



Directional

PetroShare Corp

SEC.3-T1S-R67W

SHOOK PAD 3-1S-67W

SHOOK 3-10-6CDH

Wellbore #1

PLAN 1 (FEB 5 2016)

Anticollision Report

22 February, 2016

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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)
0.0	14,124.0	PLAN 1 (FEB 5 2016) (Wellbore #1)
		Tool Name
		MWD
		Description
		MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SHOOK PAD 3-1S-67W						
SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	200.0	200.0	193.3	192.7	286.720	CC, ES
SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,036.2	349.1	344.2	70.897	SF
SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 201	400.0	400.0	134.5	132.9	85.482	CC, ES
SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,000.0	996.1	191.6	187.3	44.607	SF
SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 201	400.0	400.0	165.3	163.7	105.071	CC, ES
SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,000.0	980.5	235.5	231.3	55.950	SF
SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016	400.0	400.0	179.3	177.8	113.976	CC, ES
SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,100.0	1,056.7	301.1	296.3	63.055	SF
SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	400.0	400.0	148.5	146.9	94.386	CC, ES
SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,000.0	990.0	208.4	204.2	49.210	SF
SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 201	400.0	400.0	30.8	29.2	19.590	CC, ES
SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 201	14,124.0	13,588.4	726.1	512.8	3.403	SF
SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016	400.0	400.0	120.5	118.9	76.577	CC, ES
SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,000.0	996.1	177.6	173.3	41.368	SF
SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 201	400.0	400.0	75.7	74.1	48.083	CC, ES
SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 201	800.0	798.8	101.0	97.6	30.024	SF
SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 201	400.0	400.0	103.7	102.1	65.892	CC, ES
SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 201	900.0	897.7	143.3	139.5	37.442	SF
SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 201	400.0	400.0	58.8	57.3	37.398	CC, ES
SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 201	7,100.0	7,043.0	994.6	954.7	24.910	SF
SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 201	400.0	400.0	89.7	88.1	56.988	CC, ES
SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 201	900.0	897.7	129.3	125.5	33.801	SF
SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 201	400.0	400.0	14.0	12.4	8.904	CC, ES
SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 201	14,124.0	13,799.8	399.4	201.9	2.022	SF
SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 201	400.0	400.0	44.8	43.3	28.494	CC, ES
SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 201	14,124.0	13,989.1	863.2	597.8	3.253	SF

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	Offset	Semi Major Axis		Distance				Minimum Separation		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.1	-193.3	193.3				
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-193.3	193.3	193.1	0.22	860.160	

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

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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 3-10-6CDH	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		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-193.3	193.3	192.7	0.67	286.720	CC, ES	
300.0	300.0	296.1	296.1	0.6	0.5	-90.19	-0.6	-194.3	194.3	193.2	1.10	177.071		
400.0	400.0	392.2	392.1	0.8	0.7	-90.83	-2.9	-197.2	197.3	195.8	1.52	129.558		
500.0	500.0	487.8	487.6	1.0	1.0	160.36	-6.5	-201.9	203.9	202.0	1.96	103.984		
600.0	599.9	582.8	582.2	1.2	1.2	159.39	-11.7	-208.5	215.7	213.3	2.41	89.426		
700.0	699.5	676.8	675.6	1.4	1.5	158.44	-18.1	-216.8	232.5	229.6	2.88	80.652		
800.0	798.8	769.4	767.3	1.7	1.8	157.53	-25.9	-226.8	254.4	251.0	3.37	75.477		
900.0	897.7	860.4	857.1	2.0	2.1	156.71	-34.8	-238.3	281.2	277.3	3.87	72.606		
1,000.0	996.1	949.4	944.6	2.3	2.4	155.97	-44.8	-251.2	312.8	308.5	4.39	71.247		
1,100.0	1,093.8	1,036.2	1,029.5	2.7	2.8	155.30	-55.8	-265.3	349.1	344.2	4.92	70.897	SF	
1,126.1	1,119.2	1,058.5	1,051.2	2.9	2.9	155.14	-58.8	-269.2	359.4	354.3	5.07	70.927		
1,200.0	1,191.0	1,120.8	1,111.9	3.2	3.2	154.90	-67.6	-280.6	389.2	383.7	5.47	71.193		
1,300.0	1,288.2	1,200.0	1,188.6	3.7	3.6	154.54	-79.7	-296.1	431.1	425.1	6.01	71.705		
1,400.0	1,385.3	1,285.6	1,271.1	4.2	4.0	154.08	-93.9	-314.4	474.7	468.1	6.60	71.913		
1,500.0	1,482.5	1,365.8	1,347.7	4.6	4.5	153.61	-108.1	-332.8	519.9	512.7	7.19	72.264		
1,600.0	1,579.6	1,444.3	1,422.4	5.1	5.0	153.12	-123.1	-352.0	566.8	559.0	7.79	72.732		
1,700.0	1,676.8	1,521.3	1,495.1	5.6	5.5	152.63	-138.6	-372.1	615.2	606.8	8.40	73.233		
1,800.0	1,774.0	1,600.0	1,568.9	6.1	6.0	152.11	-155.5	-393.7	665.2	656.2	9.03	73.680		
1,900.0	1,871.1	1,670.5	1,634.4	6.6	6.5	151.64	-171.3	-414.2	716.7	707.1	9.64	74.334		
2,000.0	1,968.3	1,742.7	1,701.1	7.1	7.1	151.16	-188.3	-436.1	769.7	759.4	10.27	74.943		
2,100.0	2,065.4	1,813.3	1,765.7	7.6	7.7	150.69	-205.7	-458.5	824.2	813.3	10.90	75.601		
2,200.0	2,162.6	1,882.3	1,828.4	8.2	8.2	150.23	-223.4	-481.3	880.0	868.5	11.54	76.281		
2,300.0	2,259.7	1,962.2	1,900.6	8.7	8.9	149.73	-244.4	-508.3	936.7	924.5	12.22	76.648		
2,400.0	2,356.9	2,044.2	1,974.7	9.2	9.6	149.27	-266.0	-536.1	993.5	980.6	12.91	76.949		

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Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-6CDH	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
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	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 CC, ES		
500.0	500.0	500.0	500.0	1.0	1.0	162.34	0.1	-134.5	136.1	134.0	2.01	67.577		
600.0	599.9	599.9	599.9	1.2	1.2	162.93	0.1	-134.5	140.8	138.3	2.45	57.370		
700.0	699.5	699.5	699.5	1.4	1.5	163.82	0.1	-134.5	148.6	145.7	2.91	51.161		
800.0	798.8	798.8	798.8	1.7	1.7	164.91	0.1	-134.5	159.7	156.4	3.36	47.475		
900.0	897.7	897.7	897.7	2.0	1.9	166.11	0.1	-134.5	174.0	170.2	3.83	45.461		
1,000.0	996.1	996.1	996.1	2.3	2.1	167.33	0.1	-134.5	191.6	187.3	4.29	44.607 SF		
1,100.0	1,093.8	1,091.3	1,091.3	2.7	2.3	168.21	-0.8	-135.1	212.9	208.1	4.74	44.928		
1,126.1	1,119.2	1,116.0	1,116.0	2.9	2.4	168.34	-1.4	-135.5	219.2	214.3	4.85	45.170		
1,200.0	1,191.0	1,185.5	1,185.4	3.2	2.5	168.57	-3.6	-137.1	237.7	232.5	5.16	46.040		
1,300.0	1,288.2	1,279.0	1,278.8	3.7	2.7	168.44	-8.2	-140.5	263.8	258.2	5.60	47.118		
1,400.0	1,385.3	1,371.9	1,371.3	4.2	2.9	167.93	-14.6	-145.1	291.1	285.0	6.05	48.085		
1,500.0	1,482.5	1,464.0	1,462.8	4.6	3.1	167.14	-22.7	-151.0	319.5	313.0	6.53	48.941		
1,600.0	1,579.6	1,555.2	1,553.3	5.1	3.3	166.17	-32.6	-158.1	349.2	342.2	7.03	49.694		
1,700.0	1,676.8	1,645.5	1,642.4	5.6	3.5	165.06	-44.0	-166.4	380.2	372.6	7.55	50.351		
1,800.0	1,774.0	1,734.7	1,730.1	6.1	3.8	163.86	-57.0	-175.8	412.5	404.4	8.10	50.926		
1,900.0	1,871.1	1,822.7	1,816.4	6.6	4.1	162.61	-71.5	-186.2	446.2	437.5	8.68	51.435		
2,000.0	1,968.3	1,909.6	1,901.0	7.1	4.4	161.34	-87.3	-197.6	481.4	472.1	9.28	51.893		
2,100.0	2,065.4	1,995.2	1,984.0	7.6	4.8	160.06	-104.4	-210.0	518.1	508.2	9.90	52.306		
2,200.0	2,162.6	2,079.5	2,065.2	8.2	5.2	158.79	-122.7	-223.3	556.2	545.7	10.56	52.686		
2,300.0	2,259.7	2,162.4	2,144.6	8.7	5.6	157.54	-142.2	-237.3	596.0	584.7	11.23	53.061		
2,400.0	2,356.9	2,244.0	2,222.1	9.2	6.0	156.32	-162.7	-252.1	637.2	625.3	11.92	53.442		
2,500.0	2,454.1	2,324.0	2,297.7	9.7	6.5	155.14	-184.1	-267.6	680.0	667.4	12.63	53.839		
2,600.0	2,551.2	2,400.0	2,368.9	10.2	6.9	154.03	-205.6	-283.1	724.3	711.0	13.34	54.316		
2,700.0	2,648.4	2,479.7	2,443.0	10.7	7.5	152.89	-229.3	-300.3	770.2	756.1	14.09	54.680		
2,800.0	2,745.5	2,555.3	2,512.7	11.2	8.0	151.83	-253.0	-317.4	817.6	802.8	14.83	55.129		
2,900.0	2,842.7	2,634.6	2,585.2	11.7	8.6	150.75	-279.0	-336.2	866.4	850.8	15.61	55.511		
3,000.0	2,939.9	2,720.4	2,663.6	12.2	9.2	149.69	-307.2	-356.6	915.6	899.2	16.42	55.767		
3,100.0	3,037.0	2,806.2	2,742.1	12.8	9.9	148.74	-335.5	-377.0	965.0	947.8	17.23	56.010		

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Reference Well:	SHOOK 3-10-6CDH	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		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	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	500.0	500.0	1.0	1.0	162.31	0.1	-165.3	166.9	164.9	2.01	82.886		
600.0	599.9	599.9	599.9	1.2	1.2	162.78	0.1	-165.3	171.6	169.1	2.45	69.930		
700.0	699.5	696.4	696.4	1.4	1.4	163.21	-0.8	-166.2	180.3	177.4	2.88	62.633		
800.0	798.8	792.2	792.1	1.7	1.6	163.30	-3.3	-168.7	193.9	190.6	3.30	58.685		
900.0	897.7	887.0	886.7	2.0	1.8	163.13	-7.5	-172.9	212.4	208.6	3.75	56.656		
1,000.0	996.1	980.5	979.8	2.3	2.0	162.75	-13.3	-178.7	235.5	231.3	4.21	55.950	SF	
1,100.0	1,093.8	1,072.3	1,071.1	2.7	2.2	162.23	-20.5	-186.0	263.4	258.7	4.69	56.158		
1,126.1	1,119.2	1,096.0	1,094.6	2.9	2.3	162.08	-22.6	-188.1	271.4	266.6	4.82	56.341		
1,200.0	1,191.0	1,162.5	1,160.5	3.2	2.5	161.73	-29.1	-194.6	295.0	289.8	5.18	56.977		
1,300.0	1,288.2	1,251.6	1,248.4	3.7	2.8	161.09	-39.1	-204.6	328.3	322.7	5.69	57.756		
1,400.0	1,385.3	1,339.5	1,334.8	4.2	3.1	160.34	-50.3	-215.8	363.3	357.1	6.22	58.446		
1,500.0	1,482.5	1,426.1	1,419.7	4.6	3.4	159.51	-62.7	-228.3	399.8	393.0	6.77	59.076		
1,600.0	1,579.6	1,511.4	1,502.8	5.1	3.7	158.64	-76.3	-242.0	438.0	430.6	7.34	59.668		
1,700.0	1,676.8	1,595.4	1,584.1	5.6	4.1	157.74	-91.0	-256.6	477.7	469.8	7.93	60.227		
1,800.0	1,774.0	1,677.9	1,663.6	6.1	4.5	156.85	-106.6	-272.3	519.1	510.6	8.55	60.745		
1,900.0	1,871.1	1,759.0	1,741.3	6.6	5.0	155.96	-123.1	-288.9	562.1	552.9	9.17	61.291		
2,000.0	1,968.3	1,838.6	1,817.0	7.1	5.4	155.09	-140.4	-306.3	606.7	596.9	9.81	61.847		
2,100.0	2,065.4	1,916.7	1,890.7	7.6	5.9	154.24	-158.5	-324.4	652.8	642.3	10.46	62.422		
2,200.0	2,162.6	1,993.2	1,962.5	8.2	6.4	153.42	-177.3	-343.3	700.5	689.4	11.12	63.013		
2,300.0	2,259.7	2,068.2	2,032.3	8.7	6.9	152.63	-196.7	-362.7	749.7	737.9	11.79	63.605		
2,400.0	2,356.9	2,141.7	2,100.1	9.2	7.5	151.87	-216.6	-382.7	800.4	788.0	12.46	64.229		
2,500.0	2,454.1	2,213.5	2,166.0	9.7	8.0	151.13	-237.0	-403.1	852.6	839.4	13.14	64.889		
2,600.0	2,551.2	2,290.9	2,236.4	10.2	8.6	150.37	-259.7	-425.9	906.0	892.2	13.85	65.398		
2,700.0	2,648.4	2,374.7	2,312.4	10.7	9.3	149.63	-284.4	-450.7	959.7	945.1	14.60	65.749		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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

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-MWVD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
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		
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		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-179.3	179.3	178.2	1.12	159.566		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-179.3	179.3	177.8	1.57	113.976	CC, ES	
500.0	500.0	496.5	496.5	1.0	1.0	162.03	-0.7	-180.2	181.8	179.9	1.99	91.552		
600.0	599.9	592.7	592.6	1.2	1.2	161.70	-3.1	-183.0	189.4	187.0	2.40	79.008		
700.0	699.5	688.2	687.9	1.4	1.4	161.21	-7.1	-187.5	201.9	199.1	2.83	71.248		
800.0	798.8	782.6	782.0	1.7	1.6	160.60	-12.5	-193.7	219.5	216.2	3.29	66.662		
900.0	897.7	875.7	874.5	2.0	1.8	159.94	-19.4	-201.6	241.9	238.1	3.77	64.190		
1,000.0	996.1	967.2	965.1	2.3	2.1	159.26	-27.6	-211.0	269.1	264.9	4.26	63.140		
1,100.0	1,093.8	1,056.7	1,053.4	2.7	2.4	158.59	-37.0	-221.7	301.1	296.3	4.78	63.055	SF	
1,126.1	1,119.2	1,079.7	1,076.1	2.9	2.5	158.41	-39.6	-224.7	310.2	305.3	4.91	63.161		
1,200.0	1,191.0	1,144.3	1,139.6	3.2	2.7	158.08	-47.5	-233.8	336.9	331.6	5.30	63.615		
1,300.0	1,288.2	1,230.5	1,224.0	3.7	3.1	157.54	-59.1	-247.1	374.5	368.6	5.83	64.187		
1,400.0	1,385.3	1,315.4	1,306.7	4.2	3.4	156.92	-71.7	-261.5	413.8	407.4	6.39	64.727		
1,500.0	1,482.5	1,400.0	1,388.6	4.6	3.8	156.25	-85.5	-277.3	454.7	447.7	6.97	65.219		
1,600.0	1,579.6	1,480.9	1,466.5	5.1	4.3	155.58	-99.9	-293.7	497.3	489.7	7.56	65.756		
1,700.0	1,676.8	1,561.4	1,543.6	5.6	4.7	154.89	-115.2	-311.3	541.5	533.3	8.17	66.265		
1,800.0	1,774.0	1,640.4	1,618.7	6.1	5.2	154.20	-131.3	-329.7	587.3	578.5	8.79	66.823		
1,900.0	1,871.1	1,717.8	1,691.9	6.6	5.7	153.52	-148.0	-348.8	634.7	625.3	9.42	67.407		
2,000.0	1,968.3	1,800.0	1,768.9	7.1	6.2	152.80	-166.8	-370.4	683.7	673.6	10.08	67.851		
2,100.0	2,065.4	1,868.0	1,832.2	7.6	6.7	152.22	-183.2	-389.2	734.1	723.4	10.70	68.624		
2,200.0	2,162.6	1,940.8	1,899.3	8.2	7.3	151.59	-201.6	-410.2	786.1	774.7	11.35	69.274		
2,300.0	2,259.7	2,011.9	1,964.5	8.7	7.8	150.99	-220.4	-431.7	839.5	827.5	12.00	69.962		
2,400.0	2,356.9	2,082.7	2,028.8	9.2	8.4	150.41	-239.8	-454.0	894.3	881.6	12.66	70.630		
2,500.0	2,454.1	2,165.5	2,103.8	9.7	9.1	149.77	-263.0	-480.5	949.7	936.3	13.38	70.991		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	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	-148.5	148.5					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-148.5	148.5	148.3	0.22	660.703		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-148.5	148.5	147.8	0.67	220.234		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-148.5	148.5	147.4	1.12	132.141		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-148.5	148.5	146.9	1.57	94.386 CC, ES		
500.0	500.0	500.0	500.0	1.0	1.0	162.33	0.1	-148.5	150.1	148.1	2.01	74.536		
600.0	599.9	599.9	599.9	1.2	1.2	162.86	0.1	-148.5	154.8	152.3	2.45	63.079		
700.0	699.5	699.5	699.5	1.4	1.5	163.67	0.1	-148.5	162.7	159.7	2.91	55.981		
800.0	798.8	798.8	798.8	1.7	1.7	164.68	0.1	-148.5	173.7	170.4	3.36	51.633		
900.0	897.7	894.9	894.9	2.0	1.9	165.47	-0.8	-149.3	188.7	184.9	3.80	49.631		
1,000.0	996.1	990.0	989.9	2.3	2.1	165.80	-3.5	-151.6	208.4	204.2	4.23	49.210 SF		
1,100.0	1,093.8	1,083.7	1,083.5	2.7	2.2	165.75	-7.9	-155.4	232.6	228.0	4.68	49.692		
1,126.1	1,119.2	1,108.0	1,107.6	2.9	2.3	165.69	-9.3	-156.6	239.7	234.9	4.80	49.934		
1,200.0	1,191.0	1,176.2	1,175.6	3.2	2.4	165.48	-13.9	-160.6	260.5	255.4	5.13	50.754		
1,300.0	1,288.2	1,267.7	1,266.5	3.7	2.6	164.94	-21.5	-167.2	289.9	284.3	5.60	51.751		
1,400.0	1,385.3	1,358.3	1,356.3	4.2	2.9	164.17	-30.7	-175.2	320.8	314.7	6.10	52.626		
1,500.0	1,482.5	1,447.8	1,444.7	4.6	3.1	163.26	-41.3	-184.4	353.1	346.4	6.61	53.399		
1,600.0	1,579.6	1,536.2	1,531.7	5.1	3.4	162.26	-53.4	-194.8	386.8	379.7	7.15	54.087		
1,700.0	1,676.8	1,623.5	1,617.1	5.6	3.7	161.20	-66.7	-206.4	422.1	414.4	7.72	54.710		
1,800.0	1,774.0	1,709.4	1,700.9	6.1	4.1	160.11	-81.3	-219.1	459.0	450.7	8.30	55.290		
1,900.0	1,871.1	1,794.1	1,782.9	6.6	4.4	159.01	-97.1	-232.8	497.4	488.5	8.91	55.819		
2,000.0	1,968.3	1,877.3	1,863.1	7.1	4.8	157.92	-114.0	-247.4	537.3	527.8	9.54	56.316		
2,100.0	2,065.4	1,959.2	1,941.5	7.6	5.3	156.85	-131.8	-262.8	578.9	568.7	10.19	56.817		
2,200.0	2,162.6	2,039.6	2,018.0	8.2	5.7	155.81	-150.6	-279.1	622.0	611.2	10.85	57.325		
2,300.0	2,259.7	2,118.5	2,092.5	8.7	6.2	154.80	-170.2	-296.1	666.7	655.2	11.52	57.848		
2,400.0	2,356.9	2,200.0	2,168.9	9.2	6.7	153.77	-191.6	-314.7	712.9	700.7	12.23	58.302		
2,500.0	2,454.1	2,271.8	2,235.7	9.7	7.2	152.87	-211.5	-332.0	760.7	747.8	12.91	58.923		
2,600.0	2,551.2	2,350.4	2,308.2	10.2	7.7	151.93	-234.3	-351.7	809.8	796.2	13.63	59.405		
2,700.0	2,648.4	2,436.4	2,387.5	10.7	8.4	150.98	-259.5	-373.6	859.5	845.1	14.39	59.717		
2,800.0	2,745.5	2,522.4	2,466.7	11.2	9.0	150.14	-284.7	-395.4	909.3	894.1	15.15	60.005		
2,900.0	2,842.7	2,608.3	2,546.0	11.7	9.7	149.39	-309.9	-417.2	959.2	943.3	15.92	60.269		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-30.8	30.8					
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-30.8	30.8	30.6	0.22	137.127		
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-30.8	30.8	30.1	0.67	45.709		
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-30.8	30.8	29.7	1.12	27.425		
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-30.8	30.8	29.2	1.57	19.590 CC, ES		
500.0	500.0	500.0	500.0	1.0	1.0	163.02	0.0	-30.8	32.4	30.4	2.01	16.088		
600.0	599.9	599.9	599.9	1.2	1.2	165.22	0.0	-30.8	37.1	34.7	2.45	15.133		
700.0	699.5	699.5	699.5	1.4	1.5	167.85	0.0	-30.8	45.1	42.2	2.91	15.533		
800.0	798.8	798.8	798.8	1.7	1.7	170.27	0.0	-30.8	56.4	53.1	3.36	16.777		
900.0	897.7	899.5	899.5	2.0	1.9	171.98	-0.6	-29.7	69.8	66.0	3.80	18.349		
1,000.0	996.1	1,000.4	1,000.4	2.3	2.1	172.92	-2.3	-26.1	83.9	79.7	4.23	19.838		
1,100.0	1,093.8	1,101.7	1,101.4	2.7	2.3	173.41	-5.3	-20.2	98.8	94.1	4.67	21.151		
1,126.1	1,119.2	1,128.1	1,127.7	2.9	2.4	173.48	-6.2	-18.2	102.8	98.0	4.79	21.465		
1,200.0	1,191.0	1,203.3	1,202.6	3.2	2.5	173.57	-9.4	-11.8	113.4	108.3	5.12	22.174		
1,300.0	1,288.2	1,305.7	1,304.2	3.7	2.8	173.39	-14.8	-0.9	125.6	120.1	5.58	22.519		
1,400.0	1,385.3	1,408.6	1,406.0	4.2	3.1	172.94	-21.5	12.5	135.3	129.2	6.06	22.307		
1,500.0	1,482.5	1,511.9	1,507.8	4.6	3.4	172.24	-29.3	28.5	142.3	135.8	6.57	21.663		
1,600.0	1,579.6	1,612.8	1,606.8	5.1	3.7	171.41	-37.9	45.8	147.5	140.4	7.09	20.796		
1,700.0	1,676.8	1,712.6	1,704.8	5.6	4.1	170.62	-46.4	63.0	152.7	145.0	7.63	20.008		
1,800.0	1,774.0	1,812.5	1,802.8	6.1	4.5	169.89	-55.0	80.2	157.8	149.6	8.18	19.299		
1,900.0	1,871.1	1,912.3	1,900.7	6.6	4.9	169.20	-63.5	97.4	163.0	154.3	8.74	18.655		
2,000.0	1,968.3	2,012.2	1,998.7	7.1	5.3	168.56	-72.0	114.6	168.2	158.9	9.31	18.073		
2,100.0	2,065.4	2,112.0	2,096.7	7.6	5.7	167.95	-80.5	131.8	173.4	163.5	9.88	17.543		
2,200.0	2,162.6	2,211.9	2,194.7	8.2	6.1	167.38	-89.0	149.0	178.6	168.2	10.47	17.060		
2,300.0	2,259.7	2,311.7	2,292.7	8.7	6.5	166.85	-97.6	166.3	183.9	172.8	11.07	16.619		
2,400.0	2,356.9	2,411.6	2,390.7	9.2	6.9	166.34	-106.1	183.5	189.2	177.5	11.67	16.214		
2,500.0	2,454.1	2,511.4	2,488.6	9.7	7.3	165.86	-114.6	200.7	194.4	182.2	12.27	15.842		
2,600.0	2,551.2	2,611.3	2,586.6	10.2	7.7	165.40	-123.1	217.9	199.7	186.9	12.89	15.499		
2,700.0	2,648.4	2,711.1	2,684.6	10.7	8.1	164.97	-131.7	235.1	205.1	191.5	13.51	15.183		
2,800.0	2,745.5	2,810.9	2,782.6	11.2	8.6	164.56	-140.2	252.3	210.4	196.2	14.13	14.889		
2,900.0	2,842.7	2,910.8	2,880.6	11.7	9.0	164.18	-148.7	269.5	215.7	200.9	14.76	14.617		
3,000.0	2,939.9	3,010.6	2,978.6	12.2	9.4	163.80	-157.2	286.8	221.0	205.6	15.39	14.363		
3,100.0	3,037.0	3,110.5	3,076.5	12.8	9.8	163.45	-165.8	304.0	226.4	210.4	16.03	14.127		
3,200.0	3,134.2	3,210.3	3,174.5	13.3	10.3	163.12	-174.3	321.2	231.7	215.1	16.66	13.906		
3,300.0	3,231.3	3,310.2	3,272.5	13.8	10.7	162.79	-182.8	338.4	237.1	219.8	17.31	13.699		
3,400.0	3,328.5	3,410.0	3,370.5	14.3	11.1	162.49	-191.3	355.6	242.5	224.5	17.95	13.505		
3,500.0	3,425.6	3,509.9	3,468.5	14.8	11.6	162.19	-199.8	372.8	247.8	229.2	18.60	13.323		
3,600.0	3,522.8	3,609.7	3,566.4	15.3	12.0	161.91	-208.4	390.0	253.2	234.0	19.25	13.151		
3,700.0	3,620.0	3,709.6	3,664.4	15.8	12.4	161.64	-216.9	407.3	258.6	238.7	19.91	12.990		
3,800.0	3,717.1	3,809.4	3,762.4	16.4	12.8	161.38	-225.4	424.5	264.0	243.4	20.57	12.837		
3,900.0	3,814.3	3,909.3	3,860.4	16.9	13.3	161.14	-233.9	441.7	269.4	248.2	21.23	12.693		
4,000.0	3,911.4	4,009.1	3,958.4	17.4	13.7	160.90	-242.5	458.9	274.8	252.9	21.89	12.557		
4,100.0	4,008.6	4,109.0	4,056.4	17.9	14.1	160.67	-251.0	476.1	280.2	257.7	22.55	12.427		
4,200.0	4,105.7	4,208.8	4,154.3	18.4	14.6	160.45	-259.5	493.3	285.6	262.4	23.21	12.304		
4,300.0	4,202.9	4,308.7	4,252.3	18.9	15.0	160.24	-268.0	510.5	291.1	267.2	23.88	12.188		
4,400.0	4,300.1	4,408.5	4,350.3	19.4	15.4	160.03	-276.6	527.8	296.5	271.9	24.55	12.077		
4,500.0	4,397.2	4,508.4	4,448.3	20.0	15.9	159.83	-285.1	545.0	301.9	276.7	25.22	11.971		
4,600.0	4,494.4	4,608.2	4,546.3	20.5	16.3	159.64	-293.6	562.2	307.3	281.4	25.89	11.870		
4,700.0	4,591.5	4,708.1	4,644.3	21.0	16.7	159.46	-302.1	579.4	312.8	286.2	26.56	11.774		
4,800.0	4,688.7	4,807.9	4,742.2	21.5	17.2	159.28	-310.7	596.6	318.2	291.0	27.24	11.682		
4,900.0	4,785.9	4,907.7	4,840.2	22.0	17.6	159.11	-319.2	613.8	323.6	295.7	27.91	11.594		
5,000.0	4,883.0	5,007.6	4,938.2	22.5	18.0	158.94	-327.7	631.0	329.1	300.5	28.59	11.510		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	4,980.2	5,107.4	5,036.2	23.1	18.5	158.78	-336.2	648.3	334.5	305.2	29.27	11.430		
5,200.0	5,077.3	5,207.3	5,134.2	23.6	18.9	158.63	-344.7	665.5	340.0	310.0	29.95	11.352		
5,300.0	5,174.5	5,307.1	5,232.1	24.1	19.3	158.48	-353.3	682.7	345.4	314.8	30.63	11.278		
5,400.0	5,271.6	5,407.0	5,330.1	24.6	19.8	158.33	-361.8	699.9	350.8	319.5	31.31	11.207		
5,500.0	5,368.8	5,506.8	5,428.1	25.1	20.2	158.19	-370.3	717.1	356.3	324.3	31.99	11.139		
5,600.0	5,466.0	5,606.7	5,526.1	25.6	20.6	158.05	-378.8	734.3	361.8	329.1	32.67	11.073		
5,700.0	5,563.1	5,706.5	5,624.1	26.1	21.1	157.92	-387.4	751.5	367.2	333.9	33.35	11.010		
5,800.0	5,660.3	5,806.4	5,722.1	26.7	21.5	157.79	-395.9	768.8	372.7	338.6	34.04	10.949		
5,900.0	5,757.4	5,906.2	5,820.0	27.2	21.9	157.67	-404.4	786.0	378.1	343.4	34.72	10.890		
6,000.0	5,854.6	6,006.1	5,918.0	27.7	22.4	157.55	-412.9	803.2	383.6	348.2	35.41	10.833		
6,100.0	5,951.7	6,105.9	6,016.0	28.2	22.8	157.43	-421.5	820.4	389.1	353.0	36.10	10.779		
6,200.0	6,048.9	6,205.8	6,114.0	28.7	23.2	157.31	-430.0	837.6	394.5	357.7	36.78	10.726		
6,300.0	6,146.1	6,305.6	6,212.0	29.2	23.7	157.20	-438.5	854.8	400.0	362.5	37.47	10.675		
6,400.0	6,243.2	6,405.5	6,310.0	29.8	24.1	157.09	-447.0	872.0	405.5	367.3	38.16	10.626		
6,500.0	6,340.4	6,505.3	6,407.9	30.3	24.5	156.99	-455.5	889.3	410.9	372.1	38.85	10.578		
6,600.0	6,437.5	6,605.2	6,505.9	30.8	25.0	156.88	-464.1	906.5	416.4	376.9	39.54	10.532		
6,700.0	6,534.7	6,705.0	6,603.9	31.3	25.4	156.78	-472.6	923.7	421.9	381.6	40.23	10.487		
6,800.0	6,631.9	6,804.8	6,701.9	31.8	25.8	156.68	-481.1	940.9	427.3	386.4	40.92	10.444		
6,900.0	6,729.0	6,901.8	6,796.8	32.3	26.3	156.57	-491.0	957.6	433.0	391.3	41.69	10.386		
7,000.0	6,826.2	6,994.1	6,885.5	32.8	26.7	156.47	-511.0	973.2	440.0	396.9	43.07	10.217		
7,100.0	6,923.3	7,081.6	6,966.6	33.4	27.2	156.37	-540.4	987.5	449.6	404.5	45.08	9.975		
7,200.0	7,020.5	7,162.4	7,037.8	33.9	27.7	148.13	-576.3	1,000.1	463.5	415.9	47.54	9.748		
7,300.0	7,117.6	7,235.3	7,098.3	34.4	28.2	144.13	-615.6	1,010.9	483.3	433.0	50.24	9.620		
7,376.0	7,191.5	7,285.4	7,137.5	34.8	28.6	141.10	-646.1	1,017.9	503.2	450.9	52.29	9.623		
7,400.0	7,214.8	7,300.0	7,148.4	34.9	28.7	132.49	-655.4	1,019.8	510.3	457.1	53.15	9.601		
7,450.0	7,263.0	7,331.6	7,171.6	35.2	29.0	117.07	-676.5	1,024.0	525.5	470.6	54.88	9.575		
7,500.0	7,310.6	7,362.3	7,193.2	35.4	29.2	105.01	-698.0	1,027.8	541.1	484.7	56.42	9.591		
7,550.0	7,357.4	7,400.0	7,218.4	35.7	29.5	95.27	-725.7	1,032.3	557.0	499.1	57.92	9.617		
7,600.0	7,403.1	7,423.0	7,233.1	36.0	29.7	88.12	-743.1	1,035.0	572.7	513.9	58.79	9.742		
7,650.0	7,447.5	7,450.0	7,249.6	36.3	30.0	82.17	-764.3	1,038.0	588.3	528.8	59.50	9.887		
7,700.0	7,490.5	7,482.7	7,268.6	36.6	30.3	77.06	-790.8	1,041.4	603.5	543.4	60.07	10.047		
7,750.0	7,531.7	7,512.3	7,284.6	37.0	30.6	72.88	-815.4	1,044.3	618.2	558.0	60.28	10.256		
7,800.0	7,571.1	7,550.0	7,303.7	37.3	30.9	69.13	-847.8	1,047.7	632.4	572.1	60.33	10.483		
7,850.0	7,608.3	7,571.0	7,313.5	37.7	31.2	66.31	-866.3	1,049.5	645.8	585.9	59.88	10.785		
7,900.0	7,643.3	7,600.0	7,326.3	38.1	31.5	63.72	-892.2	1,051.8	658.4	599.1	59.29	11.106		
7,950.0	7,675.8	7,629.3	7,338.1	38.4	31.8	61.49	-918.9	1,054.0	670.1	611.7	58.47	11.461		
8,000.0	7,705.7	7,650.0	7,345.7	38.8	32.0	59.70	-938.1	1,055.4	681.0	623.7	57.35	11.874		
8,050.0	7,732.8	7,687.1	7,358.1	39.3	32.4	57.96	-973.0	1,057.7	690.7	634.5	56.23	12.284		
8,100.0	7,757.1	7,715.9	7,366.5	39.7	32.7	56.58	-1,000.5	1,059.3	699.4	644.6	54.86	12.750		
8,150.0	7,778.3	7,750.0	7,375.0	40.1	33.1	55.37	-1,033.5	1,060.9	707.1	653.7	53.42	13.238		
8,200.0	7,796.5	7,773.4	7,380.0	40.6	33.4	54.47	-1,056.3	1,061.8	713.6	661.8	51.78	13.780		
8,250.0	7,811.4	7,800.0	7,384.7	41.0	33.7	53.73	-1,082.5	1,062.8	718.9	668.8	50.12	14.344		
8,300.0	7,823.1	7,830.7	7,388.9	41.5	34.0	53.14	-1,112.8	1,063.6	723.1	674.6	48.48	14.915		
8,350.0	7,831.4	7,850.0	7,391.0	41.9	34.3	52.76	-1,132.0	1,064.0	726.1	679.4	46.73	15.537		
8,400.0	7,836.4	7,887.8	7,393.4	42.4	34.7	52.50	-1,169.8	1,064.6	727.7	682.5	45.25	16.082		
8,448.4	7,838.0	7,916.4	7,394.0	42.9	35.0	52.43	-1,198.4	1,064.8	728.2	684.4	43.82	16.618		
8,471.5	7,838.0	7,937.9	7,394.0	43.1	35.3	52.43	-1,219.8	1,064.9	728.2	683.9	44.34	16.423		
8,500.0	7,838.0	7,966.4	7,394.0	43.4	35.7	52.43	-1,248.3	1,065.0	728.2	683.2	45.01	16.181		
8,600.0	7,838.0	8,066.4	7,394.0	44.4	36.9	52.43	-1,348.3	1,065.3	728.2	680.8	47.41	15.358		
8,700.0	7,838.0	8,166.4	7,394.0	45.5	38.3	52.43	-1,448.3	1,065.7	728.2	678.2	49.91	14.590		
8,800.0	7,838.0	8,266.4	7,394.0	46.7	39.7	52.43	-1,548.3	1,066.0	728.1	675.6	52.48	13.875		
8,900.0	7,838.0	8,366.4	7,394.0	47.9	41.1	52.42	-1,648.3	1,066.4	728.1	673.0	55.10	13.213		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,000.0	7,838.0	8,466.4	7,394.0	49.1	42.6	52.42	-1,748.3	1,066.7	728.0	670.3	57.79	12.599		
9,100.0	7,838.0	8,566.4	7,394.0	50.4	44.1	52.42	-1,848.3	1,067.1	728.0	667.5	60.51	12.030		
9,200.0	7,838.0	8,666.4	7,394.0	51.8	45.6	52.42	-1,948.3	1,067.4	728.0	664.7	63.28	11.504		
9,300.0	7,838.0	8,766.4	7,394.0	53.1	47.2	52.41	-2,048.3	1,067.8	727.9	661.8	66.08	11.015		
9,400.0	7,838.0	8,866.4	7,394.0	54.5	48.8	52.41	-2,148.3	1,068.1	727.9	659.0	68.92	10.562		
9,500.0	7,838.0	8,966.4	7,394.0	56.0	50.4	52.41	-2,248.3	1,068.5	727.9	656.1	71.78	10.140		
9,600.0	7,838.0	9,066.4	7,394.0	57.4	52.0	52.41	-2,348.3	1,068.8	727.8	653.1	74.67	9.748		
9,700.0	7,838.0	9,166.4	7,394.0	58.9	53.7	52.40	-2,448.3	1,069.2	727.8	650.2	77.57	9.382		
9,800.0	7,838.0	9,266.4	7,394.0	60.4	55.3	52.40	-2,548.3	1,069.5	727.7	647.2	80.50	9.040		
9,900.0	7,838.0	9,366.4	7,394.0	62.0	57.0	52.40	-2,648.3	1,069.9	727.7	644.3	83.44	8.721		
10,000.0	7,838.0	9,466.4	7,394.0	63.5	58.7	52.40	-2,748.3	1,070.2	727.7	641.3	86.40	8.422		
10,100.0	7,838.0	9,566.4	7,394.0	65.1	60.4	52.40	-2,848.3	1,070.6	727.6	638.3	89.37	8.142		
10,200.0	7,838.0	9,666.4	7,394.0	66.7	62.1	52.39	-2,948.3	1,070.9	727.6	635.2	92.35	7.878		
10,300.0	7,838.0	9,766.4	7,394.0	68.3	63.9	52.39	-3,048.3	1,071.3	727.6	632.2	95.35	7.630		
10,400.0	7,838.0	9,866.4	7,394.0	69.9	65.6	52.39	-3,148.3	1,071.6	727.5	629.2	98.36	7.397		
10,500.0	7,838.0	9,966.4	7,394.0	71.6	67.4	52.39	-3,248.3	1,072.0	727.5	626.1	101.37	7.176		
10,600.0	7,838.0	10,066.4	7,394.0	73.2	69.1	52.38	-3,348.3	1,072.3	727.4	623.0	104.39	6.968		
10,700.0	7,838.0	10,166.4	7,394.0	74.9	70.9	52.38	-3,448.3	1,072.7	727.4	620.0	107.43	6.771		
10,800.0	7,838.0	10,266.4	7,394.0	76.6	72.7	52.38	-3,548.3	1,073.0	727.4	616.9	110.46	6.585		
10,900.0	7,838.0	10,366.4	7,394.0	78.3	74.5	52.38	-3,648.3	1,073.4	727.3	613.8	113.51	6.408		
11,000.0	7,838.0	10,466.4	7,394.0	80.0	76.3	52.38	-3,748.3	1,073.7	727.3	610.7	116.56	6.240		
11,100.0	7,838.0	10,566.4	7,394.0	81.7	78.0	52.37	-3,848.3	1,074.1	727.3	607.6	119.61	6.080		
11,200.0	7,838.0	10,666.4	7,394.0	83.4	79.8	52.37	-3,948.3	1,074.4	727.2	604.5	122.68	5.928		
11,300.0	7,838.0	10,766.4	7,394.0	85.1	81.7	52.37	-4,048.3	1,074.8	727.2	601.4	125.74	5.783		
11,400.0	7,838.0	10,866.4	7,394.0	86.9	83.5	52.37	-4,148.3	1,075.1	727.1	598.3	128.81	5.645		
11,500.0	7,838.0	10,966.4	7,394.0	88.6	85.3	52.36	-4,248.3	1,075.5	727.1	595.2	131.89	5.513		
11,600.0	7,838.0	11,066.4	7,394.0	90.4	87.1	52.36	-4,348.3	1,075.8	727.1	592.1	134.96	5.387		
11,700.0	7,838.0	11,166.4	7,394.0	92.1	88.9	52.36	-4,448.3	1,076.2	727.0	589.0	138.04	5.267		
11,800.0	7,838.0	11,266.4	7,394.0	93.9	90.8	52.36	-4,548.3	1,076.5	727.0	585.9	141.13	5.151		
11,900.0	7,838.0	11,366.4	7,394.0	95.6	92.6	52.35	-4,648.3	1,076.9	727.0	582.7	144.22	5.041		
12,000.0	7,838.0	11,466.4	7,394.0	97.4	94.4	52.35	-4,748.3	1,077.2	726.9	579.6	147.31	4.935		
12,100.0	7,838.0	11,566.4	7,394.0	99.2	96.3	52.35	-4,848.3	1,077.6	726.9	576.5	150.40	4.833		
12,200.0	7,838.0	11,666.4	7,394.0	101.0	98.1	52.35	-4,948.3	1,077.9	726.8	573.3	153.50	4.735		
12,300.0	7,838.0	11,766.4	7,394.0	102.8	99.9	52.35	-5,048.3	1,078.3	726.8	570.2	156.59	4.641		
12,400.0	7,838.0	11,866.4	7,394.0	104.6	101.8	52.34	-5,148.3	1,078.6	726.8	567.1	159.69	4.551		
12,500.0	7,838.0	11,966.4	7,394.0	106.4	103.6	52.34	-5,248.3	1,079.0	726.7	563.9	162.80	4.464		
12,600.0	7,838.0	12,066.4	7,394.0	108.2	105.5	52.34	-5,348.3	1,079.3	726.7	560.8	165.90	4.380		
12,700.0	7,838.0	12,166.4	7,394.0	110.0	107.3	52.34	-5,448.3	1,079.7	726.7	557.6	169.01	4.300		
12,800.0	7,838.0	12,266.4	7,394.0	111.8	109.2	52.33	-5,548.3	1,080.0	726.6	554.5	172.11	4.222		
12,900.0	7,838.0	12,366.4	7,394.0	113.6	111.1	52.33	-5,648.3	1,080.4	726.6	551.4	175.22	4.147		
13,000.0	7,838.0	12,466.4	7,394.0	115.4	112.9	52.33	-5,748.3	1,080.7	726.5	548.2	178.33	4.074		
13,100.0	7,838.0	12,566.4	7,394.0	117.2	114.8	52.33	-5,848.3	1,081.1	726.5	545.1	181.44	4.004		
13,200.0	7,838.0	12,666.4	7,394.0	119.1	116.6	52.33	-5,948.3	1,081.4	726.5	541.9	184.56	3.936		
13,300.0	7,838.0	12,766.4	7,394.0	120.9	118.5	52.32	-6,048.3	1,081.8	726.4	538.8	187.67	3.871		
13,400.0	7,838.0	12,866.4	7,394.0	122.7	120.4	52.32	-6,148.3	1,082.1	726.4	535.6	190.79	3.807		
13,500.0	7,838.0	12,966.4	7,394.0	124.5	122.2	52.32	-6,248.3	1,082.5	726.4	532.4	193.91	3.746		
13,600.0	7,838.0	13,066.4	7,394.0	126.4	124.1	52.32	-6,348.3	1,082.8	726.3	529.3	197.02	3.686		
13,700.0	7,838.0	13,166.4	7,394.0	128.2	126.0	52.31	-6,448.3	1,083.2	726.3	526.1	200.14	3.629		
13,800.0	7,838.0	13,266.4	7,394.0	130.1	127.9	52.31	-6,548.3	1,083.5	726.2	523.0	203.26	3.573		
13,900.0	7,838.0	13,366.4	7,394.0	131.9	129.7	52.31	-6,648.3	1,083.9	726.2	519.8	206.38	3.519		
14,000.0	7,838.0	13,466.4	7,394.0	133.7	131.6	52.31	-6,748.3	1,084.2	726.2	516.7	209.51	3.466		
14,100.0	7,838.0	13,566.4	7,394.0	135.6	133.5	52.30	-6,848.3	1,084.6	726.1	513.5	212.63	3.415		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
14,122.0	7,838.0	13,588.4	7,394.0	136.0	133.9	52.30	-6,870.3	1,084.7	726.1	512.8	213.32	3.404	
14,124.0	7,838.0	13,588.4	7,394.0	136.0	133.9	52.30	-6,870.3	1,084.7	726.1	512.8	213.35	3.403 SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
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 CC, ES		
500.0	500.0	500.0	500.0	1.0	1.0	162.37	0.1	-120.5	122.1	120.0	2.01	60.619		
600.0	599.9	599.9	599.9	1.2	1.2	163.02	0.1	-120.5	126.8	124.3	2.45	51.660		
700.0	699.5	699.5	699.5	1.4	1.5	164.00	0.1	-120.5	134.6	131.7	2.91	46.341		
800.0	798.8	798.8	798.8	1.7	1.7	165.19	0.1	-120.5	145.7	142.4	3.36	43.317		
900.0	897.7	897.7	897.7	2.0	1.9	166.48	0.1	-120.5	160.0	156.2	3.83	41.815		
1,000.0	996.1	996.1	996.1	2.3	2.1	167.76	0.1	-120.5	177.6	173.3	4.29	41.368 SF		
1,100.0	1,093.8	1,093.8	1,093.8	2.7	2.3	168.98	0.1	-120.5	198.4	193.7	4.76	41.677		
1,126.1	1,119.2	1,119.2	1,119.2	2.9	2.4	169.29	0.1	-120.5	204.4	199.5	4.88	41.858		
1,200.0	1,191.0	1,191.0	1,191.0	3.2	2.6	170.13	0.1	-120.5	221.6	216.4	5.22	42.449		
1,300.0	1,288.2	1,286.2	1,286.1	3.7	2.8	170.84	-0.8	-121.0	245.4	239.7	5.66	43.352		
1,400.0	1,385.3	1,380.7	1,380.7	4.2	2.9	170.95	-3.6	-122.6	270.0	263.9	6.09	44.342		
1,500.0	1,482.5	1,474.9	1,474.6	4.6	3.1	170.60	-8.5	-125.5	295.5	289.0	6.53	45.258		
1,600.0	1,579.6	1,568.4	1,567.9	5.1	3.3	169.92	-15.3	-129.5	321.9	314.9	6.99	46.073		
1,700.0	1,676.8	1,661.3	1,660.2	5.6	3.5	168.98	-23.9	-134.6	349.3	341.8	7.46	46.787		
1,800.0	1,774.0	1,753.4	1,751.4	6.1	3.7	167.86	-34.4	-140.7	377.7	369.7	7.97	47.402		
1,900.0	1,871.1	1,844.6	1,841.5	6.6	3.9	166.61	-46.7	-148.0	407.2	398.7	8.50	47.923		
2,000.0	1,968.3	1,934.8	1,930.3	7.1	4.2	165.27	-60.7	-156.2	437.8	428.8	9.05	48.361		
2,100.0	2,065.4	2,024.0	2,017.6	7.6	4.5	163.87	-76.3	-165.3	469.8	460.2	9.64	48.734		
2,200.0	2,162.6	2,112.0	2,103.4	8.2	4.8	162.44	-93.4	-175.4	503.1	492.8	10.26	49.039		
2,300.0	2,259.7	2,200.0	2,188.6	8.7	5.1	160.99	-112.2	-186.4	537.7	526.8	10.91	49.294		
2,400.0	2,356.9	2,284.4	2,269.9	9.2	5.5	159.57	-131.8	-197.9	573.8	562.3	11.58	49.544		
2,500.0	2,454.1	2,368.7	2,350.5	9.7	5.9	158.16	-152.9	-210.3	611.4	599.1	12.29	49.767		
2,600.0	2,551.2	2,451.6	2,429.3	10.2	6.4	156.77	-175.2	-223.4	650.5	637.5	13.01	49.995		
2,700.0	2,648.4	2,533.0	2,506.1	10.7	6.8	155.42	-198.5	-237.1	691.1	677.3	13.76	50.240		
2,800.0	2,745.5	2,613.1	2,581.0	11.2	7.3	154.11	-222.8	-251.4	733.2	718.7	14.52	50.510		
2,900.0	2,842.7	2,691.6	2,654.0	11.7	7.8	152.85	-247.9	-266.1	776.9	761.6	15.29	50.796		
3,000.0	2,939.9	2,777.0	2,732.8	12.2	8.4	151.53	-276.2	-282.7	821.7	805.6	16.12	50.967		
3,100.0	3,037.0	2,864.7	2,813.7	12.8	9.0	150.31	-305.3	-299.8	866.9	850.0	16.97	51.096		
3,200.0	3,134.2	2,952.4	2,894.7	13.3	9.6	149.21	-334.4	-316.9	912.4	894.6	17.81	51.229		
3,300.0	3,231.3	3,040.1	2,975.6	13.8	10.2	148.21	-363.5	-334.0	958.2	939.5	18.65	51.364		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.0	-75.7	75.7					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-75.7	75.7	75.4	0.22	336.584		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-75.7	75.7	75.0	0.67	112.195		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-75.7	75.7	74.5	1.12	67.317		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-75.7	75.7	74.1	1.57	48.083 CC, ES		
500.0	500.0	500.0	500.0	1.0	1.0	162.51	0.0	-75.7	77.2	75.2	2.01	38.353		
600.0	599.9	599.9	599.9	1.2	1.2	163.52	0.0	-75.7	81.9	79.5	2.45	33.393		
700.0	699.5	699.5	699.5	1.4	1.5	164.97	0.0	-75.7	89.9	86.9	2.91	30.924		
800.0	798.8	798.8	798.8	1.7	1.7	166.61	0.0	-75.7	101.0	97.6	3.36	30.024 SF		
900.0	897.7	897.7	897.7	2.0	1.9	168.25	0.0	-75.7	115.4	111.6	3.83	30.164		
1,000.0	996.1	996.1	996.1	2.3	2.1	169.77	0.0	-75.7	133.1	128.8	4.29	31.023		
1,100.0	1,093.8	1,093.8	1,093.8	2.7	2.3	171.11	0.0	-75.7	154.0	149.3	4.76	32.395		
1,126.1	1,119.2	1,119.2	1,119.2	2.9	2.4	171.43	0.0	-75.7	160.1	155.2	4.88	32.820		
1,200.0	1,191.0	1,191.0	1,191.0	3.2	2.6	172.27	0.0	-75.7	177.4	172.2	5.21	34.029		
1,300.0	1,288.2	1,291.1	1,291.1	3.7	2.8	172.95	-0.9	-75.2	200.2	194.6	5.65	35.415		
1,400.0	1,385.3	1,392.3	1,392.2	4.2	2.9	172.95	-4.3	-73.5	221.5	215.4	6.08	36.421		
1,500.0	1,482.5	1,494.1	1,493.8	4.6	3.1	172.43	-10.0	-70.5	241.2	234.7	6.53	36.951		
1,600.0	1,579.6	1,595.2	1,594.5	5.1	3.3	171.53	-18.1	-66.4	259.4	252.4	6.99	37.092		
1,700.0	1,676.8	1,693.5	1,692.4	5.6	3.6	170.65	-26.5	-62.1	277.2	269.7	7.48	37.078		
1,800.0	1,774.0	1,791.8	1,790.2	6.1	3.8	169.88	-34.9	-57.9	295.1	287.1	7.97	37.009		
1,900.0	1,871.1	1,890.1	1,888.1	6.6	4.0	169.20	-43.3	-53.6	313.1	304.6	8.48	36.902		
2,000.0	1,968.3	1,988.5	1,985.9	7.1	4.2	168.60	-51.8	-49.3	331.0	322.0	9.00	36.772		
2,100.0	2,065.4	2,086.8	2,083.8	7.6	4.5	168.05	-60.2	-45.0	349.0	339.5	9.53	36.623		
2,200.0	2,162.6	2,185.1	2,181.7	8.2	4.7	167.56	-68.6	-40.7	367.1	357.0	10.07	36.465		
2,300.0	2,259.7	2,283.4	2,279.5	8.7	5.0	167.11	-77.0	-36.4	385.2	374.5	10.61	36.304		
2,400.0	2,356.9	2,381.7	2,377.4	9.2	5.2	166.71	-85.4	-32.2	403.2	392.1	11.16	36.141		
2,500.0	2,454.1	2,480.0	2,475.2	9.7	5.5	166.34	-93.8	-27.9	421.3	409.6	11.71	35.979		
2,600.0	2,551.2	2,578.3	2,573.1	10.2	5.8	166.00	-102.3	-23.6	439.5	427.2	12.27	35.821		
2,700.0	2,648.4	2,676.6	2,670.9	10.7	6.0	165.68	-110.7	-19.3	457.6	444.8	12.83	35.666		
2,800.0	2,745.5	2,775.0	2,768.8	11.2	6.3	165.40	-119.1	-15.0	475.7	462.3	13.39	35.516		
2,900.0	2,842.7	2,873.3	2,866.7	11.7	6.6	165.13	-127.5	-10.7	493.9	479.9	13.96	35.372		
3,000.0	2,939.9	2,971.6	2,964.5	12.2	6.8	164.88	-135.9	-6.4	512.1	497.5	14.53	35.232		
3,100.0	3,037.0	3,069.9	3,062.4	12.8	7.1	164.65	-144.4	-2.2	530.2	515.1	15.11	35.098		
3,200.0	3,134.2	3,168.2	3,160.2	13.3	7.4	164.43	-152.8	2.1	548.4	532.7	15.68	34.970		
3,300.0	3,231.3	3,266.5	3,258.1	13.8	7.6	164.23	-161.2	6.4	566.6	550.3	16.26	34.847		
3,400.0	3,328.5	3,364.8	3,356.0	14.3	7.9	164.04	-169.6	10.7	584.8	568.0	16.84	34.728		
3,500.0	3,425.6	3,463.1	3,453.8	14.8	8.2	163.86	-178.0	15.0	603.0	585.6	17.42	34.615		
3,600.0	3,522.8	3,561.5	3,551.7	15.3	8.5	163.69	-186.5	19.3	621.2	603.2	18.00	34.507		
3,700.0	3,620.0	3,659.8	3,649.5	15.8	8.7	163.53	-194.9	23.5	639.4	620.8	18.59	34.403		
3,800.0	3,717.1	3,758.1	3,747.4	16.4	9.0	163.38	-203.3	27.8	657.6	638.5	19.17	34.303		
3,900.0	3,814.3	3,856.4	3,845.2	16.9	9.3	163.24	-211.7	32.1	675.9	656.1	19.76	34.208		
4,000.0	3,911.4	3,954.7	3,943.1	17.4	9.6	163.11	-220.1	36.4	694.1	673.7	20.34	34.117		
4,100.0	4,008.6	4,053.0	4,041.0	17.9	9.9	162.98	-228.6	40.7	712.3	691.4	20.93	34.029		
4,200.0	4,105.7	4,151.3	4,138.8	18.4	10.1	162.86	-237.0	45.0	730.5	709.0	21.52	33.945		
4,300.0	4,202.9	4,249.7	4,236.7	18.9	10.4	162.74	-245.4	49.3	748.8	726.7	22.11	33.864		
4,400.0	4,300.1	4,348.0	4,334.5	19.4	10.7	162.63	-253.8	53.5	767.0	744.3	22.70	33.786		
4,500.0	4,397.2	4,446.3	4,432.4	20.0	11.0	162.53	-262.2	57.8	785.2	762.0	23.29	33.712		
4,600.0	4,494.4	4,544.6	4,530.2	20.5	11.3	162.43	-270.7	62.1	803.5	779.6	23.88	33.640		
4,700.0	4,591.5	4,642.9	4,628.1	21.0	11.6	162.33	-279.1	66.4	821.7	797.3	24.48	33.571		
4,800.0	4,688.7	4,741.2	4,726.0	21.5	11.8	162.24	-287.5	70.7	840.0	814.9	25.07	33.505		
4,900.0	4,785.9	4,839.5	4,823.8	22.0	12.1	162.15	-295.9	75.0	858.2	832.6	25.66	33.441		
5,000.0	4,883.0	4,937.8	4,921.7	22.5	12.4	162.07	-304.3	79.2	876.5	850.2	26.26	33.379		

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

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-MWVD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation		
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
5,100.0	4,980.2	5,036.2	5,019.5	23.1	12.7	161.99	-312.7	83.5	894.7	867.9	26.85	33.320		
5,200.0	5,077.3	5,134.5	5,117.4	23.6	13.0	161.91	-321.2	87.8	913.0	885.5	27.45	33.262		
5,300.0	5,174.5	5,232.8	5,215.3	24.1	13.3	161.84	-329.6	92.1	931.2	903.2	28.04	33.207		
5,400.0	5,271.6	5,331.1	5,313.1	24.6	13.5	161.77	-338.0	96.4	949.5	920.9	28.64	33.154		
5,500.0	5,368.8	5,429.4	5,411.0	25.1	13.8	161.70	-346.4	100.7	967.7	938.5	29.24	33.102		
5,600.0	5,466.0	5,527.7	5,508.8	25.6	14.1	161.63	-354.8	105.0	986.0	956.2	29.83	33.052		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.1	-103.7	103.7					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-103.7	103.7	103.4	0.22	461.245		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-103.7	103.7	103.0	0.67	153.748		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-103.7	103.7	102.5	1.12	92.249		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-103.7	103.7	102.1	1.57	65.892 CC, ES		
500.0	500.0	500.0	500.0	1.0	1.0	162.41	0.1	-103.7	105.2	103.2	2.01	52.269		
600.0	599.9	599.9	599.9	1.2	1.2	163.16	0.1	-103.7	110.0	107.5	2.45	44.810		
700.0	699.5	699.5	699.5	1.4	1.5	164.28	0.1	-103.7	117.8	114.9	2.91	40.559		
800.0	798.8	798.8	798.8	1.7	1.7	165.61	0.1	-103.7	128.9	125.6	3.36	38.330		
900.0	897.7	897.7	897.7	2.0	1.9	167.01	0.1	-103.7	143.3	139.5	3.83	37.442 SF		
1,000.0	996.1	996.1	996.1	2.3	2.1	168.38	0.1	-103.7	160.9	156.6	4.29	37.484		
1,100.0	1,093.8	1,093.8	1,093.8	2.7	2.3	169.66	0.1	-103.7	181.8	177.0	4.76	38.192		
1,126.1	1,119.2	1,119.2	1,119.2	2.9	2.4	169.97	0.1	-103.7	187.7	182.9	4.88	38.464		
1,200.0	1,191.0	1,191.0	1,191.0	3.2	2.6	170.82	0.1	-103.7	205.0	199.8	5.22	39.287		
1,300.0	1,288.2	1,288.2	1,288.2	3.7	2.8	171.77	0.1	-103.7	228.4	222.7	5.68	40.219		
1,400.0	1,385.3	1,385.3	1,385.3	4.2	3.0	172.54	0.1	-103.7	251.9	245.7	6.15	40.986		
1,500.0	1,482.5	1,481.1	1,481.1	4.6	3.2	172.99	-0.7	-104.0	275.6	269.0	6.59	41.799		
1,600.0	1,579.6	1,576.5	1,576.4	5.1	3.4	172.92	-3.7	-105.4	299.8	292.8	7.03	42.669		
1,700.0	1,676.8	1,671.5	1,671.3	5.6	3.5	172.43	-8.7	-107.6	324.7	317.2	7.47	43.464		
1,800.0	1,774.0	1,766.1	1,765.5	6.1	3.7	171.64	-15.9	-110.9	350.1	342.2	7.93	44.155		
1,900.0	1,871.1	1,860.0	1,858.9	6.6	3.9	170.59	-25.2	-115.1	376.2	367.8	8.41	44.741		
2,000.0	1,968.3	1,953.3	1,951.4	7.1	4.1	169.37	-36.4	-120.2	403.2	394.2	8.91	45.225		
2,100.0	2,065.4	2,045.8	2,042.8	7.6	4.4	168.00	-49.6	-126.1	431.0	421.5	9.45	45.611		
2,200.0	2,162.6	2,137.4	2,132.9	8.2	4.6	166.54	-64.6	-132.9	459.7	449.7	10.01	45.908		
2,300.0	2,259.7	2,228.1	2,221.6	8.7	4.9	165.01	-81.4	-140.5	489.6	479.0	10.61	46.128		
2,400.0	2,356.9	2,317.7	2,308.9	9.2	5.2	163.44	-99.9	-148.9	520.6	509.4	11.25	46.282		
2,500.0	2,454.1	2,406.1	2,394.5	9.7	5.5	161.84	-120.0	-158.0	552.9	541.0	11.92	46.395		
2,600.0	2,551.2	2,493.4	2,478.5	10.2	5.9	160.25	-141.5	-167.8	586.5	573.9	12.62	46.470		
2,700.0	2,648.4	2,579.3	2,560.7	10.7	6.3	158.66	-164.5	-178.1	621.5	608.2	13.36	46.524		
2,800.0	2,745.5	2,664.0	2,641.0	11.2	6.7	157.10	-188.7	-189.1	658.0	643.9	14.13	46.583		
2,900.0	2,842.7	2,747.2	2,719.4	11.7	7.2	155.57	-214.2	-200.6	695.9	681.0	14.92	46.656		
3,000.0	2,939.9	2,831.3	2,798.1	12.2	7.7	154.04	-241.3	-212.9	735.3	719.6	15.74	46.731		
3,100.0	3,037.0	2,921.0	2,881.7	12.8	8.2	152.54	-270.8	-226.2	775.5	758.9	16.60	46.709		
3,200.0	3,134.2	3,010.6	2,965.4	13.3	8.8	151.18	-300.2	-239.6	816.1	798.6	17.47	46.706		
3,300.0	3,231.3	3,100.3	3,049.0	13.8	9.4	149.94	-329.6	-252.9	857.0	838.7	18.35	46.718		
3,400.0	3,328.5	3,190.0	3,132.7	14.3	9.9	148.81	-359.0	-266.2	898.3	879.1	19.22	46.739		
3,500.0	3,425.6	3,279.7	3,216.4	14.8	10.5	147.78	-388.4	-279.5	939.8	919.7	20.09	46.772		
3,600.0	3,522.8	3,369.4	3,300.0	15.3	11.1	146.84	-417.9	-292.8	981.6	960.6	20.97	46.814		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.0	-58.8	58.8					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-58.8	58.8	58.6	0.22	261.788		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-58.8	58.8	58.2	0.67	87.263		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-58.8	58.8	57.7	1.12	52.358		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-58.8	58.8	57.3	1.57	37.398 CC, ES		
500.0	500.0	500.0	500.0	1.0	1.0	162.61	0.0	-58.8	60.4	58.4	2.01	30.003		
600.0	599.9	599.9	599.9	1.2	1.2	163.88	0.0	-58.8	65.1	62.7	2.45	26.543		
700.0	699.5	699.5	699.5	1.4	1.5	165.64	0.0	-58.8	73.1	70.2	2.91	25.147		
800.0	798.8	798.8	798.8	1.7	1.7	167.53	0.0	-58.8	84.3	80.9	3.36	25.047		
900.0	897.7	897.7	897.7	2.0	1.9	169.33	0.0	-58.8	98.7	94.9	3.83	25.806		
1,000.0	996.1	996.1	996.1	2.3	2.1	170.91	0.0	-58.8	116.5	112.2	4.29	27.156		
1,100.0	1,093.8	1,096.7	1,096.7	2.7	2.3	172.00	-0.8	-58.0	136.5	131.8	4.73	28.841		
1,126.1	1,119.2	1,123.0	1,123.0	2.9	2.4	172.16	-1.4	-57.4	141.9	137.1	4.84	29.292		
1,200.0	1,191.0	1,197.8	1,197.7	3.2	2.5	172.39	-3.6	-55.2	156.8	151.6	5.15	30.421		
1,300.0	1,288.2	1,299.8	1,299.5	3.7	2.7	172.21	-8.3	-50.5	175.0	169.4	5.59	31.298		
1,400.0	1,385.3	1,402.5	1,401.8	4.2	2.9	171.58	-14.9	-43.8	191.0	185.0	6.05	31.564		
1,500.0	1,482.5	1,503.9	1,502.4	4.6	3.2	170.66	-23.2	-35.5	205.1	198.6	6.53	31.393		
1,600.0	1,579.6	1,602.9	1,600.7	5.1	3.4	169.81	-31.6	-27.0	219.0	211.9	7.04	31.124		
1,700.0	1,676.8	1,701.8	1,699.0	5.6	3.7	169.06	-40.0	-18.6	232.8	225.3	7.55	30.839		
1,800.0	1,774.0	1,800.8	1,797.3	6.1	3.9	168.40	-48.4	-10.1	246.7	238.7	8.08	30.552		
1,900.0	1,871.1	1,899.8	1,895.5	6.6	4.2	167.80	-56.8	-1.7	260.7	252.0	8.61	30.268		
2,000.0	1,968.3	1,998.8	1,993.8	7.1	4.5	167.27	-65.2	6.8	274.6	265.5	9.16	29.991		
2,100.0	2,065.4	2,097.8	2,092.1	7.6	4.8	166.78	-73.6	15.2	288.6	278.9	9.71	29.725		
2,200.0	2,162.6	2,196.8	2,190.3	8.2	5.1	166.35	-81.9	23.6	302.6	292.3	10.27	29.470		
2,300.0	2,259.7	2,295.8	2,288.6	8.7	5.4	165.95	-90.3	32.1	316.6	305.8	10.83	29.229		
2,400.0	2,356.9	2,394.8	2,386.9	9.2	5.7	165.58	-98.7	40.5	330.6	319.2	11.40	29.000		
2,500.0	2,454.1	2,493.8	2,485.2	9.7	6.0	165.24	-107.1	49.0	344.6	332.7	11.97	28.783		
2,600.0	2,551.2	2,592.8	2,583.4	10.2	6.3	164.94	-115.5	57.4	358.7	346.1	12.55	28.579		
2,700.0	2,648.4	2,691.8	2,681.7	10.7	6.6	164.65	-123.9	65.9	372.7	359.6	13.13	28.386		
2,800.0	2,745.5	2,790.7	2,780.0	11.2	6.9	164.38	-132.3	74.3	386.8	373.1	13.71	28.204		
2,900.0	2,842.7	2,889.7	2,878.2	11.7	7.2	164.14	-140.7	82.8	400.9	386.6	14.30	28.032		
3,000.0	2,939.9	2,988.7	2,976.5	12.2	7.5	163.91	-149.1	91.2	415.0	400.1	14.89	27.869		
3,100.0	3,037.0	3,087.7	3,074.8	12.8	7.8	163.69	-157.5	99.7	429.0	413.6	15.48	27.716		
3,200.0	3,134.2	3,186.7	3,173.1	13.3	8.1	163.49	-165.9	108.1	443.1	427.1	16.07	27.571		
3,300.0	3,231.3	3,285.7	3,271.3	13.8	8.4	163.30	-174.3	116.5	457.2	440.6	16.67	27.433		
3,400.0	3,328.5	3,384.7	3,369.6	14.3	8.7	163.12	-182.7	125.0	471.3	454.1	17.26	27.303		
3,500.0	3,425.6	3,483.7	3,467.9	14.8	9.0	162.96	-191.1	133.4	485.4	467.6	17.86	27.180		
3,600.0	3,522.8	3,582.7	3,566.2	15.3	9.4	162.80	-199.5	141.9	499.5	481.1	18.46	27.063		
3,700.0	3,620.0	3,681.7	3,664.4	15.8	9.7	162.65	-207.9	150.3	513.6	494.6	19.06	26.951		
3,800.0	3,717.1	3,780.7	3,762.7	16.4	10.0	162.51	-216.2	158.8	527.8	508.1	19.66	26.845		
3,900.0	3,814.3	3,879.6	3,861.0	16.9	10.3	162.37	-224.6	167.2	541.9	521.6	20.26	26.745		
4,000.0	3,911.4	3,978.6	3,959.2	17.4	10.6	162.25	-233.0	175.7	556.0	535.1	20.86	26.649		
4,100.0	4,008.6	4,077.6	4,057.5	17.9	10.9	162.13	-241.4	184.1	570.1	548.6	21.47	26.557		
4,200.0	4,105.7	4,176.6	4,155.8	18.4	11.2	162.01	-249.8	192.5	584.2	562.2	22.07	26.470		
4,300.0	4,202.9	4,275.6	4,254.1	18.9	11.6	161.90	-258.2	201.0	598.4	575.7	22.68	26.386		
4,400.0	4,300.1	4,374.6	4,352.3	19.4	11.9	161.80	-266.6	209.4	612.5	589.2	23.28	26.306		
4,500.0	4,397.2	4,473.6	4,450.6	20.0	12.2	161.70	-275.0	217.9	626.6	602.7	23.89	26.230		
4,600.0	4,494.4	4,572.6	4,548.9	20.5	12.5	161.60	-283.4	226.3	640.8	616.3	24.50	26.157		
4,700.0	4,591.5	4,671.6	4,647.1	21.0	12.8	161.51	-291.8	234.8	654.9	629.8	25.10	26.086		
4,800.0	4,688.7	4,770.6	4,745.4	21.5	13.1	161.42	-300.2	243.2	669.0	643.3	25.71	26.019		
4,900.0	4,785.9	4,869.6	4,843.7	22.0	13.5	161.34	-308.6	251.7	683.2	656.8	26.32	25.954		
5,000.0	4,883.0	4,968.5	4,942.0	22.5	13.8	161.26	-317.0	260.1	697.3	670.4	26.93	25.892		

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

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		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,100.0	4,980.2	5,067.5	5,040.2	23.1	14.1	161.18	-325.4	268.6	711.4	683.9	27.54	25.833		
5,200.0	5,077.3	5,166.5	5,138.5	23.6	14.4	161.11	-333.8	277.0	725.6	697.4	28.15	25.775		
5,300.0	5,174.5	5,265.5	5,236.8	24.1	14.7	161.04	-342.2	285.4	739.7	711.0	28.76	25.720		
5,400.0	5,271.6	5,364.5	5,335.1	24.6	15.1	160.97	-350.5	293.9	753.9	724.5	29.37	25.667		
5,500.0	5,368.8	5,463.5	5,433.3	25.1	15.4	160.90	-358.9	302.3	768.0	738.0	29.98	25.615		
5,600.0	5,466.0	5,562.5	5,531.6	25.6	15.7	160.84	-367.3	310.8	782.1	751.6	30.59	25.566		
5,700.0	5,563.1	5,661.5	5,629.9	26.1	16.0	160.78	-375.7	319.2	796.3	765.1	31.21	25.518		
5,800.0	5,660.3	5,760.5	5,728.1	26.7	16.3	160.72	-384.1	327.7	810.4	778.6	31.82	25.472		
5,900.0	5,757.4	5,859.5	5,826.4	27.2	16.6	160.66	-392.5	336.1	824.6	792.2	32.43	25.427		
6,000.0	5,854.6	5,958.5	5,924.7	27.7	17.0	160.61	-400.9	344.6	838.7	805.7	33.04	25.384		
6,100.0	5,951.7	6,057.4	6,023.0	28.2	17.3	160.55	-409.3	353.0	852.9	819.2	33.66	25.342		
6,200.0	6,048.9	6,156.4	6,121.2	28.7	17.6	160.50	-417.7	361.5	867.0	832.8	34.27	25.302		
6,300.0	6,146.1	6,255.4	6,219.5	29.2	17.9	160.45	-426.1	369.9	881.2	846.3	34.88	25.262		
6,400.0	6,243.2	6,354.4	6,317.8	29.8	18.2	160.40	-434.5	378.3	895.3	859.8	35.49	25.225		
6,500.0	6,340.4	6,453.4	6,416.0	30.3	18.6	160.36	-442.9	386.8	909.5	873.4	36.11	25.188		
6,600.0	6,437.5	6,552.4	6,514.3	30.8	18.9	160.31	-451.3	395.2	923.6	886.9	36.72	25.152		
6,700.0	6,534.7	6,651.4	6,612.6	31.3	19.2	160.27	-459.7	403.7	937.8	900.5	37.34	25.118		
6,800.0	6,631.9	6,750.4	6,710.9	31.8	19.5	160.22	-468.1	412.1	951.9	914.0	37.95	25.084		
6,900.0	6,729.0	6,849.4	6,809.1	32.3	19.8	160.18	-476.5	420.6	966.1	927.5	38.56	25.051		
7,000.0	6,826.2	6,948.4	6,907.4	32.8	20.2	160.14	-484.9	429.0	980.3	941.1	39.18	25.020		
7,100.0	6,923.3	7,043.0	7,000.6	33.4	20.5	159.75	-498.9	437.1	994.6	954.7	39.93	24.910 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.0	-89.7	89.7					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-89.7	89.7	89.4	0.22	398.915		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-89.7	89.7	89.0	0.67	132.972		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-89.7	89.7	88.5	1.12	79.783		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-89.7	89.7	88.1	1.57	56.988 CC, ES		
500.0	500.0	500.0	500.0	1.0	1.0	162.45	0.0	-89.7	91.2	89.2	2.01	45.311		
600.0	599.9	599.9	599.9	1.2	1.2	163.31	0.0	-89.7	95.9	93.5	2.45	39.101		
700.0	699.5	699.5	699.5	1.4	1.5	164.58	0.0	-89.7	103.8	100.9	2.91	35.741		
800.0	798.8	798.8	798.8	1.7	1.7	166.05	0.0	-89.7	115.0	111.6	3.36	34.176		
900.0	897.7	897.7	897.7	2.0	1.9	167.56	0.0	-89.7	129.3	125.5	3.83	33.801 SF		
1,000.0	996.1	996.1	996.1	2.3	2.1	169.01	0.0	-89.7	147.0	142.7	4.29	34.251		
1,100.0	1,093.8	1,093.8	1,093.8	2.7	2.3	170.32	0.0	-89.7	167.9	163.1	4.76	35.291		
1,126.1	1,119.2	1,119.2	1,119.2	2.9	2.4	170.64	0.0	-89.7	173.9	169.0	4.88	35.639		
1,200.0	1,191.0	1,191.0	1,191.0	3.2	2.6	171.49	0.0	-89.7	191.2	186.0	5.22	36.656		
1,300.0	1,288.2	1,288.2	1,288.2	3.7	2.8	172.43	0.0	-89.7	214.6	208.9	5.68	37.813		
1,400.0	1,385.3	1,385.3	1,385.3	4.2	3.0	173.18	0.0	-89.7	238.1	232.0	6.14	38.773		
1,500.0	1,482.5	1,483.7	1,483.6	4.6	3.2	173.60	-0.9	-89.7	261.5	254.9	6.59	39.672		
1,600.0	1,579.6	1,582.4	1,582.4	5.1	3.4	173.44	-4.3	-89.7	284.3	277.3	7.02	40.474		
1,700.0	1,676.8	1,681.3	1,681.1	5.6	3.6	172.83	-10.3	-89.7	306.7	299.2	7.47	41.052		
1,800.0	1,774.0	1,779.5	1,778.9	6.1	3.7	171.91	-18.5	-89.6	328.7	320.7	7.93	41.425		
1,900.0	1,871.1	1,876.9	1,876.0	6.6	3.9	171.08	-26.8	-89.6	350.7	342.3	8.41	41.682		
2,000.0	1,968.3	1,974.4	1,973.0	7.1	4.1	170.33	-35.2	-89.6	372.8	363.9	8.90	41.861		
2,100.0	2,065.4	2,071.8	2,070.1	7.6	4.3	169.68	-43.6	-89.6	394.9	385.5	9.41	41.979		
2,200.0	2,162.6	2,169.2	2,167.2	8.2	4.6	169.09	-52.0	-89.6	417.1	407.1	9.92	42.051		
2,300.0	2,259.7	2,266.6	2,264.2	8.7	4.8	168.56	-60.3	-89.6	439.3	428.8	10.44	42.086		
2,400.0	2,356.9	2,364.1	2,361.3	9.2	5.0	168.08	-68.7	-89.6	461.5	450.6	10.96	42.094		
2,500.0	2,454.1	2,461.5	2,458.4	9.7	5.3	167.65	-77.1	-89.6	483.8	472.3	11.50	42.081		
2,600.0	2,551.2	2,558.9	2,555.4	10.2	5.5	167.25	-85.5	-89.6	506.1	494.1	12.04	42.052		
2,700.0	2,648.4	2,656.3	2,652.5	10.7	5.7	166.89	-93.8	-89.6	528.4	515.8	12.58	42.012		
2,800.0	2,745.5	2,753.8	2,749.6	11.2	6.0	166.56	-102.2	-89.6	550.8	537.6	13.12	41.963		
2,900.0	2,842.7	2,851.2	2,846.6	11.7	6.2	166.25	-110.6	-89.6	573.1	559.4	13.68	41.907		
3,000.0	2,939.9	2,948.6	2,943.7	12.2	6.5	165.97	-119.0	-89.5	595.5	581.3	14.23	41.848		
3,100.0	3,037.0	3,046.0	3,040.7	12.8	6.7	165.70	-127.4	-89.5	617.9	603.1	14.79	41.785		
3,200.0	3,134.2	3,143.5	3,137.8	13.3	7.0	165.46	-135.7	-89.5	640.3	624.9	15.35	41.720		
3,300.0	3,231.3	3,240.9	3,234.9	13.8	7.2	165.23	-144.1	-89.5	662.7	646.8	15.91	41.655		
3,400.0	3,328.5	3,338.3	3,331.9	14.3	7.5	165.02	-152.5	-89.5	685.1	668.6	16.47	41.589		
3,500.0	3,425.6	3,435.7	3,429.0	14.8	7.7	164.82	-160.9	-89.5	707.5	690.5	17.04	41.523		
3,600.0	3,522.8	3,533.2	3,526.1	15.3	8.0	164.63	-169.2	-89.5	729.9	712.3	17.61	41.458		
3,700.0	3,620.0	3,630.6	3,623.1	15.8	8.3	164.45	-177.6	-89.5	752.4	734.2	18.18	41.393		
3,800.0	3,717.1	3,728.0	3,720.2	16.4	8.5	164.29	-186.0	-89.5	774.8	756.1	18.75	41.330		
3,900.0	3,814.3	3,825.4	3,817.3	16.9	8.8	164.13	-194.4	-89.5	797.3	777.9	19.32	41.268		
4,000.0	3,911.4	3,922.9	3,914.3	17.4	9.0	163.98	-202.7	-89.5	819.7	799.8	19.89	41.207		
4,100.0	4,008.6	4,020.3	4,011.4	17.9	9.3	163.84	-211.1	-89.5	842.2	821.7	20.47	41.148		
4,200.0	4,105.7	4,117.7	4,108.5	18.4	9.6	163.71	-219.5	-89.4	864.6	843.6	21.04	41.090		
4,300.0	4,202.9	4,215.1	4,205.5	18.9	9.8	163.58	-227.9	-89.4	887.1	865.5	21.62	41.033		
4,400.0	4,300.1	4,312.6	4,302.6	19.4	10.1	163.46	-236.2	-89.4	909.6	887.4	22.20	40.978		
4,500.0	4,397.2	4,410.0	4,399.6	20.0	10.3	163.35	-244.6	-89.4	932.0	909.3	22.77	40.925		
4,600.0	4,494.4	4,507.4	4,496.7	20.5	10.6	163.24	-253.0	-89.4	954.5	931.2	23.35	40.873		
4,700.0	4,591.5	4,604.8	4,593.8	21.0	10.9	163.13	-261.4	-89.4	977.0	953.1	23.93	40.822		
4,800.0	4,688.7	4,702.3	4,690.8	21.5	11.1	163.03	-269.8	-89.4	999.5	975.0	24.51	40.773		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
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	500.0	500.0	1.0	1.0	163.96	0.0	-14.0	15.6	13.6	2.01	7.740		
600.0	599.9	599.9	599.9	1.2	1.2	167.78	0.0	-14.0	20.4	17.9	2.45	8.300		
700.0	699.5	700.2	700.2	1.4	1.4	170.69	-0.5	-12.8	27.2	24.3	2.89	9.421		
800.0	798.8	800.7	800.6	1.7	1.6	172.30	-1.9	-9.1	34.7	31.4	3.31	10.492		
900.0	897.7	901.4	901.1	2.0	1.9	173.22	-4.4	-3.0	42.9	39.2	3.75	11.466		
1,000.0	996.1	1,002.2	1,001.5	2.3	2.1	173.73	-7.8	5.7	51.9	47.7	4.19	12.364		
1,100.0	1,093.8	1,103.2	1,101.8	2.7	2.4	174.00	-12.1	16.8	61.4	56.8	4.65	13.197		
1,126.1	1,119.2	1,129.6	1,128.0	2.9	2.4	174.04	-13.4	20.1	64.0	59.3	4.78	13.402		
1,200.0	1,191.0	1,204.5	1,202.0	3.2	2.7	174.05	-17.5	30.4	70.8	65.7	5.12	13.812		
1,300.0	1,288.2	1,306.2	1,302.2	3.7	3.0	173.77	-23.9	46.6	77.6	72.0	5.61	13.831		
1,400.0	1,385.3	1,408.3	1,402.2	4.2	3.4	173.21	-31.2	65.3	81.8	75.7	6.12	13.371		
1,500.0	1,482.5	1,509.0	1,500.5	4.6	3.8	172.44	-39.3	85.6	84.0	77.4	6.65	12.635		
1,600.0	1,579.6	1,608.9	1,598.1	5.1	4.2	171.69	-47.3	106.0	86.1	78.9	7.19	11.975		
1,700.0	1,676.8	1,708.9	1,695.6	5.6	4.6	170.97	-55.3	126.4	88.1	80.4	7.74	11.386		
1,800.0	1,774.0	1,808.9	1,793.2	6.1	5.1	170.29	-63.3	146.7	90.2	81.9	8.30	10.863		
1,900.0	1,871.1	1,908.9	1,890.7	6.6	5.5	169.64	-71.4	167.1	92.2	83.4	8.87	10.397		
2,000.0	1,968.3	2,008.8	1,988.3	7.1	6.0	169.02	-79.4	187.5	94.3	84.9	9.45	9.978		
2,100.0	2,065.4	2,108.8	2,085.8	7.6	6.4	168.42	-87.4	207.9	96.4	86.4	10.04	9.601		
2,200.0	2,162.6	2,208.8	2,183.4	8.2	6.9	167.85	-95.4	228.2	98.5	87.9	10.64	9.259		
2,300.0	2,259.7	2,308.8	2,280.9	8.7	7.4	167.31	-103.5	248.6	100.6	89.4	11.25	8.949		
2,400.0	2,356.9	2,408.7	2,378.5	9.2	7.8	166.78	-111.5	269.0	102.8	90.9	11.86	8.666		
2,500.0	2,454.1	2,508.7	2,476.0	9.7	8.3	166.28	-119.5	289.3	104.9	92.4	12.48	8.408		
2,600.0	2,551.2	2,608.7	2,573.5	10.2	8.8	165.80	-127.5	309.7	107.0	93.9	13.10	8.170		
2,700.0	2,648.4	2,708.6	2,671.1	10.7	9.3	165.34	-135.6	330.1	109.2	95.5	13.73	7.951		
2,800.0	2,745.5	2,808.6	2,768.6	11.2	9.7	164.89	-143.6	350.4	111.3	97.0	14.37	7.749		
2,900.0	2,842.7	2,908.6	2,866.2	11.7	10.2	164.46	-151.6	370.8	113.5	98.5	15.01	7.562		
3,000.0	2,939.9	3,008.6	2,963.7	12.2	10.7	164.05	-159.6	391.2	115.7	100.0	15.66	7.388		
3,100.0	3,037.0	3,108.5	3,061.3	12.8	11.2	163.65	-167.7	411.6	117.8	101.5	16.31	7.226		
3,200.0	3,134.2	3,208.5	3,158.8	13.3	11.6	163.27	-175.7	431.9	120.0	103.1	16.96	7.075		
3,300.0	3,231.3	3,308.5	3,256.4	13.8	12.1	162.90	-183.7	452.3	122.2	104.6	17.62	6.934		
3,400.0	3,328.5	3,408.5	3,353.9	14.3	12.6	162.55	-191.7	472.7	124.4	106.1	18.29	6.802		
3,500.0	3,425.6	3,508.4	3,451.5	14.8	13.1	162.20	-199.8	493.0	126.6	107.6	18.95	6.679		
3,600.0	3,522.8	3,608.4	3,549.0	15.3	13.5	161.87	-207.8	513.4	128.8	109.2	19.62	6.562		
3,700.0	3,620.0	3,708.4	3,646.6	15.8	14.0	161.55	-215.8	533.8	131.0	110.7	20.30	6.453		
3,800.0	3,717.1	3,808.3	3,744.1	16.4	14.5	161.24	-223.8	554.1	133.2	112.2	20.98	6.349		
3,900.0	3,814.3	3,908.3	3,841.6	16.9	15.0	160.94	-231.9	574.5	135.4	113.7	21.66	6.252		
4,000.0	3,911.4	4,008.3	3,939.2	17.4	15.5	160.65	-239.9	594.9	137.6	115.3	22.34	6.159		
4,100.0	4,008.6	4,108.3	4,036.7	17.9	15.9	160.37	-247.9	615.3	139.8	116.8	23.03	6.072		
4,200.0	4,105.7	4,208.2	4,134.3	18.4	16.4	160.09	-255.9	635.6	142.0	118.3	23.72	5.989		
4,300.0	4,202.9	4,308.2	4,231.8	18.9	16.9	159.83	-264.0	656.0	144.3	119.9	24.41	5.910		
4,400.0	4,300.1	4,408.2	4,329.4	19.4	17.4	159.57	-272.0	676.4	146.5	121.4	25.10	5.836		
4,500.0	4,397.2	4,508.2	4,426.9	20.0	17.9	159.33	-280.0	696.7	148.7	122.9	25.80	5.764		
4,600.0	4,494.4	4,608.1	4,524.5	20.5	18.3	159.08	-288.0	717.1	150.9	124.5	26.50	5.697		
4,700.0	4,591.5	4,708.1	4,622.0	21.0	18.8	158.85	-296.1	737.5	153.2	126.0	27.20	5.632		
4,800.0	4,688.7	4,808.1	4,719.6	21.5	19.3	158.62	-304.1	757.8	155.4	127.5	27.90	5.570		
4,900.0	4,785.9	4,908.1	4,817.1	22.0	19.8	158.40	-312.1	778.2	157.7	129.0	28.61	5.511		
5,000.0	4,883.0	5,008.0	4,914.7	22.5	20.3	158.19	-320.1	798.6	159.9	130.6	29.31	5.455		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	4,980.2	5,108.0	5,012.2	23.1	20.8	157.98	-328.2	819.0	162.1	132.1	30.02	5.401		
5,200.0	5,077.3	5,208.0	5,109.8	23.6	21.2	157.78	-336.2	839.3	164.4	133.7	30.73	5.349		
5,300.0	5,174.5	5,307.9	5,207.3	24.1	21.7	157.58	-344.2	859.7	166.6	135.2	31.44	5.299		
5,400.0	5,271.6	5,407.9	5,304.8	24.6	22.2	157.39	-352.2	880.1	168.9	136.7	32.16	5.252		
5,500.0	5,368.8	5,507.9	5,402.4	25.1	22.7	157.20	-360.3	900.4	171.1	138.3	32.87	5.206		
5,600.0	5,466.0	5,607.9	5,499.9	25.6	23.2	157.02	-368.3	920.8	173.4	139.8	33.59	5.162		
5,700.0	5,563.1	5,707.8	5,597.5	26.1	23.6	156.84	-376.3	941.2	175.6	141.3	34.31	5.120		
5,800.0	5,660.3	5,807.8	5,695.0	26.7	24.1	156.66	-384.3	961.5	177.9	142.9	35.03	5.079		
5,900.0	5,757.4	5,907.8	5,792.6	27.2	24.6	156.50	-392.4	981.9	180.2	144.4	35.75	5.040		
6,000.0	5,854.6	6,007.8	5,890.1	27.7	25.1	156.33	-400.4	1,002.3	182.4	145.9	36.47	5.002		
6,100.0	5,951.7	6,107.7	5,987.7	28.2	25.6	156.17	-408.4	1,022.7	184.7	147.5	37.19	4.965		
6,200.0	6,048.9	6,207.7	6,085.2	28.7	26.1	156.01	-416.4	1,043.0	186.9	149.0	37.92	4.930		
6,300.0	6,146.1	6,307.7	6,182.8	29.2	26.5	155.86	-424.5	1,063.4	189.2	150.6	38.64	4.896		
6,400.0	6,243.2	6,407.6	6,280.3	29.8	27.0	155.71	-432.5	1,083.8	191.5	152.1	39.37	4.863		
6,500.0	6,340.4	6,507.6	6,377.9	30.3	27.5	155.56	-440.5	1,104.1	193.7	153.6	40.09	4.832		
6,600.0	6,437.5	6,607.6	6,475.4	30.8	28.0	155.42	-448.5	1,124.5	196.0	155.2	40.82	4.801		
6,700.0	6,534.7	6,707.6	6,572.9	31.3	28.5	155.28	-456.6	1,144.9	198.3	156.7	41.55	4.771		
6,800.0	6,631.9	6,807.5	6,670.5	31.8	28.9	155.15	-464.6	1,165.2	200.5	158.2	42.28	4.743		
6,900.0	6,729.0	6,907.5	6,768.0	32.3	29.4	155.01	-472.6	1,185.6	202.8	159.8	43.01	4.715		
7,000.0	6,826.2	7,007.5	6,865.6	32.8	29.9	154.88	-480.6	1,206.0	205.1	161.3	43.74	4.688		
7,100.0	6,923.3	7,105.7	6,961.3	33.4	30.4	154.73	-489.9	1,226.0	207.5	162.9	44.45	4.649		
7,200.0	7,020.5	7,200.0	7,051.5	33.9	30.9	151.02	-509.5	1,244.9	212.0	165.1	46.92	4.518		
7,300.0	7,117.6	7,289.7	7,134.3	34.4	31.4	145.10	-539.2	1,262.2	220.8	170.2	50.63	4.362		
7,376.0	7,191.5	7,353.2	7,190.4	34.8	31.8	139.66	-566.4	1,274.0	232.4	178.4	53.99	4.305		
7,400.0	7,214.8	7,372.5	7,207.0	34.9	31.9	130.43	-575.7	1,277.5	237.0	181.8	55.22	4.293		
7,450.0	7,263.0	7,412.1	7,240.1	35.2	32.2	113.96	-596.2	1,284.5	247.3	189.8	57.54	4.299		
7,500.0	7,310.6	7,450.0	7,270.8	35.4	32.4	101.11	-617.5	1,290.9	258.3	198.9	59.45	4.345		
7,550.0	7,357.4	7,489.5	7,301.5	35.7	32.7	90.94	-641.4	1,297.4	269.7	208.6	61.05	4.417		
7,600.0	7,403.1	7,527.3	7,329.6	36.0	33.0	82.94	-665.9	1,303.3	281.3	219.1	62.19	4.522		
7,650.0	7,447.5	7,564.7	7,356.2	36.3	33.3	76.50	-691.6	1,309.0	292.9	229.9	62.93	4.654		
7,700.0	7,490.5	7,600.0	7,380.1	36.6	33.6	71.29	-717.2	1,314.0	304.3	241.1	63.23	4.813		
7,750.0	7,531.7	7,638.1	7,404.4	37.0	33.9	66.84	-746.1	1,319.2	315.4	252.2	63.22	4.990		
7,800.0	7,571.1	7,674.3	7,426.1	37.3	34.2	63.16	-774.7	1,323.8	326.2	263.4	62.82	5.192		
7,850.0	7,608.3	7,710.2	7,446.2	37.7	34.5	60.05	-804.1	1,328.1	336.4	274.3	62.09	5.418		
7,900.0	7,643.3	7,750.0	7,466.7	38.1	34.9	57.32	-837.9	1,332.4	346.1	285.0	61.10	5.664		
7,950.0	7,675.8	7,781.2	7,481.5	38.4	35.2	55.17	-865.2	1,335.6	355.0	295.3	59.76	5.940		
8,000.0	7,705.7	7,816.4	7,496.8	38.8	35.5	53.26	-896.7	1,338.9	363.3	305.1	58.22	6.240		
8,050.0	7,732.8	7,850.0	7,509.9	39.3	35.8	51.66	-927.5	1,341.7	370.8	314.3	56.46	6.567		
8,100.0	7,757.1	7,886.1	7,522.5	39.7	36.2	50.28	-961.3	1,344.4	377.5	322.9	54.55	6.920		
8,150.0	7,778.3	7,920.8	7,532.9	40.1	36.5	49.15	-994.3	1,346.7	383.3	330.8	52.48	7.304		
8,200.0	7,796.5	7,950.0	7,540.5	40.6	36.8	48.27	-1,022.4	1,348.4	388.3	338.1	50.27	7.725		
8,250.0	7,811.4	7,989.8	7,549.0	41.0	37.2	47.50	-1,061.2	1,350.3	392.4	344.3	48.08	8.161		
8,300.0	7,823.1	8,024.2	7,554.7	41.5	37.6	46.95	-1,095.1	1,351.6	395.5	349.7	45.83	8.631		
8,350.0	7,831.4	8,058.5	7,558.7	41.9	38.0	46.56	-1,129.1	1,352.5	397.7	354.1	43.60	9.123		
8,400.0	7,836.4	8,100.0	7,561.5	42.4	38.4	46.33	-1,170.6	1,353.2	399.1	357.6	41.51	9.614		
8,401.5	7,836.5	8,100.0	7,561.5	42.4	38.4	46.33	-1,170.6	1,353.2	399.1	357.7	41.44	9.631		
8,448.4	7,838.0	8,127.8	7,562.0	42.9	38.7	46.28	-1,198.4	1,353.4	399.4	359.9	39.51	10.109		
8,461.0	7,838.0	8,137.6	7,562.0	43.0	38.8	46.28	-1,208.2	1,353.4	399.3	359.6	39.74	10.048		
8,500.0	7,838.0	8,176.6	7,562.0	43.4	39.3	46.28	-1,247.2	1,353.6	399.4	358.8	40.58	9.842		
8,600.0	7,838.0	8,276.6	7,562.0	44.4	40.4	46.28	-1,347.2	1,353.9	399.4	356.6	42.79	9.332		
8,700.0	7,838.0	8,376.6	7,562.0	45.5	41.6	46.28	-1,447.2	1,354.2	399.4	354.3	45.09	8.857		
8,800.0	7,838.0	8,476.6	7,562.0	46.7	42.9	46.28	-1,547.2	1,354.5	399.4	351.9	47.46	8.414		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,900.0	7,838.0	8,576.6	7,562.0	47.9	44.2	46.28	-1,647.2	1,354.8	399.4	349.5	49.90	8.004		
9,000.0	7,838.0	8,676.6	7,562.0	49.1	45.6	46.28	-1,747.2	1,355.1	399.4	347.0	52.38	7.624		
9,100.0	7,838.0	8,776.6	7,562.0	50.4	47.0	46.28	-1,847.2	1,355.4	399.4	344.4	54.91	7.273		
9,200.0	7,838.0	8,876.6	7,562.0	51.8	48.4	46.28	-1,947.2	1,355.7	399.4	341.9	57.48	6.947		
9,300.0	7,838.0	8,976.6	7,562.0	53.1	49.9	46.28	-2,047.2	1,356.0	399.4	339.3	60.09	6.646		
9,400.0	7,838.0	9,076.6	7,562.0	54.5	51.4	46.28	-2,147.2	1,356.3	399.4	336.6	62.72	6.367		
9,500.0	7,838.0	9,176.6	7,562.0	56.0	52.9	46.28	-2,247.2	1,356.6	399.4	334.0	65.39	6.108		
9,600.0	7,838.0	9,276.6	7,562.0	57.4	54.5	46.28	-2,347.2	1,356.9	399.4	331.3	68.07	5.867		
9,700.0	7,838.0	9,376.6	7,562.0	58.9	56.0	46.28	-2,447.2	1,357.2	399.4	328.6	70.78	5.642		
9,800.0	7,838.0	9,476.6	7,562.0	60.4	57.6	46.28	-2,547.2	1,357.5	399.4	325.9	73.50	5.433		
9,900.0	7,838.0	9,576.6	7,562.0	62.0	59.2	46.28	-2,647.2	1,357.8	399.4	323.1	76.24	5.238		
10,000.0	7,838.0	9,676.6	7,562.0	63.5	60.9	46.28	-2,747.2	1,358.1	399.4	320.4	79.00	5.055		
10,100.0	7,838.0	9,776.6	7,562.0	65.1	62.5	46.28	-2,847.2	1,358.4	399.4	317.6	81.77	4.884		
10,200.0	7,838.0	9,876.6	7,562.0	66.7	64.2	46.28	-2,947.2	1,358.7	399.4	314.8	84.55	4.723		
10,300.0	7,838.0	9,976.6	7,562.0	68.3	65.9	46.28	-3,047.2	1,359.0	399.4	312.0	87.35	4.572		
10,400.0	7,838.0	10,076.6	7,562.0	69.9	67.6	46.28	-3,147.2	1,359.3	399.4	309.2	90.15	4.430		
10,500.0	7,838.0	10,176.6	7,562.0	71.6	69.3	46.28	-3,247.2	1,359.6	399.4	306.4	92.96	4.296		
10,600.0	7,838.0	10,276.6	7,562.0	73.2	71.0	46.28	-3,347.2	1,359.9	399.4	303.6	95.78	4.170		
10,700.0	7,838.0	10,376.6	7,562.0	74.9	72.7	46.28	-3,447.2	1,360.2	399.4	300.8	98.61	4.050		
10,800.0	7,838.0	10,476.6	7,562.0	76.6	74.4	46.28	-3,547.2	1,360.5	399.4	297.9	101.44	3.937		
10,900.0	7,838.0	10,576.6	7,562.0	78.3	76.2	46.28	-3,647.2	1,360.8	399.4	295.1	104.28	3.830		
11,000.0	7,838.0	10,676.6	7,562.0	80.0	77.9	46.28	-3,747.2	1,361.1	399.4	292.2	107.13	3.728		
11,100.0	7,838.0	10,776.6	7,562.0	81.7	79.7	46.28	-3,847.2	1,361.4	399.4	289.4	109.98	3.631		
11,200.0	7,838.0	10,876.6	7,562.0	83.4	81.4	46.28	-3,947.2	1,361.7	399.4	286.5	112.83	3.539		
11,300.0	7,838.0	10,976.6	7,562.0	85.1	83.2	46.28	-4,047.2	1,362.0	399.4	283.7	115.69	3.452		
11,400.0	7,838.0	11,076.6	7,562.0	86.9	85.0	46.28	-4,147.2	1,362.3	399.4	280.8	118.56	3.369		
11,500.0	7,838.0	11,176.6	7,562.0	88.6	86.8	46.28	-4,247.2	1,362.6	399.4	277.9	121.43	3.289		
11,600.0	7,838.0	11,276.6	7,562.0	90.4	88.5	46.28	-4,347.2	1,362.9	399.4	275.1	124.30	3.213		
11,700.0	7,838.0	11,376.6	7,562.0	92.1	90.3	46.28	-4,447.2	1,363.2	399.4	272.2	127.18	3.140		
11,800.0	7,838.0	11,476.6	7,562.0	93.9	92.1	46.28	-4,547.2	1,363.5	399.4	269.3	130.05	3.071		
11,900.0	7,838.0	11,576.6	7,562.0	95.6	93.9	46.28	-4,647.2	1,363.8	399.4	266.4	132.94	3.004		
12,000.0	7,838.0	11,676.6	7,562.0	97.4	95.7	46.28	-4,747.2	1,364.1	399.4	263.6	135.82	2.940		
12,100.0	7,838.0	11,776.6	7,562.0	99.2	97.6	46.28	-4,847.2	1,364.4	399.4	260.7	138.71	2.879		
12,200.0	7,838.0	11,876.6	7,562.0	101.0	99.4	46.28	-4,947.2	1,364.7	399.4	257.8	141.60	2.820		
12,300.0	7,838.0	11,976.6	7,562.0	102.8	101.2	46.28	-5,047.2	1,365.0	399.4	254.9	144.49	2.764		
12,400.0	7,838.0	12,076.6	7,562.0	104.6	103.0	46.28	-5,147.2	1,365.3	399.4	252.0	147.39	2.710		
12,500.0	7,838.0	12,176.6	7,562.0	106.4	104.8	46.28	-5,247.2	1,365.6	399.4	249.1	150.28	2.658		
12,600.0	7,838.0	12,276.6	7,562.0	108.2	106.7	46.28	-5,347.2	1,365.9	399.4	246.2	153.18	2.607		
12,700.0	7,838.0	12,376.6	7,562.0	110.0	108.5	46.28	-5,447.2	1,366.2	399.4	243.3	156.08	2.559		
12,800.0	7,838.0	12,476.6	7,562.0	111.8	110.3	46.29	-5,547.2	1,366.5	399.4	240.4	158.98	2.512		
12,900.0	7,838.0	12,576.6	7,562.0	113.6	112.2	46.29	-5,647.2	1,366.8	399.4	237.5	161.89	2.467		
13,000.0	7,838.0	12,676.6	7,562.0	115.4	114.0	46.29	-5,747.2	1,367.1	399.4	234.6	164.79	2.424		
13,100.0	7,838.0	12,776.6	7,562.0	117.2	115.9	46.29	-5,847.2	1,367.4	399.4	231.7	167.70	2.382		
13,200.0	7,838.0	12,876.6	7,562.0	119.1	117.7	46.29	-5,947.2	1,367.7	399.4	228.8	170.61	2.341		
13,300.0	7,838.0	12,976.6	7,562.0	120.9	119.6	46.29	-6,047.2	1,368.0	399.4	225.9	173.52	2.302		
13,400.0	7,838.0	13,076.6	7,562.0	122.7	121.4	46.29	-6,147.2	1,368.4	399.4	223.0	176.43	2.264		
13,500.0	7,838.0	13,176.6	7,562.0	124.5	123.3	46.29	-6,247.2	1,368.7	399.4	220.0	179.34	2.227		
13,600.0	7,838.0	13,276.6	7,562.0	126.4	125.1	46.29	-6,347.2	1,369.0	399.4	217.1	182.25	2.191		
13,700.0	7,838.0	13,376.6	7,562.0	128.2	127.0	46.29	-6,447.2	1,369.3	399.4	214.2	185.17	2.157		
13,800.0	7,838.0	13,476.6	7,562.0	130.1	128.8	46.29	-6,547.2	1,369.6	399.4	211.3	188.08	2.123		
13,900.0	7,838.0	13,576.6	7,562.0	131.9	130.7	46.29	-6,647.2	1,369.9	399.4	208.4	191.00	2.091		
14,000.0	7,838.0	13,676.6	7,562.0	133.7	132.5	46.29	-6,747.2	1,370.2	399.4	205.5	193.92	2.060		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
14,100.0	7,838.0	13,776.6	7,562.0	135.6	134.4	46.29	-6,847.2	1,370.5	399.4	202.6	196.83	2.029	
14,110.1	7,838.0	13,786.7	7,562.0	135.8	134.6	46.29	-6,857.3	1,370.5	399.4	202.3	197.13	2.026	
14,124.0	7,838.0	13,799.8	7,562.0	136.0	134.8	46.29	-6,870.3	1,370.5	399.4	201.9	197.52	2.022 SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.0	-44.8	44.8					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-44.8	44.8	44.6	0.22	199.457		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-44.8	44.8	44.2	0.67	66.486		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-44.8	44.8	43.7	1.12	39.891		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-44.8	44.8	43.3	1.57	28.494 CC, ES		
500.0	500.0	500.0	500.0	1.0	1.0	162.76	0.0	-44.8	46.4	44.4	2.01	23.045		
600.0	599.9	599.9	599.9	1.2	1.2	164.38	0.0	-44.8	51.1	48.7	2.45	20.837		
700.0	699.5	699.5	699.5	1.4	1.5	166.49	0.0	-44.8	59.1	56.2	2.91	20.336		
800.0	798.8	798.8	798.8	1.7	1.7	168.63	0.0	-44.8	70.3	67.0	3.36	20.906		
900.0	897.7	899.7	899.7	2.0	1.9	170.21	-0.7	-43.7	83.7	79.9	3.80	21.999		
1,000.0	996.1	1,000.9	1,000.8	2.3	2.1	171.01	-2.9	-40.4	97.9	93.7	4.23	23.147		
1,100.0	1,093.8	1,102.3	1,102.0	2.7	2.3	171.29	-6.5	-34.8	113.0	108.3	4.67	24.190		
1,126.1	1,119.2	1,128.8	1,128.4	2.9	2.3	171.30	-7.7	-33.0	117.1	112.3	4.79	24.440		
1,200.0	1,191.0	1,204.1	1,203.4	3.2	2.5	171.20	-11.7	-27.0	128.0	122.9	5.12	24.993		
1,300.0	1,288.2	1,306.6	1,305.1	3.7	2.8	170.68	-18.4	-16.8	140.7	135.1	5.59	25.155		
1,400.0	1,385.3	1,407.4	1,404.9	4.2	3.0	169.90	-26.2	-4.9	151.4	145.3	6.09	24.874		
1,500.0	1,482.5	1,506.9	1,503.3	4.6	3.3	169.20	-34.0	7.0	162.0	155.4	6.60	24.545		
1,600.0	1,579.6	1,606.3	1,601.7	5.1	3.6	168.59	-41.8	18.9	172.5	165.4	7.12	24.221		
1,700.0	1,676.8	1,705.7	1,700.1	5.6	3.9	168.04	-49.6	30.8	183.1	175.4	7.66	23.915		
1,800.0	1,774.0	1,805.1	1,798.5	6.1	4.3	167.56	-57.4	42.8	193.7	185.5	8.20	23.622		
1,900.0	1,871.1	1,904.6	1,896.9	6.6	4.6	167.12	-65.2	54.7	204.2	195.5	8.75	23.347		
2,000.0	1,968.3	2,004.0	1,995.3	7.1	4.9	166.73	-73.0	66.6	214.9	205.6	9.31	23.089		
2,100.0	2,065.4	2,103.4	2,093.7	7.6	5.2	166.38	-80.8	78.5	225.5	215.6	9.87	22.848		
2,200.0	2,162.6	2,202.8	2,192.1	8.2	5.6	166.05	-88.6	90.4	236.1	225.7	10.44	22.624		
2,300.0	2,259.7	2,302.3	2,290.5	8.7	5.9	165.76	-96.4	102.3	246.7	235.7	11.01	22.415		
2,400.0	2,356.9	2,401.7	2,388.9	9.2	6.3	165.49	-104.2	114.2	257.4	245.8	11.58	22.220		
2,500.0	2,454.1	2,501.1	2,487.3	9.7	6.6	165.24	-112.1	126.1	268.0	255.8	12.16	22.038		
2,600.0	2,551.2	2,600.5	2,585.7	10.2	6.9	165.01	-119.9	138.1	278.6	265.9	12.74	21.868		
2,700.0	2,648.4	2,700.0	2,684.1	10.7	7.3	164.79	-127.7	150.0	289.3	276.0	13.33	21.709		
2,800.0	2,745.5	2,799.4	2,782.5	11.2	7.6	164.60	-135.5	161.9	299.9	286.0	13.91	21.560		
2,900.0	2,842.7	2,898.8	2,880.9	11.7	8.0	164.41	-143.3	173.8	310.6	296.1	14.50	21.420		
3,000.0	2,939.9	2,998.2	2,979.3	12.2	8.3	164.24	-151.1	185.7	321.3	306.2	15.09	21.289		
3,100.0	3,037.0	3,097.7	3,077.7	12.8	8.7	164.08	-158.9	197.6	331.9	316.2	15.68	21.166		
3,200.0	3,134.2	3,197.1	3,176.1	13.3	9.0	163.93	-166.7	209.5	342.6	326.3	16.27	21.050		
3,300.0	3,231.3	3,296.5	3,274.5	13.8	9.4	163.78	-174.5	221.4	353.3	336.4	16.87	20.941		
3,400.0	3,328.5	3,395.9	3,372.9	14.3	9.7	163.65	-182.3	233.3	363.9	346.5	17.46	20.838		
3,500.0	3,425.6	3,495.4	3,471.3	14.8	10.0	163.52	-190.1	245.3	374.6	356.5	18.06	20.741		
3,600.0	3,522.8	3,594.8	3,569.7	15.3	10.4	163.41	-198.0	257.2	385.3	366.6	18.66	20.648		
3,700.0	3,620.0	3,694.2	3,668.1	15.8	10.7	163.29	-205.8	269.1	395.9	376.7	19.26	20.561		
3,800.0	3,717.1	3,793.7	3,766.5	16.4	11.1	163.19	-213.6	281.0	406.6	386.8	19.86	20.478		
3,900.0	3,814.3	3,893.1	3,864.9	16.9	11.4	163.08	-221.4	292.9	417.3	396.8	20.46	20.399		
4,000.0	3,911.4	3,992.5	3,963.3	17.4	11.8	162.99	-229.2	304.8	428.0	406.9	21.06	20.324		
4,100.0	4,008.6	4,091.9	4,061.7	17.9	12.1	162.90	-237.0	316.7	438.7	417.0	21.66	20.253		
4,200.0	4,105.7	4,191.4	4,160.1	18.4	12.5	162.81	-244.8	328.6	449.3	427.1	22.26	20.185		
4,300.0	4,202.9	4,290.8	4,258.5	18.9	12.9	162.73	-252.6	340.6	460.0	437.1	22.86	20.120		
4,400.0	4,300.1	4,390.2	4,356.9	19.4	13.2	162.65	-260.4	352.5	470.7	447.2	23.47	20.058		
4,500.0	4,397.2	4,489.6	4,455.3	20.0	13.6	162.57	-268.2	364.4	481.4	457.3	24.07	19.999		
4,600.0	4,494.4	4,589.1	4,553.8	20.5	13.9	162.50	-276.0	376.3	492.1	467.4	24.67	19.942		
4,700.0	4,591.5	4,688.5	4,652.2	21.0	14.3	162.43	-283.9	388.2	502.7	477.5	25.28	19.888		
4,800.0	4,688.7	4,787.9	4,750.6	21.5	14.6	162.36	-291.7	400.1	513.4	487.5	25.88	19.836		
4,900.0	4,785.9	4,887.3	4,849.0	22.0	15.0	162.30	-299.5	412.0	524.1	497.6	26.49	19.786		
5,000.0	4,883.0	4,986.8	4,947.4	22.5	15.3	162.24	-307.3	423.9	534.8	507.7	27.10	19.738		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	4,980.2	5,086.2	5,045.8	23.1	15.7	162.18	-315.1	435.9	545.5	517.8	27.70	19.692		
5,200.0	5,077.3	5,185.6	5,144.2	23.6	16.0	162.12	-322.9	447.8	556.2	527.9	28.31	19.647		
5,300.0	5,174.5	5,285.0	5,242.6	24.1	16.4	162.07	-330.7	459.7	566.9	538.0	28.91	19.605		
5,400.0	5,271.6	5,384.5	5,341.0	24.6	16.7	162.01	-338.5	471.6	577.6	548.0	29.52	19.564		
5,500.0	5,368.8	5,483.9	5,439.4	25.1	17.1	161.96	-346.3	483.5	588.2	558.1	30.13	19.524		
5,600.0	5,466.0	5,583.3	5,537.8	25.6	17.4	161.91	-354.1	495.4	598.9	568.2	30.74	19.486		
5,700.0	5,563.1	5,682.7	5,636.2	26.1	17.8	161.87	-361.9	507.3	609.6	578.3	31.34	19.449		
5,800.0	5,660.3	5,782.2	5,734.6	26.7	18.1	161.82	-369.8	519.2	620.3	588.4	31.95	19.414		
5,900.0	5,757.4	5,881.6	5,833.0	27.2	18.5	161.78	-377.6	531.1	631.0	598.4	32.56	19.380		
6,000.0	5,854.6	5,981.0	5,931.4	27.7	18.8	161.74	-385.4	543.1	641.7	608.5	33.17	19.347		
6,100.0	5,951.7	6,080.4	6,029.8	28.2	19.2	161.69	-393.2	555.0	652.4	618.6	33.78	19.314		
6,200.0	6,048.9	6,179.9	6,128.2	28.7	19.6	161.65	-401.0	566.9	663.1	628.7	34.39	19.283		
6,300.0	6,146.1	6,279.3	6,226.6	29.2	19.9	161.62	-408.8	578.8	673.8	638.8	34.99	19.253		
6,400.0	6,243.2	6,378.7	6,325.0	29.8	20.3	161.58	-416.6	590.7	684.5	648.9	35.60	19.224		
6,500.0	6,340.4	6,478.1	6,423.4	30.3	20.6	161.54	-424.4	602.6	695.2	658.9	36.21	19.196		
6,600.0	6,437.5	6,577.6	6,521.8	30.8	21.0	161.51	-432.2	614.5	705.8	669.0	36.82	19.169		
6,700.0	6,534.7	6,677.0	6,620.2	31.3	21.3	161.47	-440.0	626.4	716.5	679.1	37.43	19.142		
6,800.0	6,631.9	6,776.4	6,718.6	31.8	21.7	161.44	-447.8	638.4	727.2	689.2	38.04	19.117		
6,900.0	6,729.0	6,875.9	6,817.0	32.3	22.0	161.41	-455.7	650.3	737.9	699.3	38.65	19.092		
7,000.0	6,826.2	6,975.3	6,915.4	32.8	22.4	161.38	-463.5	662.2	748.6	709.4	39.26	19.068		
7,100.0	6,923.3	7,074.7	7,013.8	33.4	22.7	161.35	-471.3	674.1	759.3	719.4	39.87	19.044		
7,200.0	7,020.5	7,174.1	7,112.2	33.9	23.1	161.32	-479.1	686.0	770.0	729.5	40.48	19.021		
7,300.0	7,117.6	7,273.2	7,210.2	34.4	23.4	161.25	-487.4	697.9	780.7	739.6	41.11	18.992		
7,376.0	7,191.5	7,347.1	7,282.5	34.8	23.7	160.75	-499.8	706.6	789.0	747.2	41.76	18.892		
7,400.0	7,214.8	7,370.1	7,304.7	34.9	23.8	153.13	-505.2	709.3	791.6	749.5	42.09	18.809		
7,450.0	7,263.0	7,417.8	7,350.1	35.2	24.1	139.74	-518.6	714.9	797.1	754.3	42.79	18.628		
7,500.0	7,310.6	7,465.0	7,394.1	35.4	24.3	129.55	-534.8	720.2	802.6	759.0	43.55	18.429		
7,550.0	7,357.4	7,511.9	7,436.6	35.7	24.6	121.84	-553.8	725.4	808.0	763.7	44.36	18.216		
7,600.0	7,403.1	7,558.3	7,477.4	36.0	24.9	115.93	-575.4	730.5	813.4	768.2	45.21	17.992		
7,650.0	7,447.5	7,604.5	7,516.5	36.3	25.2	111.28	-599.4	735.3	818.7	772.6	46.09	17.762		
7,700.0	7,490.5	7,650.0	7,553.5	36.6	25.5	107.54	-625.5	739.8	823.8	776.8	46.99	17.530		
7,750.0	7,531.7	7,695.9	7,589.0	37.0	25.9	104.47	-654.2	744.2	828.7	780.8	47.92	17.294		
7,800.0	7,571.1	7,741.1	7,622.3	37.3	26.2	101.92	-684.6	748.3	833.4	784.6	48.85	17.061		
7,850.0	7,608.3	7,786.2	7,653.3	37.7	26.6	99.77	-717.0	752.2	837.9	788.1	49.78	16.831		
7,900.0	7,643.3	7,831.0	7,682.2	38.1	27.0	97.94	-751.1	755.8	842.2	791.4	50.71	16.607		
7,950.0	7,675.8	7,875.6	7,708.8	38.4	27.5	96.37	-786.7	759.1	846.1	794.5	51.63	16.388		
8,000.0	7,705.7	7,920.0	7,733.0	38.8	27.9	95.04	-823.8	762.2	849.7	797.2	52.54	16.175		
8,050.0	7,732.8	7,964.3	7,754.8	39.3	28.4	93.89	-862.3	765.0	853.1	799.6	53.43	15.967		
8,100.0	7,757.1	8,008.4	7,774.2	39.7	28.9	92.92	-901.8	767.4	856.0	801.7	54.30	15.765		
8,150.0	7,778.3	8,050.0	7,790.2	40.1	29.3	92.12	-940.2	769.5	858.6	803.5	55.12	15.577		
8,200.0	7,796.5	8,096.4	7,805.4	40.6	29.9	91.44	-983.9	771.5	860.8	804.8	56.00	15.373		
8,250.0	7,811.4	8,140.2	7,817.1	41.0	30.4	90.91	-1,026.1	773.1	862.7	805.8	56.83	15.180		
8,300.0	7,823.1	8,184.0	7,826.3	41.5	30.9	90.50	-1,068.9	774.3	864.1	806.4	57.65	14.989		
8,350.0	7,831.4	8,227.7	7,832.8	41.9	31.5	90.22	-1,112.1	775.3	865.1	806.6	58.46	14.798		
8,400.0	7,836.4	8,271.4	7,836.7	42.4	32.1	90.05	-1,155.6	775.9	865.7	806.4	59.27	14.606		
8,448.4	7,838.0	8,314.2	7,838.0	42.9	32.6	90.00	-1,198.4	776.2	865.9	805.8	60.06	14.417		
8,500.0	7,838.0	8,365.2	7,838.0	43.4	33.3	90.00	-1,249.3	776.4	865.8	804.3	61.54	14.070		
8,600.0	7,838.0	8,465.2	7,838.0	44.4	34.7	90.00	-1,349.3	776.7	865.8	801.3	64.51	13.421		
8,700.0	7,838.0	8,565.2	7,838.0	45.5	36.1	90.00	-1,449.3	777.1	865.7	798.2	67.57	12.813		
8,800.0	7,838.0	8,665.2	7,838.0	46.7	37.6	90.00	-1,549.3	777.4	865.7	795.0	70.70	12.244		
8,900.0	7,838.0	8,765.2	7,838.0	47.9	39.1	90.00	-1,649.3	777.8	865.6	791.7	73.90	11.714		
9,000.0	7,838.0	8,865.2	7,838.0	49.1	40.7	90.00	-1,749.3	778.1	865.6	788.4	77.16	11.219		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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

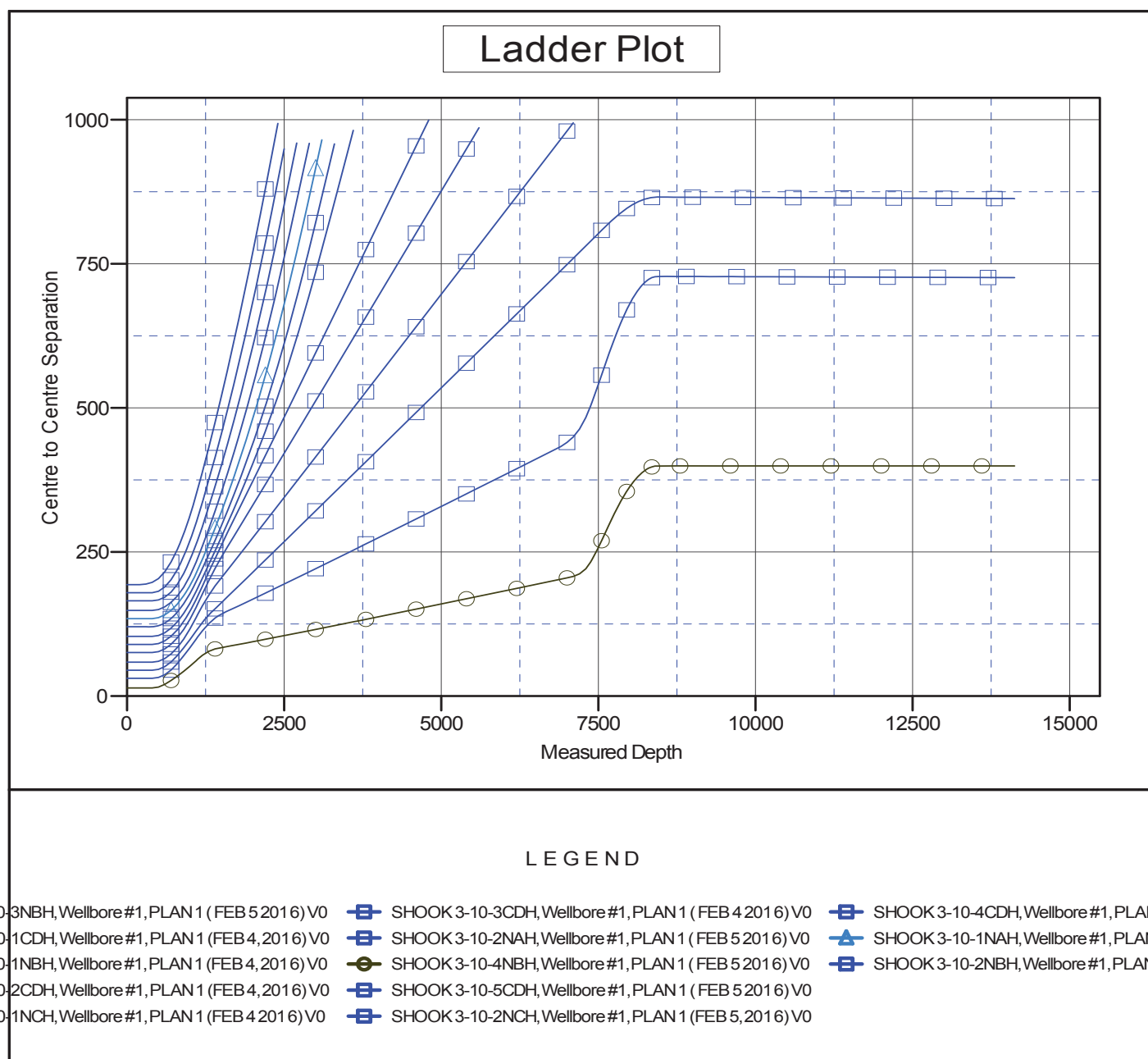
Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,100.0	7,838.0	8,965.2	7,838.0	50.4	42.2	90.00	-1,849.3	778.4	865.6	785.1	80.46	10.757		
9,200.0	7,838.0	9,065.2	7,838.0	51.8	43.8	90.00	-1,949.3	778.8	865.5	781.7	83.81	10.326		
9,300.0	7,838.0	9,165.2	7,838.0	53.1	45.5	90.00	-2,049.3	779.1	865.5	778.3	87.21	9.924		
9,400.0	7,838.0	9,265.2	7,838.0	54.5	47.1	90.00	-2,149.3	779.5	865.4	774.8	90.63	9.549		
9,500.0	7,838.0	9,365.2	7,838.0	56.0	48.8	90.00	-2,249.3	779.8	865.4	771.3	94.09	9.197		
9,600.0	7,838.0	9,465.2	7,838.0	57.4	50.5	90.00	-2,349.3	780.2	865.3	767.8	97.57	8.868		
9,700.0	7,838.0	9,565.2	7,838.0	58.9	52.2	90.00	-2,449.3	780.5	865.3	764.2	101.08	8.560		
9,800.0	7,838.0	9,665.2	7,838.0	60.4	53.9	90.00	-2,549.3	780.9	865.2	760.6	104.62	8.271		
9,900.0	7,838.0	9,765.2	7,838.0	62.0	55.6	90.00	-2,649.3	781.2	865.2	757.0	108.17	7.998		
10,000.0	7,838.0	9,865.2	7,838.0	63.5	57.4	90.00	-2,749.3	781.6	865.1	753.4	111.74	7.742		
10,100.0	7,838.0	9,965.2	7,838.0	65.1	59.1	90.00	-2,849.3	781.9	865.1	749.8	115.33	7.501		
10,200.0	7,838.0	10,065.2	7,838.0	66.7	60.9	90.00	-2,949.3	782.3	865.0	746.1	118.93	7.274		
10,300.0	7,838.0	10,165.2	7,838.0	68.3	62.7	90.00	-3,049.3	782.6	865.0	742.5	122.55	7.059		
10,400.0	7,838.0	10,265.2	7,838.0	69.9	64.4	90.00	-3,149.3	783.0	865.0	738.8	126.18	6.855		
10,500.0	7,838.0	10,365.2	7,838.0	71.6	66.2	90.00	-3,249.3	783.3	864.9	735.1	129.82	6.662		
10,600.0	7,838.0	10,465.2	7,838.0	73.2	68.0	90.00	-3,349.3	783.7	864.9	731.4	133.47	6.480		
10,700.0	7,838.0	10,565.2	7,838.0	74.9	69.8	90.00	-3,449.3	784.0	864.8	727.7	137.13	6.307		
10,800.0	7,838.0	10,665.2	7,838.0	76.6	71.6	90.00	-3,549.3	784.4	864.8	724.0	140.80	6.142		
10,900.0	7,838.0	10,765.2	7,838.0	78.3	73.4	90.00	-3,649.3	784.7	864.7	720.2	144.48	5.985		
11,000.0	7,838.0	10,865.2	7,838.0	80.0	75.3	90.00	-3,749.3	785.1	864.7	716.5	148.17	5.836		
11,100.0	7,838.0	10,965.2	7,838.0	81.7	77.1	90.00	-3,849.3	785.4	864.6	712.8	151.86	5.694		
11,200.0	7,838.0	11,065.2	7,838.0	83.4	78.9	90.00	-3,949.3	785.8	864.6	709.0	155.56	5.558		
11,300.0	7,838.0	11,165.2	7,838.0	85.1	80.7	90.00	-4,049.3	786.1	864.5	705.3	159.27	5.428		
11,400.0	7,838.0	11,265.2	7,838.0	86.9	82.6	90.00	-4,149.3	786.5	864.5	701.5	162.98	5.304		
11,500.0	7,838.0	11,365.2	7,838.0	88.6	84.4	90.00	-4,249.3	786.8	864.5	697.8	166.70	5.186		
11,600.0	7,838.0	11,465.2	7,838.0	90.4	86.2	90.00	-4,349.3	787.2	864.4	694.0	170.42	5.072		
11,700.0	7,838.0	11,565.2	7,838.0	92.1	88.1	90.00	-4,449.3	787.5	864.4	690.2	174.15	4.963		
11,800.0	7,838.0	11,665.2	7,838.0	93.9	89.9	90.00	-4,549.3	787.9	864.3	686.4	177.88	4.859		
11,900.0	7,838.0	11,765.2	7,838.0	95.6	91.8	90.00	-4,649.3	788.2	864.3	682.7	181.61	4.759		
12,000.0	7,838.0	11,865.2	7,838.0	97.4	93.6	90.00	-4,749.3	788.6	864.2	678.9	185.35	4.663		
12,100.0	7,838.0	11,965.2	7,838.0	99.2	95.5	90.00	-4,849.3	788.9	864.2	675.1	189.10	4.570		
12,200.0	7,838.0	12,065.2	7,838.0	101.0	97.3	90.00	-4,949.3	789.3	864.1	671.3	192.84	4.481		
12,300.0	7,838.0	12,165.2	7,838.0	102.8	99.2	90.00	-5,049.3	789.6	864.1	667.5	196.59	4.395		
12,400.0	7,838.0	12,265.2	7,838.0	104.6	101.1	90.00	-5,149.3	790.0	864.0	663.7	200.35	4.313		
12,500.0	7,838.0	12,365.2	7,838.0	106.4	102.9	90.00	-5,249.3	790.3	864.0	659.9	204.10	4.233		
12,600.0	7,838.0	12,465.2	7,838.0	108.2	104.8	90.00	-5,349.3	790.7	863.9	656.1	207.86	4.156		
12,700.0	7,838.0	12,565.2	7,838.0	110.0	106.7	90.00	-5,449.3	791.0	863.9	652.3	211.62	4.082		
12,800.0	7,838.0	12,665.2	7,838.0	111.8	108.5	90.00	-5,549.3	791.4	863.9	648.5	215.39	4.011		
12,900.0	7,838.0	12,765.2	7,838.0	113.6	110.4	90.00	-5,649.3	791.7	863.8	644.7	219.15	3.942		
13,000.0	7,838.0	12,865.2	7,838.0	115.4	112.3	90.00	-5,749.3	792.1	863.8	640.8	222.92	3.875		
13,100.0	7,838.0	12,965.2	7,838.0	117.2	114.1	90.00	-5,849.3	792.4	863.7	637.0	226.69	3.810		
13,200.0	7,838.0	13,065.2	7,838.0	119.1	116.0	90.00	-5,949.3	792.7	863.7	633.2	230.46	3.748		
13,300.0	7,838.0	13,165.2	7,838.0	120.9	117.9	90.00	-6,049.3	793.1	863.6	629.4	234.24	3.687		
13,400.0	7,838.0	13,265.2	7,838.0	122.7	119.8	90.00	-6,149.3	793.4	863.6	625.6	238.01	3.628		
13,500.0	7,838.0	13,365.2	7,838.0	124.5	121.7	90.00	-6,249.3	793.8	863.5	621.7	241.79	3.571		
13,600.0	7,838.0	13,465.2	7,838.0	126.4	123.5	90.00	-6,349.3	794.1	863.5	617.9	245.57	3.516		
13,700.0	7,838.0	13,565.2	7,838.0	128.2	125.4	90.00	-6,449.3	794.5	863.4	614.1	249.35	3.463		
13,800.0	7,838.0	13,665.2	7,838.0	130.1	127.3	90.00	-6,549.3	794.8	863.4	610.3	253.13	3.411		
13,900.0	7,838.0	13,765.2	7,838.0	131.9	129.2	90.00	-6,649.3	795.2	863.4	606.4	256.92	3.360		
14,000.0	7,838.0	13,865.2	7,838.0	133.7	131.1	90.00	-6,749.3	795.5	863.3	602.6	260.70	3.311		
14,100.0	7,838.0	13,965.2	7,838.0	135.6	132.9	90.00	-6,849.3	795.9	863.3	598.8	264.49	3.264		
14,124.0	7,838.0	13,989.1	7,838.0	136.0	133.4	90.00	-6,873.3	796.0	863.2	597.8	265.40	3.253 SF		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-6CDH
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 3-10-6CDH	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 3-10-6CDH
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 3-10-6CDH
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 3-10-6CDH	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 3-10-6CDH

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.41°

