

# PETROSHARE

Location: COLORADO Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)  
Field: ADAMS COUNTY (NAD83/ GRID NORTH) Well: WAKEMAN 20-17-1NCH  
Facility: SEC.20-T01S-R65W Wellbore: WAKEMAN 20-17-1NCH PWB

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

Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet  
North Reference: Grid north  
Scale: True distance  
Depths are in feet  
Created by: ingmjmr on 2017-09-22  
Database: WellArchitectDB1

## Location Information

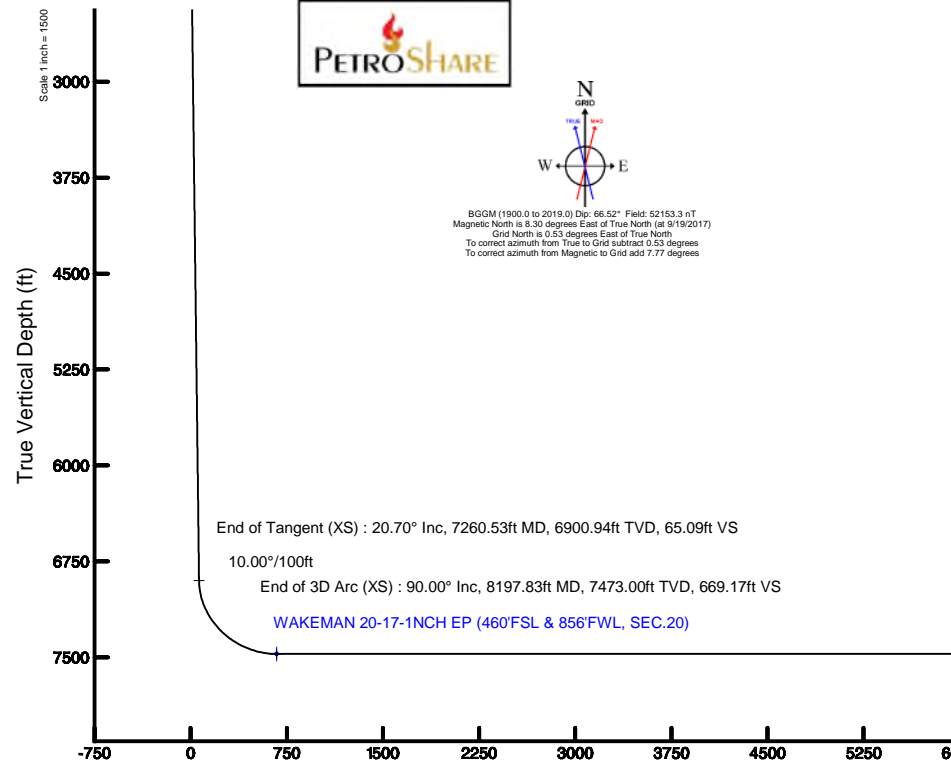
Facility Name				Grid East (US Rt)	Grid North (US Rt)	Latitude	Longitude
SEC.20-T01S-R65W				3228360.558	1223518.730	39°56'38.622"N	104°41'07.909"W
Slot	Local N (ft)	Local E (ft)	Grid East (US Rt)	Grid North (US Rt)	Latitude	Longitude	
SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)	-0.37	-194.90	3228165.660	1223518.358	39°56'38.630"N	104°41'10.411"W	
RIG (13KB) (RKB) to Ground level (At Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20))						5206R	
Mean Sea Level to Ground level (At Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20))						0ft	
RIG (13KB) (RKB) to Mean Sea Level						5206R	

## 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	16.00	1800.00	1784.00	16.00	1789.64	0.00	0.00	-22.13	-108.75	WAKEMAN 20-17-1NCH PWB
8.5in Open Hole	1800.00	18013.26	16213.26	1789.64	N/A	-22.13	-108.75	N/A	N/A	WAKEMAN 20-17-1NCH PWB

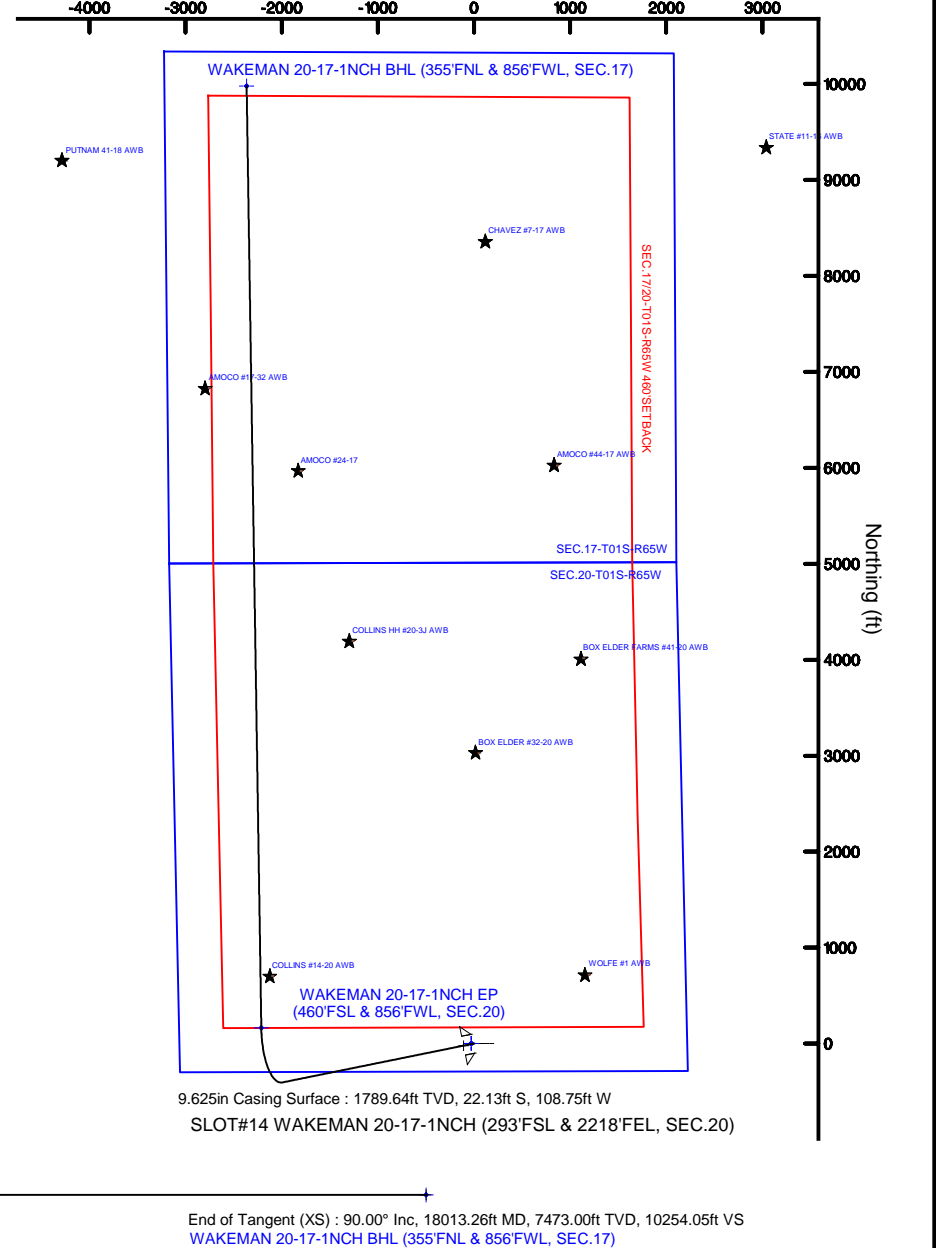
## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
16.00	18013.26	BHI NavTrak	Custom BHI NavTrak (Standard Rotating+Axial Cor) (Rockies 0.03Gt model)		WAKEMAN 20-17-1NCH PWB



Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	16.00	0.000	258.500	16.00	0.00	0.00	0.00	0.00
End of Tangent	1000.00	0.000	258.500	1000.00	0.00	0.00	0.00	0.00
End of Build (XS)	2034.82	20.696	258.500	2012.46	-36.86	-181.16	2.00	5.92
End of Tangent (XS)	7260.53	20.696	258.500	6900.94	-405.07	-1990.93	0.00	65.09
End of 3D Arc (XS)	8197.83	90.000	359.107	7473.00	163.29	-2212.24	10.00	669.17
End of Tangent (XS)	18013.26	90.000	359.107	7473.00	9977.53	-2365.23	0.00	10254.05

Scale 1 inch = 2000



Scale 1 inch = 1500



# Planned Wellpath Report

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

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**BAKER  
HUGHES**  
a GE company



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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 2:04:42 PM
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB1/WAKEMAN_20-17-1NCH_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	-0.37	-194.90	3228165.66	1223518.36	39°56'38.636"N	104°41'10.411"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	5206.00ft
Horizontal Reference Pt	Slot	RIG (13'KB) (RKB) to Mean Sea Level	5206.00ft
Vertical Reference Pt	RIG (13'KB) (RKB)	RIG (13'KB) (RKB) to Ground Level at Slot (SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20))	5206.00ft
MD Reference Pt	RIG (13'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	346.66°



# Planned Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (193 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	258.500	0.00	0.00	0.00	0.00	39°56'38.636"N	104°41'10.411"W	0.00	
16.00	0.000	258.500	16.00	0.00	0.00	0.00	39°56'38.636"N	104°41'10.411"W	0.00	Tie On
116.00†	0.000	258.500	116.00	0.00	0.00	0.00	39°56'38.636"N	104°41'10.411"W	0.00	
216.00†	0.000	258.500	216.00	0.00	0.00	0.00	39°56'38.636"N	104°41'10.411"W	0.00	
316.00†	0.000	258.500	316.00	0.00	0.00	0.00	39°56'38.636"N	104°41'10.411"W	0.00	
416.00†	0.000	258.500	416.00	0.00	0.00	0.00	39°56'38.636"N	104°41'10.411"W	0.00	
516.00†	0.000	258.500	516.00	0.00	0.00	0.00	39°56'38.636"N	104°41'10.411"W	0.00	
616.00†	0.000	258.500	616.00	0.00	0.00	0.00	39°56'38.636"N	104°41'10.411"W	0.00	
716.00†	0.000	258.500	716.00	0.00	0.00	0.00	39°56'38.636"N	104°41'10.411"W	0.00	
816.00†	0.000	258.500	816.00	0.00	0.00	0.00	39°56'38.636"N	104°41'10.411"W	0.00	
916.00†	0.000	258.500	916.00	0.00	0.00	0.00	39°56'38.636"N	104°41'10.411"W	0.00	
1000.00	0.000	258.500	1000.00	0.00	0.00	0.00	39°56'38.636"N	104°41'10.411"W	0.00	End of Tangent
1016.00†	0.320	258.500	1016.00	0.00	-0.01	-0.04	39°56'38.636"N	104°41'10.412"W	2.00	
1116.00†	2.320	258.500	1115.97	0.08	-0.47	-2.30	39°56'38.631"N	104°41'10.441"W	2.00	
1216.00†	4.320	258.500	1215.80	0.26	-1.62	-7.98	39°56'38.620"N	104°41'10.514"W	2.00	
1316.00†	6.320	258.500	1315.36	0.56	-3.47	-17.06	39°56'38.603"N	104°41'10.631"W	2.00	
1416.00†	8.320	258.500	1414.54	0.97	-6.01	-29.55	39°56'38.579"N	104°41'10.791"W	2.00	
1502.57†	10.051	258.500	1500.00	1.41	-8.77	-43.09	39°56'38.553"N	104°41'10.966"W	2.00	FOX HILLS
1516.00†	10.320	258.500	1513.21	1.48	-9.24	-45.41	39°56'38.549"N	104°41'10.996"W	2.00	
1616.00†	12.320	258.500	1611.26	2.11	-13.15	-64.65	39°56'38.512"N	104°41'11.243"W	2.00	
1716.00†	14.320	258.500	1708.57	2.85	-17.75	-87.22	39°56'38.468"N	104°41'11.533"W	2.00	
1816.00†	16.320	258.500	1805.01	3.70	-23.01	-113.11	39°56'38.419"N	104°41'11.866"W	2.00	
1916.00†	18.320	258.500	1900.47	4.65	-28.95	-142.28	39°56'38.363"N	104°41'12.242"W	2.00	
2016.00†	20.320	258.500	1994.84	5.71	-35.54	-174.70	39°56'38.300"N	104°41'12.659"W	2.00	
2034.82	20.696	258.500	2012.46	5.92	-36.86	-181.16	39°56'38.288"N	104°41'12.742"W	2.00	End of Build (XS)
2116.00†	20.696	258.500	2088.40	6.84	-42.58	-209.28	39°56'38.234"N	104°41'13.103"W	0.00	
2216.00†	20.696	258.500	2181.95	7.97	-49.63	-243.91	39°56'38.168"N	104°41'13.549"W	0.00	
2316.00†	20.696	258.500	2275.50	9.11	-56.67	-278.54	39°56'38.101"N	104°41'13.994"W	0.00	
2416.00†	20.696	258.500	2369.04	10.24	-63.72	-313.17	39°56'38.035"N	104°41'14.440"W	0.00	
2516.00†	20.696	258.500	2462.59	11.37	-70.76	-347.81	39°56'37.968"N	104°41'14.885"W	0.00	



# Planned Wellpath Report

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

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (193 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2616.00†	20.696	258.500	2556.14	12.50	-77.81	-382.44	39°56'37.902"N	104°41'15.331"W	0.00	
2716.00†	20.696	258.500	2649.68	13.63	-84.86	-417.07	39°56'37.835"N	104°41'15.776"W	0.00	
2816.00†	20.696	258.500	2743.23	14.77	-91.90	-451.70	39°56'37.769"N	104°41'16.221"W	0.00	
2916.00†	20.696	258.500	2836.78	15.90	-98.95	-486.33	39°56'37.702"N	104°41'16.667"W	0.00	
3016.00†	20.696	258.500	2930.32	17.03	-105.99	-520.97	39°56'37.636"N	104°41'17.112"W	0.00	
3116.00†	20.696	258.500	3023.87	18.16	-113.04	-555.60	39°56'37.569"N	104°41'17.558"W	0.00	
3216.00†	20.696	258.500	3117.42	19.30	-120.09	-590.23	39°56'37.503"N	104°41'18.003"W	0.00	
3316.00†	20.696	258.500	3210.96	20.43	-127.13	-624.86	39°56'37.436"N	104°41'18.449"W	0.00	
3416.00†	20.696	258.500	3304.51	21.56	-134.18	-659.49	39°56'37.370"N	104°41'18.894"W	0.00	
3516.00†	20.696	258.500	3398.06	22.69	-141.23	-694.13	39°56'37.303"N	104°41'19.340"W	0.00	
3616.00†	20.696	258.500	3491.60	23.82	-148.27	-728.76	39°56'37.237"N	104°41'19.785"W	0.00	
3716.00†	20.696	258.500	3585.15	24.96	-155.32	-763.39	39°56'37.170"N	104°41'20.231"W	0.00	
3816.00†	20.696	258.500	3678.70	26.09	-162.36	-798.02	39°56'37.104"N	104°41'20.676"W	0.00	
3916.00†	20.696	258.500	3772.24	27.22	-169.41	-832.65	39°56'37.037"N	104°41'21.121"W	0.00	
4016.00†	20.696	258.500	3865.79	28.35	-176.46	-867.28	39°56'36.971"N	104°41'21.567"W	0.00	
4116.00†	20.696	258.500	3959.34	29.49	-183.50	-901.92	39°56'36.904"N	104°41'22.012"W	0.00	
4216.00†	20.696	258.500	4052.88	30.62	-190.55	-936.55	39°56'36.838"N	104°41'22.458"W	0.00	
4316.00†	20.696	258.500	4146.43	31.75	-197.59	-971.18	39°56'36.771"N	104°41'22.903"W	0.00	
4416.00†	20.696	258.500	4239.98	32.88	-204.64	-1005.81	39°56'36.705"N	104°41'23.349"W	0.00	
4516.00†	20.696	258.500	4333.52	34.01	-211.69	-1040.44	39°56'36.638"N	104°41'23.794"W	0.00	
4616.00†	20.696	258.500	4427.07	35.15	-218.73	-1075.08	39°56'36.572"N	104°41'24.240"W	0.00	
4716.00†	20.696	258.500	4520.62	36.28	-225.78	-1109.71	39°56'36.505"N	104°41'24.685"W	0.00	
4816.00†	20.696	258.500	4614.16	37.41	-232.83	-1144.34	39°56'36.439"N	104°41'25.130"W	0.00	
4916.00†	20.696	258.500	4707.71	38.54	-239.87	-1178.97	39°56'36.372"N	104°41'25.576"W	0.00	
5016.00†	20.696	258.500	4801.26	39.67	-246.92	-1213.60	39°56'36.306"N	104°41'26.021"W	0.00	
5068.11†	20.696	258.500	4850.00	40.26	-250.59	-1231.65	39°56'36.271"N	104°41'26.253"W	0.00	SUSSEX/SHANNON
5116.00†	20.696	258.500	4894.80	40.81	-253.96	-1248.24	39°56'36.239"N	104°41'26.467"W	0.00	
5216.00†	20.696	258.500	4988.35	41.94	-261.01	-1282.87	39°56'36.173"N	104°41'26.912"W	0.00	
5316.00†	20.696	258.500	5081.90	43.07	-268.06	-1317.50	39°56'36.106"N	104°41'27.358"W	0.00	
5416.00†	20.696	258.500	5175.44	44.20	-275.10	-1352.13	39°56'36.039"N	104°41'27.803"W	0.00	



# Planned Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (193 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5516.00†	20.696	258.500	5268.99	45.34	-282.15	-1386.76	39°56'35.973"N	104°41'28.249"W	0.00	
5616.00†	20.696	258.500	5362.54	46.47	-289.19	-1421.40	39°56'35.906"N	104°41'28.694"W	0.00	
5716.00†	20.696	258.500	5456.08	47.60	-296.24	-1456.03	39°56'35.840"N	104°41'29.140"W	0.00	
5816.00†	20.696	258.500	5549.63	48.73	-303.29	-1490.66	39°56'35.773"N	104°41'29.585"W	0.00	
5916.00†	20.696	258.500	5643.18	49.86	-310.33	-1525.29	39°56'35.707"N	104°41'30.030"W	0.00	
6016.00†	20.696	258.500	5736.72	51.00	-317.38	-1559.92	39°56'35.640"N	104°41'30.476"W	0.00	
6116.00†	20.696	258.500	5830.27	52.13	-324.43	-1594.56	39°56'35.574"N	104°41'30.921"W	0.00	
6216.00†	20.696	258.500	5923.82	53.26	-331.47	-1629.19	39°56'35.507"N	104°41'31.367"W	0.00	
6316.00†	20.696	258.500	6017.36	54.39	-338.52	-1663.82	39°56'35.441"N	104°41'31.812"W	0.00	
6416.00†	20.696	258.500	6110.91	55.53	-345.56	-1698.45	39°56'35.374"N	104°41'32.258"W	0.00	
6516.00†	20.696	258.500	6204.46	56.66	-352.61	-1733.08	39°56'35.308"N	104°41'32.703"W	0.00	
6616.00†	20.696	258.500	6298.00	57.79	-359.66	-1767.72	39°56'35.241"N	104°41'33.149"W	0.00	
6716.00†	20.696	258.500	6391.55	58.92	-366.70	-1802.35	39°56'35.175"N	104°41'33.594"W	0.00	
6816.00†	20.696	258.500	6485.10	60.05	-373.75	-1836.98	39°56'35.108"N	104°41'34.039"W	0.00	
6916.00†	20.696	258.500	6578.64	61.19	-380.79	-1871.61	39°56'35.042"N	104°41'34.485"W	0.00	
7016.00†	20.696	258.500	6672.19	62.32	-387.84	-1906.24	39°56'34.975"N	104°41'34.930"W	0.00	
7116.00†	20.696	258.500	6765.74	63.45	-394.89	-1940.87	39°56'34.909"N	104°41'35.376"W	0.00	
7216.00†	20.696	258.500	6859.28	64.58	-401.93	-1975.51	39°56'34.842"N	104°41'35.821"W	0.00	
7260.53	20.696	258.500	6900.94	65.09	-405.07	-1990.93	39°56'34.813"N	104°41'36.020"W	0.00	End of Tangent (XS)
7316.00†	20.449	274.315	6952.91	68.34	-406.30	-2010.21	39°56'34.802"N	104°41'36.267"W	10.00	
7416.00†	23.425	300.114	7045.88	87.36	-394.98	-2044.91	39°56'34.917"N	104°41'36.711"W	10.00	
7516.00†	29.506	318.097	7135.50	122.74	-366.61	-2078.64	39°56'35.201"N	104°41'37.141"W	10.00	
7616.00†	37.195	329.812	7219.06	173.43	-322.04	-2110.37	39°56'35.644"N	104°41'37.543"W	10.00	
7629.84†	38.334	331.097	7230.00	181.57	-314.66	-2114.55	39°56'35.717"N	104°41'37.596"W	10.00	NIOBRARA A CHALK
7653.11†	40.277	333.116	7248.00	195.83	-301.64	-2121.43	39°56'35.846"N	104°41'37.683"W	10.00	NIOBRARA A MARL
7716.00†	45.681	337.846	7294.01	237.87	-262.63	-2139.13	39°56'36.234"N	104°41'37.906"W	10.00	
7816.00†	54.584	343.796	7358.08	314.11	-190.18	-2164.05	39°56'36.952"N	104°41'38.217"W	10.00	
7908.58†	63.038	348.218	7406.00	393.21	-113.40	-2183.05	39°56'37.712"N	104°41'38.452"W	10.00	NIOBRARA B CHALK
7916.00†	63.721	348.541	7409.32	399.84	-106.90	-2184.38	39°56'37.777"N	104°41'38.468"W	10.00	
7986.86†	70.280	351.458	7437.00	464.91	-42.70	-2195.66	39°56'38.412"N	104°41'38.606"W	10.00	NIOBRARA B MARL



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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (193 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8016.00†	72.991	352.584	7446.18	492.44	-15.32	-2199.50	39°56'38.683"N	104°41'38.652"W	10.00	
8116.00†	82.332	356.241	7467.53	589.10	81.79	-2208.94	39°56'39.643"N	104°41'38.762"W	10.00	
8197.83	90.000	359.107	7473.00 <sup>†</sup>	669.17	163.29	-2212.24	39°56'40.449"N	104°41'38.795"W	10.00	End of 3D Arc (XS)
8216.00†	90.000	359.107	7473.00	686.92	181.46	-2212.53	39°56'40.629"N	104°41'38.796"W	0.00	
8316.00†	90.000	359.107	7473.00	784.57	281.45	-2214.08	39°56'41.617"N	104°41'38.804"W	0.00	
8416.00†	90.000	359.107	7473.00	882.22	381.44	-2215.64	39°56'42.605"N	104°41'38.813"W	0.00	
8516.00†	90.000	359.107	7473.00	979.87	481.43	-2217.20	39°56'43.593"N	104°41'38.821"W	0.00	
8616.00†	90.000	359.107	7473.00	1077.52	581.42	-2218.76	39°56'44.582"N	104°41'38.829"W	0.00	
8716.00†	90.000	359.107	7473.00	1175.18	681.40	-2220.32	39°56'45.570"N	104°41'38.838"W	0.00	
8816.00†	90.000	359.107	7473.00	1272.83	781.39	-2221.88	39°56'46.558"N	104°41'38.846"W	0.00	
8916.00†	90.000	359.107	7473.00	1370.48	881.38	-2223.44	39°56'47.546"N	104°41'38.854"W	0.00	
9016.00†	90.000	359.107	7473.00	1468.13	981.37	-2224.99	39°56'48.534"N	104°41'38.863"W	0.00	
9116.00†	90.000	359.107	7473.00	1565.78	1081.36	-2226.55	39°56'49.523"N	104°41'38.871"W	0.00	
9216.00†	90.000	359.107	7473.00	1663.43	1181.34	-2228.11	39°56'50.511"N	104°41'38.880"W	0.00	
9316.00†	90.000	359.107	7473.00	1761.08	1281.33	-2229.67	39°56'51.499"N	104°41'38.888"W	0.00	
9416.00†	90.000	359.107	7473.00	1858.73	1381.32	-2231.23	39°56'52.487"N	104°41'38.896"W	0.00	
9516.00†	90.000	359.107	7473.00	1956.38	1481.31	-2232.79	39°56'53.476"N	104°41'38.905"W	0.00	
9616.00†	90.000	359.107	7473.00	2054.03	1581.29	-2234.35	39°56'54.464"N	104°41'38.913"W	0.00	
9716.00†	90.000	359.107	7473.00	2151.69	1681.28	-2235.91	39°56'55.452"N	104°41'38.921"W	0.00	
9816.00†	90.000	359.107	7473.00	2249.34	1781.27	-2237.46	39°56'56.440"N	104°41'38.930"W	0.00	
9916.00†	90.000	359.107	7473.00	2346.99	1881.26	-2239.02	39°56'57.428"N	104°41'38.938"W	0.00	
10016.00†	90.000	359.107	7473.00	2444.64	1981.25	-2240.58	39°56'58.417"N	104°41'38.946"W	0.00	
10116.00†	90.000	359.107	7473.00	2542.29	2081.23	-2242.14	39°56'59.405"N	104°41'38.955"W	0.00	
10216.00†	90.000	359.107	7473.00	2639.94	2181.22	-2243.70	39°57'00.393"N	104°41'38.963"W	0.00	
10316.00†	90.000	359.107	7473.00	2737.59	2281.21	-2245.26	39°57'01.381"N	104°41'38.971"W	0.00	
10416.00†	90.000	359.107	7473.00	2835.24	2381.20	-2246.82	39°57'02.370"N	104°41'38.980"W	0.00	
10516.00†	90.000	359.107	7473.00	2932.89	2481.19	-2248.37	39°57'03.358"N	104°41'38.988"W	0.00	
10616.00†	90.000	359.107	7473.00	3030.55	2581.17	-2249.93	39°57'04.346"N	104°41'38.996"W	0.00	
10716.00†	90.000	359.107	7473.00	3128.20	2681.16	-2251.49	39°57'05.334"N	104°41'39.005"W	0.00	
10816.00†	90.000	359.107	7473.00	3225.85	2781.15	-2253.05	39°57'06.322"N	104°41'39.013"W	0.00	





# Planned Wellpath Report

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

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (193 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10916.00†	90.000	359.107	7473.00	3323.50	2881.14	-2254.61	39°57'07.311"N	104°41'39.021"W	0.00	
11016.00†	90.000	359.107	7473.00	3421.15	2981.12	-2256.17	39°57'08.299"N	104°41'39.030"W	0.00	
11116.00†	90.000	359.107	7473.00	3518.80	3081.11	-2257.73	39°57'09.287"N	104°41'39.038"W	0.00	
11216.00†	90.000	359.107	7473.00	3616.45	3181.10	-2259.29	39°57'10.275"N	104°41'39.046"W	0.00	
11316.00†	90.000	359.107	7473.00	3714.10	3281.09	-2260.84	39°57'11.264"N	104°41'39.055"W	0.00	
11416.00†	90.000	359.107	7473.00	3811.75	3381.08	-2262.40	39°57'12.252"N	104°41'39.063"W	0.00	
11516.00†	90.000	359.107	7473.00	3909.41	3481.06	-2263.96	39°57'13.240"N	104°41'39.071"W	0.00	
11616.00†	90.000	359.107	7473.00	4007.06	3581.05	-2265.52	39°57'14.228"N	104°41'39.080"W	0.00	
11716.00†	90.000	359.107	7473.00	4104.71	3681.04	-2267.08	39°57'15.216"N	104°41'39.088"W	0.00	
11816.00†	90.000	359.107	7473.00	4202.36	3781.03	-2268.64	39°57'16.205"N	104°41'39.097"W	0.00	
11916.00†	90.000	359.107	7473.00	4300.01	3881.02	-2270.20	39°57'17.193"N	104°41'39.105"W	0.00	
12016.00†	90.000	359.107	7473.00	4397.66	3981.00	-2271.75	39°57'18.181"N	104°41'39.113"W	0.00	
12116.00†	90.000	359.107	7473.00	4495.31	4080.99	-2273.31	39°57'19.169"N	104°41'39.122"W	0.00	
12216.00†	90.000	359.107	7473.00	4592.96	4180.98	-2274.87	39°57'20.158"N	104°41'39.130"W	0.00	
12316.00†	90.000	359.107	7473.00	4690.61	4280.97	-2276.43	39°57'21.146"N	104°41'39.138"W	0.00	
12416.00†	90.000	359.107	7473.00	4788.26	4380.95	-2277.99	39°57'22.134"N	104°41'39.147"W	0.00	
12516.00†	90.000	359.107	7473.00	4885.92	4480.94	-2279.55	39°57'23.122"N	104°41'39.155"W	0.00	
12616.00†	90.000	359.107	7473.00	4983.57	4580.93	-2281.11	39°57'24.110"N	104°41'39.163"W	0.00	
12716.00†	90.000	359.107	7473.00	5081.22	4680.92	-2282.67	39°57'25.099"N	104°41'39.172"W	0.00	
12816.00†	90.000	359.107	7473.00	5178.87	4780.91	-2284.22	39°57'26.087"N	104°41'39.180"W	0.00	
12916.00†	90.000	359.107	7473.00	5276.52	4880.89	-2285.78	39°57'27.075"N	104°41'39.188"W	0.00	
13016.00†	90.000	359.107	7473.00	5374.17	4980.88	-2287.34	39°57'28.063"N	104°41'39.197"W	0.00	
13116.00†	90.000	359.107	7473.00	5471.82	5080.87	-2288.90	39°57'29.052"N	104°41'39.205"W	0.00	
13216.00†	90.000	359.107	7473.00	5569.47	5180.86	-2290.46	39°57'30.040"N	104°41'39.213"W	0.00	
13316.00†	90.000	359.107	7473.00	5667.12	5280.85	-2292.02	39°57'31.028"N	104°41'39.222"W	0.00	
13416.00†	90.000	359.107	7473.00	5764.78	5380.83	-2293.58	39°57'32.016"N	104°41'39.230"W	0.00	
13516.00†	90.000	359.107	7473.00	5862.43	5480.82	-2295.13	39°57'33.004"N	104°41'39.238"W	0.00	
13616.00†	90.000	359.107	7473.00	5960.08	5580.81	-2296.69	39°57'33.993"N	104°41'39.247"W	0.00	
13716.00†	90.000	359.107	7473.00	6057.73	5680.80	-2298.25	39°57'34.981"N	104°41'39.255"W	0.00	
13816.00†	90.000	359.107	7473.00	6155.38	5780.78	-2299.81	39°57'35.969"N	104°41'39.263"W	0.00	



# Planned Wellpath Report

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

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (193 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13916.00†	90.000	359.107	7473.00	6253.03	5880.77	-2301.37	39°57'36.957"N	104°41'39.272"W	0.00	
14016.00†	90.000	359.107	7473.00	6350.68	5980.76	-2302.93	39°57'37.945"N	104°41'39.280"W	0.00	
14116.00†	90.000	359.107	7473.00	6448.33	6080.75	-2304.49	39°57'38.934"N	104°41'39.289"W	0.00	
14216.00†	90.000	359.107	7473.00	6545.98	6180.74	-2306.05	39°57'39.922"N	104°41'39.297"W	0.00	
14316.00†	90.000	359.107	7473.00	6643.63	6280.72	-2307.60	39°57'40.910"N	104°41'39.305"W	0.00	
14416.00†	90.000	359.107	7473.00	6741.29	6380.71	-2309.16	39°57'41.898"N	104°41'39.314"W	0.00	
14516.00†	90.000	359.107	7473.00	6838.94	6480.70	-2310.72	39°57'42.887"N	104°41'39.322"W	0.00	
14616.00†	90.000	359.107	7473.00	6936.59	6580.69	-2312.28	39°57'43.875"N	104°41'39.330"W	0.00	
14716.00†	90.000	359.107	7473.00	7034.24	6680.68	-2313.84	39°57'44.863"N	104°41'39.339"W	0.00	
14816.00†	90.000	359.107	7473.00	7131.89	6780.66	-2315.40	39°57'45.851"N	104°41'39.347"W	0.00	
14916.00†	90.000	359.107	7473.00	7229.54	6880.65	-2316.96	39°57'46.839"N	104°41'39.355"W	0.00	
15016.00†	90.000	359.107	7473.00	7327.19	6980.64	-2318.51	39°57'47.828"N	104°41'39.364"W	0.00	
15116.00†	90.000	359.107	7473.00	7424.84	7080.63	-2320.07	39°57'48.816"N	104°41'39.372"W	0.00	
15216.00†	90.000	359.107	7473.00	7522.49	7180.61	-2321.63	39°57'49.804"N	104°41'39.380"W	0.00	
15316.00†	90.000	359.107	7473.00	7620.15	7280.60	-2323.19	39°57'50.792"N	104°41'39.389"W	0.00	
15416.00†	90.000	359.107	7473.00	7717.80	7380.59	-2324.75	39°57'51.781"N	104°41'39.397"W	0.00	
15516.00†	90.000	359.107	7473.00	7815.45	7480.58	-2326.31	39°57'52.769"N	104°41'39.405"W	0.00	
15616.00†	90.000	359.107	7473.00	7913.10	7580.57	-2327.87	39°57'53.757"N	104°41'39.414"W	0.00	
15716.00†	90.000	359.107	7473.00	8010.75	7680.55	-2329.43	39°57'54.745"N	104°41'39.422"W	0.00	
15816.00†	90.000	359.107	7473.00	8108.40	7780.54	-2330.98	39°57'55.733"N	104°41'39.430"W	0.00	
15916.00†	90.000	359.107	7473.00	8206.05	7880.53	-2332.54	39°57'56.722"N	104°41'39.439"W	0.00	
16016.00†	90.000	359.107	7473.00	8303.70	7980.52	-2334.10	39°57'57.710"N	104°41'39.447"W	0.00	
16116.00†	90.000	359.107	7473.00	8401.35	8080.51	-2335.66	39°57'58.698"N	104°41'39.455"W	0.00	
16216.00†	90.000	359.107	7473.00	8499.01	8180.49	-2337.22	39°57'59.686"N	104°41'39.464"W	0.00	
16316.00†	90.000	359.107	7473.00	8596.66	8280.48	-2338.78	39°58'00.675"N	104°41'39.472"W	0.00	
16416.00†	90.000	359.107	7473.00	8694.31	8380.47	-2340.34	39°58'01.663"N	104°41'39.481"W	0.00	
16516.00†	90.000	359.107	7473.00	8791.96	8480.46	-2341.89	39°58'02.651"N	104°41'39.489"W	0.00	
16616.00†	90.000	359.107	7473.00	8889.61	8580.44	-2343.45	39°58'03.639"N	104°41'39.497"W	0.00	
16716.00†	90.000	359.107	7473.00	8987.26	8680.43	-2345.01	39°58'04.627"N	104°41'39.506"W	0.00	
16816.00†	90.000	359.107	7473.00	9084.91	8780.42	-2346.57	39°58'05.616"N	104°41'39.514"W	0.00	





# Planned Wellpath Report

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

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (193 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16916.00†	90.000	359.107	7473.00	9182.56	8880.41	-2348.13	39°58'06.604"N	104°41'39.522"W	0.00	
17016.00†	90.000	359.107	7473.00	9280.21	8980.40	-2349.69	39°58'07.592"N	104°41'39.531"W	0.00	
17116.00†	90.000	359.107	7473.00	9377.86	9080.38	-2351.25	39°58'08.580"N	104°41'39.539"W	0.00	
17216.00†	90.000	359.107	7473.00	9475.52	9180.37	-2352.81	39°58'09.569"N	104°41'39.547"W	0.00	
17316.00†	90.000	359.107	7473.00	9573.17	9280.36	-2354.36	39°58'10.557"N	104°41'39.556"W	0.00	
17416.00†	90.000	359.107	7473.00	9670.82	9380.35	-2355.92	39°58'11.545"N	104°41'39.564"W	0.00	
17516.00†	90.000	359.107	7473.00	9768.47	9480.33	-2357.48	39°58'12.533"N	104°41'39.572"W	0.00	
17616.00†	90.000	359.107	7473.00	9866.12	9580.32	-2359.04	39°58'13.521"N	104°41'39.581"W	0.00	
17716.00†	90.000	359.107	7473.00	9963.77	9680.31	-2360.60	39°58'14.510"N	104°41'39.589"W	0.00	
17816.00†	90.000	359.107	7473.00	10061.42	9780.30	-2362.16	39°58'15.498"N	104°41'39.597"W	0.00	
17916.00†	90.000	359.107	7473.00	10159.07	9880.29	-2363.72	39°58'16.486"N	104°41'39.606"W	0.00	
18013.25†	90.000	359.107	7473.00	10254.04	9977.52	-2365.23	39°58'17.447"N	104°41'39.614"W	0.00	NIOBRARA C CHALK
18013.26	90.000	359.107	7473.00 <sup>2</sup>	10254.05	9977.53	-2365.23	39°58'17.447"N	104°41'39.614"W	0.00	End of Tangent (XS)

## HOLE & CASING SECTIONS

- Ref Wellbore: WAKEMAN 20-17-1NCH PWB Ref 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	0.00	0.00	-22.13	-108.75
8.5in Open Hole	1800.00	18013.26	16213.26	1789.64	N/A	-22.13	-108.75	N/A	N/A



# Planned Wellpath Report

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

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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		3.00	1.37	-29.34	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
SEC.20-T01S-R65W		3.00	1.37	-29.34	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
2) WAKEMAN 20-17-1NCH BHL (355'FNL & 856'FWL, SEC.17)	18013.26	7473.00	9977.53	-2365.23	3225800.50	1233495.58	39°58'17.447"N	104°41'39.614"W	point
1) WAKEMAN 20-17-1NCH EP (460'FSL & 856'FWL, SEC.20)	8197.83	7473.00	163.29	-2212.24	3225953.49	1223681.65	39°56'40.449"N	104°41'38.795"W	point
SEC.17/20-T01S-R65W 460'SETBACK		7641.00	1.37	-29.34	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon

## SURVEY PROGRAM -

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



# Planned Wellpath Report

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

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1502.57	10.051	258.500	1500.00	FOX HILLS
5068.11	20.696	258.500	4850.00	SUSSEX/SHANNON
7629.84	38.334	331.097	7230.00	NIOBRARA A CHALK
7653.11	40.277	333.116	7248.00	NIOBRARA A MARL
7908.58	63.038	348.218	7406.00	NIOBRARA B CHALK
7986.86	70.280	351.458	7437.00	NIOBRARA B MARL
18013.25	90.000	359.107	7473.00	NIOBRARA C CHALK

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	258.500	16.00	Tie On
1000.00	0.000	258.500	1000.00	End of Tangent
2034.82	20.696	258.500	2012.46	End of Build (XS)
7260.53	20.696	258.500	6900.94	End of Tangent (XS)
8197.83	90.000	359.107	7473.00	End of 3D Arc (XS)
18013.26	90.000	359.107	7473.00	End of Tangent (XS)



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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 2:04:26 PM
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB1\WAKEMAN_20-17-1NCH_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	-0.37	-194.90	3228165.66	1223518.36	39°56'38.636"N	104°41'10.411"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	5206.00ft
Horizontal Reference Pt	Slot	RIG (13'KB) (RKB) to Mean Sea Level	5206.00ft
Vertical Reference Pt	RIG (13'KB) (RKB)	RIG (13'KB) (RKB) to Ground Level at Slot (SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20))	5206.00ft
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	16.00ft	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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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 20-17-1NCH PWB Ref 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	0.00	0.00	-22.13	-108.75
8.5in Open Hole	1800.00	18013.26	16213.26	1789.64	N/A	-22.13	-108.75	N/A	N/A

SURVEY PROGRAM - Ref Wellbore: WAKEMAN 20-17-1NCH PWB Ref 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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

## CALCULATION RANGE & CUTOFF

From: 16.00ft MD	To: 18013.26ft 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-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	8736.79	121.15	8736.79	8716.00	0.48	8716.00	FAIL
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)	16.00	14.94	18006.06	18006.06	0.64	18006.06	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)	16.00	15.06	816.00	18013.26	0.73	18013.26	FAIL
SEC.20-T01S-R65W	SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)	WAKEMAN 20-17-1CDH	WAKEMAN 20-17-1CDH PWB	WAKEMAN 20-17-1CDH PWP (REV-A.0)	16.00	30.00	18013.26	18013.26	0.74	18013.26	FAIL
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	14875.93	441.67	14875.93	14930.31	1.05	14930.31	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	13995.20	500.11	13995.20	13950.18	1.27	13950.18	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)	16.00	29.95	17998.82	17998.82	1.30	17998.82	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)	16.00	44.92	17991.08	17991.08	1.52	17991.08	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)	16.00	59.98	17991.59	17991.59	1.88	17991.59	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)	16.00	74.95	17984.35	17984.35	2.52	17984.35	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	12215.06	1010.02	12215.06	12137.75	2.99	12216.00	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)	16.00	89.92	1000.00	17981.00	3.19	17981.00	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	17266.00	1894.27	17266.00	17564.63	3.79	17564.63	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)	16.00	104.98	1000.00	17989.71	3.82	17989.71	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)	16.00	119.93	1000.00	18013.26	4.33	18013.26	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)	16.00	134.96	1000.00	18013.26	4.46	18013.26	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)	16.00	149.96	1000.00	18013.26	5.08	18013.26	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	16353.50	2489.61	16353.50	16353.50	5.37	16353.50	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)	16.00	164.96	1000.00	18013.26	5.71	18013.26	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)	16.00	179.90	816.00	18013.26	6.21	18013.26	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)	16.00	194.91	11516.00	18013.26	6.35	18013.26	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	11028.50	2304.63	11028.50	11044.89	7.61	11044.89	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	14011.00	3166.15	14011.00	14177.86	8.08	14177.86	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	12003.50	3407.05	12003.50	12274.64	10.26	12274.64	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	17301.00	5426.07	17301.00	17987.94	10.86	17987.94	PASS





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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

**CALCULATION RANGE & CUTOFF**

From: 16.00ft MD	To: 18013.26ft 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	16.00	1392.52	8716.00	8766.34	12.02	8916.00	PASS



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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°FEL, 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
16.00	16.00	0.00	0.00	-16.00	17.00	703.77	-2099.50	-71.47	2214.32	25.40	89.97	PASS
116.00†	116.00	0.00	0.00	83.00	116.00	703.77	-2099.50	-71.47	2214.32	51.90	43.28	PASS
216.00†	216.00	0.00	0.00	183.00	216.00	703.77	-2099.50	-71.47	2214.32	54.08	41.39	PASS
316.00†	316.00	0.00	0.00	283.00	316.00	703.77	-2099.50	-71.47	2214.32	56.42	39.65	PASS
416.00†	416.00	0.00	0.00	383.00	416.00	703.77	-2099.50	-71.47	2214.32	58.77	38.05	PASS
516.00†	516.00	0.00	0.00	483.00	516.00	703.77	-2099.50	-71.47	2214.32	61.13	36.57	PASS
616.00†	616.00	0.00	0.00	583.00	616.00	703.77	-2099.50	-71.47	2214.32	63.48	35.20	PASS
716.00†	716.00	0.00	0.00	683.00	716.00	703.77	-2099.50	-71.47	2214.32	65.85	33.92	PASS
816.00†	816.00	0.00	0.00	783.00	816.00	703.77	-2099.50	-71.47	2214.32	68.21	32.74	PASS
916.00†	916.00	0.00	0.00	883.00	916.00	703.77	-2099.50	-71.47	2214.32	70.58	31.63	PASS
1000.00	1000.00	0.00	0.00	967.00	1000.00	703.77	-2099.50	-71.47	2214.32	72.58	30.75	PASS
1016.00†	1016.00	-0.01	-0.04	983.00	1016.00	703.77	-2099.50	30.03	2214.28	72.96	30.59	PASS
1116.00†	1115.97	-0.47	-2.30	1082.97	1115.97	703.77	-2099.50	30.08	2212.28	75.35	29.58	PASS
1216.00†	1215.80	-1.62	-7.98	1182.80	1215.80	703.77	-2099.50	30.21	2207.27	77.77	28.59	PASS
1316.00†	1315.36	-3.47	-17.06	1282.36	1315.36	703.77	-2099.50	30.41	2199.26	80.19	27.62	PASS
1416.00†	1414.54	-6.01	-29.55	1381.54	1414.54	703.77	-2099.50	30.69	2188.27	82.61	26.67	PASS
1516.00†	1513.21	-9.24	-45.41	1480.21	1513.21	703.77	-2099.50	31.06	2174.32	85.03	25.74	PASS
1616.00†	1611.26	-13.15	-64.65	1578.26	1611.26	703.77	-2099.50	31.50	2157.45	87.44	24.83	PASS
1716.00†	1708.57	-17.75	-87.22	1675.57	1708.57	703.77	-2099.50	32.03	2137.72	89.84	23.94	PASS
1816.00†	1805.01	-23.01	-113.11	1772.01	1805.01	703.77	-2099.50	32.66	2115.17	92.19	23.07	PASS
1916.00†	1900.47	-28.95	-142.28	1867.47	1900.47	703.77	-2099.50	33.38	2089.87	94.59	22.22	PASS
2016.00†	1994.84	-35.54	-174.70	1961.84	1994.84	703.77	-2099.50	34.20	2061.90	96.98	21.37	PASS
2034.82	2012.46	-36.86	-181.16	1979.46	2012.46	703.77	-2099.50	34.37	2056.34	97.43	21.22	PASS
2116.00†	2088.40	-42.58	-209.28	2055.40	2088.40	703.77	-2099.50	34.82	2032.23	99.35	20.56	PASS
2216.00†	2181.95	-49.63	-243.91	2148.95	2181.95	703.77	-2099.50	35.38	2002.70	101.73	19.79	PASS
2316.00†	2275.50	-56.67	-278.54	2242.50	2275.50	703.77	-2099.50	35.96	1973.36	104.14	19.04	PASS
2416.00†	2369.04	-63.72	-313.17	2336.04	2369.04	703.77	-2099.50	36.56	1944.22	106.58	18.33	PASS
2516.00†	2462.59	-70.76	-347.81	2429.59	2462.59	703.77	-2099.50	37.18	1915.29	109.05	17.65	PASS
2616.00†	2556.14	-77.81	-382.44	2523.14	2556.14	703.77	-2099.50	37.81	1886.58	111.55	16.99	PASS
2716.00†	2649.68	-84.86	-417.07	2616.68	2649.68	703.77	-2099.50	38.46	1858.09	114.08	16.36	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
2816.00†	2743.23	-91.90	-451.70	2710.23	2743.23	703.77	-2099.50	39.13	1829.85	116.63	15.76	PASS	
2916.00†	2836.78	-98.95	-486.33	2803.78	2836.78	703.77	-2099.50	39.82	1801.85	119.22	15.18	PASS	
3016.00†	2930.32	-105.99	-520.97	2897.32	2930.32	703.77	-2099.50	40.53	1774.12	121.84	14.62	PASS	
3116.00†	3023.87	-113.04	-555.60	2990.87	3023.87	703.77	-2099.50	41.27	1746.66	124.50	14.09	PASS	
3216.00†	3117.42	-120.09	-590.23	3084.42	3117.42	703.77	-2099.50	42.02	1719.49	127.19	13.57	PASS	
3316.00†	3210.96	-127.13	-624.86	3177.96	3210.96	703.77	-2099.50	42.80	1692.62	129.91	13.08	PASS	
3416.00†	3304.51	-134.18	-659.49	3271.51	3304.51	703.77	-2099.50	43.60	1666.07	132.67	12.61	PASS	
3516.00†	3398.06	-141.23	-694.13	3365.06	3398.06	703.77	-2099.50	44.43	1639.85	135.46	12.15	PASS	
3616.00†	3491.60	-148.27	-728.76	3458.60	3491.60	703.77	-2099.50	45.28	1613.97	138.30	11.71	PASS	
3716.00†	3585.15	-155.32	-763.39	3552.15	3585.15	703.77	-2099.50	46.15	1588.47	141.16	11.29	PASS	
3816.00†	3678.70	-162.36	-798.02	3645.70	3678.70	703.77	-2099.50	47.05	1563.34	144.07	10.89	PASS	
3916.00†	3772.24	-169.41	-832.65	3739.24	3772.24	703.77	-2099.50	47.98	1538.62	147.01	10.50	PASS	
4016.00†	3865.79	-176.46	-867.28	3832.79	3865.79	703.77	-2099.50	48.94	1514.32	150.00	10.13	PASS	
4116.00†	3959.34	-183.50	-901.92	3926.34	3959.34	703.77	-2099.50	49.93	1490.46	153.02	9.77	PASS	
4216.00†	4052.88	-190.55	-936.55	4019.88	4052.88	703.77	-2099.50	50.94	1467.06	156.07	9.43	PASS	
4316.00†	4146.43	-197.59	-971.18	4113.43	4146.43	703.77	-2099.50	51.99	1444.15	159.17	9.10	PASS	
4416.00†	4239.98	-204.64	-1005.81	4206.98	4239.98	703.77	-2099.50	53.07	1421.75	162.31	8.79	PASS	
4516.00†	4333.52	-211.69	-1040.44	4300.52	4333.52	703.77	-2099.50	54.17	1399.88	165.48	8.48	PASS	
4616.00†	4427.07	-218.73	-1075.08	4394.07	4427.07	703.77	-2099.50	55.31	1378.57	168.69	8.20	PASS	
4716.00†	4520.62	-225.78	-1109.71	4487.62	4520.62	703.77	-2099.50	56.48	1357.85	171.94	7.92	PASS	
4816.00†	4614.16	-232.83	-1144.34	4581.16	4614.16	703.77	-2099.50	57.69	1337.74	175.22	7.66	PASS	
4916.00†	4707.71	-239.87	-1178.97	4674.71	4707.71	703.77	-2099.50	58.93	1318.27	178.54	7.40	PASS	
5016.00†	4801.26	-246.92	-1213.60	4768.26	4801.26	703.77	-2099.50	60.20	1299.47	181.88	7.16	PASS	
5116.00†	4894.80	-253.96	-1248.24	4861.80	4894.80	703.77	-2099.50	61.50	1281.37	185.27	6.93	PASS	
5216.00†	4988.35	-261.01	-1282.87	4955.35	4988.35	703.77	-2099.50	62.84	1264.00	188.67	6.72	PASS	
5316.00†	5081.90	-268.06	-1317.50	5048.90	5081.90	703.77	-2099.50	64.21	1247.39	192.11	6.51	PASS	
5416.00†	5175.44	-275.10	-1352.13	5142.44	5175.44	703.77	-2099.50	65.61	1231.57	195.57	6.31	PASS	
5516.00†	5268.99	-282.15	-1386.76	5235.99	5268.99	703.77	-2099.50	67.04	1216.57	199.05	6.13	PASS	
5616.00†	5362.54	-289.19	-1421.40	5329.54	5362.54	703.77	-2099.50	68.51	1202.42	202.55	5.95	PASS	
5716.00†	5456.08	-296.24	-1456.03	5423.08	5456.08	703.77	-2099.50	70.00	1189.15	206.06	5.78	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
5816.00†	5549.63	-303.29	-1490.66	5516.63	5549.63	703.77	-2099.50	71.52	1176.80	209.58	5.63	PASS	
5916.00†	5643.18	-310.33	-1525.29	5610.18	5643.18	703.77	-2099.50	73.08	1165.39	213.10	5.48	PASS	
6016.00†	5736.72	-317.38	-1559.92	5703.72	5736.72	703.77	-2099.50	74.65	1154.94	216.62	5.34	PASS	
6116.00†	5830.27	-324.43	-1594.56	5797.27	5830.27	703.77	-2099.50	76.25	1145.49	220.14	5.21	PASS	
6216.00†	5923.82	-331.47	-1629.19	5890.82	5923.82	703.77	-2099.50	77.88	1137.07	223.65	5.09	PASS	
6316.00†	6017.36	-338.52	-1663.82	5984.36	6017.36	703.77	-2099.50	79.52	1129.68	227.15	4.98	PASS	
6416.00†	6110.91	-345.56	-1698.45	6077.91	6110.91	703.77	-2099.50	81.18	1123.36	230.62	4.88	PASS	
6516.00†	6204.46	-352.61	-1733.08	6171.46	6204.46	703.77	-2099.50	82.86	1118.12	234.07	4.79	PASS	
6616.00†	6298.00	-359.66	-1767.72	6265.00	6298.00	703.77	-2099.50	84.55	1113.98	237.49	4.70	PASS	
6716.00†	6391.55	-366.70	-1802.35	6358.55	6391.55	703.77	-2099.50	86.24	1110.95	240.88	4.62	PASS	
6816.00†	6485.10	-373.75	-1836.98	6452.10	6485.10	703.77	-2099.50	87.95	1109.04	244.22	4.55	PASS	
6916.00†	6578.64	-380.79	-1871.61	6545.64	6578.64	703.77	-2099.50	89.66	1108.25	247.52	4.48	PASS	
7016.00†	6672.19	-387.84	-1906.24	6639.19	6672.19	703.77	-2099.50	91.37	1108.59	250.78	4.43	PASS	
7116.00†	6765.74	-394.89	-1940.87	6732.74	6765.74	703.77	-2099.50	93.07	1110.05	253.99	4.38	PASS	
7216.00†	6859.28	-401.93	-1975.51	6826.28	6859.28	703.77	-2099.50	94.77	1112.63	257.14	4.33	PASS	
7260.53	6900.94	-405.07	-1990.93	6867.94	6900.94	703.77	-2099.50	95.53	1114.14	258.53	4.32	PASS	
7316.00†	6952.91	-406.30	-2010.21	6919.91	6952.91	703.77	-2099.50	81.64	1113.65	260.25	4.29	PASS	
7416.00†	7045.88	-394.98	-2044.91	7012.88	7045.88	703.77	-2099.50	59.25	1100.11	263.47	4.18	PASS	
7516.00†	7135.50	-366.61	-2078.64	7102.50	7135.50	703.77	-2099.50	44.75	1070.58	266.85	4.02	PASS	
7616.00†	7219.06	-322.04	-2110.37	7186.06	7219.06	703.77	-2099.50	36.80	1025.87	269.97	3.81	PASS	
7716.00†	7294.01	-262.63	-2139.13	7261.01	7294.01	703.77	-2099.50	33.12	967.21	272.73	3.55	PASS	
7816.00†	7358.08	-190.18	-2164.05	7325.08	7358.08	703.77	-2099.50	32.60	896.28	275.07	3.26	PASS	
7916.00†	7409.32	-106.90	-2184.38	7376.32	7409.32	703.77	-2099.50	35.35	815.11	276.97	2.95	PASS	
8016.00†	7446.18	-15.32	-2199.50	7413.18	7446.18	703.77	-2099.50	43.15	726.01	278.39	2.61	PASS	
8116.00†	7467.53	81.79	-2208.94	7434.53	7467.53	703.77	-2099.50	61.38	631.54	279.33	2.26	PASS	
8197.83	7473.00	163.29	-2212.24	7440.00	7473.00	703.77	-2099.50	90.00	552.11	279.74	1.98	PASS	
8216.00†	7473.00	181.46	-2212.53	7440.00	7473.00	703.77	-2099.50	90.00	534.40	279.80	1.91	PASS	
8316.00†	7473.00	281.45	-2214.08	7440.00	7473.00	703.77	-2099.50	90.00	437.59	280.10	1.56	PASS	
8416.00†	7473.00	381.44	-2215.64	7440.00	7473.00	703.77	-2099.50	90.00	342.62	280.25	1.22	PASS	
8516.00†	7473.00	481.43	-2217.20	7440.00	7473.00	703.77	-2099.50	90.00	251.57	279.58	0.90	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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°FEL, 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	
8616.00†	7473.00	581.42	-2218.76	7440.00	7473.00	703.77	-2099.50	90.00	170.86	274.75	0.62	FAIL	
8716.00†	7473.00	681.40	-2220.32	7440.00	7473.00	703.77	-2099.50	90.00	122.87	253.39	0.48	FAIL	
8736.79†	7473.00	702.19	-2220.64	7439.74	7472.74	703.77	-2099.50	89.88	121.15	246.54	0.49	FAIL	
8816.00†	7473.00	781.39	-2221.88	7440.00	7473.00	703.77	-2099.50	90.00	144.92	243.95	0.59	FAIL	
8916.00†	7473.00	881.38	-2223.44	7440.00	7473.00	703.77	-2099.50	90.00	216.58	257.56	0.84	FAIL	
9016.00†	7473.00	981.37	-2224.99	7440.00	7473.00	703.77	-2099.50	90.00	304.65	264.66	1.15	PASS	
9116.00†	7473.00	1081.36	-2226.55	7440.00	7473.00	703.77	-2099.50	90.00	398.39	268.21	1.49	PASS	
9216.00†	7473.00	1181.34	-2228.11	7440.00	7473.00	703.77	-2099.50	90.00	494.59	270.23	1.83	PASS	
9316.00†	7473.00	1281.33	-2229.67	7440.00	7473.00	703.77	-2099.50	90.00	592.05	271.52	2.18	PASS	
9416.00†	7473.00	1381.32	-2231.23	7440.00	7473.00	703.77	-2099.50	90.00	690.23	272.40	2.54	PASS	
9516.00†	7473.00	1481.31	-2232.79	7440.00	7473.00	703.77	-2099.50	90.00	788.88	273.04	2.89	PASS	
9616.00†	7473.00	1581.29	-2234.35	7440.00	7473.00	703.77	-2099.50	90.00	887.82	273.52	3.25	PASS	
9716.00†	7473.00	1681.28	-2235.91	7440.00	7473.00	703.77	-2099.50	90.00	986.98	273.90	3.61	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

## 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	423.19	-1281.78	423.19	-1281.78
8.625in Casing Surface	0.00	150.00	150.00	17.00	167.00	423.19	-1281.78	423.19	-1281.78
7.875in Open Hole	150.00	8194.00	8044.00	167.00	8211.00	423.19	-1281.78	423.19	-1281.78
4.5in Casing Production	0.00	8194.00	8194.00	17.00	8211.00	423.19	-1281.78	423.19	-1281.78



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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

**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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	13.00	16.00	0.03	14.94	89.90	14.94	1.40	23.57	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	0.03	14.94	89.90	14.94	1.73	15.19	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	0.03	14.94	89.90	14.94	2.31	9.38	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	0.03	14.94	89.90	14.94	2.92	6.69	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	0.03	14.94	89.90	14.94	3.53	5.18	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	0.03	14.94	89.90	14.94	4.15	4.22	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	0.03	14.94	89.90	14.94	4.78	3.56	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	0.03	14.94	89.90	14.94	5.40	3.07	PASS	
816.00†	816.00	0.00	0.00	813.00	816.00	0.03	14.94	89.90	14.94	6.03	2.71	PASS	
916.00†	916.00	0.00	0.00	913.00	916.00	0.03	14.94	89.90	14.94	6.65	2.42	PASS	
1000.00	1000.00	0.00	0.00	997.00	1000.00	0.03	14.94	89.90	14.94	7.18	2.22	PASS	
1016.00†	1016.00	-0.01	-0.04	1013.00	1016.00	0.03	14.94	-168.63	14.99	7.28	2.19	PASS	
1116.00†	1115.97	-0.47	-2.30	1112.97	1115.97	0.03	14.94	-170.13	17.25	8.01	2.28	PASS	
1216.00†	1215.80	-1.62	-7.98	1212.90	1215.90	0.02	14.91	-172.58	22.95	9.00	2.70	PASS	
1316.00†	1315.36	-3.47	-17.06	1313.57	1316.54	-0.51	12.76	-174.15	29.99	10.01	3.17	PASS	
1416.00†	1414.54	-6.01	-29.55	1414.49	1417.29	-1.90	7.15	-174.89	37.03	11.19	3.49	PASS	
1516.00†	1513.21	-9.24	-45.41	1515.66	1518.02	-4.14	-1.92	-175.20	44.05	12.30	3.76	PASS	
1616.00†	1611.26	-13.15	-64.65	1617.08	1618.61	-7.25	-14.48	-175.25	51.05	13.34	4.01	PASS	
1716.00†	1708.57	-17.75	-87.22	1718.76	1718.93	-11.22	-30.53	-175.14	58.00	14.34	4.23	PASS	
1816.00†	1805.01	-23.01	-113.11	1820.69	1818.85	-16.05	-50.08	-174.91	64.91	15.22	4.43	PASS	
1916.00†	1900.47	-28.95	-142.28	1922.87	1918.23	-21.75	-73.13	-174.61	71.76	16.16	4.60	PASS	
2016.00†	1994.84	-35.54	-174.70	2025.30	2016.94	-28.31	-99.67	-174.24	78.56	17.10	4.75	PASS	
2034.82	2012.46	-36.86	-181.16	2044.60	2035.42	-29.64	-105.05	-174.16	79.83	17.26	4.78	PASS	
2116.00†	2088.40	-42.58	-209.28	2127.33	2114.25	-35.66	-129.40	-173.76	84.24	17.87	4.87	PASS	
2216.00†	2181.95	-49.63	-243.91	2227.22	2209.21	-43.09	-159.49	-173.26	88.95	18.53	4.95	PASS	
2316.00†	2275.50	-56.67	-278.54	2327.10	2304.17	-50.53	-189.58	-172.80	93.67	19.24	5.02	PASS	
2416.00†	2369.04	-63.72	-313.17	2426.99	2399.12	-57.97	-219.66	-172.39	98.40	19.98	5.07	PASS	
2516.00†	2462.59	-70.76	-347.81	2526.88	2494.08	-65.41	-249.75	-172.02	103.13	20.76	5.11	PASS	
2616.00†	2556.14	-77.81	-382.44	2626.76	2589.03	-72.84	-279.83	-171.68	107.86	21.56	5.14	PASS	
2716.00†	2649.68	-84.86	-417.07	2726.65	2683.99	-80.28	-309.92	-171.37	112.60	22.39	5.16	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
2816.00†	2743.23	-91.90	-451.70	2826.53	2778.95	-87.72	-340.01	-171.08	117.34	23.24	5.18	PASS	
2916.00†	2836.78	-98.95	-486.33	2926.42	2873.90	-95.16	-370.09	-170.82	122.08	24.11	5.19	PASS	
3016.00†	2930.32	-105.99	-520.97	3026.31	2968.86	-102.59	-400.18	-170.57	126.83	25.00	5.19	PASS	
3116.00†	3023.87	-113.04	-555.60	3126.19	3063.82	-110.03	-430.27	-170.35	131.58	25.91	5.19	PASS	
3216.00†	3117.42	-120.09	-590.23	3226.08	3158.77	-117.47	-460.35	-170.14	136.33	26.83	5.19	PASS	
3316.00†	3210.96	-127.13	-624.86	3325.96	3253.73	-124.91	-490.44	-169.94	141.08	27.76	5.19	PASS	
3416.00†	3304.51	-134.18	-659.49	3425.85	3348.69	-132.34	-520.52	-169.76	145.83	28.71	5.18	PASS	
3516.00†	3398.06	-141.23	-694.13	3525.74	3443.64	-139.78	-550.61	-169.58	150.59	29.68	5.17	PASS	
3616.00†	3491.60	-148.27	-728.76	3625.62	3538.60	-147.22	-580.70	-169.42	155.34	30.65	5.17	PASS	
3716.00†	3585.15	-155.32	-763.39	3725.51	3633.55	-154.66	-610.78	-169.27	160.10	31.63	5.15	PASS	
3816.00†	3678.70	-162.36	-798.02	3825.39	3728.51	-162.09	-640.87	-169.13	164.86	32.62	5.14	PASS	
3916.00†	3772.24	-169.41	-832.65	3925.28	3823.47	-169.53	-670.95	-168.99	169.62	33.62	5.13	PASS	
4016.00†	3865.79	-176.46	-867.28	4025.17	3918.42	-176.97	-701.04	-168.86	174.38	34.63	5.12	PASS	
4116.00†	3959.34	-183.50	-901.92	4125.05	4013.38	-184.41	-731.13	-168.74	179.14	35.64	5.11	PASS	
4216.00†	4052.88	-190.55	-936.55	4224.94	4108.34	-191.84	-761.21	-168.63	183.90	36.66	5.10	PASS	
4316.00†	4146.43	-197.59	-971.18	4324.82	4203.29	-199.28	-791.30	-168.52	188.66	37.68	5.08	PASS	
4416.00†	4239.98	-204.64	-1005.81	4424.71	4298.25	-206.72	-821.39	-168.41	193.43	38.72	5.07	PASS	
4516.00†	4333.52	-211.69	-1040.44	4524.60	4393.21	-214.16	-851.47	-168.31	198.19	39.75	5.06	PASS	
4616.00†	4427.07	-218.73	-1075.08	4624.48	4488.16	-221.59	-881.56	-168.22	202.95	40.79	5.05	PASS	
4716.00†	4520.62	-225.78	-1109.71	4724.37	4583.12	-229.03	-911.64	-168.13	207.72	41.84	5.03	PASS	
4816.00†	4614.16	-232.83	-1144.34	4824.25	4678.07	-236.47	-941.73	-168.04	212.48	42.89	5.02	PASS	
4916.00†	4707.71	-239.87	-1178.97	4924.14	4773.03	-243.91	-971.82	-167.96	217.25	43.94	5.01	PASS	
5016.00†	4801.26	-246.92	-1213.60	5024.02	4867.99	-251.34	-1001.90	-167.88	222.01	45.00	5.00	PASS	
5116.00†	4894.80	-253.96	-1248.24	5123.91	4962.94	-258.78	-1031.99	-167.81	226.78	46.06	4.98	PASS	
5216.00†	4988.35	-261.01	-1282.87	5223.80	5057.90	-266.22	-1062.07	-167.74	231.55	47.12	4.97	PASS	
5316.00†	5081.90	-268.06	-1317.50	5323.68	5152.86	-273.66	-1092.16	-167.67	236.31	48.19	4.96	PASS	
5416.00†	5175.44	-275.10	-1352.13	5423.57	5247.81	-281.09	-1122.25	-167.60	241.08	49.26	4.95	PASS	
5516.00†	5268.99	-282.15	-1386.76	5523.45	5342.77	-288.53	-1152.33	-167.54	245.85	50.33	4.94	PASS	
5616.00†	5362.54	-289.19	-1421.40	5623.34	5437.72	-295.97	-1182.42	-167.48	250.62	51.41	4.93	PASS	
5716.00†	5456.08	-296.24	-1456.03	5723.23	5532.68	-303.41	-1212.51	-167.42	255.38	52.48	4.92	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
5816.00†	5549.63	-303.29	-1490.66	5823.11	5627.64	-310.84	-1242.59	-167.36	260.15	53.56	4.91	PASS	
5916.00†	5643.18	-310.33	-1525.29	5923.00	5722.59	-318.28	-1272.68	-167.31	264.92	54.64	4.90	PASS	
6016.00†	5736.72	-317.38	-1559.92	6022.88	5817.55	-325.72	-1302.76	-167.25	269.69	55.72	4.89	PASS	
6116.00†	5830.27	-324.43	-1594.56	6122.77	5912.51	-333.16	-1332.85	-167.20	274.46	56.81	4.88	PASS	
6216.00†	5923.82	-331.47	-1629.19	6222.66	6007.46	-340.59	-1362.94	-167.15	279.23	57.89	4.87	PASS	
6316.00†	6017.36	-338.52	-1663.82	6322.54	6102.42	-348.03	-1393.02	-167.10	284.00	58.98	4.86	PASS	
6416.00†	6110.91	-345.56	-1698.45	6422.43	6197.38	-355.47	-1423.11	-167.06	288.77	60.07	4.85	PASS	
6516.00†	6204.46	-352.61	-1733.08	6522.31	6292.33	-362.91	-1453.19	-167.01	293.54	61.16	4.84	PASS	
6616.00†	6298.00	-359.66	-1767.72	6622.20	6387.29	-370.34	-1483.28	-166.97	298.31	62.25	4.84	PASS	
6716.00†	6391.55	-366.70	-1802.35	6722.09	6482.24	-377.78	-1513.37	-166.93	303.08	63.35	4.83	PASS	
6816.00†	6485.10	-373.75	-1836.98	6821.97	6577.20	-385.22	-1543.45	-166.89	307.85	64.44	4.82	PASS	
6916.00†	6578.64	-380.79	-1871.61	6921.86	6672.16	-392.66	-1573.54	-166.85	312.62	65.54	4.81	PASS	
7016.00†	6672.19	-387.84	-1906.24	7021.74	6767.11	-400.09	-1603.63	-166.81	317.39	66.64	4.80	PASS	
7116.00†	6765.74	-394.89	-1940.87	7122.82	6863.27	-406.13	-1634.11	-167.04	322.09	67.51	4.81	PASS	
7216.00†	6859.28	-401.93	-1975.51	7223.09	6958.31	-397.62	-1664.48	-169.79	326.44	66.42	4.96	PASS	
7260.53	6900.94	-405.07	-1990.93	7265.43	6997.73	-388.81	-1677.15	-171.83	328.77	65.56	5.06	PASS	
7316.00†	6952.91	-406.30	-2010.21	7316.36	7044.14	-374.21	-1692.14	170.29	332.45	64.79	5.18	PASS	
7416.00†	7045.88	-394.98	-2044.91	7405.07	7121.34	-338.66	-1717.25	141.10	340.92	64.61	5.32	PASS	
7516.00†	7135.50	-366.61	-2078.64	7490.46	7189.81	-293.00	-1739.74	120.29	351.03	65.56	5.40	PASS	
7616.00†	7219.06	-322.04	-2110.37	7573.18	7249.22	-239.05	-1759.48	106.42	361.83	66.76	5.47	PASS	
7716.00†	7294.01	-262.63	-2139.13	7653.78	7299.37	-178.34	-1776.38	96.96	372.46	67.62	5.56	PASS	
7816.00†	7358.08	-190.18	-2164.05	7732.73	7340.12	-112.26	-1790.37	90.37	382.15	67.93	5.67	PASS	
7916.00†	7409.32	-106.90	-2184.38	7810.43	7371.37	-42.05	-1801.40	85.80	390.28	67.74	5.81	PASS	
8016.00†	7446.18	-15.32	-2199.50	7887.22	7393.08	31.11	-1809.45	82.81	396.38	67.21	5.95	PASS	
8116.00†	7467.53	81.79	-2208.94	7963.44	7405.20	106.14	-1814.47	81.15	400.10	66.57	6.06	PASS	
8197.83	7473.00	163.29	-2212.24	8026.89	7408.00	169.47	-1816.35	80.68	401.24	66.18	6.12	PASS	
8216.00†	7473.00	181.46	-2212.53	8045.07	7408.00	187.64	-1816.63	80.68	401.24	66.40	6.10	PASS	
8316.00†	7473.00	281.45	-2214.08	8145.07	7408.00	287.63	-1818.19	80.68	401.24	67.82	5.97	PASS	
8416.00†	7473.00	381.44	-2215.64	8245.07	7408.00	387.61	-1819.75	80.68	401.24	69.78	5.80	PASS	
8516.00†	7473.00	481.43	-2217.20	8345.07	7408.00	487.60	-1821.31	80.68	401.24	72.23	5.60	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
8616.00†	7473.00	581.42	-2218.76	8445.07	7408.00	587.59	-1822.87	80.68	401.24	75.11	5.38	PASS	
8716.00†	7473.00	681.40	-2220.32	8545.07	7408.00	687.58	-1824.43	80.68	401.24	78.39	5.16	PASS	
8816.00†	7473.00	781.39	-2221.88	8645.07	7408.00	787.57	-1825.99	80.68	401.24	79.94	5.06	PASS	
8916.00†	7473.00	881.38	-2223.44	8745.07	7408.00	887.55	-1827.55	80.68	401.24	85.91	4.70	PASS	
9016.00†	7473.00	981.37	-2224.99	8845.07	7408.00	987.54	-1829.11	80.68	401.24	90.08	4.48	PASS	
9116.00†	7473.00	1081.36	-2226.55	8945.07	7408.00	1087.53	-1830.67	80.68	401.23	94.48	4.27	PASS	
9216.00†	7473.00	1181.34	-2228.11	9045.07	7408.00	1187.52	-1832.23	80.68	401.23	99.06	4.07	PASS	
9316.00†	7473.00	1281.33	-2229.67	9145.07	7408.00	1287.50	-1833.79	80.68	401.23	103.82	3.88	PASS	
9416.00†	7473.00	1381.32	-2231.23	9245.07	7408.00	1387.49	-1835.34	80.68	401.23	108.72	3.71	PASS	
9516.00†	7473.00	1481.31	-2232.79	9345.07	7408.00	1487.48	-1836.90	80.68	401.23	113.75	3.54	PASS	
9616.00†	7473.00	1581.29	-2234.35	9445.07	7408.00	1587.47	-1838.46	80.68	401.23	118.89	3.39	PASS	
9716.00†	7473.00	1681.28	-2235.91	9545.07	7408.00	1687.46	-1840.02	80.68	401.23	124.12	3.25	PASS	
9816.00†	7473.00	1781.27	-2237.46	9645.07	7408.00	1787.44	-1841.58	80.68	401.23	129.44	3.11	PASS	
9916.00†	7473.00	1881.26	-2239.02	9745.07	7408.00	1887.43	-1843.14	80.68	401.23	134.84	2.99	PASS	
10016.00†	7473.00	1981.25	-2240.58	9845.07	7408.00	1987.42	-1844.70	80.68	401.23	140.30	2.87	PASS	
10116.00†	7473.00	2081.23	-2242.14	9945.07	7408.00	2087.41	-1846.26	80.68	401.23	145.82	2.76	PASS	
10216.00†	7473.00	2181.22	-2243.70	10045.07	7408.00	2187.40	-1847.82	80.68	401.23	151.39	2.66	PASS	
10316.00†	7473.00	2281.21	-2245.26	10145.07	7408.00	2287.38	-1849.38	80.68	401.23	157.01	2.56	PASS	
10416.00†	7473.00	2381.20	-2246.82	10245.07	7408.00	2387.37	-1850.94	80.68	401.23	162.67	2.47	PASS	
10516.00†	7473.00	2481.19	-2248.37	10345.07	7408.00	2487.36	-1852.50	80.68	401.23	168.37	2.39	PASS	
10616.00†	7473.00	2581.17	-2249.93	10445.07	7408.00	2587.35	-1854.06	80.68	401.23	174.11	2.31	PASS	
10716.00†	7473.00	2681.16	-2251.49	10545.07	7408.00	2687.33	-1855.61	80.68	401.23	179.87	2.24	PASS	
10816.00†	7473.00	2781.15	-2253.05	10645.07	7408.00	2787.32	-1857.17	80.68	401.23	185.66	2.17	PASS	
10916.00†	7473.00	2881.14	-2254.61	10745.07	7408.00	2887.31	-1858.73	80.68	401.22	191.48	2.10	PASS	
11016.00†	7473.00	2981.12	-2256.17	10845.07	7408.00	2987.30	-1860.29	80.68	401.22	197.32	2.04	PASS	
11116.00†	7473.00	3081.11	-2257.73	10945.07	7408.00	3087.29	-1861.85	80.68	401.22	203.18	1.98	PASS	
11216.00†	7473.00	3181.10	-2259.29	11045.07	7408.00	3187.27	-1863.41	80.68	401.22	209.06	1.92	PASS	
11316.00†	7473.00	3281.09	-2260.84	11145.07	7408.00	3287.26	-1864.97	80.68	401.22	214.95	1.87	PASS	
11416.00†	7473.00	3381.08	-2262.40	11245.07	7408.00	3387.25	-1866.53	80.68	401.22	220.87	1.82	PASS	
11516.00†	7473.00	3481.06	-2263.96	11345.07	7408.00	3487.24	-1868.09	80.68	401.22	226.80	1.77	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
11616.00†	7473.00	3581.05	-2265.52	11445.07	7408.00	3587.23	-1869.65	80.68	401.22	232.74	1.73	PASS	
11716.00†	7473.00	3681.04	-2267.08	11545.07	7408.00	3687.21	-1871.21	80.68	401.22	238.69	1.68	PASS	
11816.00†	7473.00	3781.03	-2268.64	11645.07	7408.00	3787.20	-1872.77	80.68	401.22	244.66	1.64	PASS	
11916.00†	7473.00	3881.02	-2270.20	11745.07	7408.00	3887.19	-1874.33	80.68	401.22	250.64	1.60	PASS	
12016.00†	7473.00	3981.00	-2271.75	11845.07	7408.00	3987.18	-1875.88	80.68	401.22	256.63	1.56	PASS	
12116.00†	7473.00	4080.99	-2273.31	11945.07	7408.00	4087.16	-1877.44	80.68	401.22	262.63	1.53	PASS	
12216.00†	7473.00	4180.98	-2274.87	12045.07	7408.00	4187.15	-1879.00	80.68	401.22	268.63	1.49	PASS	
12316.00†	7473.00	4280.97	-2276.43	12145.07	7408.00	4287.14	-1880.56	80.68	401.22	274.65	1.46	PASS	
12416.00†	7473.00	4380.95	-2277.99	12245.07	7408.00	4387.13	-1882.12	80.68	401.22	280.67	1.43	PASS	
12516.00†	7473.00	4480.94	-2279.55	12345.07	7408.00	4487.12	-1883.68	80.68	401.22	286.70	1.40	PASS	
12616.00†	7473.00	4580.93	-2281.11	12445.07	7408.00	4587.10	-1885.24	80.68	401.22	292.74	1.37	PASS	
12716.00†	7473.00	4680.92	-2282.67	12545.07	7408.00	4687.09	-1886.80	80.68	401.21	298.78	1.34	PASS	
12816.00†	7473.00	4780.91	-2284.22	12645.07	7408.00	4787.08	-1888.36	80.68	401.21	304.83	1.32	PASS	
12916.00†	7473.00	4880.89	-2285.78	12745.07	7408.00	4887.07	-1889.92	80.68	401.21	310.89	1.29	PASS	
13016.00†	7473.00	4980.88	-2287.34	12845.07	7408.00	4987.05	-1891.48	80.68	401.21	316.95	1.27	PASS	
13116.00†	7473.00	5080.87	-2288.90	12945.07	7408.00	5087.04	-1893.04	80.68	401.21	323.01	1.24	PASS	
13216.00†	7473.00	5180.86	-2290.46	13045.07	7408.00	5187.03	-1894.60	80.68	401.21	329.08	1.22	PASS	
13316.00†	7473.00	5280.85	-2292.02	13145.07	7408.00	5287.02	-1896.15	80.68	401.21	335.16	1.20	PASS	
13416.00†	7473.00	5380.83	-2293.58	13245.07	7408.00	5387.01	-1897.71	80.68	401.21	341.24	1.18	PASS	
13516.00†	7473.00	5480.82	-2295.13	13345.07	7408.00	5486.99	-1899.27	80.68	401.21	347.32	1.16	PASS	
13616.00†	7473.00	5580.81	-2296.69	13445.07	7408.00	5586.98	-1900.83	80.68	401.21	353.41	1.14	PASS	
13716.00†	7473.00	5680.80	-2298.25	13545.07	7408.00	5686.97	-1902.39	80.68	401.21	359.50	1.12	PASS	
13816.00†	7473.00	5780.78	-2299.81	13645.07	7408.00	5786.96	-1903.95	80.68	401.21	365.59	1.10	PASS	
13916.00†	7473.00	5880.77	-2301.37	13745.07	7408.00	5886.95	-1905.51	80.68	401.21	371.69	1.08	PASS	
14016.00†	7473.00	5980.76	-2302.93	13845.07	7408.00	5986.93	-1907.07	80.68	401.21	377.79	1.06	PASS	
14116.00†	7473.00	6080.75	-2304.49	13945.07	7408.00	6086.92	-1908.63	80.68	401.21	383.89	1.05	PASS	
14216.00†	7473.00	6180.74	-2306.05	14045.07	7408.00	6186.91	-1910.19	80.68	401.21	390.00	1.03	PASS	
14316.00†	7473.00	6280.72	-2307.60	14145.07	7408.00	6286.90	-1911.75	80.68	401.21	396.11	1.01	PASS	
14416.00†	7473.00	6380.71	-2309.16	14245.07	7408.00	6386.88	-1913.31	80.68	401.20	402.22	1.00	FAIL	
14516.00†	7473.00	6480.70	-2310.72	14345.07	7408.00	6486.87	-1914.87	80.68	401.20	408.33	0.98	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
14616.00†	7473.00	6580.69	-2312.28	14445.07	7408.00	6586.86	-1916.42	80.68	401.20	414.45	0.97	FAIL	
14716.00†	7473.00	6680.68	-2313.84	14545.07	7408.00	6686.85	-1917.98	80.68	401.20	420.57	0.95	FAIL	
14816.00†	7473.00	6780.66	-2315.40	14645.07	7408.00	6786.84	-1919.54	80.68	401.20	426.69	0.94	FAIL	
14916.00†	7473.00	6880.65	-2316.96	14745.07	7408.00	6886.82	-1921.10	80.68	401.20	432.81	0.93	FAIL	
15016.00†	7473.00	6980.64	-2318.51	14845.07	7408.00	6986.81	-1922.66	80.68	401.20	438.93	0.91	FAIL	
15116.00†	7473.00	7080.63	-2320.07	14945.07	7408.00	7086.80	-1924.22	80.68	401.20	445.06	0.90	FAIL	
15216.00†	7473.00	7180.61	-2321.63	15045.07	7408.00	7186.79	-1925.78	80.68	401.20	451.19	0.89	FAIL	
15316.00†	7473.00	7280.60	-2323.19	15145.07	7408.00	7286.78	-1927.34	80.68	401.20	457.32	0.88	FAIL	
15416.00†	7473.00	7380.59	-2324.75	15245.07	7408.00	7386.76	-1928.90	80.68	401.20	463.45	0.87	FAIL	
15516.00†	7473.00	7480.58	-2326.31	15345.07	7408.00	7486.75	-1930.46	80.68	401.20	469.59	0.85	FAIL	
15616.00†	7473.00	7580.57	-2327.87	15445.07	7408.00	7586.74	-1932.02	80.68	401.20	475.72	0.84	FAIL	
15716.00†	7473.00	7680.55	-2329.43	15545.07	7408.00	7686.73	-1933.58	80.68	401.20	481.86	0.83	FAIL	
15816.00†	7473.00	7780.54	-2330.98	15645.07	7408.00	7786.71	-1935.14	80.68	401.20	488.00	0.82	FAIL	
15916.00†	7473.00	7880.53	-2332.54	15745.07	7408.00	7886.70	-1936.70	80.68	401.20	494.13	0.81	FAIL	
16016.00†	7473.00	7980.52	-2334.10	15845.07	7408.00	7986.69	-1938.25	80.68	401.20	500.28	0.80	FAIL	
16116.00†	7473.00	8080.51	-2335.66	15945.07	7408.00	8086.68	-1939.81	80.68	401.20	506.42	0.79	FAIL	
16216.00†	7473.00	8180.49	-2337.22	16045.07	7408.00	8186.67	-1941.37	80.68	401.19	512.56	0.78	FAIL	
16316.00†	7473.00	8280.48	-2338.78	16145.07	7408.00	8286.65	-1942.93	80.68	401.19	518.71	0.77	FAIL	
16416.00†	7473.00	8380.47	-2340.34	16245.07	7408.00	8386.64	-1944.49	80.68	401.19	524.85	0.76	FAIL	
16516.00†	7473.00	8480.46	-2341.89	16345.07	7408.00	8486.63	-1946.05	80.68	401.19	531.00	0.76	FAIL	
16616.00†	7473.00	8580.44	-2343.45	16445.07	7408.00	8586.62	-1947.61	80.68	401.19	537.15	0.75	FAIL	
16716.00†	7473.00	8680.43	-2345.01	16545.07	7408.00	8686.61	-1949.17	80.68	401.19	543.29	0.74	FAIL	
16816.00†	7473.00	8780.42	-2346.57	16645.07	7408.00	8786.59	-1950.73	80.68	401.19	549.44	0.73	FAIL	
16916.00†	7473.00	8880.41	-2348.13	16745.07	7408.00	8886.58	-1952.29	80.68	401.19	555.59	0.72	FAIL	
17016.00†	7473.00	8980.40	-2349.69	16845.07	7408.00	8986.57	-1953.85	80.68	401.19	561.75	0.71	FAIL	
17116.00†	7473.00	9080.38	-2351.25	16945.07	7408.00	9086.56	-1955.41	80.68	401.19	567.90	0.71	FAIL	
17216.00†	7473.00	9180.37	-2352.81	17045.07	7408.00	9186.54	-1956.97	80.68	401.19	574.05	0.70	FAIL	
17316.00†	7473.00	9280.36	-2354.36	17145.07	7408.00	9286.53	-1958.52	80.68	401.19	580.21	0.69	FAIL	
17416.00†	7473.00	9380.35	-2355.92	17245.07	7408.00	9386.52	-1960.08	80.68	401.19	586.36	0.68	FAIL	
17516.00†	7473.00	9480.33	-2357.48	17345.07	7408.00	9486.51	-1961.64	80.68	401.19	592.52	0.68	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
17616.00†	7473.00	9580.32	-2359.04	17445.07	7408.00	9586.50	-1963.20	80.68	401.19	598.67	0.67	FAIL	
17716.00†	7473.00	9680.31	-2360.60	17545.07	7408.00	9686.48	-1964.76	80.68	401.19	604.83	0.66	FAIL	
17816.00†	7473.00	9780.30	-2362.16	17645.07	7408.00	9786.47	-1966.32	80.68	401.19	610.99	0.66	FAIL	
17916.00†	7473.00	9880.29	-2363.72	17745.07	7408.00	9886.46	-1967.88	80.68	401.19	617.15	0.65	FAIL	
18006.06†	7473.00	9970.33	-2365.12	17835.13	7408.00	9976.51	-1969.28	80.68	401.18	622.70	0.64	FAIL	
18013.26	7473.00	9977.53	-2365.23	17835.13	7408.00	9976.51	-1969.28	80.68	401.25	620.61	0.65	FAIL	

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	0.02	9.11	-4.56	-9.41
8.5in Open Hole	1800.00	17835.13	16035.13	1795.62	N/A	-4.56	-9.41	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 20-17-1NCH PWP (REV-A.0)**  
**Closest Approach**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	16.00	16.00	0.01	-15.06	-89.97	15.06	1.40	23.76	PASS	
116.00†	116.00	0.00	0.00	116.00	116.00	0.01	-15.06	-89.97	15.06	1.73	15.31	PASS	
216.00†	216.00	0.00	0.00	216.00	216.00	0.01	-15.06	-89.97	15.06	2.31	9.45	PASS	
316.00†	316.00	0.00	0.00	316.00	316.00	0.01	-15.06	-89.97	15.06	2.92	6.74	PASS	
416.00†	416.00	0.00	0.00	416.00	416.00	0.01	-15.06	-89.97	15.06	3.53	5.22	PASS	
516.00†	516.00	0.00	0.00	516.00	516.00	0.01	-15.06	-89.97	15.06	4.15	4.25	PASS	
616.00†	616.00	0.00	0.00	616.00	616.00	0.01	-15.06	-89.97	15.06	4.78	3.59	PASS	
716.00†	716.00	0.00	0.00	716.00	716.00	0.01	-15.06	-89.97	15.06	5.40	3.10	PASS	
816.00†	816.00	0.00	0.00	816.00	816.00	0.01	-15.06	-89.97	15.06	6.03	2.73	PASS	
916.00†	916.00	0.00	0.00	915.92	915.92	0.00	-15.10	-90.00	15.10	6.65	2.44	PASS	
1000.00	1000.00	0.00	0.00	999.45	999.43	-0.32	-16.75	-91.09	16.77	7.27	2.47	PASS	
1016.00†	1016.00	-0.01	-0.04	1015.34	1015.31	-0.43	-17.34	10.10	17.31	7.39	2.50	PASS	
1116.00†	1115.97	-0.47	-2.30	1114.63	1114.43	-1.51	-22.95	8.58	20.73	8.50	2.59	PASS	
1216.00†	1215.80	-1.62	-7.98	1213.80	1213.18	-3.24	-31.92	7.59	24.14	9.78	2.60	PASS	
1316.00†	1315.36	-3.47	-17.06	1312.86	1311.43	-5.62	-44.22	6.92	27.52	10.95	2.63	PASS	
1416.00†	1414.54	-6.01	-29.55	1411.80	1409.08	-8.63	-59.83	6.46	30.88	12.01	2.68	PASS	
1516.00†	1513.21	-9.24	-45.41	1510.63	1506.01	-12.27	-78.72	6.16	34.21	13.03	2.73	PASS	
1616.00†	1611.26	-13.15	-64.65	1609.34	1602.12	-16.54	-100.85	5.97	37.49	14.00	2.78	PASS	
1716.00†	1708.57	-17.75	-87.22	1707.95	1697.28	-21.43	-126.19	5.87	40.73	14.94	2.82	PASS	
1816.00†	1805.01	-23.01	-113.11	1806.45	1791.40	-26.93	-154.70	5.83	43.93	15.77	2.87	PASS	
1916.00†	1900.47	-28.95	-142.28	1904.84	1884.37	-33.03	-186.33	5.84	47.07	16.68	2.90	PASS	
2016.00†	1994.84	-35.54	-174.70	2003.13	1976.07	-39.72	-221.04	5.89	50.17	17.60	2.93	PASS	
2034.82	2012.46	-36.86	-181.16	2021.86	1993.41	-41.06	-227.97	5.91	50.71	17.74	2.93	PASS	
2116.00†	2088.40	-42.58	-209.28	2103.01	2068.58	-46.86	-258.03	6.01	52.80	18.29	2.96	PASS	
2216.00†	2181.95	-49.63	-243.91	2202.98	2161.16	-54.00	-295.06	6.13	55.39	19.00	2.99	PASS	
2316.00†	2275.50	-56.67	-278.54	2302.95	2253.74	-61.14	-332.08	6.24	57.97	19.74	3.01	PASS	
2416.00†	2369.04	-63.72	-313.17	2402.91	2346.32	-68.28	-369.11	6.34	60.55	20.51	3.02	PASS	
2516.00†	2462.59	-70.76	-347.81	2502.88	2438.90	-75.42	-406.14	6.43	63.13	21.31	3.03	PASS	
2616.00†	2556.14	-77.81	-382.44	2602.85	2531.48	-82.56	-443.17	6.51	65.71	22.13	3.03	PASS	
2716.00†	2649.68	-84.86	-417.07	2702.81	2624.06	-89.71	-480.19	6.59	68.30	22.97	3.04	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
2816.00†	2743.23	-91.90	-451.70	2802.78	2716.65	-96.85	-517.22	6.66	70.88	23.83	3.03	PASS	
2916.00†	2836.78	-98.95	-486.33	2902.75	2809.23	-103.99	-554.25	6.73	73.46	24.71	3.03	PASS	
3016.00†	2930.32	-105.99	-520.97	3002.71	2901.81	-111.13	-591.27	6.79	76.05	25.61	3.03	PASS	
3116.00†	3023.87	-113.04	-555.60	3102.68	2994.39	-118.27	-628.30	6.85	78.63	26.51	3.02	PASS	
3216.00†	3117.42	-120.09	-590.23	3202.65	3086.97	-125.41	-665.33	6.90	81.21	27.43	3.01	PASS	
3316.00†	3210.96	-127.13	-624.86	3302.61	3179.55	-132.56	-702.36	6.95	83.79	28.36	3.00	PASS	
3416.00†	3304.51	-134.18	-659.49	3402.58	3272.13	-139.70	-739.38	7.00	86.38	29.30	3.00	PASS	
3516.00†	3398.06	-141.23	-694.13	3502.55	3364.71	-146.84	-776.41	7.04	88.96	30.25	2.99	PASS	
3616.00†	3491.60	-148.27	-728.76	3602.51	3457.30	-153.98	-813.44	7.09	91.54	31.21	2.98	PASS	
3716.00†	3585.15	-155.32	-763.39	3702.48	3549.88	-161.12	-850.46	7.13	94.13	32.18	2.97	PASS	
3816.00†	3678.70	-162.36	-798.02	3802.45	3642.46	-168.26	-887.49	7.16	96.71	33.15	2.96	PASS	
3916.00†	3772.24	-169.41	-832.65	3902.41	3735.04	-175.41	-924.52	7.20	99.29	34.13	2.95	PASS	
4016.00†	3865.79	-176.46	-867.28	4002.38	3827.62	-182.55	-961.55	7.23	101.88	35.11	2.94	PASS	
4116.00†	3959.34	-183.50	-901.92	4102.34	3920.20	-189.69	-998.57	7.27	104.46	36.10	2.93	PASS	
4216.00†	4052.88	-190.55	-936.55	4202.31	4012.78	-196.83	-1035.60	7.30	107.05	37.09	2.92	PASS	
4316.00†	4146.43	-197.59	-971.18	4302.28	4105.37	-203.97	-1072.63	7.33	109.63	38.09	2.91	PASS	
4416.00†	4239.98	-204.64	-1005.81	4402.24	4197.95	-211.11	-1109.65	7.35	112.21	39.10	2.90	PASS	
4516.00†	4333.52	-211.69	-1040.44	4502.21	4290.53	-218.26	-1146.68	7.38	114.80	40.10	2.90	PASS	
4616.00†	4427.07	-218.73	-1075.08	4602.18	4383.11	-225.40	-1183.71	7.41	117.38	41.11	2.89	PASS	
4716.00†	4520.62	-225.78	-1109.71	4702.14	4475.69	-232.54	-1220.74	7.43	119.96	42.13	2.88	PASS	
4816.00†	4614.16	-232.83	-1144.34	4802.11	4568.27	-239.68	-1257.76	7.46	122.55	43.14	2.87	PASS	
4916.00†	4707.71	-239.87	-1178.97	4902.08	4660.85	-246.82	-1294.79	7.48	125.13	44.16	2.86	PASS	
5016.00†	4801.26	-246.92	-1213.60	5002.04	4753.44	-253.97	-1331.82	7.50	127.71	45.19	2.86	PASS	
5116.00†	4894.80	-253.96	-1248.24	5102.01	4846.02	-261.11	-1368.84	7.52	130.30	46.21	2.85	PASS	
5216.00†	4988.35	-261.01	-1282.87	5201.98	4938.60	-268.25	-1405.87	7.54	132.88	47.24	2.84	PASS	
5316.00†	5081.90	-268.06	-1317.50	5301.94	5031.18	-275.39	-1442.90	7.56	135.47	48.27	2.83	PASS	
5416.00†	5175.44	-275.10	-1352.13	5401.91	5123.76	-282.53	-1479.93	7.58	138.05	49.30	2.83	PASS	
5516.00†	5268.99	-282.15	-1386.76	5501.88	5216.34	-289.67	-1516.95	7.60	140.63	50.33	2.82	PASS	
5616.00†	5362.54	-289.19	-1421.40	5601.84	5308.92	-296.82	-1553.98	7.61	143.22	51.37	2.81	PASS	
5716.00†	5456.08	-296.24	-1456.03	5701.81	5401.50	-303.96	-1591.01	7.63	145.80	52.40	2.81	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
5816.00†	5549.63	-303.29	-1490.66	5801.78	5494.09	-311.10	-1628.03	7.65	148.38	53.44	2.80	PASS	
5916.00†	5643.18	-310.33	-1525.29	5901.74	5586.67	-318.24	-1665.06	7.66	150.97	54.48	2.79	PASS	
6016.00†	5736.72	-317.38	-1559.92	6001.71	5679.25	-325.38	-1702.09	7.68	153.55	55.52	2.79	PASS	
6116.00†	5830.27	-324.43	-1594.56	6101.68	5771.83	-332.52	-1739.12	7.69	156.14	56.56	2.78	PASS	
6216.00†	5923.82	-331.47	-1629.19	6201.64	5864.41	-339.67	-1776.14	7.70	158.72	57.61	2.78	PASS	
6316.00†	6017.36	-338.52	-1663.82	6301.61	5956.99	-346.81	-1813.17	7.72	161.30	58.65	2.77	PASS	
6416.00†	6110.91	-345.56	-1698.45	6401.58	6049.57	-353.95	-1850.20	7.73	163.89	59.70	2.77	PASS	
6516.00†	6204.46	-352.61	-1733.08	6501.54	6142.16	-361.09	-1887.22	7.74	166.47	60.75	2.76	PASS	
6616.00†	6298.00	-359.66	-1767.72	6601.51	6234.74	-368.23	-1924.25	7.76	169.06	61.80	2.76	PASS	
6716.00†	6391.55	-366.70	-1802.35	6701.48	6327.32	-375.37	-1961.28	7.77	171.64	62.84	2.75	PASS	
6816.00†	6485.10	-373.75	-1836.98	6801.44	6419.90	-382.52	-1998.31	7.78	174.22	63.89	2.75	PASS	
6916.00†	6578.64	-380.79	-1871.61	6901.41	6512.48	-389.66	-2035.33	7.79	176.81	64.93	2.74	PASS	
7016.00†	6672.19	-387.84	-1906.24	7001.38	6605.06	-396.80	-2072.36	7.80	179.39	66.00	2.74	PASS	
7116.00†	6765.74	-394.89	-1940.87	7101.35	6697.64	-402.98	-2109.50	8.12	181.96	67.22	2.73	PASS	
7216.00†	6859.28	-401.93	-1975.51	7199.78	6788.57	-395.87	-2146.24	12.50	184.90	71.23	2.61	PASS	
7260.53	6900.94	-405.07	-1990.93	7241.46	6826.40	-387.82	-2161.73	15.83	187.15	74.55	2.52	PASS	
7316.00†	6952.91	-406.30	-2010.21	7291.69	6871.09	-374.20	-2180.16	5.79	191.33	79.25	2.43	PASS	
7416.00†	7045.88	-394.98	-2044.91	7379.44	6945.76	-340.46	-2211.31	-10.45	201.70	85.81	2.36	PASS	
7516.00†	7135.50	-366.61	-2078.64	7464.14	7012.37	-296.55	-2239.54	-20.09	214.38	88.58	2.43	PASS	
7616.00†	7219.06	-322.04	-2110.37	7546.41	7070.52	-244.16	-2264.65	-24.66	227.88	87.60	2.61	PASS	
7716.00†	7294.01	-262.63	-2139.13	7626.75	7119.93	-184.77	-2286.46	-26.61	240.98	83.80	2.89	PASS	
7816.00†	7358.08	-190.18	-2164.05	7705.61	7160.38	-119.71	-2304.86	-27.38	252.74	78.39	3.24	PASS	
7916.00†	7409.32	-106.90	-2184.38	7783.35	7191.71	-50.19	-2319.73	-27.66	262.47	72.78	3.63	PASS	
8016.00†	7446.18	-15.32	-2199.50	7860.34	7213.80	22.63	-2330.98	-27.78	269.68	68.44	3.97	PASS	
8116.00†	7467.53	81.79	-2208.94	7936.87	7226.55	97.66	-2338.56	-27.92	274.08	66.75	4.14	PASS	
8197.83	7473.00	163.29	-2212.24	7999.37	7229.99	159.93	-2341.96	-28.10	275.48	67.86	4.09	PASS	
8216.00†	7473.00	181.46	-2212.53	8016.68	7230.00	177.24	-2342.53	-28.16	275.62	68.26	4.07	PASS	
8316.00†	7473.00	281.45	-2214.08	8116.67	7230.00	277.17	-2345.78	-28.47	276.43	70.14	3.97	PASS	
8416.00†	7473.00	381.44	-2215.64	8216.65	7230.00	377.10	-2349.03	-28.77	277.24	72.17	3.87	PASS	
8516.00†	7473.00	481.43	-2217.20	8316.64	7230.00	477.04	-2352.28	-29.08	278.05	74.34	3.77	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
8616.00†	7473.00	581.42	-2218.76	8416.63	7230.00	576.97	-2355.53	-29.38	278.88	76.65	3.66	PASS	
8716.00†	7473.00	681.40	-2220.32	8516.61	7230.00	676.90	-2358.78	-29.68	279.71	79.08	3.56	PASS	
8816.00†	7473.00	781.39	-2221.88	8616.60	7230.00	776.84	-2362.02	-29.98	280.55	81.64	3.46	PASS	
8916.00†	7473.00	881.38	-2223.44	8716.58	7230.00	876.77	-2365.27	-30.28	281.40	84.31	3.36	PASS	
9016.00†	7473.00	981.37	-2224.99	8816.57	7230.00	976.70	-2368.52	-30.58	282.26	87.10	3.26	PASS	
9116.00†	7473.00	1081.36	-2226.55	8916.55	7230.00	1076.63	-2371.77	-30.87	283.13	89.99	3.16	PASS	
9216.00†	7473.00	1181.34	-2228.11	9016.54	7230.00	1176.57	-2375.02	-31.17	284.00	92.97	3.07	PASS	
9316.00†	7473.00	1281.33	-2229.67	9116.53	7230.00	1276.50	-2378.27	-31.46	284.88	96.06	2.98	PASS	
9416.00†	7473.00	1381.32	-2231.23	9216.51	7230.00	1376.43	-2381.52	-31.75	285.76	99.23	2.89	PASS	
9516.00†	7473.00	1481.31	-2232.79	9316.50	7230.00	1476.37	-2384.77	-32.03	286.66	102.49	2.81	PASS	
9616.00†	7473.00	1581.29	-2234.35	9416.48	7230.00	1576.30	-2388.02	-32.32	287.56	105.83	2.73	PASS	
9716.00†	7473.00	1681.28	-2235.91	9516.47	7230.00	1676.23	-2391.27	-32.60	288.46	109.26	2.65	PASS	
9816.00†	7473.00	1781.27	-2237.46	9616.45	7230.00	1776.16	-2394.52	-32.89	289.38	112.75	2.58	PASS	
9916.00†	7473.00	1881.26	-2239.02	9716.44	7230.00	1876.10	-2397.77	-33.17	290.30	116.33	2.50	PASS	
10016.00†	7473.00	1981.25	-2240.58	9816.43	7230.00	1976.03	-2401.01	-33.44	291.23	119.97	2.44	PASS	
10116.00†	7473.00	2081.23	-2242.14	9916.41	7230.00	2075.96	-2404.26	-33.72	292.17	123.67	2.37	PASS	
10216.00†	7473.00	2181.22	-2243.70	10016.40	7230.00	2175.90	-2407.51	-34.00	293.11	127.44	2.31	PASS	
10316.00†	7473.00	2281.21	-2245.26	10116.38	7230.00	2275.83	-2410.76	-34.27	294.06	131.27	2.25	PASS	
10416.00†	7473.00	2381.20	-2246.82	10216.37	7230.00	2375.76	-2414.01	-34.54	295.01	135.17	2.19	PASS	
10516.00†	7473.00	2481.19	-2248.37	10316.35	7230.00	2475.69	-2417.26	-34.81	295.98	139.12	2.13	PASS	
10616.00†	7473.00	2581.17	-2249.93	10416.34	7230.00	2575.63	-2420.51	-35.08	296.94	143.12	2.08	PASS	
10716.00†	7473.00	2681.16	-2251.49	10516.33	7230.00	2675.56	-2423.76	-35.34	297.92	147.18	2.03	PASS	
10816.00†	7473.00	2781.15	-2253.05	10616.31	7230.00	2775.49	-2427.01	-35.61	298.90	151.29	1.98	PASS	
10916.00†	7473.00	2881.14	-2254.61	10716.30	7230.00	2875.43	-2430.26	-35.87	299.89	155.45	1.93	PASS	
11016.00†	7473.00	2981.12	-2256.17	10816.28	7230.00	2975.36	-2433.51	-36.13	300.88	159.66	1.89	PASS	
11116.00†	7473.00	3081.11	-2257.73	10916.27	7230.00	3075.29	-2436.76	-36.39	301.88	163.92	1.85	PASS	
11216.00†	7473.00	3181.10	-2259.29	11016.25	7230.00	3175.22	-2440.01	-36.65	302.89	168.22	1.80	PASS	
11316.00†	7473.00	3281.09	-2260.84	11116.24	7230.00	3275.16	-2443.25	-36.91	303.90	172.57	1.76	PASS	
11416.00†	7473.00	3381.08	-2262.40	11216.23	7230.00	3375.09	-2446.50	-37.16	304.92	176.96	1.73	PASS	
11516.00†	7473.00	3481.06	-2263.96	11316.21	7230.00	3475.02	-2449.75	-37.41	305.95	181.39	1.69	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
11616.00†	7473.00	3581.05	-2265.52	11416.20	7230.00	3574.96	-2453.00	-37.66	306.98	185.87	1.65	PASS	
11716.00†	7473.00	3681.04	-2267.08	11516.18	7230.00	3674.89	-2456.25	-37.91	308.01	190.38	1.62	PASS	
11816.00†	7473.00	3781.03	-2268.64	11616.17	7230.00	3774.82	-2459.50	-38.16	309.06	194.94	1.59	PASS	
11916.00†	7473.00	3881.02	-2270.20	11716.15	7230.00	3874.75	-2462.75	-38.40	310.10	199.53	1.56	PASS	
12016.00†	7473.00	3981.00	-2271.75	11816.14	7230.00	3974.69	-2466.00	-38.65	311.16	204.16	1.53	PASS	
12116.00†	7473.00	4080.99	-2273.31	11916.13	7230.00	4074.62	-2469.25	-38.89	312.22	208.82	1.50	PASS	
12216.00†	7473.00	4180.98	-2274.87	12016.11	7230.00	4174.55	-2472.50	-39.13	313.28	213.52	1.47	PASS	
12316.00†	7473.00	4280.97	-2276.43	12116.10	7230.00	4274.49	-2475.75	-39.37	314.35	218.26	1.44	PASS	
12416.00†	7473.00	4380.95	-2277.99	12216.08	7230.00	4374.42	-2479.00	-39.61	315.43	223.02	1.42	PASS	
12516.00†	7473.00	4480.94	-2279.55	12316.07	7230.00	4474.35	-2482.24	-39.84	316.51	227.83	1.39	PASS	
12616.00†	7473.00	4580.93	-2281.11	12416.05	7230.00	4574.28	-2485.49	-40.08	317.60	232.66	1.37	PASS	
12716.00†	7473.00	4680.92	-2282.67	12516.04	7230.00	4674.22	-2488.74	-40.31	318.69	237.53	1.34	PASS	
12816.00†	7473.00	4780.91	-2284.22	12616.02	7230.00	4774.15	-2491.99	-40.54	319.78	242.42	1.32	PASS	
12916.00†	7473.00	4880.89	-2285.78	12716.01	7230.00	4874.08	-2495.24	-40.77	320.89	247.35	1.30	PASS	
13016.00†	7473.00	4980.88	-2287.34	12816.00	7230.00	4974.02	-2498.49	-41.00	321.99	252.30	1.28	PASS	
13116.00†	7473.00	5080.87	-2288.90	12915.98	7230.00	5073.95	-2501.74	-41.23	323.11	257.29	1.26	PASS	
13216.00†	7473.00	5180.86	-2290.46	13015.97	7230.00	5173.88	-2504.99	-41.45	324.22	262.30	1.24	PASS	
13316.00†	7473.00	5280.85	-2292.02	13115.95	7230.00	5273.82	-2508.24	-41.67	325.35	267.34	1.22	PASS	
13416.00†	7473.00	5380.83	-2293.58	13215.94	7230.00	5373.75	-2511.49	-41.90	326.47	272.41	1.20	PASS	
13516.00†	7473.00	5480.82	-2295.13	13315.92	7230.00	5473.68	-2514.74	-42.12	327.60	277.51	1.18	PASS	
13616.00†	7473.00	5580.81	-2296.69	13415.91	7230.00	5573.61	-2517.99	-42.33	328.74	282.63	1.16	PASS	
13716.00†	7473.00	5680.80	-2298.25	13515.90	7230.00	5673.55	-2521.23	-42.55	329.88	287.77	1.15	PASS	
13816.00†	7473.00	5780.78	-2299.81	13615.88	7230.00	5773.48	-2524.48	-42.77	331.03	292.94	1.13	PASS	
13916.00†	7473.00	5880.77	-2301.37	13715.87	7230.00	5873.41	-2527.73	-42.98	332.18	298.14	1.11	PASS	
14016.00†	7473.00	5980.76	-2302.93	13815.85	7230.00	5973.35	-2530.98	-43.19	333.34	303.36	1.10	PASS	
14116.00†	7473.00	6080.75	-2304.49	13915.84	7230.00	6073.28	-2534.23	-43.41	334.50	308.60	1.08	PASS	
14216.00†	7473.00	6180.74	-2306.05	14015.82	7230.00	6173.21	-2537.48	-43.62	335.66	313.87	1.07	PASS	
14316.00†	7473.00	6280.72	-2307.60	14115.81	7230.00	6273.14	-2540.73	-43.82	336.83	319.15	1.06	PASS	
14416.00†	7473.00	6380.71	-2309.16	14215.80	7230.00	6373.08	-2543.98	-44.03	338.00	324.46	1.04	PASS	
14516.00†	7473.00	6480.70	-2310.72	14315.78	7230.00	6473.01	-2547.23	-44.24	339.18	329.80	1.03	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
14616.00†	7473.00	6580.69	-2312.28	14415.77	7230.00	6572.94	-2550.48	-44.44	340.36	335.15	1.02	PASS	
14716.00†	7473.00	6680.68	-2313.84	14515.75	7230.00	6672.88	-2553.73	-44.64	341.55	340.52	1.00	PASS	
14816.00†	7473.00	6780.66	-2315.40	14615.74	7230.00	6772.81	-2556.98	-44.84	342.74	345.92	0.99	FAIL	
14916.00†	7473.00	6880.65	-2316.96	14715.72	7230.00	6872.74	-2560.22	-45.04	343.93	351.33	0.98	FAIL	
15016.00†	7473.00	6980.64	-2318.51	14815.71	7230.00	6972.67	-2563.47	-45.24	345.13	356.77	0.97	FAIL	
15116.00†	7473.00	7080.63	-2320.07	14915.70	7230.00	7072.61	-2566.72	-45.44	346.34	362.22	0.96	FAIL	
15216.00†	7473.00	7180.61	-2321.63	15015.68	7230.00	7172.54	-2569.97	-45.63	347.54	367.69	0.95	FAIL	
15316.00†	7473.00	7280.60	-2323.19	15115.67	7230.00	7272.47	-2573.22	-45.83	348.76	373.18	0.93	FAIL	
15416.00†	7473.00	7380.59	-2324.75	15215.65	7230.00	7372.41	-2576.47	-46.02	349.97	378.69	0.92	FAIL	
15516.00†	7473.00	7480.58	-2326.31	15315.64	7230.00	7472.34	-2579.72	-46.21	351.19	384.22	0.91	FAIL	
15616.00†	7473.00	7580.57	-2327.87	15415.62	7230.00	7572.27	-2582.97	-46.40	352.41	389.76	0.90	FAIL	
15716.00†	7473.00	7680.55	-2329.43	15515.61	7230.00	7672.20	-2586.22	-46.59	353.64	395.33	0.89	FAIL	
15816.00†	7473.00	7780.54	-2330.98	15615.60	7230.00	7772.14	-2589.47	-46.78	354.87	400.90	0.88	FAIL	
15916.00†	7473.00	7880.53	-2332.54	15715.58	7230.00	7872.07	-2592.72	-46.97	356.10	406.50	0.88	FAIL	
16016.00†	7473.00	7980.52	-2334.10	15815.57	7230.00	7972.00	-2595.97	-47.15	357.34	412.11	0.87	FAIL	
16116.00†	7473.00	8080.51	-2335.66	15915.55	7230.00	8071.94	-2599.21	-47.34	358.59	417.74	0.86	FAIL	
16216.00†	7473.00	8180.49	-2337.22	16015.54	7230.00	8171.87	-2602.46	-47.52	359.83	423.38	0.85	FAIL	
16316.00†	7473.00	8280.48	-2338.78	16115.52	7230.00	8271.80	-2605.71	-47.70	361.08	429.04	0.84	FAIL	
16416.00†	7473.00	8380.47	-2340.34	16215.51	7230.00	8371.73	-2608.96	-47.88	362.33	434.71	0.83	FAIL	
16516.00†	7473.00	8480.46	-2341.89	16315.50	7230.00	8471.67	-2612.21	-48.06	363.59	440.40	0.83	FAIL	
16616.00†	7473.00	8580.44	-2343.45	16415.48	7230.00	8571.60	-2615.46	-48.24	364.85	446.10	0.82	FAIL	
16716.00†	7473.00	8680.43	-2345.01	16515.47	7230.00	8671.53	-2618.71	-48.41	366.11	451.81	0.81	FAIL	
16816.00†	7473.00	8780.42	-2346.57	16615.45	7230.00	8771.47	-2621.96	-48.59	367.38	457.54	0.80	FAIL	
16916.00†	7473.00	8880.41	-2348.13	16715.44	7230.00	8871.40	-2625.21	-48.76	368.65	463.29	0.80	FAIL	
17016.00†	7473.00	8980.40	-2349.69	16815.42	7230.00	8971.33	-2628.46	-48.93	369.92	469.04	0.79	FAIL	
17116.00†	7473.00	9080.38	-2351.25	16915.41	7230.00	9071.26	-2631.71	-49.10	371.20	474.81	0.78	FAIL	
17216.00†	7473.00	9180.37	-2352.81	17015.40	7230.00	9171.20	-2634.96	-49.27	372.48	480.59	0.77	FAIL	
17316.00†	7473.00	9280.36	-2354.36	17115.38	7230.00	9271.13	-2638.20	-49.44	373.76	486.39	0.77	FAIL	
17416.00†	7473.00	9380.35	-2355.92	17215.37	7230.00	9371.06	-2641.45	-49.61	375.05	492.20	0.76	FAIL	
17516.00†	7473.00	9480.33	-2357.48	17315.35	7230.00	9471.00	-2644.70	-49.78	376.34	498.02	0.76	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
17616.00†	7473.00	9580.32	-2359.04	17415.34	7230.00	9570.93	-2647.95	-49.94	377.63	503.85	0.75	FAIL
17716.00†	7473.00	9680.31	-2360.60	17515.32	7230.00	9670.86	-2651.20	-50.11	378.93	509.69	0.74	FAIL
17816.00†	7473.00	9780.30	-2362.16	17615.31	7230.00	9770.80	-2654.45	-50.27	380.23	515.54	0.74	FAIL
17916.00†	7473.00	9880.29	-2363.72	17715.30	7230.00	9870.73	-2657.70	-50.43	381.53	521.41	0.73	FAIL
18013.26	7473.00	9977.53	-2365.23	17812.54	7230.00	9967.92	-2660.86	-50.59	382.80	527.12	0.73	FAIL

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	0.00	-9.18	-8.09	-51.14
8.5in Open Hole	1800.00	17822.97	16022.97	1785.27	7230.00	-8.09	-51.14	3041.40	-815.72

## 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 20-17-1NCH PWP (REV-A.0)**  
**Closest Approach**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20) Well: WAKEMAN 20-17-1CDH 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	
16.00	16.00	0.00	0.00	13.00	16.00	-0.09	-30.00	-90.18	30.00	1.40	48.67	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	-0.09	-30.00	-90.18	30.00	1.73	31.36	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	-0.09	-30.00	-90.18	30.00	2.31	19.36	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	-0.09	-30.00	-90.18	30.00	2.92	13.80	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	-0.09	-30.00	-90.18	30.00	3.53	10.69	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	-0.09	-30.00	-90.18	30.00	4.15	8.71	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	-0.09	-30.00	-90.18	30.00	4.78	7.34	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	-0.09	-30.00	-90.18	30.00	5.40	6.35	PASS	
816.00†	816.00	0.00	0.00	812.87	815.87	-0.10	-30.03	-90.19	30.03	6.03	5.59	PASS	
916.00†	916.00	0.00	0.00	911.79	914.76	-0.47	-32.15	-90.83	32.18	6.78	5.25	PASS	
1000.00	1000.00	0.00	0.00	994.69	997.54	-1.22	-36.52	-91.92	36.62	7.64	5.23	PASS	
1016.00†	1016.00	-0.01	-0.04	1010.43	1013.26	-1.41	-37.61	9.36	37.70	7.81	5.26	PASS	
1116.00†	1115.97	-0.47	-2.30	1108.82	1111.22	-2.94	-46.39	8.27	44.41	8.86	5.41	PASS	
1216.00†	1215.80	-1.62	-7.98	1206.97	1208.60	-5.03	-58.44	7.58	51.08	10.09	5.41	PASS	
1316.00†	1315.36	-3.47	-17.06	1304.90	1305.29	-7.68	-73.73	7.16	57.71	11.20	5.47	PASS	
1416.00†	1414.54	-6.01	-29.55	1402.61	1401.18	-10.89	-92.22	6.91	64.27	12.25	5.54	PASS	
1516.00†	1513.21	-9.24	-45.41	1500.11	1496.16	-14.64	-113.87	6.80	70.76	13.23	5.63	PASS	
1616.00†	1611.26	-13.15	-64.65	1597.40	1590.19	-18.94	-138.64	6.77	77.17	14.19	5.70	PASS	
1716.00†	1708.57	-17.75	-87.22	1694.49	1683.03	-23.77	-166.48	6.83	83.49	15.12	5.78	PASS	
1816.00†	1805.01	-23.01	-113.11	1791.38	1774.71	-29.12	-197.34	6.93	89.72	15.98	5.84	PASS	
1916.00†	1900.47	-28.95	-142.28	1888.08	1865.10	-34.99	-231.16	7.09	95.84	16.88	5.88	PASS	
2016.00†	1994.84	-35.54	-174.70	1986.52	1956.11	-41.40	-268.15	7.32	101.32	17.71	5.92	PASS	
2034.82	2012.46	-36.86	-181.16	2005.32	1973.47	-42.64	-275.26	7.38	102.02	17.85	5.91	PASS	
2116.00†	2088.40	-42.58	-209.28	2086.46	2048.38	-47.96	-305.97	7.68	104.79	18.42	5.88	PASS	
2216.00†	2181.95	-49.63	-243.91	2186.40	2140.65	-54.52	-343.80	8.04	108.20	19.16	5.83	PASS	
2316.00†	2275.50	-56.67	-278.54	2286.34	2232.92	-61.09	-381.63	8.36	111.62	19.93	5.77	PASS	
2416.00†	2369.04	-63.72	-313.17	2386.28	2325.19	-67.65	-419.46	8.67	115.04	20.74	5.71	PASS	
2516.00†	2462.59	-70.76	-347.81	2486.22	2417.46	-74.21	-457.29	8.97	118.47	21.58	5.64	PASS	
2616.00†	2556.14	-77.81	-382.44	2586.16	2509.73	-80.77	-495.11	9.24	121.89	22.45	5.57	PASS	
2716.00†	2649.68	-84.86	-417.07	2686.10	2602.00	-87.33	-532.94	9.50	125.32	23.35	5.50	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20) Well: WAKEMAN 20-17-1CDH 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	
2816.00†	2743.23	-91.90	-451.70	2786.04	2694.27	-93.89	-570.77	9.75	128.76	24.27	5.44	PASS	
2916.00†	2836.78	-98.95	-486.33	2885.98	2786.55	-100.46	-608.60	9.98	132.19	25.21	5.37	PASS	
3016.00†	2930.32	-105.99	-520.97	2985.92	2878.82	-107.02	-646.43	10.20	135.63	26.17	5.30	PASS	
3116.00†	3023.87	-113.04	-555.60	3085.86	2971.09	-113.58	-684.25	10.42	139.06	27.14	5.23	PASS	
3216.00†	3117.42	-120.09	-590.23	3185.80	3063.36	-120.14	-722.08	10.62	142.51	28.13	5.17	PASS	
3316.00†	3210.96	-127.13	-624.86	3285.73	3155.63	-126.70	-759.91	10.81	145.95	29.14	5.11	PASS	
3416.00†	3304.51	-134.18	-659.49	3385.67	3247.90	-133.26	-797.74	10.99	149.39	30.16	5.05	PASS	
3516.00†	3398.06	-141.23	-694.13	3485.61	3340.17	-139.82	-835.57	11.16	152.84	31.20	4.99	PASS	
3616.00†	3491.60	-148.27	-728.76	3585.55	3432.44	-146.39	-873.40	11.33	156.28	32.24	4.93	PASS	
3716.00†	3585.15	-155.32	-763.39	3685.49	3524.71	-152.95	-911.22	11.49	159.73	33.30	4.88	PASS	
3816.00†	3678.70	-162.36	-798.02	3785.43	3616.98	-159.51	-949.05	11.64	163.18	34.37	4.83	PASS	
3916.00†	3772.24	-169.41	-832.65	3885.37	3709.25	-166.07	-986.88	11.79	166.63	35.44	4.78	PASS	
4016.00†	3865.79	-176.46	-867.28	3985.31	3801.52	-172.63	-1024.71	11.93	170.08	36.52	4.73	PASS	
4116.00†	3959.34	-183.50	-901.92	4085.25	3893.79	-179.19	-1062.54	12.06	173.53	37.61	4.68	PASS	
4216.00†	4052.88	-190.55	-936.55	4185.19	3986.07	-185.76	-1100.36	12.19	176.98	38.71	4.64	PASS	
4316.00†	4146.43	-197.59	-971.18	4285.13	4078.34	-192.32	-1138.19	12.32	180.44	39.82	4.60	PASS	
4416.00†	4239.98	-204.64	-1005.81	4385.07	4170.61	-198.88	-1176.02	12.44	183.89	40.93	4.55	PASS	
4516.00†	4333.52	-211.69	-1040.44	4485.01	4262.88	-205.44	-1213.85	12.55	187.35	42.05	4.51	PASS	
4616.00†	4427.07	-218.73	-1075.08	4584.95	4355.15	-212.00	-1251.68	12.66	190.80	43.17	4.48	PASS	
4716.00†	4520.62	-225.78	-1109.71	4684.89	4447.42	-218.56	-1289.50	12.77	194.26	44.30	4.44	PASS	
4816.00†	4614.16	-232.83	-1144.34	4784.83	4539.69	-225.13	-1327.33	12.88	197.72	45.43	4.40	PASS	
4916.00†	4707.71	-239.87	-1178.97	4884.77	4631.96	-231.69	-1365.16	12.98	201.17	46.57	4.37	PASS	
5016.00†	4801.26	-246.92	-1213.60	4984.71	4724.23	-238.25	-1402.99	13.07	204.63	47.71	4.34	PASS	
5116.00†	4894.80	-253.96	-1248.24	5084.65	4816.50	-244.81	-1440.82	13.17	208.09	48.86	4.31	PASS	
5216.00†	4988.35	-261.01	-1282.87	5184.59	4908.77	-251.37	-1478.64	13.26	211.55	50.01	4.28	PASS	
5316.00†	5081.90	-268.06	-1317.50	5284.53	5001.04	-257.93	-1516.47	13.34	215.01	51.16	4.25	PASS	
5416.00†	5175.44	-275.10	-1352.13	5384.47	5093.32	-264.50	-1554.30	13.43	218.47	52.32	4.22	PASS	
5516.00†	5268.99	-282.15	-1386.76	5484.41	5185.59	-271.06	-1592.13	13.51	221.93	53.48	4.19	PASS	
5616.00†	5362.54	-289.19	-1421.40	5584.35	5277.86	-277.62	-1629.96	13.59	225.39	54.64	4.17	PASS	
5716.00†	5456.08	-296.24	-1456.03	5684.28	5370.13	-284.18	-1667.79	13.67	228.86	55.81	4.14	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20) Well: WAKEMAN 20-17-1CDH 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	
5816.00†	5549.63	-303.29	-1490.66	5784.22	5462.40	-290.74	-1705.61	13.74	232.32	56.98	4.12	PASS	
5916.00†	5643.18	-310.33	-1525.29	5884.16	5554.67	-297.30	-1743.44	13.81	235.78	58.15	4.09	PASS	
6016.00†	5736.72	-317.38	-1559.92	5984.10	5646.94	-303.86	-1781.27	13.88	239.24	59.32	4.07	PASS	
6116.00†	5830.27	-324.43	-1594.56	6084.04	5739.21	-310.43	-1819.10	13.95	242.71	60.50	4.05	PASS	
6216.00†	5923.82	-331.47	-1629.19	6183.98	5831.48	-316.99	-1856.93	14.02	246.17	61.68	4.03	PASS	
6316.00†	6017.36	-338.52	-1663.82	6283.92	5923.75	-323.55	-1894.75	14.08	249.64	62.86	4.01	PASS	
6416.00†	6110.91	-345.56	-1698.45	6383.86	6016.02	-330.11	-1932.58	14.15	253.10	64.04	3.99	PASS	
6516.00†	6204.46	-352.61	-1733.08	6483.80	6108.29	-336.67	-1970.41	14.21	256.56	65.23	3.97	PASS	
6616.00†	6298.00	-359.66	-1767.72	6583.74	6200.57	-343.23	-2008.24	14.27	260.03	66.41	3.95	PASS	
6716.00†	6391.55	-366.70	-1802.35	6683.68	6292.84	-349.80	-2046.07	14.33	263.49	67.60	3.93	PASS	
6816.00†	6485.10	-373.75	-1836.98	6783.62	6385.11	-356.36	-2083.89	14.38	266.96	68.79	3.91	PASS	
6916.00†	6578.64	-380.79	-1871.61	6883.56	6477.38	-362.92	-2121.72	14.44	270.43	69.98	3.89	PASS	
7016.00†	6672.19	-387.84	-1906.24	6983.50	6569.65	-369.48	-2159.55	14.49	273.89	71.18	3.88	PASS	
7116.00†	6765.74	-394.89	-1940.87	7083.44	6661.92	-376.04	-2197.38	14.54	277.36	72.37	3.86	PASS	
7216.00†	6859.28	-401.93	-1975.51	7183.38	6754.19	-382.60	-2235.21	14.59	280.82	73.57	3.84	PASS	
7260.53	6900.94	-405.07	-1990.93	7227.88	6795.27	-385.53	-2252.05	14.62	282.37	74.10	3.84	PASS	
7316.00†	6952.91	-406.30	-2010.21	7283.25	6846.39	-389.16	-2273.01	-0.54	284.08	74.21	3.86	PASS	
7416.00†	7045.88	-394.98	-2044.91	7381.47	6937.08	-395.61	-2310.19	-27.80	286.72	72.06	4.01	PASS	
7516.00†	7135.50	-366.61	-2078.64	7475.12	7023.54	-401.76	-2345.63	-49.83	291.64	69.59	4.22	PASS	
7616.00†	7219.06	-322.04	-2110.37	7565.57	7107.09	-406.91	-2379.90	-66.97	303.95	72.58	4.22	PASS	
7716.00†	7294.01	-262.63	-2139.13	7669.83	7203.05	-398.85	-2419.47	-80.72	324.68	82.19	3.98	PASS	
7816.00†	7358.08	-190.18	-2164.05	7788.82	7308.68	-366.90	-2463.39	-91.65	351.10	91.85	3.84	PASS	
7916.00†	7409.32	-106.90	-2184.38	7927.98	7421.14	-300.64	-2510.65	-100.43	379.64	95.64	3.99	PASS	
8016.00†	7446.18	-15.32	-2199.50	8093.00	7530.43	-186.99	-2557.35	-107.22	405.74	90.14	4.53	PASS	
8116.00†	7467.53	81.79	-2208.94	8285.73	7613.87	-18.25	-2594.28	-111.62	424.15	76.42	5.59	PASS	
8197.83	7473.00	163.29	-2212.24	8458.25	7640.89	150.92	-2608.02	-112.98	430.09	66.13	6.56	PASS	
8216.00†	7473.00	181.46	-2212.53	8482.63	7641.00	175.30	-2608.45	-112.99	430.13	65.83	6.59	PASS	
8316.00†	7473.00	281.45	-2214.08	8582.63	7641.00	275.28	-2610.00	-112.99	430.13	66.84	6.49	PASS	
8416.00†	7473.00	381.44	-2215.64	8682.63	7641.00	375.27	-2611.56	-112.99	430.13	68.34	6.35	PASS	
8516.00†	7473.00	481.43	-2217.20	8782.63	7641.00	475.26	-2613.12	-112.99	430.13	70.30	6.17	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20) Well: WAKEMAN 20-17-1CDH 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	
8616.00†	7473.00	581.42	-2218.76	8882.63	7641.00	575.25	-2614.68	-112.99	430.13	72.67	5.97	PASS	
8716.00†	7473.00	681.40	-2220.32	8982.63	7641.00	675.24	-2616.23	-112.99	430.13	75.43	5.75	PASS	
8816.00†	7473.00	781.39	-2221.88	9082.63	7641.00	775.22	-2617.79	-112.99	430.13	80.30	5.40	PASS	
8916.00†	7473.00	881.38	-2223.44	9182.63	7641.00	875.21	-2619.35	-112.99	430.13	81.93	5.29	PASS	
9016.00†	7473.00	981.37	-2224.99	9282.63	7641.00	975.20	-2620.91	-112.99	430.13	85.59	5.06	PASS	
9116.00†	7473.00	1081.36	-2226.55	9382.63	7641.00	1075.19	-2622.47	-112.99	430.13	89.49	4.84	PASS	
9216.00†	7473.00	1181.34	-2228.11	9482.63	7641.00	1175.17	-2624.02	-112.99	430.13	93.59	4.62	PASS	
9316.00†	7473.00	1281.33	-2229.67	9582.63	7641.00	1275.16	-2625.58	-112.99	430.12	97.87	4.42	PASS	
9416.00†	7473.00	1381.32	-2231.23	9682.63	7641.00	1375.15	-2627.14	-112.99	430.12	102.30	4.23	PASS	
9516.00†	7473.00	1481.31	-2232.79	9782.63	7641.00	1475.14	-2628.70	-112.99	430.12	106.87	4.05	PASS	
9616.00†	7473.00	1581.29	-2234.35	9882.63	7641.00	1575.13	-2630.25	-112.99	430.12	111.55	3.87	PASS	
9716.00†	7473.00	1681.28	-2235.91	9982.63	7641.00	1675.11	-2631.81	-112.99	430.12	116.34	3.71	PASS	
9816.00†	7473.00	1781.27	-2237.46	10082.63	7641.00	1775.10	-2633.37	-112.99	430.12	121.23	3.56	PASS	
9916.00†	7473.00	1881.26	-2239.02	10182.63	7641.00	1875.09	-2634.93	-112.99	430.12	126.19	3.42	PASS	
10016.00†	7473.00	1981.25	-2240.58	10282.63	7641.00	1975.08	-2636.49	-112.99	430.12	131.23	3.29	PASS	
10116.00†	7473.00	2081.23	-2242.14	10382.63	7641.00	2075.07	-2638.04	-112.99	430.12	136.32	3.17	PASS	
10216.00†	7473.00	2181.22	-2243.70	10482.63	7641.00	2175.05	-2639.60	-112.99	430.12	141.48	3.05	PASS	
10316.00†	7473.00	2281.21	-2245.26	10582.63	7641.00	2275.04	-2641.16	-112.99	430.12	146.69	2.94	PASS	
10416.00†	7473.00	2381.20	-2246.82	10682.63	7641.00	2375.03	-2642.72	-112.99	430.12	151.94	2.84	PASS	
10516.00†	7473.00	2481.19	-2248.37	10782.63	7641.00	2475.02	-2644.27	-112.99	430.11	157.24	2.74	PASS	
10616.00†	7473.00	2581.17	-2249.93	10882.63	7641.00	2575.01	-2645.83	-112.99	430.11	162.57	2.65	PASS	
10716.00†	7473.00	2681.16	-2251.49	10982.63	7641.00	2674.99	-2647.39	-112.99	430.11	167.93	2.57	PASS	
10816.00†	7473.00	2781.15	-2253.05	11082.63	7641.00	2774.98	-2648.95	-112.99	430.11	173.33	2.49	PASS	
10916.00†	7473.00	2881.14	-2254.61	11182.63	7641.00	2874.97	-2650.51	-112.99	430.11	178.75	2.41	PASS	
11016.00†	7473.00	2981.12	-2256.17	11282.63	7641.00	2974.96	-2652.06	-112.99	430.11	184.20	2.34	PASS	
11116.00†	7473.00	3081.11	-2257.73	11382.63	7641.00	3074.94	-2653.62	-112.99	430.11	189.67	2.27	PASS	
11216.00†	7473.00	3181.10	-2259.29	11482.63	7641.00	3174.93	-2655.18	-112.99	430.11	195.16	2.21	PASS	
11316.00†	7473.00	3281.09	-2260.84	11582.63	7641.00	3274.92	-2656.74	-112.99	430.11	200.67	2.15	PASS	
11416.00†	7473.00	3381.08	-2262.40	11682.63	7641.00	3374.91	-2658.30	-112.99	430.11	206.20	2.09	PASS	
11516.00†	7473.00	3481.06	-2263.96	11782.63	7641.00	3474.90	-2659.85	-112.99	430.11	211.74	2.03	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20) Well: WAKEMAN 20-17-1CDH 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	
11616.00†	7473.00	3581.05	-2265.52	11882.63	7641.00	3574.88	-2661.41	-112.99	430.11	217.30	1.98	PASS	
11716.00†	7473.00	3681.04	-2267.08	11982.63	7641.00	3674.87	-2662.97	-112.99	430.11	222.88	1.93	PASS	
11816.00†	7473.00	3781.03	-2268.64	12082.63	7641.00	3774.86	-2664.53	-112.99	430.10	228.47	1.89	PASS	
11916.00†	7473.00	3881.02	-2270.20	12182.63	7641.00	3874.85	-2666.08	-112.99	430.10	234.07	1.84	PASS	
12016.00†	7473.00	3981.00	-2271.75	12282.63	7641.00	3974.84	-2667.64	-112.99	430.10	239.68	1.80	PASS	
12116.00†	7473.00	4080.99	-2273.31	12382.63	7641.00	4074.82	-2669.20	-112.99	430.10	245.30	1.76	PASS	
12216.00†	7473.00	4180.98	-2274.87	12482.63	7641.00	4174.81	-2670.76	-112.99	430.10	250.93	1.72	PASS	
12316.00†	7473.00	4280.97	-2276.43	12582.63	7641.00	4274.80	-2672.32	-112.99	430.10	256.57	1.68	PASS	
12416.00†	7473.00	4380.95	-2277.99	12682.63	7641.00	4374.79	-2673.87	-112.99	430.10	262.22	1.64	PASS	
12516.00†	7473.00	4480.94	-2279.55	12782.63	7641.00	4474.77	-2675.43	-112.99	430.10	267.87	1.61	PASS	
12616.00†	7473.00	4580.93	-2281.11	12882.63	7641.00	4574.76	-2676.99	-112.99	430.10	273.53	1.57	PASS	
12716.00†	7473.00	4680.92	-2282.67	12982.63	7641.00	4674.75	-2678.55	-112.99	430.10	279.21	1.54	PASS	
12816.00†	7473.00	4780.91	-2284.22	13082.63	7641.00	4774.74	-2680.10	-112.99	430.10	284.88	1.51	PASS	
12916.00†	7473.00	4880.89	-2285.78	13182.63	7641.00	4874.73	-2681.66	-112.99	430.10	290.57	1.48	PASS	
13016.00†	7473.00	4980.88	-2287.34	13282.63	7641.00	4974.71	-2683.22	-112.99	430.10	296.25	1.45	PASS	
13116.00†	7473.00	5080.87	-2288.90	13382.63	7641.00	5074.70	-2684.78	-112.99	430.09	301.95	1.43	PASS	
13216.00†	7473.00	5180.86	-2290.46	13482.63	7641.00	5174.69	-2686.34	-112.99	430.09	307.65	1.40	PASS	
13316.00†	7473.00	5280.85	-2292.02	13582.63	7641.00	5274.68	-2687.89	-112.99	430.09	313.35	1.37	PASS	
13416.00†	7473.00	5380.83	-2293.58	13682.63	7641.00	5374.67	-2689.45	-112.99	430.09	319.06	1.35	PASS	
13516.00†	7473.00	5480.82	-2295.13	13782.63	7641.00	5474.65	-2691.01	-112.99	430.09	324.78	1.32	PASS	
13616.00†	7473.00	5580.81	-2296.69	13882.63	7641.00	5574.64	-2692.57	-112.99	430.09	330.49	1.30	PASS	
13716.00†	7473.00	5680.80	-2298.25	13982.63	7641.00	5674.63	-2694.12	-112.99	430.09	336.22	1.28	PASS	
13816.00†	7473.00	5780.78	-2299.81	14082.63	7641.00	5774.62	-2695.68	-112.99	430.09	341.94	1.26	PASS	
13916.00†	7473.00	5880.77	-2301.37	14182.63	7641.00	5874.60	-2697.24	-112.99	430.09	347.67	1.24	PASS	
14016.00†	7473.00	5980.76	-2302.93	14282.63	7641.00	5974.59	-2698.80	-112.99	430.09	353.40	1.22	PASS	
14116.00†	7473.00	6080.75	-2304.49	14382.63	7641.00	6074.58	-2700.36	-112.99	430.09	359.14	1.20	PASS	
14216.00†	7473.00	6180.74	-2306.05	14482.63	7641.00	6174.57	-2701.91	-112.99	430.09	364.88	1.18	PASS	
14316.00†	7473.00	6280.72	-2307.60	14582.63	7641.00	6274.56	-2703.47	-112.99	430.08	370.62	1.16	PASS	
14416.00†	7473.00	6380.71	-2309.16	14682.63	7641.00	6374.54	-2705.03	-112.99	430.08	376.36	1.14	PASS	
14516.00†	7473.00	6480.70	-2310.72	14782.63	7641.00	6474.53	-2706.59	-112.99	430.08	382.11	1.13	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W				Slot: SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20)		Well: WAKEMAN 20-17-1CDH		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
14616.00†	7473.00	6580.69	-2312.28	14882.63	7641.00	6574.52	-2708.15	-112.99	430.08	387.86	1.11	PASS
14716.00†	7473.00	6680.68	-2313.84	14982.63	7641.00	6674.51	-2709.70	-112.99	430.08	393.61	1.09	PASS
14816.00†	7473.00	6780.66	-2315.40	15082.63	7641.00	6774.50	-2711.26	-112.99	430.08	399.37	1.08	PASS
14916.00†	7473.00	6880.65	-2316.96	15182.63	7641.00	6874.48	-2712.82	-112.99	430.08	405.12	1.06	PASS
15016.00†	7473.00	6980.64	-2318.51	15282.63	7641.00	6974.47	-2714.38	-112.99	430.08	410.88	1.05	PASS
15116.00†	7473.00	7080.63	-2320.07	15382.63	7641.00	7074.46	-2715.93	-112.99	430.08	416.64	1.03	PASS
15216.00†	7473.00	7180.61	-2321.63	15482.63	7641.00	7174.45	-2717.49	-112.99	430.08	422.41	1.02	PASS
15316.00†	7473.00	7280.60	-2323.19	15582.63	7641.00	7274.43	-2719.05	-112.99	430.08	428.17	1.00	PASS
15416.00†	7473.00	7380.59	-2324.75	15682.63	7641.00	7374.42	-2720.61	-112.99	430.08	433.94	0.99	FAIL
15516.00†	7473.00	7480.58	-2326.31	15782.63	7641.00	7474.41	-2722.17	-112.99	430.08	439.71	0.98	FAIL
15616.00†	7473.00	7580.57	-2327.87	15882.63	7641.00	7574.40	-2723.72	-112.99	430.07	445.48	0.97	FAIL
15716.00†	7473.00	7680.55	-2329.43	15982.63	7641.00	7674.39	-2725.28	-112.99	430.07	451.25	0.95	FAIL
15816.00†	7473.00	7780.54	-2330.98	16082.63	7641.00	7774.37	-2726.84	-112.99	430.07	457.02	0.94	FAIL
15916.00†	7473.00	7880.53	-2332.54	16182.63	7641.00	7874.36	-2728.40	-112.99	430.07	462.80	0.93	FAIL
16016.00†	7473.00	7980.52	-2334.10	16282.63	7641.00	7974.35	-2729.95	-112.99	430.07	468.57	0.92	FAIL
16116.00†	7473.00	8080.51	-2335.66	16382.63	7641.00	8074.34	-2731.51	-112.99	430.07	474.35	0.91	FAIL
16216.00†	7473.00	8180.49	-2337.22	16482.63	7641.00	8174.33	-2733.07	-112.99	430.07	480.13	0.90	FAIL
16316.00†	7473.00	8280.48	-2338.78	16582.63	7641.00	8274.31	-2734.63	-112.99	430.07	485.91	0.88	FAIL
16416.00†	7473.00	8380.47	-2340.34	16682.63	7641.00	8374.30	-2736.19	-112.99	430.07	491.69	0.87	FAIL
16516.00†	7473.00	8480.46	-2341.89	16782.63	7641.00	8474.29	-2737.74	-112.99	430.07	497.47	0.86	FAIL
16616.00†	7473.00	8580.44	-2343.45	16882.63	7641.00	8574.28	-2739.30	-112.99	430.07	503.26	0.85	FAIL
16716.00†	7473.00	8680.43	-2345.01	16982.63	7641.00	8674.26	-2740.86	-112.99	430.07	509.04	0.84	FAIL
16816.00†	7473.00	8780.42	-2346.57	17082.63	7641.00	8774.25	-2742.42	-112.99	430.07	514.83	0.84	FAIL
16916.00†	7473.00	8880.41	-2348.13	17182.63	7641.00	8874.24	-2743.97	-112.99	430.06	520.61	0.83	FAIL
17016.00†	7473.00	8980.40	-2349.69	17282.63	7641.00	8974.23	-2745.53	-112.99	430.06	526.40	0.82	FAIL
17116.00†	7473.00	9080.38	-2351.25	17382.63	7641.00	9074.22	-2747.09	-112.99	430.06	532.19	0.81	FAIL
17216.00†	7473.00	9180.37	-2352.81	17482.63	7641.00	9174.20	-2748.65	-112.99	430.06	537.98	0.80	FAIL
17316.00†	7473.00	9280.36	-2354.36	17582.63	7641.00	9274.19	-2750.21	-112.99	430.06	543.77	0.79	FAIL
17416.00†	7473.00	9380.35	-2355.92	17682.63	7641.00	9374.18	-2751.76	-112.99	430.06	549.56	0.78	FAIL
17516.00†	7473.00	9480.33	-2357.48	17782.63	7641.00	9474.17	-2753.32	-113.00	430.06	555.36	0.77	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#16 WAKEMAN 20-17-1CDH (293'FSL & 2248'FEL, SEC.20) Well: WAKEMAN 20-17-1CDH 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	
17616.00†	7473.00	9580.32	-2359.04	17882.63	7641.00	9574.16	-2754.88	-113.00	430.06	561.15	0.77	FAIL	
17716.00†	7473.00	9680.31	-2360.60	17982.63	7641.00	9674.14	-2756.44	-113.00	430.06	566.94	0.78	FAIL	
17816.00†	7473.00	9780.30	-2362.16	18082.63	7641.00	9774.13	-2758.00	-113.00	430.06	572.74	0.75	FAIL	
17916.00†	7473.00	9880.29	-2363.72	18182.63	7641.00	9874.12	-2759.55	-113.00	430.06	578.53	0.74	FAIL	
18013.26	7473.00	9977.53	-2365.23	18279.89	7641.00	9971.37	-2761.07	-113.00	430.06	584.17	0.74	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-1CDH PWB Offset Wellpath: WAKEMAN 20-17-1CDH 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 20-17-1CDH PWB Offset 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	-0.06	-18.29	-9.06	-70.17
8.5in Open Hole	1800.00	18287.12	16487.12	1779.82	7638.00	-9.06	-70.17	3041.45	-850.75

## SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-1CDH PWB Offset 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 20-17-1NCH PWP (REV-A.0)**  
**Closest Approach**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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										C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
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 [°]					
16.00	16.00	0.00	0.00	-16.00	81.00	6832.58	-2757.93	-21.98	7368.49	25.40	299.49	PASS	
116.00†	116.00	0.00	0.00	19.00	116.00	6832.58	-2757.93	-21.98	7368.20	50.41	148.39	PASS	
216.00†	216.00	0.00	0.00	119.00	216.00	6832.58	-2757.93	-21.98	7368.20	52.75	141.71	PASS	
316.00†	316.00	0.00	0.00	219.00	316.00	6832.58	-2757.93	-21.98	7368.20	55.09	135.60	PASS	
416.00†	416.00	0.00	0.00	319.00	416.00	6832.58	-2757.93	-21.98	7368.20	57.44	129.98	PASS	
516.00†	516.00	0.00	0.00	419.00	516.00	6832.58	-2757.93	-21.98	7368.20	59.79	124.80	PASS	
616.00†	616.00	0.00	0.00	519.00	616.00	6832.58	-2757.93	-21.98	7368.20	62.15	120.01	PASS	
716.00†	716.00	0.00	0.00	619.00	716.00	6832.58	-2757.93	-21.98	7368.20	64.51	115.57	PASS	
816.00†	816.00	0.00	0.00	719.00	816.00	6832.58	-2757.93	-21.98	7368.20	66.87	111.44	PASS	
916.00†	916.00	0.00	0.00	819.00	916.00	6832.58	-2757.93	-21.98	7368.20	69.24	107.58	PASS	
1000.00	1000.00	0.00	0.00	903.00	1000.00	6832.58	-2757.93	-21.98	7368.20	71.23	104.54	PASS	
1016.00†	1016.00	-0.01	-0.04	919.00	1016.00	6832.58	-2757.93	79.52	7368.19	71.61	103.98	PASS	
1116.00†	1115.97	-0.47	-2.30	1018.97	1115.97	6832.58	-2757.93	79.55	7367.77	73.99	100.60	PASS	
1216.00†	1215.80	-1.62	-7.98	1118.80	1215.80	6832.58	-2757.93	79.61	7366.72	76.37	97.42	PASS	
1316.00†	1315.36	-3.47	-17.06	1218.36	1315.36	6832.58	-2757.93	79.71	7365.05	78.75	94.43	PASS	
1416.00†	1414.54	-6.01	-29.55	1317.54	1414.54	6832.58	-2757.93	79.86	7362.77	81.13	91.60	PASS	
1516.00†	1513.21	-9.24	-45.41	1416.21	1513.21	6832.58	-2757.93	80.03	7359.91	83.52	88.93	PASS	
1616.00†	1611.26	-13.15	-64.65	1514.26	1611.26	6832.58	-2757.93	80.25	7356.48	85.74	86.39	PASS	
1716.00†	1708.57	-17.75	-87.22	1611.57	1708.57	6832.58	-2757.93	80.50	7352.53	88.14	83.97	PASS	
1816.00†	1805.01	-23.01	-113.11	1708.01	1805.01	6832.58	-2757.93	80.78	7348.08	90.52	81.66	PASS	
1916.00†	1900.47	-28.95	-142.28	1803.47	1900.47	6832.58	-2757.93	81.10	7343.17	92.97	79.44	PASS	
2016.00†	1994.84	-35.54	-174.70	1897.84	1994.84	6832.58	-2757.93	81.45	7337.86	95.45	77.31	PASS	
2034.82	2012.46	-36.86	-181.16	1915.46	2012.46	6832.58	-2757.93	81.52	7336.82	95.92	76.92	PASS	
2116.00†	2088.40	-42.58	-209.28	1991.40	2088.40	6832.58	-2757.93	81.72	7332.36	97.97	75.25	PASS	
2216.00†	2181.95	-49.63	-243.91	2084.95	2181.95	6832.58	-2757.93	81.98	7327.01	100.54	73.26	PASS	
2316.00†	2275.50	-56.67	-278.54	2178.50	2275.50	6832.58	-2757.93	82.24	7321.83	103.16	71.35	PASS	
2416.00†	2369.04	-63.72	-313.17	2272.04	2369.04	6832.58	-2757.93	82.49	7316.82	105.82	69.49	PASS	
2516.00†	2462.59	-70.76	-347.81	2365.59	2462.59	6832.58	-2757.93	82.75	7311.97	108.52	67.71	PASS	
2616.00†	2556.14	-77.81	-382.44	2459.14	2556.14	6832.58	-2757.93	83.01	7307.29	111.26	65.99	PASS	
2716.00†	2649.68	-84.86	-417.07	2552.68	2649.68	6832.58	-2757.93	83.26	7302.78	114.04	64.34	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
2816.00†	2743.23	-91.90	-451.70	2646.23	2743.23	6832.58	-2757.93	83.52	7298.44	116.85	62.74	PASS	
2916.00†	2836.78	-98.95	-486.33	2739.78	2836.78	6832.58	-2757.93	83.78	7294.26	119.70	61.21	PASS	
3016.00†	2930.32	-105.99	-520.97	2833.32	2930.32	6832.58	-2757.93	84.04	7290.26	122.58	59.73	PASS	
3116.00†	3023.87	-113.04	-555.60	2926.87	3023.87	6832.58	-2757.93	84.30	7286.42	125.48	58.31	PASS	
3216.00†	3117.42	-120.09	-590.23	3020.42	3117.42	6832.58	-2757.93	84.56	7282.76	128.42	56.95	PASS	
3316.00†	3210.96	-127.13	-624.86	3113.96	3210.96	6832.58	-2757.93	84.82	7279.26	131.37	55.63	PASS	
3416.00†	3304.51	-134.18	-659.49	3207.51	3304.51	6832.58	-2757.93	85.08	7275.93	134.35	54.37	PASS	
3516.00†	3398.06	-141.23	-694.13	3301.06	3398.06	6832.58	-2757.93	85.34	7272.78	137.36	53.15	PASS	
3616.00†	3491.60	-148.27	-728.76	3394.60	3491.60	6832.58	-2757.93	85.60	7269.79	140.38	51.98	PASS	
3716.00†	3585.15	-155.32	-763.39	3488.15	3585.15	6832.58	-2757.93	85.86	7266.98	143.42	50.86	PASS	
3816.00†	3678.70	-162.36	-798.02	3581.70	3678.70	6832.58	-2757.93	86.12	7264.33	146.48	49.77	PASS	
3916.00†	3772.24	-169.41	-832.65	3675.24	3772.24	6832.58	-2757.93	86.38	7261.86	149.56	48.73	PASS	
4016.00†	3865.79	-176.46	-867.28	3768.79	3865.79	6832.58	-2757.93	86.64	7259.56	152.65	47.72	PASS	
4116.00†	3959.34	-183.50	-901.92	3862.34	3959.34	6832.58	-2757.93	86.90	7257.43	155.76	46.75	PASS	
4216.00†	4052.88	-190.55	-936.55	3955.88	4052.88	6832.58	-2757.93	87.16	7255.47	158.88	45.82	PASS	
4316.00†	4146.43	-197.59	-971.18	4049.43	4146.43	6832.58	-2757.93	87.42	7253.68	162.01	44.92	PASS	
4416.00†	4239.98	-204.64	-1005.81	4142.98	4239.98	6832.58	-2757.93	87.68	7252.06	165.15	44.05	PASS	
4516.00†	4333.52	-211.69	-1040.44	4236.52	4333.52	6832.58	-2757.93	87.94	7250.62	168.30	43.22	PASS	
4616.00†	4427.07	-218.73	-1075.08	4330.07	4427.07	6832.58	-2757.93	88.20	7249.35	171.47	42.41	PASS	
4716.00†	4520.62	-225.78	-1109.71	4423.62	4520.62	6832.58	-2757.93	88.46	7248.25	174.64	41.63	PASS	
4816.00†	4614.16	-232.83	-1144.34	4517.16	4614.16	6832.58	-2757.93	88.72	7247.32	177.82	40.88	PASS	
4916.00†	4707.71	-239.87	-1178.97	4610.71	4707.71	6832.58	-2757.93	88.99	7246.56	181.01	40.15	PASS	
5016.00†	4801.26	-246.92	-1213.60	4704.26	4801.26	6832.58	-2757.93	89.25	7245.98	184.20	39.45	PASS	
5116.00†	4894.80	-253.96	-1248.24	4797.80	4894.80	6832.58	-2757.93	89.51	7245.57	187.40	38.77	PASS	
5216.00†	4988.35	-261.01	-1282.87	4891.35	4988.35	6832.58	-2757.93	89.77	7245.33	190.61	38.12	PASS	
5316.00†	5081.90	-268.06	-1317.50	4984.90	5081.90	6832.58	-2757.93	90.03	7245.27	193.82	37.48	PASS	
5416.00†	5175.44	-275.10	-1352.13	5078.44	5175.44	6832.58	-2757.93	90.29	7245.37	197.04	36.87	PASS	
5516.00†	5268.99	-282.15	-1386.76	5171.99	5268.99	6832.58	-2757.93	90.55	7245.65	200.27	36.28	PASS	
5616.00†	5362.54	-289.19	-1421.40	5265.54	5362.54	6832.58	-2757.93	90.82	7246.10	203.50	35.70	PASS	
5716.00†	5456.08	-296.24	-1456.03	5359.08	5456.08	6832.58	-2757.93	91.08	7246.73	206.73	35.14	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
5816.00†	5549.63	-303.29	-1490.66	5452.63	5549.63	6832.58	-2757.93	91.34	7247.52	209.96	34.60	PASS	
5916.00†	5643.18	-310.33	-1525.29	5546.18	5643.18	6832.58	-2757.93	91.60	7248.49	213.20	34.08	PASS	
6016.00†	5736.72	-317.38	-1559.92	5639.72	5736.72	6832.58	-2757.93	91.86	7249.63	216.44	33.58	PASS	
6116.00†	5830.27	-324.43	-1594.56	5733.27	5830.27	6832.58	-2757.93	92.12	7250.94	219.69	33.08	PASS	
6216.00†	5923.82	-331.47	-1629.19	5826.82	5923.82	6832.58	-2757.93	92.38	7252.43	222.94	32.61	PASS	
6316.00†	6017.36	-338.52	-1663.82	5920.36	6017.36	6832.58	-2757.93	92.64	7254.08	226.19	32.15	PASS	
6416.00†	6110.91	-345.56	-1698.45	6013.91	6110.91	6832.58	-2757.93	92.90	7255.91	229.44	31.70	PASS	
6516.00†	6204.46	-352.61	-1733.08	6107.46	6204.46	6832.58	-2757.93	93.17	7257.91	232.69	31.26	PASS	
6616.00†	6298.00	-359.66	-1767.72	6201.00	6298.00	6832.58	-2757.93	93.43	7260.08	235.94	30.84	PASS	
6716.00†	6391.55	-366.70	-1802.35	6294.55	6391.55	6832.58	-2757.93	93.69	7262.43	239.20	30.43	PASS	
6816.00†	6485.10	-373.75	-1836.98	6388.10	6485.10	6832.58	-2757.93	93.95	7264.94	242.46	30.03	PASS	
6916.00†	6578.64	-380.79	-1871.61	6481.64	6578.64	6832.58	-2757.93	94.21	7267.62	245.71	29.64	PASS	
7016.00†	6672.19	-387.84	-1906.24	6575.19	6672.19	6832.58	-2757.93	94.47	7270.48	248.97	29.26	PASS	
7116.00†	6765.74	-394.89	-1940.87	6668.74	6765.74	6832.58	-2757.93	94.73	7273.51	252.23	28.90	PASS	
7216.00†	6859.28	-401.93	-1975.51	6762.28	6859.28	6832.58	-2757.93	94.99	7276.70	255.49	28.54	PASS	
7260.53	6900.94	-405.07	-1990.93	6803.94	6900.94	6832.58	-2757.93	95.10	7278.18	256.94	28.38	PASS	
7316.00†	6952.91	-406.30	-2010.21	6855.91	6952.91	6832.58	-2757.93	80.42	7277.39	258.75	28.18	PASS	
7416.00†	7045.88	-394.98	-2044.91	6948.88	7045.88	6832.58	-2757.93	56.55	7262.65	262.15	27.76	PASS	
7516.00†	7135.50	-366.61	-2078.64	7038.50	7135.50	6832.58	-2757.93	40.39	7231.17	265.69	27.27	PASS	
7616.00†	7219.06	-322.04	-2110.37	7122.06	7219.06	6832.58	-2757.93	30.36	7183.87	268.91	26.77	PASS	
7716.00†	7294.01	-262.63	-2139.13	7197.01	7294.01	6832.58	-2757.93	23.86	7122.14	271.71	26.26	PASS	
7816.00†	7358.08	-190.18	-2164.05	7261.08	7358.08	6832.58	-2757.93	19.14	7047.83	274.02	25.77	PASS	
7916.00†	7409.32	-106.90	-2184.38	7312.32	7409.32	6832.58	-2757.93	14.93	6963.15	275.78	25.30	PASS	
8016.00†	7446.18	-15.32	-2199.50	7349.18	7446.18	6832.58	-2757.93	9.34	6870.63	276.96	24.85	PASS	
8116.00†	7467.53	81.79	-2208.94	7370.53	7467.53	6832.58	-2757.93	-6.65	6773.08	277.55	24.45	PASS	
8197.83	7473.00	163.29	-2212.24	7376.00	7473.00	6832.58	-2757.93	-90.00	6691.58	277.60	24.15	PASS	
8216.00†	7473.00	181.46	-2212.53	7376.00	7473.00	6832.58	-2757.93	-90.00	6673.44	277.57	24.09	PASS	
8316.00†	7473.00	281.45	-2214.08	7376.00	7473.00	6832.58	-2757.93	-90.00	6573.66	277.38	23.74	PASS	
8416.00†	7473.00	381.44	-2215.64	7376.00	7473.00	6832.58	-2757.93	-90.00	6473.89	277.20	23.40	PASS	
8516.00†	7473.00	481.43	-2217.20	7376.00	7473.00	6832.58	-2757.93	-90.00	6374.13	277.00	23.05	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
8616.00†	7473.00	581.42	-2218.76	7376.00	7473.00	6832.58	-2757.93	-90.00	6274.37	276.80	22.71	PASS
8716.00†	7473.00	681.40	-2220.32	7376.00	7473.00	6832.58	-2757.93	-90.00	6174.63	276.60	22.37	PASS
8816.00†	7473.00	781.39	-2221.88	7376.00	7473.00	6832.58	-2757.93	-90.00	6074.89	276.39	22.02	PASS
8916.00†	7473.00	881.38	-2223.44	7376.00	7473.00	6832.58	-2757.93	-90.00	5975.16	276.17	21.68	PASS
9016.00†	7473.00	981.37	-2224.99	7376.00	7473.00	6832.58	-2757.93	-90.00	5875.43	275.95	21.33	PASS
9116.00†	7473.00	1081.36	-2226.55	7376.00	7473.00	6832.58	-2757.93	-90.00	5775.72	275.72	20.99	PASS
9216.00†	7473.00	1181.34	-2228.11	7376.00	7473.00	6832.58	-2757.93	-90.00	5676.02	275.48	20.64	PASS
9316.00†	7473.00	1281.33	-2229.67	7376.00	7473.00	6832.58	-2757.93	-90.00	5576.33	275.23	20.30	PASS
9416.00†	7473.00	1381.32	-2231.23	7376.00	7473.00	6832.58	-2757.93	-90.00	5476.65	274.98	19.95	PASS
9516.00†	7473.00	1481.31	-2232.79	7376.00	7473.00	6832.58	-2757.93	-90.00	5376.98	274.72	19.61	PASS
9616.00†	7473.00	1581.29	-2234.35	7376.00	7473.00	6832.58	-2757.93	-90.00	5277.32	274.44	19.27	PASS
9716.00†	7473.00	1681.28	-2235.91	7376.00	7473.00	6832.58	-2757.93	-90.00	5177.68	274.16	18.92	PASS
9816.00†	7473.00	1781.27	-2237.46	7376.00	7473.00	6832.58	-2757.93	-90.00	5078.05	273.87	18.58	PASS
9916.00†	7473.00	1881.26	-2239.02	7376.00	7473.00	6832.58	-2757.93	-90.00	4978.44	273.57	18.23	PASS
10016.00†	7473.00	1981.25	-2240.58	7376.00	7473.00	6832.58	-2757.93	-90.00	4878.84	273.25	17.89	PASS
10116.00†	7473.00	2081.23	-2242.14	7376.00	7473.00	6832.58	-2757.93	-90.00	4779.26	272.93	17.54	PASS
10216.00†	7473.00	2181.22	-2243.70	7376.00	7473.00	6832.58	-2757.93	-90.00	4679.70	272.59	17.20	PASS
10316.00†	7473.00	2281.21	-2245.26	7376.00	7473.00	6832.58	-2757.93	-90.00	4580.15	272.23	16.86	PASS
10416.00†	7473.00	2381.20	-2246.82	7376.00	7473.00	6832.58	-2757.93	-90.00	4480.63	271.86	16.51	PASS
10516.00†	7473.00	2481.19	-2248.37	7376.00	7473.00	6832.58	-2757.93	-90.00	4381.13	271.48	16.17	PASS
10616.00†	7473.00	2581.17	-2249.93	7376.00	7473.00	6832.58	-2757.93	-90.00	4281.65	271.08	15.82	PASS
10716.00†	7473.00	2681.16	-2251.49	7376.00	7473.00	6832.58	-2757.93	-90.00	4182.20	270.66	15.48	PASS
10816.00†	7473.00	2781.15	-2253.05	7376.00	7473.00	6832.58	-2757.93	-90.00	4082.77	270.22	15.14	PASS
10916.00†	7473.00	2881.14	-2254.61	7376.00	7473.00	6832.58	-2757.93	-90.00	3983.37	269.76	14.79	PASS
11016.00†	7473.00	2981.12	-2256.17	7376.00	7473.00	6832.58	-2757.93	-90.00	3884.00	269.28	14.45	PASS
11116.00†	7473.00	3081.11	-2257.73	7376.00	7473.00	6832.58	-2757.93	-90.00	3784.67	268.78	14.11	PASS
11216.00†	7473.00	3181.10	-2259.29	7376.00	7473.00	6832.58	-2757.93	-90.00	3685.37	268.25	13.76	PASS
11316.00†	7473.00	3281.09	-2260.84	7376.00	7473.00	6832.58	-2757.93	-90.00	3586.11	267.69	13.42	PASS
11416.00†	7473.00	3381.08	-2262.40	7376.00	7473.00	6832.58	-2757.93	-90.00	3486.90	267.11	13.08	PASS
11516.00†	7473.00	3481.06	-2263.96	7376.00	7473.00	6832.58	-2757.93	-90.00	3387.72	266.49	12.74	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
11616.00†	7473.00	3581.05	-2265.52	7376.00	7473.00	6832.58	-2757.93	-90.00	3288.60	265.84	12.39	PASS
11716.00†	7473.00	3681.04	-2267.08	7376.00	7473.00	6832.58	-2757.93	-90.00	3189.54	265.16	12.05	PASS
11816.00†	7473.00	3781.03	-2268.64	7376.00	7473.00	6832.58	-2757.93	-90.00	3090.53	264.43	11.71	PASS
11916.00†	7473.00	3881.02	-2270.20	7376.00	7473.00	6832.58	-2757.93	-90.00	2991.59	263.66	11.37	PASS
12016.00†	7473.00	3981.00	-2271.75	7376.00	7473.00	6832.58	-2757.93	-90.00	2892.73	262.85	11.03	PASS
12116.00†	7473.00	4080.99	-2273.31	7376.00	7473.00	6832.58	-2757.93	-90.00	2793.94	261.99	10.68	PASS
12216.00†	7473.00	4180.98	-2274.87	7376.00	7473.00	6832.58	-2757.93	-90.00	2695.24	261.07	10.34	PASS
12316.00†	7473.00	4280.97	-2276.43	7376.00	7473.00	6832.58	-2757.93	-90.00	2596.65	260.10	10.00	PASS
12416.00†	7473.00	4380.95	-2277.99	7376.00	7473.00	6832.58	-2757.93	-90.00	2498.16	259.07	9.66	PASS
12516.00†	7473.00	4480.94	-2279.55	7376.00	7473.00	6832.58	-2757.93	-90.00	2399.80	257.97	9.32	PASS
12616.00†	7473.00	4580.93	-2281.11	7376.00	7473.00	6832.58	-2757.93	-90.00	2301.59	256.81	8.98	PASS
12716.00†	7473.00	4680.92	-2282.67	7376.00	7473.00	6832.58	-2757.93	-90.00	2203.53	255.58	8.64	PASS
12816.00†	7473.00	4780.91	-2284.22	7376.00	7473.00	6832.58	-2757.93	-90.00	2105.65	254.27	8.30	PASS
12916.00†	7473.00	4880.89	-2285.78	7376.00	7473.00	6832.58	-2757.93	-90.00	2007.99	252.89	7.96	PASS
13016.00†	7473.00	4980.88	-2287.34	7376.00	7473.00	6832.58	-2757.93	-90.00	1910.56	251.44	7.61	PASS
13116.00†	7473.00	5080.87	-2288.90	7376.00	7473.00	6832.58	-2757.93	-90.00	1813.42	249.94	7.27	PASS
13216.00†	7473.00	5180.86	-2290.46	7376.00	7473.00	6832.58	-2757.93	-90.00	1716.60	248.40	6.92	PASS
13316.00†	7473.00	5280.85	-2292.02	7376.00	7473.00	6832.58	-2757.93	-90.00	1620.17	246.87	6.58	PASS
13416.00†	7473.00	5380.83	-2293.58	7376.00	7473.00	6832.58	-2757.93	-90.00	1524.20	245.40	6.22	PASS
13516.00†	7473.00	5480.82	-2295.13	7376.00	7473.00	6832.58	-2757.93	-90.00	1428.79	244.11	5.86	PASS
13616.00†	7473.00	5580.81	-2296.69	7376.00	7473.00	6832.58	-2757.93	-90.00	1334.04	243.17	5.50	PASS
13716.00†	7473.00	5680.80	-2298.25	7376.00	7473.00	6832.58	-2757.93	-90.00	1240.13	242.82	5.12	PASS
13816.00†	7473.00	5780.78	-2299.81	7376.00	7473.00	6832.58	-2757.93	-90.00	1147.24	243.45	4.72	PASS
13916.00†	7473.00	5880.77	-2301.37	7376.00	7473.00	6832.58	-2757.93	-90.00	1055.65	245.53	4.31	PASS
14016.00†	7473.00	5980.76	-2302.93	7376.00	7473.00	6832.58	-2757.93	-90.00	965.73	249.64	3.87	PASS
14116.00†	7473.00	6080.75	-2304.49	7376.00	7473.00	6832.58	-2757.93	-90.00	877.99	256.39	3.43	PASS
14216.00†	7473.00	6180.74	-2306.05	7376.00	7473.00	6832.58	-2757.93	-90.00	793.16	266.39	2.98	PASS
14316.00†	7473.00	6280.72	-2307.60	7376.00	7473.00	6832.58	-2757.93	-90.00	712.28	280.22	2.54	PASS
14416.00†	7473.00	6380.71	-2309.16	7376.00	7473.00	6832.58	-2757.93	-90.00	636.85	298.45	2.14	PASS
14516.00†	7473.00	6480.70	-2310.72	7376.00	7473.00	6832.58	-2757.93	-90.00	569.05	321.40	1.77	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
14616.00†	7473.00	6580.69	-2312.28	7376.00	7473.00	6832.58	-2757.93	-90.00	511.91	348.61	1.47	PASS
14716.00†	7473.00	6680.68	-2313.84	7376.00	7473.00	6832.58	-2757.93	-90.00	469.36	377.95	1.24	PASS
14816.00†	7473.00	6780.66	-2315.40	7376.00	7473.00	6832.58	-2757.93	-90.00	445.57	404.90	1.10	PASS
14875.93†	7473.00	6840.59	-2316.33	7375.58	7472.58	6832.58	-2757.93	-89.95	441.67	417.51	1.06	PASS
14916.00†	7473.00	6880.65	-2316.96	7376.00	7473.00	6832.58	-2757.93	-90.00	443.59	423.86	1.05	PASS
14930.31†	7473.00	6894.96	-2317.18	7376.00	7473.00	6832.58	-2757.93	-90.00	445.15	425.68	1.05	PASS
15016.00†	7473.00	6980.64	-2318.51	7376.00	7473.00	6832.58	-2757.93	-90.00	463.69	431.78	1.07	PASS
15116.00†	7473.00	7080.63	-2320.07	7376.00	7473.00	6832.58	-2757.93	-90.00	503.24	430.07	1.17	PASS
15216.00†	7473.00	7180.61	-2321.63	7376.00	7473.00	6832.58	-2757.93	-90.00	558.11	422.52	1.32	PASS
15316.00†	7473.00	7280.60	-2323.19	7376.00	7473.00	6832.58	-2757.93	-90.00	624.28	412.55	1.51	PASS
15416.00†	7473.00	7380.59	-2324.75	7376.00	7473.00	6832.58	-2757.93	-90.00	698.54	402.24	1.74	PASS
15516.00†	7473.00	7480.58	-2326.31	7376.00	7473.00	6832.58	-2757.93	-90.00	778.59	392.56	1.98	PASS
15616.00†	7473.00	7580.57	-2327.87	7376.00	7473.00	6832.58	-2757.93	-90.00	862.81	383.86	2.25	PASS
15716.00†	7473.00	7680.55	-2329.43	7376.00	7473.00	6832.58	-2757.93	-90.00	950.09	376.20	2.53	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 20-17-1NCH PWP (REV-A.0)**  
**Closest Approach**  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	4157.43	-1700.09	4157.43	-1700.09
8.625in Casing Surface	0.00	1450.00	1450.00	81.00	1531.00	4157.43	-1700.09	4157.43	-1700.09
7.875in Open Hole	1450.00	8150.00	6700.00	1531.00	N/A	4157.43	-1700.09	N/A	N/A
4.5in Casing Production	0.00	8150.00	8150.00	81.00	N/A	4157.43	-1700.09	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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	-16.00	73.00	5966.95	-1802.55	-16.81	6233.53	25.40	253.35	PASS	
116.00†	116.00	0.00	0.00	27.00	116.00	5966.95	-1802.55	-16.81	6233.27	50.60	125.06	PASS	
216.00†	216.00	0.00	0.00	127.00	216.00	5966.95	-1802.55	-16.81	6233.27	52.94	119.45	PASS	
316.00†	316.00	0.00	0.00	227.00	316.00	5966.95	-1802.55	-16.81	6233.27	55.11	114.32	PASS	
416.00†	416.00	0.00	0.00	327.00	416.00	5966.95	-1802.55	-16.81	6233.27	57.46	109.60	PASS	
516.00†	516.00	0.00	0.00	427.00	516.00	5966.95	-1802.55	-16.81	6233.27	59.81	105.25	PASS	
616.00†	616.00	0.00	0.00	527.00	616.00	5966.95	-1802.55	-16.81	6233.27	62.16	101.22	PASS	
716.00†	716.00	0.00	0.00	627.00	716.00	5966.95	-1802.55	-16.81	6233.27	64.52	97.49	PASS	
816.00†	816.00	0.00	0.00	727.00	816.00	5966.95	-1802.55	-16.81	6233.27	66.89	94.01	PASS	
916.00†	916.00	0.00	0.00	827.00	916.00	5966.95	-1802.55	-16.81	6233.27	69.25	90.77	PASS	
1000.00	1000.00	0.00	0.00	911.00	1000.00	5966.95	-1802.55	-16.81	6233.27	71.25	88.21	PASS	
1016.00†	1016.00	-0.01	-0.04	927.00	1016.00	5966.95	-1802.55	84.69	6233.26	71.63	87.74	PASS	
1116.00†	1115.97	-0.47	-2.30	1026.97	1115.97	5966.95	-1802.55	84.72	6233.05	74.00	84.90	PASS	
1216.00†	1215.80	-1.62	-7.98	1126.80	1215.80	5966.95	-1802.55	84.78	6232.52	76.38	82.23	PASS	
1316.00†	1315.36	-3.47	-17.06	1226.36	1315.36	5966.95	-1802.55	84.88	6231.68	78.75	79.72	PASS	
1416.00†	1414.54	-6.01	-29.55	1325.54	1414.54	5966.95	-1802.55	85.02	6230.55	81.14	77.35	PASS	
1516.00†	1513.21	-9.24	-45.41	1424.21	1513.21	5966.95	-1802.55	85.19	6229.15	83.52	75.11	PASS	
1616.00†	1611.26	-13.15	-64.65	1522.26	1611.26	5966.95	-1802.55	85.40	6227.51	85.91	72.98	PASS	
1716.00†	1708.57	-17.75	-87.22	1619.57	1708.57	5966.95	-1802.55	85.65	6225.66	88.32	70.96	PASS	
1816.00†	1805.01	-23.01	-113.11	1716.01	1805.01	5966.95	-1802.55	85.92	6223.65	90.69	69.03	PASS	
1916.00†	1900.47	-28.95	-142.28	1811.47	1900.47	5966.95	-1802.55	86.22	6221.51	93.14	67.18	PASS	
2016.00†	1994.84	-35.54	-174.70	1905.84	1994.84	5966.95	-1802.55	86.56	6219.31	95.63	65.40	PASS	
2034.82	2012.46	-36.86	-181.16	1923.46	2012.46	5966.95	-1802.55	86.62	6218.89	96.10	65.07	PASS	
2116.00†	2088.40	-42.58	-209.28	1999.40	2088.40	5966.95	-1802.55	86.87	6217.15	98.15	63.69	PASS	
2216.00†	2181.95	-49.63	-243.91	2092.95	2181.95	5966.95	-1802.55	87.17	6215.18	100.73	62.03	PASS	
2316.00†	2275.50	-56.67	-278.54	2186.50	2275.50	5966.95	-1802.55	87.48	6213.42	103.35	60.43	PASS	
2416.00†	2369.04	-63.72	-313.17	2280.04	2369.04	5966.95	-1802.55	87.78	6211.85	106.02	58.89	PASS	
2516.00†	2462.59	-70.76	-347.81	2373.59	2462.59	5966.95	-1802.55	88.09	6210.49	108.72	57.40	PASS	
2616.00†	2556.14	-77.81	-382.44	2467.14	2556.14	5966.95	-1802.55	88.39	6209.33	111.47	55.97	PASS	
2716.00†	2649.68	-84.86	-417.07	2560.68	2649.68	5966.95	-1802.55	88.70	6208.37	114.25	54.59	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
2816.00†	2743.23	-91.90	-451.70	2654.23	2743.23	5966.95	-1802.55	89.00	6207.61	117.07	53.27	PASS	
2916.00†	2836.78	-98.95	-486.33	2747.78	2836.78	5966.95	-1802.55	89.31	6207.05	119.91	51.99	PASS	
3016.00†	2930.32	-105.99	-520.97	2841.32	2930.32	5966.95	-1802.55	89.61	6206.69	122.79	50.77	PASS	
3116.00†	3023.87	-113.04	-555.60	2934.87	3023.87	5966.95	-1802.55	89.92	6206.54	125.70	49.59	PASS	
3216.00†	3117.42	-120.09	-590.23	3028.42	3117.42	5966.95	-1802.55	90.22	6206.58	128.63	48.45	PASS	
3316.00†	3210.96	-127.13	-624.86	3121.96	3210.96	5966.95	-1802.55	90.53	6206.83	131.59	47.36	PASS	
3416.00†	3304.51	-134.18	-659.49	3215.51	3304.51	5966.95	-1802.55	90.83	6207.28	134.56	46.31	PASS	
3516.00†	3398.06	-141.23	-694.13	3309.06	3398.06	5966.95	-1802.55	91.14	6207.93	137.56	45.30	PASS	
3616.00†	3491.60	-148.27	-728.76	3402.60	3491.60	5966.95	-1802.55	91.44	6208.78	140.58	44.33	PASS	
3716.00†	3585.15	-155.32	-763.39	3496.15	3585.15	5966.95	-1802.55	91.75	6209.83	143.62	43.40	PASS	
3816.00†	3678.70	-162.36	-798.02	3589.70	3678.70	5966.95	-1802.55	92.05	6211.08	146.67	42.50	PASS	
3916.00†	3772.24	-169.41	-832.65	3683.24	3772.24	5966.95	-1802.55	92.36	6212.53	149.74	41.64	PASS	
4016.00†	3865.79	-176.46	-867.28	3776.79	3865.79	5966.95	-1802.55	92.66	6214.19	152.82	40.80	PASS	
4116.00†	3959.34	-183.50	-901.92	3870.34	3959.34	5966.95	-1802.55	92.97	6216.04	155.91	40.00	PASS	
4216.00†	4052.88	-190.55	-936.55	3963.88	4052.88	5966.95	-1802.55	93.27	6218.09	159.02	39.23	PASS	
4316.00†	4146.43	-197.59	-971.18	4057.43	4146.43	5966.95	-1802.55	93.57	6220.35	162.14	38.49	PASS	
4416.00†	4239.98	-204.64	-1005.81	4150.98	4239.98	5966.95	-1802.55	93.88	6222.80	165.26	37.77	PASS	
4516.00†	4333.52	-211.69	-1040.44	4244.52	4333.52	5966.95	-1802.55	94.18	6225.46	168.40	37.09	PASS	
4616.00†	4427.07	-218.73	-1075.08	4338.07	4427.07	5966.95	-1802.55	94.49	6228.31	171.54	36.42	PASS	
4716.00†	4520.62	-225.78	-1109.71	4431.62	4520.62	5966.95	-1802.55	94.79	6231.36	174.69	35.78	PASS	
4816.00†	4614.16	-232.83	-1144.34	4525.16	4614.16	5966.95	-1802.55	95.09	6234.61	177.85	35.16	PASS	
4916.00†	4707.71	-239.87	-1178.97	4618.71	4707.71	5966.95	-1802.55	95.39	6238.06	181.01	34.56	PASS	
5016.00†	4801.26	-246.92	-1213.60	4712.26	4801.26	5966.95	-1802.55	95.70	6241.71	184.18	33.99	PASS	
5116.00†	4894.80	-253.96	-1248.24	4805.80	4894.80	5966.95	-1802.55	96.00	6245.56	187.36	33.43	PASS	
5216.00†	4988.35	-261.01	-1282.87	4899.35	4988.35	5966.95	-1802.55	96.30	6249.60	190.54	32.89	PASS	
5316.00†	5081.90	-268.06	-1317.50	4992.90	5081.90	5966.95	-1802.55	96.60	6253.84	193.72	32.37	PASS	
5416.00†	5175.44	-275.10	-1352.13	5086.44	5175.44	5966.95	-1802.55	96.90	6258.28	196.91	31.87	PASS	
5516.00†	5268.99	-282.15	-1386.76	5179.99	5268.99	5966.95	-1802.55	97.20	6262.91	200.10	31.38	PASS	
5616.00†	5362.54	-289.19	-1421.40	5273.54	5362.54	5966.95	-1802.55	97.50	6267.74	203.29	30.91	PASS	
5716.00†	5456.08	-296.24	-1456.03	5367.08	5456.08	5966.95	-1802.55	97.80	6272.77	206.48	30.46	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
5816.00†	5549.63	-303.29	-1490.66	5460.63	5549.63	5966.95	-1802.55	98.10	6277.99	209.68	30.02	PASS	
5916.00†	5643.18	-310.33	-1525.29	5554.18	5643.18	5966.95	-1802.55	98.40	6283.40	212.88	29.59	PASS	
6016.00†	5736.72	-317.38	-1559.92	5647.72	5736.72	5966.95	-1802.55	98.70	6289.01	216.08	29.18	PASS	
6116.00†	5830.27	-324.43	-1594.56	5741.27	5830.27	5966.95	-1802.55	99.00	6294.81	219.28	28.78	PASS	
6216.00†	5923.82	-331.47	-1629.19	5834.82	5923.82	5966.95	-1802.55	99.30	6300.80	222.48	28.39	PASS	
6316.00†	6017.36	-338.52	-1663.82	5928.36	6017.36	5966.95	-1802.55	99.59	6306.99	225.68	28.01	PASS	
6416.00†	6110.91	-345.56	-1698.45	6021.91	6110.91	5966.95	-1802.55	99.89	6313.37	228.89	27.65	PASS	
6516.00†	6204.46	-352.61	-1733.08	6115.46	6204.46	5966.95	-1802.55	100.18	6319.94	232.09	27.29	PASS	
6616.00†	6298.00	-359.66	-1767.72	6209.00	6298.00	5966.95	-1802.55	100.48	6326.70	235.29	26.95	PASS	
6716.00†	6391.55	-366.70	-1802.35	6302.55	6391.55	5966.95	-1802.55	100.77	6333.65	238.49	26.62	PASS	
6816.00†	6485.10	-373.75	-1836.98	6396.10	6485.10	5966.95	-1802.55	101.07	6340.79	241.69	26.29	PASS	
6916.00†	6578.64	-380.79	-1871.61	6489.64	6578.64	5966.95	-1802.55	101.36	6348.12	244.89	25.98	PASS	
7016.00†	6672.19	-387.84	-1906.24	6583.19	6672.19	5966.95	-1802.55	101.66	6355.63	248.09	25.67	PASS	
7116.00†	6765.74	-394.89	-1940.87	6676.74	6765.74	5966.95	-1802.55	101.95	6363.34	251.29	25.38	PASS	
7216.00†	6859.28	-401.93	-1975.51	6770.28	6859.28	5966.95	-1802.55	102.24	6371.23	254.49	25.09	PASS	
7260.53	6900.94	-405.07	-1990.93	6811.94	6900.94	5966.95	-1802.55	102.37	6374.80	255.91	24.96	PASS	
7316.00†	6952.91	-406.30	-2010.21	6863.91	6952.91	5966.95	-1802.55	87.71	6376.63	257.70	24.79	PASS	
7416.00†	7045.88	-394.98	-2044.91	6956.88	7045.88	5966.95	-1802.55	64.06	6366.54	261.11	24.43	PASS	
7516.00†	7135.50	-366.61	-2078.64	7046.50	7135.50	5966.95	-1802.55	48.37	6339.57	264.74	23.99	PASS	
7616.00†	7219.06	-322.04	-2110.37	7130.06	7219.06	5966.95	-1802.55	39.18	6296.51	268.13	23.53	PASS	
7716.00†	7294.01	-262.63	-2139.13	7205.01	7294.01	5966.95	-1802.55	34.02	6238.66	271.14	23.05	PASS	
7816.00†	7358.08	-190.18	-2164.05	7269.08	7358.08	5966.95	-1802.55	31.52	6167.73	273.70	22.58	PASS	
7916.00†	7409.32	-106.90	-2184.38	7320.32	7409.32	5966.95	-1802.55	31.28	6085.84	275.76	22.11	PASS	
8016.00†	7446.18	-15.32	-2199.50	7357.18	7446.18	5966.95	-1802.55	34.12	5995.42	277.29	21.66	PASS	
8116.00†	7467.53	81.79	-2208.94	7378.53	7467.53	5966.95	-1802.55	45.41	5899.17	278.26	21.24	PASS	
8197.83	7473.00	163.29	-2212.24	7384.00	7473.00	5966.95	-1802.55	90.00	5818.10	278.63	20.92	PASS	
8216.00†	7473.00	181.46	-2212.53	7384.00	7473.00	5966.95	-1802.55	90.00	5799.99	278.68	20.85	PASS	
8316.00†	7473.00	281.45	-2214.08	7384.00	7473.00	5966.95	-1802.55	90.00	5700.37	278.91	20.48	PASS	
8416.00†	7473.00	381.44	-2215.64	7384.00	7473.00	5966.95	-1802.55	90.00	5600.76	279.16	20.10	PASS	
8516.00†	7473.00	481.43	-2217.20	7384.00	7473.00	5966.95	-1802.55	90.00	5501.17	279.41	19.72	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
8616.00†	7473.00	581.42	-2218.76	7384.00	7473.00	5966.95	-1802.55	90.00	5401.59	279.68	19.35	PASS	
8716.00†	7473.00	681.40	-2220.32	7384.00	7473.00	5966.95	-1802.55	90.00	5302.03	279.95	18.97	PASS	
8816.00†	7473.00	781.39	-2221.88	7384.00	7473.00	5966.95	-1802.55	90.00	5202.48	280.24	18.60	PASS	
8916.00†	7473.00	881.38	-2223.44	7384.00	7473.00	5966.95	-1802.55	90.00	5102.95	280.53	18.22	PASS	
9016.00†	7473.00	981.37	-2224.99	7384.00	7473.00	5966.95	-1802.55	90.00	5003.44	280.84	17.85	PASS	
9116.00†	7473.00	1081.36	-2226.55	7384.00	7473.00	5966.95	-1802.55	90.00	4903.96	281.17	17.47	PASS	
9216.00†	7473.00	1181.34	-2228.11	7384.00	7473.00	5966.95	-1802.55	90.00	4804.49	281.50	17.10	PASS	
9316.00†	7473.00	1281.33	-2229.67	7384.00	7473.00	5966.95	-1802.55	90.00	4705.04	281.86	16.72	PASS	
9416.00†	7473.00	1381.32	-2231.23	7384.00	7473.00	5966.95	-1802.55	90.00	4605.62	282.22	16.35	PASS	
9516.00†	7473.00	1481.31	-2232.79	7384.00	7473.00	5966.95	-1802.55	90.00	4506.23	282.61	15.97	PASS	
9616.00†	7473.00	1581.29	-2234.35	7384.00	7473.00	5966.95	-1802.55	90.00	4406.86	283.01	15.60	PASS	
9716.00†	7473.00	1681.28	-2235.91	7384.00	7473.00	5966.95	-1802.55	90.00	4307.52	283.43	15.23	PASS	
9816.00†	7473.00	1781.27	-2237.46	7384.00	7473.00	5966.95	-1802.55	90.00	4208.21	283.87	14.85	PASS	
9916.00†	7473.00	1881.26	-2239.02	7384.00	7473.00	5966.95	-1802.55	90.00	4108.94	284.33	14.48	PASS	
10016.00†	7473.00	1981.25	-2240.58	7384.00	7473.00	5966.95	-1802.55	90.00	4009.70	284.82	14.10	PASS	
10116.00†	7473.00	2081.23	-2242.14	7384.00	7473.00	5966.95	-1802.55	90.00	3910.50	285.33	13.73	PASS	
10216.00†	7473.00	2181.22	-2243.70	7384.00	7473.00	5966.95	-1802.55	90.00	3811.34	285.86	13.36	PASS	
10316.00†	7473.00	2281.21	-2245.26	7384.00	7473.00	5966.95	-1802.55	90.00	3712.23	286.43	12.98	PASS	
10416.00†	7473.00	2381.20	-2246.82	7384.00	7473.00	5966.95	-1802.55	90.00	3613.17	287.02	12.61	PASS	
10516.00†	7473.00	2481.19	-2248.37	7384.00	7473.00	5966.95	-1802.55	90.00	3514.16	287.65	12.24	PASS	
10616.00†	7473.00	2581.17	-2249.93	7384.00	7473.00	5966.95	-1802.55	90.00	3415.20	288.32	11.87	PASS	
10716.00†	7473.00	2681.16	-2251.49	7384.00	7473.00	5966.95	-1802.55	90.00	3316.31	289.02	11.49	PASS	
10816.00†	7473.00	2781.15	-2253.05	7384.00	7473.00	5966.95	-1802.55	90.00	3217.49	289.77	11.12	PASS	
10916.00†	7473.00	2881.14	-2254.61	7384.00	7473.00	5966.95	-1802.55	90.00	3118.75	290.56	10.75	PASS	
11016.00†	7473.00	2981.12	-2256.17	7384.00	7473.00	5966.95	-1802.55	90.00	3020.08	291.41	10.38	PASS	
11116.00†	7473.00	3081.11	-2257.73	7384.00	7473.00	5966.95	-1802.55	90.00	2921.51	292.31	10.01	PASS	
11216.00†	7473.00	3181.10	-2259.29	7384.00	7473.00	5966.95	-1802.55	90.00	2823.04	293.27	9.64	PASS	
11316.00†	7473.00	3281.09	-2260.84	7384.00	7473.00	5966.95	-1802.55	90.00	2724.68	294.30	9.27	PASS	
11416.00†	7473.00	3381.08	-2262.40	7384.00	7473.00	5966.95	-1802.55	90.00	2626.44	295.40	8.91	PASS	
11516.00†	7473.00	3481.06	-2263.96	7384.00	7473.00	5966.95	-1802.55	90.00	2528.34	296.59	8.54	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
11616.00†	7473.00	3581.05	-2265.52	7384.00	7473.00	5966.95	-1802.55	90.00	2430.40	297.88	8.17	PASS	
11716.00†	7473.00	3681.04	-2267.08	7384.00	7473.00	5966.95	-1802.55	90.00	2332.63	299.26	7.81	PASS	
11816.00†	7473.00	3781.03	-2268.64	7384.00	7473.00	5966.95	-1802.55	90.00	2235.06	300.76	7.44	PASS	
11916.00†	7473.00	3881.02	-2270.20	7384.00	7473.00	5966.95	-1802.55	90.00	2137.71	302.40	7.08	PASS	
12016.00†	7473.00	3981.00	-2271.75	7384.00	7473.00	5966.95	-1802.55	90.00	2040.62	304.18	6.72	PASS	
12116.00†	7473.00	4080.99	-2273.31	7384.00	7473.00	5966.95	-1802.55	90.00	1943.82	306.14	6.36	PASS	
12216.00†	7473.00	4180.98	-2274.87	7384.00	7473.00	5966.95	-1802.55	90.00	1847.37	308.28	6.00	PASS	
12316.00†	7473.00	4280.97	-2276.43	7384.00	7473.00	5966.95	-1802.55	90.00	1751.31	310.65	5.65	PASS	
12416.00†	7473.00	4380.95	-2277.99	7384.00	7473.00	5966.95	-1802.55	90.00	1655.72	313.27	5.29	PASS	
12516.00†	7473.00	4480.94	-2279.55	7384.00	7473.00	5966.95	-1802.55	90.00	1560.69	316.19	4.94	PASS	
12616.00†	7473.00	4580.93	-2281.11	7384.00	7473.00	5966.95	-1802.55	90.00	1466.31	319.44	4.60	PASS	
12716.00†	7473.00	4680.92	-2282.67	7384.00	7473.00	5966.95	-1802.55	90.00	1372.73	323.10	4.25	PASS	
12816.00†	7473.00	4780.91	-2284.22	7384.00	7473.00	5966.95	-1802.55	90.00	1280.12	327.21	3.92	PASS	
12916.00†	7473.00	4880.89	-2285.78	7384.00	7473.00	5966.95	-1802.55	90.00	1188.71	331.87	3.59	PASS	
13016.00†	7473.00	4980.88	-2287.34	7384.00	7473.00	5966.95	-1802.55	90.00	1098.80	337.15	3.26	PASS	
13116.00†	7473.00	5080.87	-2288.90	7384.00	7473.00	5966.95	-1802.55	90.00	1010.78	343.15	2.95	PASS	
13216.00†	7473.00	5180.86	-2290.46	7384.00	7473.00	5966.95	-1802.55	90.00	925.20	349.96	2.65	PASS	
13316.00†	7473.00	5280.85	-2292.02	7384.00	7473.00	5966.95	-1802.55	90.00	842.80	357.63	2.36	PASS	
13416.00†	7473.00	5380.83	-2293.58	7384.00	7473.00	5966.95	-1802.55	90.00	764.62	366.13	2.09	PASS	
13516.00†	7473.00	5480.82	-2295.13	7384.00	7473.00	5966.95	-1802.55	90.00	692.07	375.24	1.85	PASS	
13616.00†	7473.00	5580.81	-2296.69	7384.00	7473.00	5966.95	-1802.55	90.00	627.12	384.37	1.63	PASS	
13716.00†	7473.00	5680.80	-2298.25	7384.00	7473.00	5966.95	-1802.55	90.00	572.37	392.30	1.46	PASS	
13816.00†	7473.00	5780.78	-2299.81	7384.00	7473.00	5966.95	-1802.55	90.00	530.97	397.04	1.34	PASS	
13916.00†	7473.00	5880.77	-2301.37	7384.00	7473.00	5966.95	-1802.55	90.00	506.21	396.19	1.28	PASS	
13950.18†	7473.00	5914.95	-2301.90	7384.00	7473.00	5966.95	-1802.55	90.00	502.06	394.27	1.27	PASS	
13995.20†	7473.00	5959.96	-2302.60	7383.96	7472.96	5966.95	-1802.55	90.00	500.11	390.39	1.28	PASS	
14016.00†	7473.00	5980.76	-2302.93	7384.00	7473.00	5966.95	-1802.55	90.00	500.57	388.11	1.29	PASS	
14116.00†	7473.00	6080.75	-2304.49	7384.00	7473.00	5966.95	-1802.55	90.00	514.68	373.32	1.38	PASS	
14216.00†	7473.00	6180.74	-2306.05	7384.00	7473.00	5966.95	-1802.55	90.00	547.01	354.45	1.54	PASS	
14316.00†	7473.00	6280.72	-2307.60	7384.00	7473.00	5966.95	-1802.55	90.00	594.59	334.67	1.78	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
14416.00†	7473.00	6380.71	-2309.16	7384.00	7473.00	5966.95	-1802.55	90.00	654.11	316.24	2.07	PASS	
14516.00†	7473.00	6480.70	-2310.72	7384.00	7473.00	5966.95	-1802.55	90.00	722.62	300.24	2.41	PASS	
14616.00†	7473.00	6580.69	-2312.28	7384.00	7473.00	5966.95	-1802.55	90.00	797.81	286.94	2.78	PASS	
14716.00†	7473.00	6680.68	-2313.84	7384.00	7473.00	5966.95	-1802.55	90.00	877.97	276.18	3.18	PASS	
14816.00†	7473.00	6780.66	-2315.40	7384.00	7473.00	5966.95	-1802.55	90.00	961.85	267.65	3.60	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	3632.37	-1115.37	3632.37	-1115.37
8.625in Casing Surface	0.00	218.00	218.00	73.00	291.00	3632.37	-1115.37	3632.37	-1115.37
7.875in Open Hole	218.00	8129.00	7911.00	291.00	8202.00	3632.37	-1115.37	3632.37	-1115.37
4.5in Casing Production	0.00	8129.00	8129.00	73.00	8202.00	3632.37	-1115.37	3632.37	-1115.37

**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 20-17-1NCH PWP (REV-A.0)**  
**Closest Approach**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	13.00	16.00	0.06	29.95	89.89	29.95	1.40	48.57	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	0.06	29.95	89.89	29.95	1.73	31.32	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	0.06	29.95	89.89	29.95	2.31	19.33	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	0.06	29.95	89.89	29.95	2.92	13.79	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	0.06	29.95	89.89	29.95	3.53	10.67	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	0.06	29.95	89.89	29.95	4.15	8.70	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	0.06	29.95	89.89	29.95	4.78	7.33	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	0.06	29.95	89.89	29.95	5.40	6.34	PASS	
816.00†	816.00	0.00	0.00	813.00	816.00	0.06	29.95	89.89	29.95	6.03	5.58	PASS	
916.00†	916.00	0.00	0.00	913.00	916.00	0.06	29.95	89.89	29.95	6.65	4.98	PASS	
1000.00	1000.00	0.00	0.00	997.00	1000.00	0.06	29.95	89.89	29.95	7.18	4.57	PASS	
1016.00†	1016.00	-0.01	-0.04	1013.00	1016.00	0.06	29.95	-168.62	29.99	7.28	4.51	PASS	
1116.00†	1115.97	-0.47	-2.30	1112.97	1115.97	0.06	29.95	-169.42	32.25	8.01	4.36	PASS	
1216.00†	1215.80	-1.62	-7.98	1212.80	1215.80	0.06	29.95	-171.01	37.96	8.99	4.54	PASS	
1316.00†	1315.36	-3.47	-17.06	1312.56	1315.56	0.05	29.92	-172.74	47.11	9.91	5.08	PASS	
1416.00†	1414.54	-6.01	-29.55	1413.81	1416.78	-0.62	27.79	-173.85	57.63	10.87	5.64	PASS	
1516.00†	1513.21	-9.24	-45.41	1515.44	1518.23	-2.35	22.22	-174.30	68.17	12.01	6.01	PASS	
1616.00†	1611.26	-13.15	-64.65	1617.44	1619.79	-5.17	13.17	-174.36	78.69	13.08	6.34	PASS	
1716.00†	1708.57	-17.75	-87.22	1719.83	1721.33	-9.09	0.63	-174.16	89.20	14.10	6.65	PASS	
1816.00†	1805.01	-23.01	-113.11	1822.60	1822.70	-14.10	-15.43	-173.78	99.67	14.99	6.93	PASS	
1916.00†	1900.47	-28.95	-142.28	1925.74	1923.78	-20.21	-35.03	-173.28	110.10	15.96	7.17	PASS	
2016.00†	1994.84	-35.54	-174.70	2028.41	2023.60	-27.35	-57.92	-172.69	120.55	16.88	7.41	PASS	
2034.82	2012.46	-36.86	-181.16	2047.10	2041.72	-28.71	-62.29	-172.59	122.70	17.02	7.48	PASS	
2116.00†	2088.40	-42.58	-209.28	2127.72	2119.89	-34.58	-81.13	-172.25	132.20	17.54	7.81	PASS	
2216.00†	2181.95	-49.63	-243.91	2227.03	2216.18	-41.82	-104.34	-171.88	143.92	18.24	8.17	PASS	
2316.00†	2275.50	-56.67	-278.54	2326.34	2312.47	-49.06	-127.54	-171.58	155.64	18.91	8.51	PASS	
2416.00†	2369.04	-63.72	-313.17	2425.64	2408.75	-56.30	-150.75	-171.31	167.37	19.64	8.80	PASS	
2516.00†	2462.59	-70.76	-347.81	2524.95	2505.04	-63.54	-173.96	-171.08	179.10	20.40	9.06	PASS	
2616.00†	2556.14	-77.81	-382.44	2624.26	2601.32	-70.77	-197.17	-170.88	190.83	21.18	9.29	PASS	
2716.00†	2649.68	-84.86	-417.07	2723.57	2697.61	-78.01	-220.38	-170.70	202.56	21.98	9.49	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
2816.00†	2743.23	-91.90	-451.70	2822.87	2793.89	-85.25	-243.59	-170.54	214.30	22.79	9.67	PASS
2916.00†	2836.78	-98.95	-486.33	2922.18	2890.18	-92.49	-266.79	-170.40	226.03	23.63	9.83	PASS
3016.00†	2930.32	-105.99	-520.97	3021.49	2986.47	-99.73	-290.00	-170.27	237.77	24.48	9.97	PASS
3116.00†	3023.87	-113.04	-555.60	3120.80	3082.75	-106.96	-313.21	-170.15	249.51	25.34	10.10	PASS
3216.00†	3117.42	-120.09	-590.23	3220.10	3179.04	-114.20	-336.42	-170.05	261.25	26.21	10.22	PASS
3316.00†	3210.96	-127.13	-624.86	3319.41	3275.32	-121.44	-359.63	-169.95	272.99	27.09	10.32	PASS
3416.00†	3304.51	-134.18	-659.49	3418.72	3371.61	-128.68	-382.84	-169.86	284.73	27.98	10.41	PASS
3516.00†	3398.06	-141.23	-694.13	3518.03	3467.89	-135.92	-406.04	-169.78	296.47	28.88	10.50	PASS
3616.00†	3491.60	-148.27	-728.76	3617.33	3564.18	-143.15	-429.25	-169.71	308.21	29.79	10.57	PASS
3716.00†	3585.15	-155.32	-763.39	3716.64	3660.47	-150.39	-452.46	-169.64	319.96	30.71	10.64	PASS
3816.00†	3678.70	-162.36	-798.02	3815.95	3756.75	-157.63	-475.67	-169.57	331.70	31.63	10.71	PASS
3916.00†	3772.24	-169.41	-832.65	3915.25	3853.04	-164.87	-498.88	-169.51	343.44	32.55	10.76	PASS
4016.00†	3865.79	-176.46	-867.28	4014.56	3949.32	-172.11	-522.09	-169.45	355.19	33.49	10.81	PASS
4116.00†	3959.34	-183.50	-901.92	4113.87	4045.61	-179.34	-545.29	-169.40	366.93	34.43	10.86	PASS
4216.00†	4052.88	-190.55	-936.55	4213.18	4141.89	-186.58	-568.50	-169.35	378.68	35.37	10.90	PASS
4316.00†	4146.43	-197.59	-971.18	4312.48	4238.18	-193.82	-591.71	-169.31	390.42	36.32	10.94	PASS
4416.00†	4239.98	-204.64	-1005.81	4411.79	4334.47	-201.06	-614.92	-169.26	402.17	37.27	10.98	PASS
4516.00†	4333.52	-211.69	-1040.44	4511.10	4430.75	-208.29	-638.13	-169.22	413.91	38.22	11.02	PASS
4616.00†	4427.07	-218.73	-1075.08	4610.41	4527.04	-215.53	-661.34	-169.18	425.66	39.18	11.05	PASS
4716.00†	4520.62	-225.78	-1109.71	4709.71	4623.32	-222.77	-684.54	-169.14	437.40	40.14	11.08	PASS
4816.00†	4614.16	-232.83	-1144.34	4809.02	4719.61	-230.01	-707.75	-169.11	449.15	41.10	11.10	PASS
4916.00†	4707.71	-239.87	-1178.97	4908.33	4815.89	-237.25	-730.96	-169.08	460.89	42.07	11.13	PASS
5016.00†	4801.26	-246.92	-1213.60	5007.64	4912.18	-244.48	-754.17	-169.04	472.64	43.04	11.15	PASS
5116.00†	4894.80	-253.96	-1248.24	5106.94	5008.47	-251.72	-777.38	-169.01	484.39	44.01	11.17	PASS
5216.00†	4988.35	-261.01	-1282.87	5206.25	5104.75	-258.96	-800.59	-168.98	496.13	44.98	11.19	PASS
5316.00†	5081.90	-268.06	-1317.50	5305.56	5201.04	-266.20	-823.80	-168.96	507.88	45.96	11.21	PASS
5416.00†	5175.44	-275.10	-1352.13	5404.87	5297.32	-273.44	-847.00	-168.93	519.63	46.93	11.23	PASS
5516.00†	5268.99	-282.15	-1386.76	5504.17	5393.61	-280.67	-870.21	-168.91	531.37	47.91	11.24	PASS
5616.00†	5362.54	-289.19	-1421.40	5603.48	5489.90	-287.91	-893.42	-168.88	543.12	48.89	11.26	PASS
5716.00†	5456.08	-296.24	-1456.03	5702.79	5586.18	-295.15	-916.63	-168.86	554.87	49.88	11.27	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
5816.00†	5549.63	-303.29	-1490.66	5802.10	5682.47	-302.39	-939.84	-168.84	566.61	50.86	11.28	PASS
5916.00†	5643.18	-310.33	-1525.29	5901.40	5778.75	-309.63	-963.05	-168.82	578.36	51.85	11.30	PASS
6016.00†	5736.72	-317.38	-1559.92	6000.71	5875.04	-316.86	-986.25	-168.80	590.11	52.83	11.31	PASS
6116.00†	5830.27	-324.43	-1594.56	6100.02	5971.32	-324.10	-1009.46	-168.78	601.86	53.82	11.32	PASS
6216.00†	5923.82	-331.47	-1629.19	6199.33	6067.61	-331.34	-1032.67	-168.76	613.60	54.81	11.33	PASS
6316.00†	6017.36	-338.52	-1663.82	6298.63	6163.90	-338.58	-1055.88	-168.74	625.35	55.80	11.34	PASS
6416.00†	6110.91	-345.56	-1698.45	6397.94	6260.18	-345.82	-1079.09	-168.72	637.10	56.79	11.35	PASS
6516.00†	6204.46	-352.61	-1733.08	6497.25	6356.47	-353.05	-1102.30	-168.71	648.85	57.78	11.36	PASS
6616.00†	6298.00	-359.66	-1767.72	6596.56	6452.75	-360.29	-1125.50	-168.69	660.59	58.78	11.36	PASS
6716.00†	6391.55	-366.70	-1802.35	6695.86	6549.04	-367.53	-1148.71	-168.67	672.34	59.77	11.37	PASS
6816.00†	6485.10	-373.75	-1836.98	6795.17	6645.32	-374.77	-1171.92	-168.66	684.09	60.76	11.38	PASS
6916.00†	6578.64	-380.79	-1871.61	6894.48	6741.61	-382.01	-1195.13	-168.64	695.84	61.76	11.39	PASS
7016.00†	6672.19	-387.84	-1906.24	6993.78	6837.90	-389.24	-1218.34	-168.63	707.58	62.76	11.39	PASS
7116.00†	6765.74	-394.89	-1940.87	7093.09	6934.18	-396.48	-1241.55	-168.62	719.33	63.75	11.40	PASS
7216.00†	6859.28	-401.93	-1975.51	7192.40	7030.47	-403.72	-1264.75	-168.60	731.08	64.75	11.40	PASS
7260.53	6900.94	-405.07	-1990.93	7237.37	7074.11	-405.96	-1275.29	-168.68	736.29	65.12	11.42	PASS
7316.00†	6952.91	-406.30	-2010.21	7293.39	7128.50	-403.93	-1288.49	175.60	742.77	65.43	11.47	PASS
7416.00†	7045.88	-394.98	-2044.91	7393.62	7224.28	-386.75	-1311.96	149.99	754.40	65.76	11.59	PASS
7516.00†	7135.50	-366.61	-2078.64	7492.93	7314.83	-353.05	-1334.42	132.29	765.64	65.84	11.74	PASS
7616.00†	7219.06	-322.04	-2110.37	7591.42	7397.66	-304.24	-1355.24	121.04	776.16	65.70	11.93	PASS
7716.00†	7294.01	-262.63	-2139.13	7689.20	7470.60	-242.04	-1373.88	113.71	785.63	65.52	12.11	PASS
7816.00†	7358.08	-190.18	-2164.05	7786.34	7531.81	-168.48	-1389.85	108.77	793.75	65.47	12.25	PASS
7916.00†	7409.32	-106.90	-2184.38	7882.94	7579.81	-85.78	-1402.77	105.42	800.27	65.67	12.31	PASS
8016.00†	7446.18	-15.32	-2199.50	7979.06	7613.49	3.63	-1412.32	103.24	804.98	66.20	12.28	PASS
8116.00†	7467.53	81.79	-2208.94	8074.80	7632.11	97.23	-1418.29	102.00	807.74	67.08	12.16	PASS
8197.83	7473.00	163.29	-2212.24	8153.40	7636.00	175.65	-1420.46	101.63	808.48	68.05	11.99	PASS
8216.00†	7473.00	181.46	-2212.53	8171.57	7636.00	193.82	-1420.74	101.63	808.48	68.33	11.95	PASS
8316.00†	7473.00	281.45	-2214.08	8271.57	7636.00	293.81	-1422.30	101.63	808.48	70.15	11.63	PASS
8416.00†	7473.00	381.44	-2215.64	8371.57	7636.00	393.79	-1423.86	101.63	808.48	72.47	11.26	PASS
8516.00†	7473.00	481.43	-2217.20	8471.57	7636.00	493.78	-1425.42	101.63	808.48	75.23	10.84	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
8616.00†	7473.00	581.42	-2218.76	8571.57	7636.00	593.77	-1426.98	101.63	808.48	78.38	10.40	PASS	
8716.00†	7473.00	681.40	-2220.32	8671.57	7636.00	693.76	-1428.54	101.63	808.47	81.88	9.95	PASS	
8816.00†	7473.00	781.39	-2221.88	8771.57	7636.00	793.75	-1430.10	101.63	808.47	85.68	9.51	PASS	
8916.00†	7473.00	881.38	-2223.44	8871.57	7636.00	893.73	-1431.66	101.63	808.47	94.26	8.63	PASS	
9016.00†	7473.00	981.37	-2224.99	8971.57	7636.00	993.72	-1433.22	101.63	808.47	94.03	8.66	PASS	
9116.00†	7473.00	1081.36	-2226.55	9071.57	7636.00	1093.71	-1434.78	101.63	808.47	98.52	8.26	PASS	
9216.00†	7473.00	1181.34	-2228.11	9171.57	7636.00	1193.70	-1436.34	101.63	808.47	103.18	7.88	PASS	
9316.00†	7473.00	1281.33	-2229.67	9271.57	7636.00	1293.68	-1437.90	101.63	808.47	108.00	7.53	PASS	
9416.00†	7473.00	1381.32	-2231.23	9371.57	7636.00	1393.67	-1439.46	101.63	808.46	112.94	7.20	PASS	
9516.00†	7473.00	1481.31	-2232.79	9471.57	7636.00	1493.66	-1441.02	101.63	808.46	118.00	6.89	PASS	
9616.00†	7473.00	1581.29	-2234.35	9571.57	7636.00	1593.65	-1442.58	101.63	808.46	123.16	6.60	PASS	
9716.00†	7473.00	1681.28	-2235.91	9671.57	7636.00	1693.64	-1444.14	101.63	808.46	128.40	6.33	PASS	
9816.00†	7473.00	1781.27	-2237.46	9771.57	7636.00	1793.62	-1445.70	101.63	808.46	133.72	6.07	PASS	
9916.00†	7473.00	1881.26	-2239.02	9871.57	7636.00	1893.61	-1447.26	101.63	808.46	139.12	5.84	PASS	
10016.00†	7473.00	1981.25	-2240.58	9971.57	7636.00	1993.60	-1448.82	101.63	808.46	144.57	5.61	PASS	
10116.00†	7473.00	2081.23	-2242.14	10071.57	7636.00	2093.59	-1450.38	101.63	808.45	150.08	5.41	PASS	
10216.00†	7473.00	2181.22	-2243.70	10171.57	7636.00	2193.58	-1451.94	101.63	808.45	155.63	5.21	PASS	
10316.00†	7473.00	2281.21	-2245.26	10271.57	7636.00	2293.56	-1453.50	101.63	808.45	161.23	5.03	PASS	
10416.00†	7473.00	2381.20	-2246.82	10371.57	7636.00	2393.55	-1455.06	101.63	808.45	166.87	4.86	PASS	
10516.00†	7473.00	2481.19	-2248.37	10471.57	7636.00	2493.54	-1456.62	101.63	808.45	172.54	4.70	PASS	
10616.00†	7473.00	2581.17	-2249.93	10571.57	7636.00	2593.53	-1458.18	101.63	808.45	178.25	4.55	PASS	
10716.00†	7473.00	2681.16	-2251.49	10671.57	7636.00	2693.51	-1459.74	101.63	808.45	183.98	4.41	PASS	
10816.00†	7473.00	2781.15	-2253.05	10771.57	7636.00	2793.50	-1461.30	101.63	808.45	189.74	4.27	PASS	
10916.00†	7473.00	2881.14	-2254.61	10871.57	7636.00	2893.49	-1462.86	101.63	808.44	195.53	4.15	PASS	
11016.00†	7473.00	2981.12	-2256.17	10971.57	7636.00	2993.48	-1464.43	101.63	808.44	201.33	4.03	PASS	
11116.00†	7473.00	3081.11	-2257.73	11071.57	7636.00	3093.47	-1465.99	101.63	808.44	207.16	3.91	PASS	
11216.00†	7473.00	3181.10	-2259.29	11171.57	7636.00	3193.45	-1467.55	101.63	808.44	213.01	3.80	PASS	
11316.00†	7473.00	3281.09	-2260.84	11271.57	7636.00	3293.44	-1469.11	101.63	808.44	218.87	3.70	PASS	
11416.00†	7473.00	3381.08	-2262.40	11371.57	7636.00	3393.43	-1470.67	101.63	808.44	224.75	3.61	PASS	
11516.00†	7473.00	3481.06	-2263.96	11471.57	7636.00	3493.42	-1472.23	101.63	808.44	230.64	3.51	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
11616.00†	7473.00	3581.05	-2265.52	11571.57	7636.00	3593.40	-1473.79	101.63	808.43	236.54	3.42	PASS	
11716.00†	7473.00	3681.04	-2267.08	11671.57	7636.00	3693.39	-1475.35	101.63	808.43	242.46	3.34	PASS	
11816.00†	7473.00	3781.03	-2268.64	11771.57	7636.00	3793.38	-1476.91	101.63	808.43	248.39	3.26	PASS	
11916.00†	7473.00	3881.02	-2270.20	11871.57	7636.00	3893.37	-1478.47	101.63	808.43	254.33	3.18	PASS	
12016.00†	7473.00	3981.00	-2271.75	11971.57	7636.00	3993.36	-1480.03	101.63	808.43	260.28	3.11	PASS	
12116.00†	7473.00	4080.99	-2273.31	12071.57	7636.00	4093.34	-1481.59	101.63	808.43	266.24	3.04	PASS	
12216.00†	7473.00	4180.98	-2274.87	12171.57	7636.00	4193.33	-1483.15	101.63	808.43	272.20	2.98	PASS	
12316.00†	7473.00	4280.97	-2276.43	12271.57	7636.00	4293.32	-1484.71	101.63	808.42	278.18	2.91	PASS	
12416.00†	7473.00	4380.95	-2277.99	12371.57	7636.00	4393.31	-1486.27	101.63	808.42	284.16	2.85	PASS	
12516.00†	7473.00	4480.94	-2279.55	12471.57	7636.00	4493.30	-1487.83	101.63	808.42	290.15	2.79	PASS	
12616.00†	7473.00	4580.93	-2281.11	12571.57	7636.00	4593.28	-1489.39	101.63	808.42	296.15	2.73	PASS	
12716.00†	7473.00	4680.92	-2282.67	12671.57	7636.00	4693.27	-1490.95	101.63	808.42	302.15	2.68	PASS	
12816.00†	7473.00	4780.91	-2284.22	12771.57	7636.00	4793.26	-1492.51	101.63	808.42	308.16	2.63	PASS	
12916.00†	7473.00	4880.89	-2285.78	12871.57	7636.00	4893.25	-1494.07	101.63	808.42	314.18	2.58	PASS	
13016.00†	7473.00	4980.88	-2287.34	12971.57	7636.00	4993.23	-1495.63	101.63	808.41	320.20	2.53	PASS	
13116.00†	7473.00	5080.87	-2288.90	13071.57	7636.00	5093.22	-1497.19	101.63	808.41	326.22	2.48	PASS	
13216.00†	7473.00	5180.86	-2290.46	13171.57	7636.00	5193.21	-1498.75	101.63	808.41	332.25	2.44	PASS	
13316.00†	7473.00	5280.85	-2292.02	13271.57	7636.00	5293.20	-1500.31	101.63	808.41	338.29	2.39	PASS	
13416.00†	7473.00	5380.83	-2293.58	13371.57	7636.00	5393.19	-1501.87	101.63	808.41	344.33	2.35	PASS	
13516.00†	7473.00	5480.82	-2295.13	13471.57	7636.00	5493.17	-1503.43	101.63	808.41	350.37	2.31	PASS	
13616.00†	7473.00	5580.81	-2296.69	13571.57	7636.00	5593.16	-1504.99	101.63	808.41	356.41	2.27	PASS	
13716.00†	7473.00	5680.80	-2298.25	13671.57	7636.00	5693.15	-1506.55	101.63	808.40	362.46	2.23	PASS	
13816.00†	7473.00	5780.78	-2299.81	13771.57	7636.00	5793.14	-1508.11	101.63	808.40	368.52	2.20	PASS	
13916.00†	7473.00	5880.77	-2301.37	13871.57	7636.00	5893.13	-1509.67	101.63	808.40	374.57	2.16	PASS	
14016.00†	7473.00	5980.76	-2302.93	13971.57	7636.00	5993.11	-1511.23	101.63	808.40	380.63	2.13	PASS	
14116.00†	7473.00	6080.75	-2304.49	14071.57	7636.00	6093.10	-1512.79	101.63	808.40	386.70	2.09	PASS	
14216.00†	7473.00	6180.74	-2306.05	14171.57	7636.00	6193.09	-1514.35	101.63	808.40	392.76	2.06	PASS	
14316.00†	7473.00	6280.72	-2307.60	14271.57	7636.00	6293.08	-1515.91	101.63	808.40	398.83	2.03	PASS	
14416.00†	7473.00	6380.71	-2309.16	14371.57	7636.00	6393.06	-1517.47	101.63	808.39	404.90	2.00	PASS	
14516.00†	7473.00	6480.70	-2310.72	14471.57	7636.00	6493.05	-1519.03	101.63	808.39	410.97	1.97	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
14616.00†	7473.00	6580.69	-2312.28	14571.57	7636.00	6593.04	-1520.59	101.63	808.39	417.05	1.94	PASS	
14716.00†	7473.00	6680.68	-2313.84	14671.57	7636.00	6693.03	-1522.15	101.63	808.39	423.13	1.91	PASS	
14816.00†	7473.00	6780.66	-2315.40	14771.57	7636.00	6793.02	-1523.71	101.63	808.39	429.21	1.88	PASS	
14916.00†	7473.00	6880.65	-2316.96	14871.57	7636.00	6893.00	-1525.27	101.63	808.39	435.29	1.86	PASS	
15016.00†	7473.00	6980.64	-2318.51	14971.57	7636.00	6992.99	-1526.83	101.63	808.39	441.37	1.83	PASS	
15116.00†	7473.00	7080.63	-2320.07	15071.57	7636.00	7092.98	-1528.39	101.63	808.39	447.46	1.81	PASS	
15216.00†	7473.00	7180.61	-2321.63	15171.57	7636.00	7192.97	-1529.95	101.63	808.38	453.55	1.78	PASS	
15316.00†	7473.00	7280.60	-2323.19	15271.57	7636.00	7292.95	-1531.51	101.63	808.38	459.64	1.76	PASS	
15416.00†	7473.00	7380.59	-2324.75	15371.57	7636.00	7392.94	-1533.07	101.63	808.38	465.73	1.74	PASS	
15516.00†	7473.00	7480.58	-2326.31	15471.57	7636.00	7492.93	-1534.63	101.63	808.38	471.82	1.71	PASS	
15616.00†	7473.00	7580.57	-2327.87	15571.57	7636.00	7592.92	-1536.19	101.63	808.38	477.91	1.69	PASS	
15716.00†	7473.00	7680.55	-2329.43	15671.57	7636.00	7692.91	-1537.75	101.63	808.38	484.01	1.67	PASS	
15816.00†	7473.00	7780.54	-2330.98	15771.57	7636.00	7792.89	-1539.31	101.63	808.38	490.11	1.65	PASS	
15916.00†	7473.00	7880.53	-2332.54	15871.57	7636.00	7892.88	-1540.87	101.63	808.37	496.20	1.63	PASS	
16016.00†	7473.00	7980.52	-2334.10	15971.57	7636.00	7992.87	-1542.43	101.63	808.37	502.30	1.61	PASS	
16116.00†	7473.00	8080.51	-2335.66	16071.57	7636.00	8092.86	-1543.99	101.63	808.37	508.41	1.59	PASS	
16216.00†	7473.00	8180.49	-2337.22	16171.57	7636.00	8192.85	-1545.55	101.63	808.37	514.50	1.57	PASS	
16316.00†	7473.00	8280.48	-2338.78	16271.57	7636.00	8292.83	-1547.11	101.63	808.37	520.61	1.55	PASS	
16416.00†	7473.00	8380.47	-2340.34	16371.57	7636.00	8392.82	-1548.67	101.63	808.37	526.72	1.54	PASS	
16516.00†	7473.00	8480.46	-2341.89	16471.57	7636.00	8492.81	-1550.23	101.63	808.37	532.82	1.52	PASS	
16616.00†	7473.00	8580.44	-2343.45	16571.57	7636.00	8592.80	-1551.79	101.63	808.36	538.93	1.50	PASS	
16716.00†	7473.00	8680.43	-2345.01	16671.57	7636.00	8692.78	-1553.35	101.63	808.36	545.04	1.48	PASS	
16816.00†	7473.00	8780.42	-2346.57	16771.57	7636.00	8792.77	-1554.91	101.63	808.36	551.15	1.47	PASS	
16916.00†	7473.00	8880.41	-2348.13	16871.57	7636.00	8892.76	-1556.47	101.63	808.36	557.26	1.45	PASS	
17016.00†	7473.00	8980.40	-2349.69	16971.57	7636.00	8992.75	-1558.03	101.63	808.36	563.37	1.44	PASS	
17116.00†	7473.00	9080.38	-2351.25	17071.57	7636.00	9092.74	-1559.59	101.63	808.36	569.48	1.42	PASS	
17216.00†	7473.00	9180.37	-2352.81	17171.57	7636.00	9192.72	-1561.15	101.63	808.36	575.59	1.40	PASS	
17316.00†	7473.00	9280.36	-2354.36	17271.57	7636.00	9292.71	-1562.71	101.63	808.35	581.71	1.39	PASS	
17416.00†	7473.00	9380.35	-2355.92	17371.57	7636.00	9392.70	-1564.27	101.63	808.35	587.82	1.38	PASS	
17516.00†	7473.00	9480.33	-2357.48	17471.57	7636.00	9492.69	-1565.83	101.63	808.35	593.93	1.36	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
17616.00†	7473.00	9580.32	-2359.04	17571.57	7636.00	9592.67	-1567.39	101.63	808.35	600.05	1.35	PASS	
17716.00†	7473.00	9680.31	-2360.60	17671.57	7636.00	9692.66	-1568.95	101.63	808.35	606.17	1.33	PASS	
17816.00†	7473.00	9780.30	-2362.16	17771.57	7636.00	9792.65	-1570.51	101.63	808.35	612.28	1.32	PASS	
17916.00†	7473.00	9880.29	-2363.72	17871.57	7636.00	9892.64	-1572.07	101.63	808.35	618.40	1.31	PASS	
17998.82†	7473.00	9963.10	-2365.01	17954.40	7636.00	9975.45	-1573.36	101.63	808.34	623.47	1.30	PASS	
18013.26	7473.00	9977.53	-2365.23	17954.40	7636.00	9975.45	-1573.36	101.63	808.47	621.82	1.30	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	0.03	18.26	-3.92	5.59
8.5in Open Hole	1800.00	17954.40	16154.40	1797.47	N/A	-3.92	5.59	N/A	N/A

## 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



**Clearance Report**  
**WAKEMAN 20-17-1NCH PWP (REV-A.0)**  
**Closest Approach**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	13.00	16.00	0.08	44.92	89.89	44.92	1.40	73.53	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	0.08	44.92	89.89	44.92	1.73	47.41	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	0.08	44.92	89.89	44.92	2.31	29.27	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	0.08	44.92	89.89	44.92	2.92	20.87	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	0.08	44.92	89.89	44.92	3.53	16.16	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	0.08	44.92	89.89	44.92	4.15	13.17	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	0.08	44.92	89.89	44.92	4.78	11.10	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	0.08	44.92	89.89	44.92	5.40	9.59	PASS	
816.00†	816.00	0.00	0.00	813.00	816.00	0.08	44.92	89.89	44.92	6.03	8.45	PASS	
916.00†	916.00	0.00	0.00	913.00	916.00	0.08	44.92	89.89	44.92	6.65	7.54	PASS	
1000.00	1000.00	0.00	0.00	997.00	1000.00	0.08	44.92	89.89	44.92	7.18	6.92	PASS	
1016.00†	1016.00	-0.01	-0.04	1013.00	1016.00	0.08	44.92	-168.62	44.96	7.28	6.82	PASS	
1116.00†	1115.97	-0.47	-2.30	1112.97	1115.97	0.08	44.92	-169.16	47.22	8.01	6.44	PASS	
1216.00†	1215.80	-1.62	-7.98	1212.80	1215.80	0.08	44.92	-170.32	52.92	8.99	6.36	PASS	
1316.00†	1315.36	-3.47	-17.06	1312.36	1315.36	0.08	44.92	-171.73	62.08	9.91	6.73	PASS	
1416.00†	1414.54	-6.01	-29.55	1411.84	1414.84	0.08	44.90	-173.11	74.69	10.79	7.40	PASS	
1516.00†	1513.21	-9.24	-45.41	1513.66	1516.63	-0.66	42.79	-174.00	88.69	11.71	8.06	PASS	
1616.00†	1611.26	-13.15	-64.65	1615.99	1618.79	-2.62	37.24	-174.36	102.71	12.82	8.48	PASS	
1716.00†	1708.57	-17.75	-87.22	1718.84	1721.18	-5.80	28.20	-174.39	116.72	13.86	8.88	PASS	
1816.00†	1805.01	-23.01	-113.11	1822.19	1823.67	-10.23	15.63	-174.18	130.71	14.77	9.24	PASS	
1916.00†	1900.47	-28.95	-142.28	1926.06	1926.11	-15.91	-0.51	-173.79	144.66	15.75	9.57	PASS	
2016.00†	1994.84	-35.54	-174.70	2030.44	2028.37	-22.85	-20.25	-173.29	158.56	16.72	9.86	PASS	
2034.82	2012.46	-36.86	-181.16	2050.14	2047.57	-24.30	-24.37	-173.18	161.17	16.89	9.92	PASS	
2116.00†	2088.40	-42.58	-209.28	2133.39	2128.46	-30.85	-42.96	-172.69	171.47	17.47	10.19	PASS	
2216.00†	2181.95	-49.63	-243.91	2232.63	2224.75	-38.81	-65.59	-172.13	183.70	18.14	10.50	PASS	
2316.00†	2275.50	-56.67	-278.54	2331.86	2321.04	-46.78	-88.22	-171.65	195.95	18.87	10.75	PASS	
2416.00†	2369.04	-63.72	-313.17	2431.10	2417.33	-54.74	-110.85	-171.22	208.20	19.57	11.00	PASS	
2516.00†	2462.59	-70.76	-347.81	2530.33	2513.62	-62.71	-133.48	-170.84	220.47	20.32	11.20	PASS	
2616.00†	2556.14	-77.81	-382.44	2629.57	2609.91	-70.67	-156.10	-170.50	232.74	21.11	11.37	PASS	
2716.00†	2649.68	-84.86	-417.07	2728.80	2706.21	-78.64	-178.73	-170.19	245.03	21.92	11.52	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
2816.00†	2743.23	-91.90	-451.70	2828.04	2802.50	-86.60	-201.36	-169.92	257.32	22.75	11.64	PASS
2916.00†	2836.78	-98.95	-486.33	2927.27	2898.79	-94.57	-223.99	-169.66	269.61	23.60	11.75	PASS
3016.00†	2930.32	-105.99	-520.97	3026.50	2995.08	-102.53	-246.62	-169.43	281.91	24.46	11.84	PASS
3116.00†	3023.87	-113.04	-555.60	3125.74	3091.37	-110.50	-269.25	-169.22	294.21	25.35	11.91	PASS
3216.00†	3117.42	-120.09	-590.23	3224.97	3187.66	-118.46	-291.87	-169.03	306.52	26.24	11.98	PASS
3316.00†	3210.96	-127.13	-624.86	3324.21	3283.96	-126.43	-314.50	-168.85	318.83	27.15	12.03	PASS
3416.00†	3304.51	-134.18	-659.49	3423.44	3380.25	-134.39	-337.13	-168.69	331.14	28.07	12.08	PASS
3516.00†	3398.06	-141.23	-694.13	3522.68	3476.54	-142.35	-359.76	-168.53	343.46	29.00	12.11	PASS
3616.00†	3491.60	-148.27	-728.76	3621.91	3572.83	-150.32	-382.39	-168.39	355.77	29.94	12.15	PASS
3716.00†	3585.15	-155.32	-763.39	3721.15	3669.12	-158.28	-405.01	-168.26	368.09	30.89	12.17	PASS
3816.00†	3678.70	-162.36	-798.02	3820.38	3765.41	-166.25	-427.64	-168.13	380.41	31.85	12.19	PASS
3916.00†	3772.24	-169.41	-832.65	3919.62	3861.71	-174.21	-450.27	-168.01	392.74	32.81	12.21	PASS
4016.00†	3865.79	-176.46	-867.28	4018.85	3958.00	-182.18	-472.90	-167.90	405.06	33.78	12.23	PASS
4116.00†	3959.34	-183.50	-901.92	4118.09	4054.29	-190.14	-495.53	-167.80	417.39	34.76	12.24	PASS
4216.00†	4052.88	-190.55	-936.55	4217.32	4150.58	-198.11	-518.15	-167.70	429.72	35.74	12.25	PASS
4316.00†	4146.43	-197.59	-971.18	4316.56	4246.87	-206.07	-540.78	-167.61	442.04	36.73	12.25	PASS
4416.00†	4239.98	-204.64	-1005.81	4415.79	4343.16	-214.04	-563.41	-167.52	454.37	37.72	12.26	PASS
4516.00†	4333.52	-211.69	-1040.44	4515.03	4439.45	-222.00	-586.04	-167.44	466.70	38.72	12.26	PASS
4616.00†	4427.07	-218.73	-1075.08	4614.26	4535.75	-229.97	-608.67	-167.36	479.03	39.72	12.26	PASS
4716.00†	4520.62	-225.78	-1109.71	4713.50	4632.04	-237.93	-631.30	-167.29	491.37	40.72	12.26	PASS
4816.00†	4614.16	-232.83	-1144.34	4812.73	4728.33	-245.90	-653.92	-167.22	503.70	41.73	12.26	PASS
4916.00†	4707.71	-239.87	-1178.97	4911.96	4824.62	-253.86	-676.55	-167.15	516.03	42.74	12.26	PASS
5016.00†	4801.26	-246.92	-1213.60	5011.20	4920.91	-261.82	-699.18	-167.09	528.37	43.75	12.26	PASS
5116.00†	4894.80	-253.96	-1248.24	5110.43	5017.20	-269.79	-721.81	-167.03	540.70	44.77	12.26	PASS
5216.00†	4988.35	-261.01	-1282.87	5209.67	5113.50	-277.75	-744.44	-166.97	553.04	45.79	12.25	PASS
5316.00†	5081.90	-268.06	-1317.50	5308.90	5209.79	-285.72	-767.06	-166.91	565.37	46.81	12.25	PASS
5416.00†	5175.44	-275.10	-1352.13	5408.14	5306.08	-293.68	-789.69	-166.86	577.71	47.84	12.24	PASS
5516.00†	5268.99	-282.15	-1386.76	5507.37	5402.37	-301.65	-812.32	-166.81	590.05	48.86	12.24	PASS
5616.00†	5362.54	-289.19	-1421.40	5606.61	5498.66	-309.61	-834.95	-166.76	602.38	49.89	12.23	PASS
5716.00†	5456.08	-296.24	-1456.03	5705.84	5594.95	-317.58	-857.58	-166.71	614.72	50.92	12.23	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
5816.00†	5549.63	-303.29	-1490.66	5805.08	5691.24	-325.54	-880.20	-166.67	627.06	51.96	12.22	PASS
5916.00†	5643.18	-310.33	-1525.29	5904.31	5787.54	-333.51	-902.83	-166.62	639.40	52.99	12.22	PASS
6016.00†	5736.72	-317.38	-1559.92	6003.55	5883.83	-341.47	-925.46	-166.58	651.74	54.03	12.21	PASS
6116.00†	5830.27	-324.43	-1594.56	6102.78	5980.12	-349.44	-948.09	-166.54	664.08	55.06	12.20	PASS
6216.00†	5923.82	-331.47	-1629.19	6202.02	6076.41	-357.40	-970.72	-166.50	676.42	56.10	12.20	PASS
6316.00†	6017.36	-338.52	-1663.82	6301.25	6172.70	-365.37	-993.35	-166.46	688.76	57.14	12.19	PASS
6416.00†	6110.91	-345.56	-1698.45	6400.49	6268.99	-373.33	-1015.97	-166.43	701.10	58.18	12.19	PASS
6516.00†	6204.46	-352.61	-1733.08	6499.72	6365.29	-381.29	-1038.60	-166.39	713.44	59.23	12.18	PASS
6616.00†	6298.00	-359.66	-1767.72	6598.96	6461.58	-389.26	-1061.23	-166.36	725.78	60.27	12.17	PASS
6716.00†	6391.55	-366.70	-1802.35	6698.19	6557.87	-397.22	-1083.86	-166.33	738.12	61.32	12.17	PASS
6816.00†	6485.10	-373.75	-1836.98	6799.80	6656.51	-404.66	-1107.05	-166.35	750.42	62.33	12.17	PASS
6916.00†	6578.64	-380.79	-1871.61	6905.86	6759.33	-398.06	-1131.55	-167.45	761.99	62.48	12.32	PASS
7016.00†	6672.19	-387.84	-1906.24	7003.78	6851.64	-374.78	-1153.93	-169.71	773.53	61.85	12.64	PASS
7116.00†	6765.74	-394.89	-1940.87	7089.59	6928.29	-341.34	-1172.83	-172.57	786.88	61.00	13.04	PASS
7216.00†	6859.28	-401.93	-1975.51	7162.31	6988.79	-304.04	-1187.99	-175.56	804.08	60.46	13.45	PASS
7260.53	6900.94	-405.07	-1990.93	7190.69	7011.06	-287.39	-1193.64	-176.85	813.42	60.37	13.62	PASS
7316.00†	6952.91	-406.30	-2010.21	7224.30	7036.36	-266.23	-1200.10	165.51	826.36	60.39	13.83	PASS
7416.00†	7045.88	-394.98	-2044.91	7283.68	7077.91	-225.24	-1210.85	136.54	851.76	60.70	14.19	PASS
7516.00†	7135.50	-366.61	-2078.64	7341.88	7114.41	-180.96	-1220.48	115.77	878.26	61.28	14.49	PASS
7616.00†	7219.06	-322.04	-2110.37	7399.24	7145.89	-133.81	-1228.98	101.82	904.22	61.78	14.79	PASS
7716.00†	7294.01	-262.63	-2139.13	7455.98	7172.36	-84.19	-1236.36	92.24	928.24	62.09	15.11	PASS
7816.00†	7358.08	-190.18	-2164.05	7512.28	7193.75	-32.52	-1242.57	85.53	949.20	62.21	15.42	PASS
7916.00†	7409.32	-106.90	-2184.38	7568.25	7210.02	20.78	-1247.61	80.87	966.21	62.16	15.71	PASS
8016.00†	7446.18	-15.32	-2199.50	7624.00	7221.11	75.25	-1251.45	77.81	978.59	62.06	15.94	PASS
8116.00†	7467.53	81.79	-2208.94	7679.60	7226.99	130.46	-1254.07	76.10	985.90	61.91	16.10	PASS
8197.83	7473.00	163.29	-2212.24	7733.76	7228.00	184.58	-1255.52	75.64	987.83	62.11	16.08	PASS
8216.00†	7473.00	181.46	-2212.53	7751.93	7228.00	202.75	-1255.92	75.64	987.71	62.34	16.01	PASS
8316.00†	7473.00	281.45	-2214.08	7851.93	7228.00	302.72	-1258.15	75.63	987.06	63.84	15.62	PASS
8416.00†	7473.00	381.44	-2215.64	7951.93	7228.00	402.70	-1260.37	75.62	986.42	65.89	15.12	PASS
8516.00†	7473.00	481.43	-2217.20	8051.93	7228.00	502.67	-1262.59	75.61	985.77	68.43	14.55	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
8616.00†	7473.00	581.42	-2218.76	8151.92	7228.00	602.64	-1264.82	75.60	985.13	71.40	13.92	PASS	
8716.00†	7473.00	681.40	-2220.32	8251.92	7228.00	702.62	-1267.04	75.59	984.48	74.76	13.28	PASS	
8816.00†	7473.00	781.39	-2221.88	8351.92	7228.00	802.59	-1269.27	75.58	983.84	78.45	12.65	PASS	
8916.00†	7473.00	881.38	-2223.44	8451.92	7228.00	902.56	-1271.49	75.57	983.19	82.43	12.02	PASS	
9016.00†	7473.00	981.37	-2224.99	8551.91	7228.00	1002.54	-1273.72	75.56	982.55	83.25	11.90	PASS	
9116.00†	7473.00	1081.36	-2226.55	8651.91	7228.00	1102.51	-1275.94	75.55	981.90	91.09	10.86	PASS	
9216.00†	7473.00	1181.34	-2228.11	8751.91	7228.00	1202.48	-1278.17	75.54	981.26	95.70	10.32	PASS	
9316.00†	7473.00	1281.33	-2229.67	8851.91	7228.00	1302.45	-1280.39	75.53	980.61	100.48	9.82	PASS	
9416.00†	7473.00	1381.32	-2231.23	8951.91	7228.00	1402.43	-1282.62	75.52	979.97	105.39	9.35	PASS	
9516.00†	7473.00	1481.31	-2232.79	9051.90	7228.00	1502.40	-1284.84	75.51	979.32	110.42	8.92	PASS	
9616.00†	7473.00	1581.29	-2234.35	9151.90	7228.00	1602.37	-1287.07	75.50	978.68	115.55	8.52	PASS	
9716.00†	7473.00	1681.28	-2235.91	9251.90	7228.00	1702.35	-1289.29	75.49	978.03	120.77	8.14	PASS	
9816.00†	7473.00	1781.27	-2237.46	9351.90	7228.00	1802.32	-1291.52	75.48	977.39	126.06	7.79	PASS	
9916.00†	7473.00	1881.26	-2239.02	9451.90	7228.00	1902.29	-1293.74	75.47	976.74	131.43	7.47	PASS	
10016.00†	7473.00	1981.25	-2240.58	9551.89	7228.00	2002.27	-1295.96	75.46	976.10	136.85	7.16	PASS	
10116.00†	7473.00	2081.23	-2242.14	9651.89	7228.00	2102.24	-1298.19	75.45	975.45	142.33	6.88	PASS	
10216.00†	7473.00	2181.22	-2243.70	9751.89	7228.00	2202.21	-1300.41	75.44	974.81	147.86	6.62	PASS	
10316.00†	7473.00	2281.21	-2245.26	9851.89	7228.00	2302.19	-1302.64	75.43	974.16	153.42	6.37	PASS	
10416.00†	7473.00	2381.20	-2246.82	9951.88	7228.00	2402.16	-1304.86	75.42	973.52	159.03	6.14	PASS	
10516.00†	7473.00	2481.19	-2248.37	10051.88	7228.00	2502.13	-1307.09	75.41	972.87	164.67	5.93	PASS	
10616.00†	7473.00	2581.17	-2249.93	10151.88	7228.00	2602.10	-1309.31	75.40	972.23	170.34	5.73	PASS	
10716.00†	7473.00	2681.16	-2251.49	10251.88	7228.00	2702.08	-1311.54	75.39	971.59	176.03	5.54	PASS	
10816.00†	7473.00	2781.15	-2253.05	10351.88	7228.00	2802.05	-1313.76	75.38	970.94	181.75	5.36	PASS	
10916.00†	7473.00	2881.14	-2254.61	10451.87	7228.00	2902.02	-1315.99	75.37	970.30	187.50	5.19	PASS	
11016.00†	7473.00	2981.12	-2256.17	10551.87	7228.00	3002.00	-1318.21	75.36	969.65	193.26	5.03	PASS	
11116.00†	7473.00	3081.11	-2257.73	10651.87	7228.00	3101.97	-1320.44	75.35	969.01	199.04	4.88	PASS	
11216.00†	7473.00	3181.10	-2259.29	10751.87	7228.00	3201.94	-1322.66	75.34	968.36	204.84	4.74	PASS	
11316.00†	7473.00	3281.09	-2260.84	10851.86	7228.00	3301.92	-1324.88	75.33	967.72	210.65	4.61	PASS	
11416.00†	7473.00	3381.08	-2262.40	10951.86	7228.00	3401.89	-1327.11	75.32	967.07	216.48	4.48	PASS	
11516.00†	7473.00	3481.06	-2263.96	11051.86	7228.00	3501.86	-1329.33	75.31	966.43	222.32	4.36	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
11616.00†	7473.00	3581.05	-2265.52	11151.86	7228.00	3601.83	-1331.56	75.30	965.79	228.18	4.24	PASS	
11716.00†	7473.00	3681.04	-2267.08	11251.86	7228.00	3701.81	-1333.78	75.29	965.14	234.04	4.13	PASS	
11816.00†	7473.00	3781.03	-2268.64	11351.85	7228.00	3801.78	-1336.01	75.28	964.50	239.92	4.03	PASS	
11916.00†	7473.00	3881.02	-2270.20	11451.85	7228.00	3901.75	-1338.23	75.27	963.85	245.80	3.93	PASS	
12016.00†	7473.00	3981.00	-2271.75	11551.85	7228.00	4001.73	-1340.46	75.26	963.21	251.69	3.83	PASS	
12116.00†	7473.00	4080.99	-2273.31	11651.85	7228.00	4101.70	-1342.68	75.25	962.56	257.59	3.74	PASS	
12216.00†	7473.00	4180.98	-2274.87	11751.84	7228.00	4201.67	-1344.91	75.24	961.92	263.50	3.66	PASS	
12316.00†	7473.00	4280.97	-2276.43	11851.84	7228.00	4301.65	-1347.13	75.23	961.28	269.42	3.57	PASS	
12416.00†	7473.00	4380.95	-2277.99	11951.84	7228.00	4401.62	-1349.36	75.22	960.63	275.34	3.50	PASS	
12516.00†	7473.00	4480.94	-2279.55	12051.84	7228.00	4501.59	-1351.58	75.21	959.99	281.26	3.42	PASS	
12616.00†	7473.00	4580.93	-2281.11	12151.84	7228.00	4601.56	-1353.81	75.20	959.34	287.20	3.35	PASS	
12716.00†	7473.00	4680.92	-2282.67	12251.83	7228.00	4701.54	-1356.03	75.19	958.70	293.14	3.28	PASS	
12816.00†	7473.00	4780.91	-2284.22	12351.83	7228.00	4801.51	-1358.25	75.18	958.06	299.08	3.21	PASS	
12916.00†	7473.00	4880.89	-2285.78	12451.83	7228.00	4901.48	-1360.48	75.17	957.41	305.03	3.14	PASS	
13016.00†	7473.00	4980.88	-2287.34	12551.83	7228.00	5001.46	-1362.70	75.16	956.77	310.98	3.08	PASS	
13116.00†	7473.00	5080.87	-2288.90	12651.82	7228.00	5101.43	-1364.93	75.15	956.12	316.93	3.02	PASS	
13216.00†	7473.00	5180.86	-2290.46	12751.82	7228.00	5201.40	-1367.15	75.14	955.48	322.89	2.96	PASS	
13316.00†	7473.00	5280.85	-2292.02	12851.82	7228.00	5301.38	-1369.38	75.13	954.84	328.86	2.91	PASS	
13416.00†	7473.00	5380.83	-2293.58	12951.82	7228.00	5401.35	-1371.60	75.12	954.19	334.82	2.85	PASS	
13516.00†	7473.00	5480.82	-2295.13	13051.82	7228.00	5501.32	-1373.83	75.11	953.55	340.79	2.80	PASS	
13616.00†	7473.00	5580.81	-2296.69	13151.81	7228.00	5601.30	-1376.05	75.10	952.90	346.77	2.75	PASS	
13716.00†	7473.00	5680.80	-2298.25	13251.81	7228.00	5701.27	-1378.28	75.09	952.26	352.74	2.70	PASS	
13816.00†	7473.00	5780.78	-2299.81	13351.81	7228.00	5801.24	-1380.50	75.08	951.62	358.72	2.66	PASS	
13916.00†	7473.00	5880.77	-2301.37	13451.81	7228.00	5901.21	-1382.73	75.07	950.97	364.70	2.61	PASS	
14016.00†	7473.00	5980.76	-2302.93	13551.80	7228.00	6001.19	-1384.95	75.06	950.33	370.68	2.57	PASS	
14116.00†	7473.00	6080.75	-2304.49	13651.80	7228.00	6101.16	-1387.17	75.05	949.69	376.67	2.52	PASS	
14216.00†	7473.00	6180.74	-2306.05	13751.80	7228.00	6201.13	-1389.40	75.04	949.04	382.66	2.48	PASS	
14316.00†	7473.00	6280.72	-2307.60	13851.80	7228.00	6301.11	-1391.62	75.03	948.40	388.64	2.44	PASS	
14416.00†	7473.00	6380.71	-2309.16	13951.80	7228.00	6401.08	-1393.85	75.02	947.76	394.63	2.40	PASS	
14516.00†	7473.00	6480.70	-2310.72	14051.79	7228.00	6501.05	-1396.07	75.01	947.11	400.63	2.37	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
14616.00†	7473.00	6580.69	-2312.28	14151.79	7228.00	6601.03	-1398.30	75.00	946.47	406.62	2.33	PASS	
14716.00†	7473.00	6680.68	-2313.84	14251.79	7228.00	6701.00	-1400.52	74.99	945.83	412.62	2.29	PASS	
14816.00†	7473.00	6780.66	-2315.40	14351.79	7228.00	6800.97	-1402.75	74.98	945.18	418.61	2.26	PASS	
14916.00†	7473.00	6880.65	-2316.96	14451.78	7228.00	6900.94	-1404.97	74.97	944.54	424.61	2.23	PASS	
15016.00†	7473.00	6980.64	-2318.51	14551.78	7228.00	7000.92	-1407.20	74.96	943.89	430.61	2.19	PASS	
15116.00†	7473.00	7080.63	-2320.07	14651.78	7228.00	7100.89	-1409.42	74.95	943.25	436.61	2.16	PASS	
15216.00†	7473.00	7180.61	-2321.63	14751.78	7228.00	7200.86	-1411.65	74.94	942.61	442.61	2.13	PASS	
15316.00†	7473.00	7280.60	-2323.19	14851.78	7228.00	7300.84	-1413.87	74.92	941.97	448.61	2.10	PASS	
15416.00†	7473.00	7380.59	-2324.75	14951.77	7228.00	7400.81	-1416.09	74.91	941.32	454.62	2.07	PASS	
15516.00†	7473.00	7480.58	-2326.31	15051.77	7228.00	7500.78	-1418.32	74.90	940.68	460.62	2.04	PASS	
15616.00†	7473.00	7580.57	-2327.87	15151.77	7228.00	7600.76	-1420.54	74.89	940.04	466.62	2.02	PASS	
15716.00†	7473.00	7680.55	-2329.43	15251.77	7228.00	7700.73	-1422.77	74.88	939.39	472.63	1.99	PASS	
15816.00†	7473.00	7780.54	-2330.98	15351.76	7228.00	7800.70	-1424.99	74.87	938.75	478.64	1.96	PASS	
15916.00†	7473.00	7880.53	-2332.54	15451.76	7228.00	7900.67	-1427.22	74.86	938.11	484.64	1.94	PASS	
16016.00†	7473.00	7980.52	-2334.10	15551.76	7228.00	8000.65	-1429.44	74.85	937.46	490.65	1.91	PASS	
16116.00†	7473.00	8080.51	-2335.66	15651.76	7228.00	8100.62	-1431.67	74.84	936.82	496.66	1.89	PASS	
16216.00†	7473.00	8180.49	-2337.22	15751.76	7228.00	8200.59	-1433.89	74.83	936.18	502.67	1.86	PASS	
16316.00†	7473.00	8280.48	-2338.78	15851.75	7228.00	8300.57	-1436.12	74.82	935.53	508.68	1.84	PASS	
16416.00†	7473.00	8380.47	-2340.34	15951.75	7228.00	8400.54	-1438.34	74.81	934.89	514.69	1.82	PASS	
16516.00†	7473.00	8480.46	-2341.89	16051.75	7228.00	8500.51	-1440.57	74.80	934.25	520.70	1.80	PASS	
16616.00†	7473.00	8580.44	-2343.45	16151.75	7228.00	8600.49	-1442.79	74.79	933.61	526.71	1.77	PASS	
16716.00†	7473.00	8680.43	-2345.01	16251.74	7228.00	8700.46	-1445.02	74.78	932.96	532.72	1.75	PASS	
16816.00†	7473.00	8780.42	-2346.57	16351.74	7228.00	8800.43	-1447.24	74.76	932.32	538.73	1.73	PASS	
16916.00†	7473.00	8880.41	-2348.13	16451.74	7228.00	8900.41	-1449.46	74.75	931.68	544.74	1.71	PASS	
17016.00†	7473.00	8980.40	-2349.69	16551.74	7228.00	9000.38	-1451.69	74.74	931.04	550.75	1.69	PASS	
17116.00†	7473.00	9080.38	-2351.25	16651.74	7228.00	9100.35	-1453.91	74.73	930.39	556.76	1.67	PASS	
17216.00†	7473.00	9180.37	-2352.81	16751.73	7228.00	9200.32	-1456.14	74.72	929.75	562.78	1.65	PASS	
17316.00†	7473.00	9280.36	-2354.36	16851.73	7228.00	9300.30	-1458.36	74.71	929.11	568.79	1.63	PASS	
17416.00†	7473.00	9380.35	-2355.92	16951.73	7228.00	9400.27	-1460.59	74.70	928.46	574.80	1.62	PASS	
17516.00†	7473.00	9480.33	-2357.48	17051.73	7228.00	9500.24	-1462.81	74.69	927.82	580.81	1.60	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
17616.00†	7473.00	9580.32	-2359.04	17151.72	7228.00	9600.22	-1465.04	74.68	927.18	586.83	1.58	PASS	
17716.00†	7473.00	9680.31	-2360.60	17251.72	7228.00	9700.19	-1467.26	74.67	926.54	592.84	1.56	PASS	
17816.00†	7473.00	9780.30	-2362.16	17351.72	7228.00	9800.16	-1469.49	74.66	925.90	598.85	1.55	PASS	
17916.00†	7473.00	9880.29	-2363.72	17451.72	7228.00	9900.14	-1471.71	74.65	925.25	604.86	1.53	PASS	
17991.08†	7473.00	9955.36	-2364.89	17526.80	7228.00	9975.20	-1473.38	74.64	924.77	609.38	1.52	PASS	
18013.26	7473.00	9977.53	-2365.23	17526.80	7228.00	9975.20	-1473.38	74.64	924.89	607.36	1.52	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	0.05	27.38	-2.77	19.37
8.5in Open Hole	1800.00	17526.80	15726.80	1798.70	N/A	-2.77	19.37	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 20-17-1NCH PWP (REV-A.0)**  
**Closest Approach**  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	13.00	16.00	0.11	59.98	89.89	59.98	1.40	98.63	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	0.11	59.98	89.89	59.98	1.73	63.62	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	0.11	59.98	89.89	59.98	2.31	39.27	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	0.11	59.98	89.89	59.98	2.92	28.00	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	0.11	59.98	89.89	59.98	3.53	21.68	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	0.11	59.98	89.89	59.98	4.15	17.66	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	0.11	59.98	89.89	59.98	4.78	14.89	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	0.11	59.98	89.89	59.98	5.40	12.87	PASS	
816.00†	816.00	0.00	0.00	813.00	816.00	0.11	59.98	89.89	59.98	6.03	11.33	PASS	
916.00†	916.00	0.00	0.00	913.00	916.00	0.11	59.98	89.89	59.98	6.65	10.12	PASS	
1000.00	1000.00	0.00	0.00	997.00	1000.00	0.11	59.98	89.89	59.98	7.18	9.28	PASS	
1016.00†	1016.00	-0.01	-0.04	1013.00	1016.00	0.11	59.98	-168.62	60.02	7.28	9.15	PASS	
1116.00†	1115.97	-0.47	-2.30	1112.97	1115.97	0.11	59.98	-169.03	62.28	8.01	8.53	PASS	
1216.00†	1215.80	-1.62	-7.98	1212.80	1215.80	0.11	59.98	-169.94	67.98	8.99	8.20	PASS	
1316.00†	1315.36	-3.47	-17.06	1312.36	1315.36	0.11	59.98	-171.11	77.12	9.91	8.38	PASS	
1416.00†	1414.54	-6.01	-29.55	1411.54	1414.54	0.11	59.98	-172.33	89.73	10.78	8.91	PASS	
1516.00†	1513.21	-9.24	-45.41	1510.59	1513.59	0.11	59.96	-173.47	105.79	11.63	9.70	PASS	
1616.00†	1611.26	-13.15	-64.65	1612.94	1615.91	-0.75	57.93	-174.19	123.29	12.52	10.45	PASS	
1716.00†	1708.57	-17.75	-87.22	1715.93	1718.72	-3.04	52.48	-174.44	140.84	13.60	10.95	PASS	
1816.00†	1805.01	-23.01	-113.11	1819.55	1821.89	-6.79	43.57	-174.35	158.42	14.53	11.41	PASS	
1916.00†	1900.47	-28.95	-142.28	1923.81	1925.27	-12.02	31.13	-174.04	176.00	15.52	11.84	PASS	
2016.00†	1994.84	-35.54	-174.70	2028.71	2028.72	-18.76	15.14	-173.55	193.57	16.50	12.21	PASS	
2034.82	2012.46	-36.86	-181.16	2048.52	2048.17	-20.19	11.72	-173.45	196.87	16.66	12.30	PASS	
2116.00†	2088.40	-42.58	-209.28	2130.66	2128.67	-26.53	-3.35	-172.99	210.44	17.22	12.70	PASS	
2216.00†	2181.95	-49.63	-243.91	2229.26	2225.25	-34.23	-21.63	-172.50	226.98	17.87	13.18	PASS	
2316.00†	2275.50	-56.67	-278.54	2327.87	2321.84	-41.92	-39.92	-172.07	243.53	18.56	13.60	PASS	
2416.00†	2369.04	-63.72	-313.17	2426.47	2418.43	-49.62	-58.20	-171.70	260.09	19.29	13.96	PASS	
2516.00†	2462.59	-70.76	-347.81	2525.08	2515.02	-57.31	-76.49	-171.38	276.67	20.01	14.30	PASS	
2616.00†	2556.14	-77.81	-382.44	2623.68	2611.61	-65.01	-94.77	-171.09	293.25	20.77	14.58	PASS	
2716.00†	2649.68	-84.86	-417.07	2722.29	2708.20	-72.70	-113.06	-170.83	309.83	21.55	14.83	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
2816.00†	2743.23	-91.90	-451.70	2820.90	2804.79	-80.40	-131.34	-170.60	326.42	22.35	15.05	PASS
2916.00†	2836.78	-98.95	-486.33	2919.50	2901.38	-88.09	-149.63	-170.39	343.02	23.16	15.24	PASS
3016.00†	2930.32	-105.99	-520.97	3018.11	2997.97	-95.79	-167.91	-170.20	359.62	23.99	15.41	PASS
3116.00†	3023.87	-113.04	-555.60	3116.71	3094.56	-103.48	-186.20	-170.02	376.23	24.84	15.56	PASS
3216.00†	3117.42	-120.09	-590.23	3215.32	3191.15	-111.18	-204.48	-169.86	392.83	25.69	15.69	PASS
3316.00†	3210.96	-127.13	-624.86	3313.92	3287.74	-118.87	-222.77	-169.72	409.44	26.56	15.81	PASS
3416.00†	3304.51	-134.18	-659.49	3412.53	3384.33	-126.56	-241.05	-169.58	426.06	27.44	15.91	PASS
3516.00†	3398.06	-141.23	-694.13	3511.14	3480.92	-134.26	-259.33	-169.46	442.67	28.32	16.00	PASS
3616.00†	3491.60	-148.27	-728.76	3609.74	3577.51	-141.95	-277.62	-169.34	459.29	29.22	16.09	PASS
3716.00†	3585.15	-155.32	-763.39	3708.35	3674.10	-149.65	-295.90	-169.24	475.91	30.12	16.16	PASS
3816.00†	3678.70	-162.36	-798.02	3806.95	3770.69	-157.34	-314.19	-169.14	492.53	31.03	16.22	PASS
3916.00†	3772.24	-169.41	-832.65	3905.56	3867.28	-165.04	-332.47	-169.04	509.15	31.94	16.28	PASS
4016.00†	3865.79	-176.46	-867.28	4004.16	3963.87	-172.73	-350.76	-168.95	525.77	32.86	16.33	PASS
4116.00†	3959.34	-183.50	-901.92	4102.77	4060.46	-180.43	-369.04	-168.87	542.39	33.79	16.38	PASS
4216.00†	4052.88	-190.55	-936.55	4201.38	4157.05	-188.12	-387.33	-168.80	559.02	34.72	16.42	PASS
4316.00†	4146.43	-197.59	-971.18	4299.98	4253.64	-195.82	-405.61	-168.72	575.64	35.65	16.45	PASS
4416.00†	4239.98	-204.64	-1005.81	4398.59	4350.23	-203.51	-423.90	-168.65	592.27	36.59	16.49	PASS
4516.00†	4333.52	-211.69	-1040.44	4497.19	4446.82	-211.20	-442.18	-168.59	608.89	37.53	16.52	PASS
4616.00†	4427.07	-218.73	-1075.08	4595.80	4543.41	-218.90	-460.47	-168.53	625.52	38.48	16.54	PASS
4716.00†	4520.62	-225.78	-1109.71	4694.40	4639.99	-226.59	-478.75	-168.47	642.15	39.43	16.57	PASS
4816.00†	4614.16	-232.83	-1144.34	4793.01	4736.58	-234.29	-497.04	-168.41	658.78	40.38	16.59	PASS
4916.00†	4707.71	-239.87	-1178.97	4891.62	4833.17	-241.98	-515.32	-168.36	675.41	41.34	16.61	PASS
5016.00†	4801.26	-246.92	-1213.60	4990.22	4929.76	-249.68	-533.61	-168.31	692.04	42.29	16.62	PASS
5116.00†	4894.80	-253.96	-1248.24	5088.83	5026.35	-257.37	-551.89	-168.26	708.67	43.26	16.64	PASS
5216.00†	4988.35	-261.01	-1282.87	5187.43	5122.94	-265.07	-570.18	-168.22	725.30	44.22	16.65	PASS
5316.00†	5081.90	-268.06	-1317.50	5286.04	5219.53	-272.76	-588.46	-168.17	741.93	45.18	16.67	PASS
5416.00†	5175.44	-275.10	-1352.13	5384.64	5316.12	-280.46	-606.75	-168.13	758.56	46.15	16.68	PASS
5516.00†	5268.99	-282.15	-1386.76	5483.25	5412.71	-288.15	-625.03	-168.09	775.20	47.12	16.69	PASS
5616.00†	5362.54	-289.19	-1421.40	5581.86	5509.30	-295.84	-643.32	-168.05	791.83	48.09	16.70	PASS
5716.00†	5456.08	-296.24	-1456.03	5680.46	5605.89	-303.54	-661.60	-168.02	808.46	49.06	16.71	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
5816.00†	5549.63	-303.29	-1490.66	5779.07	5702.48	-311.23	-679.88	-167.98	825.10	50.04	16.71	PASS
5916.00†	5643.18	-310.33	-1525.29	5877.67	5799.07	-318.93	-698.17	-167.95	841.73	51.01	16.72	PASS
6016.00†	5736.72	-317.38	-1559.92	5976.28	5895.66	-326.62	-716.45	-167.91	858.36	51.99	16.72	PASS
6116.00†	5830.27	-324.43	-1594.56	6074.88	5992.25	-334.32	-734.74	-167.88	875.00	52.97	16.73	PASS
6216.00†	5923.82	-331.47	-1629.19	6173.49	6088.84	-342.01	-753.02	-167.85	891.63	53.95	16.73	PASS
6316.00†	6017.36	-338.52	-1663.82	6272.10	6185.43	-349.71	-771.31	-167.82	908.27	54.93	16.74	PASS
6416.00†	6110.91	-345.56	-1698.45	6370.70	6282.02	-357.40	-789.59	-167.80	924.90	55.91	16.74	PASS
6516.00†	6204.46	-352.61	-1733.08	6469.31	6378.61	-365.10	-807.88	-167.77	941.54	56.89	16.75	PASS
6616.00†	6298.00	-359.66	-1767.72	6567.91	6475.20	-372.79	-826.16	-167.74	958.17	57.88	16.75	PASS
6716.00†	6391.55	-366.70	-1802.35	6666.52	6571.79	-380.48	-844.45	-167.72	974.81	58.86	16.75	PASS
6816.00†	6485.10	-373.75	-1836.98	6765.12	6668.38	-388.18	-862.73	-167.69	991.44	59.85	16.75	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## 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	0.07	36.56	-1.79	32.15
8.5in Open Hole	1800.00	17719.88	15919.88	1799.45	N/A	-1.79	32.15	N/A	N/A



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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

**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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	13.00	16.00	0.11	74.95	89.92	74.95	1.40	123.58	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	0.11	74.95	89.92	74.95	1.73	79.82	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	0.11	74.95	89.92	74.95	2.31	49.28	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	0.11	74.95	89.92	74.95	2.91	35.13	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	0.11	74.95	89.92	74.95	3.53	27.20	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	0.11	74.95	89.92	74.95	4.15	22.15	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	0.11	74.95	89.92	74.95	4.77	18.68	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	0.11	74.95	89.92	74.95	5.40	16.14	PASS	
816.00†	816.00	0.00	0.00	813.00	816.00	0.11	74.95	89.92	74.95	6.02	14.20	PASS	
916.00†	916.00	0.00	0.00	913.00	916.00	0.11	74.95	89.92	74.95	6.65	12.68	PASS	
1000.00	1000.00	0.00	0.00	997.00	1000.00	0.11	74.95	89.92	74.95	7.17	11.64	PASS	
1016.00†	1016.00	-0.01	-0.04	1013.00	1016.00	0.11	74.95	-168.59	74.99	7.27	11.46	PASS	
1116.00†	1115.97	-0.47	-2.30	1112.97	1115.97	0.11	74.95	-168.92	77.25	8.00	10.62	PASS	
1216.00†	1215.80	-1.62	-7.98	1212.80	1215.80	0.11	74.95	-169.67	82.94	8.99	10.04	PASS	
1316.00†	1315.36	-3.47	-17.06	1312.36	1315.36	0.11	74.95	-170.67	92.08	9.90	10.03	PASS	
1416.00†	1414.54	-6.01	-29.55	1411.54	1414.54	0.11	74.95	-171.76	104.68	10.78	10.41	PASS	
1516.00†	1513.21	-9.24	-45.41	1510.21	1513.21	0.11	74.95	-172.82	120.73	11.62	11.09	PASS	
1616.00†	1611.26	-13.15	-64.65	1608.64	1611.64	0.10	74.94	-173.78	140.22	12.44	11.98	PASS	
1716.00†	1708.57	-17.75	-87.22	1711.16	1714.13	-1.07	73.15	-174.31	161.33	13.31	12.83	PASS	
1816.00†	1805.01	-23.01	-113.11	1814.36	1817.16	-4.28	68.24	-174.28	182.72	14.24	13.46	PASS	
1916.00†	1900.47	-28.95	-142.28	1918.21	1920.56	-9.56	60.17	-173.85	204.37	15.23	14.03	PASS	
2016.00†	1994.84	-35.54	-174.70	2022.63	2024.10	-16.92	48.91	-173.15	226.28	16.19	14.57	PASS	
2034.82	2012.46	-36.86	-181.16	2040.96	2042.23	-18.39	46.66	-173.01	230.50	16.33	14.71	PASS	
2116.00†	2088.40	-42.58	-209.28	2119.99	2120.41	-24.74	36.95	-172.51	248.94	16.84	15.39	PASS	
2216.00†	2181.95	-49.63	-243.91	2217.35	2216.71	-32.55	25.00	-171.99	271.69	17.49	16.14	PASS	
2316.00†	2275.50	-56.67	-278.54	2314.70	2313.01	-40.37	13.05	-171.55	294.45	18.18	16.82	PASS	
2416.00†	2369.04	-63.72	-313.17	2412.05	2409.31	-48.18	1.10	-171.17	317.22	18.89	17.41	PASS	
2516.00†	2462.59	-70.76	-347.81	2509.40	2505.61	-55.99	-10.85	-170.84	340.01	19.62	17.94	PASS	
2616.00†	2556.14	-77.81	-382.44	2606.76	2601.91	-63.81	-22.80	-170.55	362.80	20.37	18.41	PASS	
2716.00†	2649.68	-84.86	-417.07	2704.11	2698.21	-71.62	-34.76	-170.30	385.61	21.14	18.84	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
2816.00†	2743.23	-91.90	-451.70	2801.46	2794.51	-79.43	-46.71	-170.08	408.42	21.93	19.21	PASS
2916.00†	2836.78	-98.95	-486.33	2898.81	2890.80	-87.25	-58.66	-169.88	431.23	22.73	19.55	PASS
3016.00†	2930.32	-105.99	-520.97	2996.16	2987.10	-95.06	-70.61	-169.70	454.05	23.54	19.85	PASS
3116.00†	3023.87	-113.04	-555.60	3093.52	3083.40	-102.88	-82.56	-169.53	476.87	24.37	20.12	PASS
3216.00†	3117.42	-120.09	-590.23	3190.87	3179.70	-110.69	-94.51	-169.38	499.70	25.21	20.37	PASS
3316.00†	3210.96	-127.13	-624.86	3288.22	3276.00	-118.50	-106.47	-169.25	522.53	26.05	20.59	PASS
3416.00†	3304.51	-134.18	-659.49	3385.57	3372.30	-126.32	-118.42	-169.13	545.36	26.91	20.79	PASS
3516.00†	3398.06	-141.23	-694.13	3482.92	3468.60	-134.13	-130.37	-169.01	568.20	27.77	20.97	PASS
3616.00†	3491.60	-148.27	-728.76	3580.28	3564.90	-141.94	-142.32	-168.91	591.03	28.64	21.13	PASS
3716.00†	3585.15	-155.32	-763.39	3677.63	3661.20	-149.76	-154.27	-168.81	613.87	29.52	21.28	PASS
3816.00†	3678.70	-162.36	-798.02	3774.98	3757.50	-157.57	-166.22	-168.72	636.71	30.40	21.42	PASS
3916.00†	3772.24	-169.41	-832.65	3872.33	3853.80	-165.39	-178.17	-168.63	659.55	31.29	21.54	PASS
4016.00†	3865.79	-176.46	-867.28	3969.68	3950.10	-173.20	-190.13	-168.56	682.39	32.19	21.66	PASS
4116.00†	3959.34	-183.50	-901.92	4067.04	4046.39	-181.01	-202.08	-168.48	705.24	33.08	21.76	PASS
4216.00†	4052.88	-190.55	-936.55	4164.39	4142.69	-188.83	-214.03	-168.41	728.08	33.99	21.86	PASS
4316.00†	4146.43	-197.59	-971.18	4261.74	4238.99	-196.64	-225.98	-168.35	750.93	34.89	21.95	PASS
4416.00†	4239.98	-204.64	-1005.81	4359.09	4335.29	-204.45	-237.93	-168.29	773.77	35.80	22.03	PASS
4516.00†	4333.52	-211.69	-1040.44	4456.45	4431.59	-212.27	-249.88	-168.23	796.62	36.71	22.11	PASS
4616.00†	4427.07	-218.73	-1075.08	4553.80	4527.89	-220.08	-261.84	-168.18	819.47	37.63	22.18	PASS
4716.00†	4520.62	-225.78	-1109.71	4651.15	4624.19	-227.90	-273.79	-168.13	842.32	38.55	22.24	PASS
4816.00†	4614.16	-232.83	-1144.34	4748.50	4720.49	-235.71	-285.74	-168.08	865.17	39.47	22.30	PASS
4916.00†	4707.71	-239.87	-1178.97	4845.85	4816.79	-243.52	-297.69	-168.03	888.01	40.40	22.36	PASS
5016.00†	4801.26	-246.92	-1213.60	4943.21	4913.09	-251.34	-309.64	-167.99	910.86	41.32	22.41	PASS
5116.00†	4894.80	-253.96	-1248.24	5040.56	5009.39	-259.15	-321.59	-167.95	933.72	42.25	22.46	PASS
5216.00†	4988.35	-261.01	-1282.87	5137.91	5105.69	-266.96	-333.54	-167.91	956.57	43.18	22.51	PASS
5316.00†	5081.90	-268.06	-1317.50	5235.26	5201.99	-274.78	-345.50	-167.87	979.42	44.11	22.55	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

## 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

## 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	0.06	45.69	-1.10	43.91
8.5in Open Hole	1800.00	17593.78	15793.78	1799.84	N/A	-1.10	43.91	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	Wellbore
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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	-16.00	49.00	4194.07	-1264.94	-16.78	4380.80	25.40	178.04	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	2553.13	-782.76	2553.13	-782.76
8.625in Casing Surface	0.00	1529.00	1529.00	49.00	1578.00	2553.13	-782.76	2553.13	-782.76
7.875in Open Hole	1529.00	8141.00	6612.00	1578.00	8190.00	2553.13	-782.76	2553.13	-782.76
4.5in Casing Production	0.00	8141.00	8141.00	49.00	8190.00	2553.13	-782.76	2553.13	-782.76

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	13.00	16.00	0.17	89.92	89.89	89.92	1.40	148.54	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	0.17	89.92	89.89	89.92	1.73	96.26	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	0.17	89.92	89.89	89.92	2.30	59.46	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	0.17	89.92	89.89	89.92	2.91	42.37	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	0.17	89.92	89.89	89.92	3.52	32.78	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	0.17	89.92	89.89	89.92	4.14	26.69	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	0.17	89.92	89.89	89.92	4.76	22.49	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	0.17	89.92	89.89	89.92	5.39	19.43	PASS	
816.00†	816.00	0.00	0.00	813.00	816.00	0.17	89.92	89.89	89.92	6.01	17.10	PASS	
916.00†	916.00	0.00	0.00	913.00	916.00	0.17	89.92	89.89	89.92	6.64	15.27	PASS	
1000.00	1000.00	0.00	0.00	997.00	1000.00	0.17	89.92	89.89	89.92	7.17	14.01	PASS	
1016.00†	1016.00	-0.01	-0.04	1013.00	1016.00	0.17	89.92	-168.61	89.97	7.26	13.80	PASS	
1116.00†	1115.97	-0.47	-2.30	1112.97	1115.97	0.17	89.92	-168.89	92.23	8.00	12.71	PASS	
1216.00†	1215.80	-1.62	-7.98	1212.80	1215.80	0.17	89.92	-169.52	97.92	8.98	11.88	PASS	
1316.00†	1315.36	-3.47	-17.06	1312.36	1315.36	0.17	89.92	-170.39	107.05	9.89	11.69	PASS	
1416.00†	1414.54	-6.01	-29.55	1411.54	1414.54	0.17	89.92	-171.37	119.63	10.77	11.92	PASS	
1516.00†	1513.21	-9.24	-45.41	1510.52	1513.52	0.15	89.91	-172.35	135.65	11.61	12.48	PASS	
1616.00†	1611.26	-13.15	-64.65	1612.04	1615.01	-1.64	88.69	-172.66	153.82	12.47	13.12	PASS	
1716.00†	1708.57	-17.75	-87.22	1713.73	1716.53	-6.42	85.44	-172.10	173.22	13.39	13.70	PASS	
1816.00†	1805.01	-23.01	-113.11	1813.54	1815.95	-13.70	80.48	-171.04	194.12	14.13	14.41	PASS	
1916.00†	1900.47	-28.95	-142.28	1910.57	1912.56	-21.18	75.38	-170.23	218.14	14.93	15.29	PASS	
2016.00†	1994.84	-35.54	-174.70	2006.74	2008.31	-28.60	70.33	-169.69	245.50	15.74	16.29	PASS	
2034.82	2012.46	-36.86	-181.16	2024.73	2026.21	-29.99	69.38	-169.61	251.02	15.88	16.49	PASS	
2116.00†	2088.40	-42.58	-209.28	2102.26	2103.41	-35.97	65.31	-169.41	275.08	16.42	17.46	PASS	
2216.00†	2181.95	-49.63	-243.91	2197.76	2198.49	-43.34	60.29	-169.21	304.71	17.10	18.54	PASS	
2316.00†	2275.50	-56.67	-278.54	2293.26	2293.58	-50.70	55.27	-169.04	334.36	17.81	19.51	PASS	
2416.00†	2369.04	-63.72	-313.17	2388.76	2388.66	-58.07	50.25	-168.90	364.00	18.53	20.39	PASS	
2516.00†	2462.59	-70.76	-347.81	2484.26	2483.75	-65.44	45.24	-168.78	393.65	19.28	21.16	PASS	
2616.00†	2556.14	-77.81	-382.44	2579.77	2578.83	-72.81	40.22	-168.68	423.29	20.03	21.87	PASS	
2716.00†	2649.68	-84.86	-417.07	2675.27	2673.92	-80.17	35.20	-168.59	452.94	20.80	22.51	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
2816.00†	2743.23	-91.90	-451.70	2770.77	2769.00	-87.54	30.18	-168.51	482.59	21.59	23.09	PASS
2916.00†	2836.78	-98.95	-486.33	2866.27	2864.09	-94.91	25.16	-168.44	512.24	22.37	23.61	PASS
3016.00†	2930.32	-105.99	-520.97	2961.77	2959.17	-102.27	20.14	-168.38	541.89	23.17	24.09	PASS
3116.00†	3023.87	-113.04	-555.60	3057.27	3054.25	-109.64	15.13	-168.33	571.54	23.99	24.52	PASS
3216.00†	3117.42	-120.09	-590.23	3152.78	3149.34	-117.01	10.11	-168.28	601.19	24.80	24.92	PASS
3316.00†	3210.96	-127.13	-624.86	3248.28	3244.42	-124.38	5.09	-168.23	630.84	25.63	25.28	PASS
3416.00†	3304.51	-134.18	-659.49	3343.78	3339.51	-131.74	0.07	-168.19	660.50	26.46	25.62	PASS
3516.00†	3398.06	-141.23	-694.13	3439.28	3434.59	-139.11	-4.95	-168.15	690.15	27.30	25.92	PASS
3616.00†	3491.60	-148.27	-728.76	3534.78	3529.68	-146.48	-9.97	-168.12	719.80	28.15	26.21	PASS
3716.00†	3585.15	-155.32	-763.39	3630.28	3624.76	-153.85	-14.98	-168.09	749.45	28.99	26.47	PASS
3816.00†	3678.70	-162.36	-798.02	3725.79	3719.85	-161.21	-20.00	-168.06	779.11	29.85	26.71	PASS
3916.00†	3772.24	-169.41	-832.65	3821.29	3814.93	-168.58	-25.02	-168.03	808.76	30.70	26.94	PASS
4016.00†	3865.79	-176.46	-867.28	3916.79	3910.02	-175.95	-30.04	-168.00	838.41	31.57	27.15	PASS
4116.00†	3959.34	-183.50	-901.92	4012.29	4005.10	-183.31	-35.06	-167.98	868.07	32.43	27.34	PASS
4216.00†	4052.88	-190.55	-936.55	4107.79	4100.19	-190.68	-40.07	-167.96	897.72	33.30	27.53	PASS
4316.00†	4146.43	-197.59	-971.18	4203.29	4195.27	-198.05	-45.09	-167.94	927.37	34.17	27.70	PASS
4416.00†	4239.98	-204.64	-1005.81	4298.79	4290.36	-205.42	-50.11	-167.92	957.03	35.04	27.86	PASS
4516.00†	4333.52	-211.69	-1040.44	4394.30	4385.44	-212.78	-55.13	-167.90	986.68	35.92	28.01	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



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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

**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	0.10	54.82	-3.80	52.16
8.5in Open Hole	1800.00	17619.74	15819.74	1799.47	N/A	-3.80	52.16	N/A	N/A

**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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
16.00	16.00	0.00	0.00	-16.00	104.00	9200.54	-4247.61	-24.78	10134.09	25.40	411.91	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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	13.00	16.00	0.16	104.98	89.91	104.98	1.40	173.63	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	0.16	104.98	89.91	104.98	1.73	112.82	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	0.16	104.98	89.91	104.98	2.30	69.72	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	0.16	104.98	89.91	104.98	2.90	49.65	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	0.16	104.98	89.91	104.98	3.52	38.39	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	0.16	104.98	89.91	104.98	4.14	31.25	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	0.16	104.98	89.91	104.98	4.76	26.33	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	0.16	104.98	89.91	104.98	5.38	22.75	PASS	
816.00†	816.00	0.00	0.00	813.00	816.00	0.16	104.98	89.91	104.98	6.01	20.01	PASS	
916.00†	916.00	0.00	0.00	913.00	916.00	0.16	104.98	89.91	104.98	6.63	17.87	PASS	
1000.00	1000.00	0.00	0.00	997.00	1000.00	0.16	104.98	89.91	104.98	7.16	16.39	PASS	
1016.00†	1016.00	-0.01	-0.04	1013.00	1016.00	0.16	104.98	-168.59	105.03	7.26	16.14	PASS	
1116.00†	1115.97	-0.47	-2.30	1112.97	1115.97	0.16	104.98	-168.83	107.28	7.99	14.82	PASS	
1216.00†	1215.80	-1.62	-7.98	1212.80	1215.80	0.16	104.98	-169.38	112.97	8.97	13.73	PASS	
1316.00†	1315.36	-3.47	-17.06	1312.36	1315.36	0.16	104.98	-170.15	122.10	9.88	13.35	PASS	
1416.00†	1414.54	-6.01	-29.55	1411.48	1414.48	0.14	104.99	-171.02	134.67	10.76	13.45	PASS	
1516.00†	1513.21	-9.24	-45.41	1509.59	1512.57	-1.91	105.32	-171.14	150.91	11.59	13.91	PASS	
1616.00†	1611.26	-13.15	-64.65	1606.88	1609.70	-7.21	106.18	-170.25	170.94	12.41	14.65	PASS	
1716.00†	1708.57	-17.75	-87.22	1703.85	1706.39	-14.58	107.38	-169.07	194.64	13.24	15.59	PASS	
1816.00†	1805.01	-23.01	-113.11	1800.09	1802.33	-21.93	108.58	-168.28	221.71	13.93	16.71	PASS	
1916.00†	1900.47	-28.95	-142.28	1895.35	1897.31	-29.21	109.76	-167.79	252.06	14.75	17.90	PASS	
2016.00†	1994.84	-35.54	-174.70	1989.53	1991.21	-36.41	110.93	-167.52	285.66	15.56	19.18	PASS	
2034.82	2012.46	-36.86	-181.16	2007.12	2008.75	-37.76	111.15	-167.48	292.34	15.71	19.44	PASS	
2116.00†	2088.40	-42.58	-209.28	2082.93	2084.32	-43.55	112.09	-167.49	321.40	16.25	20.63	PASS	
2216.00†	2181.95	-49.63	-243.91	2176.30	2177.42	-50.68	113.25	-167.49	357.19	16.94	21.96	PASS	
2316.00†	2275.50	-56.67	-278.54	2269.68	2270.51	-57.82	114.41	-167.49	392.99	17.64	23.17	PASS	
2416.00†	2369.04	-63.72	-313.17	2363.05	2363.60	-64.96	115.57	-167.49	428.78	18.37	24.24	PASS	
2516.00†	2462.59	-70.76	-347.81	2456.42	2456.70	-72.09	116.73	-167.50	464.58	19.10	25.23	PASS	
2616.00†	2556.14	-77.81	-382.44	2549.80	2549.79	-79.23	117.89	-167.50	500.37	19.85	26.11	PASS	
2716.00†	2649.68	-84.86	-417.07	2643.17	2642.88	-86.36	119.05	-167.50	536.17	20.61	26.91	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
2816.00†	2743.23	-91.90	-451.70	2736.55	2735.98	-93.50	120.21	-167.50	571.96	21.38	27.63	PASS
2916.00†	2836.78	-98.95	-486.33	2829.92	2829.07	-100.64	121.37	-167.50	607.76	22.16	28.30	PASS
3016.00†	2930.32	-105.99	-520.97	2923.29	2922.17	-107.77	122.53	-167.50	643.55	22.95	28.90	PASS
3116.00†	3023.87	-113.04	-555.60	3016.67	3015.26	-114.91	123.70	-167.50	679.35	23.75	29.46	PASS
3216.00†	3117.42	-120.09	-590.23	3110.04	3108.35	-122.04	124.86	-167.50	715.15	24.55	29.96	PASS
3316.00†	3210.96	-127.13	-624.86	3203.42	3201.45	-129.18	126.02	-167.50	750.94	25.36	30.43	PASS
3416.00†	3304.51	-134.18	-659.49	3296.79	3294.54	-136.32	127.18	-167.51	786.74	26.18	30.86	PASS
3516.00†	3398.06	-141.23	-694.13	3390.16	3387.63	-143.45	128.34	-167.51	822.53	27.00	31.26	PASS
3616.00†	3491.60	-148.27	-728.76	3483.54	3480.73	-150.59	129.50	-167.51	858.33	27.83	31.63	PASS
3716.00†	3585.15	-155.32	-763.39	3576.91	3573.82	-157.72	130.66	-167.51	894.12	28.66	31.97	PASS
3816.00†	3678.70	-162.36	-798.02	3670.29	3666.91	-164.86	131.82	-167.51	929.92	29.49	32.28	PASS
3916.00†	3772.24	-169.41	-832.65	3763.66	3760.01	-171.99	132.98	-167.51	965.71	30.33	32.58	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	0.10	64.00	-6.63	65.09
8.5in Open Hole	1800.00	17542.23	15742.23	1799.24	7395.00	-6.63	65.09	3039.27	43.62





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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

**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

**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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
16.00	16.00	0.00	0.00	13.00	16.00	0.26	119.93	89.87	119.93	1.40	198.54	PASS
116.00†	116.00	0.00	0.00	113.00	116.00	0.26	119.93	89.87	119.93	1.73	128.60	PASS
216.00†	216.00	0.00	0.00	213.00	216.00	0.26	119.93	89.87	119.93	2.30	79.43	PASS
316.00†	316.00	0.00	0.00	313.00	316.00	0.26	119.93	89.87	119.93	2.91	56.60	PASS
416.00†	416.00	0.00	0.00	413.00	416.00	0.26	119.93	89.87	119.93	3.52	43.79	PASS
516.00†	516.00	0.00	0.00	513.00	516.00	0.26	119.93	89.87	119.93	4.14	35.66	PASS
616.00†	616.00	0.00	0.00	613.00	616.00	0.26	119.93	89.87	119.93	4.77	30.06	PASS
716.00†	716.00	0.00	0.00	713.00	716.00	0.26	119.93	89.87	119.93	5.39	25.97	PASS
816.00†	816.00	0.00	0.00	813.00	816.00	0.26	119.93	89.87	119.93	6.02	22.85	PASS
916.00†	916.00	0.00	0.00	913.00	916.00	0.26	119.93	89.87	119.93	6.64	20.40	PASS
1000.00	1000.00	0.00	0.00	997.00	1000.00	0.26	119.93	89.87	119.93	7.17	18.72	PASS
1016.00†	1016.00	-0.01	-0.04	1013.00	1016.00	0.26	119.93	-168.63	119.97	7.27	18.44	PASS
1116.00†	1115.97	-0.47	-2.30	1112.97	1115.97	0.26	119.93	-168.83	122.23	8.00	16.88	PASS
1216.00†	1215.80	-1.62	-7.98	1212.80	1215.80	0.26	119.93	-169.32	127.92	8.98	15.55	PASS
1316.00†	1315.36	-3.47	-17.06	1312.02	1315.02	0.24	119.94	-169.99	137.05	9.89	14.99	PASS
1416.00†	1414.54	-6.01	-29.55	1408.19	1411.16	-1.34	121.19	-170.14	150.84	10.78	15.04	PASS
1516.00†	1513.21	-9.24	-45.41	1503.16	1505.99	-5.40	124.37	-169.55	169.98	11.71	15.51	PASS
1616.00†	1611.26	-13.15	-64.65	1597.00	1599.47	-11.82	129.40	-168.49	194.41	12.58	16.44	PASS
1716.00†	1708.57	-17.75	-87.22	1692.80	1694.80	-19.27	135.25	-167.54	222.90	13.41	17.62	PASS
1816.00†	1805.01	-23.01	-113.11	1787.60	1789.14	-26.65	141.03	-166.94	254.67	14.13	18.98	PASS
1916.00†	1900.47	-28.95	-142.28	1881.28	1882.35	-33.93	146.75	-166.59	289.65	14.89	20.38	PASS
2016.00†	1994.84	-35.54	-174.70	1973.71	1974.34	-41.13	152.39	-166.41	327.79	15.69	21.83	PASS
2034.82	2012.46	-36.86	-181.16	1990.96	1991.50	-42.47	153.45	-166.39	335.31	15.84	22.12	PASS
2116.00†	2088.40	-42.58	-209.28	2065.26	2065.43	-48.25	157.98	-166.47	368.02	16.38	23.44	PASS
2216.00†	2181.95	-49.63	-243.91	2156.78	2156.51	-55.37	163.57	-166.56	408.31	17.04	24.95	PASS
2316.00†	2275.50	-56.67	-278.54	2248.30	2247.58	-62.49	169.15	-166.63	448.60	17.75	26.28	PASS
2416.00†	2369.04	-63.72	-313.17	2339.83	2338.66	-69.61	174.74	-166.68	488.89	18.45	27.52	PASS
2516.00†	2462.59	-70.76	-347.81	2431.35	2429.73	-76.74	180.33	-166.73	529.19	19.17	28.62	PASS
2616.00†	2556.14	-77.81	-382.44	2522.87	2520.80	-83.86	185.91	-166.78	569.48	19.91	29.62	PASS
2716.00†	2649.68	-84.86	-417.07	2614.39	2611.88	-90.98	191.50	-166.81	609.77	20.66	30.52	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
2816.00†	2743.23	-91.90	-451.70	2705.92	2702.95	-98.10	197.08	-166.84	650.06	21.43	31.34	PASS	
2916.00†	2836.78	-98.95	-486.33	2797.44	2794.03	-105.22	202.67	-166.87	690.36	22.20	32.09	PASS	
3016.00†	2930.32	-105.99	-520.97	2888.96	2885.10	-112.34	208.26	-166.90	730.65	22.98	32.78	PASS	
3116.00†	3023.87	-113.04	-555.60	2980.48	2976.17	-119.46	213.84	-166.92	770.94	23.77	33.41	PASS	
3216.00†	3117.42	-120.09	-590.23	3072.01	3067.25	-126.58	219.43	-166.94	811.24	24.56	33.98	PASS	
3316.00†	3210.96	-127.13	-624.86	3163.53	3158.32	-133.71	225.01	-166.96	851.53	25.36	34.51	PASS	
3416.00†	3304.51	-134.18	-659.49	3255.05	3249.40	-140.83	230.60	-166.97	891.82	26.17	35.00	PASS	
3516.00†	3398.06	-141.23	-694.13	3346.57	3340.47	-147.95	236.19	-166.99	932.12	26.98	35.45	PASS	
3616.00†	3491.60	-148.27	-728.76	3438.10	3431.54	-155.07	241.77	-167.00	972.41	27.80	35.87	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	0.16	73.11	-8.34	79.77
8.5in Open Hole	1800.00	17376.39	15576.39	1798.48	N/A	-8.34	79.77	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 20-17-1NCH PWP (REV-A.0)**  
**Closest Approach**  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	13.00	16.00	0.22	134.96	89.91	134.96	1.40	223.59	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	0.22	134.96	89.91	134.96	1.73	144.68	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	0.22	134.96	89.91	134.96	2.30	89.36	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	0.22	134.96	89.91	134.96	2.91	63.68	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	0.22	134.96	89.91	134.96	3.52	49.28	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	0.22	134.96	89.91	134.96	4.14	40.13	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	0.22	134.96	89.91	134.96	4.77	33.83	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	0.22	134.96	89.91	134.96	5.39	29.23	PASS	
816.00†	816.00	0.00	0.00	813.00	816.00	0.22	134.96	89.91	134.96	6.02	25.72	PASS	
916.00†	916.00	0.00	0.00	913.00	916.00	0.22	134.96	89.91	134.96	6.64	22.97	PASS	
1000.00	1000.00	0.00	0.00	997.00	1000.00	0.22	134.96	89.91	134.96	7.17	21.07	PASS	
1016.00†	1016.00	-0.01	-0.04	1013.00	1016.00	0.22	134.96	-168.60	135.00	7.27	20.75	PASS	
1116.00†	1115.97	-0.47	-2.30	1112.97	1115.97	0.22	134.96	-168.78	137.26	8.00	18.96	PASS	
1216.00†	1215.80	-1.62	-7.98	1212.37	1215.37	0.20	134.98	-169.20	142.96	8.98	17.39	PASS	
1316.00†	1315.36	-3.47	-17.06	1308.38	1311.35	-1.24	136.39	-169.24	153.52	9.92	16.75	PASS	
1416.00†	1414.54	-6.01	-29.55	1403.32	1406.15	-4.93	140.01	-168.67	169.77	10.92	16.70	PASS	
1516.00†	1513.21	-9.24	-45.41	1497.28	1499.75	-10.76	145.74	-167.70	191.63	11.84	17.29	PASS	
1616.00†	1611.26	-13.15	-64.65	1593.78	1595.77	-17.59	152.45	-166.84	217.69	12.65	18.30	PASS	
1716.00†	1708.57	-17.75	-87.22	1689.36	1690.88	-24.36	159.10	-166.31	247.04	13.48	19.43	PASS	
1816.00†	1805.01	-23.01	-113.11	1783.90	1784.95	-31.05	165.67	-166.03	279.62	14.20	20.74	PASS	
1916.00†	1900.47	-28.95	-142.28	1877.28	1877.87	-37.66	172.17	-165.91	315.38	14.95	22.10	PASS	
2016.00†	1994.84	-35.54	-174.70	1969.39	1969.53	-44.18	178.57	-165.91	354.28	15.77	23.48	PASS	
2034.82	2012.46	-36.86	-181.16	1986.57	1986.62	-45.40	179.77	-165.91	361.95	15.90	23.78	PASS	
2116.00†	2088.40	-42.58	-209.28	2060.59	2060.28	-50.64	184.91	-166.12	395.28	16.42	25.11	PASS	
2216.00†	2181.95	-49.63	-243.91	2151.77	2151.00	-57.10	191.26	-166.32	436.33	17.11	26.56	PASS	
2316.00†	2275.50	-56.67	-278.54	2242.94	2241.73	-63.55	197.60	-166.49	477.38	17.78	27.92	PASS	
2416.00†	2369.04	-63.72	-313.17	2334.12	2332.45	-70.01	203.94	-166.64	518.44	18.48	29.14	PASS	
2516.00†	2462.59	-70.76	-347.81	2425.29	2423.18	-76.46	210.28	-166.76	559.50	19.19	30.23	PASS	
2616.00†	2556.14	-77.81	-382.44	2516.47	2513.90	-82.92	216.62	-166.86	600.57	19.92	31.22	PASS	
2716.00†	2649.68	-84.86	-417.07	2607.64	2604.63	-89.38	222.96	-166.96	641.63	20.66	32.12	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
2816.00†	2743.23	-91.90	-451.70	2698.82	2695.35	-95.83	229.30	-167.04	682.70	21.41	32.94	PASS	
2916.00†	2836.78	-98.95	-486.33	2789.99	2786.08	-102.29	235.64	-167.11	723.76	22.17	33.69	PASS	
3016.00†	2930.32	-105.99	-520.97	2881.17	2876.80	-108.74	241.98	-167.17	764.83	22.94	34.38	PASS	
3116.00†	3023.87	-113.04	-555.60	2972.34	2967.53	-115.20	248.33	-167.23	805.90	23.71	35.01	PASS	
3216.00†	3117.42	-120.09	-590.23	3063.52	3058.25	-121.66	254.67	-167.28	846.97	24.49	35.58	PASS	
3316.00†	3210.96	-127.13	-624.86	3154.69	3148.98	-128.11	261.01	-167.33	888.04	25.28	36.12	PASS	
3416.00†	3304.51	-134.18	-659.49	3245.87	3239.70	-134.57	267.35	-167.37	929.11	26.07	36.61	PASS	
3516.00†	3398.06	-141.23	-694.13	3337.04	3330.43	-141.02	273.69	-167.41	970.18	26.87	37.06	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	0.13	82.27	-9.74	91.97
8.5in Open Hole	1800.00	17786.94	15986.94	1797.97	7628.00	-9.74	91.97	3038.97	173.43

## 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 20-17-1NCH PWP (REV-A.0)**  
**Closest Approach**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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 20-17-1NCH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	13.00	16.00	0.32	149.96	89.88	149.96	1.40	248.59	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	0.32	149.96	89.88	149.96	1.73	160.47	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	0.32	149.96	89.88	149.96	2.31	99.07	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	0.32	149.96	89.88	149.96	2.91	70.64	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	0.32	149.96	89.88	149.96	3.53	54.68	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	0.32	149.96	89.88	149.96	4.15	44.54	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	0.32	149.96	89.88	149.96	4.77	37.56	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	0.32	149.96	89.88	149.96	5.40	32.45	PASS	
816.00†	816.00	0.00	0.00	813.00	816.00	0.32	149.96	89.88	149.96	6.02	28.57	PASS	
916.00†	916.00	0.00	0.00	913.00	916.00	0.32	149.96	89.88	149.96	6.65	25.51	PASS	
1000.00	1000.00	0.00	0.00	997.00	1000.00	0.32	149.96	89.88	149.96	7.18	23.40	PASS	
1016.00†	1016.00	-0.01	-0.04	1013.00	1016.00	0.32	149.96	-168.63	150.00	7.27	23.05	PASS	
1116.00†	1115.97	-0.47	-2.30	1112.39	1115.39	0.31	149.98	-168.78	152.28	8.00	21.04	PASS	
1216.00†	1215.80	-1.62	-7.98	1207.57	1210.55	-0.65	151.73	-168.79	159.79	9.04	19.30	PASS	
1316.00†	1315.36	-3.47	-17.06	1301.81	1304.64	-3.09	156.19	-168.48	173.59	10.18	18.43	PASS	
1416.00†	1414.54	-6.01	-29.55	1394.55	1397.04	-6.93	163.24	-167.95	193.58	11.26	18.43	PASS	
1516.00†	1513.21	-9.24	-45.41	1485.29	1487.13	-12.08	172.66	-167.28	219.65	12.21	19.19	PASS	
1616.00†	1611.26	-13.15	-64.65	1576.75	1577.61	-18.49	184.40	-166.59	251.37	13.06	20.43	PASS	
1716.00†	1708.57	-17.75	-87.22	1670.30	1670.09	-25.24	196.75	-166.11	286.67	13.84	21.93	PASS	
1816.00†	1805.01	-23.01	-113.11	1762.61	1761.34	-31.89	208.94	-165.84	325.12	11.61	29.89	PASS	
1916.00†	1900.47	-28.95	-142.28	1853.56	1851.26	-38.45	220.95	-165.70	366.68	15.26	25.15	PASS	
2016.00†	1994.84	-35.54	-174.70	1943.04	1939.72	-44.91	232.77	-165.66	411.29	16.03	26.79	PASS	
2034.82	2012.46	-36.86	-181.16	1959.70	1956.20	-46.11	234.97	-165.66	420.02	16.17	27.11	PASS	
2116.00†	2088.40	-42.58	-209.28	2031.48	2027.16	-51.28	244.45	-165.85	457.92	16.70	28.59	PASS	
2216.00†	2181.95	-49.63	-243.91	2119.90	2114.57	-57.66	256.12	-166.05	504.62	17.33	30.32	PASS	
2316.00†	2275.50	-56.67	-278.54	2208.32	2201.98	-64.04	267.80	-166.22	551.32	17.99	31.86	PASS	
2416.00†	2369.04	-63.72	-313.17	2296.73	2289.39	-70.41	279.48	-166.36	598.02	18.67	33.25	PASS	
2516.00†	2462.59	-70.76	-347.81	2385.15	2376.80	-76.79	291.15	-166.48	644.72	19.37	34.51	PASS	
2616.00†	2556.14	-77.81	-382.44	2473.57	2464.21	-83.17	302.83	-166.58	691.42	20.08	35.65	PASS	
2716.00†	2649.68	-84.86	-417.07	2561.98	2551.62	-89.54	314.50	-166.67	738.13	20.81	36.69	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
2816.00†	2743.23	-91.90	-451.70	2650.40	2639.03	-95.92	326.18	-166.75	784.84	21.54	37.64	PASS
2916.00†	2836.78	-98.95	-486.33	2738.82	2726.44	-102.30	337.85	-166.82	831.55	22.29	38.50	PASS
3016.00†	2930.32	-105.99	-520.97	2827.23	2813.85	-108.67	349.53	-166.89	878.26	23.04	39.30	PASS
3116.00†	3023.87	-113.04	-555.60	2915.65	2901.26	-115.05	361.21	-166.94	924.97	23.80	40.02	PASS
3216.00†	3117.42	-120.09	-590.23	3004.07	2988.67	-121.43	372.88	-167.00	971.68	24.57	40.69	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	0.20	91.41	-10.45	110.90
8.5in Open Hole	1800.00	17654.03	15854.03	1795.31	7458.00	-10.45	110.90	3038.68	298.68

## 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



**Clearance Report**  
**WAKEMAN 20-17-1NCH PWP (REV-A.0)**  
**Closest Approach**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH PWB
Facility	SEC.20-T01S-R65W		

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
16.00	16.00	0.00	0.00	-16.00	40.00	8360.40	149.88		1.03	8361.78	25.40	339.85	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	5096.81	67.95	5096.81	67.95
8.625in Casing Surface	0.00	1472.00	1472.00	40.00	1512.00	5096.81	67.95	5096.81	67.95
7.875in Open Hole	1472.00	8173.00	6701.00	1512.00	8213.00	5096.81	67.95	5096.81	67.95
4.5in Casing Production	0.00	8173.00	8173.00	40.00	8213.00	5096.81	67.95	5096.81	67.95

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	13.00	16.00	0.39	164.96	89.87	164.96	1.40	273.59	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	0.39	164.96	89.87	164.96	1.73	176.44	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	0.39	164.96	89.87	164.96	2.31	108.92	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	0.39	164.96	89.87	164.96	2.92	77.67	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	0.39	164.96	89.87	164.96	3.53	60.13	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	0.39	164.96	89.87	164.96	4.15	48.99	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	0.39	164.96	89.87	164.96	4.78	41.31	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	0.39	164.96	89.87	164.96	5.40	35.70	PASS	
816.00†	816.00	0.00	0.00	813.00	816.00	0.39	164.96	89.87	164.96	6.03	31.42	PASS	
916.00†	916.00	0.00	0.00	913.00	916.00	0.39	164.96	89.87	164.96	6.65	28.06	PASS	
1000.00	1000.00	0.00	0.00	997.00	1000.00	0.39	164.96	89.87	164.96	7.18	25.75	PASS	
1016.00†	1016.00	-0.01	-0.04	1012.33	1015.33	0.38	164.98	-168.63	165.03	7.27	25.37	PASS	
1116.00†	1115.97	-0.47	-2.30	1107.07	1110.04	-0.31	166.83	-168.53	169.24	8.08	23.14	PASS	
1216.00†	1215.80	-1.62	-7.98	1201.12	1203.95	-2.08	171.57	-168.26	179.94	9.33	20.99	PASS	
1316.00†	1315.36	-3.47	-17.06	1293.90	1296.39	-4.88	179.07	-167.89	197.05	10.48	20.28	PASS	
1416.00†	1414.54	-6.01	-29.55	1384.88	1386.72	-8.63	189.15	-167.46	220.47	11.51	20.52	PASS	
1516.00†	1513.21	-9.24	-45.41	1473.53	1474.38	-13.25	201.55	-167.00	250.03	12.49	21.32	PASS	
1616.00†	1611.26	-13.15	-64.65	1559.42	1558.87	-18.63	215.98	-166.55	285.53	13.40	22.60	PASS	
1716.00†	1708.57	-17.75	-87.22	1647.34	1644.95	-24.88	232.75	-166.13	326.31	14.18	24.34	PASS	
1816.00†	1805.01	-23.01	-113.11	1737.09	1732.78	-31.33	250.07	-165.86	370.39	14.86	26.21	PASS	
1916.00†	1900.47	-28.95	-142.28	1825.31	1819.10	-37.68	267.09	-165.69	417.48	15.55	28.09	PASS	
2016.00†	1994.84	-35.54	-174.70	1911.87	1903.81	-43.90	283.80	-165.61	467.52	16.28	29.97	PASS	
2034.82	2012.46	-36.86	-181.16	1927.96	1919.55	-45.06	286.90	-165.60	477.26	16.45	30.27	PASS	
2116.00†	2088.40	-42.58	-209.28	1997.26	1987.37	-50.05	300.27	-165.79	519.53	16.93	31.98	PASS	
2216.00†	2181.95	-49.63	-243.91	2082.63	2070.91	-56.18	316.75	-165.98	571.59	17.54	33.92	PASS	
2316.00†	2275.50	-56.67	-278.54	2167.99	2154.44	-62.32	333.22	-166.14	623.65	18.18	35.65	PASS	
2416.00†	2369.04	-63.72	-313.17	2253.36	2237.98	-68.46	349.69	-166.28	675.72	18.85	37.21	PASS	
2516.00†	2462.59	-70.76	-347.81	2338.72	2321.51	-74.60	366.17	-166.40	727.79	19.53	38.64	PASS	
2616.00†	2556.14	-77.81	-382.44	2424.09	2405.05	-80.74	382.64	-166.50	779.86	20.22	39.93	PASS	
2716.00†	2649.68	-84.86	-417.07	2509.45	2488.58	-86.88	399.11	-166.59	831.93	20.93	41.10	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
2816.00†	2743.23	-91.90	-451.70	2594.82	2572.12	-93.02	415.59	-166.67	884.01	21.65	42.17	PASS
2916.00†	2836.78	-98.95	-486.33	2680.18	2655.65	-99.16	432.06	-166.74	936.08	22.38	43.15	PASS
3016.00†	2930.32	-105.99	-520.97	2765.55	2739.19	-105.30	448.53	-166.80	988.16	23.13	44.05	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## 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	0.23	100.56	-10.81	130.20
8.5in Open Hole	1800.00	17645.62	15845.62	1791.34	7390.00	-10.81	130.20	3038.38	423.93

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	13.00	16.00	0.30	179.90	89.90	179.90	1.40	298.50	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	0.30	179.90	89.90	179.90	1.73	192.46	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	0.30	179.90	89.90	179.90	2.31	118.80	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	0.30	179.90	89.90	179.90	2.92	84.72	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	0.30	179.90	89.90	179.90	3.53	65.59	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	0.30	179.90	89.90	179.90	4.15	53.44	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	0.30	179.90	89.90	179.90	4.78	45.06	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	0.30	179.90	89.90	179.90	5.40	38.94	PASS	
816.00†	816.00	0.00	0.00	813.00	816.00	0.30	179.90	89.90	179.90	6.03	34.28	PASS	
916.00†	916.00	0.00	0.00	912.27	915.27	0.30	179.93	89.91	179.93	6.65	30.63	PASS	
1000.00	1000.00	0.00	0.00	991.49	994.47	-0.14	181.30	90.04	181.38	7.25	28.03	PASS	
1016.00†	1016.00	-0.01	-0.04	1006.57	1009.54	-0.29	181.79	-168.41	181.95	7.36	27.63	PASS	
1116.00†	1115.97	-0.47	-2.30	1100.47	1103.31	-1.80	186.59	-168.05	189.32	8.40	24.82	PASS	
1216.00†	1215.80	-1.62	-7.98	1193.41	1195.89	-4.21	194.22	-167.64	203.19	9.64	22.91	PASS	
1316.00†	1315.36	-3.47	-17.06	1284.79	1286.64	-7.45	204.52	-167.22	223.47	10.77	22.34	PASS	
1416.00†	1414.54	-6.01	-29.55	1374.11	1374.95	-11.45	217.24	-166.80	250.00	11.76	22.74	PASS	
1516.00†	1513.21	-9.24	-45.41	1460.88	1460.31	-16.14	232.11	-166.40	282.60	12.41	24.28	PASS	
1616.00†	1611.26	-13.15	-64.65	1544.69	1542.26	-21.39	248.80	-166.03	321.08	13.60	25.03	PASS	
1716.00†	1708.57	-17.75	-87.22	1628.17	1623.38	-27.31	267.58	-165.69	365.01	14.39	26.80	PASS	
1816.00†	1805.01	-23.01	-113.11	1716.14	1708.74	-33.71	287.90	-165.44	412.54	15.06	28.79	PASS	
1916.00†	1900.47	-28.95	-142.28	1802.45	1792.48	-39.99	307.83	-165.28	463.02	15.73	30.77	PASS	
2016.00†	1994.84	-35.54	-174.70	1887.00	1874.51	-46.14	327.36	-165.18	516.39	16.48	32.70	PASS	
2034.82	2012.46	-36.86	-181.16	1902.70	1889.75	-47.28	330.99	-165.17	526.75	16.60	33.11	PASS	
2116.00†	2088.40	-42.58	-209.28	1970.31	1955.34	-52.20	346.61	-165.37	571.67	17.08	34.88	PASS	
2216.00†	2181.95	-49.63	-243.91	2053.58	2036.14	-58.26	365.84	-165.58	627.00	17.69	36.87	PASS	
2316.00†	2275.50	-56.67	-278.54	2136.86	2116.93	-64.31	385.08	-165.76	682.34	18.33	38.68	PASS	
2416.00†	2369.04	-63.72	-313.17	2220.13	2197.73	-70.37	404.31	-165.91	737.69	18.99	40.31	PASS	
2516.00†	2462.59	-70.76	-347.81	2303.41	2278.53	-76.43	423.55	-166.04	793.03	19.66	41.80	PASS	
2616.00†	2556.14	-77.81	-382.44	2386.68	2359.32	-82.49	442.78	-166.15	848.38	20.35	43.15	PASS	
2716.00†	2649.68	-84.86	-417.07	2469.96	2440.12	-88.55	462.02	-166.25	903.73	21.06	44.37	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
2816.00†	2743.23	-91.90	-451.70	2553.23	2520.92	-94.60	481.26	-166.34	959.08	21.77	45.49	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## 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	0.19	109.67	-12.04	148.49
8.5in Open Hole	1800.00	17516.82	15716.82	1787.10	7215.00	-12.04	148.49	3038.12	518.69

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	
16.00	16.00	0.00	0.00	13.00	16.00	0.37	194.91	89.89	194.91	1.40	323.51	PASS	
116.00†	116.00	0.00	0.00	113.00	116.00	0.37	194.91	89.89	194.91	1.73	208.55	PASS	
216.00†	216.00	0.00	0.00	213.00	216.00	0.37	194.91	89.89	194.91	2.31	128.73	PASS	
316.00†	316.00	0.00	0.00	313.00	316.00	0.37	194.91	89.89	194.91	2.92	91.80	PASS	
416.00†	416.00	0.00	0.00	413.00	416.00	0.37	194.91	89.89	194.91	3.53	71.08	PASS	
516.00†	516.00	0.00	0.00	513.00	516.00	0.37	194.91	89.89	194.91	4.15	57.91	PASS	
616.00†	616.00	0.00	0.00	613.00	616.00	0.37	194.91	89.89	194.91	4.78	48.83	PASS	
716.00†	716.00	0.00	0.00	713.00	716.00	0.37	194.91	89.89	194.91	5.40	42.20	PASS	
816.00†	816.00	0.00	0.00	812.20	815.20	0.36	194.93	89.89	194.93	6.02	37.18	PASS	
916.00†	916.00	0.00	0.00	906.01	908.99	-0.16	196.79	90.05	196.92	6.74	33.00	PASS	
1000.00	1000.00	0.00	0.00	984.64	987.52	-1.25	200.63	90.36	201.02	7.55	29.68	PASS	
1016.00†	1016.00	-0.01	-0.04	999.59	1002.43	-1.52	201.59	-168.07	202.10	7.71	29.16	PASS	
1116.00†	1115.97	-0.47	-2.30	1092.52	1095.02	-3.69	209.27	-167.57	212.63	8.72	26.75	PASS	
1216.00†	1215.80	-1.62	-7.98	1184.21	1186.06	-6.63	219.66	-167.08	229.63	9.94	25.03	PASS	
1316.00†	1315.36	-3.47	-17.06	1274.09	1274.93	-10.27	232.57	-166.62	252.97	10.97	24.80	PASS	
1416.00†	1414.54	-6.01	-29.55	1361.68	1361.08	-14.56	247.72	-166.21	282.50	11.51	26.32	PASS	
1516.00†	1513.21	-9.24	-45.41	1446.52	1444.04	-19.38	264.81	-165.85	318.01	12.92	26.17	PASS	
1616.00†	1611.26	-13.15	-64.65	1529.99	1525.13	-24.77	283.88	-165.51	359.20	13.75	27.67	PASS	
1716.00†	1708.57	-17.75	-87.22	1619.24	1611.62	-30.76	305.06	-165.27	404.29	14.47	29.52	PASS	
1816.00†	1805.01	-23.01	-113.11	1706.91	1696.59	-36.64	325.86	-165.13	452.37	15.14	31.39	PASS	
1916.00†	1900.47	-28.95	-142.28	1792.90	1779.92	-42.40	346.27	-165.05	503.38	15.87	33.25	PASS	
2016.00†	1994.84	-35.54	-174.70	1877.10	1861.52	-48.05	366.25	-165.01	557.27	16.55	35.14	PASS	
2034.82	2012.46	-36.86	-181.16	1892.74	1876.67	-49.09	369.95	-165.00	567.73	16.68	35.50	PASS	
2116.00†	2088.40	-42.58	-209.28	1960.05	1941.91	-53.61	385.93	-165.25	613.07	17.17	37.20	PASS	
2216.00†	2181.95	-49.63	-243.91	2042.96	2022.26	-59.17	405.60	-165.51	668.92	17.78	39.13	PASS	
2316.00†	2275.50	-56.67	-278.54	2125.88	2102.61	-64.73	425.27	-165.73	724.78	18.42	40.88	PASS	
2416.00†	2369.04	-63.72	-313.17	2208.79	2182.97	-70.29	444.95	-165.91	780.65	19.08	42.46	PASS	
2516.00†	2462.59	-70.76	-347.81	2291.70	2263.32	-75.84	464.62	-166.08	836.53	19.75	43.89	PASS	
2616.00†	2556.14	-77.81	-382.44	2374.62	2343.67	-81.40	484.30	-166.22	892.40	20.44	45.20	PASS	
2716.00†	2649.68	-84.86	-417.07	2457.53	2424.03	-86.96	503.97	-166.34	948.28	21.14	46.38	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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	0.22	118.81	-12.96	165.46
8.5in Open Hole	13.00	17963.99	17950.99	13.00	7638.00	0.22	118.81	3038.06	553.74

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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		
16.00	16.00	0.00	0.00	-16.00	18.00	3025.03	48.05	0.91	3025.41	25.40	122.94	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	1844.15	20.83	1844.15	20.83
8.625in Casing Surface	0.00	1561.00	1561.00	18.00	1579.00	1844.15	20.83	1844.15	20.83
7.875in Open Hole	1561.00	8292.00	6731.00	1579.00	8310.00	1844.15	20.83	1844.15	20.83
4.5in Casing Production	0.00	8292.00	8292.00	18.00	8310.00	1844.15	20.83	1844.15	20.83

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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
16.00	16.00	0.00	0.00	-16.00	46.00	6024.15	862.93		8.15	6085.72	25.40	247.34	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	3674.67	509.11	3674.67	509.11
9.625in Casing Surface	0.00	224.00	224.00	46.00	270.00	3674.67	509.11	3674.67	509.11
7.875in Open Hole	224.00	8129.00	7905.00	270.00	8175.00	3674.67	509.11	3674.67	509.11
4.5in Casing Production	0.00	8129.00	8129.00	46.00	8175.00	3674.67	509.11	3674.67	509.11

## 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°FEL, 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



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

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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 sz

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
16.00	16.00	0.00	0.00	-16.00	29.00	4015.73	1135.16	15.78	4173.11	25.40	169.59	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	2451.13	680.69	2451.13	680.69
8.625in Casing Surface	0.00	91.00	91.00	29.00	120.00	2451.13	680.69	2451.13	680.69
7.875in Open Hole	91.00	8123.00	8032.00	120.00	8152.00	2451.13	680.69	2451.13	680.69
4.5in Casing Production	0.00	8123.00	8123.00	29.00	8152.00	2451.13	680.69	2451.13	680.69

## 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



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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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		
16.00	16.00	0.00	0.00	-16.00	23.00	9345.52	3071.35	18.19	9837.27	25.40	399.83	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	5705.61	1845.75	5705.61	1845.75
8.625in Casing Surface	0.00	1549.00	1549.00	23.00	1572.00	5705.61	1845.75	5705.61	1845.75
7.875in Open Hole	1549.00	8173.00	6624.00	1572.00	8196.00	5705.61	1845.75	5705.61	1845.75
4.5in Casing Production	0.00	8173.00	8173.00	23.00	8196.00	5705.61	1845.75	5705.61	1845.75

## 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



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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NCH 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
16.00	16.00	0.00	0.00	8.00	16.00	718.63	1192.77	58.93	1392.52	50.15	28.18	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	441.42	725.08	441.42	725.08
8.625in Casing Surface	0.00	250.00	250.00	-8.00	242.00	441.42	725.08	441.42	725.08
7.875in Open Hole	250.00	8200.00	7950.00	242.00	8192.00	441.42	725.08	441.42	725.08
4.5in Casing Production	0.00	8200.00	8200.00	-8.00	8192.00	441.42	725.08	441.42	725.08

## 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