ENSIGN

Directional

PetroShare Corp

SEC.3-T1S-R67W
SHOOK PAD 3-1S-67W
SHOOK 3-10-4NBH

Wellbore #1
PLAN 1 (FEB 5 2016)

Anticollision Report

22 February, 2016

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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	13,799.8	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	179.3	178.7	265.943	CC, ES
SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,048.6	293.1	288.3	61.598	SF
SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 201	600.0	600.0	120.5	118.0	48.731	CC, ES
SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,096.6	152.0	147.4	32.902	SF
SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 201	600.0	600.0	151.3	148.8	61.197	CC, ES
SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,080.8	204.2	199.7	44.905	SF
SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016	400.0	400.0	165.3	163.7	105.071	CC, ES
SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,100.0	1,067.1	243.4	238.8	52.684	SF
SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	600.0	600.0	134.5	132.0	54.397	CC, ES
SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,090.5	172.4	167.8	37.873	SF
SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 201	600.0	600.0	16.8	14.3	6.800	CC, ES
SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 201	13,799.8	13,588.4	331.6	101.5	1.441	Level 3, SF
SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016	600.0	600.0	106.5	104.0	43.065	CC, ES
SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,100.0	1,098.6	137.4	132.8	29.568	SF
SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 201	600.0	600.0	61.6	59.2	24.932	CC, ES
SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 201	900.0	899.7	72.7	69.0	19.322	SF
SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 201	600.0	600.0	89.7	87.2	36.265	CC, ES
SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 201	1,100.0	1,098.6	120.7	116.0	25.968	SF
SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 201	600.0	600.0	44.8	42.4	18.132	CC, ES
SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 201	13,799.8	13,689.0	863.2	598.1	3.256	SF
SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 201	600.0	600.0	75.7	73.2	30.599	CC, ES
SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 201	1,000.0	999.3	95.4	91.2	22.704	SF
SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 201	600.0	600.0	30.8	28.3	12.466	CC, ES
SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 201	13,799.8	13,988.2	637.4	392.2	2.600	SF
SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 201	400.0	400.0	14.0	12.4	8.904	CC, ES
SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 201	13,799.8	14,123.1	399.4	201.9	2.022	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	-179.3	179.3				
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-179.3	179.3	179.1	0.22	797.830	

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 3-10-4NBH
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 3-10-4NBH	**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	-179.3	179.3	178.7	0.67	265.943	CC, ES
300.0	300.0	296.4	296.4	0.6	0.5	-90.21	-0.6	-180.3	180.3	179.2	1.10	164.235	
400.0	400.0	392.7	392.6	0.8	0.7	-90.90	-2.9	-183.2	183.3	181.8	1.52	120.288	
500.0	500.0	488.7	488.5	1.0	1.0	-92.01	-6.6	-187.9	188.4	186.4	1.97	95.635	
600.0	600.0	584.4	583.8	1.2	1.2	-93.46	-11.8	-194.6	195.6	193.2	2.44	80.212	
700.0	700.0	679.5	678.2	1.4	1.5	153.42	-18.3	-203.1	206.2	203.3	2.87	71.873	
800.0	799.9	773.7	771.6	1.6	1.8	151.91	-26.3	-213.3	221.3	218.0	3.32	66.665	
900.0	899.7	866.8	863.4	1.9	2.1	150.56	-35.5	-225.2	240.9	237.1	3.79	63.631	
1,000.0	999.3	958.5	953.5	2.1	2.5	149.39	-45.9	-238.6	264.9	260.6	4.27	62.095	
1,100.0	1,098.6	1,048.6	1,041.6	2.3	2.8	148.40	-57.5	-253.5	293.1	288.3	4.76	61.598	SF
1,200.0	1,197.5	1,136.8	1,127.5	2.6	3.3	147.56	-70.0	-269.6	325.4	320.2	5.26	61.823	
1,300.0	1,296.1	1,223.1	1,210.9	3.0	3.7	146.84	-83.4	-286.9	361.7	356.0	5.78	62.550	
1,400.0	1,394.2	1,307.1	1,291.7	3.3	4.1	146.23	-97.6	-305.2	401.9	395.6	6.32	63.611	
1,443.4	1,436.5	1,342.9	1,325.9	3.5	4.4	145.99	-104.0	-313.4	420.5	414.0	6.56	64.106	
1,500.0	1,491.8	1,389.0	1,369.9	3.7	4.6	145.90	-112.5	-324.3	445.6	438.7	6.88	64.754	
1,600.0	1,589.4	1,469.3	1,446.0	4.2	5.1	145.68	-128.0	-344.4	491.1	483.6	7.46	65.809	
1,700.0	1,686.9	1,547.9	1,520.1	4.6	5.7	145.41	-144.2	-365.3	538.2	530.2	8.06	66.817	
1,800.0	1,784.5	1,625.0	1,592.2	5.0	6.2	145.11	-161.0	-386.9	587.0	578.4	8.66	67.802	
1,900.0	1,882.1	1,700.0	1,661.7	5.5	6.8	144.79	-178.2	-409.0	637.4	628.1	9.27	68.791	
2,000.0	1,979.7	1,774.2	1,730.1	5.9	7.3	144.45	-196.0	-432.0	689.3	679.4	9.89	69.720	
2,100.0	2,077.2	1,846.5	1,795.9	6.4	7.9	144.11	-214.1	-455.3	742.6	732.1	10.51	70.670	
2,200.0	2,174.8	1,921.6	1,864.0	6.9	8.6	143.74	-233.8	-480.6	797.4	786.2	11.15	71.496	
2,300.0	2,272.4	2,005.0	1,939.3	7.3	9.3	143.38	-255.7	-508.8	852.4	840.6	11.82	72.088	
2,400.0	2,369.9	2,088.3	2,014.6	7.8	10.0	143.06	-277.6	-537.0	907.5	895.0	12.50	72.585	
2,500.0	2,467.5	2,171.7	2,089.9	8.3	10.8	142.78	-299.5	-565.3	962.6	949.5	13.19	73.009	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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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 3-10-4NBH	**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	-89.97	0.1	-120.5	120.5				
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-120.5	120.5	120.3	0.22	536.042	
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-120.5	120.5	119.8	0.67	178.681	
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-120.5	120.5	119.4	1.12	107.208	
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-120.5	120.5	118.9	1.57	76.577	
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.1	-120.5	120.5	118.5	2.02	59.560	
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.1	-120.5	120.5	118.0	2.47	48.731	CC, ES
700.0	700.0	700.0	700.0	1.4	1.5	158.75	0.1	-120.5	121.7	118.8	2.91	41.882	
800.0	799.9	799.9	799.9	1.6	1.7	159.38	0.1	-120.5	125.4	122.0	3.33	37.641	
900.0	899.7	899.7	899.7	1.9	1.9	160.35	0.1	-120.5	131.5	127.7	3.76	34.938	
1,000.0	999.3	999.3	999.3	2.1	2.1	161.57	0.1	-120.5	140.2	136.0	4.20	33.344	
1,100.0	1,098.6	1,096.6	1,096.6	2.3	2.3	162.50	-0.9	-121.2	152.0	147.4	4.62	32.902	SF
1,200.0	1,197.5	1,193.2	1,193.1	2.6	2.5	162.79	-3.9	-123.3	167.7	162.7	5.03	33.364	
1,300.0	1,296.1	1,289.0	1,288.7	3.0	2.7	162.59	-8.8	-126.9	187.1	181.7	5.45	34.360	
1,400.0	1,394.2	1,383.7	1,383.0	3.3	2.9	162.05	-15.5	-131.8	210.3	204.4	5.88	35.741	
1,443.4	1,436.5	1,424.3	1,423.5	3.5	3.0	161.73	-19.0	-134.3	221.4	215.4	6.08	36.426	
1,500.0	1,491.8	1,477.2	1,475.9	3.7	3.1	161.32	-24.1	-137.9	236.7	230.4	6.34	37.322	
1,600.0	1,589.4	1,569.8	1,567.7	4.2	3.3	160.37	-34.3	-145.3	264.7	257.9	6.83	38.765	
1,700.0	1,686.9	1,661.4	1,658.1	4.6	3.6	159.23	-46.2	-153.9	294.0	286.7	7.34	40.052	
1,800.0	1,784.5	1,752.1	1,747.3	5.0	3.9	157.98	-59.8	-163.7	324.8	316.9	7.88	41.206	
1,900.0	1,882.1	1,841.7	1,834.9	5.5	4.2	156.65	-74.8	-174.6	357.1	348.6	8.45	42.249	
2,000.0	1,979.7	1,930.1	1,920.9	5.9	4.5	155.30	-91.3	-186.5	390.8	381.8	9.05	43.201	
2,100.0	2,077.2	2,017.2	2,005.3	6.4	4.9	153.94	-109.1	-199.4	426.1	416.5	9.67	44.084	
2,200.0	2,174.8	2,100.0	2,084.9	6.9	5.3	152.65	-127.4	-212.6	463.1	452.8	10.30	44.977	
2,300.0	2,272.4	2,187.6	2,168.5	7.3	5.7	151.29	-148.4	-227.8	501.6	490.6	10.97	45.705	
2,400.0	2,369.9	2,270.6	2,247.3	7.8	6.2	150.02	-169.6	-243.2	541.7	530.0	11.66	46.465	
2,500.0	2,467.5	2,352.3	2,324.2	8.3	6.7	148.79	-191.9	-259.2	583.4	571.1	12.36	47.216	
2,600.0	2,565.1	2,432.4	2,399.1	8.7	7.2	147.61	-215.1	-276.0	626.8	613.7	13.07	47.967	
2,700.0	2,662.7	2,511.0	2,471.9	9.2	7.7	146.48	-239.0	-293.3	671.7	657.9	13.79	48.725	
2,800.0	2,760.2	2,588.1	2,542.7	9.7	8.2	145.40	-263.7	-311.1	718.3	703.7	14.52	49.482	
2,900.0	2,857.8	2,673.7	2,621.0	10.2	8.9	144.27	-291.8	-331.5	765.8	750.5	15.30	50.067	
3,000.0	2,955.4	2,760.7	2,700.4	10.6	9.5	143.26	-320.5	-352.2	813.7	797.6	16.08	50.594	
3,100.0	3,052.9	2,847.6	2,779.9	11.1	10.2	142.36	-349.1	-372.9	861.6	844.8	16.87	51.079	
3,200.0	3,150.5	2,934.6	2,859.4	11.6	10.9	141.55	-377.7	-393.5	909.8	892.1	17.66	51.527	
3,300.0	3,248.1	3,021.5	2,938.8	12.1	11.5	140.82	-406.3	-414.2	958.0	939.6	18.44	51.943	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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Site Error:	0.0 ft	**North Reference:**	True
Reference Well:	SHOOK 3-10-4NBH	**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	-89.97	0.1	-151.3	151.3				
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-151.3	151.3	151.1	0.22	673.169	
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-151.3	151.3	150.6	0.67	224.390	
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-151.3	151.3	150.2	1.12	134.634	
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-151.3	151.3	149.7	1.57	96.167	
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.1	-151.3	151.3	149.3	2.02	74.797	
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.1	-151.3	151.3	148.8	2.47	61.197	CC, ES
700.0	700.0	697.2	697.2	1.4	1.4	158.36	-0.8	-152.2	153.4	150.5	2.88	53.319	
800.0	799.9	794.2	794.1	1.6	1.6	157.90	-3.4	-154.8	159.8	156.5	3.26	48.945	
900.0	899.7	890.6	890.3	1.9	1.8	157.19	-7.7	-159.1	170.4	166.7	3.67	46.387	
1,000.0	999.3	986.2	985.6	2.1	2.0	156.33	-13.7	-165.1	185.2	181.1	4.10	45.161	
1,100.0	1,098.6	1,080.8	1,079.5	2.3	2.3	155.40	-21.3	-172.7	204.2	199.7	4.55	44.905	SF
1,200.0	1,197.5	1,174.1	1,171.9	2.6	2.5	154.46	-30.3	-181.8	227.4	222.4	5.01	45.348	
1,300.0	1,296.1	1,265.9	1,262.5	3.0	2.8	153.55	-40.8	-192.3	254.6	249.1	5.50	46.289	
1,400.0	1,394.2	1,356.0	1,351.0	3.3	3.1	152.69	-52.6	-204.1	285.9	279.9	6.01	47.576	
1,443.4	1,436.5	1,394.4	1,388.7	3.5	3.3	152.33	-58.0	-209.6	300.7	294.4	6.23	48.227	
1,500.0	1,491.8	1,444.3	1,437.4	3.7	3.5	152.00	-65.5	-217.1	320.7	314.2	6.54	49.030	
1,600.0	1,589.4	1,531.2	1,522.0	4.2	3.8	151.34	-79.7	-231.3	357.5	350.4	7.10	50.367	
1,700.0	1,686.9	1,616.8	1,604.8	4.6	4.2	150.61	-94.9	-246.6	395.9	388.2	7.67	51.590	
1,800.0	1,784.5	1,700.0	1,684.9	5.0	4.6	149.86	-111.0	-262.7	436.0	427.7	8.26	52.752	
1,900.0	1,882.1	1,783.7	1,764.8	5.5	5.1	149.08	-128.4	-280.2	477.7	468.8	8.88	53.787	
2,000.0	1,979.7	1,864.9	1,841.9	5.9	5.6	148.30	-146.4	-298.3	521.1	511.6	9.51	54.804	
2,100.0	2,077.2	1,944.7	1,917.1	6.4	6.1	147.54	-165.3	-317.2	566.1	556.0	10.15	55.794	
2,200.0	2,174.8	2,022.9	1,990.2	6.9	6.6	146.79	-184.9	-336.8	612.7	601.9	10.79	56.770	
2,300.0	2,272.4	2,100.0	2,061.7	7.3	7.2	146.06	-205.2	-357.2	660.9	649.5	11.45	57.728	
2,400.0	2,369.9	2,174.5	2,130.3	7.8	7.7	145.37	-225.8	-377.9	710.7	698.6	12.11	58.674	
2,500.0	2,467.5	2,248.0	2,197.4	8.3	8.3	144.69	-247.0	-399.2	761.9	749.1	12.78	59.620	
2,600.0	2,565.1	2,333.0	2,274.6	8.7	9.0	143.97	-272.1	-424.4	813.9	800.4	13.50	60.286	
2,700.0	2,662.7	2,418.0	2,351.7	9.2	9.7	143.33	-297.2	-449.5	866.1	851.8	14.22	60.892	
2,800.0	2,760.2	2,502.9	2,428.9	9.7	10.4	142.76	-322.3	-474.7	918.3	903.3	14.95	61.433	
2,900.0	2,857.8	2,587.9	2,506.1	10.2	11.1	142.26	-347.4	-499.9	970.5	954.8	15.68	61.914	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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	-89.97	0.1	-165.3	165.3				
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-165.3	165.3	165.1	0.22	735.499	
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-165.3	165.3	164.6	0.67	245.166	
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-165.3	165.3	164.2	1.12	147.100	
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-165.3	165.3	163.7	1.57	105.071	CC, ES
500.0	500.0	496.8	496.8	1.0	1.0	-90.25	-0.7	-166.2	166.3	164.3	2.00	83.343	
600.0	600.0	593.5	593.4	1.2	1.2	-91.06	-3.1	-169.0	169.2	166.8	2.41	70.182	
700.0	700.0	689.9	689.6	1.4	1.4	156.27	-7.1	-173.6	175.2	172.4	2.82	62.039	
800.0	799.9	785.7	785.1	1.6	1.6	155.02	-12.7	-180.0	185.7	182.5	3.25	57.236	
900.0	899.7	880.7	879.4	1.9	1.9	153.78	-19.8	-188.1	200.6	197.0	3.69	54.432	
1,000.0	999.3	974.6	972.4	2.1	2.1	152.61	-28.3	-197.8	219.9	215.7	4.14	53.053	
1,100.0	1,098.6	1,067.1	1,063.7	2.3	2.4	151.54	-38.1	-209.1	243.4	238.8	4.62	52.684	SF
1,200.0	1,197.5	1,158.1	1,153.1	2.6	2.8	150.59	-49.2	-221.8	271.1	266.0	5.11	53.029	
1,300.0	1,296.1	1,247.2	1,240.3	3.0	3.1	149.75	-61.5	-235.8	302.9	297.3	5.62	53.873	
1,400.0	1,394.2	1,334.4	1,325.1	3.3	3.5	149.01	-74.7	-251.0	338.7	332.5	6.15	55.060	
1,443.4	1,436.5	1,371.6	1,361.1	3.5	3.7	148.71	-80.8	-257.9	355.4	349.0	6.39	55.651	
1,500.0	1,491.8	1,419.6	1,407.6	3.7	3.9	148.51	-88.9	-267.2	378.0	371.3	6.70	56.408	
1,600.0	1,589.4	1,500.0	1,484.9	4.2	4.4	148.10	-103.4	-283.8	419.2	411.9	7.26	57.711	
1,700.0	1,686.9	1,585.5	1,566.5	4.6	4.9	147.61	-120.0	-302.8	462.1	454.2	7.87	58.743	
1,800.0	1,784.5	1,666.1	1,643.1	5.0	5.3	147.10	-136.7	-321.9	506.7	498.2	8.47	59.815	
1,900.0	1,882.1	1,745.3	1,717.6	5.5	5.9	146.58	-154.2	-341.9	552.9	543.8	9.09	60.853	
2,000.0	1,979.7	1,822.8	1,790.1	5.9	6.4	146.05	-172.2	-362.6	600.7	591.0	9.71	61.871	
2,100.0	2,077.2	1,900.0	1,861.7	6.4	7.0	145.52	-191.2	-384.3	650.1	639.7	10.34	62.850	
2,200.0	2,174.8	1,973.1	1,929.0	6.9	7.5	145.01	-210.0	-405.9	701.0	690.0	10.98	63.848	
2,300.0	2,272.4	2,045.9	1,995.4	7.3	8.1	144.50	-229.6	-428.3	753.4	741.8	11.62	64.827	
2,400.0	2,369.9	2,124.8	2,066.9	7.8	8.8	143.96	-251.6	-453.4	807.0	794.7	12.30	65.621	
2,500.0	2,467.5	2,208.9	2,143.0	8.3	9.5	143.45	-275.1	-480.3	860.8	847.9	12.99	66.250	
2,600.0	2,565.1	2,293.0	2,219.2	8.7	10.2	143.01	-298.6	-507.2	914.7	901.0	13.69	66.796	
2,700.0	2,662.7	2,377.0	2,295.3	9.2	10.9	142.61	-322.1	-534.1	968.6	954.2	14.40	67.274	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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	0.1	-134.5	134.5				
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-134.5	134.5	134.3	0.22	598.372	
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-134.5	134.5	133.8	0.67	199.457	
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-134.5	134.5	133.4	1.12	119.674	
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-134.5	134.5	132.9	1.57	85.482	
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.1	-134.5	134.5	132.5	2.02	66.486	
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.1	-134.5	134.5	132.0	2.47	54.397	CC, ES
700.0	700.0	700.0	700.0	1.4	1.5	158.73	0.1	-134.5	135.7	132.8	2.91	46.704	
800.0	799.9	799.9	799.9	1.6	1.7	159.29	0.1	-134.5	139.4	136.0	3.33	41.846	
900.0	899.7	897.3	897.3	1.9	1.9	159.77	-0.9	-135.3	146.3	142.6	3.74	39.161	
1,000.0	999.3	994.3	994.2	2.1	2.1	159.79	-3.7	-137.7	157.3	153.2	4.14	38.041	
1,100.0	1,098.6	1,090.5	1,090.2	2.3	2.3	159.44	-8.3	-141.7	172.4	167.8	4.55	37.873	SF
1,200.0	1,197.5	1,185.7	1,185.1	2.6	2.5	158.83	-14.6	-147.2	191.4	186.4	4.98	38.400	
1,300.0	1,296.1	1,279.7	1,278.5	3.0	2.7	158.05	-22.7	-154.2	214.4	209.0	5.44	39.433	
1,400.0	1,394.2	1,372.4	1,370.2	3.3	2.9	157.19	-32.3	-162.5	241.4	235.5	5.91	40.822	
1,443.4	1,436.5	1,412.0	1,409.4	3.5	3.0	156.80	-36.9	-166.5	254.3	248.2	6.13	41.512	
1,500.0	1,491.8	1,463.5	1,460.1	3.7	3.2	156.37	-43.3	-172.1	271.8	265.4	6.41	42.390	
1,600.0	1,589.4	1,553.4	1,548.5	4.2	3.5	155.49	-55.9	-183.0	304.1	297.2	6.94	43.822	
1,700.0	1,686.9	1,642.2	1,635.4	4.6	3.8	154.51	-69.8	-195.1	337.9	330.4	7.49	45.113	
1,800.0	1,784.5	1,729.7	1,720.6	5.0	4.2	153.47	-85.0	-208.2	373.4	365.3	8.06	46.300	
1,900.0	1,882.1	1,816.0	1,804.0	5.5	4.5	152.41	-101.4	-222.5	410.5	401.8	8.66	47.380	
2,000.0	1,979.7	1,900.0	1,884.9	5.9	4.9	151.36	-118.8	-237.5	449.2	439.9	9.28	48.427	
2,100.0	2,077.2	1,984.3	1,965.5	6.4	5.4	150.30	-137.5	-253.8	489.5	479.6	9.92	49.366	
2,200.0	2,174.8	2,066.4	2,043.3	6.9	5.9	149.28	-157.1	-270.8	531.5	520.9	10.57	50.291	
2,300.0	2,272.4	2,146.9	2,119.2	7.3	6.4	148.29	-177.5	-288.5	575.1	563.9	11.23	51.197	
2,400.0	2,369.9	2,225.9	2,193.1	7.8	6.9	147.33	-198.7	-306.8	620.3	608.4	11.91	52.093	
2,500.0	2,467.5	2,303.4	2,264.9	8.3	7.4	146.41	-220.6	-325.8	667.1	654.5	12.59	52.988	
2,600.0	2,565.1	2,388.2	2,343.0	8.7	8.0	145.45	-245.4	-347.3	715.0	701.7	13.32	53.692	
2,700.0	2,662.7	2,475.3	2,423.4	9.2	8.7	144.59	-270.9	-369.4	763.1	749.1	14.06	54.295	
2,800.0	2,760.2	2,562.4	2,503.7	9.7	9.3	143.83	-296.4	-391.6	811.4	796.6	14.80	54.837	
2,900.0	2,857.8	2,649.5	2,584.0	10.2	10.0	143.16	-321.9	-413.7	859.7	844.1	15.54	55.325	
3,000.0	2,955.4	2,736.7	2,664.3	10.6	10.6	142.55	-347.5	-435.8	908.1	891.8	16.28	55.766	
3,100.0	3,052.9	2,823.8	2,744.6	11.1	11.3	142.01	-373.0	-457.9	956.6	939.5	17.03	56.167	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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	-89.96	0.0	-16.8	16.8	16.8	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	-89.96	0.0	-16.8	16.8	16.6	0.22	74.797	
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.0	-16.8	16.8	16.1	0.67	24.932	
300.0	300.0	300.0	300.0	0.6	0.6	-89.96	0.0	-16.8	16.8	15.7	1.12	14.959	
400.0	400.0	400.0	400.0	0.8	0.8	-89.96	0.0	-16.8	16.8	15.2	1.57	10.685	
500.0	500.0	500.0	500.0	1.0	1.0	-89.96	0.0	-16.8	16.8	14.8	2.02	8.311	
600.0	600.0	600.0	600.0	1.2	1.2	-89.96	0.0	-16.8	16.8	14.3	2.47	6.800	CC, ES
700.0	700.0	700.0	700.0	1.4	1.5	160.06	0.0	-16.8	18.0	15.1	2.91	6.207	
800.0	799.9	799.9	799.9	1.6	1.7	163.57	0.0	-16.8	21.8	18.4	3.33	6.535	
900.0	899.7	900.4	900.4	1.9	1.9	166.50	-0.6	-15.6	26.9	23.1	3.74	7.174	
1,000.0	999.3	1,001.0	1,000.9	2.1	2.1	168.10	-2.3	-12.1	32.0	27.9	4.15	7.726	
1,100.0	1,098.6	1,101.7	1,101.4	2.3	2.3	168.91	-5.3	-6.1	37.3	32.7	4.56	8.168	
1,200.0	1,197.5	1,202.6	1,201.8	2.6	2.5	169.23	-9.4	2.2	42.5	37.5	4.99	8.524	
1,300.0	1,296.1	1,303.6	1,302.1	3.0	2.8	169.20	-14.7	12.9	47.8	42.4	5.43	8.807	
1,400.0	1,394.2	1,404.7	1,402.2	3.3	3.1	168.94	-21.2	26.0	53.1	47.2	5.88	9.028	
1,443.4	1,436.5	1,448.6	1,445.5	3.5	3.2	168.77	-24.4	32.4	55.4	49.3	6.09	9.105	
1,500.0	1,491.8	1,506.0	1,502.0	3.7	3.4	168.42	-28.9	41.5	58.0	51.7	6.36	9.123	
1,600.0	1,589.4	1,606.5	1,600.6	4.2	3.7	167.49	-37.4	58.7	61.3	54.4	6.87	8.920	
1,700.0	1,686.9	1,706.4	1,698.7	4.6	4.1	166.62	-45.9	75.9	64.3	56.9	7.39	8.708	
1,800.0	1,784.5	1,806.4	1,796.8	5.0	4.5	165.83	-54.4	93.1	67.4	59.5	7.92	8.510	
1,900.0	1,882.1	1,906.3	1,894.9	5.5	4.8	165.10	-63.0	110.4	70.5	62.1	8.47	8.326	
2,000.0	1,979.7	2,006.3	1,992.9	5.9	5.2	164.44	-71.5	127.6	73.6	64.6	9.03	8.155	
2,100.0	2,077.2	2,106.2	2,091.0	6.4	5.6	163.83	-80.0	144.8	76.8	67.2	9.60	7.997	
2,200.0	2,174.8	2,206.2	2,189.1	6.9	6.0	163.27	-88.6	162.1	79.9	69.7	10.18	7.850	
2,300.0	2,272.4	2,306.1	2,287.2	7.3	6.5	162.75	-97.1	179.3	83.0	72.3	10.76	7.715	
2,400.0	2,369.9	2,406.1	2,385.3	7.8	6.9	162.27	-105.6	196.5	86.2	74.8	11.36	7.589	
2,500.0	2,467.5	2,506.0	2,483.3	8.3	7.3	161.82	-114.2	213.8	89.3	77.4	11.96	7.472	
2,600.0	2,565.1	2,606.0	2,581.4	8.7	7.7	161.41	-122.7	231.0	92.5	79.9	12.56	7.363	
2,700.0	2,662.7	2,705.9	2,679.5	9.2	8.1	161.02	-131.2	248.2	95.7	82.5	13.17	7.262	
2,800.0	2,760.2	2,805.9	2,777.6	9.7	8.5	160.65	-139.8	265.5	98.8	85.0	13.79	7.168	
2,900.0	2,857.8	2,905.8	2,875.7	10.2	9.0	160.31	-148.3	282.7	102.0	87.6	14.41	7.080	
3,000.0	2,955.4	3,005.7	2,973.7	10.6	9.4	159.99	-156.8	299.9	105.2	90.1	15.03	6.997	
3,100.0	3,052.9	3,105.7	3,071.8	11.1	9.8	159.69	-165.3	317.2	108.3	92.7	15.65	6.920	
3,200.0	3,150.5	3,205.6	3,169.9	11.6	10.2	159.41	-173.9	334.4	111.5	95.2	16.28	6.848	
3,300.0	3,248.1	3,305.6	3,268.0	12.1	10.7	159.14	-182.4	351.6	114.7	97.8	16.92	6.780	
3,400.0	3,345.7	3,405.5	3,366.1	12.5	11.1	158.88	-190.9	368.9	117.9	100.3	17.55	6.716	
3,500.0	3,443.2	3,505.5	3,464.2	13.0	11.5	158.64	-199.5	386.1	121.1	102.9	18.19	6.656	
3,600.0	3,540.8	3,605.4	3,562.2	13.5	12.0	158.41	-208.0	403.3	124.2	105.4	18.83	6.599	
3,700.0	3,638.4	3,705.4	3,660.3	14.0	12.4	158.19	-216.5	420.5	127.4	108.0	19.47	6.546	
3,800.0	3,736.0	3,805.3	3,758.4	14.5	12.8	157.99	-225.1	437.8	130.6	110.5	20.11	6.495	
3,900.0	3,833.5	3,905.3	3,856.5	14.9	13.3	157.79	-233.6	455.0	133.8	113.1	20.76	6.447	
4,000.0	3,931.1	4,005.2	3,954.6	15.4	13.7	157.60	-242.1	472.2	137.0	115.6	21.40	6.401	
4,100.0	4,028.7	4,105.2	4,052.6	15.9	14.1	157.42	-250.7	489.5	140.2	118.2	22.05	6.358	
4,200.0	4,126.2	4,205.1	4,150.7	16.4	14.5	157.25	-259.2	506.7	143.4	120.7	22.70	6.317	
4,300.0	4,223.8	4,305.1	4,248.8	16.9	15.0	157.09	-267.7	523.9	146.6	123.3	23.35	6.278	
4,400.0	4,321.4	4,405.0	4,346.9	17.3	15.4	156.93	-276.3	541.2	149.8	125.8	24.01	6.240	
4,500.0	4,419.0	4,505.0	4,445.0	17.8	15.8	156.78	-284.8	558.4	153.0	128.3	24.66	6.205	
4,600.0	4,516.5	4,604.9	4,543.0	18.3	16.3	156.64	-293.3	575.6	156.2	130.9	25.31	6.171	
4,700.0	4,614.1	4,704.9	4,641.1	18.8	16.7	156.50	-301.9	592.9	159.4	133.4	25.97	6.138	
4,800.0	4,711.7	4,804.8	4,739.2	19.3	17.1	156.37	-310.4	610.1	162.6	136.0	26.63	6.107	
4,900.0	4,809.3	4,904.8	4,837.3	19.7	17.6	156.24	-318.9	627.3	165.8	138.5	27.28	6.078	
5,000.0	4,906.8	5,004.7	4,935.4	20.2	18.0	156.12	-327.5	644.6	169.0	141.1	27.94	6.049	

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 3-10-4NBH
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 3-10-4NBH	**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	5,004.4	5,104.7	5,033.5	20.7	18.4	156.00	-336.0	661.8	172.2	143.6	28.60	6.022	
5,200.0	5,102.0	5,204.6	5,131.5	21.2	18.9	155.88	-344.5	679.0	175.4	146.2	29.26	5.996	
5,300.0	5,199.5	5,304.6	5,229.6	21.7	19.3	155.77	-353.0	696.3	178.6	148.7	29.92	5.970	
5,400.0	5,297.1	5,404.5	5,327.7	22.2	19.7	155.67	-361.6	713.5	181.8	151.3	30.58	5.946	
5,500.0	5,394.7	5,504.4	5,425.8	22.6	20.2	155.57	-370.1	730.7	185.1	153.8	31.24	5.923	
5,600.0	5,492.3	5,604.4	5,523.9	23.1	20.6	155.47	-378.6	747.9	188.3	156.4	31.91	5.901	
5,700.0	5,589.8	5,704.3	5,621.9	23.6	21.0	155.37	-387.2	765.2	191.5	158.9	32.57	5.879	
5,800.0	5,687.4	5,804.3	5,720.0	24.1	21.5	155.28	-395.7	782.4	194.7	161.4	33.23	5.858	
5,900.0	5,785.0	5,904.2	5,818.1	24.6	21.9	155.19	-404.2	799.6	197.9	164.0	33.90	5.838	
6,000.0	5,882.6	6,004.2	5,916.2	25.1	22.3	155.10	-412.8	816.9	201.1	166.5	34.56	5.819	
6,100.0	5,980.1	6,104.1	6,014.3	25.5	22.8	155.02	-421.3	834.1	204.3	169.1	35.23	5.800	
6,200.0	6,077.7	6,204.1	6,112.3	26.0	23.2	154.94	-429.8	851.3	207.5	171.6	35.89	5.782	
6,300.0	6,175.3	6,304.0	6,210.4	26.5	23.7	154.86	-438.4	868.6	210.7	174.2	36.56	5.765	
6,400.0	6,272.8	6,404.0	6,308.5	27.0	24.1	154.78	-446.9	885.8	213.9	176.7	37.22	5.748	
6,500.0	6,370.4	6,503.9	6,406.6	27.5	24.5	154.71	-455.4	903.0	217.2	179.3	37.89	5.732	
6,600.0	6,468.0	6,603.9	6,504.7	27.9	25.0	154.64	-464.0	920.3	220.4	181.8	38.56	5.716	
6,700.0	6,565.6	6,703.8	6,602.7	28.4	25.4	154.57	-472.5	937.5	223.6	184.4	39.22	5.700	
6,800.0	6,663.1	6,803.8	6,700.8	28.9	25.8	154.50	-481.0	954.7	226.8	186.9	39.89	5.686	
6,900.0	6,760.7	6,902.5	6,797.5	29.4	26.3	154.01	-491.1	971.7	230.1	189.4	40.71	5.653	
7,000.0	6,858.3	6,998.1	6,889.3	29.9	26.7	150.81	-512.1	987.9	234.9	192.3	42.60	5.513	
7,060.8	6,917.6	7,053.9	6,941.4	30.2	27.0	147.62	-530.0	997.1	239.3	195.0	44.30	5.401	
7,100.0	6,955.7	7,089.0	6,973.3	30.4	27.2	133.34	-543.4	1,002.7	242.9	197.3	45.63	5.323	
7,150.0	7,004.0	7,133.0	7,012.4	30.6	27.5	118.89	-562.4	1,009.7	248.0	200.7	47.27	5.247	
7,200.0	7,051.5	7,176.5	7,049.8	30.9	27.8	107.92	-583.4	1,016.3	253.6	204.8	48.83	5.194	
7,250.0	7,098.1	7,219.3	7,085.4	31.1	28.1	99.43	-606.5	1,022.6	259.6	209.3	50.25	5.165	
7,300.0	7,143.5	7,261.7	7,119.2	31.4	28.4	92.68	-631.3	1,028.6	265.7	214.2	51.51	5.159	
7,350.0	7,187.6	7,300.0	7,148.4	31.8	28.7	87.32	-655.4	1,033.8	272.1	219.6	52.49	5.183	
7,400.0	7,230.1	7,344.9	7,181.0	32.1	29.1	82.61	-685.7	1,039.7	278.4	225.0	53.43	5.211	
7,450.0	7,270.8	7,385.8	7,209.1	32.4	29.4	78.76	-715.1	1,044.7	284.7	230.6	54.07	5.266	
7,500.0	7,309.4	7,426.4	7,235.2	32.8	29.8	75.48	-745.8	1,049.4	290.9	236.4	54.49	5.338	
7,550.0	7,345.9	7,466.7	7,259.4	33.2	30.1	72.66	-777.7	1,053.7	296.8	242.1	54.71	5.425	
7,600.0	7,380.1	7,506.6	7,281.6	33.6	30.5	70.24	-810.7	1,057.7	302.5	247.7	54.72	5.527	
7,650.0	7,411.7	7,550.0	7,303.7	34.0	30.9	68.07	-847.8	1,061.7	307.8	253.2	54.59	5.638	
7,700.0	7,440.6	7,585.8	7,320.1	34.4	31.3	66.36	-879.4	1,064.7	312.7	258.5	54.22	5.768	
7,750.0	7,466.7	7,625.0	7,336.4	34.9	31.7	64.83	-915.0	1,067.7	317.2	263.5	53.73	5.903	
7,800.0	7,489.8	7,664.0	7,350.6	35.4	32.1	63.53	-951.2	1,070.3	321.2	268.1	53.13	6.045	
7,850.0	7,509.9	7,700.0	7,362.0	35.8	32.5	62.48	-985.2	1,072.5	324.7	272.3	52.40	6.197	
7,900.0	7,526.8	7,741.7	7,373.1	36.3	33.0	61.57	-1,025.4	1,074.5	327.7	276.0	51.67	6.342	
7,950.0	7,540.5	7,780.3	7,381.3	36.8	33.4	60.87	-1,063.1	1,076.1	330.1	279.2	50.86	6.490	
8,000.0	7,550.9	7,818.9	7,387.5	37.4	33.9	60.35	-1,101.1	1,077.3	331.9	281.9	50.05	6.633	
8,050.0	7,557.9	7,857.4	7,391.6	37.9	34.3	60.01	-1,139.4	1,078.2	333.2	283.9	49.25	6.765	
8,100.0	7,561.5	7,900.0	7,393.8	38.4	34.8	59.82	-1,181.9	1,078.7	333.9	285.3	48.55	6.877	
8,102.7	7,561.6	7,900.0	7,393.8	38.4	34.8	59.82	-1,181.9	1,078.7	333.9	285.4	48.49	6.885	
8,127.8	7,562.0	7,917.4	7,394.0	38.7	35.1	59.80	-1,199.4	1,078.8	333.9	285.8	48.12	6.939	
8,200.0	7,562.0	7,989.6	7,394.0	39.5	36.0	59.79	-1,271.6	1,079.1	333.9	283.9	49.97	6.683	
8,300.0	7,562.0	8,089.6	7,394.0	40.7	37.2	59.79	-1,371.6	1,079.4	333.9	281.3	52.62	6.345	
8,400.0	7,562.0	8,189.6	7,394.0	41.9	38.6	59.79	-1,471.6	1,079.8	333.8	278.5	55.35	6.031	
8,500.0	7,562.0	8,289.6	7,394.0	43.2	40.0	59.78	-1,571.6	1,080.1	333.8	275.6	58.16	5.740	
8,600.0	7,562.0	8,389.6	7,394.0	44.5	41.4	59.78	-1,671.6	1,080.5	333.8	272.7	61.02	5.470	
8,700.0	7,562.0	8,489.6	7,394.0	45.9	42.9	59.77	-1,771.6	1,080.8	333.7	269.8	63.93	5.220	
8,800.0	7,562.0	8,589.6	7,394.0	47.3	44.4	59.77	-1,871.6	1,081.2	333.7	266.8	66.89	4.989	
8,900.0	7,562.0	8,689.6	7,394.0	48.8	46.0	59.76	-1,971.6	1,081.5	333.6	263.7	69.88	4.774	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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	7,562.0	8,789.6	7,394.0	50.2	47.5	59.76	-2,071.6	1,081.9	333.6	260.7	72.91	4.575	
9,100.0	7,562.0	8,889.6	7,394.0	51.7	49.1	59.76	-2,171.6	1,082.2	333.5	257.6	75.97	4.390	
9,200.0	7,562.0	8,989.6	7,394.0	53.3	50.8	59.75	-2,271.6	1,082.6	333.5	254.4	79.06	4.218	
9,300.0	7,562.0	9,089.6	7,394.0	54.8	52.4	59.75	-2,371.6	1,082.9	333.5	251.3	82.17	4.058	
9,400.0	7,562.0	9,189.6	7,394.0	56.4	54.0	59.74	-2,471.6	1,083.3	333.4	248.1	85.30	3.909	
9,500.0	7,562.0	9,289.6	7,394.0	58.0	55.7	59.74	-2,571.6	1,083.6	333.4	244.9	88.45	3.769	
9,600.0	7,562.0	9,389.6	7,394.0	59.6	57.4	59.74	-2,671.6	1,084.0	333.3	241.7	91.62	3.638	
9,700.0	7,562.0	9,489.6	7,394.0	61.3	59.1	59.73	-2,771.6	1,084.3	333.3	238.5	94.80	3.516	
9,800.0	7,562.0	9,589.6	7,394.0	62.9	60.8	59.73	-2,871.6	1,084.7	333.3	235.3	97.99	3.401	
9,900.0	7,562.0	9,689.6	7,394.0	64.6	62.5	59.72	-2,971.6	1,085.0	333.2	232.0	101.20	3.293	
10,000.0	7,562.0	9,789.6	7,394.0	66.3	64.3	59.72	-3,071.6	1,085.4	333.2	228.8	104.42	3.191	
10,100.0	7,562.0	9,889.6	7,394.0	67.9	66.0	59.71	-3,171.6	1,085.7	333.1	225.5	107.64	3.095	
10,200.0	7,562.0	9,989.6	7,394.0	69.7	67.8	59.71	-3,271.6	1,086.1	333.1	222.2	110.88	3.004	
10,300.0	7,562.0	10,089.6	7,394.0	71.4	69.5	59.71	-3,371.6	1,086.4	333.0	218.9	114.13	2.918	
10,400.0	7,562.0	10,189.6	7,394.0	73.1	71.3	59.70	-3,471.6	1,086.8	333.0	215.6	117.38	2.837	
10,500.0	7,562.0	10,289.6	7,394.0	74.8	73.1	59.70	-3,571.6	1,087.1	333.0	212.3	120.64	2.760	
10,600.0	7,562.0	10,389.6	7,394.0	76.6	74.9	59.69	-3,671.6	1,087.5	332.9	209.0	123.90	2.687	
10,700.0	7,562.0	10,489.6	7,394.0	78.3	76.7	59.69	-3,771.6	1,087.8	332.9	205.7	127.18	2.617	
10,800.0	7,562.0	10,589.6	7,394.0	80.1	78.5	59.68	-3,871.6	1,088.2	332.8	202.4	130.45	2.551	
10,900.0	7,562.0	10,689.6	7,394.0	81.8	80.3	59.68	-3,971.6	1,088.5	332.8	199.1	133.74	2.488	
11,000.0	7,562.0	10,789.6	7,394.0	83.6	82.1	59.68	-4,071.6	1,088.9	332.8	195.7	137.02	2.428	
11,100.0	7,562.0	10,889.6	7,394.0	85.4	83.9	59.67	-4,171.6	1,089.2	332.7	192.4	140.31	2.371	
11,200.0	7,562.0	10,989.6	7,394.0	87.2	85.7	59.67	-4,271.6	1,089.6	332.7	189.1	143.61	2.316	
11,300.0	7,562.0	11,089.6	7,394.0	89.0	87.5	59.66	-4,371.6	1,089.9	332.6	185.7	146.91	2.264	
11,400.0	7,562.0	11,189.6	7,394.0	90.8	89.4	59.66	-4,471.6	1,090.3	332.6	182.4	150.21	2.214	
11,500.0	7,562.0	11,289.6	7,394.0	92.6	91.2	59.66	-4,571.6	1,090.6	332.5	179.0	153.52	2.166	
11,600.0	7,562.0	11,389.6	7,394.0	94.4	93.0	59.65	-4,671.6	1,091.0	332.5	175.7	156.83	2.120	
11,700.0	7,562.0	11,489.6	7,394.0	96.2	94.9	59.65	-4,771.5	1,091.3	332.5	172.3	160.14	2.076	
11,800.0	7,562.0	11,589.6	7,394.0	98.0	96.7	59.64	-4,871.5	1,091.7	332.4	169.0	163.45	2.034	
11,900.0	7,562.0	11,689.6	7,394.0	99.8	98.5	59.64	-4,971.5	1,092.0	332.4	165.6	166.77	1.993	
12,000.0	7,562.0	11,789.6	7,394.0	101.6	100.4	59.63	-5,071.5	1,092.4	332.3	162.2	170.09	1.954	
12,100.0	7,562.0	11,889.6	7,394.0	103.4	102.2	59.63	-5,171.5	1,092.7	332.3	158.9	173.41	1.916	
12,200.0	7,562.0	11,989.6	7,394.0	105.3	104.1	59.63	-5,271.5	1,093.1	332.3	155.5	176.73	1.880	
12,300.0	7,562.0	12,089.6	7,394.0	107.1	105.9	59.62	-5,371.5	1,093.4	332.2	152.2	180.06	1.845	
12,400.0	7,562.0	12,189.6	7,394.0	108.9	107.8	59.62	-5,471.5	1,093.8	332.2	148.8	183.38	1.811	
12,500.0	7,562.0	12,289.6	7,394.0	110.8	109.6	59.61	-5,571.5	1,094.1	332.1	145.4	186.71	1.779	
12,600.0	7,562.0	12,389.6	7,394.0	112.6	111.5	59.61	-5,671.5	1,094.5	332.1	142.0	190.04	1.747	
12,700.0	7,562.0	12,489.6	7,394.0	114.4	113.4	59.61	-5,771.5	1,094.8	332.0	138.7	193.37	1.717	
12,800.0	7,562.0	12,589.6	7,394.0	116.3	115.2	59.60	-5,871.5	1,095.2	332.0	135.3	196.70	1.688	
12,900.0	7,562.0	12,689.6	7,394.0	118.1	117.1	59.60	-5,971.5	1,095.5	332.0	131.9	200.04	1.659	
13,000.0	7,562.0	12,789.6	7,394.0	120.0	118.9	59.59	-6,071.5	1,095.9	331.9	128.5	203.37	1.632	
13,100.0	7,562.0	12,889.6	7,394.0	121.8	120.8	59.59	-6,171.5	1,096.2	331.9	125.2	206.71	1.606	
13,200.0	7,562.0	12,989.6	7,394.0	123.7	122.7	59.58	-6,271.5	1,096.6	331.8	121.8	210.05	1.580	
13,300.0	7,562.0	13,089.6	7,394.0	125.5	124.5	59.58	-6,371.5	1,096.9	331.8	118.4	213.38	1.555	
13,400.0	7,562.0	13,189.6	7,394.0	127.4	126.4	59.58	-6,471.5	1,097.3	331.8	115.0	216.72	1.531	
13,500.0	7,562.0	13,289.6	7,394.0	129.3	128.3	59.57	-6,571.5	1,097.6	331.7	111.6	220.06	1.507	
13,600.0	7,562.0	13,389.6	7,394.0	131.1	130.2	59.57	-6,671.5	1,098.0	331.7	108.3	223.40	1.485	Level 3
13,700.0	7,562.0	13,489.6	7,394.0	133.0	132.0	59.56	-6,771.5	1,098.3	331.6	104.9	226.75	1.463	Level 3
13,772.6	7,562.0	13,562.2	7,394.0	134.3	133.4	59.56	-6,844.2	1,098.6	331.6	102.4	229.17	1.447	Level 3
13,799.8	7,562.0	13,588.4	7,394.0	134.8	133.9	59.56	-6,870.3	1,098.7	331.6	101.5	230.06	1.441	Level 3, SF

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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	-89.97	0.1	-106.5	106.5				
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-106.5	106.5	106.2	0.22	473.711	
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-106.5	106.5	105.8	0.67	157.904	
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-106.5	106.5	105.4	1.12	94.742	
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-106.5	106.5	104.9	1.57	67.673	
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.1	-106.5	106.5	104.5	2.02	52.635	
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.1	-106.5	106.5	104.0	2.47	43.065	CC, ES
700.0	700.0	700.0	700.0	1.4	1.5	158.77	0.1	-106.5	107.7	104.8	2.91	37.061	
800.0	799.9	799.9	799.9	1.6	1.7	159.49	0.1	-106.5	111.4	108.0	3.33	33.435	
900.0	899.7	899.7	899.7	1.9	1.9	160.57	0.1	-106.5	117.5	113.7	3.76	31.218	
1,000.0	999.3	999.3	999.3	2.1	2.1	161.91	0.1	-106.5	126.2	122.0	4.20	30.017	
1,100.0	1,098.6	1,098.6	1,098.6	2.3	2.4	163.39	0.1	-106.5	137.4	132.8	4.65	29.568	SF
1,200.0	1,197.5	1,197.5	1,197.5	2.6	2.6	164.89	0.1	-106.5	151.2	146.1	5.09	29.689	
1,300.0	1,296.1	1,294.5	1,294.5	3.0	2.8	165.94	-1.0	-107.1	168.1	162.6	5.52	30.478	
1,400.0	1,394.2	1,390.7	1,390.6	3.3	2.9	166.25	-4.0	-108.9	188.5	182.5	5.92	31.814	
1,443.4	1,436.5	1,432.1	1,431.9	3.5	3.0	166.21	-6.0	-110.0	198.3	192.2	6.10	32.491	
1,500.0	1,491.8	1,486.0	1,485.7	3.7	3.1	166.06	-9.2	-111.9	211.8	205.5	6.35	33.377	
1,600.0	1,589.4	1,580.7	1,580.1	4.2	3.3	165.40	-16.3	-116.1	236.4	229.6	6.79	34.809	
1,700.0	1,686.9	1,674.9	1,673.6	4.6	3.5	164.38	-25.4	-121.4	261.9	254.7	7.26	36.087	
1,800.0	1,784.5	1,768.2	1,766.1	5.0	3.7	163.12	-36.3	-127.8	288.6	280.8	7.75	37.221	
1,900.0	1,882.1	1,860.8	1,857.5	5.5	4.0	161.69	-49.1	-135.3	316.4	308.1	8.28	38.226	
2,000.0	1,979.7	1,952.4	1,947.5	5.9	4.3	160.16	-63.6	-143.9	345.4	336.6	8.83	39.119	
2,100.0	2,077.2	2,042.9	2,036.1	6.4	4.6	158.57	-79.8	-153.4	375.8	366.4	9.41	39.920	
2,200.0	2,174.8	2,132.4	2,123.2	6.9	4.9	156.96	-97.6	-163.8	407.6	397.5	10.03	40.633	
2,300.0	2,272.4	2,220.7	2,208.6	7.3	5.2	155.35	-116.8	-175.1	440.8	430.1	10.67	41.299	
2,400.0	2,369.9	2,307.7	2,292.3	7.8	5.6	153.76	-137.5	-187.3	475.6	464.2	11.34	41.925	
2,500.0	2,467.5	2,393.5	2,374.1	8.3	6.0	152.20	-159.4	-200.1	511.9	499.9	12.04	42.519	
2,600.0	2,565.1	2,477.8	2,454.1	8.7	6.5	150.69	-182.5	-213.7	549.9	537.1	12.76	43.091	
2,700.0	2,662.7	2,560.7	2,532.1	9.2	7.0	149.23	-206.7	-227.9	589.4	575.9	13.50	43.665	
2,800.0	2,760.2	2,642.2	2,608.2	9.7	7.5	147.83	-231.9	-242.7	630.5	616.3	14.25	44.246	
2,900.0	2,857.8	2,723.7	2,683.6	10.2	8.0	146.46	-258.5	-258.3	673.3	658.3	15.02	44.831	
3,000.0	2,955.4	2,812.4	2,765.5	10.6	8.6	145.09	-288.0	-275.6	716.8	701.0	15.84	45.268	
3,100.0	3,052.9	2,901.2	2,847.4	11.1	9.2	143.88	-317.4	-292.9	760.7	744.0	16.65	45.683	
3,200.0	3,150.5	2,989.9	2,929.3	11.6	9.9	142.80	-346.9	-310.3	804.8	787.3	17.47	46.068	
3,300.0	3,248.1	3,078.7	3,011.3	12.1	10.5	141.83	-376.3	-327.6	849.1	830.8	18.29	46.430	
3,400.0	3,345.7	3,167.4	3,093.2	12.5	11.1	140.95	-405.8	-344.9	893.6	874.5	19.11	46.770	
3,500.0	3,443.2	3,256.2	3,175.1	13.0	11.8	140.15	-435.3	-362.2	938.2	918.3	19.92	47.090	
3,600.0	3,540.8	3,344.9	3,257.0	13.5	12.4	139.43	-464.7	-379.5	983.0	962.2	20.74	47.393	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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 3-10-2NCH - 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	-89.96	0.0	-61.6	61.6				
100.0	100.0	100.0	100.0	0.1	0.1	-89.96	0.0	-61.6	61.6	61.4	0.22	274.254	
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.0	-61.6	61.6	61.0	0.67	91.418	
300.0	300.0	300.0	300.0	0.6	0.6	-89.96	0.0	-61.6	61.6	60.5	1.12	54.851	
400.0	400.0	400.0	400.0	0.8	0.8	-89.96	0.0	-61.6	61.6	60.1	1.57	39.179	
500.0	500.0	500.0	500.0	1.0	1.0	-89.96	0.0	-61.6	61.6	59.6	2.02	30.473	
600.0	600.0	600.0	600.0	1.2	1.2	-89.96	0.0	-61.6	61.6	59.2	2.47	24.932	CC, ES
700.0	700.0	700.0	700.0	1.4	1.5	158.97	0.0	-61.6	62.9	60.0	2.91	21.633	
800.0	799.9	799.9	799.9	1.6	1.7	160.16	0.0	-61.6	66.5	63.2	3.33	19.978	
900.0	899.7	899.7	899.7	1.9	1.9	161.88	0.0	-61.6	72.7	69.0	3.76	19.322	SF
1,000.0	999.3	999.3	999.3	2.1	2.1	163.84	0.0	-61.6	81.5	77.3	4.20	19.385	
1,100.0	1,098.6	1,098.6	1,098.6	2.3	2.4	165.82	0.0	-61.6	92.8	88.2	4.65	19.982	
1,200.0	1,197.5	1,197.5	1,197.5	2.6	2.6	167.66	0.0	-61.6	106.8	101.7	5.09	20.983	
1,300.0	1,296.1	1,298.0	1,298.0	3.0	2.8	168.85	-1.1	-61.1	122.7	117.1	5.51	22.251	
1,400.0	1,394.2	1,398.7	1,398.6	3.3	3.0	169.10	-4.6	-59.3	139.5	133.6	5.92	23.576	
1,443.4	1,436.5	1,442.4	1,442.2	3.5	3.0	168.99	-6.8	-58.2	147.1	141.0	6.10	24.121	
1,500.0	1,491.8	1,499.6	1,499.3	3.7	3.1	168.68	-10.4	-56.3	156.9	150.5	6.34	24.742	
1,600.0	1,589.4	1,600.0	1,599.2	4.2	3.3	167.72	-18.5	-52.2	173.0	166.2	6.79	25.487	
1,700.0	1,686.9	1,698.7	1,697.5	4.6	3.6	166.78	-26.9	-47.9	188.8	181.6	7.26	26.020	
1,800.0	1,784.5	1,797.3	1,795.7	5.0	3.8	165.99	-35.4	-43.6	204.7	196.9	7.74	26.441	
1,900.0	1,882.1	1,896.0	1,894.0	5.5	4.0	165.32	-43.8	-39.3	220.6	212.3	8.24	26.773	
2,000.0	1,979.7	1,994.7	1,992.2	5.9	4.3	164.73	-52.3	-35.0	236.5	227.8	8.75	27.036	
2,100.0	2,077.2	2,093.4	2,090.4	6.4	4.5	164.22	-60.7	-30.7	252.5	243.2	9.27	27.243	
2,200.0	2,174.8	2,192.1	2,188.7	6.9	4.7	163.77	-69.2	-26.4	268.4	258.6	9.79	27.407	
2,300.0	2,272.4	2,290.8	2,286.9	7.3	5.0	163.37	-77.6	-22.1	284.4	274.1	10.33	27.536	
2,400.0	2,369.9	2,389.5	2,385.2	7.8	5.3	163.01	-86.1	-17.8	300.4	289.5	10.87	27.639	
2,500.0	2,467.5	2,488.2	2,483.4	8.3	5.5	162.69	-94.5	-13.5	316.4	305.0	11.41	27.720	
2,600.0	2,565.1	2,586.9	2,581.6	8.7	5.8	162.40	-103.0	-9.2	332.4	320.5	11.96	27.783	
2,700.0	2,662.7	2,685.6	2,679.9	9.2	6.0	162.14	-111.5	-4.9	348.4	335.9	12.52	27.832	
2,800.0	2,760.2	2,784.3	2,778.1	9.7	6.3	161.90	-119.9	-0.6	364.5	351.4	13.08	27.870	
2,900.0	2,857.8	2,883.0	2,876.4	10.2	6.6	161.68	-128.4	3.7	380.5	366.9	13.64	27.898	
3,000.0	2,955.4	2,981.7	2,974.6	10.6	6.9	161.47	-136.8	8.0	396.5	382.3	14.20	27.920	
3,100.0	3,052.9	3,080.4	3,072.8	11.1	7.1	161.29	-145.3	12.3	412.6	397.8	14.77	27.935	
3,200.0	3,150.5	3,179.1	3,171.1	11.6	7.4	161.12	-153.7	16.6	428.6	413.3	15.34	27.945	
3,300.0	3,248.1	3,277.8	3,269.3	12.1	7.7	160.96	-162.2	20.9	444.7	428.8	15.91	27.951	
3,400.0	3,345.7	3,376.5	3,367.6	12.5	8.0	160.81	-170.6	25.2	460.7	444.2	16.48	27.954	
3,500.0	3,443.2	3,475.2	3,465.8	13.0	8.2	160.67	-179.1	29.5	476.8	459.7	17.06	27.954	
3,600.0	3,540.8	3,573.9	3,564.0	13.5	8.5	160.54	-187.5	33.8	492.8	475.2	17.63	27.952	
3,700.0	3,638.4	3,672.6	3,662.3	14.0	8.8	160.42	-196.0	38.1	508.9	490.7	18.21	27.948	
3,800.0	3,736.0	3,771.3	3,760.5	14.5	9.1	160.30	-204.4	42.4	524.9	506.2	18.79	27.943	
3,900.0	3,833.5	3,870.0	3,858.8	14.9	9.3	160.19	-212.9	46.7	541.0	521.6	19.37	27.936	
4,000.0	3,931.1	3,968.7	3,957.0	15.4	9.6	160.09	-221.3	51.0	557.1	537.1	19.95	27.929	
4,100.0	4,028.7	4,067.4	4,055.2	15.9	9.9	160.00	-229.8	55.3	573.1	552.6	20.53	27.920	
4,200.0	4,126.2	4,166.1	4,153.5	16.4	10.2	159.91	-238.2	59.6	589.2	568.1	21.11	27.911	
4,300.0	4,223.8	4,264.8	4,251.7	16.9	10.5	159.82	-246.7	63.9	605.3	583.6	21.69	27.902	
4,400.0	4,321.4	4,363.5	4,350.0	17.3	10.8	159.74	-255.1	68.2	621.4	599.1	22.28	27.892	
4,500.0	4,419.0	4,462.2	4,448.2	17.8	11.0	159.66	-263.6	72.5	637.4	614.6	22.86	27.882	
4,600.0	4,516.5	4,560.9	4,546.4	18.3	11.3	159.59	-272.0	76.8	653.5	630.0	23.45	27.872	
4,700.0	4,614.1	4,659.5	4,644.7	18.8	11.6	159.52	-280.5	81.1	669.6	645.5	24.03	27.861	
4,800.0	4,711.7	4,758.2	4,742.9	19.3	11.9	159.45	-288.9	85.4	685.6	661.0	24.62	27.851	
4,900.0	4,809.3	4,856.9	4,841.2	19.7	12.2	159.39	-297.4	89.7	701.7	676.5	25.21	27.840	
5,000.0	4,906.8	4,955.6	4,939.4	20.2	12.5	159.33	-305.9	94.0	717.8	692.0	25.79	27.830	

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 3-10-4NBH
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 3-10-4NBH	**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 3-10-2NCH - 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	5,004.4	5,054.3	5,037.6	20.7	12.7	159.27	-314.3	98.3	733.9	707.5	26.38	27.819	
5,200.0	5,102.0	5,153.0	5,135.9	21.2	13.0	159.21	-322.8	102.6	750.0	723.0	26.97	27.809	
5,300.0	5,199.5	5,251.7	5,234.1	21.7	13.3	159.16	-331.2	106.9	766.0	738.5	27.56	27.798	
5,400.0	5,297.1	5,350.4	5,332.4	22.2	13.6	159.11	-339.7	111.2	782.1	754.0	28.15	27.788	
5,500.0	5,394.7	5,449.1	5,430.6	22.6	13.9	159.06	-348.1	115.5	798.2	769.5	28.74	27.778	
5,600.0	5,492.3	5,547.8	5,528.8	23.1	14.2	159.01	-356.6	119.8	814.3	784.9	29.32	27.767	
5,700.0	5,589.8	5,646.5	5,627.1	23.6	14.4	158.97	-365.0	124.1	830.4	800.4	29.91	27.757	
5,800.0	5,687.4	5,745.2	5,725.3	24.1	14.7	158.93	-373.5	128.4	846.4	815.9	30.50	27.747	
5,900.0	5,785.0	5,843.9	5,823.5	24.6	15.0	158.88	-381.9	132.7	862.5	831.4	31.10	27.738	
6,000.0	5,882.6	5,942.6	5,921.8	25.1	15.3	158.84	-390.4	137.0	878.6	846.9	31.69	27.728	
6,100.0	5,980.1	6,041.3	6,020.0	25.5	15.6	158.80	-398.8	141.3	894.7	862.4	32.28	27.719	
6,200.0	6,077.7	6,140.0	6,118.3	26.0	15.9	158.77	-407.3	145.6	910.8	877.9	32.87	27.709	
6,300.0	6,175.3	6,238.7	6,216.5	26.5	16.2	158.73	-415.7	149.9	926.8	893.4	33.46	27.700	
6,400.0	6,272.8	6,337.4	6,314.7	27.0	16.5	158.70	-424.2	154.2	942.9	908.9	34.05	27.691	
6,500.0	6,370.4	6,436.1	6,413.0	27.5	16.7	158.66	-432.6	158.6	959.0	924.4	34.64	27.682	
6,600.0	6,468.0	6,534.8	6,511.2	27.9	17.0	158.63	-441.1	162.9	975.1	939.9	35.24	27.674	
6,700.0	6,565.6	6,633.5	6,609.5	28.4	17.3	158.60	-449.5	167.2	991.2	955.4	35.83	27.665	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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	-89.97	0.1	-89.7	89.7				
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-89.7	89.7	89.4	0.22	398.915	
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-89.7	89.7	89.0	0.67	132.972	
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-89.7	89.7	88.5	1.12	79.783	
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-89.7	89.7	88.1	1.57	56.988	
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.1	-89.7	89.7	87.6	2.02	44.324	
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.1	-89.7	89.7	87.2	2.47	36.265	CC, ES
700.0	700.0	700.0	700.0	1.4	1.5	158.82	0.1	-89.7	90.9	88.0	2.91	31.276	
800.0	799.9	799.9	799.9	1.6	1.7	159.66	0.1	-89.7	94.6	91.2	3.33	28.388	
900.0	899.7	899.7	899.7	1.9	1.9	160.93	0.1	-89.7	100.7	96.9	3.76	26.756	
1,000.0	999.3	999.3	999.3	2.1	2.1	162.45	0.1	-89.7	109.4	105.2	4.20	26.027	
1,100.0	1,098.6	1,098.6	1,098.6	2.3	2.4	164.09	0.1	-89.7	120.7	116.0	4.65	25.968	SF
1,200.0	1,197.5	1,197.5	1,197.5	2.6	2.6	165.71	0.1	-89.7	134.5	129.4	5.09	26.418	
1,300.0	1,296.1	1,296.1	1,296.1	3.0	2.8	167.24	0.1	-89.7	151.0	145.5	5.54	27.261	
1,400.0	1,394.2	1,394.2	1,394.2	3.3	3.0	168.63	0.1	-89.7	170.1	164.1	5.99	28.412	
1,443.4	1,436.5	1,436.1	1,436.1	3.5	3.1	169.13	-0.1	-89.7	179.2	173.1	6.17	29.045	
1,500.0	1,491.8	1,490.8	1,490.8	3.7	3.2	169.55	-0.9	-90.1	191.6	185.2	6.41	29.879	
1,600.0	1,589.4	1,587.1	1,587.0	4.2	3.4	169.67	-4.1	-91.6	214.0	207.2	6.83	31.328	
1,700.0	1,686.9	1,683.1	1,682.9	4.6	3.6	169.17	-9.5	-94.0	236.9	229.7	7.26	32.629	
1,800.0	1,784.5	1,778.7	1,778.1	5.0	3.7	168.24	-17.0	-97.4	260.4	252.7	7.71	33.780	
1,900.0	1,882.1	1,873.8	1,872.6	5.5	3.9	166.99	-26.7	-101.8	284.7	276.5	8.18	34.790	
2,000.0	1,979.7	1,968.3	1,966.2	5.9	4.2	165.50	-38.4	-107.1	309.7	301.0	8.68	35.669	
2,100.0	2,077.2	2,062.0	2,058.7	6.4	4.4	163.86	-52.1	-113.3	335.6	326.4	9.21	36.429	
2,200.0	2,174.8	2,154.8	2,149.9	6.9	4.7	162.11	-67.7	-120.3	362.6	352.8	9.78	37.083	
2,300.0	2,272.4	2,246.8	2,239.8	7.3	5.0	160.30	-85.1	-128.2	390.8	380.4	10.38	37.648	
2,400.0	2,369.9	2,337.6	2,328.2	7.8	5.3	158.45	-104.3	-136.9	420.2	409.2	11.02	38.142	
2,500.0	2,467.5	2,427.4	2,415.0	8.3	5.6	156.60	-125.1	-146.3	451.0	439.3	11.69	38.585	
2,600.0	2,565.1	2,515.9	2,500.1	8.7	6.0	154.77	-147.4	-156.4	483.2	470.8	12.39	38.995	
2,700.0	2,662.7	2,603.2	2,583.4	9.2	6.4	152.97	-171.2	-167.2	516.9	503.8	13.12	39.387	
2,800.0	2,760.2	2,689.2	2,664.8	9.7	6.9	151.21	-196.3	-178.5	552.1	538.3	13.89	39.765	
2,900.0	2,857.8	2,773.8	2,744.3	10.2	7.3	149.50	-222.6	-190.4	589.0	574.3	14.67	40.145	
3,000.0	2,955.4	2,861.6	2,826.3	10.6	7.9	147.80	-251.3	-203.4	627.3	611.8	15.49	40.488	
3,100.0	3,052.9	2,952.2	2,910.9	11.1	8.4	146.22	-281.0	-216.9	666.1	649.8	16.34	40.773	
3,200.0	3,150.5	3,042.8	2,995.4	11.6	9.0	144.82	-310.7	-230.3	705.3	688.1	17.18	41.049	
3,300.0	3,248.1	3,133.5	3,080.0	12.1	9.6	143.55	-340.5	-243.8	744.9	726.8	18.03	41.316	
3,400.0	3,345.7	3,224.1	3,164.5	12.5	10.2	142.42	-370.2	-257.3	784.7	765.8	18.88	41.572	
3,500.0	3,443.2	3,314.7	3,249.1	13.0	10.8	141.39	-400.0	-270.7	824.8	805.1	19.72	41.818	
3,600.0	3,540.8	3,405.4	3,333.6	13.5	11.4	140.45	-429.7	-284.2	865.1	844.5	20.57	42.055	
3,700.0	3,638.4	3,496.0	3,418.2	14.0	12.0	139.60	-459.4	-297.6	905.5	884.1	21.42	42.282	
3,800.0	3,736.0	3,586.6	3,502.7	14.5	12.6	138.81	-489.2	-311.1	946.2	923.9	22.26	42.500	
3,900.0	3,833.5	3,677.3	3,587.3	14.9	13.2	138.10	-518.9	-324.5	986.9	963.8	23.11	42.709	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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	-89.96	0.0	-44.8	44.8				
100.0	100.0	100.0	100.0	0.1	0.1	-89.96	0.0	-44.8	44.8	44.6	0.22	199.457	
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.0	-44.8	44.8	44.2	0.67	66.486	
300.0	300.0	300.0	300.0	0.6	0.6	-89.96	0.0	-44.8	44.8	43.7	1.12	39.891	
400.0	400.0	400.0	400.0	0.8	0.8	-89.96	0.0	-44.8	44.8	43.3	1.57	28.494	
500.0	500.0	500.0	500.0	1.0	1.0	-89.96	0.0	-44.8	44.8	42.8	2.02	22.162	
600.0	600.0	600.0	600.0	1.2	1.2	-89.96	0.0	-44.8	44.8	42.4	2.47	18.132	CC, ES
700.0	700.0	700.0	700.0	1.4	1.5	159.12	0.0	-44.8	46.1	43.1	2.91	15.848	
800.0	799.9	799.9	799.9	1.6	1.7	160.72	0.0	-44.8	49.7	46.4	3.33	14.933	
900.0	899.7	899.7	899.7	1.9	1.9	162.90	0.0	-44.8	56.0	52.2	3.76	14.865	
1,000.0	999.3	999.3	999.3	2.1	2.1	165.25	0.0	-44.8	64.8	60.6	4.20	15.408	
1,100.0	1,098.6	1,100.2	1,100.2	2.3	2.3	166.91	-0.9	-43.9	75.1	70.5	4.62	16.257	
1,200.0	1,197.5	1,201.3	1,201.2	2.6	2.5	167.49	-3.7	-41.1	86.0	80.9	5.03	17.107	
1,300.0	1,296.1	1,302.6	1,302.3	3.0	2.7	167.35	-8.4	-36.3	97.2	91.8	5.44	17.856	
1,400.0	1,394.2	1,404.2	1,403.4	3.3	2.9	166.70	-15.0	-29.7	108.9	103.0	5.88	18.511	
1,443.4	1,436.5	1,448.2	1,447.2	3.5	3.0	166.30	-18.5	-26.2	114.0	108.0	6.08	18.767	
1,500.0	1,491.8	1,504.8	1,503.3	3.7	3.2	165.76	-23.3	-21.4	120.7	114.4	6.34	19.039	
1,600.0	1,589.4	1,604.1	1,601.9	4.2	3.4	164.93	-31.7	-12.9	132.5	125.7	6.83	19.417	
1,700.0	1,686.9	1,703.3	1,700.5	4.6	3.7	164.24	-40.1	-4.4	144.4	137.1	7.33	19.704	
1,800.0	1,784.5	1,802.6	1,799.0	5.0	4.0	163.65	-48.5	4.0	156.2	148.4	7.84	19.924	
1,900.0	1,882.1	1,901.9	1,897.6	5.5	4.2	163.14	-56.9	12.5	168.1	159.7	8.37	20.090	
2,000.0	1,979.7	2,001.2	1,996.1	5.9	4.5	162.70	-65.4	21.0	180.0	171.1	8.90	20.217	
2,100.0	2,077.2	2,100.5	2,094.7	6.4	4.8	162.32	-73.8	29.4	191.9	182.4	9.45	20.313	
2,200.0	2,174.8	2,199.8	2,193.3	6.9	5.1	161.98	-82.2	37.9	203.8	193.8	10.00	20.386	
2,300.0	2,272.4	2,299.0	2,291.8	7.3	5.4	161.68	-90.6	46.4	215.7	205.1	10.55	20.440	
2,400.0	2,369.9	2,398.3	2,390.4	7.8	5.7	161.41	-99.0	54.8	227.6	216.5	11.11	20.481	
2,500.0	2,467.5	2,497.6	2,489.0	8.3	6.0	161.16	-107.5	63.3	239.5	227.8	11.68	20.510	
2,600.0	2,565.1	2,596.9	2,587.5	8.7	6.3	160.94	-115.9	71.8	251.4	239.2	12.25	20.530	
2,700.0	2,662.7	2,696.2	2,686.1	9.2	6.6	160.74	-124.3	80.3	263.3	250.5	12.82	20.544	
2,800.0	2,760.2	2,795.5	2,784.6	9.7	6.9	160.56	-132.7	88.7	275.2	261.9	13.39	20.552	
2,900.0	2,857.8	2,894.7	2,883.2	10.2	7.2	160.39	-141.1	97.2	287.2	273.2	13.97	20.556	
3,000.0	2,955.4	2,994.0	2,981.8	10.6	7.5	160.24	-149.5	105.7	299.1	284.5	14.55	20.556	
3,100.0	3,052.9	3,093.3	3,080.3	11.1	7.8	160.10	-158.0	114.1	311.0	295.9	15.13	20.554	
3,200.0	3,150.5	3,192.6	3,178.9	11.6	8.1	159.96	-166.4	122.6	323.0	307.2	15.72	20.550	
3,300.0	3,248.1	3,291.9	3,277.5	12.1	8.4	159.84	-174.8	131.1	334.9	318.6	16.30	20.544	
3,400.0	3,345.7	3,391.2	3,376.0	12.5	8.8	159.73	-183.2	139.5	346.8	329.9	16.89	20.537	
3,500.0	3,443.2	3,490.4	3,474.6	13.0	9.1	159.62	-191.6	148.0	358.8	341.3	17.48	20.529	
3,600.0	3,540.8	3,589.7	3,573.1	13.5	9.4	159.52	-200.1	156.5	370.7	352.6	18.07	20.520	
3,700.0	3,638.4	3,689.0	3,671.7	14.0	9.7	159.43	-208.5	165.0	382.6	364.0	18.66	20.510	
3,800.0	3,736.0	3,788.3	3,770.3	14.5	10.0	159.34	-216.9	173.4	394.6	375.3	19.25	20.500	
3,900.0	3,833.5	3,887.6	3,868.8	14.9	10.3	159.26	-225.3	181.9	406.5	386.7	19.84	20.490	
4,000.0	3,931.1	3,986.9	3,967.4	15.4	10.6	159.18	-233.7	190.4	418.4	398.0	20.43	20.480	
4,100.0	4,028.7	4,086.1	4,066.0	15.9	11.0	159.10	-242.2	198.8	430.4	409.4	21.03	20.469	
4,200.0	4,126.2	4,185.4	4,164.5	16.4	11.3	159.03	-250.6	207.3	442.3	420.7	21.62	20.459	
4,300.0	4,223.8	4,284.7	4,263.1	16.9	11.6	158.97	-259.0	215.8	454.3	432.1	22.22	20.448	
4,400.0	4,321.4	4,384.0	4,361.6	17.3	11.9	158.91	-267.4	224.3	466.2	443.4	22.81	20.437	
4,500.0	4,419.0	4,483.3	4,460.2	17.8	12.2	158.85	-275.8	232.7	478.2	454.7	23.41	20.427	
4,600.0	4,516.5	4,582.5	4,558.8	18.3	12.5	158.79	-284.2	241.2	490.1	466.1	24.00	20.417	
4,700.0	4,614.1	4,681.8	4,657.3	18.8	12.9	158.73	-292.7	249.7	502.0	477.4	24.60	20.406	
4,800.0	4,711.7	4,781.1	4,755.9	19.3	13.2	158.68	-301.1	258.1	514.0	488.8	25.20	20.396	
4,900.0	4,809.3	4,880.4	4,854.5	19.7	13.5	158.63	-309.5	266.6	525.9	500.1	25.80	20.386	
5,000.0	4,906.8	4,979.7	4,953.0	20.2	13.8	158.59	-317.9	275.1	537.9	511.5	26.40	20.376	

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 3-10-4NBH
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 3-10-4NBH	**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	5,004.4	5,079.0	5,051.6	20.7	14.1	158.54	-326.3	283.5	549.8	522.8	27.00	20.367	
5,200.0	5,102.0	5,178.2	5,150.1	21.2	14.5	158.50	-334.8	292.0	561.8	534.2	27.60	20.357	
5,300.0	5,199.5	5,277.5	5,248.7	21.7	14.8	158.46	-343.2	300.5	573.7	545.5	28.19	20.348	
5,400.0	5,297.1	5,376.8	5,347.3	22.2	15.1	158.42	-351.6	309.0	585.7	556.9	28.79	20.339	
5,500.0	5,394.7	5,476.1	5,445.8	22.6	15.4	158.38	-360.0	317.4	597.6	568.2	29.39	20.330	
5,600.0	5,492.3	5,575.4	5,544.4	23.1	15.7	158.34	-368.4	325.9	609.5	579.6	30.00	20.321	
5,700.0	5,589.8	5,674.7	5,643.0	23.6	16.1	158.31	-376.8	334.4	621.5	590.9	30.60	20.313	
5,800.0	5,687.4	5,773.9	5,741.5	24.1	16.4	158.28	-385.3	342.8	633.4	602.2	31.20	20.305	
5,900.0	5,785.0	5,873.2	5,840.1	24.6	16.7	158.24	-393.7	351.3	645.4	613.6	31.80	20.296	
6,000.0	5,882.6	5,972.5	5,938.6	25.1	17.0	158.21	-402.1	359.8	657.3	624.9	32.40	20.288	
6,100.0	5,980.1	6,071.8	6,037.2	25.5	17.3	158.18	-410.5	368.2	669.3	636.3	33.00	20.280	
6,200.0	6,077.7	6,171.1	6,135.8	26.0	17.6	158.15	-418.9	376.7	681.2	647.6	33.60	20.273	
6,300.0	6,175.3	6,270.4	6,234.3	26.5	18.0	158.12	-427.4	385.2	693.2	659.0	34.21	20.265	
6,400.0	6,272.8	6,369.6	6,332.9	27.0	18.3	158.10	-435.8	393.7	705.1	670.3	34.81	20.258	
6,500.0	6,370.4	6,468.9	6,431.4	27.5	18.6	158.07	-444.2	402.1	717.1	681.7	35.41	20.251	
6,600.0	6,468.0	6,568.2	6,530.0	27.9	18.9	158.05	-452.6	410.6	729.0	693.0	36.01	20.244	
6,700.0	6,565.6	6,667.5	6,628.6	28.4	19.2	158.02	-461.0	419.1	741.0	704.4	36.62	20.237	
6,800.0	6,663.1	6,766.8	6,727.1	28.9	19.6	158.00	-469.5	427.5	752.9	715.7	37.22	20.230	
6,900.0	6,760.7	6,866.1	6,825.7	29.4	19.9	157.97	-477.9	436.0	764.9	727.1	37.82	20.224	
7,000.0	6,858.3	6,965.3	6,924.2	29.9	20.2	157.94	-486.4	444.5	776.8	738.4	38.43	20.214	
7,060.8	6,917.6	7,025.0	6,983.1	30.2	20.4	157.65	-495.2	449.5	784.1	745.2	38.90	20.159	
7,100.0	6,955.7	7,063.2	7,020.2	30.4	20.6	145.20	-503.4	452.8	788.8	749.5	39.35	20.045	
7,150.0	7,004.0	7,111.6	7,066.6	30.6	20.8	132.95	-516.6	456.8	794.8	754.8	39.99	19.877	
7,200.0	7,051.5	7,159.7	7,111.7	30.9	21.1	124.00	-532.9	460.7	800.8	760.1	40.68	19.685	
7,250.0	7,098.1	7,207.5	7,155.3	31.1	21.4	117.36	-551.9	464.5	806.6	765.2	41.43	19.471	
7,300.0	7,143.5	7,255.0	7,197.3	31.4	21.7	112.30	-573.8	468.2	812.3	770.1	42.22	19.239	
7,350.0	7,187.6	7,302.2	7,237.6	31.8	22.0	108.32	-598.2	471.7	817.9	774.9	43.06	18.993	
7,400.0	7,230.1	7,350.0	7,276.6	32.1	22.4	105.11	-625.6	475.1	823.3	779.4	43.95	18.733	
7,450.0	7,270.8	7,396.1	7,312.4	32.4	22.7	102.48	-654.3	478.3	828.5	783.6	44.86	18.469	
7,500.0	7,309.4	7,442.6	7,346.7	32.8	23.1	100.27	-685.8	481.3	833.4	787.6	45.80	18.198	
7,550.0	7,345.9	7,489.1	7,378.7	33.2	23.6	98.41	-719.2	484.2	838.1	791.3	46.76	17.924	
7,600.0	7,380.1	7,535.3	7,408.4	33.6	24.0	96.82	-754.5	486.9	842.5	794.7	47.74	17.648	
7,650.0	7,411.7	7,581.4	7,435.7	34.0	24.5	95.46	-791.6	489.3	846.5	797.8	48.73	17.372	
7,700.0	7,440.6	7,627.3	7,460.4	34.4	25.0	94.29	-830.2	491.6	850.2	800.5	49.73	17.098	
7,750.0	7,466.7	7,673.1	7,482.7	34.9	25.6	93.30	-870.2	493.6	853.6	802.8	50.73	16.825	
7,800.0	7,489.8	7,718.8	7,502.2	35.4	26.1	92.45	-911.5	495.5	856.6	804.8	51.74	16.554	
7,850.0	7,509.9	7,764.5	7,519.1	35.8	26.7	91.75	-953.8	497.0	859.1	806.4	52.76	16.285	
7,900.0	7,526.8	7,810.0	7,533.2	36.3	27.3	91.17	-997.1	498.4	861.3	807.5	53.77	16.018	
7,950.0	7,540.5	7,855.5	7,544.6	36.8	27.9	90.72	-1,041.1	499.5	863.1	808.3	54.79	15.754	
8,000.0	7,550.9	7,900.0	7,553.0	37.4	28.5	90.38	-1,084.8	500.4	864.4	808.6	55.79	15.494	
8,050.0	7,557.9	7,946.2	7,558.8	37.9	29.2	90.15	-1,130.7	501.1	865.3	808.5	56.82	15.228	
8,100.0	7,561.5	7,991.6	7,561.6	38.4	29.8	90.02	-1,175.9	501.5	865.8	807.9	57.85	14.967	
8,127.8	7,562.0	8,017.1	7,562.0	38.7	30.2	90.00	-1,201.4	501.6	865.8	807.4	58.42	14.821	
8,200.0	7,562.0	8,089.3	7,562.0	39.5	31.2	90.00	-1,273.6	501.8	865.8	805.2	60.58	14.293	
8,300.0	7,562.0	8,189.3	7,562.0	40.7	32.7	90.00	-1,373.6	502.2	865.8	802.1	63.66	13.601	
8,400.0	7,562.0	8,289.3	7,562.0	41.9	34.3	90.00	-1,473.6	502.5	865.7	798.9	66.81	12.957	
8,500.0	7,562.0	8,389.3	7,562.0	43.2	35.9	90.00	-1,573.6	502.9	865.7	795.6	70.04	12.360	
8,600.0	7,562.0	8,489.3	7,562.0	44.5	37.5	90.00	-1,673.6	503.2	865.6	792.3	73.32	11.806	
8,700.0	7,562.0	8,589.3	7,562.0	45.9	39.1	90.00	-1,773.6	503.6	865.6	788.9	76.66	11.292	
8,800.0	7,562.0	8,689.3	7,562.0	47.3	40.8	90.00	-1,873.6	503.9	865.5	785.5	80.03	10.815	
8,900.0	7,562.0	8,789.3	7,562.0	48.8	42.5	90.00	-1,973.6	504.3	865.5	782.0	83.45	10.371	
9,000.0	7,562.0	8,889.3	7,562.0	50.2	44.2	90.00	-2,073.6	504.6	865.4	778.5	86.90	9.959	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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
9,100.0	7,562.0	8,989.3	7,562.0	51.7	45.9	90.00	-2,173.6	505.0	865.4	775.0	90.39	9.574	
9,200.0	7,562.0	9,089.3	7,562.0	53.3	47.6	90.00	-2,273.6	505.3	865.4	771.5	93.90	9.216	
9,300.0	7,562.0	9,189.3	7,562.0	54.8	49.4	90.00	-2,373.6	505.7	865.3	767.9	97.43	8.881	
9,400.0	7,562.0	9,289.3	7,562.0	56.4	51.1	90.00	-2,473.6	506.0	865.3	764.3	100.98	8.568	
9,500.0	7,562.0	9,389.3	7,562.0	58.0	52.9	90.00	-2,573.6	506.4	865.2	760.7	104.56	8.275	
9,600.0	7,562.0	9,489.3	7,562.0	59.6	54.7	90.00	-2,673.6	506.7	865.2	757.0	108.15	8.000	
9,700.0	7,562.0	9,589.3	7,562.0	61.3	56.5	90.00	-2,773.6	507.1	865.1	753.4	111.76	7.741	
9,800.0	7,562.0	9,689.3	7,562.0	62.9	58.3	90.00	-2,873.6	507.4	865.1	749.7	115.38	7.497	
9,900.0	7,562.0	9,789.3	7,562.0	64.6	60.1	90.00	-2,973.6	507.7	865.0	746.0	119.02	7.268	
10,000.0	7,562.0	9,889.3	7,562.0	66.3	61.9	90.00	-3,073.6	508.1	865.0	742.3	122.67	7.052	
10,100.0	7,562.0	9,989.3	7,562.0	67.9	63.7	90.00	-3,173.6	508.4	864.9	738.6	126.32	6.847	
10,200.0	7,562.0	10,089.3	7,562.0	69.7	65.5	90.00	-3,273.6	508.8	864.9	734.9	129.99	6.653	
10,300.0	7,562.0	10,189.3	7,562.0	71.4	67.4	90.00	-3,373.6	509.1	864.8	731.2	133.67	6.470	
10,400.0	7,562.0	10,289.3	7,562.0	73.1	69.2	90.00	-3,473.6	509.5	864.8	727.4	137.35	6.296	
10,500.0	7,562.0	10,389.3	7,562.0	74.8	71.0	90.00	-3,573.6	509.8	864.8	723.7	141.05	6.131	
10,600.0	7,562.0	10,489.3	7,562.0	76.6	72.9	90.00	-3,673.6	510.2	864.7	720.0	144.75	5.974	
10,700.0	7,562.0	10,589.3	7,562.0	78.3	74.7	90.00	-3,773.6	510.5	864.7	716.2	148.46	5.824	
10,800.0	7,562.0	10,689.3	7,562.0	80.1	76.6	90.00	-3,873.6	510.9	864.6	712.4	152.17	5.682	
10,900.0	7,562.0	10,789.3	7,562.0	81.8	78.4	90.00	-3,973.6	511.2	864.6	708.7	155.89	5.546	
11,000.0	7,562.0	10,889.3	7,562.0	83.6	80.3	90.00	-4,073.6	511.6	864.5	704.9	159.61	5.416	
11,100.0	7,562.0	10,989.3	7,562.0	85.4	82.1	90.00	-4,173.6	511.9	864.5	701.1	163.34	5.292	
11,200.0	7,562.0	11,089.3	7,562.0	87.2	84.0	90.00	-4,273.6	512.3	864.4	697.4	167.08	5.174	
11,300.0	7,562.0	11,189.3	7,562.0	89.0	85.9	90.00	-4,373.6	512.6	864.4	693.6	170.81	5.060	
11,400.0	7,562.0	11,289.3	7,562.0	90.8	87.7	90.00	-4,473.6	513.0	864.3	689.8	174.56	4.952	
11,500.0	7,562.0	11,389.3	7,562.0	92.6	89.6	90.00	-4,573.6	513.3	864.3	686.0	178.30	4.847	
11,600.0	7,562.0	11,489.3	7,562.0	94.4	91.5	90.00	-4,673.6	513.7	864.3	682.2	182.05	4.747	
11,700.0	7,562.0	11,589.3	7,562.0	96.2	93.3	90.00	-4,773.5	514.0	864.2	678.4	185.80	4.651	
11,800.0	7,562.0	11,689.3	7,562.0	98.0	95.2	90.00	-4,873.5	514.4	864.2	674.6	189.56	4.559	
11,900.0	7,562.0	11,789.3	7,562.0	99.8	97.1	90.00	-4,973.5	514.7	864.1	670.8	193.32	4.470	
12,000.0	7,562.0	11,889.3	7,562.0	101.6	99.0	90.00	-5,073.5	515.0	864.1	667.0	197.08	4.384	
12,100.0	7,562.0	11,989.3	7,562.0	103.4	100.8	90.00	-5,173.5	515.4	864.0	663.2	200.85	4.302	
12,200.0	7,562.0	12,089.3	7,562.0	105.3	102.7	90.00	-5,273.5	515.7	864.0	659.4	204.61	4.223	
12,300.0	7,562.0	12,189.3	7,562.0	107.1	104.6	90.00	-5,373.5	516.1	863.9	655.6	208.38	4.146	
12,400.0	7,562.0	12,289.3	7,562.0	108.9	106.5	90.00	-5,473.5	516.4	863.9	651.7	212.15	4.072	
12,500.0	7,562.0	12,389.3	7,562.0	110.8	108.4	90.00	-5,573.5	516.8	863.8	647.9	215.93	4.001	
12,600.0	7,562.0	12,489.3	7,562.0	112.6	110.2	90.00	-5,673.5	517.1	863.8	644.1	219.70	3.932	
12,700.0	7,562.0	12,589.3	7,562.0	114.4	112.1	90.00	-5,773.5	517.5	863.8	640.3	223.48	3.865	
12,800.0	7,562.0	12,689.3	7,562.0	116.3	114.0	90.00	-5,873.5	517.8	863.7	636.4	227.26	3.801	
12,900.0	7,562.0	12,789.3	7,562.0	118.1	115.9	90.00	-5,973.5	518.2	863.7	632.6	231.04	3.738	
13,000.0	7,562.0	12,889.3	7,562.0	120.0	117.8	90.00	-6,073.5	518.5	863.6	628.8	234.82	3.678	
13,100.0	7,562.0	12,989.3	7,562.0	121.8	119.7	90.00	-6,173.5	518.9	863.6	625.0	238.60	3.619	
13,200.0	7,562.0	13,089.3	7,562.0	123.7	121.6	90.00	-6,273.5	519.2	863.5	621.1	242.39	3.563	
13,300.0	7,562.0	13,189.3	7,562.0	125.5	123.5	90.00	-6,373.5	519.6	863.5	617.3	246.18	3.508	
13,400.0	7,562.0	13,289.3	7,562.0	127.4	125.3	90.00	-6,473.5	519.9	863.4	613.5	249.96	3.454	
13,500.0	7,562.0	13,389.3	7,562.0	129.3	127.2	90.00	-6,573.5	520.3	863.4	609.6	253.75	3.402	
13,600.0	7,562.0	13,489.3	7,562.0	131.1	129.1	90.00	-6,673.5	520.6	863.3	605.8	257.54	3.352	
13,700.0	7,562.0	13,589.3	7,562.0	133.0	131.0	90.00	-6,773.5	521.0	863.3	602.0	261.34	3.303	
13,799.8	7,562.0	13,689.0	7,562.0	134.8	132.9	90.00	-6,873.3	521.3	863.2	598.1	265.12	3.256	SF

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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	-89.96	0.0	-75.7	75.7				
100.0	100.0	100.0	100.0	0.1	0.1	-89.96	0.0	-75.7	75.7	75.4	0.22	336.585	
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.0	-75.7	75.7	75.0	0.67	112.195	
300.0	300.0	300.0	300.0	0.6	0.6	-89.96	0.0	-75.7	75.7	74.5	1.12	67.317	
400.0	400.0	400.0	400.0	0.8	0.8	-89.96	0.0	-75.7	75.7	74.1	1.57	48.084	
500.0	500.0	500.0	500.0	1.0	1.0	-89.96	0.0	-75.7	75.7	73.6	2.02	37.398	
600.0	600.0	600.0	600.0	1.2	1.2	-89.96	0.0	-75.7	75.7	73.2	2.47	30.599	CC, ES
700.0	700.0	700.0	700.0	1.4	1.5	158.88	0.0	-75.7	76.9	74.0	2.91	26.455	
800.0	799.9	799.9	799.9	1.6	1.7	159.87	0.0	-75.7	80.5	77.2	3.33	24.183	
900.0	899.7	899.7	899.7	1.9	1.9	161.33	0.0	-75.7	86.7	83.0	3.76	23.038	
1,000.0	999.3	999.3	999.3	2.1	2.1	163.05	0.0	-75.7	95.4	91.2	4.20	22.704	SF
1,100.0	1,098.6	1,098.6	1,098.6	2.3	2.4	164.84	0.0	-75.7	106.7	102.1	4.65	22.973	
1,200.0	1,197.5	1,197.5	1,197.5	2.6	2.6	166.57	0.0	-75.7	120.7	115.6	5.09	23.697	
1,300.0	1,296.1	1,296.1	1,296.1	3.0	2.8	168.16	0.0	-75.7	137.2	131.7	5.54	24.774	
1,400.0	1,394.2	1,394.2	1,394.2	3.3	3.0	169.58	0.0	-75.7	156.3	150.4	5.98	26.126	
1,443.4	1,436.5	1,436.8	1,436.8	3.5	3.1	170.07	-0.1	-75.7	165.4	159.3	6.17	26.818	
1,500.0	1,491.8	1,492.7	1,492.7	3.7	3.2	170.47	-1.1	-75.7	177.5	171.1	6.41	27.680	
1,600.0	1,589.4	1,591.6	1,591.5	4.2	3.4	170.46	-4.8	-75.6	198.3	191.5	6.83	29.051	
1,700.0	1,686.9	1,690.6	1,690.3	4.6	3.6	169.79	-11.0	-75.6	218.6	211.4	7.26	30.125	
1,800.0	1,784.5	1,788.9	1,788.3	5.0	3.8	168.74	-19.3	-75.6	238.6	230.9	7.71	30.951	
1,900.0	1,882.1	1,886.8	1,885.8	5.5	3.9	167.81	-27.7	-75.6	258.6	250.4	8.18	31.624	
2,000.0	1,979.7	1,984.7	1,983.3	5.9	4.2	167.02	-36.1	-75.6	278.6	269.9	8.66	32.181	
2,100.0	2,077.2	2,082.6	2,080.9	6.4	4.4	166.33	-44.5	-75.6	298.7	289.5	9.15	32.642	
2,200.0	2,174.8	2,180.5	2,178.4	6.9	4.6	165.73	-52.9	-75.6	318.8	309.2	9.65	33.026	
2,300.0	2,272.4	2,278.4	2,276.0	7.3	4.8	165.20	-61.4	-75.6	339.0	328.8	10.17	33.345	
2,400.0	2,369.9	2,376.3	2,373.5	7.8	5.0	164.73	-69.8	-75.6	359.1	348.5	10.68	33.612	
2,500.0	2,467.5	2,474.2	2,471.1	8.3	5.3	164.31	-78.2	-75.6	379.3	368.1	11.21	33.837	
2,600.0	2,565.1	2,572.1	2,568.6	8.7	5.5	163.94	-86.6	-75.6	399.6	387.8	11.74	34.026	
2,700.0	2,662.7	2,670.0	2,666.1	9.2	5.8	163.59	-95.0	-75.6	419.8	407.5	12.28	34.186	
2,800.0	2,760.2	2,767.9	2,763.7	9.7	6.0	163.29	-103.4	-75.6	440.0	427.2	12.82	34.322	
2,900.0	2,857.8	2,865.8	2,861.2	10.2	6.3	163.00	-111.9	-75.5	460.3	446.9	13.37	34.437	
3,000.0	2,955.4	2,963.7	2,958.8	10.6	6.5	162.74	-120.3	-75.5	480.6	466.6	13.91	34.536	
3,100.0	3,052.9	3,061.6	3,056.3	11.1	6.8	162.51	-128.7	-75.5	500.8	486.4	14.47	34.620	
3,200.0	3,150.5	3,159.5	3,153.8	11.6	7.0	162.29	-137.1	-75.5	521.1	506.1	15.02	34.692	
3,300.0	3,248.1	3,257.4	3,251.4	12.1	7.3	162.08	-145.5	-75.5	541.4	525.8	15.58	34.754	
3,400.0	3,345.7	3,355.3	3,348.9	12.5	7.5	161.90	-153.9	-75.5	561.7	545.5	16.14	34.807	
3,500.0	3,443.2	3,453.2	3,446.5	13.0	7.8	161.72	-162.4	-75.5	582.0	565.3	16.70	34.853	
3,600.0	3,540.8	3,551.2	3,544.0	13.5	8.0	161.56	-170.8	-75.5	602.3	585.0	17.26	34.892	
3,700.0	3,638.4	3,649.1	3,641.5	14.0	8.3	161.40	-179.2	-75.5	622.6	604.8	17.83	34.926	
3,800.0	3,736.0	3,747.0	3,739.1	14.5	8.6	161.26	-187.6	-75.5	642.9	624.5	18.39	34.955	
3,900.0	3,833.5	3,844.9	3,836.6	14.9	8.8	161.13	-196.0	-75.5	663.2	644.3	18.96	34.980	
4,000.0	3,931.1	3,942.8	3,934.2	15.4	9.1	161.00	-204.5	-75.5	683.5	664.0	19.53	35.002	
4,100.0	4,028.7	4,040.7	4,031.7	15.9	9.4	160.88	-212.9	-75.4	703.9	683.8	20.10	35.020	
4,200.0	4,126.2	4,138.6	4,129.2	16.4	9.6	160.77	-221.3	-75.4	724.2	703.5	20.67	35.036	
4,300.0	4,223.8	4,236.5	4,226.8	16.9	9.9	160.66	-229.7	-75.4	744.5	723.3	21.24	35.049	
4,400.0	4,321.4	4,334.4	4,324.3	17.3	10.1	160.56	-238.1	-75.4	764.9	743.0	21.82	35.060	
4,500.0	4,419.0	4,432.3	4,421.9	17.8	10.4	160.47	-246.5	-75.4	785.2	762.8	22.39	35.070	
4,600.0	4,516.5	4,530.2	4,519.4	18.3	10.7	160.38	-255.0	-75.4	805.5	782.6	22.96	35.078	
4,700.0	4,614.1	4,628.1	4,616.9	18.8	10.9	160.29	-263.4	-75.4	825.9	802.3	23.54	35.085	
4,800.0	4,711.7	4,726.0	4,714.5	19.3	11.2	160.21	-271.8	-75.4	846.2	822.1	24.11	35.090	
4,900.0	4,809.3	4,823.9	4,812.0	19.7	11.5	160.13	-280.2	-75.4	866.5	841.8	24.69	35.094	
5,000.0	4,906.8	4,921.8	4,909.6	20.2	11.7	160.06	-288.6	-75.4	886.9	861.6	25.27	35.098	

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 3-10-4NBH
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 3-10-4NBH	**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	5,004.4	5,019.7	5,007.1	20.7	12.0	159.99	-297.0	-75.4	907.2	881.4	25.85	35.100	
5,200.0	5,102.0	5,117.6	5,104.6	21.2	12.3	159.92	-305.5	-75.4	927.6	901.1	26.42	35.102	
5,300.0	5,199.5	5,215.5	5,202.2	21.7	12.6	159.85	-313.9	-75.3	947.9	920.9	27.00	35.103	
5,400.0	5,297.1	5,313.4	5,299.7	22.2	12.8	159.79	-322.3	-75.3	968.2	940.7	27.58	35.103	
5,500.0	5,394.7	5,411.3	5,397.3	22.6	13.1	159.73	-330.7	-75.3	988.6	960.4	28.16	35.103	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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	-89.95	0.0	-30.8	30.8				
100.0	100.0	100.0	100.0	0.1	0.1	-89.95	0.0	-30.8	30.8	30.6	0.22	137.127	
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-30.8	30.8	30.1	0.67	45.709	
300.0	300.0	300.0	300.0	0.6	0.6	-89.95	0.0	-30.8	30.8	29.7	1.12	27.425	
400.0	400.0	400.0	400.0	0.8	0.8	-89.95	0.0	-30.8	30.8	29.2	1.57	19.590	
500.0	500.0	500.0	500.0	1.0	1.0	-89.95	0.0	-30.8	30.8	28.8	2.02	15.236	
600.0	600.0	600.0	600.0	1.2	1.2	-89.95	0.0	-30.8	30.8	28.3	2.47	12.466	CC, ES
700.0	700.0	700.0	700.0	1.4	1.5	159.39	0.0	-30.8	32.0	29.1	2.91	11.027	
800.0	799.9	799.9	799.9	1.6	1.7	161.59	0.0	-30.8	35.7	32.4	3.33	10.731	
900.0	899.7	900.7	900.6	1.9	1.9	163.56	-0.7	-29.7	40.8	37.1	3.74	10.912	
1,000.0	999.3	1,001.5	1,001.4	2.1	2.1	164.45	-2.9	-26.4	46.1	42.0	4.14	11.134	
1,100.0	1,098.6	1,102.5	1,102.2	2.3	2.3	164.57	-6.5	-20.8	51.6	47.1	4.56	11.319	
1,200.0	1,197.5	1,203.6	1,202.9	2.6	2.5	164.16	-11.7	-13.0	57.3	52.3	4.99	11.471	
1,300.0	1,296.1	1,304.9	1,303.4	3.0	2.8	163.35	-18.2	-3.0	63.1	57.7	5.45	11.588	
1,400.0	1,394.2	1,405.3	1,402.9	3.3	3.0	162.42	-26.0	8.9	69.5	63.6	5.92	11.740	
1,443.4	1,436.5	1,448.5	1,445.6	3.5	3.2	162.22	-29.4	14.0	72.9	66.8	6.13	11.896	
1,500.0	1,491.8	1,505.0	1,501.5	3.7	3.3	162.08	-33.8	20.8	77.8	71.3	6.41	12.123	
1,600.0	1,589.4	1,604.6	1,600.1	4.2	3.6	161.87	-41.6	32.7	86.3	79.3	6.93	12.455	
1,700.0	1,686.9	1,704.3	1,698.7	4.6	3.9	161.70	-49.5	44.7	94.8	87.3	7.45	12.722	
1,800.0	1,784.5	1,803.9	1,797.3	5.0	4.3	161.55	-57.3	56.6	103.3	95.3	7.98	12.938	
1,900.0	1,882.1	1,903.5	1,895.9	5.5	4.6	161.43	-65.1	68.6	111.8	103.2	8.52	13.116	
2,000.0	1,979.7	2,003.2	1,994.5	5.9	4.9	161.33	-72.9	80.5	120.3	111.2	9.07	13.263	
2,100.0	2,077.2	2,102.8	2,093.1	6.4	5.2	161.24	-80.8	92.4	128.8	119.1	9.62	13.385	
2,200.0	2,174.8	2,202.4	2,191.8	6.9	5.6	161.16	-88.6	104.4	137.3	127.1	10.18	13.489	
2,300.0	2,272.4	2,302.1	2,290.4	7.3	5.9	161.09	-96.4	116.3	145.8	135.0	10.74	13.577	
2,400.0	2,369.9	2,401.7	2,389.0	7.8	6.3	161.02	-104.2	128.2	154.3	143.0	11.30	13.652	
2,500.0	2,467.5	2,501.4	2,487.6	8.3	6.6	160.97	-112.1	140.2	162.8	150.9	11.87	13.718	
2,600.0	2,565.1	2,601.0	2,586.2	8.7	6.9	160.92	-119.9	152.1	171.3	158.8	12.43	13.774	
2,700.0	2,662.7	2,700.6	2,684.8	9.2	7.3	160.87	-127.7	164.1	179.8	166.8	13.01	13.823	
2,800.0	2,760.2	2,800.3	2,783.4	9.7	7.6	160.83	-135.6	176.0	188.3	174.7	13.58	13.867	
2,900.0	2,857.8	2,899.9	2,882.0	10.2	8.0	160.79	-143.4	187.9	196.8	182.6	14.15	13.905	
3,000.0	2,955.4	2,999.5	2,980.6	10.6	8.3	160.76	-151.2	199.9	205.3	190.6	14.73	13.939	
3,100.0	3,052.9	3,099.2	3,079.2	11.1	8.7	160.72	-159.0	211.8	213.8	198.5	15.30	13.969	
3,200.0	3,150.5	3,198.8	3,177.9	11.6	9.0	160.69	-166.9	223.7	222.3	206.4	15.88	13.996	
3,300.0	3,248.1	3,298.5	3,276.5	12.1	9.4	160.67	-174.7	235.7	230.8	214.3	16.46	14.020	
3,400.0	3,345.7	3,398.1	3,375.1	12.5	9.7	160.64	-182.5	247.6	239.3	222.3	17.04	14.042	
3,500.0	3,443.2	3,497.7	3,473.7	13.0	10.1	160.62	-190.3	259.6	247.8	230.2	17.62	14.062	
3,600.0	3,540.8	3,597.4	3,572.3	13.5	10.4	160.59	-198.2	271.5	256.3	238.1	18.20	14.080	
3,700.0	3,638.4	3,697.0	3,670.9	14.0	10.8	160.57	-206.0	283.4	264.8	246.0	18.79	14.096	
3,800.0	3,736.0	3,796.7	3,769.5	14.5	11.1	160.55	-213.8	295.4	273.3	253.9	19.37	14.111	
3,900.0	3,833.5	3,896.3	3,868.1	14.9	11.5	160.54	-221.6	307.3	281.8	261.9	19.95	14.125	
4,000.0	3,931.1	3,995.9	3,966.7	15.4	11.8	160.52	-229.5	319.2	290.3	269.8	20.54	14.137	
4,100.0	4,028.7	4,095.6	4,065.3	15.9	12.2	160.50	-237.3	331.2	298.8	277.7	21.12	14.149	
4,200.0	4,126.2	4,195.2	4,164.0	16.4	12.5	160.49	-245.1	343.1	307.3	285.6	21.70	14.160	
4,300.0	4,223.8	4,294.8	4,262.6	16.9	12.9	160.47	-252.9	355.1	315.8	293.5	22.29	14.169	
4,400.0	4,321.4	4,394.5	4,361.2	17.3	13.2	160.46	-260.8	367.0	324.3	301.5	22.88	14.178	
4,500.0	4,419.0	4,494.1	4,459.8	17.8	13.6	160.45	-268.6	378.9	332.8	309.4	23.46	14.187	
4,600.0	4,516.5	4,593.8	4,558.4	18.3	13.9	160.43	-276.4	390.9	341.3	317.3	24.05	14.195	
4,700.0	4,614.1	4,693.4	4,657.0	18.8	14.3	160.42	-284.2	402.8	349.9	325.2	24.63	14.202	
4,800.0	4,711.7	4,793.0	4,755.6	19.3	14.6	160.41	-292.1	414.7	358.4	333.1	25.22	14.209	
4,900.0	4,809.3	4,892.7	4,854.2	19.7	15.0	160.40	-299.9	426.7	366.9	341.1	25.81	14.215	
5,000.0	4,906.8	4,992.3	4,952.8	20.2	15.3	160.39	-307.7	438.6	375.4	349.0	26.40	14.221	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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
5,100.0	5,004.4	5,091.9	5,051.4	20.7	15.7	160.38	-315.5	450.6	383.9	356.9	26.98	14.226	
5,200.0	5,102.0	5,191.6	5,150.1	21.2	16.0	160.37	-323.4	462.5	392.4	364.8	27.57	14.232	
5,300.0	5,199.5	5,291.2	5,248.7	21.7	16.4	160.36	-331.2	474.4	400.9	372.7	28.16	14.237	
5,400.0	5,297.1	5,390.9	5,347.3	22.2	16.7	160.35	-339.0	486.4	409.4	380.6	28.75	14.241	
5,500.0	5,394.7	5,490.5	5,445.9	22.6	17.1	160.34	-346.8	498.3	417.9	388.5	29.33	14.245	
5,600.0	5,492.3	5,590.1	5,544.5	23.1	17.5	160.34	-354.7	510.2	426.4	396.5	29.92	14.250	
5,700.0	5,589.8	5,689.8	5,643.1	23.6	17.8	160.33	-362.5	522.2	434.9	404.4	30.51	14.253	
5,800.0	5,687.4	5,789.4	5,741.7	24.1	18.2	160.32	-370.3	534.1	443.4	412.3	31.10	14.257	
5,900.0	5,785.0	5,889.0	5,840.3	24.6	18.5	160.31	-378.1	546.0	451.9	420.2	31.69	14.260	
6,000.0	5,882.6	5,988.7	5,938.9	25.1	18.9	160.31	-386.0	558.0	460.4	428.1	32.28	14.264	
6,100.0	5,980.1	6,088.3	6,037.5	25.5	19.2	160.30	-393.8	569.9	468.9	436.0	32.87	14.267	
6,200.0	6,077.7	6,188.0	6,136.2	26.0	19.6	160.30	-401.6	581.9	477.4	444.0	33.46	14.270	
6,300.0	6,175.3	6,287.6	6,234.8	26.5	19.9	160.29	-409.4	593.8	485.9	451.9	34.05	14.272	
6,400.0	6,272.8	6,387.2	6,333.4	27.0	20.3	160.28	-417.3	605.7	494.4	459.8	34.64	14.275	
6,500.0	6,370.4	6,486.9	6,432.0	27.5	20.6	160.28	-425.1	617.7	502.9	467.7	35.22	14.278	
6,600.0	6,468.0	6,586.5	6,530.6	27.9	21.0	160.27	-432.9	629.6	511.4	475.6	35.81	14.280	
6,700.0	6,565.6	6,686.1	6,629.2	28.4	21.4	160.27	-440.8	641.5	519.9	483.5	36.40	14.282	
6,800.0	6,663.1	6,785.8	6,727.8	28.9	21.7	160.26	-448.6	653.5	528.4	491.4	36.99	14.284	
6,900.0	6,760.7	6,885.4	6,826.4	29.4	22.1	160.26	-456.4	665.4	536.9	499.4	37.58	14.286	
7,000.0	6,858.3	6,985.1	6,925.0	29.9	22.4	160.25	-464.2	677.4	545.4	507.3	38.17	14.288	
7,060.8	6,917.6	7,045.6	6,985.0	30.2	22.6	160.25	-469.0	684.6	550.6	512.1	38.53	14.290	
7,100.0	6,955.7	7,084.7	7,023.6	30.4	22.8	148.32	-472.1	689.3	554.0	515.2	38.81	14.274	
7,150.0	7,004.0	7,134.3	7,072.7	30.6	22.9	137.01	-475.9	695.2	558.3	519.3	39.09	14.282	
7,200.0	7,051.5	7,183.4	7,121.4	30.9	23.1	129.32	-479.8	701.1	562.9	523.6	39.31	14.317	
7,250.0	7,098.1	7,231.9	7,169.4	31.1	23.3	124.20	-483.6	706.9	567.7	528.2	39.48	14.380	
7,300.0	7,143.5	7,282.4	7,219.3	31.4	23.5	120.88	-488.5	713.0	572.8	533.2	39.60	14.465	
7,350.0	7,187.6	7,335.0	7,270.7	31.8	23.7	118.63	-497.2	719.2	578.2	538.4	39.78	14.535	
7,400.0	7,230.1	7,388.8	7,322.5	32.1	23.9	117.10	-510.0	725.5	583.7	543.7	40.03	14.583	
7,450.0	7,270.8	7,443.8	7,374.5	32.4	24.2	116.07	-527.2	731.9	589.3	549.0	40.35	14.606	
7,500.0	7,309.4	7,500.2	7,426.1	32.8	24.5	115.41	-548.9	738.2	595.0	554.2	40.75	14.601	
7,550.0	7,345.9	7,558.0	7,477.2	33.2	24.9	115.00	-575.2	744.4	600.6	559.3	41.23	14.565	
7,600.0	7,380.1	7,617.2	7,527.1	33.6	25.3	114.79	-606.5	750.6	606.1	564.2	41.82	14.493	
7,650.0	7,411.7	7,677.9	7,575.3	34.0	25.7	114.71	-642.6	756.5	611.4	568.9	42.51	14.384	
7,700.0	7,440.6	7,739.9	7,621.4	34.4	26.2	114.73	-683.8	762.2	616.5	573.2	43.31	14.234	
7,750.0	7,466.7	7,803.4	7,664.7	34.9	26.8	114.82	-729.9	767.6	621.2	577.0	44.25	14.040	
7,800.0	7,489.8	7,868.2	7,704.5	35.4	27.4	114.94	-780.7	772.6	625.6	580.3	45.33	13.802	
7,850.0	7,509.9	7,934.3	7,740.3	35.8	28.1	115.09	-836.1	777.1	629.5	582.9	46.55	13.521	
7,900.0	7,526.8	8,001.5	7,771.3	36.3	28.8	115.23	-895.5	781.1	632.8	584.9	47.94	13.201	
7,950.0	7,540.5	8,069.6	7,796.9	36.8	29.6	115.36	-958.5	784.4	635.6	586.1	49.48	12.845	
8,000.0	7,550.9	8,138.6	7,816.7	37.4	30.4	115.46	-1,024.5	787.0	637.7	586.5	51.17	12.461	
8,050.0	7,557.9	8,208.2	7,830.2	37.9	31.2	115.53	-1,092.7	788.9	639.1	586.1	53.00	12.058	
8,100.0	7,561.5	8,278.1	7,837.1	38.4	32.1	115.56	-1,162.3	790.0	639.7	584.8	54.95	11.642	
8,127.8	7,562.0	8,316.2	7,838.0	38.7	32.6	115.55	-1,200.4	790.2	639.8	583.8	56.07	11.412	
8,200.0	7,562.0	8,388.4	7,838.0	39.5	33.6	115.56	-1,272.6	790.4	639.8	581.7	58.04	11.023	
8,300.0	7,562.0	8,488.4	7,838.0	40.7	35.0	115.56	-1,372.6	790.8	639.7	578.9	60.86	10.511	
8,400.0	7,562.0	8,588.4	7,838.0	41.9	36.5	115.56	-1,472.6	791.1	639.7	576.0	63.75	10.034	
8,500.0	7,562.0	8,688.4	7,838.0	43.2	37.9	115.56	-1,572.6	791.5	639.7	573.0	66.70	9.590	
8,600.0	7,562.0	8,788.4	7,838.0	44.5	39.5	115.56	-1,672.6	791.8	639.6	569.9	69.70	9.177	
8,700.0	7,562.0	8,888.4	7,838.0	45.9	41.0	115.57	-1,772.6	792.2	639.6	566.8	72.75	8.792	
8,800.0	7,562.0	8,988.4	7,838.0	47.3	42.6	115.57	-1,872.6	792.5	639.5	563.7	75.84	8.433	
8,900.0	7,562.0	9,088.4	7,838.0	48.8	44.2	115.57	-1,972.6	792.9	639.5	560.5	78.96	8.099	
9,000.0	7,562.0	9,188.4	7,838.0	50.2	45.9	115.57	-2,072.6	793.2	639.4	557.3	82.11	7.787	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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
9,100.0	7,562.0	9,288.4	7,838.0	51.7	47.5	115.57	-2,172.6	793.6	639.4	554.1	85.29	7.496	
9,200.0	7,562.0	9,388.4	7,838.0	53.3	49.2	115.57	-2,272.6	793.9	639.4	550.9	88.50	7.224	
9,300.0	7,562.0	9,488.4	7,838.0	54.8	50.9	115.58	-2,372.6	794.3	639.3	547.6	91.73	6.969	
9,400.0	7,562.0	9,588.4	7,838.0	56.4	52.6	115.58	-2,472.6	794.6	639.3	544.3	94.98	6.731	
9,500.0	7,562.0	9,688.4	7,838.0	58.0	54.3	115.58	-2,572.6	795.0	639.2	541.0	98.25	6.506	
9,600.0	7,562.0	9,788.4	7,838.0	59.6	56.0	115.58	-2,672.6	795.3	639.2	537.7	101.53	6.295	
9,700.0	7,562.0	9,888.4	7,838.0	61.3	57.8	115.58	-2,772.6	795.7	639.2	534.3	104.83	6.097	
9,800.0	7,562.0	9,988.4	7,838.0	62.9	59.5	115.59	-2,872.6	796.0	639.1	531.0	108.14	5.910	
9,900.0	7,562.0	10,088.4	7,838.0	64.6	61.3	115.59	-2,972.6	796.4	639.1	527.6	111.47	5.733	
10,000.0	7,562.0	10,188.4	7,838.0	66.3	63.1	115.59	-3,072.6	796.7	639.0	524.2	114.80	5.566	
10,100.0	7,562.0	10,288.4	7,838.0	67.9	64.9	115.59	-3,172.6	797.1	639.0	520.8	118.15	5.408	
10,200.0	7,562.0	10,388.4	7,838.0	69.7	66.6	115.59	-3,272.6	797.4	638.9	517.4	121.50	5.259	
10,300.0	7,562.0	10,488.4	7,838.0	71.4	68.4	115.59	-3,372.6	797.8	638.9	514.0	124.87	5.117	
10,400.0	7,562.0	10,588.4	7,838.0	73.1	70.2	115.60	-3,472.6	798.1	638.9	510.6	128.24	4.982	
10,500.0	7,562.0	10,688.4	7,838.0	74.8	72.0	115.60	-3,572.6	798.5	638.8	507.2	131.62	4.854	
10,600.0	7,562.0	10,788.4	7,838.0	76.6	73.9	115.60	-3,672.6	798.8	638.8	503.8	135.00	4.732	
10,700.0	7,562.0	10,888.4	7,838.0	78.3	75.7	115.60	-3,772.6	799.2	638.7	500.3	138.40	4.615	
10,800.0	7,562.0	10,988.4	7,838.0	80.1	77.5	115.60	-3,872.6	799.5	638.7	496.9	141.79	4.504	
10,900.0	7,562.0	11,088.4	7,838.0	81.8	79.3	115.60	-3,972.6	799.9	638.6	493.5	145.20	4.399	
11,000.0	7,562.0	11,188.4	7,838.0	83.6	81.2	115.61	-4,072.6	800.2	638.6	490.0	148.60	4.297	
11,100.0	7,562.0	11,288.4	7,838.0	85.4	83.0	115.61	-4,172.6	800.6	638.6	486.5	152.02	4.201	
11,200.0	7,562.0	11,388.4	7,838.0	87.2	84.8	115.61	-4,272.6	800.9	638.5	483.1	155.43	4.108	
11,300.0	7,562.0	11,488.4	7,838.0	89.0	86.7	115.61	-4,372.6	801.3	638.5	479.6	158.85	4.019	
11,400.0	7,562.0	11,588.4	7,838.0	90.8	88.5	115.61	-4,472.6	801.6	638.4	476.2	162.28	3.934	
11,500.0	7,562.0	11,688.4	7,838.0	92.6	90.4	115.62	-4,572.6	802.0	638.4	472.7	165.71	3.853	
11,600.0	7,562.0	11,788.4	7,838.0	94.4	92.2	115.62	-4,672.6	802.3	638.4	469.2	169.14	3.774	
11,700.0	7,562.0	11,888.4	7,838.0	96.2	94.1	115.62	-4,772.6	802.7	638.3	465.7	172.57	3.699	
11,800.0	7,562.0	11,988.4	7,838.0	98.0	95.9	115.62	-4,872.6	803.0	638.3	462.3	176.01	3.626	
11,900.0	7,562.0	12,088.4	7,838.0	99.8	97.8	115.62	-4,972.6	803.4	638.2	458.8	179.45	3.557	
12,000.0	7,562.0	12,188.4	7,838.0	101.6	99.6	115.63	-5,072.6	803.7	638.2	455.3	182.89	3.489	
12,100.0	7,562.0	12,288.4	7,838.0	103.4	101.5	115.63	-5,172.6	804.1	638.1	451.8	186.34	3.425	
12,200.0	7,562.0	12,388.4	7,838.0	105.3	103.4	115.63	-5,272.5	804.4	638.1	448.3	189.79	3.362	
12,300.0	7,562.0	12,488.4	7,838.0	107.1	105.2	115.63	-5,372.5	804.8	638.1	444.8	193.24	3.302	
12,400.0	7,562.0	12,588.4	7,838.0	108.9	107.1	115.63	-5,472.5	805.1	638.0	441.3	196.69	3.244	
12,500.0	7,562.0	12,688.4	7,838.0	110.8	109.0	115.63	-5,572.5	805.4	638.0	437.8	200.14	3.188	
12,600.0	7,562.0	12,788.4	7,838.0	112.6	110.8	115.64	-5,672.5	805.8	637.9	434.3	203.60	3.133	
12,700.0	7,562.0	12,888.4	7,838.0	114.4	112.7	115.64	-5,772.5	806.1	637.9	430.8	207.05	3.081	
12,800.0	7,562.0	12,988.4	7,838.0	116.3	114.6	115.64	-5,872.5	806.5	637.8	427.3	210.51	3.030	
12,900.0	7,562.0	13,088.4	7,838.0	118.1	116.5	115.64	-5,972.5	806.8	637.8	423.8	213.97	2.981	
13,000.0	7,562.0	13,188.4	7,838.0	120.0	118.3	115.64	-6,072.5	807.2	637.8	420.3	217.44	2.933	
13,100.0	7,562.0	13,288.4	7,838.0	121.8	120.2	115.65	-6,172.5	807.5	637.7	416.8	220.90	2.887	
13,200.0	7,562.0	13,388.4	7,838.0	123.7	122.1	115.65	-6,272.5	807.9	637.7	413.3	224.36	2.842	
13,300.0	7,562.0	13,488.4	7,838.0	125.5	124.0	115.65	-6,372.5	808.2	637.6	409.8	227.83	2.799	
13,400.0	7,562.0	13,588.4	7,838.0	127.4	125.9	115.65	-6,472.5	808.6	637.6	406.3	231.30	2.757	
13,500.0	7,562.0	13,688.4	7,838.0	129.3	127.7	115.65	-6,572.5	808.9	637.5	402.8	234.77	2.716	
13,600.0	7,562.0	13,788.4	7,838.0	131.1	129.6	115.65	-6,672.5	809.3	637.5	399.3	238.24	2.676	
13,700.0	7,562.0	13,888.4	7,838.0	133.0	131.5	115.66	-6,772.5	809.6	637.5	395.8	241.71	2.637	
13,799.8	7,562.0	13,988.2	7,838.0	134.8	133.4	115.66	-6,872.3	810.0	637.4	392.2	245.17	2.600	SF

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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	90.00	0.0	14.0	14.0	14.0	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	14.0	14.0	13.8	0.22	62.330	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	14.0	14.0	13.3	0.67	20.777	
300.0	300.0	300.0	300.0	0.6	0.6	90.00	0.0	14.0	14.0	12.9	1.12	12.466	
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	14.0	14.0	12.4	1.57	8.904	CC, ES
500.0	500.0	499.5	499.5	1.0	1.0	91.84	-0.5	15.6	15.6	13.6	2.01	7.765	
600.0	600.0	598.8	598.7	1.2	1.2	95.65	-2.0	20.2	20.3	17.9	2.44	8.348	
700.0	700.0	697.8	697.4	1.4	1.4	-12.95	-4.5	27.9	27.1	24.2	2.85	9.495	
800.0	799.9	796.6	795.5	1.6	1.7	-11.33	-7.9	38.6	34.6	31.3	3.27	10.566	
900.0	899.7	895.0	892.8	1.9	2.0	-10.40	-12.4	52.3	42.7	39.0	3.70	11.527	
1,000.0	999.3	993.1	989.4	2.1	2.3	-9.86	-17.7	68.9	51.4	47.3	4.15	12.399	
1,100.0	1,098.6	1,090.9	1,084.9	2.3	2.7	-9.57	-24.0	88.4	60.8	56.2	4.61	13.196	
1,200.0	1,197.5	1,189.7	1,181.0	2.6	3.2	-9.49	-31.1	110.5	70.2	65.1	5.09	13.797	
1,300.0	1,296.1	1,289.5	1,277.9	3.0	3.6	-9.73	-38.4	133.0	77.1	71.6	5.57	13.841	
1,400.0	1,394.2	1,389.4	1,375.0	3.3	4.1	-10.26	-45.7	155.5	81.6	75.5	6.08	13.421	
1,443.4	1,436.5	1,432.7	1,417.1	3.5	4.3	-10.57	-48.8	165.3	82.7	76.4	6.30	13.124	
1,500.0	1,491.8	1,489.3	1,472.1	3.7	4.6	-11.01	-52.9	178.0	83.8	77.2	6.60	12.701	
1,600.0	1,589.4	1,589.3	1,569.2	4.2	5.1	-11.76	-60.2	200.5	85.9	78.7	7.14	12.026	
1,700.0	1,686.9	1,689.3	1,666.4	4.6	5.6	-12.48	-67.5	223.1	87.9	80.2	7.69	11.431	
1,800.0	1,784.5	1,789.3	1,763.5	5.0	6.1	-13.16	-74.7	245.6	90.0	81.7	8.25	10.902	
1,900.0	1,882.1	1,889.2	1,860.6	5.5	6.6	-13.82	-82.0	268.1	92.0	83.2	8.82	10.431	
2,000.0	1,979.7	1,989.2	1,957.8	5.9	7.1	-14.44	-89.3	290.6	94.1	84.7	9.40	10.008	
2,100.0	2,077.2	2,089.2	2,054.9	6.4	7.6	-15.04	-96.5	313.1	96.2	86.2	9.99	9.628	
2,200.0	2,174.8	2,189.1	2,152.0	6.9	8.1	-15.61	-103.8	335.7	98.3	87.7	10.59	9.284	
2,300.0	2,272.4	2,289.1	2,249.2	7.3	8.6	-16.16	-111.1	358.2	100.4	89.2	11.20	8.971	
2,400.0	2,369.9	2,389.1	2,346.3	7.8	9.1	-16.69	-118.3	380.7	102.6	90.7	11.81	8.686	
2,500.0	2,467.5	2,489.1	2,443.4	8.3	9.6	-17.19	-125.6	403.2	104.7	92.3	12.43	8.425	
2,600.0	2,565.1	2,589.0	2,540.6	8.7	10.1	-17.68	-132.9	425.7	106.8	93.8	13.05	8.186	
2,700.0	2,662.7	2,689.0	2,637.7	9.2	10.7	-18.14	-140.1	448.3	109.0	95.3	13.68	7.966	
2,800.0	2,760.2	2,789.0	2,734.8	9.7	11.2	-18.59	-147.4	470.8	111.1	96.8	14.32	7.762	
2,900.0	2,857.8	2,889.0	2,832.0	10.2	11.7	-19.02	-154.7	493.3	113.3	98.3	14.96	7.574	
3,000.0	2,955.4	2,988.9	2,929.1	10.6	12.2	-19.43	-162.0	515.8	115.5	99.9	15.60	7.399	
3,100.0	3,052.9	3,088.9	3,026.2	11.1	12.7	-19.83	-169.2	538.4	117.6	101.4	16.25	7.237	
3,200.0	3,150.5	3,188.9	3,123.4	11.6	13.2	-20.21	-176.5	560.9	119.8	102.9	16.91	7.085	
3,300.0	3,248.1	3,288.8	3,220.5	12.1	13.7	-20.58	-183.8	583.4	122.0	104.4	17.57	6.943	
3,400.0	3,345.7	3,388.8	3,317.6	12.5	14.2	-20.94	-191.0	605.9	124.2	105.9	18.23	6.811	
3,500.0	3,443.2	3,488.8	3,414.8	13.0	14.8	-21.29	-198.3	628.4	126.4	107.5	18.90	6.686	
3,600.0	3,540.8	3,588.8	3,511.9	13.5	15.3	-21.62	-205.6	651.0	128.6	109.0	19.57	6.569	
3,700.0	3,638.4	3,688.7	3,609.0	14.0	15.8	-21.94	-212.8	673.5	130.8	110.5	20.24	6.459	
3,800.0	3,736.0	3,788.7	3,706.1	14.5	16.3	-22.25	-220.1	696.0	133.0	112.0	20.92	6.356	
3,900.0	3,833.5	3,888.7	3,803.3	14.9	16.8	-22.55	-227.4	718.5	135.2	113.6	21.60	6.258	
4,000.0	3,931.1	3,988.7	3,900.4	15.4	17.3	-22.85	-234.6	741.0	137.4	115.1	22.29	6.165	
4,100.0	4,028.7	4,088.6	3,997.5	15.9	17.8	-23.13	-241.9	763.6	139.6	116.6	22.97	6.077	
4,200.0	4,126.2	4,188.6	4,094.7	16.4	18.4	-23.40	-249.2	786.1	141.8	118.2	23.66	5.994	
4,300.0	4,223.8	4,288.6	4,191.8	16.9	18.9	-23.67	-256.4	808.6	144.0	119.7	24.35	5.915	
4,400.0	4,321.4	4,388.6	4,288.9	17.3	19.4	-23.92	-263.7	831.1	146.3	121.2	25.05	5.840	
4,500.0	4,419.0	4,488.5	4,386.1	17.8	19.9	-24.17	-271.0	853.6	148.5	122.8	25.74	5.769	
4,600.0	4,516.5	4,588.5	4,483.2	18.3	20.4	-24.41	-278.2	876.2	150.7	124.3	26.44	5.700	
4,700.0	4,614.1	4,688.5	4,580.3	18.8	20.9	-24.65	-285.5	898.7	153.0	125.8	27.14	5.636	
4,800.0	4,711.7	4,788.4	4,677.5	19.3	21.4	-24.88	-292.8	921.2	155.2	127.4	27.85	5.574	
4,900.0	4,809.3	4,888.4	4,774.6	19.7	22.0	-25.10	-300.0	943.7	157.4	128.9	28.55	5.514	
5,000.0	4,906.8	4,988.4	4,871.7	20.2	22.5	-25.31	-307.3	966.3	159.7	130.4	29.26	5.458	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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	5,004.4	5,088.4	4,968.9	20.7	23.0	-25.52	-314.6	988.8	161.9	132.0	29.96	5.404	
5,200.0	5,102.0	5,188.3	5,066.0	21.2	23.5	-25.73	-321.9	1,011.3	164.2	133.5	30.67	5.352	
5,300.0	5,199.5	5,288.3	5,163.1	21.7	24.0	-25.93	-329.1	1,033.8	166.4	135.0	31.39	5.302	
5,400.0	5,297.1	5,388.3	5,260.3	22.2	24.5	-26.12	-336.4	1,056.3	168.7	136.6	32.10	5.254	
5,500.0	5,394.7	5,488.3	5,357.4	22.6	25.1	-26.31	-343.7	1,078.9	170.9	138.1	32.81	5.208	
5,600.0	5,492.3	5,588.2	5,454.5	23.1	25.6	-26.49	-350.9	1,101.4	173.2	139.6	33.53	5.164	
5,700.0	5,589.8	5,688.2	5,551.7	23.6	26.1	-26.67	-358.2	1,123.9	175.4	141.2	34.25	5.122	
5,800.0	5,687.4	5,788.2	5,648.8	24.1	26.6	-26.84	-365.5	1,146.4	177.7	142.7	34.97	5.081	
5,900.0	5,785.0	5,888.1	5,745.9	24.6	27.1	-27.01	-372.7	1,168.9	179.9	144.2	35.69	5.042	
6,000.0	5,882.6	5,988.1	5,843.1	25.1	27.6	-27.18	-380.0	1,191.5	182.2	145.8	36.41	5.004	
6,100.0	5,980.1	6,088.1	5,940.2	25.5	28.1	-27.34	-387.3	1,214.0	184.4	147.3	37.13	4.967	
6,200.0	6,077.7	6,188.1	6,037.3	26.0	28.7	-27.49	-394.5	1,236.5	186.7	148.9	37.86	4.932	
6,300.0	6,175.3	6,288.0	6,134.4	26.5	29.2	-27.65	-401.8	1,259.0	189.0	150.4	38.58	4.898	
6,400.0	6,272.8	6,388.0	6,231.6	27.0	29.7	-27.80	-409.1	1,281.5	191.2	151.9	39.31	4.865	
6,500.0	6,370.4	6,488.0	6,328.7	27.5	30.2	-27.94	-416.3	1,304.1	193.5	153.5	40.04	4.833	
6,600.0	6,468.0	6,588.0	6,425.8	27.9	30.7	-28.09	-423.6	1,326.6	195.8	155.0	40.76	4.803	
6,700.0	6,565.6	6,687.9	6,523.0	28.4	31.2	-28.23	-430.9	1,349.1	198.0	156.5	41.49	4.773	
6,800.0	6,663.1	6,787.9	6,620.1	28.9	31.8	-28.36	-438.1	1,371.6	200.3	158.1	42.22	4.744	
6,900.0	6,760.7	6,887.9	6,717.2	29.4	32.3	-28.50	-445.4	1,394.2	202.6	159.6	42.95	4.716	
7,000.0	6,858.3	6,987.9	6,814.4	29.9	32.8	-28.63	-452.7	1,416.7	204.8	161.2	43.68	4.689	
7,060.8	6,917.6	7,048.6	6,873.4	30.2	33.1	-28.70	-457.1	1,430.4	206.2	162.1	44.13	4.673	
7,100.0	6,955.7	7,087.8	6,911.5	30.4	33.3	-40.74	-459.9	1,439.2	207.3	162.8	44.51	4.657	
7,150.0	7,004.0	7,137.5	6,959.8	30.6	33.6	-53.27	-463.6	1,450.4	209.1	163.7	45.34	4.611	
7,200.0	7,051.5	7,186.8	7,007.7	30.9	33.8	-63.35	-467.1	1,461.5	211.6	165.0	46.55	4.545	
7,250.0	7,098.1	7,235.4	7,054.9	31.1	34.1	-71.84	-470.7	1,472.4	215.2	167.2	48.06	4.478	
7,300.0	7,143.5	7,283.1	7,101.2	31.4	34.3	-79.33	-474.1	1,483.2	220.5	170.7	49.74	4.432	
7,350.0	7,187.6	7,329.5	7,146.3	31.8	34.5	-86.12	-477.5	1,493.6	227.8	176.3	51.42	4.429	
7,400.0	7,230.1	7,374.6	7,190.1	32.1	34.8	-92.31	-480.8	1,503.8	237.7	184.8	52.92	4.492	
7,450.0	7,270.8	7,427.6	7,241.5	32.4	35.0	-98.59	-486.5	1,515.7	249.9	195.6	54.32	4.601	
7,500.0	7,309.4	7,483.2	7,294.7	32.8	35.3	-104.16	-496.6	1,528.1	263.4	208.2	55.20	4.771	
7,550.0	7,345.9	7,541.3	7,349.3	33.2	35.7	-109.07	-511.8	1,540.8	277.8	222.2	55.57	4.999	
7,600.0	7,380.1	7,602.3	7,405.2	33.6	36.0	-113.41	-532.4	1,553.8	292.8	237.3	55.46	5.279	
7,650.0	7,411.7	7,666.4	7,461.8	34.0	36.4	-117.23	-559.4	1,567.0	308.0	253.1	54.90	5.610	
7,700.0	7,440.6	7,733.9	7,518.7	34.4	36.9	-120.60	-593.2	1,580.2	323.1	269.1	53.96	5.987	
7,750.0	7,466.7	7,805.0	7,574.9	34.9	37.4	-123.55	-634.6	1,593.4	337.7	285.0	52.67	6.410	
7,800.0	7,489.8	7,879.9	7,629.5	35.4	37.9	-126.10	-684.2	1,606.2	351.4	300.3	51.13	6.874	
7,850.0	7,509.9	7,958.7	7,681.1	35.8	38.5	-128.27	-742.4	1,618.3	364.1	314.7	49.37	7.374	
7,900.0	7,526.8	8,041.3	7,728.3	36.3	39.2	-130.08	-809.2	1,629.4	375.2	327.7	47.49	7.900	
7,950.0	7,540.5	8,127.4	7,769.1	36.8	39.9	-131.53	-884.4	1,639.1	384.5	339.0	45.57	8.439	
8,000.0	7,550.9	8,216.7	7,801.8	37.4	40.7	-132.61	-967.0	1,647.0	391.8	348.1	43.67	8.972	
8,050.0	7,557.9	8,308.3	7,824.7	37.9	41.6	-133.33	-1,055.6	1,652.5	396.7	354.8	41.89	9.470	
8,100.0	7,561.5	8,401.5	7,836.5	38.4	42.4	-133.68	-1,147.9	1,655.5	399.1	358.8	40.32	9.900	
8,127.8	7,562.0	8,451.2	7,838.0	38.7	42.9	-133.72	-1,197.5	1,656.0	399.3	359.8	39.53	10.101	
8,200.0	7,562.0	8,523.4	7,838.0	39.5	43.6	-133.72	-1,269.7	1,656.3	399.4	358.3	41.09	9.720	
8,300.0	7,562.0	8,623.4	7,838.0	40.7	44.7	-133.72	-1,369.7	1,656.6	399.4	356.0	43.32	9.218	
8,400.0	7,562.0	8,723.4	7,838.0	41.9	45.8	-133.72	-1,469.7	1,656.9	399.4	353.7	45.64	8.750	
8,500.0	7,562.0	8,823.4	7,838.0	43.2	47.0	-133.72	-1,569.7	1,657.2	399.4	351.3	48.03	8.315	
8,600.0	7,562.0	8,923.4	7,838.0	44.5	48.2	-133.72	-1,669.7	1,657.5	399.4	348.9	50.47	7.912	
8,700.0	7,562.0	9,023.4	7,838.0	45.9	49.4	-133.72	-1,769.7	1,657.8	399.4	346.4	52.97	7.539	
8,800.0	7,562.0	9,123.4	7,838.0	47.3	50.7	-133.72	-1,869.7	1,658.1	399.4	343.8	55.51	7.194	
8,900.0	7,562.0	9,223.4	7,838.0	48.8	52.1	-133.72	-1,969.7	1,658.4	399.4	341.3	58.09	6.875	
9,000.0	7,562.0	9,323.4	7,838.0	50.2	53.5	-133.72	-2,069.7	1,658.7	399.4	338.7	60.70	6.579	

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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)

Survey Program: 0-MWD

Offset Site Error: 0.0 ft

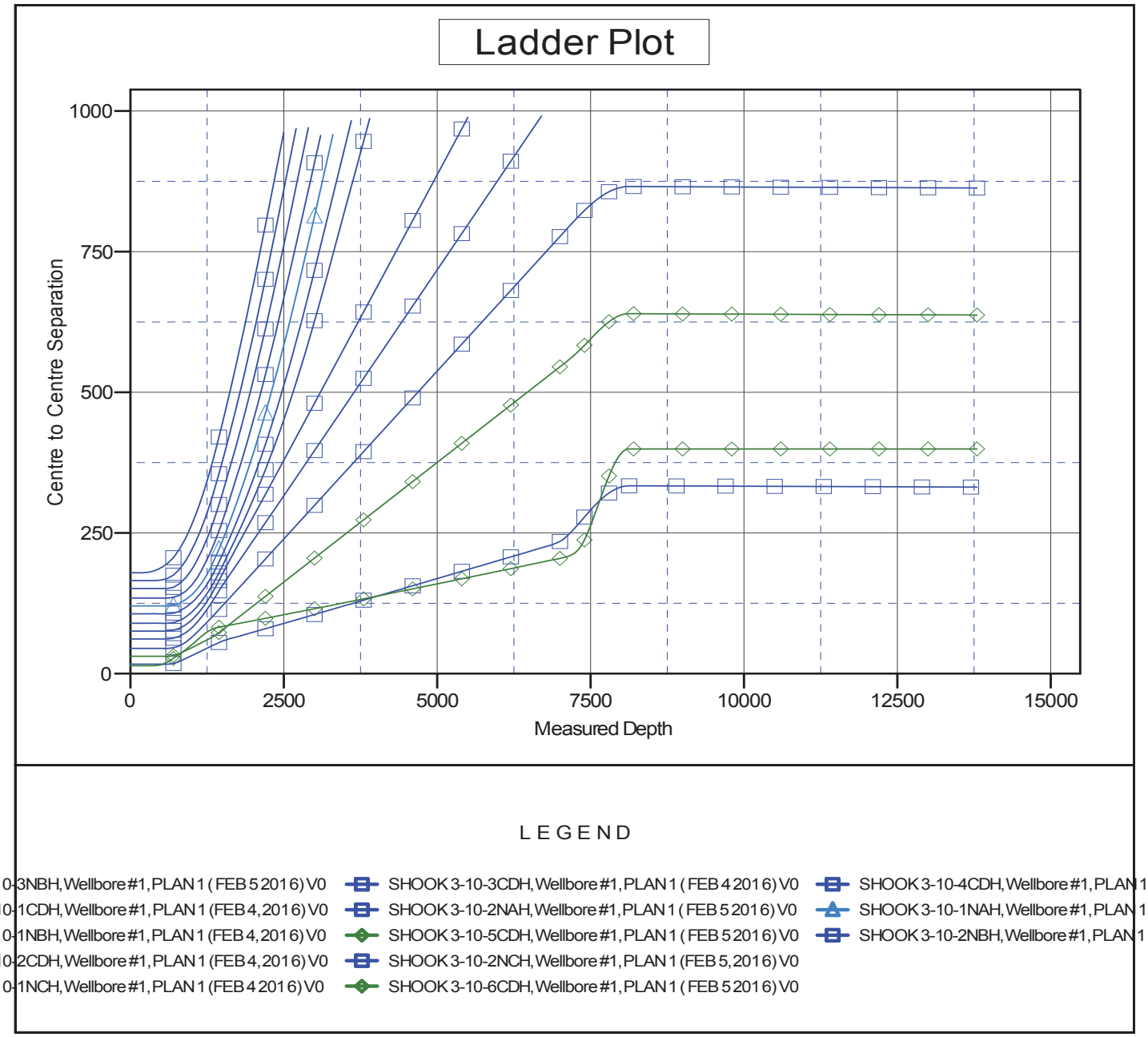
Offset Well Error: 0.0 ft

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
9,100.0	7,562.0	9,423.4	7,838.0	51.7	54.9	-133.72	-2,169.7	1,659.0	399.4	336.0	63.34	6.305	
9,200.0	7,562.0	9,523.4	7,838.0	53.3	56.3	-133.72	-2,269.7	1,659.3	399.4	333.3	66.01	6.050	
9,300.0	7,562.0	9,623.4	7,838.0	54.8	57.8	-133.72	-2,369.7	1,659.6	399.4	330.7	68.70	5.813	
9,400.0	7,562.0	9,723.4	7,838.0	56.4	59.3	-133.72	-2,469.7	1,659.9	399.4	327.9	71.41	5.592	
9,500.0	7,562.0	9,823.4	7,838.0	58.0	60.8	-133.72	-2,569.7	1,660.2	399.4	325.2	74.14	5.386	
9,600.0	7,562.0	9,923.4	7,838.0	59.6	62.3	-133.72	-2,669.7	1,660.5	399.4	322.5	76.89	5.194	
9,700.0	7,562.0	10,023.4	7,838.0	61.3	63.9	-133.72	-2,769.7	1,660.8	399.4	319.7	79.65	5.014	
9,800.0	7,562.0	10,123.4	7,838.0	62.9	65.5	-133.72	-2,869.7	1,661.1	399.4	316.9	82.42	4.845	
9,900.0	7,562.0	10,223.4	7,838.0	64.6	67.1	-133.72	-2,969.7	1,661.4	399.4	314.2	85.20	4.687	
10,000.0	7,562.0	10,323.4	7,838.0	66.3	68.7	-133.72	-3,069.7	1,661.7	399.4	311.4	88.00	4.538	
10,100.0	7,562.0	10,423.4	7,838.0	67.9	70.3	-133.72	-3,169.7	1,662.0	399.4	308.6	90.80	4.398	
10,200.0	7,562.0	10,523.4	7,838.0	69.7	72.0	-133.72	-3,269.7	1,662.3	399.4	305.7	93.62	4.266	
10,300.0	7,562.0	10,623.4	7,838.0	71.4	73.6	-133.72	-3,369.7	1,662.6	399.4	302.9	96.44	4.141	
10,400.0	7,562.0	10,723.4	7,838.0	73.1	75.3	-133.72	-3,469.7	1,662.9	399.4	300.1	99.27	4.023	
10,500.0	7,562.0	10,823.4	7,838.0	74.8	77.0	-133.72	-3,569.7	1,663.2	399.4	297.3	102.10	3.911	
10,600.0	7,562.0	10,923.4	7,838.0	76.6	78.7	-133.72	-3,669.7	1,663.5	399.4	294.4	104.94	3.806	
10,700.0	7,562.0	11,023.4	7,838.0	78.3	80.4	-133.72	-3,769.7	1,663.8	399.4	291.6	107.79	3.705	
10,800.0	7,562.0	11,123.4	7,838.0	80.1	82.1	-133.72	-3,869.7	1,664.1	399.4	288.7	110.64	3.610	
10,900.0	7,562.0	11,223.4	7,838.0	81.8	83.8	-133.72	-3,969.7	1,664.4	399.4	285.9	113.50	3.519	
11,000.0	7,562.0	11,323.4	7,838.0	83.6	85.5	-133.72	-4,069.7	1,664.7	399.4	283.0	116.36	3.432	
11,100.0	7,562.0	11,423.4	7,838.0	85.4	87.3	-133.72	-4,169.7	1,665.0	399.4	280.1	119.23	3.350	
11,200.0	7,562.0	11,523.4	7,838.0	87.2	89.0	-133.72	-4,269.7	1,665.4	399.4	277.3	122.10	3.271	
11,300.0	7,562.0	11,623.4	7,838.0	89.0	90.8	-133.72	-4,369.7	1,665.7	399.4	274.4	124.97	3.196	
11,400.0	7,562.0	11,723.4	7,838.0	90.8	92.5	-133.72	-4,469.7	1,666.0	399.4	271.5	127.85	3.124	
11,500.0	7,562.0	11,823.4	7,838.0	92.6	94.3	-133.72	-4,569.7	1,666.3	399.4	268.6	130.73	3.055	
11,600.0	7,562.0	11,923.4	7,838.0	94.4	96.1	-133.72	-4,669.7	1,666.6	399.4	265.8	133.61	2.989	
11,700.0	7,562.0	12,023.4	7,838.0	96.2	97.8	-133.72	-4,769.7	1,666.9	399.4	262.9	136.50	2.926	
11,800.0	7,562.0	12,123.4	7,838.0	98.0	99.6	-133.72	-4,869.7	1,667.2	399.4	260.0	139.38	2.865	
11,900.0	7,562.0	12,223.4	7,838.0	99.8	101.4	-133.72	-4,969.7	1,667.5	399.4	257.1	142.28	2.807	
12,000.0	7,562.0	12,323.4	7,838.0	101.6	103.2	-133.72	-5,069.7	1,667.8	399.4	254.2	145.17	2.751	
12,100.0	7,562.0	12,423.4	7,838.0	103.4	105.0	-133.72	-5,169.7	1,668.1	399.4	251.3	148.06	2.697	
12,200.0	7,562.0	12,523.4	7,838.0	105.3	106.8	-133.72	-5,269.7	1,668.4	399.4	248.4	150.96	2.646	
12,300.0	7,562.0	12,623.4	7,838.0	107.1	108.6	-133.72	-5,369.7	1,668.7	399.4	245.5	153.86	2.596	
12,400.0	7,562.0	12,723.4	7,838.0	108.9	110.4	-133.72	-5,469.7	1,669.0	399.4	242.6	156.76	2.548	
12,500.0	7,562.0	12,823.4	7,838.0	110.8	112.2	-133.71	-5,569.7	1,669.3	399.4	239.7	159.66	2.501	
12,600.0	7,562.0	12,923.4	7,838.0	112.6	114.0	-133.71	-5,669.7	1,669.6	399.4	236.8	162.57	2.457	
12,700.0	7,562.0	13,023.4	7,838.0	114.4	115.8	-133.71	-5,769.7	1,669.9	399.4	233.9	165.47	2.414	
12,800.0	7,562.0	13,123.4	7,838.0	116.3	117.7	-133.71	-5,869.7	1,670.2	399.4	231.0	168.38	2.372	
12,900.0	7,562.0	13,223.4	7,838.0	118.1	119.5	-133.71	-5,969.7	1,670.5	399.4	228.1	171.29	2.332	
13,000.0	7,562.0	13,323.4	7,838.0	120.0	121.3	-133.71	-6,069.7	1,670.8	399.4	225.2	174.20	2.293	
13,100.0	7,562.0	13,423.4	7,838.0	121.8	123.1	-133.71	-6,169.7	1,671.1	399.4	222.3	177.11	2.255	
13,200.0	7,562.0	13,523.4	7,838.0	123.7	125.0	-133.71	-6,269.7	1,671.4	399.4	219.4	180.02	2.219	
13,300.0	7,562.0	13,623.4	7,838.0	125.5	126.8	-133.71	-6,369.7	1,671.7	399.4	216.5	182.93	2.183	
13,400.0	7,562.0	13,723.4	7,838.0	127.4	128.6	-133.71	-6,469.7	1,672.0	399.4	213.5	185.85	2.149	
13,500.0	7,562.0	13,823.4	7,838.0	129.3	130.5	-133.71	-6,569.7	1,672.3	399.4	210.6	188.76	2.116	
13,600.0	7,562.0	13,923.4	7,838.0	131.1	132.3	-133.71	-6,669.7	1,672.6	399.4	207.7	191.68	2.084	
13,700.0	7,562.0	14,023.4	7,838.0	133.0	134.2	-133.71	-6,769.7	1,672.9	399.4	204.8	194.60	2.052	
13,799.8	7,562.0	14,123.1	7,838.0	134.8	136.0	-133.71	-6,869.4	1,673.2	399.4	201.9	197.51	2.022	SF

Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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 3-10-4NBH
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.41°



Company:	PetroShare Corp	**Local Co-ordinate Reference:**	Well SHOOK 3-10-4NBH
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 3-10-4NBH	**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 3-10-4NBH
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