

PETROSHARE

Location: COLORADO Slot: SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Field: ADAMS COUNTY (NAD83/ GRID NORTH) Well: WAKEMAN 20-17-1CDH
Facility: SEC.20-T01S-R65W Wellbore: WAKEMAN 20-17-1CDH PWB

Plot reference wellpath is WAKEMAN 20-17-1CDH PWP (REV-A.0)

Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (13KB) (RKB)
Measured depths are referenced to RIG (13KB) (RKB)
RIG (13KB) (RKB) to Mean Sea Level: 5203 feet
Mean Sea Level to Ground level (At Slot: SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)): 0 feet
Coordinates are in feet referenced to Slot
North Reference: Grid north
Scale: True distance
Depths are in feet
Created by: ingmjmr on 2017-09-22
Database: WellArchitectDB1

Location Information

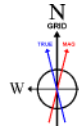
Facility Name				Grid East (US R)	Grid North (US R)	Latitude	Longitude
SEC.20-T01S-R65W				3228360.558	1223518.730	39°56'38.622"N	104°41'07.909"W
Slot				Local N (ft)	Local E (ft)	Grid East (US R)	Grid North (US R)
SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)				-0.47	-224.91	3228135.658	1223518.264
RIG (13KB) (RKB) to Ground level (At Slot: SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20))						5203R	
Mean Sea Level to Ground level (At Slot: SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20))						0ft	
RIG (13KB) (RKB) to Mean Sea Level						5203R	

Hole and Casing Sections

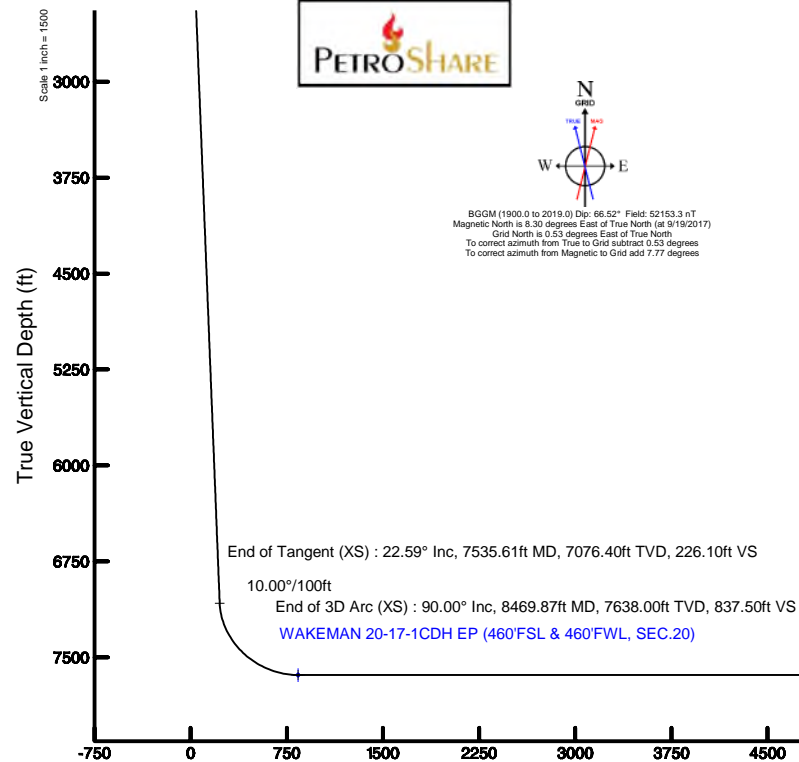
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1779.82	0.00	0.00	-29.53	-170.23	WAKEMAN 20-17-1CDH PWB
8.5in Open Hole	1800.00	18287.12	16487.12	1779.82	7638.00	-29.53	-170.23	9978.69	-2731.18	WAKEMAN 20-17-1CDH PWB

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
13.00	18383.57	BHI NavTrak	Custom BHI NavTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-1CDH PWB



BGGM (1900.0 to 2019.0) Dip: 66.52° Field: 52153.3 nT
Magnetic North is 8.30 degrees East of True North (at 8/19/2017)
Grid North is 0.53 degrees East of True North
To correct azimuth from True to Grid subtract 0.53 degrees
To correct azimuth from Magnetic to Grid add 7.77 degrees



North (ft)

Vertical Section (ft)

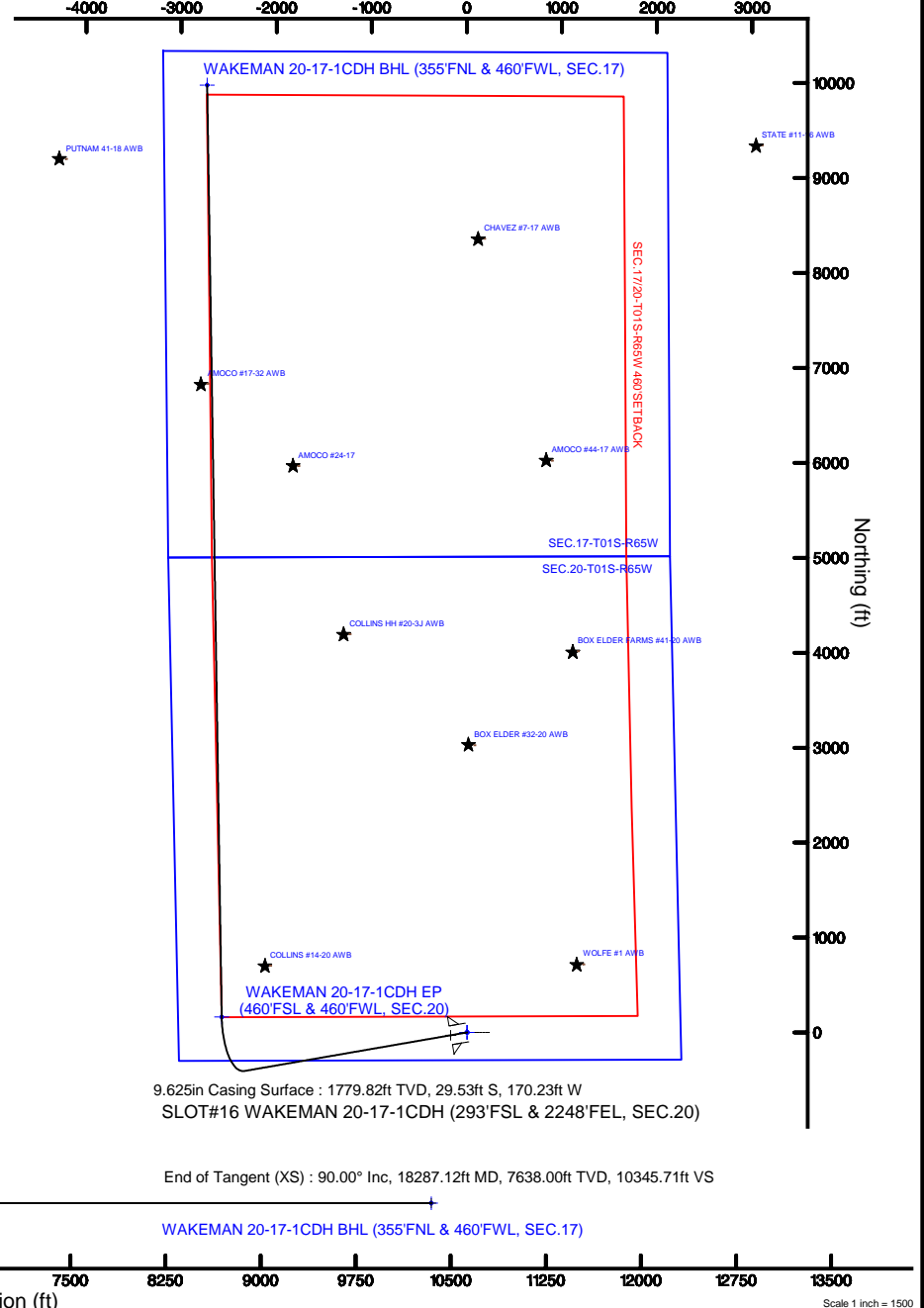
Azimuth 344.69° with reference 0.00 N, 0.00 E



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	13.00	0.000	260.159	13.00	0.00	0.00	0.00	0.00
End of Tangent	800.00	0.000	260.159	800.00	0.00	0.00	0.00	0.00
End of Build (XS)	1929.59	22.592	260.159	1900.54	-37.57	-216.59	2.00	20.94
End of Tangent (XS)	7535.61	22.592	260.159	7076.40	-405.64	-2338.53	0.00	226.10
End of 3D Arc (XS)	8469.87	90.000	359.107	7638.00	162.63	-2578.24	10.00	837.50
End of Tangent (XS)	18287.12	90.000	359.107	7638.00	9978.69	-2731.18	0.00	10345.71

Scale 1 inch = 2000



Scale 1 inch = 1500



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WAKEMAN 20-17-1CDH PWP (REV-A.0)

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HUGHES**
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Ingmjmr
Scale	0.999971	Report Generated	9/22/2017 at 2:13:45 PM
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB1/WAKEMAN_20-17-1CDH_PWP_REV-A.0_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.47	-224.91	3228135.66	1223518.26	39°56'38.638"N	104°41'10.797"W
Facility Reference Pt			3228360.56	1223518.73	39°56'38.622"N	104°41'07.909"W
Field Reference Pt			3175478.75	1240632.48	39°59'31.992"N	104°52'25.320"W

WELLPATH DATUM

Calculation method	Minimum curvature	RIG (13'KB) (RKB) to Facility Vertical Datum	5203.00ft
Horizontal Reference Pt	Slot	RIG (13'KB) (RKB) to Mean Sea Level	5203.00ft
Vertical Reference Pt	RIG (13'KB) (RKB)	RIG (13'KB) (RKB) to Ground Level at Slot (SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20))	5203.00ft
MD Reference Pt	RIG (13'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	344.69°



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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (198 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	260.159	0.00	0.00	0.00	0.00	39°56'38.638"N	104°41'10.797"W	0.00	
13.00	0.000	260.159	13.00	0.00	0.00	0.00	39°56'38.638"N	104°41'10.797"W	0.00	Tie On
113.00†	0.000	260.159	113.00	0.00	0.00	0.00	39°56'38.638"N	104°41'10.797"W	0.00	
213.00†	0.000	260.159	213.00	0.00	0.00	0.00	39°56'38.638"N	104°41'10.797"W	0.00	
313.00†	0.000	260.159	313.00	0.00	0.00	0.00	39°56'38.638"N	104°41'10.797"W	0.00	
413.00†	0.000	260.159	413.00	0.00	0.00	0.00	39°56'38.638"N	104°41'10.797"W	0.00	
513.00†	0.000	260.159	513.00	0.00	0.00	0.00	39°56'38.638"N	104°41'10.797"W	0.00	
613.00†	0.000	260.159	613.00	0.00	0.00	0.00	39°56'38.638"N	104°41'10.797"W	0.00	
713.00†	0.000	260.159	713.00	0.00	0.00	0.00	39°56'38.638"N	104°41'10.797"W	0.00	
800.00	0.000	260.159	800.00	0.00	0.00	0.00	39°56'38.638"N	104°41'10.797"W	0.00	End of Tangent
813.00†	0.260	260.159	813.00	0.00	-0.01	-0.03	39°56'38.638"N	104°41'10.797"W	2.00	
913.00†	2.260	260.159	912.97	0.21	-0.38	-2.20	39°56'38.634"N	104°41'10.825"W	2.00	
1013.00†	4.260	260.159	1012.80	0.75	-1.35	-7.80	39°56'38.625"N	104°41'10.897"W	2.00	
1113.00†	6.260	260.159	1112.38	1.63	-2.92	-16.83	39°56'38.610"N	104°41'11.013"W	2.00	
1213.00†	8.260	260.159	1211.57	2.83	-5.08	-29.28	39°56'38.590"N	104°41'11.173"W	2.00	
1313.00†	10.260	260.159	1310.26	4.36	-7.83	-45.14	39°56'38.564"N	104°41'11.377"W	2.00	
1413.00†	12.260	260.159	1408.33	6.22	-11.17	-64.37	39°56'38.533"N	104°41'11.624"W	2.00	
1507.16†	14.143	260.159	1500.00	8.27	-14.84	-85.56	39°56'38.499"N	104°41'11.897"W	2.00	FOX HILLS
1513.00†	14.260	260.159	1505.66	8.41	-15.09	-86.97	39°56'38.496"N	104°41'11.915"W	2.00	
1613.00†	16.260	260.159	1602.13	10.92	-19.58	-112.90	39°56'38.454"N	104°41'12.248"W	2.00	
1713.00†	18.260	260.159	1697.62	13.74	-24.65	-142.14	39°56'38.407"N	104°41'12.624"W	2.00	
1813.00†	20.260	260.159	1792.02	16.88	-30.29	-174.63	39°56'38.354"N	104°41'13.042"W	2.00	
1913.00†	22.260	260.159	1885.21	20.34	-36.49	-210.36	39°56'38.296"N	104°41'13.502"W	2.00	
1929.59	22.592	260.159	1900.54	20.94	-37.57	-216.59	39°56'38.286"N	104°41'13.582"W	2.00	End of Build (XS)
2013.00†	22.592	260.159	1977.56	23.99	-43.05	-248.17	39°56'38.235"N	104°41'13.988"W	0.00	
2113.00†	22.592	260.159	2069.88	27.65	-49.61	-286.02	39°56'38.173"N	104°41'14.475"W	0.00	
2213.00†	22.592	260.159	2162.21	31.31	-56.18	-323.87	39°56'38.112"N	104°41'14.961"W	0.00	
2313.00†	22.592	260.159	2254.54	34.97	-62.74	-361.72	39°56'38.050"N	104°41'15.448"W	0.00	
2413.00†	22.592	260.159	2346.86	38.63	-69.31	-399.57	39°56'37.989"N	104°41'15.935"W	0.00	
2513.00†	22.592	260.159	2439.19	42.29	-75.87	-437.42	39°56'37.927"N	104°41'16.421"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (198 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2613.00†	22.592	260.159	2531.52	45.95	-82.44	-475.27	39°56'37.866"N	104°41'16.908"W	0.00	
2713.00†	22.592	260.159	2623.84	49.61	-89.01	-513.12	39°56'37.805"N	104°41'17.395"W	0.00	
2813.00†	22.592	260.159	2716.17	53.27	-95.57	-550.97	39°56'37.743"N	104°41'17.882"W	0.00	
2913.00†	22.592	260.159	2808.50	56.93	-102.14	-588.82	39°56'37.682"N	104°41'18.368"W	0.00	
3013.00†	22.592	260.159	2900.82	60.59	-108.70	-626.68	39°56'37.620"N	104°41'18.855"W	0.00	
3113.00†	22.592	260.159	2993.15	64.25	-115.27	-664.53	39°56'37.559"N	104°41'19.342"W	0.00	
3213.00†	22.592	260.159	3085.48	67.91	-121.83	-702.38	39°56'37.497"N	104°41'19.829"W	0.00	
3313.00†	22.592	260.159	3177.80	71.57	-128.40	-740.23	39°56'37.436"N	104°41'20.315"W	0.00	
3413.00†	22.592	260.159	3270.13	75.23	-134.96	-778.08	39°56'37.374"N	104°41'20.802"W	0.00	
3513.00†	22.592	260.159	3362.45	78.89	-141.53	-815.93	39°56'37.313"N	104°41'21.289"W	0.00	
3613.00†	22.592	260.159	3454.78	82.55	-148.10	-853.78	39°56'37.251"N	104°41'21.775"W	0.00	
3713.00†	22.592	260.159	3547.11	86.21	-154.66	-891.63	39°56'37.190"N	104°41'22.262"W	0.00	
3813.00†	22.592	260.159	3639.43	89.87	-161.23	-929.48	39°56'37.128"N	104°41'22.749"W	0.00	
3913.00†	22.592	260.159	3731.76	93.53	-167.79	-967.33	39°56'37.067"N	104°41'23.236"W	0.00	
4013.00†	22.592	260.159	3824.09	97.19	-174.36	-1005.19	39°56'37.006"N	104°41'23.722"W	0.00	
4113.00†	22.592	260.159	3916.41	100.85	-180.92	-1043.04	39°56'36.944"N	104°41'24.209"W	0.00	
4213.00†	22.592	260.159	4008.74	104.51	-187.49	-1080.89	39°56'36.883"N	104°41'24.696"W	0.00	
4313.00†	22.592	260.159	4101.07	108.17	-194.05	-1118.74	39°56'36.821"N	104°41'25.182"W	0.00	
4413.00†	22.592	260.159	4193.39	111.83	-200.62	-1156.59	39°56'36.760"N	104°41'25.669"W	0.00	
4513.00†	22.592	260.159	4285.72	115.49	-207.19	-1194.44	39°56'36.698"N	104°41'26.156"W	0.00	
4613.00†	22.592	260.159	4378.05	119.15	-213.75	-1232.29	39°56'36.637"N	104°41'26.643"W	0.00	
4713.00†	22.592	260.159	4470.37	122.81	-220.32	-1270.14	39°56'36.575"N	104°41'27.129"W	0.00	
4813.00†	22.592	260.159	4562.70	126.47	-226.88	-1307.99	39°56'36.514"N	104°41'27.616"W	0.00	
4913.00†	22.592	260.159	4655.03	130.13	-233.45	-1345.84	39°56'36.452"N	104°41'28.103"W	0.00	
5013.00†	22.592	260.159	4747.35	133.78	-240.01	-1383.70	39°56'36.391"N	104°41'28.589"W	0.00	
5113.00†	22.592	260.159	4839.68	137.44	-246.58	-1421.55	39°56'36.329"N	104°41'29.076"W	0.00	
5124.18†	22.592	260.159	4850.00	137.85	-247.31	-1425.78	39°56'36.323"N	104°41'29.131"W	0.00	SUSSEX/SHANNON
5213.00†	22.592	260.159	4932.01	141.10	-253.14	-1459.40	39°56'36.268"N	104°41'29.563"W	0.00	
5313.00†	22.592	260.159	5024.33	144.76	-259.71	-1497.25	39°56'36.206"N	104°41'30.050"W	0.00	
5413.00†	22.592	260.159	5116.66	148.42	-266.28	-1535.10	39°56'36.145"N	104°41'30.536"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (198 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5513.00†	22.592	260.159	5208.99	152.08	-272.84	-1572.95	39°56'36.084"N	104°41'31.023"W	0.00	
5613.00†	22.592	260.159	5301.31	155.74	-279.41	-1610.80	39°56'36.022"N	104°41'31.510"W	0.00	
5713.00†	22.592	260.159	5393.64	159.40	-285.97	-1648.65	39°56'35.961"N	104°41'31.997"W	0.00	
5813.00†	22.592	260.159	5485.97	163.06	-292.54	-1686.50	39°56'35.899"N	104°41'32.483"W	0.00	
5913.00†	22.592	260.159	5578.29	166.72	-299.10	-1724.35	39°56'35.838"N	104°41'32.970"W	0.00	
6013.00†	22.592	260.159	5670.62	170.38	-305.67	-1762.20	39°56'35.776"N	104°41'33.457"W	0.00	
6113.00†	22.592	260.159	5762.95	174.04	-312.23	-1800.06	39°56'35.715"N	104°41'33.943"W	0.00	
6213.00†	22.592	260.159	5855.27	177.70	-318.80	-1837.91	39°56'35.653"N	104°41'34.430"W	0.00	
6313.00†	22.592	260.159	5947.60	181.36	-325.37	-1875.76	39°56'35.592"N	104°41'34.917"W	0.00	
6413.00†	22.592	260.159	6039.93	185.02	-331.93	-1913.61	39°56'35.530"N	104°41'35.404"W	0.00	
6513.00†	22.592	260.159	6132.25	188.68	-338.50	-1951.46	39°56'35.469"N	104°41'35.890"W	0.00	
6613.00†	22.592	260.159	6224.58	192.34	-345.06	-1989.31	39°56'35.407"N	104°41'36.377"W	0.00	
6713.00†	22.592	260.159	6316.91	196.00	-351.63	-2027.16	39°56'35.346"N	104°41'36.864"W	0.00	
6813.00†	22.592	260.159	6409.23	199.66	-358.19	-2065.01	39°56'35.284"N	104°41'37.350"W	0.00	
6913.00†	22.592	260.159	6501.56	203.32	-364.76	-2102.86	39°56'35.223"N	104°41'37.837"W	0.00	
7013.00†	22.592	260.159	6593.89	206.98	-371.32	-2140.71	39°56'35.161"N	104°41'38.324"W	0.00	
7113.00†	22.592	260.159	6686.21	210.64	-377.89	-2178.57	39°56'35.100"N	104°41'38.811"W	0.00	
7213.00†	22.592	260.159	6778.54	214.30	-384.46	-2216.42	39°56'35.038"N	104°41'39.297"W	0.00	
7313.00†	22.592	260.159	6870.86	217.96	-391.02	-2254.27	39°56'34.977"N	104°41'39.784"W	0.00	
7413.00†	22.592	260.159	6963.19	221.62	-397.59	-2292.12	39°56'34.915"N	104°41'40.271"W	0.00	
7513.00†	22.592	260.159	7055.52	225.28	-404.15	-2329.97	39°56'34.854"N	104°41'40.757"W	0.00	
7535.61	22.592	260.159	7076.40	226.10	-405.64	-2338.53	39°56'34.840"N	104°41'40.867"W	0.00	End of Tangent (XS)
7613.00†	22.735	280.329	7147.92	234.00	-405.50	-2367.93	39°56'34.844"N	104°41'41.245"W	10.00	
7704.01†	25.883	301.209	7231.00	256.07	-392.02	-2402.29	39°56'34.980"N	104°41'41.685"W	10.00	NIOBRARA A CHALK
7713.00†	26.336	302.974	7239.07	258.98	-389.92	-2405.65	39°56'35.001"N	104°41'41.727"W	10.00	
7724.10†	26.924	305.076	7249.00	262.76	-387.13	-2409.77	39°56'35.029"N	104°41'41.780"W	10.00	NIOBRARA A MARL
7813.00†	32.554	319.028	7326.25	299.89	-357.45	-2441.99	39°56'35.326"N	104°41'42.190"W	10.00	
7913.00†	40.186	329.988	7406.80	355.49	-309.08	-2475.85	39°56'35.807"N	104°41'42.619"W	10.00	
7914.58†	40.314	330.132	7408.00	356.48	-308.19	-2476.36	39°56'35.815"N	104°41'42.626"W	10.00	NIOBRARA B CHALK
7954.93†	43.632	333.568	7438.00	382.78	-284.40	-2489.06	39°56'36.052"N	104°41'42.786"W	10.00	NIOBRARA B MARL



Planned Wellpath Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (198 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8006.59†	48.010	337.395	7474.00	419.34	-250.69	-2504.39	39°56'36.386"N	104°41'42.979"W	10.00	NIOBRARA C CHALK
8013.00†	48.562	337.832	7478.27	424.09	-246.27	-2506.21	39°56'36.430"N	104°41'43.002"W	10.00	
8058.21†	52.495	340.720	7507.00	458.82	-213.63	-2518.53	39°56'36.754"N	104°41'43.156"W	10.00	NIOBRARA C MARL
8113.00†	57.347	343.835	7538.49	503.60	-170.93	-2532.14	39°56'37.177"N	104°41'43.326"W	10.00	
8213.00†	66.365	348.745	7585.63	591.61	-85.35	-2552.85	39°56'38.024"N	104°41'43.582"W	10.00	
8293.18†	73.696	352.202	7613.00	666.51	-11.09	-2565.26	39°56'38.759"N	104°41'43.732"W	10.00	FORT HAYS
8313.00†	75.518	353.013	7618.26	685.44	7.86	-2567.72	39°56'38.947"N	104°41'43.762"W	10.00	
8413.00†	84.741	356.939	7635.39	782.24	105.88	-2576.29	39°56'39.916"N	104°41'43.860"W	10.00	
8469.87	90.000	359.107	7638.00 ¹	837.50	162.63	-2578.24	39°56'40.477"N	104°41'43.879"W	10.00	End of 3D Arc (XS)
8513.00†	90.000	359.107	7638.00	879.27	205.76	-2578.92	39°56'40.903"N	104°41'43.882"W	0.00	
8613.00†	90.000	359.107	7638.00	976.12	305.75	-2580.47	39°56'41.892"N	104°41'43.891"W	0.00	
8713.00†	90.000	359.107	7638.00	1072.97	405.73	-2582.03	39°56'42.880"N	104°41'43.899"W	0.00	
8813.00†	90.000	359.107	7638.00	1169.83	505.72	-2583.59	39°56'43.868"N	104°41'43.908"W	0.00	
8913.00†	90.000	359.107	7638.00	1266.68	605.71	-2585.15	39°56'44.856"N	104°41'43.916"W	0.00	
9013.00†	90.000	359.107	7638.00	1363.53	705.70	-2586.71	39°56'45.845"N	104°41'43.924"W	0.00	
9113.00†	90.000	359.107	7638.00	1460.38	805.69	-2588.26	39°56'46.833"N	104°41'43.933"W	0.00	
9213.00†	90.000	359.107	7638.00	1557.23	905.67	-2589.82	39°56'47.821"N	104°41'43.941"W	0.00	
9313.00†	90.000	359.107	7638.00	1654.09	1005.66	-2591.38	39°56'48.809"N	104°41'43.949"W	0.00	
9413.00†	90.000	359.107	7638.00	1750.94	1105.65	-2592.94	39°56'49.797"N	104°41'43.958"W	0.00	
9513.00†	90.000	359.107	7638.00	1847.79	1205.64	-2594.49	39°56'50.786"N	104°41'43.966"W	0.00	
9613.00†	90.000	359.107	7638.00	1944.64	1305.62	-2596.05	39°56'51.774"N	104°41'43.974"W	0.00	
9713.00†	90.000	359.107	7638.00	2041.49	1405.61	-2597.61	39°56'52.762"N	104°41'43.983"W	0.00	
9813.00†	90.000	359.107	7638.00	2138.35	1505.60	-2599.17	39°56'53.750"N	104°41'43.991"W	0.00	
9913.00†	90.000	359.107	7638.00	2235.20	1605.59	-2600.73	39°56'54.739"N	104°41'43.999"W	0.00	
10013.00†	90.000	359.107	7638.00	2332.05	1705.58	-2602.28	39°56'55.727"N	104°41'44.008"W	0.00	
10113.00†	90.000	359.107	7638.00	2428.90	1805.56	-2603.84	39°56'56.715"N	104°41'44.016"W	0.00	
10213.00†	90.000	359.107	7638.00	2525.76	1905.55	-2605.40	39°56'57.703"N	104°41'44.024"W	0.00	
10313.00†	90.000	359.107	7638.00	2622.61	2005.54	-2606.96	39°56'58.691"N	104°41'44.033"W	0.00	
10413.00†	90.000	359.107	7638.00	2719.46	2105.53	-2608.51	39°56'59.680"N	104°41'44.041"W	0.00	
10513.00†	90.000	359.107	7638.00	2816.31	2205.52	-2610.07	39°57'00.668"N	104°41'44.050"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (198 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10613.00†	90.000	359.107	7638.00	2913.16	2305.50	-2611.63	39°57'01.656"N	104°41'44.058"W	0.00	
10713.00†	90.000	359.107	7638.00	3010.02	2405.49	-2613.19	39°57'02.644"N	104°41'44.066"W	0.00	
10813.00†	90.000	359.107	7638.00	3106.87	2505.48	-2614.75	39°57'03.633"N	104°41'44.075"W	0.00	
10913.00†	90.000	359.107	7638.00	3203.72	2605.47	-2616.30	39°57'04.621"N	104°41'44.083"W	0.00	
11013.00†	90.000	359.107	7638.00	3300.57	2705.45	-2617.86	39°57'05.609"N	104°41'44.091"W	0.00	
11113.00†	90.000	359.107	7638.00	3397.42	2805.44	-2619.42	39°57'06.597"N	104°41'44.100"W	0.00	
11213.00†	90.000	359.107	7638.00	3494.28	2905.43	-2620.98	39°57'07.585"N	104°41'44.108"W	0.00	
11313.00†	90.000	359.107	7638.00	3591.13	3005.42	-2622.53	39°57'08.574"N	104°41'44.116"W	0.00	
11413.00†	90.000	359.107	7638.00	3687.98	3105.41	-2624.09	39°57'09.562"N	104°41'44.125"W	0.00	
11513.00†	90.000	359.107	7638.00	3784.83	3205.39	-2625.65	39°57'10.550"N	104°41'44.133"W	0.00	
11613.00†	90.000	359.107	7638.00	3881.68	3305.38	-2627.21	39°57'11.538"N	104°41'44.141"W	0.00	
11713.00†	90.000	359.107	7638.00	3978.54	3405.37	-2628.77	39°57'12.526"N	104°41'44.150"W	0.00	
11813.00†	90.000	359.107	7638.00	4075.39	3505.36	-2630.32	39°57'13.515"N	104°41'44.158"W	0.00	
11913.00†	90.000	359.107	7638.00	4172.24	3605.35	-2631.88	39°57'14.503"N	104°41'44.167"W	0.00	
12013.00†	90.000	359.107	7638.00	4269.09	3705.33	-2633.44	39°57'15.491"N	104°41'44.175"W	0.00	
12113.00†	90.000	359.107	7638.00	4365.94	3805.32	-2635.00	39°57'16.479"N	104°41'44.183"W	0.00	
12213.00†	90.000	359.107	7638.00	4462.80	3905.31	-2636.55	39°57'17.468"N	104°41'44.192"W	0.00	
12313.00†	90.000	359.107	7638.00	4559.65	4005.30	-2638.11	39°57'18.456"N	104°41'44.200"W	0.00	
12413.00†	90.000	359.107	7638.00	4656.50	4105.28	-2639.67	39°57'19.444"N	104°41'44.208"W	0.00	
12513.00†	90.000	359.107	7638.00	4753.35	4205.27	-2641.23	39°57'20.432"N	104°41'44.217"W	0.00	
12613.00†	90.000	359.107	7638.00	4850.20	4305.26	-2642.79	39°57'21.420"N	104°41'44.225"W	0.00	
12713.00†	90.000	359.107	7638.00	4947.06	4405.25	-2644.34	39°57'22.409"N	104°41'44.233"W	0.00	
12813.00†	90.000	359.107	7638.00	5043.91	4505.24	-2645.90	39°57'23.397"N	104°41'44.242"W	0.00	
12913.00†	90.000	359.107	7638.00	5140.76	4605.22	-2647.46	39°57'24.385"N	104°41'44.250"W	0.00	
13013.00†	90.000	359.107	7638.00	5237.61	4705.21	-2649.02	39°57'25.373"N	104°41'44.258"W	0.00	
13113.00†	90.000	359.107	7638.00	5334.46	4805.20	-2650.58	39°57'26.362"N	104°41'44.267"W	0.00	
13213.00†	90.000	359.107	7638.00	5431.32	4905.19	-2652.13	39°57'27.350"N	104°41'44.275"W	0.00	
13313.00†	90.000	359.107	7638.00	5528.17	5005.18	-2653.69	39°57'28.338"N	104°41'44.284"W	0.00	
13413.00†	90.000	359.107	7638.00	5625.02	5105.16	-2655.25	39°57'29.326"N	104°41'44.292"W	0.00	
13513.00†	90.000	359.107	7638.00	5721.87	5205.15	-2656.81	39°57'30.314"N	104°41'44.300"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (198 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13613.00†	90.000	359.107	7638.00	5818.72	5305.14	-2658.36	39°57'31.303"N	104°41'44.309"W	0.00	
13713.00†	90.000	359.107	7638.00	5915.58	5405.13	-2659.92	39°57'32.291"N	104°41'44.317"W	0.00	
13813.00†	90.000	359.107	7638.00	6012.43	5505.11	-2661.48	39°57'33.279"N	104°41'44.325"W	0.00	
13913.00†	90.000	359.107	7638.00	6109.28	5605.10	-2663.04	39°57'34.267"N	104°41'44.334"W	0.00	
14013.00†	90.000	359.107	7638.00	6206.13	5705.09	-2664.60	39°57'35.256"N	104°41'44.342"W	0.00	
14113.00†	90.000	359.107	7638.00	6302.99	5805.08	-2666.15	39°57'36.244"N	104°41'44.350"W	0.00	
14213.00†	90.000	359.107	7638.00	6399.84	5905.07	-2667.71	39°57'37.232"N	104°41'44.359"W	0.00	
14313.00†	90.000	359.107	7638.00	6496.69	6005.05	-2669.27	39°57'38.220"N	104°41'44.367"W	0.00	
14413.00†	90.000	359.107	7638.00	6593.54	6105.04	-2670.83	39°57'39.208"N	104°41'44.375"W	0.00	
14513.00†	90.000	359.107	7638.00	6690.39	6205.03	-2672.38	39°57'40.197"N	104°41'44.384"W	0.00	
14613.00†	90.000	359.107	7638.00	6787.25	6305.02	-2673.94	39°57'41.185"N	104°41'44.392"W	0.00	
14713.00†	90.000	359.107	7638.00	6884.10	6405.01	-2675.50	39°57'42.173"N	104°41'44.401"W	0.00	
14813.00†	90.000	359.107	7638.00	6980.95	6504.99	-2677.06	39°57'43.161"N	104°41'44.409"W	0.00	
14913.00†	90.000	359.107	7638.00	7077.80	6604.98	-2678.62	39°57'44.150"N	104°41'44.417"W	0.00	
15013.00†	90.000	359.107	7638.00	7174.65	6704.97	-2680.17	39°57'45.138"N	104°41'44.426"W	0.00	
15113.00†	90.000	359.107	7638.00	7271.51	6804.96	-2681.73	39°57'46.126"N	104°41'44.434"W	0.00	
15213.00†	90.000	359.107	7638.00	7368.36	6904.94	-2683.29	39°57'47.114"N	104°41'44.442"W	0.00	
15313.00†	90.000	359.107	7638.00	7465.21	7004.93	-2684.85	39°57'48.102"N	104°41'44.451"W	0.00	
15413.00†	90.000	359.107	7638.00	7562.06	7104.92	-2686.40	39°57'49.091"N	104°41'44.459"W	0.00	
15513.00†	90.000	359.107	7638.00	7658.91	7204.91	-2687.96	39°57'50.079"N	104°41'44.467"W	0.00	
15613.00†	90.000	359.107	7638.00	7755.77	7304.90	-2689.52	39°57'51.067"N	104°41'44.476"W	0.00	
15713.00†	90.000	359.107	7638.00	7852.62	7404.88	-2691.08	39°57'52.055"N	104°41'44.484"W	0.00	
15813.00†	90.000	359.107	7638.00	7949.47	7504.87	-2692.64	39°57'53.043"N	104°41'44.492"W	0.00	
15913.00†	90.000	359.107	7638.00	8046.32	7604.86	-2694.19	39°57'54.032"N	104°41'44.501"W	0.00	
16013.00†	90.000	359.107	7638.00	8143.17	7704.85	-2695.75	39°57'55.020"N	104°41'44.509"W	0.00	
16113.00†	90.000	359.107	7638.00	8240.03	7804.84	-2697.31	39°57'56.008"N	104°41'44.518"W	0.00	
16213.00†	90.000	359.107	7638.00	8336.88	7904.82	-2698.87	39°57'56.996"N	104°41'44.526"W	0.00	
16313.00†	90.000	359.107	7638.00	8433.73	8004.81	-2700.43	39°57'57.985"N	104°41'44.534"W	0.00	
16413.00†	90.000	359.107	7638.00	8530.58	8104.80	-2701.98	39°57'58.973"N	104°41'44.543"W	0.00	
16513.00†	90.000	359.107	7638.00	8627.43	8204.79	-2703.54	39°57'59.961"N	104°41'44.551"W	0.00	



Planned Wellpath Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (198 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16613.00†	90.000	359.107	7638.00	8724.29	8304.78	-2705.10	39°58'00.949"N	104°41'44.559"W	0.00	
16713.00†	90.000	359.107	7638.00	8821.14	8404.76	-2706.66	39°58'01.937"N	104°41'44.568"W	0.00	
16813.00†	90.000	359.107	7638.00	8917.99	8504.75	-2708.21	39°58'02.926"N	104°41'44.576"W	0.00	
16913.00†	90.000	359.107	7638.00	9014.84	8604.74	-2709.77	39°58'03.914"N	104°41'44.584"W	0.00	
17013.00†	90.000	359.107	7638.00	9111.69	8704.73	-2711.33	39°58'04.902"N	104°41'44.593"W	0.00	
17113.00†	90.000	359.107	7638.00	9208.55	8804.71	-2712.89	39°58'05.890"N	104°41'44.601"W	0.00	
17213.00†	90.000	359.107	7638.00	9305.40	8904.70	-2714.45	39°58'06.879"N	104°41'44.609"W	0.00	
17313.00†	90.000	359.107	7638.00	9402.25	9004.69	-2716.00	39°58'07.867"N	104°41'44.618"W	0.00	
17413.00†	90.000	359.107	7638.00	9499.10	9104.68	-2717.56	39°58'08.855"N	104°41'44.626"W	0.00	
17513.00†	90.000	359.107	7638.00	9595.95	9204.67	-2719.12	39°58'09.843"N	104°41'44.635"W	0.00	
17613.00†	90.000	359.107	7638.00	9692.81	9304.65	-2720.68	39°58'10.831"N	104°41'44.643"W	0.00	
17713.00†	90.000	359.107	7638.00	9789.66	9404.64	-2722.23	39°58'11.820"N	104°41'44.651"W	0.00	
17813.00†	90.000	359.107	7638.00	9886.51	9504.63	-2723.79	39°58'12.808"N	104°41'44.660"W	0.00	
17913.00†	90.000	359.107	7638.00	9983.36	9604.62	-2725.35	39°58'13.796"N	104°41'44.668"W	0.00	
18013.00†	90.000	359.107	7638.00	10080.21	9704.61	-2726.91	39°58'14.784"N	104°41'44.676"W	0.00	
18113.00†	90.000	359.107	7638.00	10177.07	9804.59	-2728.47	39°58'15.773"N	104°41'44.685"W	0.00	
18213.00†	90.000	359.107	7638.00	10273.92	9904.58	-2730.02	39°58'16.761"N	104°41'44.693"W	0.00	
18287.12	90.000	359.107	7638.00 ²	10345.71	9978.69	-2731.18	39°58'17.493"N	104°41'44.699"W	0.00	End of Tangent (XS)

HOLE & CASING SECTIONS

- Ref Wellbore: WAKEMAN 20-17-1CDH PWB

Ref Wellpath: WAKEMAN 20-17-1CDH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1779.82	0.00	0.00	-29.53	-170.23
8.5in Open Hole	1800.00	18287.12	16487.12	1779.82	7638.00	-29.53	-170.23	9978.69	-2731.18



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WAKEMAN 20-17-1CDH PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.17-T01S-R65W		0.00	1.46	0.66	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
SEC.20-T01S-R65W		0.00	1.46	0.66	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
SEC.17/20-T01S-R65W 460'SETBACK		7638.00	1.46	0.66	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
2) WAKEMAN 20-17-1CDH BHL (355'FNL & 460'FWL, SEC.17)	18287.12	7638.00	9978.69	-2731.18	3225404.56	1233496.65	39°58'17.493"N	104°41'44.699"W	point
1) WAKEMAN 20-17-1CDH EP (460'FSL & 460'FWL, SEC.20)	8469.87	7638.00	162.63	-2578.24	3225557.49	1223680.89	39°56'40.477"N	104°41'43.879"W	point

SURVEY PROGRAM -

Ref Wellbore: WAKEMAN 20-17-1CDH PWB Ref Wellpath: WAKEMAN 20-17-1CDH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18383.57	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-1CDH PWB



Planned Wellpath Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1507.16	14.143	260.159	1500.00	FOX HILLS
5124.18	22.592	260.159	4850.00	SUSSEX/SHANNON
7704.01	25.883	301.209	7231.00	NIOBRARA A CHALK
7724.10	26.924	305.076	7249.00	NIOBRARA A MARL
7914.58	40.314	330.132	7408.00	NIOBRARA B CHALK
7954.93	43.632	333.568	7438.00	NIOBRARA B MARL
8006.59	48.010	337.395	7474.00	NIOBRARA C CHALK
8058.21	52.495	340.720	7507.00	NIOBRARA C MARL
8293.18	73.696	352.202	7613.00	FORT HAYS

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	260.159	13.00	Tie On
800.00	0.000	260.159	800.00	End of Tangent
1929.59	22.592	260.159	1900.54	End of Build (XS)
7535.61	22.592	260.159	7076.40	End of Tangent (XS)
8469.87	90.000	359.107	7638.00	End of 3D Arc (XS)
18287.12	90.000	359.107	7638.00	End of Tangent (XS)



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Ingmjmr
Scale	0.999971	Report Generated	9/22/2017 at 2:13:05 PM
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB1/WAKEMAN_20-17-1CDH_PWP_REV-A.0_CR.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.47	-224.91	3228135.66	1223518.26	39°56'38.638"N	104°41'10.797"W
Facility Reference Pt			3228360.56	1223518.73	39°56'38.622"N	104°41'07.909"W
Field Reference Pt			3175478.75	1240632.48	39°59'31.992"N	104°52'25.320"W

WELLPATH DATUM

Calculation method	Minimum Curvature	RIG (13'KB) (RKB) to Facility Vertical Datum	5203.00ft
Horizontal Reference Pt	Slot	RIG (13'KB) (RKB) to Mean Sea Level	5203.00ft
Vertical Reference Pt	RIG (13'KB) (RKB)	RIG (13'KB) (RKB) to Ground Level at Slot (SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20))	5203.00ft
MD Reference Pt	RIG (13'KB) (RKB)		
Field Vertical Reference	Mean Sea Level		

POSITIONAL UNCERTAINTY CALCULATION SETTINGS

Ellipse Confidence Limit	3.00 Std Dev	Ellipse Start MD	13.00ft	Surface Position Uncertainty	Included
Declination	8.30° East of TN	Dip Angle	66.52°	Mag Field Strength	52153 nT
Slot Surface Uncertainty @1SD		Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD		Horizontal	8.200ft	Vertical	3.000ft

Positional Uncertainty values in the WELLPATH DATA table are the projection of the ellipsoid of uncertainty onto the vertical and horizontal planes



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

ANTI-COLLISION RULE

Rule Name	Baker Hughes Stop Drilling (offset is HSE risk)	Rule Based On	Ratio
Plane of Rule	Closest Approach	Threshold Value	1.00
Include Casing & Hole Size	yes	Apply Cone of Safety	no

HOLE & CASING SECTIONS - Ref Wellbore: WAKEMAN 20-17-1CDH PWB Ref Wellpath: WAKEMAN 20-17-1CDH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1779.82	0.00	0.00	-29.53	-170.23
8.5in Open Hole	1800.00	18287.12	16487.12	1779.82	7638.00	-29.53	-170.23	9978.69	-2731.18

SURVEY PROGRAM - Ref Wellbore: WAKEMAN 20-17-1CDH PWB Ref Wellpath: WAKEMAN 20-17-1CDH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18383.57	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-1CDH PWB



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CALCULATION RANGE & CUTOFF

From: 13.00ft MD	To: 18287.12ft MD	C-C Cutoff: 1000.00 ft
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OFFSET WELL CLEARANCE SUMMARY (26 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane

Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	C-C Clearance Distance			ACR Separation Ratio			
					Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
SEC.17-T1S-R65W	SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17, OG, PR, 8140)	AMOCO #17-32	AMOCO #17-32 AWB	AMOCO #17-32 AWP	15141.44	45.76	15141.44	15147.01	0.11	15147.01	FAIL
SEC.20-T01S-R65W	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)	WAKEMAN 20-17-1NCH	WAKEMAN 20-17-1NCH PWB	WAKEMAN 20-17-1NCH PWP (REV-A.0)	13.00	30.00	18279.88	18279.88	0.74	18279.88	FAIL
SEC.20-T01S-R65W	SLOT#15 WAKEMAN 20-17-1NAH (293'FSL & 2233'FEL, SEC.20)	WAKEMAN 20-17-1NAH	WAKEMAN 20-17-1NAH PWB	WAKEMAN 20-17-1NAH PWP (REV-A.0)	13.00	14.94	18287.12	7060.22	1.12	18287.12	PASS
SEC.20-T01S-R65W	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)	WAKEMAN 20-17-1NBH	WAKEMAN 20-17-1NBH PWB	WAKEMAN 20-17-1NBH PWP (REV-A.0)	13.00	44.94	18272.68	18272.68	1.36	18272.68	PASS
SEC.20-T1S-R65W	SLOT#01 EX. COLLINS #14-20 (990'FSL & 990'FWL, SEC.20, OG, PR, 8202)	COLLINS #14-20	COLLINS #14-20 AWB	COLLINS #14-20 AWP	9002.56	517.12	9002.56	9063.17	1.74	9063.17	PASS
SEC.20-T01S-R65W	SLOT#12 WAKEMAN 20-17-2CDH (293'FSL & 2188'FEL, SEC.20)	WAKEMAN 20-17-2CDH	WAKEMAN 20-17-2CDH PWB	WAKEMAN 20-17-2CDH PWP (REV-A.0)	13.00	59.95	18265.44	18265.44	1.88	18265.44	PASS
SEC.20-T01S-R65W	SLOT#11 WAKEMAN 20-17-2NAH (293'FSL & 2173'FEL, SEC.20)	WAKEMAN 20-17-2NAH	WAKEMAN 20-17-2NAH PWB	WAKEMAN 20-17-2NAH PWP (REV-A.0)	13.00	74.92	18255.07	18255.07	2.25	18255.07	PASS
SEC.17-T1S-R65W	SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130)	AMOCO #24-17	AMOCO #24-17	AMOCO #24-17 AWP	14260.87	896.03	14260.87	14184.54	2.26	14184.54	PASS
SEC.20-T01S-R65W	SLOT#10 WAKEMAN 20-17-2NCH (293'FSL & 2158'FEL, SEC.20)	WAKEMAN 20-17-2NCH	WAKEMAN 20-17-2NCH PWB	WAKEMAN 20-17-2NCH PWP (REV-A.0)	13.00	89.98	18258.21	18258.21	2.54	18258.21	PASS
SEC.18-T01S-R65W	SLOT#01 EX PUTNAM 41-18 (990'FNL & 990'FEL, SEC.18, SI, 8092')	PUTNAM 41-18	PUTNAM 41-18 AWB	PUTNAM 41-18 AWP	17530.82	1498.38	17530.82	17765.12	2.97	17765.12	PASS
SEC.20-T01S-R65W	SLOT#09 WAKEMAN 20-17-2NBH (293'FSL & 2143'FEL, SEC.20)	WAKEMAN 20-17-2NBH	WAKEMAN 20-17-2NBH PWB	WAKEMAN 20-17-2NBH PWP (REV-A.0)	13.00	104.95	18250.97	18250.97	3.19	18250.97	PASS
SEC.20-T01S-R65W	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)	WAKEMAN 20-17-3NCH	WAKEMAN 20-17-3NCH PWB	WAKEMAN 20-17-3NCH PWP (REV-A.0)	13.00	119.93	800.00	18248.47	3.84	18248.47	PASS
SEC.20-T1S-R65W	SLOT#02 EX. COLLINS HH #20-3J (814'FNL & 1886'FWL, SEC.20, 8163, PR)	COLLINS HH #20-3J	COLLINS HH #20-3J AWB	COLLINS HH #20-3J AWP	12480.00	1405.95	12480.00	12380.23	4.10	12380.23	PASS
SEC.20-T01S-R65W	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)	WAKEMAN 20-17-3NBH	WAKEMAN 20-17-3NBH PWB	WAKEMAN 20-17-3NBH PWP (REV-A.0)	13.00	134.98	800.00	18262.90	4.48	18262.90	PASS
SEC.20-T01S-R65W	SLOT#06 WAKEMAN 20-17-3NAH (293'FSL & 2098'FEL, SEC.20)	WAKEMAN 20-17-3NAH	WAKEMAN 20-17-3NAH PWB	WAKEMAN 20-17-3NAH PWP (REV-A.0)	13.00	149.93	800.00	18287.12	5.01	18287.12	PASS
SEC.20-T01S-R65W	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)	WAKEMAN 20-17-3CDH	WAKEMAN 20-17-3CDH PWB	WAKEMAN 20-17-3CDH PWP (REV-A.0)	13.00	164.96	800.00	18287.12	5.08	18287.12	PASS
SEC.20-T01S-R65W	SLOT#04 WAKEMAN 20-17-4NCH (293'FSL & 2068'FEL, SEC.20)	WAKEMAN 20-17-4NCH	WAKEMAN 20-17-4NCH PWB	WAKEMAN 20-17-4NCH PWP (REV-A.0)	13.00	179.96	800.00	18287.12	5.72	18287.12	PASS
SEC.17-T01S-R65W	SLOT#01 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL, SEC.17, OG, SI, 8190)	CHAVEZ #7-17	CHAVEZ #7-17 AWB	CHAVEZ #7-17 AWP	16625.50	2885.50	16625.50	16668.76	6.16	16668.76	PASS
SEC.20-T01S-R65W	SLOT#03 WAKEMAN 20-17-4NBH (293'FSL & 2053'FEL, SEC.20)	WAKEMAN 20-17-4NBH	WAKEMAN 20-17-4NBH PWB	WAKEMAN 20-17-4NBH PWP (REV-A.0)	13.00	194.96	800.00	18287.12	6.36	18287.12	PASS
SEC.20-T01S-R65W	SLOT#02 WAKEMAN 20-17-4NAH (293'FSL & 2038'FEL, SEC.20)	WAKEMAN 20-17-4NAH	WAKEMAN 20-17-4NAH PWB	WAKEMAN 20-17-4NAH PWP (REV-A.0)	13.00	209.91	800.00	18287.12	6.88	18287.12	PASS
SEC.20-T01S-R65W	SLOT#01 WAKEMAN 20-17-4CDH (293'FSL & 2023'FEL, SEC.20)	WAKEMAN 20-17-4CDH	WAKEMAN 20-17-4CDH PWB	WAKEMAN 20-17-4CDH PWP (REV-A.0)	13.00	224.91	11813.00	18287.12	6.96	18287.12	PASS
SEC.20-T01S-R65W	SLOT#02 EX. BOX ELDER #32-20 (1980'FNL & 2080'FEL, SEC.20, OG, PR)	BOX ELDER #32-20	BOX ELDER #32-20 AWB	BOX ELDER #32-20 AWP	11288.90	2700.57	11288.90	11313.00	8.77	11313.00	PASS
SEC.17-T1S-R65W	SLOT#03 EX. AMOCO #44-17 (990'FSL & 1320'FEL, SEC.17, OG, PR, 8130)	AMOCO #44-17	AMOCO #44-17 AWB	AMOCO #44-17 AWP	14275.50	3562.07	14275.50	14472.16	8.98	14472.16	PASS
SEC.20-T01S-R65W	SLOT#01 EX. BOX ELDER FARMS #41-20 (990'FNL & 990'FEL, SEC.20, OG, PA, 8145)	BOX ELDER FARMS #41-20	BOX ELDER FARMS #41-20 AWB	BOX ELDER FARMS #41-20 AWP	12263.00	3802.98	12263.00	12581.48	11.28	12581.48	PASS
SEC.16-T01S-R65W	SLOT#01 EX. STATE #11-16 (990'FNL & 990'FWL, SEC.16, OG, PR, 8173)	STATE #11-16	STATE #11-16 AWB	STATE #11-16 AWP	17563.00	5821.96	17563.00	18287.12	11.55	18287.12	PASS



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CALCULATION RANGE & CUTOFF

From: 13.00ft MD	To: 18287.12ft MD	C-C Cutoff: 1000.00 ft
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OFFSET WELL CLEARANCE SUMMARY (26 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane

Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	C-C Clearance Distance			ACR Separation Ratio			
					Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
SEC.20-T01S-R65W	SLOT#01 EX. WOLFE #1 (990'FSL & 990'FEL, SEC.20.OG, PR, 8200)	WOLFE #1	WOLFE #1 AWB	WOLFE #1 AWP	13.00	1418.35	9013.00	9063.25	12.75	9213.00	PASS



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17, OG, PR, 8140) Well: AMOCO #17-32 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	81.00	6832.67	-2727.93	-21.76	7357.42	25.40	299.04	PASS	
113.00†	113.00	0.00	0.00	19.00	113.00	6832.67	-2727.93	-21.76	7357.11	50.41	148.17	PASS	
213.00†	213.00	0.00	0.00	119.00	213.00	6832.67	-2727.93	-21.76	7357.11	52.75	141.50	PASS	
313.00†	313.00	0.00	0.00	219.00	313.00	6832.67	-2727.93	-21.76	7357.11	55.09	135.39	PASS	
413.00†	413.00	0.00	0.00	319.00	413.00	6832.67	-2727.93	-21.76	7357.11	57.44	129.78	PASS	
513.00†	513.00	0.00	0.00	419.00	513.00	6832.67	-2727.93	-21.76	7357.11	59.79	124.61	PASS	
613.00†	613.00	0.00	0.00	519.00	613.00	6832.67	-2727.93	-21.76	7357.11	62.15	119.83	PASS	
713.00†	713.00	0.00	0.00	619.00	713.00	6832.67	-2727.93	-21.76	7357.11	64.51	115.39	PASS	
800.00	800.00	0.00	0.00	706.00	800.00	6832.67	-2727.93	-21.76	7357.11	66.57	111.79	PASS	
813.00†	813.00	-0.01	-0.03	719.00	813.00	6832.67	-2727.93	78.08	7357.10	66.87	111.27	PASS	
913.00†	912.97	-0.38	-2.20	818.97	912.97	6832.67	-2727.93	78.10	7356.65	69.24	107.42	PASS	
1013.00†	1012.80	-1.35	-7.80	918.80	1012.80	6832.67	-2727.93	78.17	7355.48	71.61	103.80	PASS	
1113.00†	1112.38	-2.92	-16.83	1018.38	1112.38	6832.67	-2727.93	78.28	7353.60	73.99	100.41	PASS	
1213.00†	1211.57	-5.08	-29.28	1117.57	1211.57	6832.67	-2727.93	78.42	7351.03	76.36	97.23	PASS	
1313.00†	1310.26	-7.83	-45.14	1216.26	1310.26	6832.67	-2727.93	78.61	7347.78	78.74	94.22	PASS	
1413.00†	1408.33	-11.17	-64.37	1314.33	1408.33	6832.67	-2727.93	78.83	7343.89	81.13	91.37	PASS	
1513.00†	1505.66	-15.09	-86.97	1411.66	1505.66	6832.67	-2727.93	79.09	7339.38	83.52	88.67	PASS	
1613.00†	1602.13	-19.58	-112.90	1508.13	1602.13	6832.67	-2727.93	79.38	7334.29	85.77	86.10	PASS	
1713.00†	1697.62	-24.65	-142.14	1603.62	1697.62	6832.67	-2727.93	79.71	7328.66	88.21	83.63	PASS	
1813.00†	1792.02	-30.29	-174.63	1698.02	1792.02	6832.67	-2727.93	80.07	7322.54	90.64	81.27	PASS	
1913.00†	1885.21	-36.49	-210.36	1791.21	1885.21	6832.67	-2727.93	80.47	7315.98	93.15	78.99	PASS	
1929.59	1900.54	-37.57	-216.59	1806.54	1900.54	6832.67	-2727.93	80.53	7314.85	93.58	78.62	PASS	
2013.00†	1977.56	-43.05	-248.17	1883.56	1977.56	6832.67	-2727.93	80.76	7309.22	95.72	76.79	PASS	
2113.00†	2069.88	-49.61	-286.02	1975.88	2069.88	6832.67	-2727.93	81.04	7302.66	98.34	74.67	PASS	
2213.00†	2162.21	-56.18	-323.87	2068.21	2162.21	6832.67	-2727.93	81.31	7296.29	101.01	72.61	PASS	
2313.00†	2254.54	-62.74	-361.72	2160.54	2254.54	6832.67	-2727.93	81.59	7290.11	103.74	70.64	PASS	
2413.00†	2346.86	-69.31	-399.57	2252.86	2346.86	6832.67	-2727.93	81.87	7284.14	106.51	68.74	PASS	
2513.00†	2439.19	-75.87	-437.42	2345.19	2439.19	6832.67	-2727.93	82.14	7278.36	109.32	66.91	PASS	
2613.00†	2531.52	-82.44	-475.27	2437.52	2531.52	6832.67	-2727.93	82.42	7272.78	112.17	65.15	PASS	
2713.00†	2623.84	-89.01	-513.12	2529.84	2623.84	6832.67	-2727.93	82.70	7267.39	115.06	63.45	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17-OG, PR, 8140) Well: AMOCO #17-32 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2716.17	-95.57	-550.97	2622.17	2716.17	6832.67	-2727.93	82.97	7262.21	117.99	61.83	PASS	
2913.00†	2808.50	-102.14	-588.82	2714.50	2808.50	6832.67	-2727.93	83.25	7257.23	120.95	60.27	PASS	
3013.00†	2900.82	-108.70	-626.68	2806.82	2900.82	6832.67	-2727.93	83.53	7252.45	123.94	58.77	PASS	
3113.00†	2993.15	-115.27	-664.53	2899.15	2993.15	6832.67	-2727.93	83.81	7247.86	126.96	57.33	PASS	
3213.00†	3085.48	-121.83	-702.38	2991.48	3085.48	6832.67	-2727.93	84.09	7243.48	130.01	55.95	PASS	
3313.00†	3177.80	-128.40	-740.23	3083.80	3177.80	6832.67	-2727.93	84.37	7239.30	133.08	54.62	PASS	
3413.00†	3270.13	-134.96	-778.08	3176.13	3270.13	6832.67	-2727.93	84.65	7235.32	136.17	53.34	PASS	
3513.00†	3362.45	-141.53	-815.93	3268.45	3362.45	6832.67	-2727.93	84.93	7231.55	139.29	52.12	PASS	
3613.00†	3454.78	-148.10	-853.78	3360.78	3454.78	6832.67	-2727.93	85.21	7227.97	142.42	50.94	PASS	
3713.00†	3547.11	-154.66	-891.63	3453.11	3547.11	6832.67	-2727.93	85.49	7224.60	145.57	49.81	PASS	
3813.00†	3639.43	-161.23	-929.48	3545.43	3639.43	6832.67	-2727.93	85.77	7221.43	148.74	48.72	PASS	
3913.00†	3731.76	-167.79	-967.33	3637.76	3731.76	6832.67	-2727.93	86.05	7218.46	151.92	47.68	PASS	
4013.00†	3824.09	-174.36	-1005.19	3730.09	3824.09	6832.67	-2727.93	86.33	7215.70	155.12	46.68	PASS	
4113.00†	3916.41	-180.92	-1043.04	3822.41	3916.41	6832.67	-2727.93	86.61	7213.14	158.33	45.71	PASS	
4213.00†	4008.74	-187.49	-1080.89	3914.74	4008.74	6832.67	-2727.93	86.89	7210.79	161.55	44.78	PASS	
4313.00†	4101.07	-194.05	-1118.74	4007.07	4101.07	6832.67	-2727.93	87.18	7208.63	164.79	43.89	PASS	
4413.00†	4193.39	-200.62	-1156.59	4099.39	4193.39	6832.67	-2727.93	87.46	7206.69	168.03	43.02	PASS	
4513.00†	4285.72	-207.19	-1194.44	4191.72	4285.72	6832.67	-2727.93	87.74	7204.94	171.29	42.19	PASS	
4613.00†	4378.05	-213.75	-1232.29	4284.05	4378.05	6832.67	-2727.93	88.02	7203.41	174.55	41.39	PASS	
4713.00†	4470.37	-220.32	-1270.14	4376.37	4470.37	6832.67	-2727.93	88.30	7202.07	177.82	40.62	PASS	
4813.00†	4562.70	-226.88	-1307.99	4468.70	4562.70	6832.67	-2727.93	88.59	7200.94	181.10	39.88	PASS	
4913.00†	4655.03	-233.45	-1345.84	4561.03	4655.03	6832.67	-2727.93	88.87	7200.02	184.38	39.16	PASS	
5013.00†	4747.35	-240.01	-1383.70	4653.35	4747.35	6832.67	-2727.93	89.15	7199.30	187.67	38.47	PASS	
5113.00†	4839.68	-246.58	-1421.55	4745.68	4839.68	6832.67	-2727.93	89.43	7198.78	190.97	37.80	PASS	
5213.00†	4932.01	-253.14	-1459.40	4838.01	4932.01	6832.67	-2727.93	89.71	7198.47	194.27	37.15	PASS	
5313.00†	5024.33	-259.71	-1497.25	4930.33	5024.33	6832.67	-2727.93	90.00	7198.37	197.58	36.53	PASS	
5413.00†	5116.66	-266.28	-1535.10	5022.66	5116.66	6832.67	-2727.93	90.28	7198.47	200.89	35.93	PASS	
5513.00†	5208.99	-272.84	-1572.95	5114.99	5208.99	6832.67	-2727.93	90.56	7198.77	204.20	35.34	PASS	
5613.00†	5301.31	-279.41	-1610.80	5207.31	5301.31	6832.67	-2727.93	90.84	7199.28	207.52	34.78	PASS	
5713.00†	5393.64	-285.97	-1648.65	5299.64	5393.64	6832.67	-2727.93	91.13	7200.00	210.84	34.23	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17-OG, PR, 8140) Well: AMOCO #17-32 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5485.97	-292.54	-1686.50	5391.97	5485.97	6832.67	-2727.93	91.41	7200.92	214.16	33.71	PASS	
5913.00†	5578.29	-299.10	-1724.35	5484.29	5578.29	6832.67	-2727.93	91.69	7202.04	217.49	33.19	PASS	
6013.00†	5670.62	-305.67	-1762.20	5576.62	5670.62	6832.67	-2727.93	91.97	7203.37	220.82	32.70	PASS	
6113.00†	5762.95	-312.23	-1800.06	5668.95	5762.95	6832.67	-2727.93	92.25	7204.91	224.15	32.22	PASS	
6213.00†	5855.27	-318.80	-1837.91	5761.27	5855.27	6832.67	-2727.93	92.54	7206.64	227.48	31.75	PASS	
6313.00†	5947.60	-325.37	-1875.76	5853.60	5947.60	6832.67	-2727.93	92.82	7208.59	230.81	31.30	PASS	
6413.00†	6039.93	-331.93	-1913.61	5945.93	6039.93	6832.67	-2727.93	93.10	7210.73	234.14	30.87	PASS	
6513.00†	6132.25	-338.50	-1951.46	6038.25	6132.25	6832.67	-2727.93	93.38	7213.09	237.48	30.44	PASS	
6613.00†	6224.58	-345.06	-1989.31	6130.58	6224.58	6832.67	-2727.93	93.66	7215.64	240.81	30.03	PASS	
6713.00†	6316.91	-351.63	-2027.16	6222.91	6316.91	6832.67	-2727.93	93.94	7218.40	244.15	29.63	PASS	
6813.00†	6409.23	-358.19	-2065.01	6315.23	6409.23	6832.67	-2727.93	94.22	7221.36	247.48	29.24	PASS	
6913.00†	6501.56	-364.76	-2102.86	6407.56	6501.56	6832.67	-2727.93	94.50	7224.52	250.82	28.86	PASS	
7013.00†	6593.89	-371.32	-2140.71	6499.89	6593.89	6832.67	-2727.93	94.79	7227.89	254.15	28.50	PASS	
7113.00†	6686.21	-377.89	-2178.57	6592.21	6686.21	6832.67	-2727.93	95.07	7231.46	257.49	28.14	PASS	
7213.00†	6778.54	-384.46	-2216.42	6684.54	6778.54	6832.67	-2727.93	95.35	7235.23	260.82	27.80	PASS	
7313.00†	6870.86	-391.02	-2254.27	6776.86	6870.86	6832.67	-2727.93	95.63	7239.21	264.15	27.46	PASS	
7413.00†	6963.19	-397.59	-2292.12	6869.19	6963.19	6832.67	-2727.93	95.90	7243.38	267.48	27.13	PASS	
7513.00†	7055.52	-404.15	-2329.97	6961.52	7055.52	6832.67	-2727.93	96.18	7247.76	270.81	26.81	PASS	
7535.61	7076.40	-405.64	-2338.53	6982.40	7076.40	6832.67	-2727.93	96.25	7248.78	271.56	26.74	PASS	
7613.00†	7147.92	-405.50	-2367.93	7053.92	7147.92	6832.67	-2727.93	77.82	7247.12	274.18	26.48	PASS	
7713.00†	7239.07	-389.92	-2405.65	7145.07	7239.07	6832.67	-2727.93	57.38	7229.78	277.72	26.08	PASS	
7813.00†	7326.25	-357.45	-2441.99	7232.25	7326.25	6832.67	-2727.93	43.54	7195.81	281.26	25.63	PASS	
7913.00†	7406.80	-309.08	-2475.85	7312.80	7406.80	6832.67	-2727.93	34.83	7146.20	284.49	25.17	PASS	
8013.00†	7478.27	-246.27	-2506.21	7384.27	7478.27	6832.67	-2727.93	29.30	7082.41	287.29	24.70	PASS	
8113.00†	7538.49	-170.93	-2532.14	7444.49	7538.49	6832.67	-2727.93	25.71	7006.34	289.60	24.24	PASS	
8213.00†	7585.63	-85.35	-2552.85	7491.63	7585.63	6832.67	-2727.93	23.32	6920.24	291.37	23.79	PASS	
8313.00†	7618.26	7.86	-2567.72	7524.26	7618.26	6832.67	-2727.93	21.56	6826.69	292.57	23.37	PASS	
8413.00†	7635.39	105.88	-2576.29	7541.39	7635.39	6832.67	-2727.93	18.63	6728.50	293.18	22.99	PASS	
8469.87	7638.00	162.63	-2578.24	7544.00	7638.00	6832.67	-2727.93	-90.00	6671.72	293.26	22.79	PASS	
8513.00†	7638.00	205.76	-2578.92	7544.00	7638.00	6832.67	-2727.93	-90.00	6628.59	293.26	22.64	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17, OG, PR, 8140) Well: AMOCO #17-32 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8613.00†	7638.00	305.75	-2580.47	7544.00	7638.00	6832.67	-2727.93	-90.00	6528.59	293.24	22.30	PASS
8713.00†	7638.00	405.73	-2582.03	7544.00	7638.00	6832.67	-2727.93	-90.00	6428.60	293.22	21.96	PASS
8813.00†	7638.00	505.72	-2583.59	7544.00	7638.00	6832.67	-2727.93	-90.00	6328.60	293.21	21.62	PASS
8913.00†	7638.00	605.71	-2585.15	7544.00	7638.00	6832.67	-2727.93	-90.00	6228.60	293.19	21.28	PASS
9013.00†	7638.00	705.70	-2586.71	7544.00	7638.00	6832.67	-2727.93	-90.00	6128.60	293.17	20.94	PASS
9113.00†	7638.00	805.69	-2588.26	7544.00	7638.00	6832.67	-2727.93	-90.00	6028.61	293.15	20.60	PASS
9213.00†	7638.00	905.67	-2589.82	7544.00	7638.00	6832.67	-2727.93	-90.00	5928.61	293.14	20.26	PASS
9313.00†	7638.00	1005.66	-2591.38	7544.00	7638.00	6832.67	-2727.93	-90.00	5828.61	293.12	19.92	PASS
9413.00†	7638.00	1105.65	-2592.94	7544.00	7638.00	6832.67	-2727.93	-90.00	5728.62	293.10	19.58	PASS
9513.00†	7638.00	1205.64	-2594.49	7544.00	7638.00	6832.67	-2727.93	-90.00	5628.62	293.08	19.24	PASS
9613.00†	7638.00	1305.62	-2596.05	7544.00	7638.00	6832.67	-2727.93	-90.00	5528.62	293.07	18.90	PASS
9713.00†	7638.00	1405.61	-2597.61	7544.00	7638.00	6832.67	-2727.93	-90.00	5428.63	293.05	18.56	PASS
9813.00†	7638.00	1505.60	-2599.17	7544.00	7638.00	6832.67	-2727.93	-90.00	5328.63	293.03	18.22	PASS
9913.00†	7638.00	1605.59	-2600.73	7544.00	7638.00	6832.67	-2727.93	-90.00	5228.63	293.01	17.88	PASS
10013.00†	7638.00	1705.58	-2602.28	7544.00	7638.00	6832.67	-2727.93	-90.00	5128.64	292.99	17.54	PASS
10113.00†	7638.00	1805.56	-2603.84	7544.00	7638.00	6832.67	-2727.93	-90.00	5028.64	292.97	17.19	PASS
10213.00†	7638.00	1905.55	-2605.40	7544.00	7638.00	6832.67	-2727.93	-90.00	4928.65	292.95	16.85	PASS
10313.00†	7638.00	2005.54	-2606.96	7544.00	7638.00	6832.67	-2727.93	-90.00	4828.65	292.93	16.51	PASS
10413.00†	7638.00	2105.53	-2608.51	7544.00	7638.00	6832.67	-2727.93	-90.00	4728.66	292.90	16.17	PASS
10513.00†	7638.00	2205.52	-2610.07	7544.00	7638.00	6832.67	-2727.93	-90.00	4628.66	292.88	15.83	PASS
10613.00†	7638.00	2305.50	-2611.63	7544.00	7638.00	6832.67	-2727.93	-90.00	4528.66	292.85	15.49	PASS
10713.00†	7638.00	2405.49	-2613.19	7544.00	7638.00	6832.67	-2727.93	-90.00	4428.67	292.83	15.15	PASS
10813.00†	7638.00	2505.48	-2614.75	7544.00	7638.00	6832.67	-2727.93	-90.00	4328.68	292.80	14.81	PASS
10913.00†	7638.00	2605.47	-2616.30	7544.00	7638.00	6832.67	-2727.93	-90.00	4228.68	292.77	14.47	PASS
11013.00†	7638.00	2705.45	-2617.86	7544.00	7638.00	6832.67	-2727.93	-90.00	4128.69	292.74	14.13	PASS
11113.00†	7638.00	2805.44	-2619.42	7544.00	7638.00	6832.67	-2727.93	-90.00	4028.69	292.71	13.79	PASS
11213.00†	7638.00	2905.43	-2620.98	7544.00	7638.00	6832.67	-2727.93	-90.00	3928.70	292.68	13.45	PASS
11313.00†	7638.00	3005.42	-2622.53	7544.00	7638.00	6832.67	-2727.93	-90.00	3828.71	292.64	13.11	PASS
11413.00†	7638.00	3105.41	-2624.09	7544.00	7638.00	6832.67	-2727.93	-90.00	3728.71	292.60	12.77	PASS
11513.00†	7638.00	3205.39	-2625.65	7544.00	7638.00	6832.67	-2727.93	-90.00	3628.72	292.56	12.42	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17, OG, PR, 8140) Well: AMOCO #17-32 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
11613.00†	7638.00	3305.38	-2627.21	7544.00	7638.00	6832.67	-2727.93	-90.00	3528.73	292.52	12.08	PASS
11713.00†	7638.00	3405.37	-2628.77	7544.00	7638.00	6832.67	-2727.93	-90.00	3428.74	292.47	11.74	PASS
11813.00†	7638.00	3505.36	-2630.32	7544.00	7638.00	6832.67	-2727.93	-90.00	3328.75	292.42	11.40	PASS
11913.00†	7638.00	3605.35	-2631.88	7544.00	7638.00	6832.67	-2727.93	-90.00	3228.76	292.36	11.06	PASS
12013.00†	7638.00	3705.33	-2633.44	7544.00	7638.00	6832.67	-2727.93	-90.00	3128.77	292.30	10.72	PASS
12113.00†	7638.00	3805.32	-2635.00	7544.00	7638.00	6832.67	-2727.93	-90.00	3028.78	292.24	10.38	PASS
12213.00†	7638.00	3905.31	-2636.55	7544.00	7638.00	6832.67	-2727.93	-90.00	2928.79	292.17	10.04	PASS
12313.00†	7638.00	4005.30	-2638.11	7544.00	7638.00	6832.67	-2727.93	-90.00	2828.80	292.10	9.70	PASS
12413.00†	7638.00	4105.28	-2639.67	7544.00	7638.00	6832.67	-2727.93	-90.00	2728.82	292.02	9.36	PASS
12513.00†	7638.00	4205.27	-2641.23	7544.00	7638.00	6832.67	-2727.93	-90.00	2628.83	291.93	9.02	PASS
12613.00†	7638.00	4305.26	-2642.79	7544.00	7638.00	6832.67	-2727.93	-90.00	2528.85	291.83	8.68	PASS
12713.00†	7638.00	4405.25	-2644.34	7544.00	7638.00	6832.67	-2727.93	-90.00	2428.86	291.72	8.34	PASS
12813.00†	7638.00	4505.24	-2645.90	7544.00	7638.00	6832.67	-2727.93	-90.00	2328.88	291.60	8.00	PASS
12913.00†	7638.00	4605.22	-2647.46	7544.00	7638.00	6832.67	-2727.93	-90.00	2228.90	291.47	7.66	PASS
13013.00†	7638.00	4705.21	-2649.02	7544.00	7638.00	6832.67	-2727.93	-90.00	2128.93	291.33	7.32	PASS
13113.00†	7638.00	4805.20	-2650.58	7544.00	7638.00	6832.67	-2727.93	-90.00	2028.95	291.17	6.98	PASS
13213.00†	7638.00	4905.19	-2652.13	7544.00	7638.00	6832.67	-2727.93	-90.00	1928.98	290.98	6.64	PASS
13313.00†	7638.00	5005.18	-2653.69	7544.00	7638.00	6832.67	-2727.93	-90.00	1829.01	290.78	6.30	PASS
13413.00†	7638.00	5105.16	-2655.25	7544.00	7638.00	6832.67	-2727.93	-90.00	1729.04	290.55	5.96	PASS
13513.00†	7638.00	5205.15	-2656.81	7544.00	7638.00	6832.67	-2727.93	-90.00	1629.08	290.29	5.62	PASS
13613.00†	7638.00	5305.14	-2658.36	7544.00	7638.00	6832.67	-2727.93	-90.00	1529.12	289.99	5.28	PASS
13713.00†	7638.00	5405.13	-2659.92	7544.00	7638.00	6832.67	-2727.93	-90.00	1429.17	289.65	4.94	PASS
13813.00†	7638.00	5505.11	-2661.48	7544.00	7638.00	6832.67	-2727.93	-90.00	1329.22	289.25	4.60	PASS
13913.00†	7638.00	5605.10	-2663.04	7544.00	7638.00	6832.67	-2727.93	-90.00	1229.29	288.78	4.26	PASS
14013.00†	7638.00	5705.09	-2664.60	7544.00	7638.00	6832.67	-2727.93	-90.00	1129.36	288.23	3.92	PASS
14113.00†	7638.00	5805.08	-2666.15	7544.00	7638.00	6832.67	-2727.93	-90.00	1029.45	287.56	3.58	PASS
14213.00†	7638.00	5905.07	-2667.71	7544.00	7638.00	6832.67	-2727.93	-90.00	929.56	286.74	3.25	PASS
14313.00†	7638.00	6005.05	-2669.27	7544.00	7638.00	6832.67	-2727.93	-90.00	829.70	285.72	2.91	PASS
14413.00†	7638.00	6105.04	-2670.83	7544.00	7638.00	6832.67	-2727.93	-90.00	729.87	284.42	2.57	PASS
14513.00†	7638.00	6205.03	-2672.38	7544.00	7638.00	6832.67	-2727.93	-90.00	630.10	282.71	2.23	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17, OG, PR, 8140) Well: AMOCO #17-32 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
14613.00†	7638.00	6305.02	-2673.94	7544.00	7638.00	6832.67	-2727.93	-90.00	530.41	280.38	1.89	PASS	
14713.00†	7638.00	6405.01	-2675.50	7544.00	7638.00	6832.67	-2727.93	-90.00	430.87	277.01	1.56	PASS	
14813.00†	7638.00	6504.99	-2677.06	7544.00	7638.00	6832.67	-2727.93	-90.00	331.61	271.79	1.22	PASS	
14913.00†	7638.00	6604.98	-2678.62	7544.00	7638.00	6832.67	-2727.93	-90.00	232.97	263.05	0.89	FAIL	
15013.00†	7638.00	6704.97	-2680.17	7544.00	7638.00	6832.67	-2727.93	-90.00	136.34	251.00	0.54	FAIL	
15113.00†	7638.00	6804.96	-2681.73	7544.00	7638.00	6832.67	-2727.93	-90.00	53.88	349.61	0.15	FAIL	
15141.44†	7638.00	6833.40	-2682.17	7543.90	7637.90	6832.67	-2727.93	-89.87	45.76	421.76	0.11	FAIL	
15147.01†	7638.00	6838.96	-2682.26	7544.00	7638.00	6832.67	-2727.93	-90.00	46.10	429.71	0.11	FAIL	
15213.00†	7638.00	6904.94	-2683.29	7544.00	7638.00	6832.67	-2727.93	-90.00	84.95	391.62	0.22	FAIL	
15313.00†	7638.00	7004.93	-2684.85	7544.00	7638.00	6832.67	-2727.93	-90.00	177.56	343.63	0.52	FAIL	
15413.00†	7638.00	7104.92	-2686.40	7544.00	7638.00	6832.67	-2727.93	-90.00	275.39	326.91	0.84	FAIL	
15513.00†	7638.00	7204.91	-2687.96	7544.00	7638.00	6832.67	-2727.93	-90.00	374.37	318.81	1.17	PASS	
15613.00†	7638.00	7304.90	-2689.52	7544.00	7638.00	6832.67	-2727.93	-90.00	473.78	314.09	1.51	PASS	
15713.00†	7638.00	7404.88	-2691.08	7544.00	7638.00	6832.67	-2727.93	-90.00	573.40	311.02	1.85	PASS	
15813.00†	7638.00	7504.87	-2692.64	7544.00	7638.00	6832.67	-2727.93	-90.00	673.12	308.87	2.18	PASS	
15913.00†	7638.00	7604.86	-2694.19	7544.00	7638.00	6832.67	-2727.93	-90.00	772.92	307.29	2.52	PASS	
16013.00†	7638.00	7704.85	-2695.75	7544.00	7638.00	6832.67	-2727.93	-90.00	872.77	306.08	2.85	PASS	
16113.00†	7638.00	7804.84	-2697.31	7544.00	7638.00	6832.67	-2727.93	-90.00	972.64	305.14	3.19	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

HOLE & CASING SECTIONS - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
11in Open Hole	0.00	1450.00	1450.00	81.00	1531.00	4157.57	-1681.80	4157.57	-1681.80
8.625in Casing Surface	0.00	1450.00	1450.00	81.00	1531.00	4157.57	-1681.80	4157.57	-1681.80
7.875in Open Hole	1450.00	8150.00	6700.00	1531.00	N/A	4157.57	-1681.80	N/A	N/A
4.5in Casing Production	0.00	8150.00	8150.00	81.00	N/A	4157.57	-1681.80	N/A	N/A

WELLPATH COMPOSITION - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8140.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8140>	AMOCO #17-32 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

MD Reference: Rig on SLOT#03 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.14, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20) Well: WAKEMAN 20-17-1NCH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	16.00	13.00	0.09	30.00	89.82	30.00	1.40	48.67	PASS	
113.00†	113.00	0.00	0.00	116.00	113.00	0.09	30.00	89.82	30.00	1.73	31.36	PASS	
213.00†	213.00	0.00	0.00	216.00	213.00	0.09	30.00	89.82	30.00	2.31	19.36	PASS	
313.00†	313.00	0.00	0.00	316.00	313.00	0.09	30.00	89.82	30.00	2.92	13.80	PASS	
413.00†	413.00	0.00	0.00	416.00	413.00	0.09	30.00	89.82	30.00	3.53	10.69	PASS	
513.00†	513.00	0.00	0.00	516.00	513.00	0.09	30.00	89.82	30.00	4.15	8.71	PASS	
613.00†	613.00	0.00	0.00	616.00	613.00	0.09	30.00	89.82	30.00	4.78	7.34	PASS	
713.00†	713.00	0.00	0.00	716.00	713.00	0.09	30.00	89.82	30.00	5.40	6.35	PASS	
800.00	800.00	0.00	0.00	803.00	800.00	0.09	30.00	89.82	30.00	5.95	5.68	PASS	
813.00†	813.00	-0.01	-0.03	816.00	813.00	0.09	30.00	-170.35	30.03	6.03	5.59	PASS	
913.00†	912.97	-0.38	-2.20	915.97	912.97	0.09	30.00	-171.00	32.20	6.78	5.25	PASS	
1013.00†	1012.80	-1.35	-7.80	1016.01	1013.01	0.08	29.96	-172.32	37.78	7.82	5.27	PASS	
1113.00†	1112.38	-2.92	-16.83	1117.22	1114.18	-0.38	27.65	-173.41	44.58	8.88	5.42	PASS	
1213.00†	1211.57	-5.08	-29.28	1218.67	1215.45	-1.57	21.83	-174.09	51.38	10.14	5.42	PASS	
1313.00†	1310.26	-7.83	-45.14	1320.37	1316.70	-3.47	12.47	-174.50	58.12	11.28	5.47	PASS	
1413.00†	1408.33	-11.17	-64.37	1422.31	1417.78	-6.10	-0.45	-174.73	64.82	12.36	5.54	PASS	
1513.00†	1505.66	-15.09	-86.97	1524.51	1518.58	-9.45	-16.92	-174.83	71.46	13.39	5.61	PASS	
1613.00†	1602.13	-19.58	-112.90	1626.94	1618.95	-13.53	-36.95	-174.83	78.02	14.38	5.69	PASS	
1713.00†	1697.62	-24.65	-142.14	1729.63	1718.76	-18.33	-60.55	-174.75	84.51	15.35	5.75	PASS	
1813.00†	1792.02	-30.29	-174.63	1832.55	1817.88	-23.86	-87.71	-174.62	90.91	16.22	5.82	PASS	
1913.00†	1885.21	-36.49	-210.36	1935.71	1916.16	-30.10	-118.42	-174.43	97.22	17.18	5.86	PASS	
1929.59	1900.54	-37.57	-216.59	1952.84	1932.37	-31.21	-123.85	-174.39	98.26	17.32	5.87	PASS	
2013.00†	1977.56	-43.05	-248.17	2039.01	2013.38	-37.06	-152.61	-174.14	102.22	17.97	5.88	PASS	
2113.00†	2069.88	-49.61	-286.02	2138.95	2106.87	-44.10	-187.22	-173.77	105.63	18.68	5.84	PASS	
2213.00†	2162.21	-56.18	-323.87	2238.89	2200.36	-51.15	-221.83	-173.43	109.05	19.43	5.79	PASS	
2313.00†	2254.54	-62.74	-361.72	2338.83	2293.85	-58.19	-256.45	-173.10	112.47	20.21	5.73	PASS	
2413.00†	2346.86	-69.31	-399.57	2438.77	2387.34	-65.23	-291.06	-172.80	115.89	21.03	5.67	PASS	
2513.00†	2439.19	-75.87	-437.42	2538.71	2480.83	-72.27	-325.67	-172.51	119.31	21.88	5.60	PASS	
2613.00†	2531.52	-82.44	-475.27	2638.65	2574.32	-79.31	-360.28	-172.24	122.74	22.75	5.54	PASS	
2713.00†	2623.84	-89.01	-513.12	2738.59	2667.81	-86.35	-394.89	-171.98	126.17	23.65	5.47	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20) Well: WAKEMAN 20-17-1NCH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2716.17	-95.57	-550.97	2838.53	2761.30	-93.40	-429.50	-171.74	129.61	24.57	5.40	PASS	
2913.00†	2808.50	-102.14	-588.82	2938.47	2854.79	-100.44	-464.11	-171.51	133.04	25.52	5.33	PASS	
3013.00†	2900.82	-108.70	-626.68	3038.41	2948.28	-107.48	-498.72	-171.29	136.48	26.48	5.27	PASS	
3113.00†	2993.15	-115.27	-664.53	3138.35	3041.77	-114.52	-533.33	-171.08	139.92	27.46	5.20	PASS	
3213.00†	3085.48	-121.83	-702.38	3238.28	3135.26	-121.56	-567.94	-170.88	143.36	28.46	5.14	PASS	
3313.00†	3177.80	-128.40	-740.23	3338.22	3228.75	-128.61	-602.56	-170.69	146.80	29.47	5.08	PASS	
3413.00†	3270.13	-134.96	-778.08	3438.16	3322.24	-135.65	-637.17	-170.51	150.24	30.49	5.02	PASS	
3513.00†	3362.45	-141.53	-815.93	3538.10	3415.73	-142.69	-671.78	-170.34	153.69	31.53	4.96	PASS	
3613.00†	3454.78	-148.10	-853.78	3638.04	3509.22	-149.73	-706.39	-170.17	157.13	32.58	4.91	PASS	
3713.00†	3547.11	-154.66	-891.63	3737.98	3602.71	-156.77	-741.00	-170.02	160.58	33.63	4.86	PASS	
3813.00†	3639.43	-161.23	-929.48	3837.92	3696.20	-163.82	-775.61	-169.86	164.03	34.70	4.80	PASS	
3913.00†	3731.76	-167.79	-967.33	3937.86	3789.69	-170.86	-810.22	-169.72	167.48	35.78	4.76	PASS	
4013.00†	3824.09	-174.36	-1005.19	4037.80	3883.19	-177.90	-844.83	-169.58	170.93	36.86	4.71	PASS	
4113.00†	3916.41	-180.92	-1043.04	4137.74	3976.68	-184.94	-879.44	-169.45	174.38	37.96	4.66	PASS	
4213.00†	4008.74	-187.49	-1080.89	4237.68	4070.17	-191.98	-914.05	-169.32	177.84	39.05	4.62	PASS	
4313.00†	4101.07	-194.05	-1118.74	4337.62	4163.66	-199.02	-948.67	-169.20	181.29	40.16	4.58	PASS	
4413.00†	4193.39	-200.62	-1156.59	4437.56	4257.15	-206.07	-983.28	-169.08	184.75	41.27	4.54	PASS	
4513.00†	4285.72	-207.19	-1194.44	4537.50	4350.64	-213.11	-1017.89	-168.96	188.20	42.39	4.50	PASS	
4613.00†	4378.05	-213.75	-1232.29	4637.44	4444.13	-220.15	-1052.50	-168.85	191.66	43.52	4.46	PASS	
4713.00†	4470.37	-220.32	-1270.14	4737.38	4537.62	-227.19	-1087.11	-168.75	195.11	44.65	4.42	PASS	
4813.00†	4562.70	-226.88	-1307.99	4837.32	4631.11	-234.23	-1121.72	-168.64	198.57	45.78	4.39	PASS	
4913.00†	4655.03	-233.45	-1345.84	4937.26	4724.60	-241.28	-1156.33	-168.54	202.03	46.92	4.36	PASS	
5013.00†	4747.35	-240.01	-1383.70	5037.20	4818.09	-248.32	-1190.94	-168.45	205.49	48.06	4.32	PASS	
5113.00†	4839.68	-246.58	-1421.55	5137.14	4911.58	-255.36	-1225.55	-168.36	208.95	49.21	4.29	PASS	
5213.00†	4932.01	-253.14	-1459.40	5237.08	5005.07	-262.40	-1260.16	-168.27	212.41	50.36	4.26	PASS	
5313.00†	5024.33	-259.71	-1497.25	5337.02	5098.56	-269.44	-1294.78	-168.18	215.87	51.51	4.24	PASS	
5413.00†	5116.66	-266.28	-1535.10	5436.96	5192.05	-276.49	-1329.39	-168.10	219.33	52.67	4.21	PASS	
5513.00†	5208.99	-272.84	-1572.95	5536.90	5285.54	-283.53	-1364.00	-168.01	222.79	53.83	4.18	PASS	
5613.00†	5301.31	-279.41	-1610.80	5636.84	5379.03	-290.57	-1398.61	-167.94	226.25	54.99	4.15	PASS	
5713.00†	5393.64	-285.97	-1648.65	5736.77	5472.52	-297.61	-1433.22	-167.86	229.71	56.16	4.13	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)				Well: WAKEMAN 20-17-1NCH		Threshold Value=1.00		↑ = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5485.97	-292.54	-1686.50	5836.71	5566.01	-304.65	-1467.83	-167.78	233.18	57.33	4.11	PASS
5913.00†	5578.29	-299.10	-1724.35	5936.65	5659.50	-311.70	-1502.44	-167.71	236.64	58.50	4.08	PASS
6013.00†	5670.62	-305.67	-1762.20	6036.59	5752.99	-318.74	-1537.05	-167.64	240.10	59.68	4.06	PASS
6113.00†	5762.95	-312.23	-1800.06	6136.53	5846.48	-325.78	-1571.66	-167.57	243.56	60.85	4.04	PASS
6213.00†	5855.27	-318.80	-1837.91	6236.47	5939.97	-332.82	-1606.28	-167.51	247.03	62.03	4.02	PASS
6313.00†	5947.60	-325.37	-1875.76	6336.41	6033.46	-339.86	-1640.89	-167.44	250.49	63.21	4.00	PASS
6413.00†	6039.93	-331.93	-1913.61	6436.35	6126.95	-346.90	-1675.50	-167.38	253.96	64.40	3.98	PASS
6513.00†	6132.25	-338.50	-1951.46	6536.29	6220.44	-353.95	-1710.11	-167.32	257.42	65.58	3.96	PASS
6613.00†	6224.58	-345.06	-1989.31	6636.23	6313.93	-360.99	-1744.72	-167.26	260.89	66.77	3.94	PASS
6713.00†	6316.91	-351.63	-2027.16	6736.17	6407.42	-368.03	-1779.33	-167.20	264.35	67.96	3.92	PASS
6813.00†	6409.23	-358.19	-2065.01	6836.11	6500.91	-375.07	-1813.94	-167.15	267.82	69.15	3.90	PASS
6913.00†	6501.56	-364.76	-2102.86	6936.05	6594.40	-382.11	-1848.55	-167.09	271.28	70.34	3.89	PASS
7013.00†	6593.89	-371.32	-2140.71	7035.99	6687.89	-389.16	-1883.16	-167.04	274.75	71.53	3.87	PASS
7113.00†	6686.21	-377.89	-2178.57	7135.93	6781.38	-396.20	-1917.77	-166.99	278.22	72.73	3.85	PASS
7213.00†	6778.54	-384.46	-2216.42	7235.87	6874.87	-403.24	-1952.39	-166.94	281.68	73.92	3.84	PASS
7313.00†	6870.86	-391.02	-2254.27	7338.54	6971.01	-405.17	-1988.06	-166.95	284.77	74.03	3.87	PASS
7413.00†	6963.19	-397.59	-2292.12	7437.55	7062.57	-390.19	-2022.30	-172.24	287.64	71.51	4.05	PASS
7513.00†	7055.52	-404.15	-2329.97	7526.97	7142.01	-362.40	-2052.23	-178.76	293.87	69.72	4.25	PASS
7535.61	7076.40	-405.64	-2338.53	7545.57	7157.96	-354.97	-2058.27	179.61	296.25	69.79	4.28	PASS
7613.00†	7147.92	-405.50	-2367.93	7606.86	7208.74	-326.66	-2077.57	154.68	306.96	71.47	4.33	PASS
7713.00†	7239.07	-389.92	-2405.65	7682.79	7267.22	-283.81	-2099.96	126.73	324.80	74.81	4.37	PASS
7813.00†	7326.25	-357.45	-2441.99	7755.87	7317.97	-235.10	-2119.57	106.50	344.95	77.31	4.49	PASS
7913.00†	7406.80	-309.08	-2475.85	7826.78	7361.25	-181.59	-2136.47	92.56	365.38	77.97	4.72	PASS
8013.00†	7478.27	-246.27	-2506.21	7896.04	7397.20	-124.18	-2150.72	82.89	384.51	76.91	5.04	PASS
8113.00†	7538.49	-170.93	-2532.14	7964.07	7425.92	-63.65	-2162.33	76.17	401.17	74.61	5.42	PASS
8213.00†	7585.63	-85.35	-2552.85	8031.21	7447.45	-0.74	-2171.31	71.60	414.52	71.73	5.83	PASS
8313.00†	7618.26	7.86	-2567.72	8097.72	7461.82	63.85	-2177.65	68.71	423.98	68.87	6.21	PASS
8413.00†	7635.39	105.88	-2576.29	8163.86	7469.06	129.45	-2181.36	67.26	429.17	66.56	6.51	PASS
8469.87	7638.00	162.63	-2578.24	8203.24	7470.00	168.80	-2182.32	67.01	430.13	65.71	6.61	PASS
8513.00†	7638.00	205.76	-2578.92	8246.38	7470.00	211.93	-2183.00	67.01	430.13	66.10	6.57	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20) Well: WAKEMAN 20-17-1NCH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
8613.00†	7638.00	305.75	-2580.47	8346.38	7470.00	311.92	-2184.56	67.01	430.13	67.25	6.45	PASS	
8713.00†	7638.00	405.73	-2582.03	8446.38	7470.00	411.91	-2186.11	67.01	430.13	68.89	6.30	PASS	
8813.00†	7638.00	505.72	-2583.59	8546.38	7470.00	511.89	-2187.67	67.01	430.13	70.98	6.11	PASS	
8913.00†	7638.00	605.71	-2585.15	8646.38	7470.00	611.88	-2189.23	67.01	430.13	73.47	5.90	PASS	
9013.00†	7638.00	705.70	-2586.71	8746.38	7470.00	711.87	-2190.79	67.01	430.13	74.70	5.80	PASS	
9113.00†	7638.00	805.69	-2588.26	8846.38	7470.00	811.86	-2192.35	67.01	430.13	79.53	5.45	PASS	
9213.00†	7638.00	905.67	-2589.82	8946.38	7470.00	911.84	-2193.91	67.01	430.13	83.02	5.22	PASS	
9313.00†	7638.00	1005.66	-2591.38	9046.38	7470.00	1011.83	-2195.47	67.01	430.13	86.76	4.99	PASS	
9413.00†	7638.00	1105.65	-2592.94	9146.38	7470.00	1111.82	-2197.02	67.01	430.13	90.72	4.77	PASS	
9513.00†	7638.00	1205.64	-2594.49	9246.38	7470.00	1211.81	-2198.58	67.01	430.12	94.87	4.56	PASS	
9613.00†	7638.00	1305.62	-2596.05	9346.38	7470.00	1311.80	-2200.14	67.01	430.12	99.20	4.36	PASS	
9713.00†	7638.00	1405.61	-2597.61	9446.38	7470.00	1411.78	-2201.70	67.01	430.12	103.67	4.17	PASS	
9813.00†	7638.00	1505.60	-2599.17	9546.38	7470.00	1511.77	-2203.26	67.01	430.12	108.28	3.99	PASS	
9913.00†	7638.00	1605.59	-2600.73	9646.38	7470.00	1611.76	-2204.82	67.01	430.12	113.00	3.82	PASS	
10013.00†	7638.00	1705.58	-2602.28	9746.38	7470.00	1711.75	-2206.38	67.01	430.12	117.82	3.67	PASS	
10113.00†	7638.00	1805.56	-2603.84	9846.38	7470.00	1811.74	-2207.94	67.01	430.12	122.73	3.52	PASS	
10213.00†	7638.00	1905.55	-2605.40	9946.38	7470.00	1911.72	-2209.49	67.01	430.12	127.71	3.38	PASS	
10313.00†	7638.00	2005.54	-2606.96	10046.38	7470.00	2011.71	-2211.05	67.01	430.12	132.77	3.25	PASS	
10413.00†	7638.00	2105.53	-2608.51	10146.38	7470.00	2111.70	-2212.61	67.01	430.12	137.89	3.13	PASS	
10513.00†	7638.00	2205.52	-2610.07	10246.38	7470.00	2211.69	-2214.17	67.01	430.12	143.06	3.02	PASS	
10613.00†	7638.00	2305.50	-2611.63	10346.38	7470.00	2311.67	-2215.73	67.01	430.12	148.28	2.91	PASS	
10713.00†	7638.00	2405.49	-2613.19	10446.38	7470.00	2411.66	-2217.29	67.01	430.12	153.55	2.81	PASS	
10813.00†	7638.00	2505.48	-2614.75	10546.38	7470.00	2511.65	-2218.85	67.01	430.11	158.85	2.72	PASS	
10913.00†	7638.00	2605.47	-2616.30	10646.38	7470.00	2611.64	-2220.40	67.01	430.11	164.19	2.63	PASS	
11013.00†	7638.00	2705.45	-2617.86	10746.38	7470.00	2711.63	-2221.96	67.01	430.11	169.57	2.54	PASS	
11113.00†	7638.00	2805.44	-2619.42	10846.38	7470.00	2811.61	-2223.52	67.01	430.11	174.97	2.46	PASS	
11213.00†	7638.00	2905.43	-2620.98	10946.38	7470.00	2911.60	-2225.08	67.01	430.11	180.40	2.39	PASS	
11313.00†	7638.00	3005.42	-2622.53	11046.38	7470.00	3011.59	-2226.64	67.01	430.11	185.86	2.32	PASS	
11413.00†	7638.00	3105.41	-2624.09	11146.38	7470.00	3111.58	-2228.20	67.01	430.11	191.33	2.25	PASS	
11513.00†	7638.00	3205.39	-2625.65	11246.38	7470.00	3211.57	-2229.76	67.01	430.11	196.83	2.19	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20) Well: WAKEMAN 20-17-1NCH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
11613.00†	7638.00	3305.38	-2627.21	11346.38	7470.00	3311.55	-2231.32	67.01	430.11	202.35	2.13	PASS	
11713.00†	7638.00	3405.37	-2628.77	11446.38	7470.00	3411.54	-2232.87	67.01	430.11	207.88	2.07	PASS	
11813.00†	7638.00	3505.36	-2630.32	11546.38	7470.00	3511.53	-2234.43	67.01	430.11	213.43	2.02	PASS	
11913.00†	7638.00	3605.35	-2631.88	11646.38	7470.00	3611.52	-2235.99	67.01	430.11	219.00	1.97	PASS	
12013.00†	7638.00	3705.33	-2633.44	11746.38	7470.00	3711.50	-2237.55	67.01	430.11	224.58	1.92	PASS	
12113.00†	7638.00	3805.32	-2635.00	11846.38	7470.00	3811.49	-2239.11	67.01	430.10	230.17	1.87	PASS	
12213.00†	7638.00	3905.31	-2636.55	11946.38	7470.00	3911.48	-2240.67	67.01	430.10	235.77	1.83	PASS	
12313.00†	7638.00	4005.30	-2638.11	12046.38	7470.00	4011.47	-2242.23	67.01	430.10	241.38	1.78	PASS	
12413.00†	7638.00	4105.28	-2639.67	12146.38	7470.00	4111.46	-2243.78	67.01	430.10	247.01	1.74	PASS	
12513.00†	7638.00	4205.27	-2641.23	12246.38	7470.00	4211.44	-2245.34	67.01	430.10	252.64	1.70	PASS	
12613.00†	7638.00	4305.26	-2642.79	12346.38	7470.00	4311.43	-2246.90	67.01	430.10	258.28	1.67	PASS	
12713.00†	7638.00	4405.25	-2644.34	12446.38	7470.00	4411.42	-2248.46	67.01	430.10	263.93	1.63	PASS	
12813.00†	7638.00	4505.24	-2645.90	12546.38	7470.00	4511.41	-2250.02	67.01	430.10	269.59	1.60	PASS	
12913.00†	7638.00	4605.22	-2647.46	12646.38	7470.00	4611.40	-2251.58	67.01	430.10	275.26	1.56	PASS	
13013.00†	7638.00	4705.21	-2649.02	12746.38	7470.00	4711.38	-2253.14	67.01	430.10	280.93	1.53	PASS	
13113.00†	7638.00	4805.20	-2650.58	12846.38	7470.00	4811.37	-2254.70	67.01	430.10	286.61	1.50	PASS	
13213.00†	7638.00	4905.19	-2652.13	12946.38	7470.00	4911.36	-2256.25	67.01	430.10	292.29	1.47	PASS	
13313.00†	7638.00	5005.18	-2653.69	13046.38	7470.00	5011.35	-2257.81	67.01	430.09	297.98	1.44	PASS	
13413.00†	7638.00	5105.16	-2655.25	13146.38	7470.00	5111.33	-2259.37	67.01	430.09	303.68	1.42	PASS	
13513.00†	7638.00	5205.15	-2656.81	13246.38	7470.00	5211.32	-2260.93	67.01	430.09	309.38	1.39	PASS	
13613.00†	7638.00	5305.14	-2658.36	13346.38	7470.00	5311.31	-2262.49	67.01	430.09	315.09	1.37	PASS	
13713.00†	7638.00	5405.13	-2659.92	13446.38	7470.00	5411.30	-2264.05	67.01	430.09	320.80	1.34	PASS	
13813.00†	7638.00	5505.11	-2661.48	13546.38	7470.00	5511.29	-2265.61	67.01	430.09	326.51	1.32	PASS	
13913.00†	7638.00	5605.10	-2663.04	13646.38	7470.00	5611.27	-2267.16	67.01	430.09	332.23	1.30	PASS	
14013.00†	7638.00	5705.09	-2664.60	13746.38	7470.00	5711.26	-2268.72	67.01	430.09	337.96	1.27	PASS	
14113.00†	7638.00	5805.08	-2666.15	13846.38	7470.00	5811.25	-2270.28	67.01	430.09	343.68	1.25	PASS	
14213.00†	7638.00	5905.07	-2667.71	13946.38	7470.00	5911.24	-2271.84	67.01	430.09	349.41	1.23	PASS	
14313.00†	7638.00	6005.05	-2669.27	14046.38	7470.00	6011.23	-2273.40	67.01	430.09	355.15	1.21	PASS	
14413.00†	7638.00	6105.04	-2670.83	14146.38	7470.00	6111.21	-2274.96	67.01	430.09	360.88	1.19	PASS	
14513.00†	7638.00	6205.03	-2672.38	14246.38	7470.00	6211.20	-2276.52	67.01	430.09	366.62	1.17	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)		Well: WAKEMAN 20-17-1NCH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
14613.00†	7638.00	6305.02	-2673.94	14346.38	7470.00	6311.19	-2278.08	67.01	430.08	372.36	1.16	PASS
14713.00†	7638.00	6405.01	-2675.50	14446.38	7470.00	6411.18	-2279.63	67.01	430.08	378.11	1.14	PASS
14813.00†	7638.00	6504.99	-2677.06	14546.38	7470.00	6511.16	-2281.19	67.01	430.08	383.86	1.12	PASS
14913.00†	7638.00	6604.98	-2678.62	14646.38	7470.00	6611.15	-2282.75	67.01	430.08	389.61	1.10	PASS
15013.00†	7638.00	6704.97	-2680.17	14746.38	7470.00	6711.14	-2284.31	67.01	430.08	395.36	1.09	PASS
15113.00†	7638.00	6804.96	-2681.73	14846.38	7470.00	6811.13	-2285.87	67.01	430.08	401.12	1.07	PASS
15213.00†	7638.00	6904.94	-2683.29	14946.38	7470.00	6911.12	-2287.43	67.01	430.08	406.87	1.06	PASS
15313.00†	7638.00	7004.93	-2684.85	15046.38	7470.00	7011.10	-2288.99	67.01	430.08	412.63	1.04	PASS
15413.00†	7638.00	7104.92	-2686.40	15146.38	7470.00	7111.09	-2290.54	67.01	430.08	418.40	1.03	PASS
15513.00†	7638.00	7204.91	-2687.96	15246.38	7470.00	7211.08	-2292.10	67.01	430.08	424.16	1.01	PASS
15613.00†	7638.00	7304.90	-2689.52	15346.38	7470.00	7311.07	-2293.66	67.01	430.08	429.92	1.00	PASS
15713.00†	7638.00	7404.88	-2691.08	15446.38	7470.00	7411.06	-2295.22	67.01	430.08	435.69	0.99	FAIL
15813.00†	7638.00	7504.87	-2692.64	15546.38	7470.00	7511.04	-2296.78	67.01	430.08	441.46	0.97	FAIL
15913.00†	7638.00	7604.86	-2694.19	15646.38	7470.00	7611.03	-2298.34	67.01	430.07	447.23	0.96	FAIL
16013.00†	7638.00	7704.85	-2695.75	15746.38	7470.00	7711.02	-2299.90	67.01	430.07	453.00	0.95	FAIL
16113.00†	7638.00	7804.84	-2697.31	15846.38	7470.00	7811.01	-2301.46	67.01	430.07	458.78	0.94	FAIL
16213.00†	7638.00	7904.82	-2698.87	15946.38	7470.00	7910.99	-2303.01	67.01	430.07	464.55	0.93	FAIL
16313.00†	7638.00	8004.81	-2700.43	16046.38	7470.00	8010.98	-2304.57	67.01	430.07	470.33	0.91	FAIL
16413.00†	7638.00	8104.80	-2701.98	16146.38	7470.00	8110.97	-2306.13	67.01	430.07	476.11	0.90	FAIL
16513.00†	7638.00	8204.79	-2703.54	16246.38	7470.00	8210.96	-2307.69	67.01	430.07	481.89	0.89	FAIL
16613.00†	7638.00	8304.78	-2705.10	16346.38	7470.00	8310.95	-2309.25	67.01	430.07	487.67	0.88	FAIL
16713.00†	7638.00	8404.76	-2706.66	16446.38	7470.00	8410.93	-2310.81	67.01	430.07	493.45	0.87	FAIL
16813.00†	7638.00	8504.75	-2708.21	16546.38	7470.00	8510.92	-2312.37	67.01	430.07	499.23	0.86	FAIL
16913.00†	7638.00	8604.74	-2709.77	16646.38	7470.00	8610.91	-2313.92	67.01	430.07	505.02	0.85	FAIL
17013.00†	7638.00	8704.73	-2711.33	16746.38	7470.00	8710.90	-2315.48	67.01	430.07	510.80	0.84	FAIL
17113.00†	7638.00	8804.71	-2712.89	16846.38	7470.00	8810.89	-2317.04	67.01	430.06	516.59	0.83	FAIL
17213.00†	7638.00	8904.70	-2714.45	16946.38	7470.00	8910.87	-2318.60	67.01	430.06	522.37	0.82	FAIL
17313.00†	7638.00	9004.69	-2716.00	17046.38	7470.00	9010.86	-2320.16	67.01	430.06	528.16	0.81	FAIL
17413.00†	7638.00	9104.68	-2717.56	17146.38	7470.00	9110.85	-2321.72	67.01	430.06	533.95	0.81	FAIL
17513.00†	7638.00	9204.67	-2719.12	17246.38	7470.00	9210.84	-2323.28	67.01	430.06	539.74	0.80	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20) Well: WAKEMAN 20-17-1NCH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
17613.00†	7638.00	9304.65	-2720.68	17346.38	7470.00	9310.82	-2324.84	67.01	430.06	545.53	0.79	FAIL	
17713.00†	7638.00	9404.64	-2722.23	17446.38	7470.00	9410.81	-2326.39	67.01	430.06	551.32	0.78	FAIL	
17813.00†	7638.00	9504.63	-2723.79	17546.38	7470.00	9510.80	-2327.95	67.01	430.06	557.12	0.77	FAIL	
17913.00†	7638.00	9604.62	-2725.35	17646.38	7470.00	9610.79	-2329.51	67.01	430.06	562.91	0.76	FAIL	
18013.00†	7638.00	9704.61	-2726.91	17746.38	7470.00	9710.78	-2331.07	67.01	430.06	568.71	0.76	FAIL	
18113.00†	7638.00	9804.59	-2728.47	17846.38	7470.00	9810.76	-2332.63	67.01	430.06	574.50	0.75	FAIL	
18213.00†	7638.00	9904.58	-2730.02	17946.38	7470.00	9910.75	-2334.19	67.01	430.06	580.30	0.74	FAIL	
18279.88†	7638.00	9971.46	-2731.07	18013.26	7470.00	9977.62	-2335.23	67.01	430.06	584.17	0.74	FAIL	
18287.12	7638.00	9978.69	-2731.18	18013.26	7470.00	9977.63	-2335.23	67.01	430.12	581.86	0.74	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	16.00	1800.00	1784.00	16.00	1789.64	0.06	18.29	-6.69	-14.86
8.5in Open Hole	1800.00	18013.26	16213.26	1789.64	N/A	-6.69	-14.86	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	18013.26	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-1NCH PWB



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	16.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#15 WAKEMAN 20-17-1NAH (293'FSL & 2233'FEL, SEC.20)				Well: WAKEMAN 20-17-1NAH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	16.00	13.00	0.10	14.94	89.61	14.94	1.40	23.57	PASS
113.00†	113.00	0.00	0.00	116.00	113.00	0.10	14.94	89.61	14.94	1.73	15.19	PASS
213.00†	213.00	0.00	0.00	216.00	213.00	0.10	14.94	89.61	14.94	2.31	9.37	PASS
313.00†	313.00	0.00	0.00	316.00	313.00	0.10	14.94	89.61	14.94	2.92	6.69	PASS
413.00†	413.00	0.00	0.00	416.00	413.00	0.10	14.94	89.61	14.94	3.53	5.18	PASS
513.00†	513.00	0.00	0.00	516.00	513.00	0.10	14.94	89.61	14.94	4.15	4.22	PASS
613.00†	613.00	0.00	0.00	616.00	613.00	0.10	14.94	89.61	14.94	4.78	3.56	PASS
713.00†	713.00	0.00	0.00	716.00	713.00	0.10	14.94	89.61	14.94	5.40	3.07	PASS
800.00	800.00	0.00	0.00	803.00	800.00	0.10	14.94	89.61	14.94	5.95	2.75	PASS
813.00†	813.00	-0.01	-0.03	816.00	813.00	0.10	14.94	-170.56	14.97	6.03	2.71	PASS
913.00†	912.97	-0.38	-2.20	916.07	913.07	0.09	14.90	-171.74	17.10	6.78	2.73	PASS
1013.00†	1012.80	-1.35	-7.80	1016.66	1013.63	-0.35	12.61	-172.98	20.45	7.94	2.75	PASS
1113.00†	1112.38	-2.92	-16.83	1117.37	1114.17	-1.46	6.85	-173.70	23.79	9.27	2.71	PASS
1213.00†	1211.57	-5.08	-29.28	1218.21	1214.55	-3.24	-2.39	-174.10	27.12	10.47	2.72	PASS
1313.00†	1310.26	-7.83	-45.14	1319.16	1314.67	-5.70	-15.11	-174.28	30.42	11.57	2.75	PASS
1413.00†	1408.33	-11.17	-64.37	1420.23	1414.38	-8.82	-31.31	-174.31	33.69	12.62	2.78	PASS
1513.00†	1505.66	-15.09	-86.97	1521.42	1513.55	-12.61	-50.97	-174.22	36.94	13.62	2.82	PASS
1613.00†	1602.13	-19.58	-112.90	1622.72	1612.08	-17.07	-74.09	-174.05	40.14	14.59	2.85	PASS
1713.00†	1697.62	-24.65	-142.14	1724.13	1709.81	-22.20	-100.65	-173.81	43.31	15.55	2.88	PASS
1813.00†	1792.02	-30.29	-174.63	1825.66	1806.64	-27.98	-130.62	-173.52	46.43	16.41	2.91	PASS
1913.00†	1885.21	-36.49	-210.36	1927.30	1902.43	-34.41	-163.99	-173.18	49.51	17.39	2.92	PASS
1929.59	1900.54	-37.57	-216.59	1944.17	1918.20	-35.54	-169.84	-173.12	50.02	17.56	2.93	PASS
2013.00†	1977.56	-43.05	-248.17	2028.69	1996.74	-41.45	-200.50	-172.65	51.41	18.16	2.91	PASS
2113.00†	2069.88	-49.61	-286.02	2128.68	2089.35	-48.60	-237.54	-171.99	52.25	18.90	2.83	PASS
2213.00†	2162.21	-56.18	-323.87	2228.68	2181.96	-55.74	-274.57	-171.34	53.10	19.70	2.76	PASS
2313.00†	2254.54	-62.74	-361.72	2328.67	2274.56	-62.88	-311.61	-170.72	53.96	20.54	2.69	PASS
2413.00†	2346.86	-69.31	-399.57	2428.67	2367.17	-70.03	-348.65	-170.12	54.83	21.43	2.61	PASS
2513.00†	2439.19	-75.87	-437.42	2528.66	2459.78	-77.17	-385.69	-169.53	55.70	22.36	2.54	PASS
2613.00†	2531.52	-82.44	-475.27	2628.66	2552.39	-84.32	-422.72	-168.96	56.57	23.34	2.47	PASS
2713.00†	2623.84	-89.01	-513.12	2728.65	2644.99	-91.46	-459.76	-168.42	57.45	24.35	2.40	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#15 WAKEMAN 20-17-1NAH (293'FSL & 2233'FEL, SEC.20) Well: WAKEMAN 20-17-1NAH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2716.17	-95.57	-550.97	2828.65	2737.60	-98.60	-496.80	-167.88	58.34	25.41	2.33	PASS	
2913.00†	2808.50	-102.14	-588.82	2928.64	2830.21	-105.75	-533.84	-167.37	59.23	26.49	2.27	PASS	
3013.00†	2900.82	-108.70	-626.68	3028.64	2922.82	-112.89	-570.87	-166.86	60.13	27.61	2.21	PASS	
3113.00†	2993.15	-115.27	-664.53	3128.63	3015.42	-120.03	-607.91	-166.38	61.03	28.77	2.15	PASS	
3213.00†	3085.48	-121.83	-702.38	3228.62	3108.03	-127.18	-644.95	-165.91	61.93	29.95	2.09	PASS	
3313.00†	3177.80	-128.40	-740.23	3328.62	3200.64	-134.32	-681.99	-165.45	62.84	31.16	2.04	PASS	
3413.00†	3270.13	-134.96	-778.08	3428.61	3293.25	-141.46	-719.02	-165.00	63.75	32.39	1.99	PASS	
3513.00†	3362.45	-141.53	-815.93	3528.61	3385.85	-148.61	-756.06	-164.57	64.67	33.66	1.94	PASS	
3613.00†	3454.78	-148.10	-853.78	3628.60	3478.46	-155.75	-793.10	-164.15	65.59	34.95	1.89	PASS	
3713.00†	3547.11	-154.66	-891.63	3728.60	3571.07	-162.90	-830.14	-163.74	66.51	36.26	1.85	PASS	
3813.00†	3639.43	-161.23	-929.48	3828.59	3663.67	-170.04	-867.17	-163.34	67.44	37.59	1.81	PASS	
3913.00†	3731.76	-167.79	-967.33	3928.59	3756.28	-177.18	-904.21	-162.95	68.37	38.94	1.77	PASS	
4013.00†	3824.09	-174.36	-1005.19	4028.58	3848.89	-184.33	-941.25	-162.58	69.30	40.32	1.73	PASS	
4113.00†	3916.41	-180.92	-1043.04	4128.58	3941.50	-191.47	-978.29	-162.21	70.23	41.71	1.70	PASS	
4213.00†	4008.74	-187.49	-1080.89	4228.57	4034.10	-198.61	-1015.32	-161.85	71.17	43.12	1.66	PASS	
4313.00†	4101.07	-194.05	-1118.74	4328.57	4126.71	-205.76	-1052.36	-161.50	72.11	44.55	1.63	PASS	
4413.00†	4193.39	-200.62	-1156.59	4428.56	4219.32	-212.90	-1089.40	-161.17	73.06	46.00	1.60	PASS	
4513.00†	4285.72	-207.19	-1194.44	4528.56	4311.93	-220.05	-1126.44	-160.84	74.00	47.46	1.57	PASS	
4613.00†	4378.05	-213.75	-1232.29	4628.55	4404.53	-227.19	-1163.47	-160.51	74.95	48.93	1.54	PASS	
4713.00†	4470.37	-220.32	-1270.14	4728.54	4497.14	-234.33	-1200.51	-160.20	75.90	50.42	1.51	PASS	
4813.00†	4562.70	-226.88	-1307.99	4828.54	4589.75	-241.48	-1237.55	-159.89	76.86	51.93	1.49	PASS	
4913.00†	4655.03	-233.45	-1345.84	4928.53	4682.36	-248.62	-1274.59	-159.60	77.81	53.45	1.46	PASS	
5013.00†	4747.35	-240.01	-1383.70	5028.53	4774.96	-255.76	-1311.62	-159.30	78.77	54.98	1.44	PASS	
5113.00†	4839.68	-246.58	-1421.55	5128.52	4867.57	-262.91	-1348.66	-159.02	79.73	56.52	1.42	PASS	
5213.00†	4932.01	-253.14	-1459.40	5228.52	4960.18	-270.05	-1385.70	-158.74	80.69	58.07	1.39	PASS	
5313.00†	5024.33	-259.71	-1497.25	5328.51	5052.78	-277.19	-1422.74	-158.47	81.65	59.64	1.37	PASS	
5413.00†	5116.66	-266.28	-1535.10	5428.51	5145.39	-284.34	-1459.77	-158.21	82.62	61.22	1.35	PASS	
5513.00†	5208.99	-272.84	-1572.95	5528.50	5238.00	-291.48	-1496.81	-157.95	83.58	62.80	1.33	PASS	
5613.00†	5301.31	-279.41	-1610.80	5628.50	5330.61	-298.63	-1533.85	-157.70	84.55	64.40	1.32	PASS	
5713.00†	5393.64	-285.97	-1648.65	5728.49	5423.21	-305.77	-1570.89	-157.45	85.52	66.00	1.30	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W				Slot: SLOT#15 WAKEMAN 20-17-1NAH (293'FSL & 2233'FEL, SEC.20)				Well: WAKEMAN 20-17-1NAH		Threshold Value=1.00	† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status		
5813.00†	5485.97	-292.54	-1686.50	5828.49	5515.82	-312.91	-1607.92	-157.21	86.49	67.62	1.28	PASS		
5913.00†	5578.29	-299.10	-1724.35	5928.48	5608.43	-320.06	-1644.96	-156.97	87.47	69.24	1.27	PASS		
6013.00†	5670.62	-305.67	-1762.20	6028.47	5701.04	-327.20	-1682.00	-156.74	88.44	70.87	1.25	PASS		
6113.00†	5762.95	-312.23	-1800.06	6128.47	5793.64	-334.34	-1719.04	-156.52	89.42	72.51	1.24	PASS		
6213.00†	5855.27	-318.80	-1837.91	6228.46	5886.25	-341.49	-1756.07	-156.29	90.39	74.16	1.22	PASS		
6313.00†	5947.60	-325.37	-1875.76	6328.46	5978.86	-348.63	-1793.11	-156.08	91.37	75.81	1.21	PASS		
6413.00†	6039.93	-331.93	-1913.61	6428.45	6071.47	-355.78	-1830.15	-155.87	92.35	77.48	1.19	PASS		
6513.00†	6132.25	-338.50	-1951.46	6528.45	6164.07	-362.92	-1867.19	-155.66	93.33	79.15	1.18	PASS		
6613.00†	6224.58	-345.06	-1989.31	6628.44	6256.68	-370.06	-1904.22	-155.46	94.31	80.82	1.17	PASS		
6713.00†	6316.91	-351.63	-2027.16	6728.44	6349.29	-377.21	-1941.26	-155.26	95.30	82.50	1.16	PASS		
6813.00†	6409.23	-358.19	-2065.01	6828.43	6441.89	-384.35	-1978.30	-155.06	96.28	84.19	1.14	PASS		
6913.00†	6501.56	-364.76	-2102.86	6928.43	6534.50	-391.49	-2015.34	-154.87	97.27	85.89	1.13	PASS		
7013.00†	6593.89	-371.32	-2140.71	7028.42	6627.11	-398.64	-2052.37	-154.69	98.25	87.59	1.12	PASS		
7060.22†	6637.48	-374.42	-2158.59	7076.06	6671.23	-401.99	-2070.02	-154.63	98.70	88.34	1.12	PASS		
7113.00†	6686.21	-377.89	-2178.57	7131.58	6722.72	-402.50	-2090.73	-156.44	98.25	86.52	1.14	PASS		
7213.00†	6778.54	-384.46	-2216.42	7233.01	6815.78	-389.60	-2128.60	-167.87	95.53	74.10	1.29	PASS		
7313.00†	6870.86	-391.02	-2254.27	7325.08	6897.08	-362.73	-2162.19	172.96	99.83	70.64	1.42	PASS		
7413.00†	6963.19	-397.59	-2292.12	7405.07	6963.56	-328.22	-2190.07	153.90	123.40	89.49	1.38	PASS		
7513.00†	7055.52	-404.15	-2329.97	7472.70	7015.74	-291.44	-2212.27	140.31	167.75	102.00	1.65	PASS		
7535.61	7076.40	-405.64	-2338.53	7486.39	7025.78	-283.20	-2216.57	138.00	180.07	103.22	1.75	PASS		
7613.00†	7147.92	-405.50	-2367.93	7531.80	7057.72	-254.03	-2230.37	110.49	223.60	103.98	2.16	PASS		
7713.00†	7239.07	-389.92	-2405.65	7589.34	7094.89	-213.28	-2246.66	82.57	277.97	100.47	2.78	PASS		
7813.00†	7326.25	-357.45	-2441.99	7645.93	7127.53	-169.43	-2261.22	64.00	327.90	94.64	3.48	PASS		
7913.00†	7406.80	-309.08	-2475.85	7701.82	7155.63	-122.88	-2274.04	52.15	372.13	87.54	4.28	PASS		
8013.00†	7478.27	-246.27	-2506.21	7757.19	7179.15	-74.01	-2285.10	44.49	409.92	79.87	5.17	PASS		
8113.00†	7538.49	-170.93	-2532.14	7812.17	7198.05	-23.23	-2294.35	39.46	440.75	72.22	6.15	PASS		
8213.00†	7585.63	-85.35	-2552.85	7866.89	7212.26	29.06	-2301.77	36.17	464.26	65.15	7.19	PASS		
8313.00†	7618.26	7.86	-2567.72	7921.42	7221.73	82.45	-2307.32	34.14	480.22	59.40	8.17	PASS		
8413.00†	7635.39	105.88	-2576.29	7975.84	7226.44	136.52	-2310.98	33.11	488.44	55.61	8.88	PASS		
8469.87	7638.00	162.63	-2578.24	8010.63	7227.00	171.28	-2312.33	32.91	489.60	54.69	9.06	PASS		

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#15 WAKEMAN 20-17-1NAH (293'FSL & 2233'FEL, SEC.20) Well: WAKEMAN 20-17-1NAH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
8513.00†	7638.00	205.76	-2578.92	8053.75	7227.00	214.38	-2313.73	32.84	489.20	55.02	8.99	PASS	
8613.00†	7638.00	306.75	-2580.47	8153.74	7227.00	314.31	-2316.98	32.67	488.29	55.75	8.86	PASS	
8713.00†	7638.00	405.73	-2582.03	8253.72	7227.00	414.25	-2320.23	32.51	487.37	56.75	8.68	PASS	
8813.00†	7638.00	505.72	-2583.59	8353.71	7227.00	514.18	-2323.48	32.34	486.47	57.98	8.48	PASS	
8913.00†	7638.00	605.71	-2585.15	8453.69	7227.00	614.11	-2326.73	32.17	485.56	59.43	8.26	PASS	
9013.00†	7638.00	705.70	-2586.71	8553.68	7227.00	714.04	-2329.98	32.00	484.66	61.08	8.02	PASS	
9113.00†	7638.00	805.69	-2588.26	8653.67	7227.00	813.98	-2333.23	31.83	483.77	61.62	7.93	PASS	
9213.00†	7638.00	905.67	-2589.82	8753.65	7227.00	913.91	-2336.48	31.66	482.88	64.88	7.51	PASS	
9313.00†	7638.00	1005.66	-2591.38	8853.64	7227.00	1013.84	-2339.73	31.49	481.99	67.00	7.26	PASS	
9413.00†	7638.00	1105.65	-2592.94	8953.62	7227.00	1113.78	-2342.97	31.32	481.11	69.25	7.01	PASS	
9513.00†	7638.00	1205.64	-2594.49	9053.61	7227.00	1213.71	-2346.22	31.14	480.23	71.60	6.76	PASS	
9613.00†	7638.00	1305.62	-2596.05	9153.59	7227.00	1313.64	-2349.47	30.97	479.36	74.05	6.53	PASS	
9713.00†	7638.00	1405.61	-2597.61	9253.58	7227.00	1413.57	-2352.72	30.80	478.49	76.57	6.30	PASS	
9813.00†	7638.00	1505.60	-2599.17	9353.57	7227.00	1513.51	-2355.97	30.62	477.63	79.17	6.08	PASS	
9913.00†	7638.00	1605.59	-2600.73	9453.55	7227.00	1613.44	-2359.22	30.45	476.77	81.82	5.87	PASS	
10013.00†	7638.00	1705.58	-2602.28	9553.54	7227.00	1713.37	-2362.47	30.27	475.91	84.53	5.67	PASS	
10113.00†	7638.00	1805.56	-2603.84	9653.52	7227.00	1813.31	-2365.72	30.10	475.06	87.28	5.48	PASS	
10213.00†	7638.00	1905.55	-2605.40	9753.51	7227.00	1913.24	-2368.97	29.92	474.21	90.06	5.30	PASS	
10313.00†	7638.00	2005.54	-2606.96	9853.49	7227.00	2013.17	-2372.22	29.74	473.37	92.88	5.13	PASS	
10413.00†	7638.00	2105.53	-2608.51	9953.48	7227.00	2113.10	-2375.47	29.56	472.54	95.72	4.97	PASS	
10513.00†	7638.00	2205.52	-2610.07	10053.47	7227.00	2213.04	-2378.72	29.39	471.70	98.58	4.81	PASS	
10613.00†	7638.00	2305.50	-2611.63	10153.45	7227.00	2312.97	-2381.96	29.21	470.87	101.45	4.67	PASS	
10713.00†	7638.00	2405.49	-2613.19	10253.44	7227.00	2412.90	-2385.21	29.03	470.05	104.34	4.53	PASS	
10813.00†	7638.00	2505.48	-2614.75	10353.42	7227.00	2512.84	-2388.46	28.85	469.23	107.23	4.40	PASS	
10913.00†	7638.00	2605.47	-2616.30	10453.41	7227.00	2612.77	-2391.71	28.66	468.42	110.13	4.27	PASS	
11013.00†	7638.00	2705.45	-2617.86	10553.39	7227.00	2712.70	-2394.96	28.48	467.61	113.03	4.16	PASS	
11113.00†	7638.00	2805.44	-2619.42	10653.38	7227.00	2812.63	-2398.21	28.30	466.80	115.93	4.05	PASS	
11213.00†	7638.00	2905.43	-2620.98	10753.36	7227.00	2912.57	-2401.46	28.12	466.00	118.83	3.94	PASS	
11313.00†	7638.00	3005.42	-2622.53	10853.35	7227.00	3012.50	-2404.71	27.93	465.21	121.72	3.84	PASS	
11413.00†	7638.00	3105.41	-2624.09	10953.34	7227.00	3112.43	-2407.96	27.75	464.42	124.61	3.74	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W				Slot: SLOT#15 WAKEMAN 20-17-1NAH (293'FSL & 2233'FEL, SEC.20)				Well: WAKEMAN 20-17-1NAH		Threshold Value=1.00		† = interpolated/extrapolated station	
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
11513.00†	7638.00	3205.39	-2625.65	11053.32	7227.00	3212.37	-2411.21	27.56	463.63	127.49	3.65	PASS	
11613.00†	7638.00	3305.38	-2627.21	11153.31	7227.00	3312.30	-2414.46	27.38	462.85	130.36	3.56	PASS	
11713.00†	7638.00	3405.37	-2628.77	11253.29	7227.00	3412.23	-2417.71	27.19	462.08	133.22	3.48	PASS	
11813.00†	7638.00	3505.36	-2630.32	11353.28	7227.00	3512.16	-2420.95	27.00	461.31	136.07	3.40	PASS	
11913.00†	7638.00	3605.35	-2631.88	11453.26	7227.00	3612.10	-2424.20	26.82	460.54	138.91	3.33	PASS	
12013.00†	7638.00	3705.33	-2633.44	11553.25	7227.00	3712.03	-2427.45	26.63	459.78	141.74	3.26	PASS	
12113.00†	7638.00	3805.32	-2635.00	11653.24	7227.00	3811.96	-2430.70	26.44	459.02	144.54	3.19	PASS	
12213.00†	7638.00	3905.31	-2636.55	11753.22	7227.00	3911.90	-2433.95	26.25	458.27	147.34	3.12	PASS	
12313.00†	7638.00	4005.30	-2638.11	11853.21	7227.00	4011.83	-2437.20	26.06	457.53	150.12	3.06	PASS	
12413.00†	7638.00	4105.28	-2639.67	11953.19	7227.00	4111.76	-2440.45	25.87	456.78	152.88	3.00	PASS	
12513.00†	7638.00	4205.27	-2641.23	12053.18	7227.00	4211.69	-2443.70	25.68	456.05	155.62	2.94	PASS	
12613.00†	7638.00	4305.26	-2642.79	12153.16	7227.00	4311.63	-2446.95	25.49	455.32	158.35	2.88	PASS	
12713.00†	7638.00	4405.25	-2644.34	12253.15	7227.00	4411.56	-2450.20	25.29	454.59	161.06	2.83	PASS	
12813.00†	7638.00	4505.24	-2645.90	12353.14	7227.00	4511.49	-2453.45	25.10	453.87	163.74	2.78	PASS	
12913.00†	7638.00	4605.22	-2647.46	12453.12	7227.00	4611.43	-2456.70	24.91	453.16	166.41	2.73	PASS	
13013.00†	7638.00	4705.21	-2649.02	12553.11	7227.00	4711.36	-2459.94	24.71	452.45	169.06	2.68	PASS	
13113.00†	7638.00	4805.20	-2650.58	12653.09	7227.00	4811.29	-2463.19	24.52	451.74	171.69	2.64	PASS	
13213.00†	7638.00	4905.19	-2652.13	12753.08	7227.00	4911.23	-2466.44	24.32	451.04	174.30	2.59	PASS	
13313.00†	7638.00	5005.18	-2653.69	12853.06	7227.00	5011.16	-2469.69	24.13	450.35	176.89	2.55	PASS	
13413.00†	7638.00	5105.16	-2655.25	12953.05	7227.00	5111.09	-2472.94	23.93	449.66	179.46	2.51	PASS	
13513.00†	7638.00	5205.15	-2656.81	13053.04	7227.00	5211.02	-2476.19	23.73	448.97	182.01	2.47	PASS	
13613.00†	7638.00	5305.14	-2658.36	13153.02	7227.00	5310.96	-2479.44	23.53	448.30	184.53	2.43	PASS	
13713.00†	7638.00	5405.13	-2659.92	13253.01	7227.00	5410.89	-2482.69	23.34	447.62	187.04	2.40	PASS	
13813.00†	7638.00	5505.11	-2661.48	13352.99	7227.00	5510.82	-2485.94	23.14	446.95	189.52	2.36	PASS	
13913.00†	7638.00	5605.10	-2663.04	13452.98	7227.00	5610.76	-2489.19	22.94	446.29	191.98	2.33	PASS	
14013.00†	7638.00	5705.09	-2664.60	13552.96	7227.00	5710.69	-2492.44	22.74	445.64	194.42	2.30	PASS	
14113.00†	7638.00	5805.08	-2666.15	13652.95	7227.00	5810.62	-2495.69	22.54	444.98	196.84	2.27	PASS	
14213.00†	7638.00	5905.07	-2667.71	13752.94	7227.00	5910.55	-2498.93	22.33	444.34	199.24	2.23	PASS	
14313.00†	7638.00	6005.05	-2669.27	13852.92	7227.00	6010.49	-2502.18	22.13	443.70	201.61	2.20	PASS	
14413.00†	7638.00	6105.04	-2670.83	13952.91	7227.00	6110.42	-2505.43	21.93	443.06	203.96	2.18	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293°FSL & 2248°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W				Slot: SLOT#15 WAKEMAN 20-17-1NAH (293°FSL & 2233°FEL, SEC.20)				Well: WAKEMAN 20-17-1NAH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status		
14513.00†	7638.00	6205.03	-2672.38	14052.89	7227.00	6210.35	-2508.68	21.73	442.43	206.29	2.15	PASS		
14613.00†	7638.00	6305.02	-2673.94	14152.88	7227.00	6310.29	-2511.93	21.52	441.81	208.60	2.12	PASS		
14713.00†	7638.00	6405.01	-2675.50	14252.86	7227.00	6410.22	-2515.18	21.32	441.19	210.89	2.10	PASS		
14813.00†	7638.00	6504.99	-2677.06	14352.85	7227.00	6510.15	-2518.43	21.11	440.58	213.15	2.07	PASS		
14913.00†	7638.00	6604.98	-2678.62	14452.84	7227.00	6610.08	-2521.68	20.91	439.97	215.39	2.05	PASS		
15013.00†	7638.00	6704.97	-2680.17	14552.82	7227.00	6710.02	-2524.93	20.70	439.37	217.61	2.02	PASS		
15113.00†	7638.00	6804.96	-2681.73	14652.81	7227.00	6809.95	-2528.18	20.49	438.78	219.81	2.00	PASS		
15213.00†	7638.00	6904.94	-2683.29	14752.79	7227.00	6909.88	-2531.43	20.29	438.19	221.98	1.98	PASS		
15313.00†	7638.00	7004.93	-2684.85	14852.78	7227.00	7009.82	-2534.68	20.08	437.60	224.14	1.96	PASS		
15413.00†	7638.00	7104.92	-2686.40	14952.76	7227.00	7109.75	-2537.93	19.87	437.02	226.27	1.93	PASS		
15513.00†	7638.00	7204.91	-2687.96	15052.75	7227.00	7209.68	-2541.17	19.66	436.45	228.38	1.91	PASS		
15613.00†	7638.00	7304.90	-2689.52	15152.73	7227.00	7309.61	-2544.42	19.45	435.89	230.48	1.89	PASS		
15713.00†	7638.00	7404.88	-2691.08	15252.72	7227.00	7409.55	-2547.67	19.24	435.33	232.55	1.87	PASS		
15813.00†	7638.00	7504.87	-2692.64	15352.71	7227.00	7509.48	-2550.92	19.03	434.77	234.59	1.86	PASS		
15913.00†	7638.00	7604.86	-2694.19	15452.69	7227.00	7609.41	-2554.17	18.82	434.22	236.62	1.84	PASS		
16013.00†	7638.00	7704.85	-2695.75	15552.68	7227.00	7709.35	-2557.42	18.61	433.68	238.63	1.82	PASS		
16113.00†	7638.00	7804.84	-2697.31	15652.66	7227.00	7809.28	-2560.67	18.40	433.14	240.62	1.80	PASS		
16213.00†	7638.00	7904.82	-2698.87	15752.65	7227.00	7909.21	-2563.92	18.18	432.61	242.59	1.79	PASS		
16313.00†	7638.00	8004.81	-2700.43	15852.63	7227.00	8009.14	-2567.17	17.97	432.08	244.54	1.77	PASS		
16413.00†	7638.00	8104.80	-2701.98	15952.62	7227.00	8109.08	-2570.42	17.76	431.57	246.47	1.75	PASS		
16513.00†	7638.00	8204.79	-2703.54	16052.61	7227.00	8209.01	-2573.67	17.54	431.05	248.38	1.74	PASS		
16613.00†	7638.00	8304.78	-2705.10	16152.59	7227.00	8308.94	-2576.92	17.33	430.55	250.27	1.72	PASS		
16713.00†	7638.00	8404.76	-2706.66	16252.58	7227.00	8408.88	-2580.16	17.11	430.04	252.14	1.71	PASS		
16813.00†	7638.00	8504.75	-2708.21	16352.56	7227.00	8508.81	-2583.41	16.90	429.55	254.00	1.69	PASS		
16913.00†	7638.00	8604.74	-2709.77	16452.55	7227.00	8608.74	-2586.66	16.68	429.06	255.83	1.68	PASS		
17013.00†	7638.00	8704.73	-2711.33	16552.53	7227.00	8708.67	-2589.91	16.46	428.58	257.65	1.67	PASS		
17113.00†	7638.00	8804.71	-2712.89	16652.52	7227.00	8808.61	-2593.16	16.25	428.10	259.46	1.65	PASS		
17213.00†	7638.00	8904.70	-2714.45	16752.51	7227.00	8908.54	-2596.41	16.03	427.63	261.24	1.64	PASS		
17313.00†	7638.00	9004.69	-2716.00	16852.49	7227.00	9008.47	-2599.66	15.81	427.17	263.01	1.63	PASS		
17413.00†	7638.00	9104.68	-2717.56	16952.48	7227.00	9108.41	-2602.91	15.59	426.71	264.77	1.61	PASS		

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#15 WAKEMAN 20-17-1NAH (293'FSL & 2233'FEL, SEC.20) Well: WAKEMAN 20-17-1NAH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
17513.00†	7638.00	9204.67	-2719.12	17052.46	7227.00	9208.34	-2606.16	15.37	426.26	266.51	1.60	PASS	
17613.00†	7638.00	9304.65	-2720.68	17152.45	7227.00	9308.27	-2609.41	15.15	425.81	268.23	1.59	PASS	
17713.00†	7638.00	9404.64	-2722.23	17252.43	7227.00	9408.20	-2612.66	14.93	425.37	269.95	1.58	PASS	
17813.00†	7638.00	9504.63	-2723.79	17352.42	7227.00	9508.14	-2615.91	14.71	424.94	271.64	1.57	PASS	
17913.00†	7638.00	9604.62	-2725.35	17452.41	7227.00	9608.07	-2619.15	14.49	424.51	273.33	1.55	PASS	
18013.00†	7638.00	9704.61	-2726.91	17552.39	7227.00	9708.00	-2622.40	14.27	424.09	275.00	1.54	PASS	
18113.00†	7638.00	9804.59	-2728.47	17652.38	7227.00	9807.94	-2625.65	14.05	423.68	276.66	1.53	PASS	
18213.00†	7638.00	9904.58	-2730.02	17752.36	7227.00	9907.87	-2628.90	13.83	423.27	278.30	1.52	PASS	
18287.12	7638.00	9978.69	-2731.18	17822.97	7227.00	9978.44	-2631.20	13.67	422.99	278.85	1.52	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	16.00	1800.00	1784.00	16.00	1785.27	0.06	9.11	-8.03	-32.85
8.5in Open Hole	1800.00	17822.97	16022.97	1785.27	7230.00	-8.03	-32.85	3041.46	-797.43

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	17886.70	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-1NAH PWB



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	16.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)		Well: WAKEMAN 20-17-1NBH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.12	44.94	89.85	44.94	1.40	73.57	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.12	44.94	89.85	44.94	1.73	47.41	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.12	44.94	89.85	44.94	2.31	29.27	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.12	44.94	89.85	44.94	2.92	20.87	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.12	44.94	89.85	44.94	3.53	16.16	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.12	44.94	89.85	44.94	4.15	13.17	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.12	44.94	89.85	44.94	4.78	11.10	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.12	44.94	89.85	44.94	5.40	9.60	PASS
800.00	800.00	0.00	0.00	800.00	800.00	0.12	44.94	89.85	44.94	5.95	8.58	PASS
813.00†	813.00	-0.01	-0.03	813.00	813.00	0.12	44.94	-170.32	44.97	6.03	8.46	PASS
913.00†	912.97	-0.38	-2.20	912.97	912.97	0.12	44.94	-170.76	47.14	6.78	7.76	PASS
1013.00†	1012.80	-1.35	-7.80	1012.80	1012.80	0.12	44.94	-171.74	52.76	7.82	7.41	PASS
1113.00†	1112.38	-2.92	-16.83	1112.38	1112.38	0.12	44.94	-172.93	61.85	8.77	7.66	PASS
1213.00†	1211.57	-5.08	-29.28	1211.87	1211.87	0.11	44.92	-174.11	74.38	9.66	8.30	PASS
1313.00†	1310.26	-7.83	-45.14	1313.75	1313.72	-0.42	42.75	-174.93	88.27	10.62	8.91	PASS
1413.00†	1408.33	-11.17	-64.37	1416.15	1415.94	-1.84	37.03	-175.38	102.12	11.77	9.24	PASS
1513.00†	1505.66	-15.09	-86.97	1519.07	1518.41	-4.14	27.71	-175.60	115.91	12.86	9.55	PASS
1613.00†	1602.13	-19.58	-112.90	1622.51	1620.98	-7.34	14.75	-175.64	129.62	13.90	9.84	PASS
1713.00†	1697.62	-24.65	-142.14	1726.48	1723.52	-11.46	-1.89	-175.57	143.23	14.89	10.11	PASS
1813.00†	1792.02	-30.29	-174.63	1830.97	1825.88	-16.49	-22.24	-175.40	156.72	15.80	10.34	PASS
1913.00†	1885.21	-36.49	-210.36	1936.00	1927.93	-22.45	-46.33	-175.17	170.08	16.78	10.54	PASS
1929.59	1900.54	-37.57	-216.59	1953.47	1944.81	-23.52	-50.69	-175.12	172.28	16.93	10.58	PASS
2013.00†	1977.56	-43.05	-248.17	2041.70	2029.64	-29.34	-74.23	-174.86	182.08	17.60	10.74	PASS
2113.00†	2069.88	-49.61	-286.02	2145.26	2128.30	-36.90	-104.80	-174.44	190.82	18.37	10.76	PASS
2213.00†	2162.21	-56.18	-323.87	2244.92	2223.04	-44.32	-134.82	-174.03	198.95	19.08	10.79	PASS
2313.00†	2254.54	-62.74	-361.72	2344.58	2317.78	-51.74	-164.84	-173.66	207.08	19.82	10.80	PASS
2413.00†	2346.86	-69.31	-399.57	2444.24	2412.52	-59.16	-194.86	-173.31	215.23	20.60	10.78	PASS
2513.00†	2439.19	-75.87	-437.42	2543.90	2507.26	-66.58	-224.87	-172.99	223.38	21.41	10.76	PASS
2613.00†	2531.52	-82.44	-475.27	2643.56	2602.00	-74.00	-254.89	-172.69	231.53	22.25	10.72	PASS
2713.00†	2623.84	-89.01	-513.12	2743.22	2696.74	-81.42	-284.91	-172.42	239.69	23.11	10.67	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20) Well: WAKEMAN 20-17-1NBH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2716.17	-95.57	-550.97	2842.88	2791.49	-88.84	-314.93	-172.16	247.86	23.99	10.61	PASS	
2913.00†	2808.50	-102.14	-588.82	2942.54	2886.23	-96.26	-344.95	-171.91	256.03	24.90	10.56	PASS	
3013.00†	2900.82	-108.70	-626.68	3042.20	2980.97	-103.69	-374.96	-171.69	264.21	25.82	10.49	PASS	
3113.00†	2993.15	-115.27	-664.53	3141.86	3075.71	-111.11	-404.98	-171.47	272.39	26.76	10.43	PASS	
3213.00†	3085.48	-121.83	-702.38	3241.52	3170.45	-118.53	-435.00	-171.27	280.58	27.71	10.36	PASS	
3313.00†	3177.80	-128.40	-740.23	3341.18	3265.19	-125.95	-465.02	-171.08	288.76	28.68	10.30	PASS	
3413.00†	3270.13	-134.96	-778.08	3440.84	3359.93	-133.37	-495.04	-170.90	296.95	29.66	10.23	PASS	
3513.00†	3362.45	-141.53	-815.93	3540.50	3454.67	-140.79	-525.05	-170.73	305.15	30.65	10.17	PASS	
3613.00†	3454.78	-148.10	-853.78	3640.16	3549.42	-148.21	-555.07	-170.57	313.34	31.66	10.10	PASS	
3713.00†	3547.11	-154.66	-891.63	3739.82	3644.16	-155.63	-585.09	-170.42	321.54	32.67	10.04	PASS	
3813.00†	3639.43	-161.23	-929.48	3839.48	3738.90	-163.05	-615.11	-170.27	329.74	33.69	9.98	PASS	
3913.00†	3731.76	-167.79	-967.33	3939.14	3833.64	-170.47	-645.13	-170.13	337.94	34.72	9.91	PASS	
4013.00†	3824.09	-174.36	-1005.19	4038.80	3928.38	-177.89	-675.14	-170.00	346.15	35.76	9.86	PASS	
4113.00†	3916.41	-180.92	-1043.04	4138.46	4023.12	-185.31	-705.16	-169.88	354.35	36.80	9.80	PASS	
4213.00†	4008.74	-187.49	-1080.89	4238.12	4117.86	-192.73	-735.18	-169.76	362.56	37.86	9.74	PASS	
4313.00†	4101.07	-194.05	-1118.74	4337.78	4212.61	-200.15	-765.20	-169.64	370.77	38.91	9.69	PASS	
4413.00†	4193.39	-200.62	-1156.59	4437.44	4307.35	-207.57	-795.22	-169.53	378.98	39.98	9.63	PASS	
4513.00†	4285.72	-207.19	-1194.44	4537.10	4402.09	-214.99	-825.23	-169.43	387.19	41.05	9.58	PASS	
4613.00†	4378.05	-213.75	-1232.29	4636.76	4496.83	-222.42	-855.25	-169.33	395.40	42.12	9.53	PASS	
4713.00†	4470.37	-220.32	-1270.14	4736.42	4591.57	-229.84	-885.27	-169.23	403.62	43.20	9.48	PASS	
4813.00†	4562.70	-226.88	-1307.99	4836.08	4686.31	-237.26	-915.29	-169.14	411.83	44.28	9.44	PASS	
4913.00†	4655.03	-233.45	-1345.84	4935.74	4781.05	-244.68	-945.31	-169.05	420.05	45.37	9.39	PASS	
5013.00†	4747.35	-240.01	-1383.70	5035.40	4875.80	-252.10	-975.32	-168.96	428.26	46.46	9.35	PASS	
5113.00†	4839.68	-246.58	-1421.55	5135.05	4970.54	-259.52	-1005.34	-168.88	436.48	47.55	9.30	PASS	
5213.00†	4932.01	-253.14	-1459.40	5234.71	5065.28	-266.94	-1035.36	-168.80	444.70	48.65	9.26	PASS	
5313.00†	5024.33	-259.71	-1497.25	5334.37	5160.02	-274.36	-1065.38	-168.73	452.92	49.75	9.22	PASS	
5413.00†	5116.66	-266.28	-1535.10	5434.03	5254.76	-281.78	-1095.40	-168.65	461.14	50.85	9.18	PASS	
5513.00†	5208.99	-272.84	-1572.95	5533.69	5349.50	-289.20	-1125.42	-168.58	469.36	51.96	9.14	PASS	
5613.00†	5301.31	-279.41	-1610.80	5633.35	5444.24	-296.62	-1155.43	-168.51	477.58	53.07	9.11	PASS	
5713.00†	5393.64	-285.97	-1648.65	5733.01	5538.99	-304.04	-1185.45	-168.45	485.81	54.18	9.07	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W				Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)				Well: WAKEMAN 20-17-1NBH				Threshold Value=1.00 † = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status			
5813.00†	5485.97	-292.54	-1686.50	5832.67	5633.73	-311.46	-1215.47	-168.38	494.03	55.29	9.04	PASS			
5913.00†	5578.29	-299.10	-1724.35	5932.33	5728.47	-318.88	-1245.49	-168.32	502.25	56.41	9.00	PASS			
6013.00†	5670.62	-305.67	-1762.20	6031.99	5823.21	-326.30	-1275.51	-168.26	510.48	57.53	8.97	PASS			
6113.00†	5762.95	-312.23	-1800.06	6131.65	5917.95	-333.73	-1305.52	-168.20	518.70	58.65	8.94	PASS			
6213.00†	5855.27	-318.80	-1837.91	6231.31	6012.69	-341.15	-1335.54	-168.15	526.93	59.77	8.91	PASS			
6313.00†	5947.60	-325.37	-1875.76	6330.97	6107.43	-348.57	-1365.56	-168.09	535.15	60.89	8.88	PASS			
6413.00†	6039.93	-331.93	-1913.61	6430.63	6202.18	-355.99	-1395.58	-168.04	543.38	62.02	8.85	PASS			
6513.00†	6132.25	-338.50	-1951.46	6530.29	6296.92	-363.41	-1425.60	-167.99	551.60	63.15	8.82	PASS			
6613.00†	6224.58	-345.06	-1989.31	6629.95	6391.66	-370.83	-1455.61	-167.94	559.83	64.27	8.80	PASS			
6713.00†	6316.91	-351.63	-2027.16	6729.61	6486.40	-378.25	-1485.63	-167.89	568.06	65.40	8.77	PASS			
6813.00†	6409.23	-358.19	-2065.01	6829.27	6581.14	-385.67	-1515.65	-167.84	576.29	66.54	8.74	PASS			
6913.00†	6501.56	-364.76	-2102.86	6928.93	6675.88	-393.09	-1545.67	-167.80	584.52	67.67	8.72	PASS			
7013.00†	6593.89	-371.32	-2140.71	7028.59	6770.62	-400.51	-1575.69	-167.75	592.74	68.80	8.69	PASS			
7113.00†	6686.21	-377.89	-2178.57	7131.55	6866.58	-405.99	-1606.76	-167.92	600.84	69.74	8.69	PASS			
7213.00†	6778.54	-384.46	-2216.42	7235.12	6966.58	-395.34	-1638.09	-169.59	608.22	69.29	8.86	PASS			
7313.00†	6870.86	-391.02	-2254.27	7329.75	7053.12	-369.56	-1666.02	-172.57	616.21	68.05	9.14	PASS			
7413.00†	6963.19	-397.59	-2292.12	7412.20	7124.30	-335.17	-1689.20	-176.17	627.19	67.10	9.44	PASS			
7513.00†	7055.52	-404.15	-2329.97	7481.93	7180.27	-297.95	-1707.58	-179.84	643.59	67.02	9.69	PASS			
7535.61	7076.40	-405.64	-2338.53	7496.03	7191.04	-289.57	-1711.14	179.35	648.26	67.14	9.75	PASS			
7613.00†	7147.92	-405.50	-2367.93	7542.74	7225.23	-259.86	-1722.47	156.35	666.19	67.77	9.92	PASS			
7713.00†	7239.07	-389.92	-2405.65	7601.76	7264.93	-218.29	-1735.75	130.31	692.02	68.78	10.16	PASS			
7813.00†	7326.25	-357.45	-2441.99	7659.66	7299.70	-173.54	-1747.51	111.38	718.91	69.61	10.42	PASS			
7913.00†	7406.80	-309.08	-2475.85	7716.75	7329.58	-126.01	-1757.75	98.25	745.08	69.93	10.75	PASS			
8013.00†	7478.27	-246.27	-2506.21	7773.24	7354.55	-76.12	-1766.47	89.06	769.07	69.70	11.14	PASS			
8113.00†	7538.49	-170.93	-2532.14	7829.30	7374.57	-24.27	-1773.65	82.59	789.74	69.09	11.54	PASS			
8213.00†	7585.63	-85.35	-2552.85	7885.05	7389.59	29.10	-1779.26	78.14	806.21	68.25	11.93	PASS			
8313.00†	7618.26	7.86	-2567.72	7940.59	7399.57	83.56	-1783.28	75.30	817.87	67.38	12.26	PASS			
8413.00†	7635.39	105.88	-2576.29	7996.00	7404.46	138.68	-1785.69	73.85	824.28	66.64	12.49	PASS			
8469.87	7638.00	162.63	-2578.24	8032.31	7405.00	174.98	-1786.43	73.61	825.47	66.44	12.55	PASS			
8513.00†	7638.00	205.76	-2578.92	8075.44	7405.00	218.11	-1787.11	73.61	825.47	66.89	12.46	PASS			

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20) Well: WAKEMAN 20-17-1NBH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
8613.00†	7638.00	305.75	-2580.47	8175.44	7405.00	318.09	-1788.66	73.61	825.47	68.25	12.21	PASS	
8713.00†	7638.00	405.73	-2582.03	8275.44	7405.00	418.08	-1790.22	73.61	825.47	70.13	11.88	PASS	
8813.00†	7638.00	505.72	-2583.59	8375.44	7405.00	518.07	-1791.78	73.61	825.47	72.47	11.49	PASS	
8913.00†	7638.00	605.71	-2585.15	8475.44	7405.00	618.06	-1793.34	73.61	825.47	75.23	11.07	PASS	
9013.00†	7638.00	705.70	-2586.71	8575.44	7405.00	718.04	-1794.90	73.61	825.47	78.36	10.62	PASS	
9113.00†	7638.00	805.69	-2588.26	8675.44	7405.00	818.03	-1796.46	73.61	825.46	85.13	9.77	PASS	
9213.00†	7638.00	905.67	-2589.82	8775.44	7405.00	918.02	-1798.02	73.61	825.46	85.58	9.72	PASS	
9313.00†	7638.00	1005.66	-2591.38	8875.44	7405.00	1018.01	-1799.58	73.61	825.46	89.58	9.28	PASS	
9413.00†	7638.00	1105.65	-2592.94	8975.44	7405.00	1118.00	-1801.14	73.60	825.46	93.80	8.86	PASS	
9513.00†	7638.00	1205.64	-2594.49	9075.44	7405.00	1217.98	-1802.70	73.60	825.46	98.22	8.46	PASS	
9613.00†	7638.00	1305.62	-2596.05	9175.44	7405.00	1317.97	-1804.26	73.60	825.46	102.80	8.08	PASS	
9713.00†	7638.00	1405.61	-2597.61	9275.44	7405.00	1417.96	-1805.82	73.60	825.46	107.53	7.72	PASS	
9813.00†	7638.00	1505.60	-2599.17	9375.44	7405.00	1517.95	-1807.38	73.60	825.46	112.38	7.39	PASS	
9913.00†	7638.00	1605.59	-2600.73	9475.44	7405.00	1617.94	-1808.93	73.60	825.45	117.35	7.07	PASS	
10013.00†	7638.00	1705.58	-2602.28	9575.44	7405.00	1717.92	-1810.49	73.60	825.45	122.41	6.78	PASS	
10113.00†	7638.00	1805.56	-2603.84	9675.44	7405.00	1817.91	-1812.05	73.60	825.45	127.56	6.50	PASS	
10213.00†	7638.00	1905.55	-2605.40	9775.44	7405.00	1917.90	-1813.61	73.60	825.45	132.78	6.24	PASS	
10313.00†	7638.00	2005.54	-2606.96	9875.44	7405.00	2017.89	-1815.17	73.60	825.45	138.07	6.00	PASS	
10413.00†	7638.00	2105.53	-2608.51	9975.44	7405.00	2117.87	-1816.73	73.60	825.45	143.42	5.78	PASS	
10513.00†	7638.00	2205.52	-2610.07	10075.44	7405.00	2217.86	-1818.29	73.60	825.45	148.82	5.57	PASS	
10613.00†	7638.00	2305.50	-2611.63	10175.44	7405.00	2317.85	-1819.85	73.60	825.44	154.28	5.37	PASS	
10713.00†	7638.00	2405.49	-2613.19	10275.44	7405.00	2417.84	-1821.41	73.60	825.44	159.77	5.19	PASS	
10813.00†	7638.00	2505.48	-2614.75	10375.44	7405.00	2517.83	-1822.97	73.60	825.44	165.30	5.01	PASS	
10913.00†	7638.00	2605.47	-2616.30	10475.44	7405.00	2617.81	-1824.53	73.60	825.44	170.87	4.85	PASS	
11013.00†	7638.00	2705.45	-2617.86	10575.44	7405.00	2717.80	-1826.09	73.60	825.44	176.47	4.69	PASS	
11113.00†	7638.00	2805.44	-2619.42	10675.44	7405.00	2817.79	-1827.65	73.60	825.44	182.10	4.55	PASS	
11213.00†	7638.00	2905.43	-2620.98	10775.44	7405.00	2917.78	-1829.20	73.60	825.44	187.75	4.41	PASS	
11313.00†	7638.00	3005.42	-2622.53	10875.44	7405.00	3017.77	-1830.76	73.60	825.43	193.43	4.28	PASS	
11413.00†	7638.00	3105.41	-2624.09	10975.44	7405.00	3117.75	-1832.32	73.60	825.43	199.12	4.16	PASS	
11513.00†	7638.00	3205.39	-2625.65	11075.44	7405.00	3217.74	-1833.88	73.60	825.43	204.84	4.04	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20) Well: WAKEMAN 20-17-1NBH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
11613.00†	7638.00	3305.38	-2627.21	11175.44	7405.00	3317.73	-1835.44	73.60	825.43	210.58	3.93	PASS	
11713.00†	7638.00	3405.37	-2628.77	11275.44	7405.00	3417.72	-1837.00	73.60	825.43	216.33	3.82	PASS	
11813.00†	7638.00	3505.36	-2630.32	11375.44	7405.00	3517.70	-1838.56	73.60	825.43	222.10	3.73	PASS	
11913.00†	7638.00	3605.35	-2631.88	11475.44	7405.00	3617.69	-1840.12	73.60	825.43	227.88	3.63	PASS	
12013.00†	7638.00	3705.33	-2633.44	11575.44	7405.00	3717.68	-1841.68	73.60	825.43	233.68	3.54	PASS	
12113.00†	7638.00	3805.32	-2635.00	11675.44	7405.00	3817.67	-1843.24	73.60	825.42	239.49	3.45	PASS	
12213.00†	7638.00	3905.31	-2636.55	11775.44	7405.00	3917.66	-1844.80	73.60	825.42	245.31	3.37	PASS	
12313.00†	7638.00	4005.30	-2638.11	11875.44	7405.00	4017.64	-1846.36	73.60	825.42	251.14	3.29	PASS	
12413.00†	7638.00	4105.28	-2639.67	11975.44	7405.00	4117.63	-1847.92	73.60	825.42	256.98	3.22	PASS	
12513.00†	7638.00	4205.27	-2641.23	12075.44	7405.00	4217.62	-1849.47	73.60	825.42	262.83	3.15	PASS	
12613.00†	7638.00	4305.26	-2642.79	12175.44	7405.00	4317.61	-1851.03	73.60	825.42	268.69	3.08	PASS	
12713.00†	7638.00	4405.25	-2644.34	12275.44	7405.00	4417.60	-1852.59	73.60	825.42	274.55	3.01	PASS	
12813.00†	7638.00	4505.24	-2645.90	12375.44	7405.00	4517.58	-1854.15	73.60	825.41	280.43	2.95	PASS	
12913.00†	7638.00	4605.22	-2647.46	12475.44	7405.00	4617.57	-1855.71	73.60	825.41	286.31	2.89	PASS	
13013.00†	7638.00	4705.21	-2649.02	12575.44	7405.00	4717.56	-1857.27	73.60	825.41	292.19	2.83	PASS	
13113.00†	7638.00	4805.20	-2650.58	12675.44	7405.00	4817.55	-1858.83	73.60	825.41	298.09	2.77	PASS	
13213.00†	7638.00	4905.19	-2652.13	12775.44	7405.00	4917.53	-1860.39	73.60	825.41	303.99	2.72	PASS	
13313.00†	7638.00	5005.18	-2653.69	12875.44	7405.00	5017.52	-1861.95	73.60	825.41	309.89	2.67	PASS	
13413.00†	7638.00	5105.16	-2655.25	12975.44	7405.00	5117.51	-1863.51	73.60	825.41	315.80	2.62	PASS	
13513.00†	7638.00	5205.15	-2656.81	13075.44	7405.00	5217.50	-1865.07	73.60	825.40	321.72	2.57	PASS	
13613.00†	7638.00	5305.14	-2658.36	13175.44	7405.00	5317.49	-1866.63	73.60	825.40	327.64	2.52	PASS	
13713.00†	7638.00	5405.13	-2659.92	13275.44	7405.00	5417.47	-1868.19	73.60	825.40	333.56	2.48	PASS	
13813.00†	7638.00	5505.11	-2661.48	13375.44	7405.00	5517.46	-1869.74	73.60	825.40	339.49	2.43	PASS	
13913.00†	7638.00	5605.10	-2663.04	13475.44	7405.00	5617.45	-1871.30	73.60	825.40	345.42	2.39	PASS	
14013.00†	7638.00	5705.09	-2664.60	13575.44	7405.00	5717.44	-1872.86	73.60	825.40	351.36	2.35	PASS	
14113.00†	7638.00	5805.08	-2666.15	13675.44	7405.00	5817.42	-1874.42	73.60	825.40	357.30	2.31	PASS	
14213.00†	7638.00	5905.07	-2667.71	13775.44	7405.00	5917.41	-1875.98	73.60	825.40	363.24	2.27	PASS	
14313.00†	7638.00	6005.05	-2669.27	13875.44	7405.00	6017.40	-1877.54	73.60	825.39	369.19	2.24	PASS	
14413.00†	7638.00	6105.04	-2670.83	13975.44	7405.00	6117.39	-1879.10	73.60	825.39	375.14	2.20	PASS	
14513.00†	7638.00	6205.03	-2672.38	14075.44	7405.00	6217.38	-1880.66	73.60	825.39	381.09	2.17	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293°FSL & 2248°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)			Well: WAKEMAN 20-17-1NBH		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
14613.00†	7638.00	6305.02	-2673.94	14175.44	7405.00	6317.36	-1882.22	73.60	825.39	387.05	2.13	PASS
14713.00†	7638.00	6405.01	-2675.50	14275.44	7405.00	6417.35	-1883.78	73.60	825.39	393.01	2.10	PASS
14813.00†	7638.00	6504.99	-2677.06	14375.44	7405.00	6517.34	-1885.34	73.60	825.39	398.97	2.07	PASS
14913.00†	7638.00	6604.98	-2678.62	14475.44	7405.00	6617.33	-1886.90	73.60	825.39	404.93	2.04	PASS
15013.00†	7638.00	6704.97	-2680.17	14575.44	7405.00	6717.32	-1888.46	73.60	825.38	410.90	2.01	PASS
15113.00†	7638.00	6804.96	-2681.73	14675.44	7405.00	6817.30	-1890.01	73.60	825.38	416.86	1.98	PASS
15213.00†	7638.00	6904.94	-2683.29	14775.44	7405.00	6917.29	-1891.57	73.60	825.38	422.83	1.95	PASS
15313.00†	7638.00	7004.93	-2684.85	14875.44	7405.00	7017.28	-1893.13	73.60	825.38	428.81	1.93	PASS
15413.00†	7638.00	7104.92	-2686.40	14975.44	7405.00	7117.27	-1894.69	73.60	825.38	434.78	1.90	PASS
15513.00†	7638.00	7204.91	-2687.96	15075.44	7405.00	7217.25	-1896.25	73.60	825.38	440.76	1.87	PASS
15613.00†	7638.00	7304.90	-2689.52	15175.44	7405.00	7317.24	-1897.81	73.60	825.38	446.73	1.85	PASS
15713.00†	7638.00	7404.88	-2691.08	15275.44	7405.00	7417.23	-1899.37	73.60	825.37	452.71	1.82	PASS
15813.00†	7638.00	7504.87	-2692.64	15375.44	7405.00	7517.22	-1900.93	73.60	825.37	458.69	1.80	PASS
15913.00†	7638.00	7604.86	-2694.19	15475.44	7405.00	7617.21	-1902.49	73.60	825.37	464.68	1.78	PASS
16013.00†	7638.00	7704.85	-2695.75	15575.44	7405.00	7717.19	-1904.05	73.60	825.37	470.66	1.75	PASS
16113.00†	7638.00	7804.84	-2697.31	15675.44	7405.00	7817.18	-1905.61	73.60	825.37	476.65	1.73	PASS
16213.00†	7638.00	7904.82	-2698.87	15775.44	7405.00	7917.17	-1907.17	73.60	825.37	482.63	1.71	PASS
16313.00†	7638.00	8004.81	-2700.43	15875.44	7405.00	8017.16	-1908.73	73.60	825.37	488.62	1.69	PASS
16413.00†	7638.00	8104.80	-2701.98	15975.44	7405.00	8117.15	-1910.28	73.60	825.37	494.61	1.67	PASS
16513.00†	7638.00	8204.79	-2703.54	16075.44	7405.00	8217.13	-1911.84	73.60	825.36	500.60	1.65	PASS
16613.00†	7638.00	8304.78	-2705.10	16175.44	7405.00	8317.12	-1913.40	73.60	825.36	506.60	1.63	PASS
16713.00†	7638.00	8404.76	-2706.66	16275.44	7405.00	8417.11	-1914.96	73.60	825.36	512.59	1.61	PASS
16813.00†	7638.00	8504.75	-2708.21	16375.44	7405.00	8517.10	-1916.52	73.60	825.36	518.58	1.59	PASS
16913.00†	7638.00	8604.74	-2709.77	16475.44	7405.00	8617.08	-1918.08	73.60	825.36	524.58	1.57	PASS
17013.00†	7638.00	8704.73	-2711.33	16575.44	7405.00	8717.07	-1919.64	73.60	825.36	530.58	1.56	PASS
17113.00†	7638.00	8804.71	-2712.89	16675.44	7405.00	8817.06	-1921.20	73.60	825.36	536.57	1.54	PASS
17213.00†	7638.00	8904.70	-2714.45	16775.44	7405.00	8917.05	-1922.76	73.60	825.35	542.57	1.52	PASS
17313.00†	7638.00	9004.69	-2716.00	16875.44	7405.00	9017.04	-1924.32	73.60	825.35	548.57	1.51	PASS
17413.00†	7638.00	9104.68	-2717.56	16975.44	7405.00	9117.02	-1925.88	73.60	825.35	554.57	1.49	PASS
17513.00†	7638.00	9204.67	-2719.12	17075.44	7405.00	9217.01	-1927.44	73.60	825.35	560.58	1.47	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20) Well: WAKEMAN 20-17-1NBH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
17613.00†	7638.00	9304.65	-2720.68	17175.44	7405.00	9317.00	-1929.00	73.60	825.35	566.58	1.46	PASS	
17713.00†	7638.00	9404.64	-2722.23	17275.44	7405.00	9416.99	-1930.55	73.60	825.35	572.58	1.44	PASS	
17813.00†	7638.00	9504.63	-2723.79	17375.44	7405.00	9516.98	-1932.11	73.60	825.35	578.59	1.43	PASS	
17913.00†	7638.00	9604.62	-2725.35	17475.44	7405.00	9616.96	-1933.67	73.60	825.34	584.59	1.41	PASS	
18013.00†	7638.00	9704.61	-2726.91	17575.44	7405.00	9716.95	-1935.23	73.60	825.34	590.60	1.40	PASS	
18113.00†	7638.00	9804.59	-2728.47	17675.44	7405.00	9816.94	-1936.79	73.60	825.34	596.61	1.38	PASS	
18213.00†	7638.00	9904.58	-2730.02	17775.44	7405.00	9916.93	-1938.35	73.60	825.34	602.61	1.37	PASS	
18272.68†	7638.00	9964.26	-2730.95	17835.12	7405.00	9976.60	-1939.28	73.60	825.34	606.20	1.36	PASS	
18287.12	7638.00	9978.69	-2731.18	17835.13	7405.00	9976.60	-1939.28	73.60	825.47	604.20	1.37	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1795.62	0.07	27.40	-4.51	8.87
8.5in Open Hole	1800.00	17835.13	16035.13	1795.62	N/A	-4.51	8.87	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17835.13	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-1NBH PWB



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)	
MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

Facility: SEC.20-T1S-R65W Slot: SLOT#01 EX. COLLINS #14-20 (990'FSL & 990'FWL, SEC.20, OG, PR, 8202) Well: COLLINS #14-20 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	17.00	703.86	-2069.50	-71.22	2185.92	25.40	88.82	PASS
113.00†	113.00	0.00	0.00	83.00	113.00	703.86	-2069.50	-71.22	2185.92	51.90	42.73	PASS
213.00†	213.00	0.00	0.00	183.00	213.00	703.86	-2069.50	-71.22	2185.92	54.08	40.86	PASS
313.00†	313.00	0.00	0.00	283.00	313.00	703.86	-2069.50	-71.22	2185.92	56.42	39.14	PASS
413.00†	413.00	0.00	0.00	383.00	413.00	703.86	-2069.50	-71.22	2185.92	58.77	37.56	PASS
513.00†	513.00	0.00	0.00	483.00	513.00	703.86	-2069.50	-71.22	2185.92	61.13	36.10	PASS
613.00†	613.00	0.00	0.00	583.00	613.00	703.86	-2069.50	-71.22	2185.92	63.48	34.75	PASS
713.00†	713.00	0.00	0.00	683.00	713.00	703.86	-2069.50	-71.22	2185.92	65.85	33.49	PASS
800.00	800.00	0.00	0.00	770.00	800.00	703.86	-2069.50	-71.22	2185.92	67.90	32.46	PASS
813.00†	813.00	-0.01	-0.03	783.00	813.00	703.86	-2069.50	28.63	2185.89	68.21	32.32	PASS
913.00†	912.97	-0.38	-2.20	882.97	912.97	703.86	-2069.50	28.67	2183.96	70.59	31.19	PASS
1013.00†	1012.80	-1.35	-7.80	982.80	1012.80	703.86	-2069.50	28.79	2178.98	73.01	30.08	PASS
1113.00†	1112.38	-2.92	-16.83	1082.38	1112.38	703.86	-2069.50	28.99	2170.94	75.43	29.00	PASS
1213.00†	1211.57	-5.08	-29.28	1181.57	1211.57	703.86	-2069.50	29.26	2159.88	77.84	27.95	PASS
1313.00†	1310.26	-7.83	-45.14	1280.26	1310.26	703.86	-2069.50	29.61	2145.82	80.25	26.93	PASS
1413.00†	1408.33	-11.17	-64.37	1378.33	1408.33	703.86	-2069.50	30.04	2128.80	82.66	25.93	PASS
1513.00†	1505.66	-15.09	-86.97	1475.66	1505.66	703.86	-2069.50	30.55	2108.86	85.05	24.96	PASS
1613.00†	1602.13	-19.58	-112.90	1572.13	1602.13	703.86	-2069.50	31.18	2086.06	87.44	24.01	PASS
1713.00†	1697.62	-24.65	-142.14	1667.62	1697.62	703.86	-2069.50	31.86	2060.45	89.83	23.08	PASS
1813.00†	1792.02	-30.29	-174.63	1762.02	1792.02	703.86	-2069.50	32.66	2032.12	92.17	22.17	PASS
1913.00†	1885.21	-36.49	-210.36	1855.21	1885.21	703.86	-2069.50	33.57	2001.13	94.55	21.28	PASS
1929.59	1900.54	-37.57	-216.59	1870.54	1900.54	703.86	-2069.50	33.73	1995.74	94.95	21.13	PASS
2013.00†	1977.56	-43.05	-248.17	1947.56	1977.56	703.86	-2069.50	34.23	1968.53	96.91	20.42	PASS
2113.00†	2069.88	-49.61	-286.02	2039.88	2069.88	703.86	-2069.50	34.86	1936.11	99.29	19.60	PASS
2213.00†	2162.21	-56.18	-323.87	2132.21	2162.21	703.86	-2069.50	35.50	1903.91	101.71	18.81	PASS
2313.00†	2254.54	-62.74	-361.72	2224.54	2254.54	703.86	-2069.50	36.17	1871.95	104.16	18.06	PASS
2413.00†	2346.86	-69.31	-399.57	2316.86	2346.86	703.86	-2069.50	36.85	1840.23	106.64	17.34	PASS
2513.00†	2439.19	-75.87	-437.42	2409.19	2439.19	703.86	-2069.50	37.56	1808.78	109.16	16.65	PASS
2613.00†	2531.52	-82.44	-475.27	2501.52	2531.52	703.86	-2069.50	38.30	1777.59	111.71	15.99	PASS
2713.00†	2623.84	-89.01	-513.12	2593.84	2623.84	703.86	-2069.50	39.05	1746.70	114.30	15.35	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

Facility: SEC.20-T1S-R65W Slot: SLOT#01 EX. COLLINS #14-20 (990'FSL & 990'FWL, SEC.20, OG, PR, 8202) Well: COLLINS #14-20 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2716.17	-95.57	-550.97	2686.17	2716.17	703.86	-2069.50	39.84	1716.10	116.93	14.74	PASS	
2913.00†	2808.50	-102.14	-588.82	2778.50	2808.50	703.86	-2069.50	40.65	1685.83	119.60	14.16	PASS	
3013.00†	2900.82	-108.70	-626.68	2870.82	2900.82	703.86	-2069.50	41.48	1655.90	122.30	13.59	PASS	
3113.00†	2993.15	-115.27	-664.53	2963.15	2993.15	703.86	-2069.50	42.35	1626.32	125.06	13.06	PASS	
3213.00†	3085.48	-121.83	-702.38	3055.48	3085.48	703.86	-2069.50	43.25	1597.12	127.85	12.54	PASS	
3313.00†	3177.80	-128.40	-740.23	3147.80	3177.80	703.86	-2069.50	44.17	1568.32	130.69	12.05	PASS	
3413.00†	3270.13	-134.96	-778.08	3240.13	3270.13	703.86	-2069.50	45.13	1539.93	133.57	11.57	PASS	
3513.00†	3362.45	-141.53	-815.93	3332.45	3362.45	703.86	-2069.50	46.12	1511.99	136.50	11.12	PASS	
3613.00†	3454.78	-148.10	-853.78	3424.78	3454.78	703.86	-2069.50	47.15	1484.52	139.47	10.68	PASS	
3713.00†	3547.11	-154.66	-891.63	3517.11	3547.11	703.86	-2069.50	48.21	1457.54	142.50	10.26	PASS	
3813.00†	3639.43	-161.23	-929.48	3609.43	3639.43	703.86	-2069.50	49.31	1431.09	145.57	9.86	PASS	
3913.00†	3731.76	-167.79	-967.33	3701.76	3731.76	703.86	-2069.50	50.44	1405.19	148.69	9.48	PASS	
4013.00†	3824.09	-174.36	-1005.19	3794.09	3824.09	703.86	-2069.50	51.61	1379.87	151.85	9.12	PASS	
4113.00†	3916.41	-180.92	-1043.04	3886.41	3916.41	703.86	-2069.50	52.83	1355.16	155.07	8.77	PASS	
4213.00†	4008.74	-187.49	-1080.89	3978.74	4008.74	703.86	-2069.50	54.08	1331.11	158.33	8.43	PASS	
4313.00†	4101.07	-194.05	-1118.74	4071.07	4101.07	703.86	-2069.50	55.37	1307.75	161.64	8.11	PASS	
4413.00†	4193.39	-200.62	-1156.59	4163.39	4193.39	703.86	-2069.50	56.71	1285.10	165.00	7.81	PASS	
4513.00†	4285.72	-207.19	-1194.44	4255.72	4285.72	703.86	-2069.50	58.08	1263.23	168.40	7.52	PASS	
4613.00†	4378.05	-213.75	-1232.29	4348.05	4378.05	703.86	-2069.50	59.50	1242.15	171.84	7.25	PASS	
4713.00†	4470.37	-220.32	-1270.14	4440.37	4470.37	703.86	-2069.50	60.96	1221.92	175.32	6.99	PASS	
4813.00†	4562.70	-226.88	-1307.99	4532.70	4562.70	703.86	-2069.50	62.47	1202.57	178.84	6.74	PASS	
4913.00†	4655.03	-233.45	-1345.84	4625.03	4655.03	703.86	-2069.50	64.02	1184.16	182.40	6.51	PASS	
5013.00†	4747.35	-240.01	-1383.70	4717.35	4747.35	703.86	-2069.50	65.61	1166.72	185.98	6.29	PASS	
5113.00†	4839.68	-246.58	-1421.55	4809.68	4839.68	703.86	-2069.50	67.24	1150.30	189.59	6.08	PASS	
5213.00†	4932.01	-253.14	-1459.40	4902.01	4932.01	703.86	-2069.50	68.90	1134.94	193.22	5.89	PASS	
5313.00†	5024.33	-259.71	-1497.25	4994.33	5024.33	703.86	-2069.50	70.61	1120.69	196.86	5.71	PASS	
5413.00†	5116.66	-266.28	-1535.10	5086.66	5116.66	703.86	-2069.50	72.36	1107.59	200.51	5.54	PASS	
5513.00†	5208.99	-272.84	-1572.95	5178.99	5208.99	703.86	-2069.50	74.14	1095.68	204.16	5.38	PASS	
5613.00†	5301.31	-279.41	-1610.80	5271.31	5301.31	703.86	-2069.50	75.95	1085.00	207.81	5.23	PASS	
5713.00†	5393.64	-285.97	-1648.65	5363.64	5393.64	703.86	-2069.50	77.79	1075.59	211.44	5.10	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

Facility: SEC.20-T1S-R65W Slot: SLOT#01 EX. COLLINS #14-20 (990'FSL & 990'FWL, SEC.20, OG, PR, 8202) Well: COLLINS #14-20 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5485.97	-292.54	-1686.50	5455.97	5485.97	703.86	-2069.50	79.65	1067.47	215.05	4.97	PASS	
5913.00†	5578.29	-299.10	-1724.35	5548.29	5578.29	703.86	-2069.50	81.54	1060.69	218.63	4.86	PASS	
6013.00†	5670.62	-305.67	-1762.20	5640.62	5670.62	703.86	-2069.50	83.45	1055.27	222.18	4.76	PASS	
6113.00†	5762.95	-312.23	-1800.06	5732.95	5762.95	703.86	-2069.50	85.37	1051.22	225.68	4.67	PASS	
6213.00†	5855.27	-318.80	-1837.91	5825.27	5855.27	703.86	-2069.50	87.30	1048.56	229.13	4.58	PASS	
6313.00†	5947.60	-325.37	-1875.76	5917.60	5947.60	703.86	-2069.50	89.24	1047.31	232.52	4.51	PASS	
6413.00†	6039.93	-331.93	-1913.61	6009.93	6039.93	703.86	-2069.50	91.18	1047.46	235.85	4.45	PASS	
6513.00†	6132.25	-338.50	-1951.46	6102.25	6132.25	703.86	-2069.50	93.12	1049.02	239.11	4.39	PASS	
6613.00†	6224.58	-345.06	-1989.31	6194.58	6224.58	703.86	-2069.50	95.05	1051.99	242.30	4.35	PASS	
6713.00†	6316.91	-351.63	-2027.16	6286.91	6316.91	703.86	-2069.50	96.97	1056.34	245.42	4.31	PASS	
6813.00†	6409.23	-358.19	-2065.01	6379.23	6409.23	703.86	-2069.50	98.87	1062.07	248.47	4.28	PASS	
6913.00†	6501.56	-364.76	-2102.86	6471.56	6501.56	703.86	-2069.50	100.76	1069.14	251.43	4.26	PASS	
7013.00†	6593.89	-371.32	-2140.71	6563.89	6593.89	703.86	-2069.50	102.62	1077.54	254.33	4.24	PASS	
7113.00†	6686.21	-377.89	-2178.57	6656.21	6686.21	703.86	-2069.50	104.45	1087.24	257.14	4.23	PASS	
7213.00†	6778.54	-384.46	-2216.42	6748.54	6778.54	703.86	-2069.50	106.26	1098.19	259.89	4.23	PASS	
7313.00†	6870.86	-391.02	-2254.27	6840.86	6870.86	703.86	-2069.50	108.03	1110.37	262.57	4.24	PASS	
7413.00†	6963.19	-397.59	-2292.12	6933.19	6963.19	703.86	-2069.50	109.77	1123.72	265.18	4.24	PASS	
7513.00†	7055.52	-404.15	-2329.97	7025.52	7055.52	703.86	-2069.50	111.47	1138.22	267.73	4.26	PASS	
7535.61	7076.40	-405.64	-2338.53	7046.40	7076.40	703.86	-2069.50	111.85	1141.65	268.30	4.26	PASS	
7613.00†	7147.92	-405.50	-2367.93	7117.92	7147.92	703.86	-2069.50	94.36	1148.80	270.27	4.26	PASS	
7713.00†	7239.07	-389.92	-2405.65	7209.07	7239.07	703.86	-2069.50	75.69	1144.27	273.00	4.20	PASS	
7813.00†	7326.25	-357.45	-2441.99	7296.25	7326.25	703.86	-2069.50	64.33	1124.78	275.75	4.09	PASS	
7913.00†	7406.80	-309.08	-2475.85	7376.80	7406.80	703.86	-2069.50	59.05	1091.41	278.15	3.93	PASS	
8013.00†	7478.27	-246.27	-2506.21	7448.27	7478.27	703.86	-2069.50	58.19	1045.69	280.07	3.74	PASS	
8113.00†	7538.49	-170.93	-2532.14	7508.49	7538.49	703.86	-2069.50	60.84	989.60	281.42	3.52	PASS	
8213.00†	7585.63	-85.35	-2552.85	7555.63	7585.63	703.86	-2069.50	66.55	925.47	282.08	3.29	PASS	
8313.00†	7618.26	7.86	-2567.72	7588.26	7618.26	703.86	-2069.50	74.78	855.95	281.95	3.04	PASS	
8413.00†	7635.39	105.88	-2576.29	7605.39	7635.39	703.86	-2069.50	84.45	783.85	280.93	2.79	PASS	
8469.87	7638.00	162.63	-2578.24	7608.00	7638.00	703.86	-2069.50	90.00	742.80	279.90	2.66	PASS	
8513.00†	7638.00	205.76	-2578.92	7608.00	7638.00	703.86	-2069.50	90.00	712.47	278.90	2.56	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

Facility: SEC.20-T1S-R65W Slot: SLOT#01 EX. COLLINS #14-20 (990'FSL & 990'FWL, SEC.20, OG, PR, 8202) Well: COLLINS #14-20 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8613.00†	7638.00	305.75	-2580.47	7608.00	7638.00	703.86	-2069.50	90.00	647.76	275.83	2.35	PASS
8713.00†	7638.00	405.73	-2582.03	7608.00	7638.00	703.86	-2069.50	90.00	592.94	271.52	2.19	PASS
8813.00†	7638.00	505.72	-2583.59	7608.00	7638.00	703.86	-2069.50	90.00	550.95	265.85	2.07	PASS
8913.00†	7638.00	605.71	-2585.15	7608.00	7638.00	703.86	-2069.50	90.00	524.91	259.22	2.03	PASS
9002.56†	7638.00	695.26	-2586.54	7607.95	7637.95	703.86	-2069.50	90.00	517.12	253.49	2.04	PASS
9013.00†	7638.00	705.70	-2586.71	7608.00	7638.00	703.86	-2069.50	90.00	517.21	252.91	2.05	PASS
9063.17†	7638.00	755.86	-2587.49	7608.00	7638.00	703.86	-2069.50	90.00	520.59	298.81	1.74	PASS
9113.00†	7638.00	805.69	-2588.26	7608.00	7638.00	703.86	-2069.50	90.00	528.66	248.75	2.13	PASS
9213.00†	7638.00	905.67	-2589.82	7608.00	7638.00	703.86	-2069.50	90.00	558.09	247.88	2.25	PASS
9313.00†	7638.00	1005.66	-2591.38	7608.00	7638.00	703.86	-2069.50	90.00	602.86	249.71	2.42	PASS
9413.00†	7638.00	1105.65	-2592.94	7608.00	7638.00	703.86	-2069.50	90.00	659.86	252.86	2.61	PASS
9513.00†	7638.00	1205.64	-2594.49	7608.00	7638.00	703.86	-2069.50	90.00	726.22	256.25	2.84	PASS
9613.00†	7638.00	1305.62	-2596.05	7608.00	7638.00	703.86	-2069.50	90.00	799.61	259.38	3.09	PASS
9713.00†	7638.00	1405.61	-2597.61	7608.00	7638.00	703.86	-2069.50	90.00	878.27	262.09	3.36	PASS
9813.00†	7638.00	1505.60	-2599.17	7608.00	7638.00	703.86	-2069.50	90.00	960.90	264.38	3.64	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

HOLE & CASING SECTIONS - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	150.00	150.00	17.00	167.00	423.33	-1263.49	423.33	-1263.49
8.625in Casing Surface	0.00	150.00	150.00	17.00	167.00	423.33	-1263.49	423.33	-1263.49
7.875in Open Hole	150.00	8194.00	8044.00	167.00	8211.00	423.33	-1263.49	423.33	-1263.49
4.5in Casing Production	0.00	8194.00	8194.00	17.00	8211.00	423.33	-1263.49	423.33	-1263.49

WELLPATH COMPOSITION - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8202.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8202>	COLLINS #14-20 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

MD Reference: Rig on SLOT#01 EX. COLLINS #14-20 (990'FSL & 990'FWL, SEC.20, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#12 WAKEMAN 20-17-2CDH (293'FSL & 2188'FEL, SEC.20)		Well: WAKEMAN 20-17-2CDH		Threshold Value=1.00		† = interpolated/extrapolated station					
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	0.15	59.95	89.86	59.95	1.40	98.58	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.15	59.95	89.86	59.95	1.73	63.55	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.15	59.95	89.86	59.95	2.31	39.23	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.15	59.95	89.86	59.95	2.92	27.97	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.15	59.95	89.86	59.95	3.53	21.66	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.15	59.95	89.86	59.95	4.15	17.65	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.15	59.95	89.86	59.95	4.78	14.88	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.15	59.95	89.86	59.95	5.40	12.86	PASS	
800.00	800.00	0.00	0.00	800.00	800.00	0.15	59.95	89.86	59.95	5.94	11.50	PASS	
813.00†	813.00	-0.01	-0.03	813.00	813.00	0.15	59.95	-170.31	59.98	6.03	11.33	PASS	
913.00†	912.97	-0.38	-2.20	912.97	912.97	0.15	59.95	-170.64	62.15	6.78	10.27	PASS	
1013.00†	1012.80	-1.35	-7.80	1012.80	1012.80	0.15	59.95	-171.41	67.76	7.82	9.55	PASS	
1113.00†	1112.38	-2.92	-16.83	1112.38	1112.38	0.15	59.95	-172.40	76.84	8.77	9.55	PASS	
1213.00†	1211.57	-5.08	-29.28	1211.57	1211.57	0.15	59.95	-173.45	89.38	9.66	10.00	PASS	
1313.00†	1310.26	-7.83	-45.14	1310.64	1310.64	0.14	59.93	-174.41	105.37	10.52	10.76	PASS	
1413.00†	1408.33	-11.17	-64.37	1413.09	1413.07	-0.52	57.82	-175.07	122.75	11.44	11.47	PASS	
1513.00†	1505.66	-15.09	-86.97	1516.20	1515.99	-2.28	52.16	-175.36	140.11	12.55	11.86	PASS	
1613.00†	1602.13	-19.58	-112.90	1619.96	1619.29	-5.16	42.91	-175.41	157.42	13.63	12.21	PASS	
1713.00†	1697.62	-24.65	-142.14	1724.38	1722.83	-9.19	30.00	-175.27	174.65	14.65	12.56	PASS	
1813.00†	1792.02	-30.29	-174.63	1829.47	1826.46	-14.38	13.37	-175.01	191.80	15.55	12.88	PASS	
1913.00†	1885.21	-36.49	-210.36	1935.23	1930.03	-20.73	-7.01	-174.64	208.83	16.55	13.13	PASS	
1929.59	1900.54	-37.57	-216.59	1952.83	1947.19	-21.90	-10.75	-174.57	211.64	16.71	13.18	PASS	
2013.00†	1977.56	-43.05	-248.17	2039.30	2031.16	-28.05	-30.46	-174.21	224.71	17.34	13.47	PASS	
2113.00†	2069.88	-49.61	-286.02	2138.14	2126.99	-35.25	-53.56	-173.81	239.80	18.01	13.82	PASS	
2213.00†	2162.21	-56.18	-323.87	2236.98	2222.83	-42.45	-76.66	-173.45	254.90	18.75	14.09	PASS	
2313.00†	2254.54	-62.74	-361.72	2335.82	2318.66	-49.66	-99.76	-173.14	270.01	19.44	14.38	PASS	
2413.00†	2346.86	-69.31	-399.57	2434.66	2414.50	-56.86	-122.86	-172.86	285.13	20.20	14.59	PASS	
2513.00†	2439.19	-75.87	-437.42	2533.50	2510.33	-64.07	-145.96	-172.61	300.25	20.98	14.77	PASS	
2613.00†	2531.52	-82.44	-475.27	2632.35	2606.16	-71.27	-169.06	-172.38	315.38	21.79	14.93	PASS	
2713.00†	2623.84	-89.01	-513.12	2731.19	2702.00	-78.47	-192.16	-172.18	330.51	22.62	15.05	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W				Slot: SLOT#12 WAKEMAN 20-17-2CDH (293'FSL & 2188'FEL, SEC.20)				Well: WAKEMAN 20-17-2CDH				Threshold Value=1.00 † = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status			
2813.00†	2716.17	-95.57	-550.97	2830.03	2797.83	-85.68	-215.26	-171.99	345.65	23.46	15.16	PASS			
2913.00†	2808.50	-102.14	-588.82	2928.87	2893.67	-92.88	-238.36	-171.81	360.79	24.32	15.25	PASS			
3013.00†	2900.82	-108.70	-626.68	3027.71	2989.50	-100.09	-261.46	-171.66	375.93	25.20	15.32	PASS			
3113.00†	2993.15	-115.27	-664.53	3126.55	3085.34	-107.29	-284.56	-171.51	391.08	26.09	15.38	PASS			
3213.00†	3085.48	-121.83	-702.38	3225.40	3181.17	-114.49	-307.65	-171.37	406.22	26.99	15.43	PASS			
3313.00†	3177.80	-128.40	-740.23	3324.24	3277.00	-121.70	-330.75	-171.25	421.37	27.90	15.47	PASS			
3413.00†	3270.13	-134.96	-778.08	3423.08	3372.84	-128.90	-353.85	-171.13	436.52	28.82	15.50	PASS			
3513.00†	3362.45	-141.53	-815.93	3521.92	3468.67	-136.11	-376.95	-171.02	451.68	29.75	15.53	PASS			
3613.00†	3454.78	-148.10	-853.78	3620.76	3564.51	-143.31	-400.05	-170.92	466.83	30.69	15.55	PASS			
3713.00†	3547.11	-154.66	-891.63	3719.61	3660.34	-150.51	-423.15	-170.82	481.99	31.63	15.56	PASS			
3813.00†	3639.43	-161.23	-929.48	3818.45	3756.17	-157.72	-446.25	-170.73	497.15	32.58	15.57	PASS			
3913.00†	3731.76	-167.79	-967.33	3917.29	3852.01	-164.92	-469.35	-170.65	512.30	33.54	15.58	PASS			
4013.00†	3824.09	-174.36	-1005.19	4016.13	3947.84	-172.13	-492.45	-170.57	527.46	34.51	15.59	PASS			
4113.00†	3916.41	-180.92	-1043.04	4114.97	4043.68	-179.33	-515.55	-170.49	542.62	35.48	15.59	PASS			
4213.00†	4008.74	-187.49	-1080.89	4213.81	4139.51	-186.53	-538.65	-170.42	557.78	36.45	15.59	PASS			
4313.00†	4101.07	-194.05	-1118.74	4312.66	4235.35	-193.74	-561.75	-170.36	572.95	37.43	15.58	PASS			
4413.00†	4193.39	-200.62	-1156.59	4411.50	4331.18	-200.94	-584.85	-170.29	588.11	38.41	15.58	PASS			
4513.00†	4285.72	-207.19	-1194.44	4510.34	4427.01	-208.15	-607.95	-170.23	603.27	39.40	15.58	PASS			
4613.00†	4378.05	-213.75	-1232.29	4609.18	4522.85	-215.35	-631.05	-170.17	618.44	40.39	15.57	PASS			
4713.00†	4470.37	-220.32	-1270.14	4708.02	4618.68	-222.55	-654.15	-170.12	633.60	41.38	15.56	PASS			
4813.00†	4562.70	-226.88	-1307.99	4806.86	4714.52	-229.76	-677.25	-170.07	648.77	42.37	15.55	PASS			
4913.00†	4655.03	-233.45	-1345.84	4905.71	4810.35	-236.96	-700.35	-170.02	663.93	43.37	15.55	PASS			
5013.00†	4747.35	-240.01	-1383.70	5004.55	4906.19	-244.17	-723.45	-169.97	679.10	44.37	15.54	PASS			
5113.00†	4839.68	-246.58	-1421.55	5103.39	5002.02	-251.37	-746.55	-169.92	694.26	45.38	15.53	PASS			
5213.00†	4932.01	-253.14	-1459.40	5202.23	5097.85	-258.57	-769.64	-169.88	709.43	46.38	15.52	PASS			
5313.00†	5024.33	-259.71	-1497.25	5301.07	5193.69	-265.78	-792.74	-169.84	724.60	47.39	15.51	PASS			
5413.00†	5116.66	-266.28	-1535.10	5399.91	5289.52	-272.98	-815.84	-169.80	739.77	48.40	15.50	PASS			
5513.00†	5208.99	-272.84	-1572.95	5498.76	5385.36	-280.19	-838.94	-169.76	754.93	49.42	15.48	PASS			
5613.00†	5301.31	-279.41	-1610.80	5597.60	5481.19	-287.39	-862.04	-169.72	770.10	50.43	15.47	PASS			
5713.00†	5393.64	-285.97	-1648.65	5696.44	5577.02	-294.59	-885.14	-169.69	785.27	51.45	15.46	PASS			

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#12 WAKEMAN 20-17-2CDH (293'FSL & 2188'FEL, SEC.20) Well: WAKEMAN 20-17-2CDH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5485.97	-292.54	-1686.50	5795.28	5672.86	-301.80	-908.24	-169.65	800.44	52.46	15.45	PASS	
5913.00†	5578.29	-299.10	-1724.35	5894.12	5768.69	-309.00	-931.34	-169.62	815.61	53.48	15.44	PASS	
6013.00†	5670.62	-305.67	-1762.20	5992.96	5864.53	-316.21	-954.44	-169.59	830.78	54.50	15.43	PASS	
6113.00†	5762.95	-312.23	-1800.06	6091.81	5960.36	-323.41	-977.54	-169.56	845.95	55.53	15.42	PASS	
6213.00†	5855.27	-318.80	-1837.91	6190.65	6056.20	-330.61	-1000.64	-169.53	861.12	56.55	15.41	PASS	
6313.00†	5947.60	-325.37	-1875.76	6289.49	6152.03	-337.82	-1023.74	-169.50	876.29	57.57	15.40	PASS	
6413.00†	6039.93	-331.93	-1913.61	6388.33	6247.86	-345.02	-1046.84	-169.47	891.46	58.60	15.39	PASS	
6513.00†	6132.25	-338.50	-1951.46	6487.17	6343.70	-352.23	-1069.94	-169.44	906.63	59.63	15.38	PASS	
6613.00†	6224.58	-345.06	-1989.31	6586.01	6439.53	-359.43	-1093.04	-169.42	921.80	60.66	15.37	PASS	
6713.00†	6316.91	-351.63	-2027.16	6684.86	6535.37	-366.63	-1116.14	-169.39	936.97	61.68	15.35	PASS	
6813.00†	6409.23	-358.19	-2065.01	6783.70	6631.20	-373.84	-1139.24	-169.37	952.14	62.71	15.34	PASS	
6913.00†	6501.56	-364.76	-2102.86	6882.54	6727.04	-381.04	-1162.34	-169.35	967.31	63.74	15.33	PASS	
7013.00†	6593.89	-371.32	-2140.71	6981.38	6822.87	-388.25	-1185.44	-169.32	982.49	64.78	15.32	PASS	
7113.00†	6686.21	-377.89	-2178.57	7080.22	6918.70	-395.45	-1208.54	-169.30	997.66	65.81	15.31	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1797.47	0.09	36.54	-3.86	23.88
8.5in Open Hole	1800.00	17954.40	16154.40	1797.47	N/A	-3.86	23.88	N/A	N/A



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17954.40	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-2CDH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#11 WAKEMAN 20-17-2NAH (293'FSL & 2173'FEL, SEC.20) Well: WAKEMAN 20-17-2NAH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	0.18	74.92	89.86	74.92	1.40	123.53	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.18	74.92	89.86	74.92	1.73	79.65	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.18	74.92	89.86	74.92	2.31	49.17	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.18	74.92	89.86	74.92	2.92	35.06	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.18	74.92	89.86	74.92	3.53	27.15	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.18	74.92	89.86	74.92	4.15	22.12	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.18	74.92	89.86	74.92	4.78	18.65	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.18	74.92	89.86	74.92	5.40	16.12	PASS	
800.00	800.00	0.00	0.00	800.00	800.00	0.18	74.92	89.86	74.92	5.94	14.41	PASS	
813.00†	813.00	-0.01	-0.03	813.00	813.00	0.18	74.92	-170.30	74.95	6.03	14.20	PASS	
913.00†	912.97	-0.38	-2.20	912.97	912.97	0.18	74.92	-170.57	77.12	6.78	12.78	PASS	
1013.00†	1012.80	-1.35	-7.80	1012.80	1012.80	0.18	74.92	-171.20	82.73	7.82	11.68	PASS	
1113.00†	1112.38	-2.92	-16.83	1112.38	1112.38	0.18	74.92	-172.05	91.81	8.77	11.43	PASS	
1213.00†	1211.57	-5.08	-29.28	1211.57	1211.57	0.18	74.92	-172.98	104.34	9.66	11.69	PASS	
1313.00†	1310.26	-7.83	-45.14	1310.26	1310.26	0.18	74.92	-173.88	120.32	10.51	12.31	PASS	
1413.00†	1408.33	-11.17	-64.37	1408.75	1408.75	0.17	74.91	-174.70	139.74	11.34	13.18	PASS	
1513.00†	1505.66	-15.09	-86.97	1511.76	1511.74	-0.55	72.87	-175.26	160.61	12.24	13.97	PASS	
1613.00†	1602.13	-19.58	-112.90	1615.58	1615.37	-2.51	67.27	-175.48	181.47	13.34	14.41	PASS	
1713.00†	1697.62	-24.65	-142.14	1720.19	1719.52	-5.76	58.06	-175.48	202.28	14.39	14.83	PASS	
1813.00†	1792.02	-30.29	-174.63	1825.61	1824.04	-10.30	45.16	-175.30	223.01	15.32	15.22	PASS	
1913.00†	1885.21	-36.49	-210.36	1931.84	1928.79	-16.17	28.49	-175.00	243.64	16.31	15.57	PASS	
1929.59	1900.54	-37.57	-216.59	1949.54	1946.18	-17.27	25.36	-174.93	247.05	16.43	15.67	PASS	
2013.00†	1977.56	-43.05	-248.17	2039.14	2033.85	-23.40	7.95	-174.59	262.96	17.17	15.93	PASS	
2113.00†	2069.88	-49.61	-286.02	2143.24	2135.02	-31.55	-15.21	-174.07	279.12	17.93	16.16	PASS	
2213.00†	2162.21	-56.18	-323.87	2241.99	2230.83	-39.47	-37.72	-173.60	294.73	18.63	16.41	PASS	
2313.00†	2254.54	-62.74	-361.72	2340.74	2326.65	-47.40	-60.24	-173.18	310.36	19.41	16.56	PASS	
2413.00†	2346.86	-69.31	-399.57	2439.48	2422.47	-55.32	-82.76	-172.80	326.01	20.12	16.76	PASS	
2513.00†	2439.19	-75.87	-437.42	2538.23	2518.29	-63.25	-105.27	-172.45	341.67	20.90	16.88	PASS	
2613.00†	2531.52	-82.44	-475.27	2636.97	2614.10	-71.17	-127.79	-172.14	357.34	21.71	16.98	PASS	
2713.00†	2623.84	-89.01	-513.12	2735.72	2709.92	-79.10	-150.31	-171.85	373.02	22.55	17.05	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#11 WAKEMAN 20-17-2NAH (293'FSL & 2173'FEL, SEC.20) Well: WAKEMAN 20-17-2NAH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2716.17	-95.57	-550.97	2834.47	2805.74	-87.02	-172.82	-171.58	388.71	23.40	17.10	PASS
2913.00†	2808.50	-102.14	-588.82	2933.21	2901.56	-94.95	-195.34	-171.34	404.40	24.27	17.13	PASS
3013.00†	2900.82	-108.70	-626.68	3031.96	2997.37	-102.88	-217.86	-171.11	420.10	25.16	17.15	PASS
3113.00†	2993.15	-115.27	-664.53	3130.71	3093.19	-110.80	-240.38	-170.90	435.81	26.07	17.16	PASS
3213.00†	3085.48	-121.83	-702.38	3229.45	3189.01	-118.73	-262.89	-170.70	451.53	26.99	17.16	PASS
3313.00†	3177.80	-128.40	-740.23	3328.20	3284.83	-126.65	-285.41	-170.52	467.25	27.92	17.15	PASS
3413.00†	3270.13	-134.96	-778.08	3426.94	3380.64	-134.58	-307.93	-170.35	482.97	28.86	17.13	PASS
3513.00†	3362.45	-141.53	-815.93	3525.69	3476.46	-142.50	-330.44	-170.19	498.70	29.81	17.11	PASS
3613.00†	3454.78	-148.10	-853.78	3624.44	3572.28	-150.43	-352.96	-170.04	514.43	30.77	17.09	PASS
3713.00†	3547.11	-154.66	-891.63	3723.18	3668.10	-158.35	-375.48	-169.90	530.16	31.74	17.08	PASS
3813.00†	3639.43	-161.23	-929.48	3821.93	3763.91	-166.28	-397.99	-169.76	545.90	32.72	17.03	PASS
3913.00†	3731.76	-167.79	-967.33	3920.68	3859.73	-174.20	-420.51	-169.64	561.64	33.71	17.00	PASS
4013.00†	3824.09	-174.36	-1005.19	4019.42	3955.55	-182.13	-443.03	-169.52	577.38	34.70	16.97	PASS
4113.00†	3916.41	-180.92	-1043.04	4118.17	4051.37	-190.06	-465.54	-169.41	593.12	35.70	16.93	PASS
4213.00†	4008.74	-187.49	-1080.89	4216.92	4147.19	-197.98	-488.06	-169.30	608.87	36.70	16.90	PASS
4313.00†	4101.07	-194.05	-1118.74	4315.66	4243.00	-205.91	-510.58	-169.20	624.62	37.71	16.86	PASS
4413.00†	4193.39	-200.62	-1156.59	4414.41	4338.82	-213.83	-533.09	-169.10	640.37	38.73	16.82	PASS
4513.00†	4285.72	-207.19	-1194.44	4513.15	4434.64	-221.76	-555.61	-169.01	656.12	39.75	16.79	PASS
4613.00†	4378.05	-213.75	-1232.29	4611.90	4530.46	-229.68	-578.13	-168.92	671.87	40.77	16.75	PASS
4713.00†	4470.37	-220.32	-1270.14	4710.65	4626.27	-237.61	-600.64	-168.84	687.63	41.80	16.72	PASS
4813.00†	4562.70	-226.88	-1307.99	4809.39	4722.09	-245.53	-623.16	-168.76	703.38	42.83	16.68	PASS
4913.00†	4655.03	-233.45	-1345.84	4908.14	4817.91	-253.46	-645.68	-168.68	719.14	43.86	16.65	PASS
5013.00†	4747.35	-240.01	-1383.70	5006.89	4913.73	-261.39	-668.19	-168.61	734.90	44.90	16.61	PASS
5113.00†	4839.68	-246.58	-1421.55	5105.63	5009.54	-269.31	-690.71	-168.54	750.66	45.94	16.58	PASS
5213.00†	4932.01	-253.14	-1459.40	5204.38	5105.36	-277.24	-713.23	-168.47	766.42	46.98	16.55	PASS
5313.00†	5024.33	-259.71	-1497.25	5303.12	5201.18	-285.16	-735.74	-168.41	782.18	48.03	16.51	PASS
5413.00†	5116.66	-266.28	-1535.10	5401.87	5297.00	-293.09	-758.26	-168.35	797.95	49.08	16.48	PASS
5513.00†	5208.99	-272.84	-1572.95	5500.62	5392.81	-301.01	-780.78	-168.29	813.71	50.13	16.45	PASS
5613.00†	5301.31	-279.41	-1610.80	5599.36	5488.63	-308.94	-803.29	-168.23	829.47	51.18	16.42	PASS
5713.00†	5393.64	-285.97	-1648.65	5698.11	5584.45	-316.86	-825.81	-168.17	845.24	52.24	16.39	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#11 WAKEMAN 20-17-2NAH (293'FSL & 2173'FEL, SEC.20) Well: WAKEMAN 20-17-2NAH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5485.97	-292.54	-1686.50	5796.86	5680.27	-324.79	-848.33	-168.12	861.01	53.29	16.36	PASS
5913.00†	5578.29	-299.10	-1724.35	5895.60	5776.08	-332.71	-870.84	-168.07	876.77	54.35	16.33	PASS
6013.00†	5670.62	-305.67	-1762.20	5994.35	5871.90	-340.64	-893.36	-168.02	892.54	55.41	16.30	PASS
6113.00†	5762.95	-312.23	-1800.06	6093.09	5967.72	-348.57	-915.88	-167.97	908.31	56.47	16.27	PASS
6213.00†	5855.27	-318.80	-1837.91	6191.84	6063.54	-356.49	-938.39	-167.93	924.08	57.54	16.25	PASS
6313.00†	5947.60	-325.37	-1875.76	6290.59	6159.35	-364.42	-960.91	-167.88	939.84	58.60	16.22	PASS
6413.00†	6039.93	-331.93	-1913.61	6389.33	6255.17	-372.34	-983.43	-167.84	955.61	59.67	16.20	PASS
6513.00†	6132.25	-338.50	-1951.46	6488.08	6350.99	-380.27	-1005.95	-167.80	971.38	60.74	16.17	PASS
6613.00†	6224.58	-345.06	-1989.31	6586.83	6446.81	-388.19	-1028.46	-167.76	987.16	61.81	16.14	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1798.70	0.11	45.67	-2.71	37.66
8.5in Open Hole	1800.00	17526.80	15726.80	1798.70	N/A	-2.71	37.66	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17526.80	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-2NAH PWB



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)	
MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130) Well: AMOCO #24-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	73.00	5967.04	-1772.54	-16.54	6225.04	25.40	253.01	PASS	
113.00†	113.00	0.00	0.00	27.00	113.00	5967.04	-1772.54	-16.54	6224.75	50.60	124.89	PASS	
213.00†	213.00	0.00	0.00	127.00	213.00	5967.04	-1772.54	-16.54	6224.75	52.94	119.29	PASS	
313.00†	313.00	0.00	0.00	227.00	313.00	5967.04	-1772.54	-16.54	6224.75	55.11	114.16	PASS	
413.00†	413.00	0.00	0.00	327.00	413.00	5967.04	-1772.54	-16.54	6224.75	57.46	109.45	PASS	
513.00†	513.00	0.00	0.00	427.00	513.00	5967.04	-1772.54	-16.54	6224.75	59.81	105.10	PASS	
613.00†	613.00	0.00	0.00	527.00	613.00	5967.04	-1772.54	-16.54	6224.75	62.16	101.08	PASS	
713.00†	713.00	0.00	0.00	627.00	713.00	5967.04	-1772.54	-16.54	6224.75	64.52	97.35	PASS	
800.00	800.00	0.00	0.00	714.00	800.00	5967.04	-1772.54	-16.54	6224.75	66.58	94.32	PASS	
813.00†	813.00	-0.01	-0.03	727.00	813.00	5967.04	-1772.54	83.30	6224.74	66.89	93.88	PASS	
913.00†	912.97	-0.38	-2.20	826.97	912.97	5967.04	-1772.54	83.32	6224.49	69.25	90.64	PASS	
1013.00†	1012.80	-1.35	-7.80	926.80	1012.80	5967.04	-1772.54	83.39	6223.83	71.62	87.61	PASS	
1113.00†	1112.38	-2.92	-16.83	1026.38	1112.38	5967.04	-1772.54	83.49	6222.78	73.99	84.77	PASS	
1213.00†	1211.57	-5.08	-29.28	1125.57	1211.57	5967.04	-1772.54	83.63	6221.35	76.37	82.09	PASS	
1313.00†	1310.26	-7.83	-45.14	1224.26	1310.26	5967.04	-1772.54	83.82	6219.57	78.74	79.57	PASS	
1413.00†	1408.33	-11.17	-64.37	1322.33	1408.33	5967.04	-1772.54	84.03	6217.46	81.13	77.19	PASS	
1513.00†	1505.66	-15.09	-86.97	1419.66	1505.66	5967.04	-1772.54	84.29	6215.06	83.53	74.93	PASS	
1613.00†	1602.13	-19.58	-112.90	1516.13	1602.13	5967.04	-1772.54	84.57	6212.41	85.94	72.78	PASS	
1713.00†	1697.62	-24.65	-142.14	1611.62	1697.62	5967.04	-1772.54	84.89	6209.56	88.39	70.72	PASS	
1813.00†	1792.02	-30.29	-174.63	1706.02	1792.02	5967.04	-1772.54	85.23	6206.55	90.82	68.75	PASS	
1913.00†	1885.21	-36.49	-210.36	1799.21	1885.21	5967.04	-1772.54	85.61	6203.45	93.34	66.84	PASS	
1929.59	1900.54	-37.57	-216.59	1814.54	1900.54	5967.04	-1772.54	85.67	6202.93	93.76	66.54	PASS	
2013.00†	1977.56	-43.05	-248.17	1891.56	1977.56	5967.04	-1772.54	85.94	6200.39	95.91	65.01	PASS	
2113.00†	2069.88	-49.61	-286.02	1983.88	2069.88	5967.04	-1772.54	86.27	6197.57	98.54	63.24	PASS	
2213.00†	2162.21	-56.18	-323.87	2076.21	2162.21	5967.04	-1772.54	86.60	6194.98	101.22	61.53	PASS	
2313.00†	2254.54	-62.74	-361.72	2168.54	2254.54	5967.04	-1772.54	86.93	6192.63	103.95	59.88	PASS	
2413.00†	2346.86	-69.31	-399.57	2260.86	2346.86	5967.04	-1772.54	87.25	6190.52	106.72	58.30	PASS	
2513.00†	2439.19	-75.87	-437.42	2353.19	2439.19	5967.04	-1772.54	87.58	6188.65	109.54	56.77	PASS	
2613.00†	2531.52	-82.44	-475.27	2445.52	2531.52	5967.04	-1772.54	87.91	6187.01	112.40	55.31	PASS	
2713.00†	2623.84	-89.01	-513.12	2537.84	2623.84	5967.04	-1772.54	88.24	6185.61	115.30	53.90	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130) Well: AMOCO #24-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2716.17	-95.57	-550.97	2630.17	2716.17	5967.04	-1772.54	88.57	6184.45	118.23	52.55	PASS	
2913.00†	2808.50	-102.14	-588.82	2722.50	2808.50	5967.04	-1772.54	88.90	6183.53	121.19	51.25	PASS	
3013.00†	2900.82	-108.70	-626.68	2814.82	2900.82	5967.04	-1772.54	89.23	6182.85	124.18	50.00	PASS	
3113.00†	2993.15	-115.27	-664.53	2907.15	2993.15	5967.04	-1772.54	89.55	6182.41	127.20	48.81	PASS	
3213.00†	3085.48	-121.83	-702.38	2999.48	3085.48	5967.04	-1772.54	89.88	6182.20	130.25	47.66	PASS	
3313.00†	3177.80	-128.40	-740.23	3091.80	3177.80	5967.04	-1772.54	90.21	6182.24	133.32	46.56	PASS	
3413.00†	3270.13	-134.96	-778.08	3184.13	3270.13	5967.04	-1772.54	90.54	6182.51	136.41	45.50	PASS	
3513.00†	3362.45	-141.53	-815.93	3276.45	3362.45	5967.04	-1772.54	90.87	6183.02	139.51	44.49	PASS	
3613.00†	3454.78	-148.10	-853.78	3368.78	3454.78	5967.04	-1772.54	91.20	6183.77	142.64	43.51	PASS	
3713.00†	3547.11	-154.66	-891.63	3461.11	3547.11	5967.04	-1772.54	91.53	6184.76	145.78	42.58	PASS	
3813.00†	3639.43	-161.23	-929.48	3553.43	3639.43	5967.04	-1772.54	91.85	6185.98	148.94	41.68	PASS	
3913.00†	3731.76	-167.79	-967.33	3645.76	3731.76	5967.04	-1772.54	92.18	6187.45	152.11	40.82	PASS	
4013.00†	3824.09	-174.36	-1005.19	3738.09	3824.09	5967.04	-1772.54	92.51	6189.15	155.30	39.99	PASS	
4113.00†	3916.41	-180.92	-1043.04	3830.41	3916.41	5967.04	-1772.54	92.84	6191.09	158.49	39.19	PASS	
4213.00†	4008.74	-187.49	-1080.89	3922.74	4008.74	5967.04	-1772.54	93.17	6193.27	161.70	38.43	PASS	
4313.00†	4101.07	-194.05	-1118.74	4015.07	4101.07	5967.04	-1772.54	93.49	6195.69	164.91	37.69	PASS	
4413.00†	4193.39	-200.62	-1156.59	4107.39	4193.39	5967.04	-1772.54	93.82	6198.34	168.13	36.98	PASS	
4513.00†	4285.72	-207.19	-1194.44	4199.72	4285.72	5967.04	-1772.54	94.15	6201.23	171.36	36.30	PASS	
4613.00†	4378.05	-213.75	-1232.29	4292.05	4378.05	5967.04	-1772.54	94.48	6204.36	174.60	35.64	PASS	
4713.00†	4470.37	-220.32	-1270.14	4384.37	4470.37	5967.04	-1772.54	94.80	6207.72	177.84	35.01	PASS	
4813.00†	4562.70	-226.88	-1307.99	4476.70	4562.70	5967.04	-1772.54	95.13	6211.32	181.09	34.40	PASS	
4913.00†	4655.03	-233.45	-1345.84	4569.03	4655.03	5967.04	-1772.54	95.45	6215.15	184.35	33.81	PASS	
5013.00†	4747.35	-240.01	-1383.70	4661.35	4747.35	5967.04	-1772.54	95.78	6219.22	187.60	33.24	PASS	
5113.00†	4839.68	-246.58	-1421.55	4753.68	4839.68	5967.04	-1772.54	96.10	6223.52	190.86	32.70	PASS	
5213.00†	4932.01	-253.14	-1459.40	4846.01	4932.01	5967.04	-1772.54	96.43	6228.06	194.13	32.17	PASS	
5313.00†	5024.33	-259.71	-1497.25	4938.33	5024.33	5967.04	-1772.54	96.75	6232.83	197.39	31.66	PASS	
5413.00†	5116.66	-266.28	-1535.10	5030.66	5116.66	5967.04	-1772.54	97.08	6237.84	200.66	31.17	PASS	
5513.00†	5208.99	-272.84	-1572.95	5122.99	5208.99	5967.04	-1772.54	97.40	6243.07	203.93	30.69	PASS	
5613.00†	5301.31	-279.41	-1610.80	5215.31	5301.31	5967.04	-1772.54	97.72	6248.54	207.21	30.23	PASS	
5713.00†	5393.64	-285.97	-1648.65	5307.64	5393.64	5967.04	-1772.54	98.05	6254.24	210.48	29.79	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130) Well: AMOCO #24-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5485.97	-292.54	-1686.50	5399.97	5485.97	5967.04	-1772.54	98.37	6260.17	213.75	29.36	PASS	
5913.00†	5578.29	-299.10	-1724.35	5492.29	5578.29	5967.04	-1772.54	98.69	6266.33	217.03	28.94	PASS	
6013.00†	5670.62	-305.67	-1762.20	5584.62	5670.62	5967.04	-1772.54	99.01	6272.72	220.30	28.54	PASS	
6113.00†	5762.95	-312.23	-1800.06	5676.95	5762.95	5967.04	-1772.54	99.33	6279.33	223.57	28.15	PASS	
6213.00†	5855.27	-318.80	-1837.91	5769.27	5855.27	5967.04	-1772.54	99.65	6286.18	226.85	27.78	PASS	
6313.00†	5947.60	-325.37	-1875.76	5861.60	5947.60	5967.04	-1772.54	99.97	6293.25	230.12	27.41	PASS	
6413.00†	6039.93	-331.93	-1913.61	5953.93	6039.93	5967.04	-1772.54	100.29	6300.55	233.39	27.06	PASS	
6513.00†	6132.25	-338.50	-1951.46	6046.25	6132.25	5967.04	-1772.54	100.61	6308.07	236.66	26.71	PASS	
6613.00†	6224.58	-345.06	-1989.31	6138.58	6224.58	5967.04	-1772.54	100.92	6315.82	239.93	26.38	PASS	
6713.00†	6316.91	-351.63	-2027.16	6230.91	6316.91	5967.04	-1772.54	101.24	6323.80	243.19	26.06	PASS	
6813.00†	6409.23	-358.19	-2065.01	6323.23	6409.23	5967.04	-1772.54	101.56	6331.99	246.46	25.75	PASS	
6913.00†	6501.56	-364.76	-2102.86	6415.56	6501.56	5967.04	-1772.54	101.87	6340.41	249.72	25.44	PASS	
7013.00†	6593.89	-371.32	-2140.71	6507.89	6593.89	5967.04	-1772.54	102.19	6349.05	252.98	25.15	PASS	
7113.00†	6686.21	-377.89	-2178.57	6600.21	6686.21	5967.04	-1772.54	102.50	6357.91	256.23	24.86	PASS	
7213.00†	6778.54	-384.46	-2216.42	6692.54	6778.54	5967.04	-1772.54	102.81	6366.99	259.49	24.59	PASS	
7313.00†	6870.86	-391.02	-2254.27	6784.86	6870.86	5967.04	-1772.54	103.13	6376.28	262.74	24.32	PASS	
7413.00†	6963.19	-397.59	-2292.12	6877.19	6963.19	5967.04	-1772.54	103.44	6385.80	265.99	24.06	PASS	
7513.00†	7055.52	-404.15	-2329.97	6969.52	7055.52	5967.04	-1772.54	103.75	6395.53	269.23	23.80	PASS	
7535.61	7076.40	-405.64	-2338.53	6990.40	7076.40	5967.04	-1772.54	103.82	6397.76	269.96	23.74	PASS	
7613.00†	7147.92	-405.50	-2367.93	7061.92	7147.92	5967.04	-1772.54	85.40	6400.29	272.53	23.53	PASS	
7713.00†	7239.07	-389.92	-2405.65	7153.07	7239.07	5967.04	-1772.54	65.19	6388.41	276.08	23.18	PASS	
7813.00†	7326.25	-357.45	-2441.99	7240.25	7326.25	5967.04	-1772.54	51.85	6359.82	279.71	22.78	PASS	
7913.00†	7406.80	-309.08	-2475.85	7320.80	7406.80	5967.04	-1772.54	43.99	6315.40	283.08	22.35	PASS	
8013.00†	7478.27	-246.27	-2506.21	7392.27	7478.27	5967.04	-1772.54	39.84	6256.47	286.09	21.91	PASS	
8113.00†	7538.49	-170.93	-2532.14	7452.49	7538.49	5967.04	-1772.54	38.49	6184.79	288.66	21.46	PASS	
8213.00†	7585.63	-85.35	-2552.85	7499.63	7585.63	5967.04	-1772.54	40.01	6102.49	290.73	21.03	PASS	
8313.00†	7618.26	7.86	-2567.72	7532.26	7618.26	5967.04	-1772.54	46.14	6012.00	292.27	20.61	PASS	
8413.00†	7635.39	105.88	-2576.29	7549.39	7635.39	5967.04	-1772.54	64.48	5916.01	293.27	20.21	PASS	
8469.87	7638.00	162.63	-2578.24	7552.00	7638.00	5967.04	-1772.54	90.00	5860.06	293.59	19.99	PASS	
8513.00†	7638.00	205.76	-2578.92	7552.00	7638.00	5967.04	-1772.54	90.00	5817.44	293.77	19.84	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130) Well: AMOCO #24-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
8613.00†	7638.00	305.75	-2580.47	7552.00	7638.00	5967.04	-1772.54	90.00	5718.65	294.18	19.47	PASS	
8713.00†	7638.00	405.73	-2582.03	7552.00	7638.00	5967.04	-1772.54	90.00	5619.91	294.61	19.11	PASS	
8813.00†	7638.00	505.72	-2583.59	7552.00	7638.00	5967.04	-1772.54	90.00	5521.21	295.05	18.75	PASS	
8913.00†	7638.00	605.71	-2585.15	7552.00	7638.00	5967.04	-1772.54	90.00	5422.56	295.51	18.38	PASS	
9013.00†	7638.00	705.70	-2586.71	7552.00	7638.00	5967.04	-1772.54	90.00	5323.96	295.99	18.02	PASS	
9113.00†	7638.00	805.69	-2588.26	7552.00	7638.00	5967.04	-1772.54	90.00	5225.42	296.49	17.65	PASS	
9213.00†	7638.00	905.67	-2589.82	7552.00	7638.00	5967.04	-1772.54	90.00	5126.93	297.01	17.29	PASS	
9313.00†	7638.00	1005.66	-2591.38	7552.00	7638.00	5967.04	-1772.54	90.00	5028.50	297.55	16.93	PASS	
9413.00†	7638.00	1105.65	-2592.94	7552.00	7638.00	5967.04	-1772.54	90.00	4930.13	298.10	16.57	PASS	
9513.00†	7638.00	1205.64	-2594.49	7552.00	7638.00	5967.04	-1772.54	90.00	4831.83	298.69	16.20	PASS	
9613.00†	7638.00	1305.62	-2596.05	7552.00	7638.00	5967.04	-1772.54	90.00	4733.60	299.29	15.84	PASS	
9713.00†	7638.00	1405.61	-2597.61	7552.00	7638.00	5967.04	-1772.54	90.00	4635.45	299.93	15.48	PASS	
9813.00†	7638.00	1505.60	-2599.17	7552.00	7638.00	5967.04	-1772.54	90.00	4537.37	300.59	15.12	PASS	
9913.00†	7638.00	1605.59	-2600.73	7552.00	7638.00	5967.04	-1772.54	90.00	4439.39	301.28	14.76	PASS	
10013.00†	7638.00	1705.58	-2602.28	7552.00	7638.00	5967.04	-1772.54	90.00	4341.49	302.00	14.40	PASS	
10113.00†	7638.00	1805.56	-2603.84	7552.00	7638.00	5967.04	-1772.54	90.00	4243.69	302.75	14.04	PASS	
10213.00†	7638.00	1905.55	-2605.40	7552.00	7638.00	5967.04	-1772.54	90.00	4146.00	303.53	13.68	PASS	
10313.00†	7638.00	2005.54	-2606.96	7552.00	7638.00	5967.04	-1772.54	90.00	4048.42	304.36	13.32	PASS	
10413.00†	7638.00	2105.53	-2608.51	7552.00	7638.00	5967.04	-1772.54	90.00	3950.96	305.22	12.97	PASS	
10513.00†	7638.00	2205.52	-2610.07	7552.00	7638.00	5967.04	-1772.54	90.00	3853.64	306.13	12.61	PASS	
10613.00†	7638.00	2305.50	-2611.63	7552.00	7638.00	5967.04	-1772.54	90.00	3756.45	307.08	12.25	PASS	
10713.00†	7638.00	2405.49	-2613.19	7552.00	7638.00	5967.04	-1772.54	90.00	3659.41	308.09	11.90	PASS	
10813.00†	7638.00	2505.48	-2614.75	7552.00	7638.00	5967.04	-1772.54	90.00	3562.54	309.14	11.54	PASS	
10913.00†	7638.00	2605.47	-2616.30	7552.00	7638.00	5967.04	-1772.54	90.00	3465.85	310.25	11.19	PASS	
11013.00†	7638.00	2705.45	-2617.86	7552.00	7638.00	5967.04	-1772.54	90.00	3369.35	311.42	10.84	PASS	
11113.00†	7638.00	2805.44	-2619.42	7552.00	7638.00	5967.04	-1772.54	90.00	3273.06	312.66	10.48	PASS	
11213.00†	7638.00	2905.43	-2620.98	7552.00	7638.00	5967.04	-1772.54	90.00	3176.99	313.97	10.13	PASS	
11313.00†	7638.00	3005.42	-2622.53	7552.00	7638.00	5967.04	-1772.54	90.00	3081.18	315.35	9.79	PASS	
11413.00†	7638.00	3105.41	-2624.09	7552.00	7638.00	5967.04	-1772.54	90.00	2985.65	316.82	9.44	PASS	
11513.00†	7638.00	3205.39	-2625.65	7552.00	7638.00	5967.04	-1772.54	90.00	2890.41	318.38	9.09	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130) Well: AMOCO #24-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
11613.00†	7638.00	3305.38	-2627.21	7552.00	7638.00	5967.04	-1772.54	90.00	2795.51	320.03	8.75	PASS	
11713.00†	7638.00	3405.37	-2628.77	7552.00	7638.00	5967.04	-1772.54	90.00	2700.98	321.79	8.41	PASS	
11813.00†	7638.00	3505.36	-2630.32	7552.00	7638.00	5967.04	-1772.54	90.00	2606.85	323.67	8.07	PASS	
11913.00†	7638.00	3605.35	-2631.88	7552.00	7638.00	5967.04	-1772.54	90.00	2513.18	325.67	7.73	PASS	
12013.00†	7638.00	3705.33	-2633.44	7552.00	7638.00	5967.04	-1772.54	90.00	2420.01	327.81	7.39	PASS	
12113.00†	7638.00	3805.32	-2635.00	7552.00	7638.00	5967.04	-1772.54	90.00	2327.41	330.10	7.06	PASS	
12213.00†	7638.00	3905.31	-2636.55	7552.00	7638.00	5967.04	-1772.54	90.00	2235.45	332.55	6.73	PASS	
12313.00†	7638.00	4005.30	-2638.11	7552.00	7638.00	5967.04	-1772.54	90.00	2144.21	335.18	6.41	PASS	
12413.00†	7638.00	4105.28	-2639.67	7552.00	7638.00	5967.04	-1772.54	90.00	2053.79	338.00	6.08	PASS	
12513.00†	7638.00	4205.27	-2641.23	7552.00	7638.00	5967.04	-1772.54	90.00	1964.29	341.03	5.77	PASS	
12613.00†	7638.00	4305.26	-2642.79	7552.00	7638.00	5967.04	-1772.54	90.00	1875.86	344.29	5.46	PASS	
12713.00†	7638.00	4405.25	-2644.34	7552.00	7638.00	5967.04	-1772.54	90.00	1788.64	347.78	5.15	PASS	
12813.00†	7638.00	4505.24	-2645.90	7552.00	7638.00	5967.04	-1772.54	90.00	1702.83	351.54	4.85	PASS	
12913.00†	7638.00	4605.22	-2647.46	7552.00	7638.00	5967.04	-1772.54	90.00	1618.65	355.56	4.56	PASS	
13013.00†	7638.00	4705.21	-2649.02	7552.00	7638.00	5967.04	-1772.54	90.00	1536.36	359.86	4.27	PASS	
13113.00†	7638.00	4805.20	-2650.58	7552.00	7638.00	5967.04	-1772.54	90.00	1456.30	364.42	4.00	PASS	
13213.00†	7638.00	4905.19	-2652.13	7552.00	7638.00	5967.04	-1772.54	90.00	1378.84	369.24	3.74	PASS	
13313.00†	7638.00	5005.18	-2653.69	7552.00	7638.00	5967.04	-1772.54	90.00	1304.46	374.27	3.49	PASS	
13413.00†	7638.00	5105.16	-2655.25	7552.00	7638.00	5967.04	-1772.54	90.00	1233.69	379.43	3.25	PASS	
13513.00†	7638.00	5205.15	-2656.81	7552.00	7638.00	5967.04	-1772.54	90.00	1167.22	384.61	3.04	PASS	
13613.00†	7638.00	5305.14	-2658.36	7552.00	7638.00	5967.04	-1772.54	90.00	1105.80	389.61	2.84	PASS	
13713.00†	7638.00	5405.13	-2659.92	7552.00	7638.00	5967.04	-1772.54	90.00	1050.33	394.18	2.67	PASS	
13813.00†	7638.00	5505.11	-2661.48	7552.00	7638.00	5967.04	-1772.54	90.00	1001.79	397.98	2.52	PASS	
13913.00†	7638.00	5605.10	-2663.04	7552.00	7638.00	5967.04	-1772.54	90.00	961.24	400.61	2.40	PASS	
14013.00†	7638.00	5705.09	-2664.60	7552.00	7638.00	5967.04	-1772.54	90.00	929.72	401.61	2.32	PASS	
14113.00†	7638.00	5805.08	-2666.15	7552.00	7638.00	5967.04	-1772.54	90.00	908.17	400.61	2.27	PASS	
14184.54†	7638.00	5876.61	-2667.27	7552.00	7638.00	5967.04	-1772.54	90.00	899.28	398.52	2.26	PASS	
14213.00†	7638.00	5905.07	-2667.71	7552.00	7638.00	5967.04	-1772.54	90.00	897.31	397.35	2.26	PASS	
14260.87†	7638.00	5952.93	-2668.46	7549.63	7635.63	5967.04	-1772.54	89.85	896.03	394.88	2.27	PASS	
14313.00†	7638.00	6005.05	-2669.27	7552.00	7638.00	5967.04	-1772.54	90.00	897.53	391.79	2.29	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130) Well: AMOCO #24-17 Threshold Value=1.00 † = Interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
14413.00†	7638.00	6105.04	-2670.83	7552.00	7638.00	5967.04	-1772.54	90.00	908.82	384.15	2.37	PASS	
14513.00†	7638.00	6205.03	-2672.38	7552.00	7638.00	5967.04	-1772.54	90.00	930.78	374.88	2.49	PASS	
14613.00†	7638.00	6305.02	-2673.94	7552.00	7638.00	5967.04	-1772.54	90.00	962.68	364.53	2.64	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	218.00	218.00	73.00	291.00	3632.51	-1097.08	3632.51	-1097.08
8.625in Casing Surface	0.00	218.00	218.00	73.00	291.00	3632.51	-1097.08	3632.51	-1097.08
7.875in Open Hole	218.00	8129.00	7911.00	291.00	8202.00	3632.51	-1097.08	3632.51	-1097.08
4.5in Casing Production	0.00	8129.00	8129.00	73.00	8202.00	3632.51	-1097.08	3632.51	-1097.08

WELLPATH COMPOSITION - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8130.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8130>	AMOCO #24-17



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

MD Reference: Rig on SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#10 WAKEMAN 20-17-2NCH (293'FSL & 2158'FEL, SEC.20)				Well: WAKEMAN 20-17-2NCH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.21	89.98	89.87	89.98	1.40	148.63	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.21	89.98	89.87	89.98	1.73	95.87	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.21	89.98	89.87	89.98	2.31	59.18	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.21	89.98	89.87	89.98	2.92	42.20	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.21	89.98	89.87	89.98	3.53	32.67	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.21	89.98	89.87	89.98	4.15	26.62	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.21	89.98	89.87	89.98	4.78	22.44	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.21	89.98	89.87	89.98	5.40	19.39	PASS
800.00	800.00	0.00	0.00	800.00	800.00	0.21	89.98	89.87	89.98	5.94	17.34	PASS
813.00†	813.00	-0.01	-0.03	813.00	813.00	0.21	89.98	-170.29	90.01	6.02	17.08	PASS
913.00†	912.97	-0.38	-2.20	912.97	912.97	0.21	89.98	-170.52	92.18	6.78	15.30	PASS
1013.00†	1012.80	-1.35	-7.80	1012.80	1012.80	0.21	89.98	-171.05	97.79	7.81	13.83	PASS
1113.00†	1112.38	-2.92	-16.83	1112.38	1112.38	0.21	89.98	-171.79	106.86	8.76	13.32	PASS
1213.00†	1211.57	-5.08	-29.28	1211.57	1211.57	0.21	89.98	-172.62	119.38	9.66	13.39	PASS
1313.00†	1310.26	-7.83	-45.14	1310.26	1310.26	0.21	89.98	-173.46	135.35	10.51	13.86	PASS
1413.00†	1408.33	-11.17	-64.37	1408.33	1408.33	0.21	89.98	-174.24	154.77	11.34	14.61	PASS
1513.00†	1505.66	-15.09	-86.97	1506.02	1506.02	0.20	89.97	-174.95	177.60	12.15	15.59	PASS
1613.00†	1602.13	-19.58	-112.90	1609.52	1609.50	-0.61	88.05	-175.42	201.98	13.03	16.45	PASS
1713.00†	1697.62	-24.65	-142.14	1713.95	1713.76	-2.89	82.62	-175.57	226.38	14.10	16.96	PASS
1813.00†	1792.02	-30.29	-174.63	1819.31	1818.65	-6.69	73.59	-175.48	250.77	15.05	17.44	PASS
1913.00†	1885.21	-36.49	-210.36	1925.62	1924.05	-12.03	60.89	-175.21	275.11	16.06	17.87	PASS
1929.59	1900.54	-37.57	-216.59	1943.34	1941.57	-13.07	58.42	-175.16	279.14	16.20	17.97	PASS
2013.00†	1977.56	-43.05	-248.17	2033.16	2030.08	-18.98	44.38	-174.82	298.20	16.92	18.35	PASS
2113.00†	2069.88	-49.61	-286.02	2135.80	2130.71	-26.84	25.70	-174.33	318.41	17.65	18.75	PASS
2213.00†	2162.21	-56.18	-323.87	2233.77	2226.67	-34.49	7.53	-173.89	338.31	18.34	19.15	PASS
2313.00†	2254.54	-62.74	-361.72	2331.74	2322.64	-42.13	-10.63	-173.51	358.22	19.05	19.49	PASS
2413.00†	2346.86	-69.31	-399.57	2429.71	2418.61	-49.78	-28.80	-173.16	378.15	19.82	19.75	PASS
2513.00†	2439.19	-75.87	-437.42	2527.68	2514.57	-57.42	-46.97	-172.85	398.09	20.55	20.02	PASS
2613.00†	2531.52	-82.44	-475.27	2625.65	2610.54	-65.07	-65.13	-172.57	418.04	21.34	20.23	PASS
2713.00†	2623.84	-89.01	-513.12	2723.62	2706.51	-72.71	-83.30	-172.31	438.00	22.14	20.40	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#10 WAKEMAN 20-17-2NCH (293'FSL & 2158'FEL, SEC.20) Well: WAKEMAN 20-17-2NCH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2716.17	-95.57	-550.97	2821.59	2802.47	-80.36	-101.47	-172.08	457.97	22.97	20.54	PASS
2913.00†	2808.50	-102.14	-588.82	2919.56	2898.44	-88.00	-119.63	-171.87	477.94	23.81	20.66	PASS
3013.00†	2900.82	-108.70	-626.68	3017.53	2994.41	-95.65	-137.80	-171.67	497.92	24.66	20.76	PASS
3113.00†	2993.15	-115.27	-664.53	3115.50	3090.37	-103.29	-155.97	-171.49	517.91	25.53	20.84	PASS
3213.00†	3085.48	-121.83	-702.38	3213.47	3186.34	-110.94	-174.14	-171.32	537.90	26.41	20.90	PASS
3313.00†	3177.80	-128.40	-740.23	3311.44	3282.31	-118.58	-192.30	-171.16	557.89	27.30	20.95	PASS
3413.00†	3270.13	-134.96	-778.08	3409.41	3378.28	-126.23	-210.47	-171.02	577.89	28.20	21.00	PASS
3513.00†	3362.45	-141.53	-815.93	3507.38	3474.24	-133.87	-228.64	-170.88	597.89	29.11	21.03	PASS
3613.00†	3454.78	-148.10	-853.78	3605.35	3570.21	-141.52	-246.80	-170.76	617.89	30.02	21.05	PASS
3713.00†	3547.11	-154.66	-891.63	3703.32	3666.18	-149.16	-264.97	-170.64	637.90	30.95	21.07	PASS
3813.00†	3639.43	-161.23	-929.48	3801.29	3762.14	-156.81	-283.14	-170.53	657.91	31.88	21.08	PASS
3913.00†	3731.76	-167.79	-967.33	3899.26	3858.11	-164.45	-301.30	-170.42	677.92	32.82	21.09	PASS
4013.00†	3824.09	-174.36	-1005.19	3997.23	3954.08	-172.10	-319.47	-170.32	697.93	33.76	21.09	PASS
4113.00†	3916.41	-180.92	-1043.04	4095.20	4050.04	-179.74	-337.64	-170.23	717.95	34.71	21.09	PASS
4213.00†	4008.74	-187.49	-1080.89	4193.17	4146.01	-187.39	-355.80	-170.14	737.96	35.66	21.09	PASS
4313.00†	4101.07	-194.05	-1118.74	4291.14	4241.98	-195.03	-373.97	-170.06	757.98	36.62	21.09	PASS
4413.00†	4193.39	-200.62	-1156.59	4389.11	4337.94	-202.68	-392.14	-169.98	778.00	37.58	21.08	PASS
4513.00†	4285.72	-207.19	-1194.44	4487.08	4433.91	-210.32	-410.31	-169.90	798.02	38.55	21.07	PASS
4613.00†	4378.05	-213.75	-1232.29	4585.05	4529.88	-217.97	-428.47	-169.83	818.04	39.52	21.06	PASS
4713.00†	4470.37	-220.32	-1270.14	4683.02	4625.84	-225.61	-446.64	-169.76	838.07	40.49	21.05	PASS
4813.00†	4562.70	-226.88	-1307.99	4780.99	4721.81	-233.26	-464.81	-169.70	858.09	41.47	21.03	PASS
4913.00†	4655.03	-233.45	-1345.84	4878.96	4817.78	-240.90	-482.97	-169.63	878.12	42.45	21.02	PASS
5013.00†	4747.35	-240.01	-1383.70	4976.93	4913.74	-248.55	-501.14	-169.57	898.14	43.43	21.01	PASS
5113.00†	4839.68	-246.58	-1421.55	5074.90	5009.71	-256.19	-519.31	-169.52	918.17	44.41	20.99	PASS
5213.00†	4932.01	-253.14	-1459.40	5172.87	5105.68	-263.84	-537.47	-169.46	938.20	45.40	20.98	PASS
5313.00†	5024.33	-259.71	-1497.25	5270.84	5201.65	-271.48	-555.64	-169.41	958.23	46.39	20.96	PASS
5413.00†	5116.66	-266.28	-1535.10	5368.81	5297.61	-279.13	-573.81	-169.36	978.26	47.38	20.94	PASS
5513.00†	5208.99	-272.84	-1572.95	5466.78	5393.58	-286.77	-591.97	-169.31	998.29	48.38	20.93	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.45	0.13	54.85	-1.73	50.44
8.5in Open Hole	1800.00	17719.88	15919.88	1799.45	N/A	-1.73	50.44	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17719.88	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-2NCH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: PUTNAM 41-18 AWB Offset Wellpath: PUTNAM 41-18 AWP

Facility: SEC.18-T01S-R65W Slot: SLOT#01 EX PUTNAM 41-18 (990'FNL & 990'FEL, SEC.18, SI,8092') Well: PUTNAM 41-18 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	104.00	9200.63	-4217.61	-24.63	10121.67	25.40	411.40	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: PUTNAM 41-18 AWB Offset Wellpath: PUTNAM 41-18 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

WELLPATH COMPOSITION - Offset Wellbore: PUTNAM 41-18 AWB Offset Wellpath: PUTNAM 41-18 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8092.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8092>	PUTNAM 41-18 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: PUTNAM 41-18 AWB Offset Wellpath: PUTNAM 41-18 AWP

MD Reference: Rig on SLOT#01 EX PUTNAM 41-18 (990'FNL & 990'FEL, SEC.18, SI,8092') (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#09 WAKEMAN 20-17-2NBH (293'FSL & 2143'FEL, SEC.20)				Well: WAKEMAN 20-17-2NBH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.20	104.95	89.89	104.95	1.40	173.59	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.20	104.95	89.89	104.95	1.73	112.11	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.20	104.95	89.89	104.95	2.31	69.22	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.20	104.95	89.89	104.95	2.91	49.35	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.20	104.95	89.89	104.95	3.53	38.20	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.20	104.95	89.89	104.95	4.15	31.11	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.20	104.95	89.89	104.95	4.77	26.23	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.20	104.95	89.89	104.95	5.40	22.67	PASS
800.00	800.00	0.00	0.00	800.00	800.00	0.20	104.95	89.89	104.95	5.94	20.27	PASS
813.00†	813.00	-0.01	-0.03	813.00	813.00	0.20	104.95	-170.27	104.98	6.02	19.96	PASS
913.00†	912.97	-0.38	-2.20	912.97	912.97	0.20	104.95	-170.46	107.15	6.77	17.81	PASS
1013.00†	1012.80	-1.35	-7.80	1012.80	1012.80	0.20	104.95	-170.92	112.76	7.81	15.97	PASS
1113.00†	1112.38	-2.92	-16.83	1112.38	1112.38	0.20	104.95	-171.58	121.82	8.76	15.21	PASS
1213.00†	1211.57	-5.08	-29.28	1211.57	1211.57	0.20	104.95	-172.33	134.34	9.65	15.09	PASS
1313.00†	1310.26	-7.83	-45.14	1310.26	1310.26	0.20	104.95	-173.11	150.30	10.51	15.41	PASS
1413.00†	1408.33	-11.17	-64.37	1408.33	1408.33	0.20	104.95	-173.86	169.71	11.33	16.04	PASS
1513.00†	1505.66	-15.09	-86.97	1505.66	1505.66	0.20	104.95	-174.55	192.53	12.14	16.91	PASS
1613.00†	1602.13	-19.58	-112.90	1602.29	1602.29	0.20	104.95	-175.16	218.75	12.93	17.96	PASS
1713.00†	1697.62	-24.65	-142.14	1705.71	1705.69	-0.87	103.32	-175.52	246.74	13.81	18.91	PASS
1813.00†	1792.02	-30.29	-174.63	1810.06	1809.87	-4.01	98.51	-175.48	274.99	14.72	19.57	PASS
1913.00†	1885.21	-36.49	-210.36	1915.32	1914.68	-9.29	90.44	-175.15	303.46	15.74	20.14	PASS
1929.59	1900.54	-37.57	-216.59	1932.86	1932.11	-10.37	88.79	-175.07	308.21	15.90	20.24	PASS
2013.00†	1977.56	-43.05	-248.17	2021.82	2020.29	-16.76	79.01	-174.61	331.00	16.59	20.80	PASS
2113.00†	2069.88	-49.61	-286.02	2118.32	2115.75	-24.51	67.16	-174.07	357.03	17.24	21.56	PASS
2213.00†	2162.21	-56.18	-323.87	2214.82	2211.21	-32.26	55.31	-173.60	383.08	17.92	22.22	PASS
2313.00†	2254.54	-62.74	-361.72	2311.32	2306.67	-40.00	43.47	-173.19	409.16	18.63	22.80	PASS
2413.00†	2346.86	-69.31	-399.57	2407.82	2402.13	-47.75	31.62	-172.83	435.25	19.36	23.30	PASS
2513.00†	2439.19	-75.87	-437.42	2504.33	2497.58	-55.49	19.77	-172.51	461.36	20.11	23.74	PASS
2613.00†	2531.52	-82.44	-475.27	2600.83	2593.04	-63.24	7.93	-172.22	487.48	20.89	24.11	PASS
2713.00†	2623.84	-89.01	-513.12	2697.33	2688.50	-70.98	-3.92	-171.97	513.61	21.68	24.46	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293°FSL & 2248°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#09 WAKEMAN 20-17-2NBH (293°FSL & 2143°FEL, SEC.20) Well: WAKEMAN 20-17-2NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2716.17	-95.57	-550.97	2793.83	2783.96	-78.73	-15.77	-171.74	539.74	22.49	24.75	PASS
2913.00†	2808.50	-102.14	-588.82	2890.33	2879.42	-86.47	-27.62	-171.53	565.89	23.31	25.01	PASS
3013.00†	2900.82	-108.70	-626.68	2986.83	2974.87	-94.22	-39.46	-171.34	592.04	24.14	25.24	PASS
3113.00†	2993.15	-115.27	-664.53	3083.34	3070.33	-101.97	-51.31	-171.16	618.20	24.99	25.43	PASS
3213.00†	3085.48	-121.83	-702.38	3179.84	3165.79	-109.71	-63.16	-171.00	644.36	25.84	25.61	PASS
3313.00†	3177.80	-128.40	-740.23	3276.34	3261.25	-117.46	-75.00	-170.85	670.53	26.71	25.76	PASS
3413.00†	3270.13	-134.96	-778.08	3372.84	3356.71	-125.20	-86.85	-170.71	696.70	27.58	25.90	PASS
3513.00†	3362.45	-141.53	-815.93	3469.34	3452.17	-132.95	-98.70	-170.59	722.87	28.47	26.02	PASS
3613.00†	3454.78	-148.10	-853.78	3565.85	3547.62	-140.69	-110.55	-170.47	749.05	29.36	26.12	PASS
3713.00†	3547.11	-154.66	-891.63	3662.35	3643.08	-148.44	-122.39	-170.36	775.23	30.25	26.22	PASS
3813.00†	3639.43	-161.23	-929.48	3758.85	3738.54	-156.18	-134.24	-170.25	801.41	31.15	26.30	PASS
3913.00†	3731.76	-167.79	-967.33	3855.35	3834.00	-163.93	-146.09	-170.16	827.60	32.06	26.37	PASS
4013.00†	3824.09	-174.36	-1005.19	3951.85	3929.46	-171.68	-157.93	-170.07	853.78	32.97	26.44	PASS
4113.00†	3916.41	-180.92	-1043.04	4048.35	4024.91	-179.42	-169.78	-169.98	879.97	33.89	26.50	PASS
4213.00†	4008.74	-187.49	-1080.89	4144.86	4120.37	-187.17	-181.63	-169.90	906.16	34.81	26.55	PASS
4313.00†	4101.07	-194.05	-1118.74	4241.36	4215.83	-194.91	-193.48	-169.82	932.35	35.74	26.60	PASS
4413.00†	4193.39	-200.62	-1156.59	4337.86	4311.29	-202.66	-205.32	-169.75	958.55	36.66	26.64	PASS
4513.00†	4285.72	-207.19	-1194.44	4434.36	4406.75	-210.40	-217.17	-169.68	984.74	37.60	26.68	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.84	0.12	63.98	-1.04	62.20
8.5in Open Hole	1800.00	17593.78	15793.78	1799.84	N/A	-1.04	62.20	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)			
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment
13.00	17593.78	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)	WAKEMAN 20-17-2NBH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)	
MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NCH PWB Offset Wellpath: WAKEMAN 20-17-3NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)				Well: WAKEMAN 20-17-3NCH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.26	119.93	89.87	119.93	1.40	198.54	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.26	119.93	89.87	119.93	1.73	128.65	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.26	119.93	89.87	119.93	2.30	79.47	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.26	119.93	89.87	119.93	2.91	56.62	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.26	119.93	89.87	119.93	3.52	43.81	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.26	119.93	89.87	119.93	4.14	35.67	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.26	119.93	89.87	119.93	4.76	30.06	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.26	119.93	89.87	119.93	5.39	25.97	PASS
800.00	800.00	0.00	0.00	800.00	800.00	0.26	119.93	89.87	119.93	5.93	23.22	PASS
813.00†	813.00	-0.01	-0.03	813.00	813.00	0.26	119.93	-170.29	119.96	6.01	22.87	PASS
913.00†	912.97	-0.38	-2.20	912.97	912.97	0.26	119.93	-170.45	122.12	6.76	20.35	PASS
1013.00†	1012.80	-1.35	-7.80	1012.80	1012.80	0.26	119.93	-170.86	127.73	7.80	18.13	PASS
1113.00†	1112.38	-2.92	-16.83	1112.38	1112.38	0.26	119.93	-171.44	136.79	8.75	17.11	PASS
1213.00†	1211.57	-5.08	-29.28	1211.57	1211.57	0.26	119.93	-172.13	149.30	9.64	16.80	PASS
1313.00†	1310.26	-7.83	-45.14	1310.26	1310.26	0.26	119.93	-172.85	165.26	10.50	16.96	PASS
1413.00†	1408.33	-11.17	-64.37	1408.33	1408.33	0.26	119.93	-173.56	184.65	11.32	17.47	PASS
1513.00†	1505.66	-15.09	-86.97	1505.93	1505.93	0.26	119.92	-174.23	207.46	12.13	18.24	PASS
1613.00†	1602.13	-19.58	-112.90	1607.62	1607.60	-1.41	118.79	-174.46	232.47	12.97	19.04	PASS
1713.00†	1697.62	-24.65	-142.14	1709.57	1709.38	-6.07	115.61	-174.07	258.69	13.89	19.70	PASS
1813.00†	1792.02	-30.29	-174.63	1808.97	1808.40	-13.25	110.72	-173.30	286.33	14.64	20.50	PASS
1913.00†	1885.21	-36.49	-210.36	1904.11	1903.12	-20.59	105.72	-172.65	316.99	15.44	21.47	PASS
1929.59	1900.54	-37.57	-216.59	1919.78	1918.73	-21.80	104.90	-172.56	322.39	15.57	21.65	PASS
2013.00†	1977.56	-43.05	-248.17	1998.54	1997.15	-27.87	100.76	-172.23	349.81	16.11	22.66	PASS
2113.00†	2069.88	-49.61	-286.02	2092.96	2091.15	-35.16	95.80	-171.89	382.68	16.79	23.76	PASS
2213.00†	2162.21	-56.18	-323.87	2187.38	2185.16	-42.44	90.84	-171.60	415.57	17.49	24.72	PASS
2313.00†	2254.54	-62.74	-361.72	2281.80	2279.17	-49.73	85.88	-171.35	448.46	18.21	25.59	PASS
2413.00†	2346.86	-69.31	-399.57	2376.22	2373.17	-57.01	80.91	-171.14	481.36	18.95	26.35	PASS
2513.00†	2439.19	-75.87	-437.42	2470.64	2467.18	-64.29	75.95	-170.96	514.27	19.72	27.01	PASS
2613.00†	2531.52	-82.44	-475.27	2565.06	2561.19	-71.58	70.99	-170.80	547.18	20.48	27.64	PASS
2713.00†	2623.84	-89.01	-513.12	2659.48	2655.19	-78.86	66.03	-170.65	580.09	21.27	28.18	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NCH PWB Offset Wellpath: WAKEMAN 20-17-3NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20) Well: WAKEMAN 20-17-3NCH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2716.17	-95.57	-550.97	2753.90	2749.20	-86.14	61.07	-170.52	613.01	22.06	28.67	PASS	
2913.00†	2808.50	-102.14	-588.82	2848.31	2843.21	-93.43	56.11	-170.41	645.93	22.87	29.11	PASS	
3013.00†	2900.82	-108.70	-626.68	2942.73	2937.21	-100.71	51.15	-170.30	678.85	23.69	29.50	PASS	
3113.00†	2993.15	-115.27	-664.53	3037.15	3031.22	-108.00	46.19	-170.21	711.77	24.52	29.86	PASS	
3213.00†	3085.48	-121.83	-702.38	3131.57	3125.23	-115.28	41.22	-170.12	744.69	25.35	30.19	PASS	
3313.00†	3177.80	-128.40	-740.23	3225.99	3219.23	-122.56	36.26	-170.04	777.62	26.20	30.48	PASS	
3413.00†	3270.13	-134.96	-778.08	3320.41	3313.24	-129.85	31.30	-169.97	810.54	27.05	30.75	PASS	
3513.00†	3362.45	-141.53	-815.93	3414.83	3407.25	-137.13	26.34	-169.90	843.47	27.90	30.99	PASS	
3613.00†	3454.78	-148.10	-853.78	3509.25	3501.25	-144.41	21.38	-169.84	876.40	28.76	31.22	PASS	
3713.00†	3547.11	-154.66	-891.63	3603.67	3595.26	-151.70	16.42	-169.79	909.33	29.62	31.42	PASS	
3813.00†	3639.43	-161.23	-929.48	3698.08	3689.27	-158.98	11.46	-169.73	942.26	30.49	31.61	PASS	
3913.00†	3731.76	-167.79	-967.33	3792.50	3783.27	-166.27	6.49	-169.68	975.19	31.37	31.79	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-3NCH PWB Offset Wellpath: WAKEMAN 20-17-3NCH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-3NCH PWB Offset Wellpath: WAKEMAN 20-17-3NCH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.47	0.16	73.11	-3.75	70.45
8.5in Open Hole	1800.00	17619.74	15819.74	1799.47	N/A	-3.75	70.45	N/A	N/A



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-3NCH PWB Offset Wellpath: WAKEMAN 20-17-3NCH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17619.74	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-3NCH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-3NCH PWB Offset Wellpath: WAKEMAN 20-17-3NCH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: COLLINS HH #20-3J AWB Offset Wellpath: COLLINS HH #20-3J AWP

Facility: SEC.20-T1S-R65W		Slot: SLOT#02 EX. COLLINS HH #20-3J (814'FNL & 1886'FWL, SEC.20,8163, PR)		Well: COLLINS HH #20-3J		Threshold Value=1.00 † = Interpolated/extrapolated station							
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	49.00	4194.16	-1234.94	-16.41	4372.34	25.40	177.70	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: COLLINS HH #20-3J AWB Offset Wellpath: COLLINS HH #20-3J AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: COLLINS HH #20-3J AWB Offset Wellpath: COLLINS HH #20-3J AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1529.00	1529.00	49.00	1578.00	2553.27	-764.47	2553.27	-764.47
8.625in Casing Surface	0.00	1529.00	1529.00	49.00	1578.00	2553.27	-764.47	2553.27	-764.47
7.875in Open Hole	1529.00	8141.00	6612.00	1578.00	8190.00	2553.27	-764.47	2553.27	-764.47
4.5in Casing Production	0.00	8141.00	8141.00	49.00	8190.00	2553.27	-764.47	2553.27	-764.47

WELLPATH COMPOSITION - Offset Wellbore: COLLINS HH #20-3J AWB Offset Wellpath: COLLINS HH #20-3J AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8163.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8163>	COLLINS HH #20-3J AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: COLLINS HH #20-3J AWB Offset Wellpath: COLLINS HH #20-3J AWP

MD Reference: Rig on SLOT#02 EX. COLLINS HH #20-3J (814'FNL & 1886'FWL, SEC.20,OG) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)				Well: WAKEMAN 20-17-3NBH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.26	134.98	89.89	134.98	1.40	223.64	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.26	134.98	89.89	134.98	1.73	145.29	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.26	134.98	89.89	134.98	2.30	89.78	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.26	134.98	89.89	134.98	2.90	63.94	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.26	134.98	89.89	134.98	3.52	49.45	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.26	134.98	89.89	134.98	4.14	40.25	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.26	134.98	89.89	134.98	4.76	33.92	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.26	134.98	89.89	134.98	5.38	29.29	PASS
800.00	800.00	0.00	0.00	800.00	800.00	0.26	134.98	89.89	134.98	5.93	26.19	PASS
813.00†	813.00	-0.01	-0.03	813.00	813.00	0.26	134.98	-170.27	135.01	6.01	25.79	PASS
913.00†	912.97	-0.38	-2.20	912.97	912.97	0.26	134.98	-170.42	137.18	6.76	22.90	PASS
1013.00†	1012.80	-1.35	-7.80	1012.80	1012.80	0.26	134.98	-170.78	142.79	7.80	20.30	PASS
1113.00†	1112.38	-2.92	-16.83	1112.38	1112.38	0.26	134.98	-171.31	151.85	8.74	19.02	PASS
1213.00†	1211.57	-5.08	-29.28	1211.57	1211.57	0.26	134.98	-171.94	164.35	9.63	18.52	PASS
1313.00†	1310.26	-7.83	-45.14	1310.26	1310.26	0.26	134.98	-172.61	180.30	10.49	18.53	PASS
1413.00†	1408.33	-11.17	-64.37	1408.27	1408.27	0.24	134.99	-173.28	199.69	11.31	18.92	PASS
1513.00†	1505.66	-15.09	-86.97	1504.86	1504.84	-1.64	135.29	-173.42	222.67	12.12	19.61	PASS
1613.00†	1602.13	-19.58	-112.90	1600.39	1600.22	-6.66	136.11	-172.83	249.35	12.91	20.52	PASS
1713.00†	1697.62	-24.65	-142.14	1695.41	1694.97	-13.84	137.28	-171.95	279.63	13.73	21.56	PASS
1813.00†	1792.02	-30.29	-174.63	1789.55	1788.83	-21.04	138.45	-171.29	313.23	14.46	22.80	PASS
1913.00†	1885.21	-36.49	-210.36	1882.49	1881.49	-28.14	139.60	-170.82	350.08	15.22	24.08	PASS
1929.59	1900.54	-37.57	-216.59	1897.78	1896.73	-29.31	139.79	-170.75	356.50	15.35	24.30	PASS
2013.00†	1977.56	-43.05	-248.17	1974.59	1973.31	-35.18	140.75	-170.57	389.02	15.90	25.56	PASS
2113.00†	2069.88	-49.61	-286.02	2066.67	2065.12	-42.21	141.89	-170.38	428.00	16.58	26.93	PASS
2213.00†	2162.21	-56.18	-323.87	2158.75	2156.92	-49.25	143.04	-170.23	466.98	17.27	28.16	PASS
2313.00†	2254.54	-62.74	-361.72	2250.83	2248.72	-56.29	144.18	-170.10	505.97	18.00	29.23	PASS
2413.00†	2346.86	-69.31	-399.57	2342.91	2340.53	-63.32	145.32	-169.99	544.96	18.73	30.19	PASS
2513.00†	2439.19	-75.87	-437.42	2435.00	2432.33	-70.36	146.47	-169.89	583.96	19.48	31.08	PASS
2613.00†	2531.52	-82.44	-475.27	2527.08	2524.14	-77.40	147.61	-169.81	622.95	20.24	31.85	PASS
2713.00†	2623.84	-89.01	-513.12	2619.16	2615.94	-84.44	148.76	-169.74	661.94	21.02	32.56	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20) Well: WAKEMAN 20-17-3NBH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2716.17	-95.57	-550.97	2711.24	2707.75	-91.47	149.90	-169.67	700.94	21.80	33.19	PASS	
2913.00†	2808.50	-102.14	-588.82	2803.32	2799.55	-98.51	151.05	-169.61	739.93	22.60	33.77	PASS	
3013.00†	2900.82	-108.70	-626.68	2895.40	2891.35	-105.55	152.19	-169.56	778.93	23.40	34.29	PASS	
3113.00†	2993.15	-115.27	-664.53	2987.48	2983.16	-112.58	153.33	-169.51	817.93	24.21	34.77	PASS	
3213.00†	3085.48	-121.83	-702.38	3079.56	3074.96	-119.62	154.48	-169.47	856.92	25.03	35.21	PASS	
3313.00†	3177.80	-128.40	-740.23	3171.64	3166.77	-126.66	155.62	-169.43	895.92	25.85	35.60	PASS	
3413.00†	3270.13	-134.96	-778.08	3263.72	3258.57	-133.69	156.77	-169.39	934.92	26.68	35.97	PASS	
3513.00†	3362.45	-141.53	-815.93	3355.80	3350.38	-140.73	157.91	-169.36	973.92	27.51	36.30	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.24	0.16	82.29	-6.58	83.38
8.5in Open Hole	1800.00	17542.23	15742.23	1799.24	7395.00	-6.58	83.38	3039.33	61.91

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17542.23	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-3NBH PWB



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)	
MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#06 WAKEMAN 20-17-3NAH (293'FSL & 2098'FEL, SEC.20)				Well: WAKEMAN 20-17-3NAH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.36	149.93	89.86	149.93	1.40	248.55	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.36	149.93	89.86	149.93	1.73	160.97	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.36	149.93	89.86	149.93	2.30	99.43	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.36	149.93	89.86	149.93	2.91	70.85	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.36	149.93	89.86	149.93	3.52	54.82	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.36	149.93	89.86	149.93	4.14	44.64	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.36	149.93	89.86	149.93	4.77	37.62	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.36	149.93	89.86	149.93	5.39	32.50	PASS
800.00	800.00	0.00	0.00	800.00	800.00	0.36	149.93	89.86	149.93	5.93	29.06	PASS
813.00†	813.00	-0.01	-0.03	813.00	813.00	0.36	149.93	-170.30	149.96	6.01	28.62	PASS
913.00†	912.97	-0.38	-2.20	912.97	912.97	0.36	149.93	-170.43	152.13	6.76	25.38	PASS
1013.00†	1012.80	-1.35	-7.80	1012.80	1012.80	0.36	149.93	-170.76	157.74	7.80	22.42	PASS
1113.00†	1112.38	-2.92	-16.83	1112.38	1112.38	0.36	149.93	-171.23	166.79	8.75	20.88	PASS
1213.00†	1211.57	-5.08	-29.28	1211.57	1211.57	0.36	149.93	-171.81	179.29	9.64	20.19	PASS
1313.00†	1310.26	-7.83	-45.14	1309.87	1309.87	0.34	149.94	-172.44	195.25	10.49	20.06	PASS
1413.00†	1408.33	-11.17	-64.37	1403.82	1403.80	-1.12	151.09	-172.63	215.74	11.33	20.42	PASS
1513.00†	1505.66	-15.09	-86.97	1496.16	1496.01	-4.93	154.07	-172.26	241.45	12.21	21.10	PASS
1613.00†	1602.13	-19.58	-112.90	1586.62	1586.15	-10.91	158.77	-171.51	272.28	13.05	22.17	PASS
1713.00†	1697.62	-24.65	-142.14	1680.26	1679.32	-18.20	164.48	-170.73	307.23	13.89	23.41	PASS
1813.00†	1792.02	-30.29	-174.63	1772.65	1771.26	-25.39	170.12	-170.17	345.42	14.58	24.93	PASS
1913.00†	1885.21	-36.49	-210.36	1863.68	1861.85	-32.47	175.68	-169.77	386.77	15.32	26.41	PASS
1929.59	1900.54	-37.57	-216.59	1878.64	1876.73	-33.64	176.59	-169.72	393.93	15.45	26.67	PASS
2013.00†	1977.56	-43.05	-248.17	1953.78	1951.50	-39.48	181.18	-169.61	430.15	15.99	28.10	PASS
2113.00†	2069.88	-49.61	-286.02	2043.85	2041.13	-46.49	186.68	-169.50	473.58	16.65	29.66	PASS
2213.00†	2162.21	-56.18	-323.87	2133.93	2130.77	-53.50	192.17	-169.41	517.01	17.35	31.03	PASS
2313.00†	2254.54	-62.74	-361.72	2224.00	2220.40	-60.51	197.67	-169.34	560.44	18.06	32.26	PASS
2413.00†	2346.86	-69.31	-399.57	2314.08	2310.03	-67.52	203.17	-169.27	603.87	18.78	33.38	PASS
2513.00†	2439.19	-75.87	-437.42	2404.15	2399.67	-74.53	208.67	-169.22	647.30	19.52	34.38	PASS
2613.00†	2531.52	-82.44	-475.27	2494.23	2489.30	-81.53	214.17	-169.17	690.73	20.27	35.28	PASS
2713.00†	2623.84	-89.01	-513.12	2584.30	2578.93	-88.54	219.66	-169.12	734.16	21.03	36.09	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293°FSL & 2248°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#06 WAKEMAN 20-17-3NAH (293°FSL & 2098°FEL, SEC.20) Well: WAKEMAN 20-17-3NAH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2716.17	-95.57	-550.97	2674.38	2668.57	-95.55	225.16	-169.09	777.59	21.80	36.83	PASS
2913.00†	2808.50	-102.14	-588.82	2764.45	2758.20	-102.56	230.66	-169.05	821.03	22.59	37.49	PASS
3013.00†	2900.82	-108.70	-626.68	2854.52	2847.83	-109.57	236.16	-169.02	864.46	23.38	38.10	PASS
3113.00†	2993.15	-115.27	-664.53	2944.60	2937.46	-116.58	241.65	-168.99	907.89	24.18	38.66	PASS
3213.00†	3085.48	-121.83	-702.38	3034.67	3027.10	-123.59	247.15	-168.97	951.32	24.98	39.16	PASS
3313.00†	3177.80	-128.40	-740.23	3124.75	3116.73	-130.59	252.65	-168.94	994.76	25.79	39.63	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1798.48	0.22	91.40	-8.28	98.06
8.5in Open Hole	1800.00	17376.39	15576.39	1798.48	N/A	-8.28	98.06	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17376.39	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-3NAH PWB



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)				Well: WAKEMAN 20-17-3CDH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.31	164.96	89.89	164.96	1.40	273.59	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.31	164.96	89.89	164.96	1.73	177.02	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.31	164.96	89.89	164.96	2.30	109.33	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.31	164.96	89.89	164.96	2.91	77.92	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.31	164.96	89.89	164.96	3.52	60.29	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.31	164.96	89.89	164.96	4.15	49.10	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.31	164.96	89.89	164.96	4.77	41.39	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.31	164.96	89.89	164.96	5.39	35.76	PASS
800.00	800.00	0.00	0.00	800.00	800.00	0.31	164.96	89.89	164.96	5.94	31.98	PASS
813.00†	813.00	-0.01	-0.03	813.00	813.00	0.31	164.96	-170.27	164.99	6.02	31.49	PASS
913.00†	912.97	-0.38	-2.20	912.97	912.97	0.31	164.96	-170.39	167.16	6.77	27.89	PASS
1013.00†	1012.80	-1.35	-7.80	1012.80	1012.80	0.31	164.96	-170.69	172.77	7.81	24.55	PASS
1113.00†	1112.38	-2.92	-16.83	1112.38	1112.38	0.31	164.96	-171.13	181.82	8.75	22.77	PASS
1213.00†	1211.57	-5.08	-29.28	1211.06	1211.06	0.30	164.97	-171.66	194.33	9.64	21.90	PASS
1313.00†	1310.26	-7.83	-45.14	1305.03	1305.01	-1.06	166.31	-171.83	211.62	10.52	21.70	PASS
1413.00†	1408.33	-11.17	-64.37	1397.49	1397.33	-4.54	169.73	-171.51	234.45	11.45	21.94	PASS
1513.00†	1505.66	-15.09	-86.97	1488.19	1487.70	-10.02	175.11	-170.84	262.74	12.33	22.72	PASS
1613.00†	1602.13	-19.58	-112.90	1582.70	1581.75	-16.71	181.68	-170.14	295.30	13.12	23.90	PASS
1713.00†	1697.62	-24.65	-142.14	1676.04	1674.63	-23.32	188.17	-169.66	331.11	13.95	25.12	PASS
1813.00†	1792.02	-30.29	-174.63	1768.12	1766.25	-29.84	194.58	-169.33	370.11	14.65	26.59	PASS
1913.00†	1885.21	-36.49	-210.36	1858.80	1856.48	-36.26	200.88	-169.11	412.24	15.39	28.04	PASS
1929.59	1900.54	-37.57	-216.59	1873.70	1871.31	-37.32	201.92	-169.08	419.53	15.51	28.29	PASS
2013.00†	1977.56	-43.05	-248.17	1948.52	1945.76	-42.61	207.12	-169.10	456.40	16.04	29.73	PASS
2113.00†	2069.88	-49.61	-286.02	2038.23	2035.02	-48.97	213.36	-169.13	500.59	16.71	31.23	PASS
2213.00†	2162.21	-56.18	-323.87	2127.93	2124.29	-55.32	219.60	-169.15	544.79	17.40	32.59	PASS
2313.00†	2254.54	-62.74	-361.72	2217.63	2213.55	-61.67	225.84	-169.16	588.99	18.09	33.84	PASS
2413.00†	2346.86	-69.31	-399.57	2307.34	2302.81	-68.02	232.08	-169.17	633.18	18.81	34.95	PASS
2513.00†	2439.19	-75.87	-437.42	2397.04	2392.07	-74.37	238.32	-169.19	677.38	19.53	35.94	PASS
2613.00†	2531.52	-82.44	-475.27	2486.74	2481.33	-80.72	244.56	-169.20	721.58	20.27	36.84	PASS
2713.00†	2623.84	-89.01	-513.12	2576.44	2570.59	-87.07	250.79	-169.21	765.77	21.02	37.66	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)				Well: WAKEMAN 20-17-3CDH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2716.17	-95.57	-550.97	2666.15	2659.85	-93.43	257.03	-169.21	809.97	21.79	38.40	PASS
2913.00†	2808.50	-102.14	-588.82	2755.85	2749.11	-99.78	263.27	-169.22	854.17	22.55	39.07	PASS
3013.00†	2900.82	-108.70	-626.68	2845.55	2838.37	-106.13	269.51	-169.23	898.36	23.33	39.68	PASS
3113.00†	2993.15	-115.27	-664.53	2935.26	2927.63	-112.48	275.75	-169.23	942.56	24.12	40.24	PASS
3213.00†	3085.48	-121.83	-702.38	3024.96	3016.89	-118.83	281.99	-169.24	986.76	24.91	40.75	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1797.97	0.19	100.56	-9.69	110.26
8.5in Open Hole	1800.00	17786.94	15986.94	1797.97	7628.00	-9.69	110.26	3039.03	191.72

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17786.94	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-3CDH PWB



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)	
MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#04 WAKEMAN 20-17-4NCH (293'FSL & 2068'FEL, SEC.20)				Well: WAKEMAN 20-17-4NCH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.41	179.96	89.87	179.96	1.40	298.60	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.41	179.96	89.87	179.96	1.73	192.73	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.41	179.96	89.87	179.96	2.31	118.99	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.41	179.96	89.87	179.96	2.91	84.84	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.41	179.96	89.87	179.96	3.53	65.67	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.41	179.96	89.87	179.96	4.15	53.50	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.41	179.96	89.87	179.96	4.77	45.11	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.41	179.96	89.87	179.96	5.40	38.98	PASS
800.00	800.00	0.00	0.00	800.00	800.00	0.41	179.96	89.87	179.96	5.94	34.86	PASS
813.00†	813.00	-0.01	-0.03	813.00	813.00	0.41	179.96	-170.29	179.99	6.02	34.32	PASS
913.00†	912.97	-0.38	-2.20	912.97	912.97	0.41	179.96	-170.40	182.16	6.77	30.37	PASS
1013.00†	1012.80	-1.35	-7.80	1012.80	1012.80	0.41	179.96	-170.67	187.77	7.81	26.67	PASS
1113.00†	1112.38	-2.92	-16.83	1111.68	1111.68	0.40	179.98	-171.07	196.84	8.76	24.65	PASS
1213.00†	1211.57	-5.08	-29.28	1204.87	1204.87	-0.51	181.64	-171.27	211.08	9.70	23.64	PASS
1313.00†	1310.26	-7.83	-45.14	1296.64	1296.49	-2.82	185.88	-171.17	231.48	10.75	23.20	PASS
1413.00†	1408.33	-11.17	-64.37	1386.42	1385.94	-6.44	192.52	-170.84	257.91	11.77	23.45	PASS
1513.00†	1505.66	-15.09	-86.97	1473.76	1472.70	-11.26	201.33	-170.36	290.20	12.65	24.42	PASS
1613.00†	1602.13	-19.58	-112.90	1560.83	1558.86	-17.25	212.30	-169.79	328.08	13.50	25.77	PASS
1713.00†	1697.62	-24.65	-142.14	1651.74	1648.74	-23.80	224.30	-169.32	369.69	14.26	27.41	PASS
1813.00†	1792.02	-30.29	-174.63	1741.18	1737.16	-30.25	236.11	-168.99	414.40	14.93	29.18	PASS
1913.00†	1885.21	-36.49	-210.36	1829.03	1824.02	-36.59	247.72	-168.76	462.14	15.66	30.87	PASS
1929.59	1900.54	-37.57	-216.59	1843.44	1838.26	-37.63	249.62	-168.73	470.35	15.78	31.16	PASS
2013.00†	1977.56	-43.05	-248.17	1915.81	1909.80	-42.85	259.18	-168.77	511.85	16.29	32.80	PASS
2113.00†	2069.88	-49.61	-286.02	2002.56	1995.57	-49.10	270.63	-168.80	561.59	16.93	34.58	PASS
2213.00†	2162.21	-56.18	-323.87	2089.31	2081.33	-55.36	282.09	-168.83	611.33	17.61	36.14	PASS
2313.00†	2254.54	-62.74	-361.72	2176.06	2167.09	-61.62	293.54	-168.85	661.07	18.26	37.62	PASS
2413.00†	2346.86	-69.31	-399.57	2262.81	2252.85	-67.87	305.00	-168.87	710.81	18.95	38.92	PASS
2513.00†	2439.19	-75.87	-437.42	2349.56	2338.62	-74.13	316.45	-168.89	760.56	19.66	40.09	PASS
2613.00†	2531.52	-82.44	-475.27	2436.31	2424.38	-80.39	327.91	-168.91	810.30	20.38	41.16	PASS
2713.00†	2623.84	-89.01	-513.12	2523.06	2510.14	-86.64	339.37	-168.92	860.04	21.11	42.12	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#04 WAKEMAN 20-17-4NCH (293'FSL & 2068'FEL, SEC.20)		Well: WAKEMAN 20-17-4NCH		Threshold Value=1.00		† = interpolated/extrapolated station					
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2716.17	-95.57	-550.97	2609.81	2595.91	-92.90	350.82	-168.93	909.78	21.85	42.99	PASS	
2913.00†	2808.50	-102.14	-588.82	2696.56	2681.67	-99.16	362.28	-168.95	959.53	22.61	43.79	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1795.31	0.25	109.70	-10.39	129.19
8.5in Open Hole	1800.00	17654.03	15854.03	1795.31	7458.00	-10.39	129.19	3038.74	316.97

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17654.03	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-4NCH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP

Facility: SEC.17-T01S-R65W				Slot: SLOT#01 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL, SEC.17, OG, SI, 8190)				Well: CHAVEZ #7-17		Threshold Value=1.00 † = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]		C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	40.00	8360.49	179.88	1.23		8362.47	25.40	339.88	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1472.00	1472.00	40.00	1512.00	5096.95	86.24	5096.95	86.24
8.625in Casing Surface	0.00	1472.00	1472.00	40.00	1512.00	5096.95	86.24	5096.95	86.24
7.875in Open Hole	1472.00	8173.00	6701.00	1512.00	8213.00	5096.95	86.24	5096.95	86.24
4.5in Casing Production	0.00	8173.00	8173.00	40.00	8213.00	5096.95	86.24	5096.95	86.24

WELLPATH COMPOSITION - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8190.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8190>	CHAVEZ #7-17 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP

MD Reference: Rig on SLOT#04 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL, SEC.17, OG, SI) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NBH PWB Offset Wellpath: WAKEMAN 20-17-4NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#03 WAKEMAN 20-17-4NBH (293'FSL & 2053'FEL, SEC.20)				Well: WAKEMAN 20-17-4NBH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.48	194.96	89.86	194.96	1.40	323.60	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.48	194.96	89.86	194.96	1.73	208.67	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.48	194.96	89.86	194.96	2.31	128.81	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.48	194.96	89.86	194.96	2.92	91.86	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.48	194.96	89.86	194.96	3.53	71.12	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.48	194.96	89.86	194.96	4.15	57.94	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.48	194.96	89.86	194.96	4.78	48.86	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.48	194.96	89.86	194.96	5.40	42.22	PASS
800.00	800.00	0.00	0.00	800.00	800.00	0.48	194.96	89.86	194.96	5.94	37.76	PASS
813.00†	813.00	-0.01	-0.03	813.00	813.00	0.48	194.96	-170.30	194.99	6.02	37.18	PASS
913.00†	912.97	-0.38	-2.20	912.97	912.97	0.48	194.96	-170.40	197.16	6.78	32.87	PASS
1013.00†	1012.80	-1.35	-7.80	1012.01	1012.01	0.47	194.98	-170.65	202.79	7.81	28.82	PASS
1113.00†	1112.38	-2.92	-16.83	1105.09	1105.07	-0.19	196.77	-170.80	213.74	8.83	26.54	PASS
1213.00†	1211.57	-5.08	-29.28	1196.93	1196.77	-1.88	201.30	-170.77	231.08	9.97	25.13	PASS
1313.00†	1310.26	-7.83	-45.14	1286.98	1286.50	-4.54	208.42	-170.60	254.69	11.03	24.83	PASS
1413.00†	1408.33	-11.17	-64.37	1374.75	1373.68	-8.07	217.89	-170.32	284.40	11.98	25.37	PASS
1513.00†	1505.66	-15.09	-86.97	1459.79	1457.81	-12.38	229.46	-169.98	320.04	12.92	26.34	PASS
1613.00†	1602.13	-19.58	-112.90	1541.71	1538.49	-17.35	242.81	-169.59	361.37	13.79	27.75	PASS
1713.00†	1697.62	-24.65	-142.14	1623.68	1618.80	-23.08	258.19	-169.19	408.01	14.56	29.60	PASS
1813.00†	1792.02	-30.29	-174.63	1710.19	1703.45	-29.31	274.88	-168.85	458.16	15.22	31.61	PASS
1913.00†	1885.21	-36.49	-210.36	1794.93	1786.38	-35.40	291.23	-168.61	511.24	15.94	33.61	PASS
1929.59	1900.54	-37.57	-216.59	1808.81	1799.96	-36.40	293.91	-168.57	520.32	16.02	33.94	PASS
2013.00†	1977.56	-43.05	-248.17	1878.47	1868.13	-41.41	307.35	-168.62	566.20	16.51	35.78	PASS
2113.00†	2069.88	-49.61	-286.02	1961.99	1949.85	-47.42	323.47	-168.66	621.20	17.18	37.67	PASS
2213.00†	2162.21	-56.18	-323.87	2045.50	2031.58	-53.42	339.59	-168.70	676.20	17.75	39.63	PASS
2313.00†	2254.54	-62.74	-361.72	2129.02	2113.30	-59.43	355.70	-168.73	731.20	18.40	41.29	PASS
2413.00†	2346.86	-69.31	-399.57	2212.54	2195.03	-65.43	371.82	-168.76	786.20	19.07	42.78	PASS
2513.00†	2439.19	-75.87	-437.42	2296.05	2276.76	-71.44	387.93	-168.78	841.20	19.76	44.12	PASS
2613.00†	2531.52	-82.44	-475.27	2379.57	2358.48	-77.45	404.05	-168.80	896.20	20.46	45.34	PASS
2713.00†	2623.84	-89.01	-513.12	2463.08	2440.21	-83.45	420.17	-168.82	951.20	21.17	46.45	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-4NBH PWB Offset Wellpath: WAKEMAN 20-17-4NBH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-4NBH PWB Offset Wellpath: WAKEMAN 20-17-4NBH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1791.34	0.29	118.85	-10.76	148.49
8.5in Open Hole	1800.00	17645.62	15845.62	1791.34	7390.00	-10.76	148.49	3038.44	442.22

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-4NBH PWB Offset Wellpath: WAKEMAN 20-17-4NBH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17645.62	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-4NBH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-4NBH PWB Offset Wellpath: WAKEMAN 20-17-4NBH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NAH PWB Offset Wellpath: WAKEMAN 20-17-4NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W			Slot: SLOT#02 WAKEMAN 20-17-4NAH (293'FSL & 2038'FEL, SEC.20)			Well: WAKEMAN 20-17-4NAH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.40	209.91	89.89	209.91	1.40	348.51	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.40	209.91	89.89	209.91	1.73	224.67	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.40	209.91	89.89	209.91	2.31	138.68	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.40	209.91	89.89	209.91	2.92	98.90	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.40	209.91	89.89	209.91	3.53	76.58	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.40	209.91	89.89	209.91	4.15	62.39	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.40	209.91	89.89	209.91	4.78	52.61	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.40	209.91	89.89	209.91	5.40	45.47	PASS
800.00	800.00	0.00	0.00	800.00	800.00	0.40	209.91	89.89	209.91	5.94	40.66	PASS
813.00†	813.00	-0.01	-0.03	813.00	813.00	0.40	209.91	-170.27	209.94	6.03	40.04	PASS
913.00†	912.97	-0.38	-2.20	912.12	912.12	0.39	209.93	-170.36	212.13	6.77	35.39	PASS
1013.00†	1012.80	-1.35	-7.80	1005.15	1005.13	-0.18	211.75	-170.41	219.68	7.89	30.87	PASS
1113.00†	1112.38	-2.92	-16.83	1097.22	1097.07	-1.64	216.38	-170.35	233.72	9.13	27.98	PASS
1213.00†	1211.57	-5.08	-29.28	1187.77	1187.29	-3.94	223.68	-170.18	254.13	10.25	26.81	PASS
1313.00†	1310.26	-7.83	-45.14	1276.27	1275.19	-7.02	233.44	-169.95	280.78	11.30	26.66	PASS
1413.00†	1408.33	-11.17	-64.37	1362.26	1360.26	-10.78	245.40	-169.66	313.48	12.23	27.36	PASS
1513.00†	1505.66	-15.09	-86.97	1445.31	1442.03	-15.15	259.26	-169.35	352.03	13.11	28.55	PASS
1613.00†	1602.13	-19.58	-112.90	1525.08	1520.13	-20.01	274.69	-169.02	396.18	13.97	30.03	PASS
1713.00†	1697.62	-24.65	-142.14	1601.35	1594.37	-25.26	291.39	-168.68	445.65	14.74	31.91	PASS
1813.00†	1792.02	-30.29	-174.63	1685.84	1676.34	-31.41	310.90	-168.37	499.13	15.40	34.03	PASS
1913.00†	1885.21	-36.49	-210.36	1768.46	1756.50	-37.42	329.98	-168.13	555.46	16.11	36.13	PASS
1929.59	1900.54	-37.57	-216.59	1781.97	1769.61	-38.40	333.11	-168.10	565.08	16.22	36.48	PASS
2013.00†	1977.56	-43.05	-248.17	1849.80	1835.42	-43.34	348.77	-168.17	613.63	16.72	38.27	PASS
2113.00†	2069.88	-49.61	-286.02	1931.11	1914.31	-49.25	367.56	-168.24	671.83	17.26	40.56	PASS
2213.00†	2162.21	-56.18	-323.87	2012.42	1993.20	-55.17	386.34	-168.30	730.04	17.88	42.48	PASS
2313.00†	2254.54	-62.74	-361.72	2093.74	2072.10	-61.08	405.12	-168.35	788.24	18.52	44.22	PASS
2413.00†	2346.86	-69.31	-399.57	2175.05	2150.99	-67.00	423.90	-168.40	846.45	19.18	45.78	PASS
2513.00†	2439.19	-75.87	-437.42	2256.36	2229.88	-72.91	442.68	-168.43	904.66	19.86	47.20	PASS
2613.00†	2531.52	-82.44	-475.27	2337.68	2308.77	-78.83	461.47	-168.47	962.86	20.55	48.49	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-4NAH PWB Offset Wellpath: WAKEMAN 20-17-4NAH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-4NAH PWB Offset Wellpath: WAKEMAN 20-17-4NAH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1787.10	0.24	127.96	-11.98	166.78
8.5in Open Hole	1800.00	17516.82	15716.82	1787.10	7215.00	-11.98	166.78	3038.18	536.98

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-4NAH PWB Offset Wellpath: WAKEMAN 20-17-4NAH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17516.82	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-4NAH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-4NAH PWB Offset Wellpath: WAKEMAN 20-17-4NAH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#01 WAKEMAN 20-17-4CDH (293'FSL & 2023'FEL, SEC.20)				Well: WAKEMAN 20-17-4CDH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.46	224.91	89.88	224.91	1.40	373.51	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.46	224.91	89.88	224.91	1.73	240.76	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.46	224.91	89.88	224.91	2.31	148.61	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.46	224.91	89.88	224.91	2.92	105.98	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.46	224.91	89.88	224.91	3.53	82.06	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.46	224.91	89.88	224.91	4.15	66.86	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.46	224.91	89.88	224.91	4.78	56.38	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.46	224.91	89.88	224.91	5.40	48.72	PASS
800.00	800.00	0.00	0.00	800.00	800.00	0.46	224.91	89.88	224.91	5.94	43.58	PASS
813.00†	813.00	-0.01	-0.03	812.09	812.09	0.45	224.93	-170.28	224.96	6.02	42.94	PASS
913.00†	912.97	-0.38	-2.20	904.92	904.90	-0.06	226.76	-170.22	229.09	6.86	37.65	PASS
1013.00†	1012.80	-1.35	-7.80	997.10	996.94	-1.38	231.43	-170.08	239.75	8.23	32.19	PASS
1113.00†	1112.38	-2.92	-16.83	1088.03	1087.54	-3.47	238.83	-169.87	256.86	9.44	29.66	PASS
1213.00†	1211.57	-5.08	-29.28	1177.18	1176.09	-6.28	248.77	-169.62	280.31	10.55	28.69	PASS
1313.00†	1310.26	-7.83	-45.14	1264.06	1262.03	-9.74	261.00	-169.34	309.92	11.48	28.94	PASS
1413.00†	1408.33	-11.17	-64.37	1348.22	1344.88	-13.76	275.23	-169.05	345.49	12.42	29.68	PASS
1513.00†	1505.66	-15.09	-86.97	1429.28	1424.23	-18.26	291.15	-168.75	386.80	13.32	30.83	PASS
1613.00†	1602.13	-19.58	-112.90	1506.91	1499.76	-23.13	308.41	-168.44	433.59	14.13	32.46	PASS
1713.00†	1697.62	-24.65	-142.14	1591.86	1582.09	-28.83	328.56	-168.17	484.69	14.84	34.48	PASS
1813.00†	1792.02	-30.29	-174.63	1676.01	1663.64	-34.47	348.53	-167.96	538.70	15.49	36.51	PASS
1913.00†	1885.21	-36.49	-210.36	1758.26	1743.35	-39.99	368.05	-167.80	595.56	16.25	38.39	PASS
1929.59	1900.54	-37.57	-216.59	1771.71	1756.39	-40.89	371.24	-167.78	605.26	16.35	38.76	PASS
2013.00†	1977.56	-43.05	-248.17	1839.22	1821.81	-45.41	387.26	-167.91	654.24	16.75	40.75	PASS
2113.00†	2069.88	-49.61	-286.02	1920.16	1900.25	-50.84	406.46	-168.04	712.96	17.34	42.82	PASS
2213.00†	2162.21	-56.18	-323.87	2001.09	1978.68	-56.27	425.67	-168.16	771.68	17.96	44.68	PASS
2313.00†	2254.54	-62.74	-361.72	2082.03	2057.12	-61.69	444.87	-168.26	830.40	18.61	46.36	PASS
2413.00†	2346.86	-69.31	-399.57	2162.96	2135.56	-67.12	464.08	-168.34	889.12	19.26	47.88	PASS
2513.00†	2439.19	-75.87	-437.42	2243.90	2213.99	-72.55	483.28	-168.41	947.85	19.94	49.25	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report
WAKEMAN 20-17-1CDH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1783.80	0.28	137.10	-12.90	183.75
8.5in Open Hole	13.00	17963.99	17950.99	13.00	7638.00	0.28	137.10	3038.11	572.02

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17963.99	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-4CDH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: BOX ELDER #32-20 AWB Offset Wellpath: BOX ELDER #32-20 AWP

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980'FNL & 2080'FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = Interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	18.00	3025.12	78.05	1.48	3026.14	25.40	122.97	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: BOX ELDER #32-20 AWB Offset Wellpath: BOX ELDER #32-20 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	3.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: BOX ELDER #32-20 AWB Offset Wellpath: BOX ELDER #32-20 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1561.00	1561.00	18.00	1579.00	1844.30	39.12	1844.30	39.12
8.625in Casing Surface	0.00	1561.00	1561.00	18.00	1579.00	1844.30	39.12	1844.30	39.12
7.875in Open Hole	1561.00	8292.00	6731.00	1579.00	8310.00	1844.30	39.12	1844.30	39.12
4.5in Casing Production	0.00	8292.00	8292.00	18.00	8310.00	1844.30	39.12	1844.30	39.12

WELLPATH COMPOSITION - Offset Wellbore: BOX ELDER #32-20 AWB Offset Wellpath: BOX ELDER #32-20 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8314.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8314>	BOX ELDER #32-20 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: BOX ELDER #32-20 AWB Offset Wellpath: BOX ELDER #32-20 AWP

MD Reference: Rig on SLOT#02 EX. BOX ELDER #32-20 (1980'FNL & 2080'FEL, SEC.20, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

Facility: SEC.17-T1S-R65W		Slot: SLOT#03 EX. AMOCO #44-17 (990'FSL & 1320'FEL, SEC.17, OG, PR, 8130)				Well: AMOCO #44-17		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]		C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	46.00	6024.24	892.93		8.43	6090.15	25.40	247.52	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
13.75in Open Hole	0.00	224.00	224.00	46.00	270.00	3674.81	527.40	3674.81	527.40
9.625in Casing Surface	0.00	224.00	224.00	46.00	270.00	3674.81	527.40	3674.81	527.40
7.875in Open Hole	224.00	8129.00	7905.00	270.00	8175.00	3674.81	527.40	3674.81	527.40
4.5in Casing Production	0.00	8129.00	8129.00	46.00	8175.00	3674.81	527.40	3674.81	527.40

WELLPATH COMPOSITION - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8130.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8130>	AMOCO #44-17 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

MD Reference: Rig on SLOT#03 EX. AMOCO #44-17 (990'FSL & 1320'FWL, SEC.17, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS #41-20 AWB Offset Wellpath: BOX ELDER FARMS #41-20 AWP

Facility: SEC.20-T01S-R65W Slot: SLOT#01 EX. BOX ELDER FARMS #41-20 (990'FNL & 990'FEL, SEC.20,OG,PA, 8145)								Well: BOX ELDER FARMS #41-20		Threshold Value=1.00		† = interpolated/extrapolated sts	
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACF Statu	
13.00	13.00	0.00	0.00	-13.00	29.00	4015.82	1165.16	16.18	4181.47	25.40	169.93	PAS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: BOX ELDER FARMS #41-20 AWB Offset Wellpath: BOX ELDER FARMS #41-20 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: BOX ELDER FARMS #41-20 AWB Offset Wellpath: BOX ELDER FARMS #41-20 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	91.00	91.00	29.00	120.00	2451.27	698.98	2451.27	698.98
8.625in Casing Surface	0.00	91.00	91.00	29.00	120.00	2451.27	698.98	2451.27	698.98
7.875in Open Hole	91.00	8123.00	8032.00	120.00	8152.00	2451.27	698.98	2451.27	698.98
4.5in Casing Production	0.00	8123.00	8123.00	29.00	8152.00	2451.27	698.98	2451.27	698.98

WELLPATH COMPOSITION - Offset Wellbore: BOX ELDER FARMS #41-20 AWB Offset Wellpath: BOX ELDER FARMS #41-20 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8145.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8145>	BOX ELDER FARMS #41-20 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: BOX ELDER FARMS #41-20 AWB Offset Wellpath: BOX ELDER FARMS #41-20 AWP

MD Reference: Rig on SLOT#01 EX. BOX ELDER FARMS #41-20 (990'FNL & 990'FEL, SEC.20,OG,PA) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: STATE #11-16 AWB Offset Wellpath: STATE #11-16 AWP

Facility: SEC.16-T01S-R65W Slot: SLOT#01 EX. STATE #11-16 (990'FNL & 990'FWL, SEC.16, OG, PR, 8173) Well: STATE #11-16 Threshold Value=1.00 † = interpolated/extrapolated station														
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status		
13.00	13.00	0.00	0.00	-13.00	23.00	9345.61	3101.35	18.36	9846.77	25.40	400.21	PASS		

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE #11-16 AWB Offset Wellpath: STATE #11-16 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: STATE #11-16 AWB Offset Wellpath: STATE #11-16 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1549.00	1549.00	23.00	1572.00	5705.75	1864.04	5705.75	1864.04
8.625in Casing Surface	0.00	1549.00	1549.00	23.00	1572.00	5705.75	1864.04	5705.75	1864.04
7.875in Open Hole	1549.00	8173.00	6624.00	1572.00	8196.00	5705.75	1864.04	5705.75	1864.04
4.5in Casing Production	0.00	8173.00	8173.00	23.00	8196.00	5705.75	1864.04	5705.75	1864.04

WELLPATH COMPOSITION - Offset Wellbore: STATE #11-16 AWB Offset Wellpath: STATE #11-16 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8173.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8173>	STATE #11-16 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: STATE #11-16 AWB Offset Wellpath: STATE #11-16 AWP

MD Reference: Rig on SLOT#01 EX. STATE #11-16 (990'FNL & 990'FWL, SEC.16, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-1CDH PWP (REV-A.0)
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1CDH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WOLFE #1 AWB Offset Wellpath: WOLFE #1 AWP

Facility: SEC.20-T01S-R65W Slot: SLOT#01 EX. WOLFE #1 (990'FSL & 990'FEL, SEC.20, OG, PR, 8200) Well: WOLFE #1 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	8.00	13.00	718.72	1222.77	59.55	1418.35	50.15	28.70	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WOLFE #1 AWB Offset Wellpath: WOLFE #1 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WOLFE #1 AWB Offset Wellpath: WOLFE #1 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	250.00	250.00	-8.00	242.00	441.56	743.37	441.56	743.37
8.625in Casing Surface	0.00	250.00	250.00	-8.00	242.00	441.56	743.37	441.56	743.37
7.875in Open Hole	250.00	8200.00	7950.00	242.00	8192.00	441.56	743.37	441.56	743.37
4.5in Casing Production	0.00	8200.00	8200.00	-8.00	8192.00	441.56	743.37	441.56	743.37

WELLPATH COMPOSITION - Offset Wellbore: WOLFE #1 AWB Offset Wellpath: WOLFE #1 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8200.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8200>	WOLFE #1 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WOLFE #1 AWB Offset Wellpath: WOLFE #1 AWP

MD Reference: Rig on SLOT#01 EX. WOLFE #1 (990'FSL & 990'FEL, SEC.20, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft