.58	-142.5	248.1	183.9	170.7	13.27	13.856	
3,000.0	2,992.8	2,987.7	2,968.9	6.9	8.3	-58.96	-150.3	260.1	191.5	177.7	13.82	13.856	
3,100.0	3,092.3	3,087.4	3,067.6	7.2	8.6	-59.31	-158.1	272.0	199.1	184.7	14.37	13.854	
3,200.0	3,191.9	3,187.1	3,166.3	7.5	9.0	-59.63	-166.0	284.0	206.7	191.8	14.92	13.850	
3,300.0	3,291.4	3,286.8	3,264.9	7.7	9.3	-59.93	-173.8	295.9	214.3	198.8	15.48	13.845	
3,400.0	3,391.0	3,386.5	3,363.6	8.0	9.7	-60.21	-181.6	307.9	221.9	205.8	16.03	13.838	
3,500.0	3,490.5	3,486.2	3,462.3	8.3	10.0	-60.48	-189.5	319.8	229.5	212.9	16.59	13.831	
3,600.0	3,590.0	3,585.9	3,561.0	8.6	10.4	-60.72	-197.3	331.8	237.1	219.9	17.15	13.824	
3,700.0	3,689.6	3,685.6	3,659.6	8.9	10.7	-60.95	-205.1	343.7	244.7	227.0	17.71	13.815	
3,800.0	3,789.1	3,785.3	3,758.3	9.1	11.1	-61.16	-213.0	355.7	252.3	234.0	18.27	13.807	
3,900.0	3,888.6	3,885.0	3,857.0	9.4	11.4	-61.37	-220.8	367.6	259.9	241.1	18.84	13.798	
4,000.0	3,988.2	3,984.7	3,955.7	9.7	11.8	-61.56	-228.6	379.5	267.5	248.1	19.40	13.789	
4,100.0	4,087.7	4,084.5	4,054.3	10.0	12.1	-61.74	-236.5	391.5	275.2	255.2	19.97	13.781	
4,200.0	4,187.3	4,184.2	4,153.0	10.3	12.5	-61.91	-244.3	403.4	282.8	262.3	20.53	13.772	
4,300.0	4,286.8	4,283.9	4,251.7	10.6	12.8	-62.07	-252.1	415.4	290.4	269.3	21.10	13.763	
4,400.0	4,386.3	4,383.6	4,350.4	10.9	13.2	-62.23	-259.9	427.3	298.0	276.4	21.67	13.754	
4,500.0	4,485.9	4,483.3	4,449.1	11.1	13.5	-62.37	-267.8	439.3	305.7	283.4	22.24	13.745	
4,600.0	4,585.4	4,583.0	4,547.7	11.4	13.9	-62.51	-275.6	451.2	313.3	290.5	22.81	13.736	
4,700.0	4,684.9	4,682.7	4,646.4	11.7	14.2	-62.64	-283.4	463.2	321.0	297.6	23.38	13.728	
4,800.0	4,784.5	4,782.4	4,745.1	12.0	14.6	-62.77	-291.3	475.1	328.6	304.6	23.95	13.719	
4,900.0	4,884.0	4,882.1	4,843.8	12.3	14.9	-62.89	-299.1	487.1	336.2	311.7	24.52	13.711	
5,000.0	4,983.6	4,981.8	4,942.4	12.6	15.3	-63.01	-306.9	499.0	343.9	318.8	25.09	13.703	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Survey Program: 0-MWD

Offset Site Error: 0.0 ft

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,083.1	5,081.5	5,041.1	12.9	15.7	-63.12	-314.8	510.9	351.5	325.8	25.67	13.695	
5,200.0	5,182.6	5,181.2	5,139.8	13.2	16.0	-63.22	-322.6	522.9	359.2	332.9	26.24	13.687	
5,300.0	5,282.2	5,280.9	5,238.5	13.4	16.4	-63.32	-330.4	534.8	366.8	340.0	26.81	13.680	
5,400.0	5,381.7	5,380.6	5,337.1	13.7	16.7	-63.42	-338.3	546.8	374.4	347.1	27.39	13.672	
5,500.0	5,481.2	5,480.3	5,435.8	14.0	17.1	-63.51	-346.1	558.7	382.1	354.1	27.96	13.665	
5,600.0	5,580.8	5,580.0	5,534.5	14.3	17.4	-63.60	-353.9	570.7	389.7	361.2	28.54	13.658	
5,700.0	5,680.3	5,679.7	5,633.2	14.6	17.8	-63.69	-361.7	582.6	397.4	368.3	29.11	13.651	
5,800.0	5,779.8	5,779.4	5,731.9	14.9	18.1	-63.77	-369.6	594.6	405.0	375.3	29.69	13.644	
5,900.0	5,879.4	5,879.1	5,830.5	15.2	18.5	-63.85	-377.4	606.5	412.7	382.4	30.26	13.637	
6,000.0	5,978.9	5,978.9	5,929.2	15.5	18.8	-63.93	-385.2	618.5	420.3	389.5	30.84	13.630	
6,100.0	6,078.5	6,078.6	6,027.9	15.8	19.2	-64.00	-393.1	630.4	428.0	396.6	31.41	13.624	
6,200.0	6,178.0	6,178.3	6,126.6	16.1	19.5	-64.07	-400.9	642.3	435.6	403.6	31.99	13.618	
6,300.0	6,277.5	6,278.0	6,225.2	16.3	19.9	-64.14	-408.7	654.3	443.3	410.7	32.57	13.612	
6,400.0	6,377.1	6,377.7	6,323.9	16.6	20.3	-64.21	-416.6	666.2	450.9	417.8	33.14	13.606	
6,500.0	6,476.6	6,477.4	6,422.6	16.9	20.6	-64.27	-424.4	678.2	458.6	424.9	33.72	13.600	
6,600.0	6,576.1	6,577.1	6,521.3	17.2	21.0	-64.33	-432.2	690.1	466.3	432.0	34.30	13.594	
6,700.0	6,675.7	6,676.8	6,619.9	17.5	21.3	-64.39	-440.1	702.1	473.9	439.0	34.88	13.588	
6,800.0	6,775.2	6,776.5	6,718.6	17.8	21.7	-64.45	-447.9	714.0	481.6	446.1	35.45	13.583	
6,900.0	6,874.8	6,876.2	6,817.3	18.1	22.0	-64.51	-455.7	726.0	489.2	453.2	36.03	13.578	
7,000.0	6,974.3	6,975.9	6,916.0	18.4	22.4	-64.56	-463.6	737.9	496.9	460.3	36.61	13.572	
7,046.8	7,020.8	7,022.5	6,962.1	18.5	22.5	-64.59	-467.2	743.5	500.5	463.6	36.88	13.570	
7,050.0	7,024.1	7,025.8	6,965.3	18.5	22.6	-65.74	-467.5	743.9	500.7	463.8	36.90	13.571	
7,100.0	7,073.6	7,075.6	7,014.6	18.7	22.7	-76.16	-471.4	749.8	504.6	467.4	37.19	13.569	
7,150.0	7,122.6	7,125.1	7,063.6	18.9	22.9	-80.92	-475.3	755.8	508.6	471.0	37.56	13.541	
7,200.0	7,170.8	7,174.0	7,112.1	19.1	23.1	-84.01	-479.1	761.6	512.8	474.8	38.01	13.491	
7,250.0	7,218.0	7,222.3	7,159.8	19.4	23.3	-86.49	-482.9	767.4	517.4	478.9	38.53	13.430	
7,300.0	7,263.9	7,271.7	7,208.7	19.7	23.4	-88.77	-487.3	773.3	522.5	483.4	39.11	13.361	
7,350.0	7,308.3	7,324.1	7,260.1	20.0	23.6	-90.84	-495.2	779.6	528.0	488.3	39.74	13.287	
7,400.0	7,351.0	7,377.9	7,312.1	20.3	23.9	-92.69	-507.2	785.9	533.8	493.4	40.42	13.208	
7,450.0	7,391.9	7,433.2	7,364.5	20.7	24.1	-94.38	-523.6	792.3	539.8	498.6	41.13	13.123	
7,500.0	7,430.6	7,490.0	7,416.9	21.2	24.5	-95.94	-544.7	798.7	545.9	504.0	41.89	13.033	
7,550.0	7,467.0	7,548.5	7,468.9	21.6	24.8	-97.38	-570.6	805.1	552.1	509.4	42.68	12.936	
7,600.0	7,501.0	7,608.6	7,520.0	22.1	25.2	-98.71	-601.7	811.3	558.2	514.7	43.51	12.830	
7,650.0	7,532.3	7,670.5	7,569.6	22.7	25.7	-99.95	-638.1	817.5	564.3	519.9	44.38	12.714	
7,700.0	7,560.8	7,734.2	7,617.3	23.2	26.2	-101.08	-679.8	823.4	570.1	524.8	45.29	12.587	
7,750.0	7,586.4	7,799.6	7,662.2	23.9	26.7	-102.10	-727.0	829.0	575.6	529.3	46.24	12.447	
7,800.0	7,608.9	7,866.6	7,703.6	24.5	27.4	-103.02	-779.5	834.1	580.6	533.4	47.25	12.289	
7,850.0	7,628.3	7,935.3	7,740.8	25.1	28.1	-103.81	-837.0	838.8	585.2	536.9	48.30	12.115	
7,900.0	7,644.4	8,005.5	7,772.9	25.8	28.8	-104.49	-899.2	842.9	589.1	539.7	49.41	11.922	
7,950.0	7,657.2	8,076.9	7,799.3	26.5	29.6	-105.04	-965.4	846.3	592.3	541.7	50.59	11.709	
8,000.0	7,666.5	8,149.3	7,819.2	27.3	30.5	-105.45	-1,035.0	849.0	594.7	542.9	51.82	11.477	
8,050.0	7,672.5	8,222.5	7,832.2	28.0	31.4	-105.71	-1,107.0	850.8	596.3	543.2	53.12	11.225	
8,100.0	7,674.9	8,296.1	7,837.8	28.8	32.4	-105.83	-1,180.3	851.7	597.1	542.6	54.49	10.957	
8,110.3	7,675.0	8,311.3	7,838.0	28.9	32.6	-105.84	-1,195.5	851.8	597.1	542.3	54.78	10.900	
8,200.0	7,675.0	8,402.0	7,838.0	30.3	33.8	-105.84	-1,286.2	852.1	597.1	539.7	57.43	10.399	
8,300.0	7,675.0	8,502.0	7,838.0	31.9	35.2	-105.84	-1,386.2	852.5	597.2	536.7	60.45	9.879	
8,400.0	7,675.0	8,602.0	7,838.0	33.5	36.7	-105.84	-1,486.2	852.8	597.2	533.7	63.55	9.398	
8,500.0	7,675.0	8,702.0	7,838.0	35.1	38.1	-105.84	-1,586.2	853.2	597.3	530.6	66.71	8.954	
8,600.0	7,675.0	8,802.0	7,838.0	36.8	39.7	-105.84	-1,686.2	853.5	597.3	527.4	69.92	8.543	
8,700.0	7,675.0	8,902.0	7,838.0	38.5	41.2	-105.83	-1,786.2	853.9	597.4	524.2	73.18	8.163	
8,800.0	7,675.0	9,002.0	7,838.0	40.2	42.8	-105.83	-1,886.2	854.2	597.4	521.0	76.48	7.812	
8,900.0	7,675.0	9,102.0	7,838.0	41.9	44.4	-105.83	-1,986.2	854.6	597.5	517.7	79.82	7.486	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,000.0	7,675.0	9,202.0	7,838.0	43.7	46.1	-105.83	-2,086.2	854.9	597.5	514.4	83.19	7.183	
9,100.0	7,675.0	9,302.0	7,838.0	45.4	47.7	-105.83	-2,186.2	855.3	597.6	511.0	86.58	6.902	
9,200.0	7,675.0	9,402.0	7,838.0	47.2	49.4	-105.83	-2,286.2	855.6	597.6	507.6	90.00	6.640	
9,300.0	7,675.0	9,502.0	7,838.0	49.0	51.1	-105.83	-2,386.2	856.0	597.7	504.3	93.44	6.396	
9,400.0	7,675.0	9,602.0	7,838.0	50.8	52.8	-105.82	-2,486.2	856.3	597.7	500.8	96.91	6.168	
9,500.0	7,675.0	9,702.0	7,838.0	52.6	54.5	-105.82	-2,586.2	856.7	597.8	497.4	100.38	5.955	
9,600.0	7,675.0	9,802.0	7,838.0	54.4	56.3	-105.82	-2,686.2	857.0	597.8	494.0	103.88	5.755	
9,700.0	7,675.0	9,902.0	7,838.0	56.2	58.0	-105.82	-2,786.2	857.4	597.9	490.5	107.39	5.568	
9,800.0	7,675.0	10,002.0	7,838.0	58.0	59.8	-105.82	-2,886.2	857.7	597.9	487.0	110.91	5.391	
9,900.0	7,675.0	10,102.0	7,838.0	59.9	61.5	-105.82	-2,986.2	858.1	598.0	483.5	114.45	5.225	
10,000.0	7,675.0	10,202.0	7,838.0	61.7	63.3	-105.82	-3,086.2	858.4	598.0	480.1	117.99	5.069	
10,100.0	7,675.0	10,302.0	7,838.0	63.5	65.1	-105.82	-3,186.2	858.8	598.1	476.5	121.55	4.921	
10,200.0	7,675.0	10,402.0	7,838.0	65.4	66.9	-105.81	-3,286.2	859.1	598.1	473.0	125.11	4.781	
10,300.0	7,675.0	10,502.0	7,838.0	67.2	68.7	-105.81	-3,386.2	859.5	598.2	469.5	128.68	4.649	
10,400.0	7,675.0	10,602.0	7,838.0	69.1	70.5	-105.81	-3,486.2	859.8	598.2	466.0	132.26	4.523	
10,500.0	7,675.0	10,702.0	7,838.0	70.9	72.3	-105.81	-3,586.2	860.2	598.3	462.4	135.85	4.404	
10,600.0	7,675.0	10,802.0	7,838.0	72.8	74.1	-105.81	-3,686.2	860.5	598.3	458.9	139.44	4.291	
10,700.0	7,675.0	10,902.0	7,838.0	74.6	75.9	-105.81	-3,786.2	860.9	598.4	455.4	143.04	4.183	
10,800.0	7,675.0	11,002.0	7,838.0	76.5	77.7	-105.81	-3,886.2	861.2	598.4	451.8	146.64	4.081	
10,900.0	7,675.0	11,102.0	7,838.0	78.4	79.6	-105.80	-3,986.2	861.6	598.5	448.2	150.25	3.983	
11,000.0	7,675.0	11,202.0	7,838.0	80.2	81.4	-105.80	-4,086.2	861.9	598.5	444.7	153.86	3.890	
11,100.0	7,675.0	11,302.0	7,838.0	82.1	83.2	-105.80	-4,186.2	862.3	598.6	441.1	157.48	3.801	
11,200.0	7,675.0	11,402.0	7,838.0	84.0	85.1	-105.80	-4,286.2	862.6	598.6	437.5	161.10	3.716	
11,300.0	7,675.0	11,502.0	7,838.0	85.8	86.9	-105.80	-4,386.2	863.0	598.7	434.0	164.73	3.634	
11,400.0	7,675.0	11,602.0	7,838.0	87.7	88.8	-105.80	-4,486.2	863.3	598.7	430.4	168.36	3.556	
11,500.0	7,675.0	11,702.0	7,838.0	89.6	90.6	-105.80	-4,586.2	863.7	598.8	426.8	171.99	3.481	
11,600.0	7,675.0	11,802.0	7,838.0	91.5	92.5	-105.79	-4,686.2	864.0	598.8	423.2	175.63	3.410	
11,700.0	7,675.0	11,902.0	7,838.0	93.3	94.3	-105.79	-4,786.1	864.4	598.9	419.6	179.27	3.341	
11,800.0	7,675.0	12,002.0	7,838.0	95.2	96.2	-105.79	-4,886.1	864.7	598.9	416.0	182.91	3.274	
11,900.0	7,675.0	12,102.0	7,838.0	97.1	98.0	-105.79	-4,986.1	865.1	599.0	412.4	186.56	3.211	
12,000.0	7,675.0	12,202.0	7,838.0	99.0	99.9	-105.79	-5,086.1	865.4	599.0	408.8	190.20	3.149	
12,100.0	7,675.0	12,302.0	7,838.0	100.9	101.8	-105.79	-5,186.1	865.8	599.1	405.2	193.85	3.090	
12,200.0	7,675.0	12,402.0	7,838.0	102.8	103.6	-105.79	-5,286.1	866.1	599.1	401.6	197.51	3.034	
12,300.0	7,675.0	12,502.0	7,838.0	104.7	105.5	-105.79	-5,386.1	866.5	599.2	398.0	201.16	2.979	
12,400.0	7,675.0	12,602.0	7,838.0	106.5	107.4	-105.78	-5,486.1	866.8	599.2	394.4	204.82	2.926	
12,500.0	7,675.0	12,702.0	7,838.0	108.4	109.2	-105.78	-5,586.1	867.2	599.3	390.8	208.47	2.875	
12,600.0	7,675.0	12,802.0	7,838.0	110.3	111.1	-105.78	-5,686.1	867.5	599.3	387.2	212.13	2.825	
12,700.0	7,675.0	12,902.0	7,838.0	112.2	113.0	-105.78	-5,786.1	867.9	599.4	383.6	215.79	2.778	
12,800.0	7,675.0	13,002.0	7,838.0	114.1	114.8	-105.78	-5,886.1	868.2	599.4	380.0	219.46	2.731	
12,900.0	7,675.0	13,102.0	7,838.0	116.0	116.7	-105.78	-5,986.1	868.5	599.5	376.4	223.12	2.687	
13,000.0	7,675.0	13,202.0	7,838.0	117.9	118.6	-105.78	-6,086.1	868.9	599.5	372.7	226.79	2.644	
13,100.0	7,675.0	13,302.0	7,838.0	119.8	120.5	-105.77	-6,186.1	869.2	599.6	369.1	230.46	2.602	
13,200.0	7,675.0	13,402.0	7,838.0	121.7	122.3	-105.77	-6,286.1	869.6	599.6	365.5	234.12	2.561	
13,300.0	7,675.0	13,502.0	7,838.0	123.6	124.2	-105.77	-6,386.1	869.9	599.7	361.9	237.79	2.522	
13,400.0	7,675.0	13,602.0	7,838.0	125.5	126.1	-105.77	-6,486.1	870.3	599.7	358.3	241.47	2.484	
13,500.0	7,675.0	13,702.0	7,838.0	127.4	128.0	-105.77	-6,586.1	870.6	599.8	354.6	245.14	2.447	
13,600.0	7,675.0	13,802.0	7,838.0	129.3	129.9	-105.77	-6,686.1	871.0	599.8	351.0	248.81	2.411	
13,700.0	7,675.0	13,902.0	7,838.0	131.2	131.8	-105.77	-6,786.1	871.3	599.9	347.4	252.49	2.376	
13,785.9	7,675.0	13,987.8	7,838.0	132.8	133.4	-105.77	-6,872.0	871.6	599.9	344.3	255.64	2.347	SF

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.03	0.0	75.7	75.7				
100.0	100.0	100.0	100.0	0.1	0.1	90.03	0.0	75.7	75.7	75.4	0.22	336.584	
200.0	200.0	200.0	200.0	0.3	0.3	90.03	0.0	75.7	75.7	75.0	0.67	112.195	
300.0	300.0	300.0	300.0	0.6	0.6	90.03	0.0	75.7	75.7	74.5	1.12	67.317	
400.0	400.0	400.0	400.0	0.8	0.8	90.03	0.0	75.7	75.7	74.1	1.57	48.083	CC, ES
500.0	500.0	497.7	497.6	1.0	1.0	90.39	-0.5	77.1	77.2	75.2	2.00	38.552	
600.0	600.0	595.1	595.0	1.2	1.2	91.38	-2.0	81.6	81.8	79.4	2.43	33.685	
700.0	700.0	692.2	691.7	1.5	1.4	92.80	-4.4	89.0	89.5	86.6	2.86	31.250	
800.0	800.0	788.6	787.5	1.7	1.7	94.41	-7.7	99.3	100.3	97.0	3.31	30.336	SF
900.0	900.0	884.3	882.2	1.9	1.9	96.03	-11.9	112.3	114.3	110.6	3.76	30.410	
1,000.0	1,000.0	979.0	975.5	2.1	2.3	97.54	-16.9	128.0	131.4	127.2	4.22	31.143	
1,100.0	1,100.0	1,072.6	1,067.1	2.4	2.6	98.87	-22.8	146.2	151.6	146.9	4.69	32.317	
1,200.0	1,200.0	1,167.1	1,159.1	2.6	3.1	100.03	-29.5	167.1	174.5	169.4	5.18	33.704	
1,300.0	1,300.0	1,264.5	1,253.7	2.8	3.5	-52.09	-36.6	189.0	197.2	191.7	5.58	35.347	
1,400.0	1,399.9	1,362.2	1,348.6	3.0	4.0	-51.89	-43.7	211.0	218.4	212.4	6.00	36.369	
1,500.0	1,499.7	1,460.3	1,443.9	3.1	4.4	-52.21	-50.9	233.1	238.0	231.5	6.45	36.910	
1,567.6	1,567.0	1,526.7	1,508.4	3.3	4.8	-52.65	-55.7	248.1	250.3	243.6	6.76	37.038	
1,600.0	1,599.3	1,558.5	1,539.3	3.3	4.9	-52.97	-58.0	255.2	256.1	249.2	6.91	37.051	
1,700.0	1,698.8	1,656.8	1,634.9	3.6	5.4	-53.87	-65.1	277.4	273.9	266.5	7.39	37.042	
1,800.0	1,798.4	1,755.1	1,730.4	3.8	5.9	-54.66	-72.3	299.5	291.8	283.9	7.89	36.978	
1,900.0	1,897.9	1,853.5	1,825.9	4.0	6.4	-55.35	-79.4	321.7	309.7	301.3	8.40	36.874	
2,000.0	1,997.4	1,951.8	1,921.4	4.3	6.9	-55.97	-86.6	343.8	327.7	318.8	8.92	36.745	
2,100.0	2,097.0	2,050.1	2,016.9	4.5	7.4	-56.53	-93.7	366.0	345.7	336.3	9.45	36.600	
2,200.0	2,196.5	2,148.4	2,112.4	4.8	7.9	-57.03	-100.9	388.1	363.7	353.8	9.98	36.445	
2,300.0	2,296.0	2,246.7	2,208.0	5.0	8.4	-57.48	-108.0	410.3	381.8	371.3	10.52	36.285	
2,400.0	2,395.6	2,345.0	2,303.5	5.3	8.9	-57.89	-115.2	432.4	399.9	388.8	11.07	36.125	
2,500.0	2,495.1	2,443.3	2,399.0	5.5	9.4	-58.27	-122.3	454.6	418.0	406.4	11.62	35.965	
2,600.0	2,594.7	2,541.6	2,494.5	5.8	9.9	-58.62	-129.5	476.7	436.1	423.9	12.18	35.809	
2,700.0	2,694.2	2,640.0	2,590.0	6.1	10.4	-58.93	-136.6	498.9	454.2	441.5	12.74	35.656	
2,800.0	2,793.7	2,738.3	2,685.6	6.4	10.9	-59.23	-143.8	521.0	472.4	459.1	13.30	35.508	
2,900.0	2,893.3	2,836.6	2,781.1	6.6	11.4	-59.50	-150.9	543.2	490.5	476.7	13.87	35.365	
3,000.0	2,992.8	2,934.9	2,876.6	6.9	11.9	-59.75	-158.1	565.3	508.7	494.3	14.44	35.227	
3,100.0	3,092.3	3,033.2	2,972.1	7.2	12.4	-59.99	-165.2	587.4	526.9	511.9	15.01	35.095	
3,200.0	3,191.9	3,131.5	3,067.6	7.5	12.9	-60.20	-172.4	609.6	545.1	529.5	15.59	34.968	
3,300.0	3,291.4	3,229.8	3,163.2	7.7	13.4	-60.41	-179.5	631.7	563.2	547.1	16.16	34.846	
3,400.0	3,391.0	3,328.1	3,258.7	8.0	13.9	-60.60	-186.7	653.9	581.4	564.7	16.74	34.730	
3,500.0	3,490.5	3,426.5	3,354.2	8.3	14.4	-60.78	-193.8	676.0	599.6	582.3	17.32	34.618	
3,600.0	3,590.0	3,524.8	3,449.7	8.6	14.9	-60.95	-200.9	698.2	617.8	599.9	17.90	34.511	
3,700.0	3,689.6	3,623.1	3,545.2	8.9	15.4	-61.11	-208.1	720.3	636.0	617.6	18.49	34.408	
3,800.0	3,789.1	3,721.4	3,640.7	9.1	16.0	-61.26	-215.2	742.5	654.3	635.2	19.07	34.310	
3,900.0	3,888.6	3,819.7	3,736.3	9.4	16.5	-61.41	-222.4	764.6	672.5	652.8	19.65	34.216	
4,000.0	3,988.2	3,918.0	3,831.8	9.7	17.0	-61.54	-229.5	786.8	690.7	670.5	20.24	34.126	
4,100.0	4,087.7	4,016.3	3,927.3	10.0	17.5	-61.67	-236.7	808.9	708.9	688.1	20.83	34.039	
4,200.0	4,187.3	4,114.6	4,022.8	10.3	18.0	-61.79	-243.8	831.1	727.2	705.7	21.41	33.956	
4,300.0	4,286.8	4,213.0	4,118.3	10.6	18.5	-61.91	-251.0	853.2	745.4	723.4	22.00	33.877	
4,400.0	4,386.3	4,311.3	4,213.9	10.9	19.0	-62.02	-258.1	875.4	763.6	741.0	22.59	33.800	
4,500.0	4,485.9	4,409.6	4,309.4	11.1	19.5	-62.13	-265.3	897.5	781.9	758.7	23.18	33.726	
4,600.0	4,585.4	4,507.9	4,404.9	11.4	20.0	-62.23	-272.4	919.7	800.1	776.3	23.77	33.656	
4,700.0	4,684.9	4,606.2	4,500.4	11.7	20.5	-62.32	-279.6	941.8	818.4	794.0	24.36	33.588	
4,800.0	4,784.5	4,704.5	4,595.9	12.0	21.0	-62.42	-286.7	963.9	836.6	811.6	24.96	33.522	
4,900.0	4,884.0	4,802.8	4,691.5	12.3	21.5	-62.50	-293.9	986.1	854.8	829.3	25.55	33.459	
5,000.0	4,983.6	4,901.1	4,787.0	12.6	22.0	-62.59	-301.0	1,008.2	873.1	847.0	26.14	33.399	

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

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

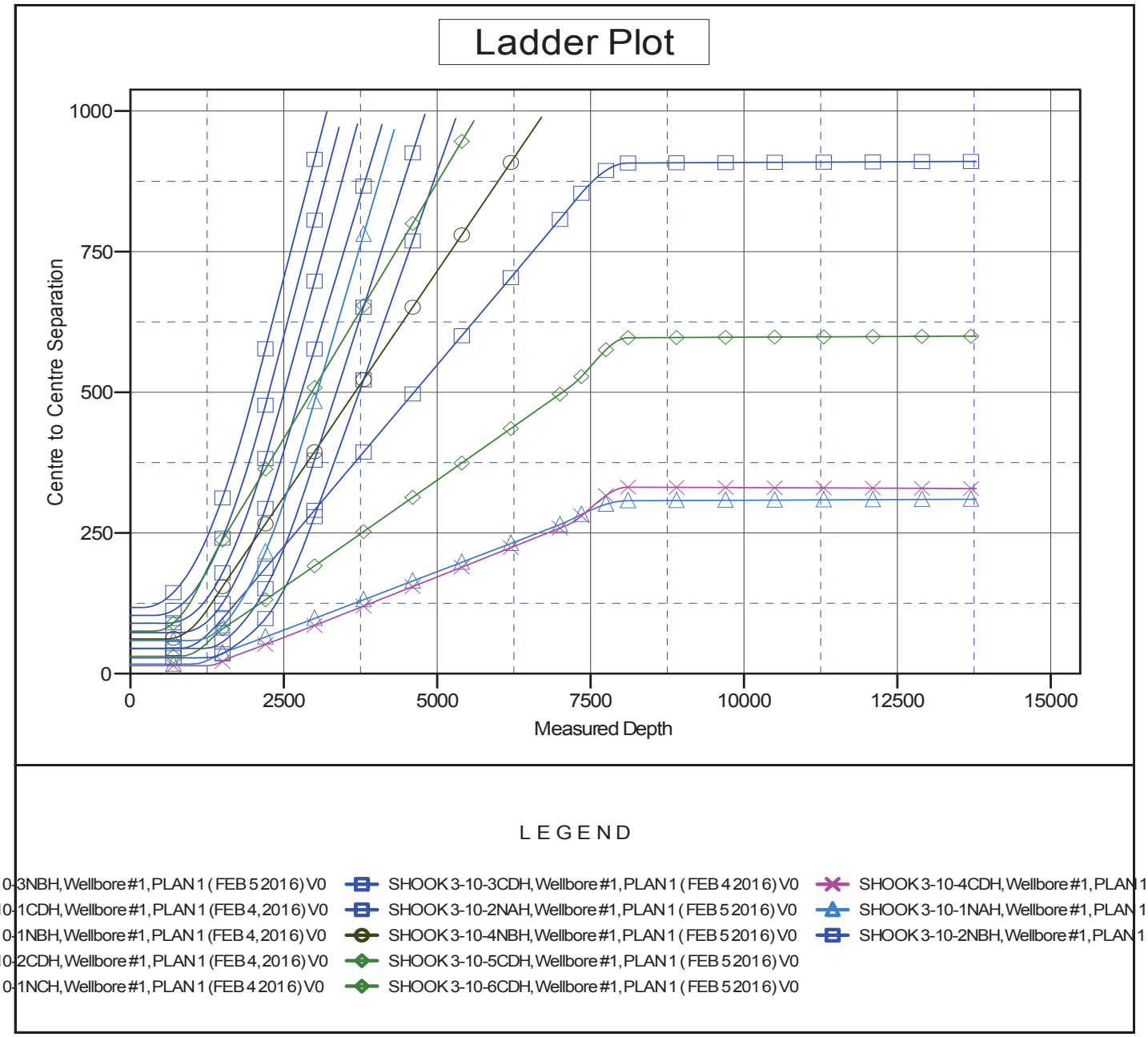
Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,083.1	4,999.5	4,882.5	12.9	22.5	-62.67	-308.2	1,030.4	891.3	864.6	26.74	33.340	
5,200.0	5,182.6	5,097.8	4,978.0	13.2	23.0	-62.75	-315.3	1,052.5	909.6	882.3	27.33	33.284	
5,300.0	5,282.2	5,196.1	5,073.5	13.4	23.5	-62.82	-322.5	1,074.7	927.9	899.9	27.92	33.229	
5,400.0	5,381.7	5,294.4	5,169.0	13.7	24.1	-62.89	-329.6	1,096.8	946.1	917.6	28.52	33.176	
5,500.0	5,481.2	5,392.7	5,264.6	14.0	24.6	-62.96	-336.7	1,119.0	964.4	935.3	29.11	33.126	
5,600.0	5,580.8	5,491.0	5,360.1	14.3	25.1	-63.03	-343.9	1,141.1	982.6	952.9	29.71	33.076	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RKB @ 5109.0ft (EST KB 16')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: SHOOK 3-10-2NCH
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.40°



Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-2NCH
Project:	SEC.3-T1S-R67W	**TVD Reference:**	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	**MD Reference:**	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-2NCH	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	US_EDM
Reference Design:	PLAN 1 (FEB 5, 2016)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RKB @ 5109.0ft (EST KB 16')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: SHOOK 3-10-2NCH
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.40°