

# PETROSHARE

Location: COLORADO Slot: SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)  
Field: ADAMS COUNTY (NAD83/ GRID NORTH) Well: WAKEMAN 20-17-3CDH  
Facility: SEC.20-T01S-R65W Wellbore: WAKEMAN 20-17-3CDH PWB

Plot reference wellpath is WAKEMAN 20-17-3CDH PWB (REV-A.0)

True vertical depths are referenced to RIG (13KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to RIG (13KB) (RKB)	North Reference: Grid north
RIG (13KB) (RKB) to Mean Sea Level: 5203 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: ingmjmr on 2017-09-22
	Database: WellArchitectDB1

## Location Information

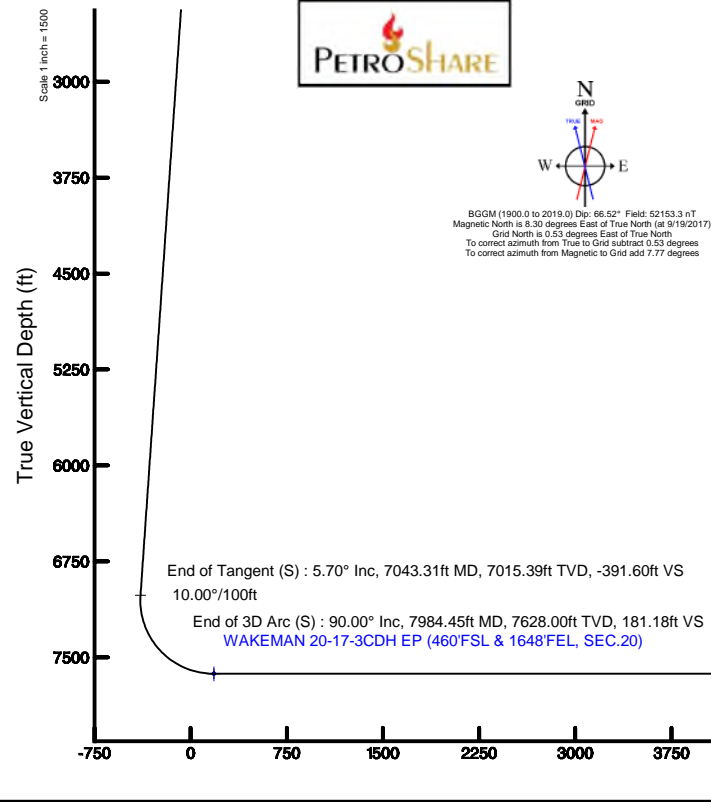
Facility Name				Grid East (US Rt)	Grid North (US Rt)	Latitude	Longitude
SEC.20-T01S-R65W				3228360.558	1223518.730	39°56'38.622"N	104°41'07.909"W
Slot				Local N (ft)	Local E (ft)	Grid East (US Rt)	Grid North (US Rt)
SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)				-0.15	-59.95	3228300.612	1223518.576
RIG (13KB) (RKB) to Ground level (At Slot: SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20))				5203R			
Mean Sea Level to Ground level (At Slot: SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20))				0ft			
RIG (13KB) (RKB) to Mean Sea Level				5203R			

## Hole and Casing Sections

Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1797.97	0.00	0.00	-32.41	31.83	WAKEMAN 20-17-3CDH PWB
8.5in Open Hole	1800.00	17786.94	15986.94	1797.97	7628.00	-32.41	31.83	9969.94	299.09	WAKEMAN 20-17-3CDH PWB

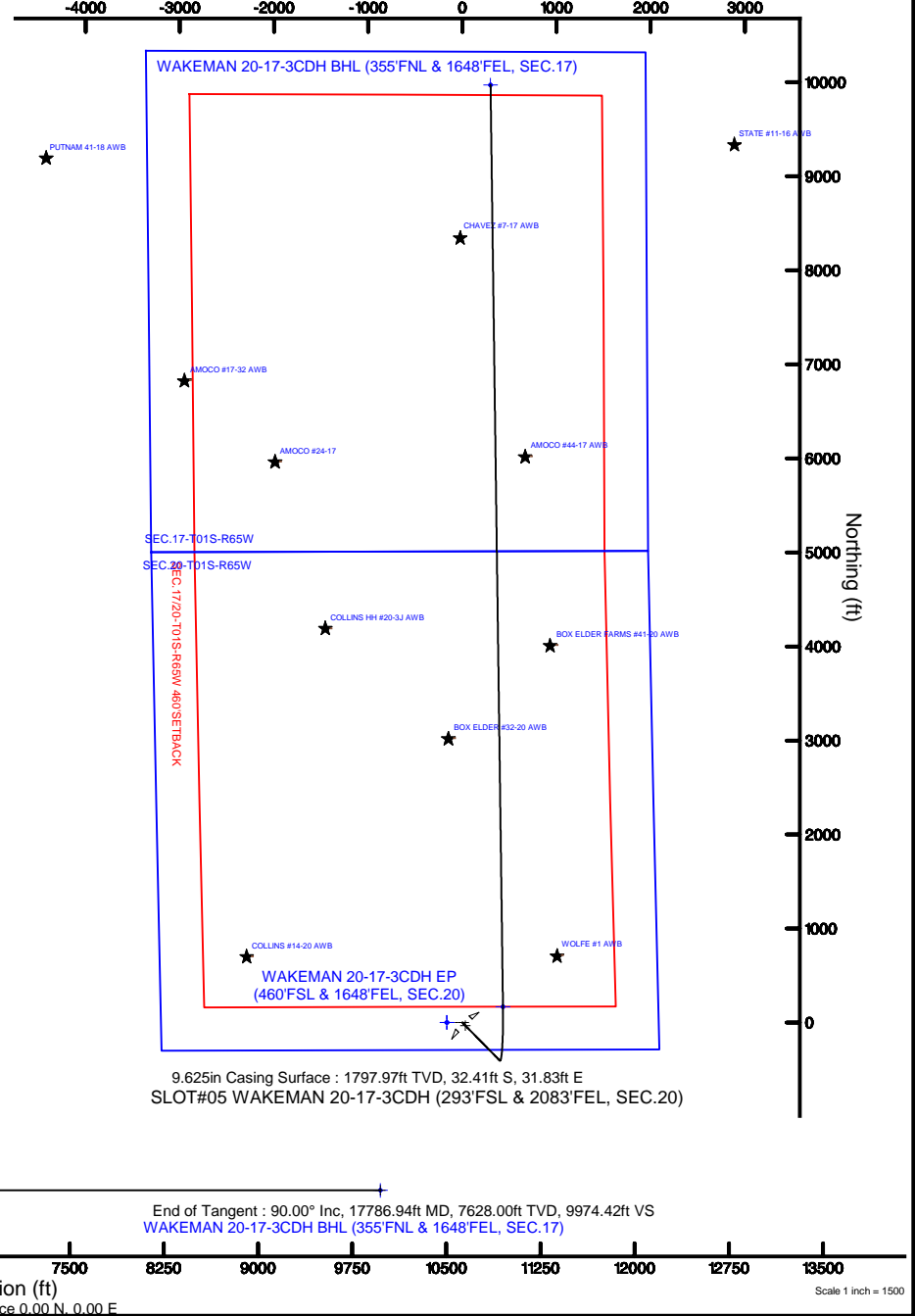
## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
13.00	17786.94	BHI NavTrak	Custom BHI NavTrak (Standard Rotating+Axial Cor) (Rockies 0.03Gt model)		WAKEMAN 20-17-3CDH PWB



Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)
Tie On	13.00	0.000	135.513	13.00	0.00	0.00	0.00
End of Tangent	1200.00	0.000	135.513	1200.00	0.00	0.00	0.00
End of Build (S)	1484.80	5.696	135.513	1484.33	-10.09	9.91	2.00
End of Tangent (S)	7043.31	5.696	135.513	7015.39	-403.67	396.50	0.00
End of 3D Arc (S)	7984.45	90.000	359.229	7628.00	168.33	431.03	10.00
End of Tangent	17786.94	90.000	359.229	7628.00	9969.94	299.09	0.00

Scale 1 inch = 2000





# Planned Wellpath Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)

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**BAKER  
HUGHES**  
a GE company



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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 12:23:50 PM
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB1/WAKEMAN_20-17-3CDH_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	-0.15	-59.95	3228300.61	1223518.58	39°56'38.626"N	104°41'08.679"W
Facility Reference Pt			3228360.56	1223518.73	39°56'38.622"N	104°41'07.909"W
Field Reference Pt			3175478.75	1240632.48	39°59'31.992"N	104°52'25.320"W

## WELLPATH DATUM

Calculation method	Minimum curvature	RIG (13'KB) (RKB) to Facility Vertical Datum	5203.00ft
Horizontal Reference Pt	Slot	RIG (13'KB) (RKB) to Mean Sea Level	5203.00ft
Vertical Reference Pt	RIG (13'KB) (RKB)	RIG (13'KB) (RKB) to Ground Level at Slot (SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20))	5203.00ft
MD Reference Pt	RIG (13'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	1.72°



# Planned Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (194 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	135.513	0.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	
13.00	0.000	135.513	13.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	Tie On
113.00†	0.000	135.513	113.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	
213.00†	0.000	135.513	213.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	
313.00†	0.000	135.513	313.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	
413.00†	0.000	135.513	413.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	
513.00†	0.000	135.513	513.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	
613.00†	0.000	135.513	613.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	
713.00†	0.000	135.513	713.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	
813.00†	0.000	135.513	813.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	
913.00†	0.000	135.513	913.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	
1013.00†	0.000	135.513	1013.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	
1113.00†	0.000	135.513	1113.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	
1200.00	0.000	135.513	1200.00	0.00	0.00	0.00	39°56'38.626"N	104°41'08.679"W	0.00	End of Tangent
1213.00†	0.260	135.513	1213.00	-0.02	-0.02	0.02	39°56'38.626"N	104°41'08.678"W	2.00	
1313.00†	2.260	135.513	1312.97	-1.54	-1.59	1.56	39°56'38.610"N	104°41'08.659"W	2.00	
1413.00†	4.260	135.513	1412.80	-5.48	-5.65	5.55	39°56'38.569"N	104°41'08.608"W	2.00	
1484.80	5.696	135.513	1484.33	-9.79	-10.09	9.91	39°56'38.525"N	104°41'08.553"W	2.00	End of Build (S)
1500.55†	5.696	135.513	1500.00	-10.87	-11.21	11.01	39°56'38.514"N	104°41'08.539"W	0.00	FOX HILLS
1513.00†	5.696	135.513	1512.39	-11.73	-12.09	11.87	39°56'38.505"N	104°41'08.528"W	0.00	
1613.00†	5.696	135.513	1611.90	-18.60	-19.17	18.83	39°56'38.435"N	104°41'08.439"W	0.00	
1713.00†	5.696	135.513	1711.40	-25.46	-26.25	25.78	39°56'38.364"N	104°41'08.351"W	0.00	
1813.00†	5.696	135.513	1810.91	-32.33	-33.33	32.74	39°56'38.293"N	104°41'08.262"W	0.00	
1913.00†	5.696	135.513	1910.42	-39.20	-40.41	39.69	39°56'38.223"N	104°41'08.174"W	0.00	
2013.00†	5.696	135.513	2009.92	-46.07	-47.49	46.65	39°56'38.152"N	104°41'08.085"W	0.00	
2113.00†	5.696	135.513	2109.43	-52.94	-54.57	53.60	39°56'38.082"N	104°41'07.997"W	0.00	
2213.00†	5.696	135.513	2208.94	-59.81	-61.65	60.56	39°56'38.011"N	104°41'07.909"W	0.00	
2313.00†	5.696	135.513	2308.44	-66.68	-68.73	67.51	39°56'37.940"N	104°41'07.820"W	0.00	
2413.00†	5.696	135.513	2407.95	-73.55	-75.81	74.47	39°56'37.870"N	104°41'07.732"W	0.00	
2513.00†	5.696	135.513	2507.45	-80.42	-82.89	81.42	39°56'37.799"N	104°41'07.643"W	0.00	



# Planned Wellpath Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (194 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2613.00†	5.696	135.513	2606.96	-87.28	-89.97	88.38	39°56'37.729"N	104°41'07.555"W	0.00	
2713.00†	5.696	135.513	2706.47	-94.15	-97.06	95.33	39°56'37.658"N	104°41'07.466"W	0.00	
2813.00†	5.696	135.513	2805.97	-101.02	-104.14	102.29	39°56'37.587"N	104°41'07.378"W	0.00	
2913.00†	5.696	135.513	2905.48	-107.89	-111.22	109.24	39°56'37.517"N	104°41'07.289"W	0.00	
3013.00†	5.696	135.513	3004.99	-114.76	-118.30	116.20	39°56'37.446"N	104°41'07.201"W	0.00	
3113.00†	5.696	135.513	3104.49	-121.63	-125.38	123.15	39°56'37.376"N	104°41'07.112"W	0.00	
3213.00†	5.696	135.513	3204.00	-128.50	-132.46	130.11	39°56'37.305"N	104°41'07.024"W	0.00	
3313.00†	5.696	135.513	3303.50	-135.37	-139.54	137.06	39°56'37.234"N	104°41'06.936"W	0.00	
3413.00†	5.696	135.513	3403.01	-142.24	-146.62	144.02	39°56'37.164"N	104°41'06.847"W	0.00	
3513.00†	5.696	135.513	3502.52	-149.10	-153.70	150.97	39°56'37.093"N	104°41'06.759"W	0.00	
3613.00†	5.696	135.513	3602.02	-155.97	-160.78	157.93	39°56'37.023"N	104°41'06.670"W	0.00	
3713.00†	5.696	135.513	3701.53	-162.84	-167.86	164.88	39°56'36.952"N	104°41'06.582"W	0.00	
3813.00†	5.696	135.513	3801.04	-169.71	-174.94	171.84	39°56'36.881"N	104°41'06.493"W	0.00	
3913.00†	5.696	135.513	3900.54	-176.58	-182.02	178.79	39°56'36.811"N	104°41'06.405"W	0.00	
4013.00†	5.696	135.513	4000.05	-183.45	-189.10	185.75	39°56'36.740"N	104°41'06.316"W	0.00	
4113.00†	5.696	135.513	4099.55	-190.32	-196.18	192.70	39°56'36.670"N	104°41'06.228"W	0.00	
4213.00†	5.696	135.513	4199.06	-197.19	-203.27	199.66	39°56'36.599"N	104°41'06.139"W	0.00	
4313.00†	5.696	135.513	4298.57	-204.06	-210.35	206.61	39°56'36.528"N	104°41'06.051"W	0.00	
4413.00†	5.696	135.513	4398.07	-210.92	-217.43	213.57	39°56'36.458"N	104°41'05.963"W	0.00	
4513.00†	5.696	135.513	4497.58	-217.79	-224.51	220.52	39°56'36.387"N	104°41'05.874"W	0.00	
4613.00†	5.696	135.513	4597.09	-224.66	-231.59	227.48	39°56'36.317"N	104°41'05.786"W	0.00	
4713.00†	5.696	135.513	4696.59	-231.53	-238.67	234.43	39°56'36.246"N	104°41'05.697"W	0.00	
4813.00†	5.696	135.513	4796.10	-238.40	-245.75	241.39	39°56'36.175"N	104°41'05.609"W	0.00	
4867.17†	5.696	135.513	4850.00	-242.12	-249.58	245.15	39°56'36.137"N	104°41'05.561"W	0.00	SUSSEX/SHANNON
4913.00†	5.696	135.513	4895.60	-245.27	-252.83	248.34	39°56'36.105"N	104°41'05.520"W	0.00	
5013.00†	5.696	135.513	4995.11	-252.14	-259.91	255.30	39°56'36.034"N	104°41'05.432"W	0.00	
5113.00†	5.696	135.513	5094.62	-259.01	-266.99	262.25	39°56'35.964"N	104°41'05.343"W	0.00	
5213.00†	5.696	135.513	5194.12	-265.88	-274.07	269.21	39°56'35.893"N	104°41'05.255"W	0.00	
5313.00†	5.696	135.513	5293.63	-272.74	-281.15	276.16	39°56'35.822"N	104°41'05.166"W	0.00	
5413.00†	5.696	135.513	5393.14	-279.61	-288.23	283.12	39°56'35.752"N	104°41'05.078"W	0.00	



# Planned Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (194 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5513.00†	5.696	135.513	5492.64	-286.48	-295.31	290.07	39°56'35.681"N	104°41'04.990"W	0.00	
5613.00†	5.696	135.513	5592.15	-293.35	-302.39	297.03	39°56'35.610"N	104°41'04.901"W	0.00	
5713.00†	5.696	135.513	5691.65	-300.22	-309.47	303.98	39°56'35.540"N	104°41'04.813"W	0.00	
5813.00†	5.696	135.513	5791.16	-307.09	-316.56	310.94	39°56'35.469"N	104°41'04.724"W	0.00	
5913.00†	5.696	135.513	5890.67	-313.96	-323.64	317.89	39°56'35.399"N	104°41'04.636"W	0.00	
6013.00†	5.696	135.513	5990.17	-320.83	-330.72	324.85	39°56'35.328"N	104°41'04.547"W	0.00	
6113.00†	5.696	135.513	6089.68	-327.70	-337.80	331.80	39°56'35.257"N	104°41'04.459"W	0.00	
6213.00†	5.696	135.513	6189.19	-334.56	-344.88	338.76	39°56'35.187"N	104°41'04.370"W	0.00	
6313.00†	5.696	135.513	6288.69	-341.43	-351.96	345.71	39°56'35.116"N	104°41'04.282"W	0.00	
6413.00†	5.696	135.513	6388.20	-348.30	-359.04	352.66	39°56'35.046"N	104°41'04.193"W	0.00	
6513.00†	5.696	135.513	6487.70	-355.17	-366.12	359.62	39°56'34.975"N	104°41'04.105"W	0.00	
6613.00†	5.696	135.513	6587.21	-362.04	-373.20	366.57	39°56'34.904"N	104°41'04.017"W	0.00	
6713.00†	5.696	135.513	6686.72	-368.91	-380.28	373.53	39°56'34.834"N	104°41'03.928"W	0.00	
6813.00†	5.696	135.513	6786.22	-375.78	-387.36	380.48	39°56'34.763"N	104°41'03.840"W	0.00	
6913.00†	5.696	135.513	6885.73	-382.65	-394.44	387.44	39°56'34.693"N	104°41'03.751"W	0.00	
7013.00†	5.696	135.513	6985.24	-389.52	-401.52	394.39	39°56'34.622"N	104°41'03.663"W	0.00	
7043.31	5.696	135.513	7015.39	-391.60	-403.67	396.50	39°56'34.601"N	104°41'03.636"W	0.00	End of Tangent (S)
7113.00†	4.867	53.274	7084.87	-392.15	-404.37	401.30	39°56'34.593"N	104°41'03.574"W	10.00	
7213.00†	13.437	15.998	7183.58	-378.22	-390.63	407.92	39°56'34.728"N	104°41'03.488"W	10.00	
7251.81†	17.181	12.110	7221.00	-368.21	-380.69	410.37	39°56'34.827"N	104°41'03.455"W	10.00	NIOBRARA A CHALK
7270.75†	19.028	10.758	7239.00	-362.41	-374.92	411.53	39°56'34.883"N	104°41'03.440"W	10.00	NIOBRARA A MARL
7313.00†	23.175	8.495	7278.41	-347.34	-359.92	414.05	39°56'35.031"N	104°41'03.405"W	10.00	
7413.00†	33.065	5.307	7366.50	-300.46	-313.18	419.49	39°56'35.493"N	104°41'03.330"W	10.00	
7451.44†	36.881	4.500	7398.00	-278.46	-291.23	421.36	39°56'35.710"N	104°41'03.303"W	10.00	NIOBRARA B CHALK
7489.94†	40.708	3.824	7428.00	-254.37	-267.18	423.11	39°56'35.947"N	104°41'03.278"W	10.00	NIOBRARA B MARL
7513.00†	43.001	3.468	7445.17	-238.99	-251.82	424.09	39°56'36.099"N	104°41'03.264"W	10.00	
7539.31†	45.620	3.097	7464.00	-220.62	-233.47	425.14	39°56'36.280"N	104°41'03.248"W	10.00	NIOBRARA C CHALK
7588.72†	50.540	2.482	7497.00	-183.87	-196.76	426.92	39°56'36.643"N	104°41'03.221"W	10.00	NIOBRARA C MARL
7613.00†	52.958	2.211	7512.03	-164.81	-177.71	427.70	39°56'36.831"N	104°41'03.209"W	10.00	
7713.00†	62.925	1.248	7565.04	-80.17	-93.11	430.21	39°56'37.667"N	104°41'03.166"W	10.00	



# Planned Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (194 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7813.00†	72.897	0.444	7602.60	12.36	-0.58	431.56	39°56'38.581"N	104°41'03.138"W	10.00	
7814.36†	73.033	0.434	7603.00	13.67	0.73	431.57	39°56'38.594"N	104°41'03.138"W	10.00	FORT HAYS
7913.00†	82.872	359.723	7623.56	109.97	97.07	431.69	39°56'39.546"N	104°41'03.125"W	10.00	
7984.45	90.000	359.229	7628.00†	181.18	168.33	431.03	39°56'40.250"N	104°41'03.125"W	10.00	End of 3D Arc (S)
8013.00†	90.000	359.229	7628.00	209.71	196.88	430.65	39°56'40.532"N	104°41'03.127"W	0.00	
8113.00†	90.000	359.229	7628.00	309.61	296.87	429.30	39°56'41.520"N	104°41'03.132"W	0.00	
8213.00†	90.000	359.229	7628.00	409.52	396.86	427.96	39°56'42.509"N	104°41'03.138"W	0.00	
8313.00†	90.000	359.229	7628.00	509.42	496.85	426.61	39°56'43.497"N	104°41'03.143"W	0.00	
8413.00†	90.000	359.229	7628.00	609.33	596.85	425.27	39°56'44.485"N	104°41'03.148"W	0.00	
8513.00†	90.000	359.229	7628.00	709.23	696.84	423.92	39°56'45.473"N	104°41'03.154"W	0.00	
8613.00†	90.000	359.229	7628.00	809.14	796.83	422.57	39°56'46.462"N	104°41'03.159"W	0.00	
8713.00†	90.000	359.229	7628.00	909.05	896.82	421.23	39°56'47.450"N	104°41'03.165"W	0.00	
8813.00†	90.000	359.229	7628.00	1008.95	996.81	419.88	39°56'48.438"N	104°41'03.170"W	0.00	
8913.00†	90.000	359.229	7628.00	1108.86	1096.80	418.54	39°56'49.426"N	104°41'03.176"W	0.00	
9013.00†	90.000	359.229	7628.00	1208.76	1196.79	417.19	39°56'50.415"N	104°41'03.181"W	0.00	
9113.00†	90.000	359.229	7628.00	1308.67	1296.78	415.84	39°56'51.403"N	104°41'03.187"W	0.00	
9213.00†	90.000	359.229	7628.00	1408.57	1396.77	414.50	39°56'52.391"N	104°41'03.192"W	0.00	
9313.00†	90.000	359.229	7628.00	1508.48	1496.76	413.15	39°56'53.379"N	104°41'03.198"W	0.00	
9413.00†	90.000	359.229	7628.00	1608.38	1596.75	411.81	39°56'54.367"N	104°41'03.203"W	0.00	
9513.00†	90.000	359.229	7628.00	1708.29	1696.75	410.46	39°56'55.356"N	104°41'03.209"W	0.00	
9613.00†	90.000	359.229	7628.00	1808.20	1796.74	409.11	39°56'56.344"N	104°41'03.214"W	0.00	
9713.00†	90.000	359.229	7628.00	1908.10	1896.73	407.77	39°56'57.332"N	104°41'03.220"W	0.00	
9813.00†	90.000	359.229	7628.00	2008.01	1996.72	406.42	39°56'58.320"N	104°41'03.225"W	0.00	
9913.00†	90.000	359.229	7628.00	2107.91	2096.71	405.07	39°56'59.309"N	104°41'03.231"W	0.00	
10013.00†	90.000	359.229	7628.00	2207.82	2196.70	403.73	39°57'00.297"N	104°41'03.236"W	0.00	
10113.00†	90.000	359.229	7628.00	2307.72	2296.69	402.38	39°57'01.285"N	104°41'03.241"W	0.00	
10213.00†	90.000	359.229	7628.00	2407.63	2396.68	401.04	39°57'02.273"N	104°41'03.247"W	0.00	
10313.00†	90.000	359.229	7628.00	2507.54	2496.67	399.69	39°57'03.262"N	104°41'03.252"W	0.00	
10413.00†	90.000	359.229	7628.00	2607.44	2596.66	398.34	39°57'04.250"N	104°41'03.258"W	0.00	
10513.00†	90.000	359.229	7628.00	2707.35	2696.66	397.00	39°57'05.238"N	104°41'03.263"W	0.00	





# Planned Wellpath Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (194 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10613.00†	90.000	359.229	7628.00	2807.25	2796.65	395.65	39°57'06.226"N	104°41'03.269"W	0.00	
10713.00†	90.000	359.229	7628.00	2907.16	2896.64	394.31	39°57'07.214"N	104°41'03.274"W	0.00	
10813.00†	90.000	359.229	7628.00	3007.06	2996.63	392.96	39°57'08.203"N	104°41'03.280"W	0.00	
10913.00†	90.000	359.229	7628.00	3106.97	3096.62	391.61	39°57'09.191"N	104°41'03.285"W	0.00	
11013.00†	90.000	359.229	7628.00	3206.87	3196.61	390.27	39°57'10.179"N	104°41'03.291"W	0.00	
11113.00†	90.000	359.229	7628.00	3306.78	3296.60	388.92	39°57'11.167"N	104°41'03.296"W	0.00	
11213.00†	90.000	359.229	7628.00	3406.69	3396.59	387.58	39°57'12.156"N	104°41'03.302"W	0.00	
11313.00†	90.000	359.229	7628.00	3506.59	3496.58	386.23	39°57'13.144"N	104°41'03.307"W	0.00	
11413.00†	90.000	359.229	7628.00	3606.50	3596.57	384.88	39°57'14.132"N	104°41'03.313"W	0.00	
11513.00†	90.000	359.229	7628.00	3706.40	3696.56	383.54	39°57'15.120"N	104°41'03.318"W	0.00	
11613.00†	90.000	359.229	7628.00	3806.31	3796.56	382.19	39°57'16.109"N	104°41'03.324"W	0.00	
11713.00†	90.000	359.229	7628.00	3906.21	3896.55	380.85	39°57'17.097"N	104°41'03.329"W	0.00	
11813.00†	90.000	359.229	7628.00	4006.12	3996.54	379.50	39°57'18.085"N	104°41'03.334"W	0.00	
11913.00†	90.000	359.229	7628.00	4106.03	4096.53	378.15	39°57'19.073"N	104°41'03.340"W	0.00	
12013.00†	90.000	359.229	7628.00	4205.93	4196.52	376.81	39°57'20.061"N	104°41'03.345"W	0.00	
12113.00†	90.000	359.229	7628.00	4305.84	4296.51	375.46	39°57'21.050"N	104°41'03.351"W	0.00	
12213.00†	90.000	359.229	7628.00	4405.74	4396.50	374.12	39°57'22.038"N	104°41'03.356"W	0.00	
12313.00†	90.000	359.229	7628.00	4505.65	4496.49	372.77	39°57'23.026"N	104°41'03.362"W	0.00	
12413.00†	90.000	359.229	7628.00	4605.55	4596.48	371.42	39°57'24.014"N	104°41'03.367"W	0.00	
12513.00†	90.000	359.229	7628.00	4705.46	4696.47	370.08	39°57'25.003"N	104°41'03.373"W	0.00	
12613.00†	90.000	359.229	7628.00	4805.36	4796.46	368.73	39°57'25.991"N	104°41'03.378"W	0.00	
12713.00†	90.000	359.229	7628.00	4905.27	4896.46	367.39	39°57'26.979"N	104°41'03.384"W	0.00	
12813.00†	90.000	359.229	7628.00	5005.18	4996.45	366.04	39°57'27.967"N	104°41'03.389"W	0.00	
12913.00†	90.000	359.229	7628.00	5105.08	5096.44	364.69	39°57'28.956"N	104°41'03.395"W	0.00	
13013.00†	90.000	359.229	7628.00	5204.99	5196.43	363.35	39°57'29.944"N	104°41'03.400"W	0.00	
13113.00†	90.000	359.229	7628.00	5304.89	5296.42	362.00	39°57'30.932"N	104°41'03.406"W	0.00	
13213.00†	90.000	359.229	7628.00	5404.80	5396.41	360.66	39°57'31.920"N	104°41'03.411"W	0.00	
13313.00†	90.000	359.229	7628.00	5504.70	5496.40	359.31	39°57'32.908"N	104°41'03.417"W	0.00	
13413.00†	90.000	359.229	7628.00	5604.61	5596.39	357.96	39°57'33.897"N	104°41'03.422"W	0.00	
13513.00†	90.000	359.229	7628.00	5704.52	5696.38	356.62	39°57'34.885"N	104°41'03.427"W	0.00	



# Planned Wellpath Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (194 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13613.00†	90.000	359.229	7628.00	5804.42	5796.37	355.27	39°57'35.873"N	104°41'03.433"W	0.00	
13713.00†	90.000	359.229	7628.00	5904.33	5896.37	353.93	39°57'36.861"N	104°41'03.438"W	0.00	
13813.00†	90.000	359.229	7628.00	6004.23	5996.36	352.58	39°57'37.850"N	104°41'03.444"W	0.00	
13913.00†	90.000	359.229	7628.00	6104.14	6096.35	351.23	39°57'38.838"N	104°41'03.449"W	0.00	
14013.00†	90.000	359.229	7628.00	6204.04	6196.34	349.89	39°57'39.826"N	104°41'03.455"W	0.00	
14113.00†	90.000	359.229	7628.00	6303.95	6296.33	348.54	39°57'40.814"N	104°41'03.460"W	0.00	
14213.00†	90.000	359.229	7628.00	6403.85	6396.32	347.20	39°57'41.803"N	104°41'03.466"W	0.00	
14313.00†	90.000	359.229	7628.00	6503.76	6496.31	345.85	39°57'42.791"N	104°41'03.471"W	0.00	
14413.00†	90.000	359.229	7628.00	6603.67	6596.30	344.50	39°57'43.779"N	104°41'03.477"W	0.00	
14513.00†	90.000	359.229	7628.00	6703.57	6696.29	343.16	39°57'44.767"N	104°41'03.482"W	0.00	
14613.00†	90.000	359.229	7628.00	6803.48	6796.28	341.81	39°57'45.756"N	104°41'03.488"W	0.00	
14713.00†	90.000	359.229	7628.00	6903.38	6896.27	340.47	39°57'46.744"N	104°41'03.493"W	0.00	
14813.00†	90.000	359.229	7628.00	7003.29	6996.27	339.12	39°57'47.732"N	104°41'03.499"W	0.00	
14913.00†	90.000	359.229	7628.00	7103.19	7096.26	337.77	39°57'48.720"N	104°41'03.504"W	0.00	
15013.00†	90.000	359.229	7628.00	7203.10	7196.25	336.43	39°57'49.708"N	104°41'03.510"W	0.00	
15113.00†	90.000	359.229	7628.00	7303.01	7296.24	335.08	39°57'50.697"N	104°41'03.515"W	0.00	
15213.00†	90.000	359.229	7628.00	7402.91	7396.23	333.74	39°57'51.685"N	104°41'03.521"W	0.00	
15313.00†	90.000	359.229	7628.00	7502.82	7496.22	332.39	39°57'52.673"N	104°41'03.526"W	0.00	
15413.00†	90.000	359.229	7628.00	7602.72	7596.21	331.04	39°57'53.661"N	104°41'03.531"W	0.00	
15513.00†	90.000	359.229	7628.00	7702.63	7696.20	329.70	39°57'54.650"N	104°41'03.537"W	0.00	
15613.00†	90.000	359.229	7628.00	7802.53	7796.19	328.35	39°57'55.638"N	104°41'03.542"W	0.00	
15713.00†	90.000	359.229	7628.00	7902.44	7896.18	327.01	39°57'56.626"N	104°41'03.548"W	0.00	
15813.00†	90.000	359.229	7628.00	8002.34	7996.17	325.66	39°57'57.614"N	104°41'03.553"W	0.00	
15913.00†	90.000	359.229	7628.00	8102.25	8096.17	324.31	39°57'58.603"N	104°41'03.559"W	0.00	
16013.00†	90.000	359.229	7628.00	8202.16	8196.16	322.97	39°57'59.591"N	104°41'03.564"W	0.00	
16113.00†	90.000	359.229	7628.00	8302.06	8296.15	321.62	39°58'00.579"N	104°41'03.570"W	0.00	
16213.00†	90.000	359.229	7628.00	8401.97	8396.14	320.28	39°58'01.567"N	104°41'03.575"W	0.00	
16313.00†	90.000	359.229	7628.00	8501.87	8496.13	318.93	39°58'02.555"N	104°41'03.581"W	0.00	
16413.00†	90.000	359.229	7628.00	8601.78	8596.12	317.58	39°58'03.544"N	104°41'03.586"W	0.00	
16513.00†	90.000	359.229	7628.00	8701.68	8696.11	316.24	39°58'04.532"N	104°41'03.592"W	0.00	





# Planned Wellpath Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH DATA (194 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16613.00†	90.000	359.229	7628.00	8801.59	8796.10	314.89	39°58'05.520"N	104°41'03.597"W	0.00	
16713.00†	90.000	359.229	7628.00	8901.49	8896.09	313.55	39°58'06.508"N	104°41'03.603"W	0.00	
16813.00†	90.000	359.229	7628.00	9001.40	8996.08	312.20	39°58'07.497"N	104°41'03.608"W	0.00	
16913.00†	90.000	359.229	7628.00	9101.31	9096.08	310.85	39°58'08.485"N	104°41'03.614"W	0.00	
17013.00†	90.000	359.229	7628.00	9201.21	9196.07	309.51	39°58'09.473"N	104°41'03.619"W	0.00	
17113.00†	90.000	359.229	7628.00	9301.12	9296.06	308.16	39°58'10.461"N	104°41'03.625"W	0.00	
17213.00†	90.000	359.229	7628.00	9401.02	9396.05	306.82	39°58'11.450"N	104°41'03.630"W	0.00	
17313.00†	90.000	359.229	7628.00	9500.93	9496.04	305.47	39°58'12.438"N	104°41'03.635"W	0.00	
17413.00†	90.000	359.229	7628.00	9600.83	9596.03	304.12	39°58'13.426"N	104°41'03.641"W	0.00	
17513.00†	90.000	359.229	7628.00	9700.74	9696.02	302.78	39°58'14.414"N	104°41'03.646"W	0.00	
17613.00†	90.000	359.229	7628.00	9800.65	9796.01	301.43	39°58'15.402"N	104°41'03.652"W	0.00	
17713.00†	90.000	359.229	7628.00	9900.55	9896.00	300.09	39°58'16.391"N	104°41'03.657"W	0.00	
17786.94†	90.000	359.229	7628.00	9974.42	9969.94	299.09	39°58'17.121"N	104°41'03.661"W	0.00	CODELL
17786.94	90.000	359.229	7628.00 <sup>2</sup>	9974.42	9969.94	299.09	39°58'17.121"N	104°41'03.661"W	0.00	End of Tangent

## HOLE & CASING SECTIONS

- Ref Wellbore: WAKEMAN 20-17-3CDH PWB

Ref 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	0.00	0.00	-32.41	31.83
8.5in Open Hole	1800.00	17786.94	15986.94	1797.97	7628.00	-32.41	31.83	9969.94	299.09



# Planned Wellpath Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.17-T01S-R65W		0.00	1.15	-164.30	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
SEC.20-T01S-R65W		0.00	1.15	-164.30	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
2) WAKEMAN 20-17-3CDH BHL (355'FNL & 1648'FEL, SEC.17)	17786.94	7628.00	9969.94	299.09	3228599.69	1233488.20	39°58'17.121"N	104°41'03.661"W	point
1) WAKEMAN 20-17-3CDH EP (460'FSL & 1648'FEL, SEC.20)	7984.45	7628.00	168.33	431.03	3228731.63	1223686.90	39°56'40.250"N	104°41'03.125"W	point
SEC.17/20-T01S-R65W 460'SETBACK		7638.00	1.15	-164.30	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon

## SURVEY PROGRAM -

Ref Wellbore: WAKEMAN 20-17-3CDH PWB Ref 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



# Planned Wellpath Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1500.55	5.696	135.513	1500.00	FOX HILLS
4867.17	5.696	135.513	4850.00	SUSSEX/SHANNON
7251.81	17.181	12.110	7221.00	NIOBRARA A CHALK
7270.75	19.028	10.758	7239.00	NIOBRARA A MARL
7451.44	36.881	4.500	7398.00	NIOBRARA B CHALK
7489.94	40.708	3.824	7428.00	NIOBRARA B MARL
7539.31	45.620	3.097	7464.00	NIOBRARA C CHALK
7588.72	50.540	2.482	7497.00	NIOBRARA C MARL
7814.36	73.033	0.434	7603.00	FORT HAYS
17786.94	90.000	359.229	7628.00	CODELL

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	135.513	13.00	Tie On
1200.00	0.000	135.513	1200.00	End of Tangent
1484.80	5.696	135.513	1484.33	End of Build (S)
7043.31	5.696	135.513	7015.39	End of Tangent (S)
7984.45	90.000	359.229	7628.00	End of 3D Arc (S)
17786.94	90.000	359.229	7628.00	End of Tangent



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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 12:23:37 PM
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB1\WAKEMAN_20-17-3CDH_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	-0.15	-59.95	3228300.61	1223518.58	39°56'38.626"N	104°41'08.679"W
Facility Reference Pt			3228360.56	1223518.73	39°56'38.622"N	104°41'07.909"W
Field Reference Pt			3175478.75	1240632.48	39°59'31.992"N	104°52'25.320"W

## WELLPATH DATUM

Calculation method	Minimum Curvature	RIG (13'KB) (RKB) to Facility Vertical Datum	5203.00ft
Horizontal Reference Pt	Slot	RIG (13'KB) (RKB) to Mean Sea Level	5203.00ft
Vertical Reference Pt	RIG (13'KB) (RKB)	RIG (13'KB) (RKB) to Ground Level at Slot (SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20))	5203.00ft
MD Reference Pt	RIG (13'KB) (RKB)		
Field Vertical Reference	Mean Sea Level		

## POSITIONAL UNCERTAINTY CALCULATION SETTINGS

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

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



**Clearance Report**  
**WAKEMAN 20-17-3CDH PWP (REV-A.0)**  
**Closest Approach**  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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 20-17-3CDH PWB Ref 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	0.00	0.00	-32.41	31.83
8.5in Open Hole	1800.00	17786.94	15986.94	1797.97	7628.00	-32.41	31.83	9969.94	299.09

**SURVEY PROGRAM - Ref Wellbore: WAKEMAN 20-17-3CDH PWB Ref 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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## CALCULATION RANGE & CUTOFF

From: 13.00ft MD	To: 17786.94ft MD	C-C Cutoff: 1000.00 ft
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## OFFSET WELL CLEARANCE SUMMARY (26 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane

Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	C-C Clearance Distance			ACR Separation Ratio			
					Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
SEC.17-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	16180.78	305.81	16180.78	16179.44	0.66	16179.44	FAIL
SEC.20-T01S-R65W	SLOT#04 WAKEMAN 20-17-4NCH (293'FSL & 2068'FEL, SEC.20)	WAKEMAN 20-17-4NCH	WAKEMAN 20-17-4NCH PWB	WAKEMAN 20-17-4NCH PWP (REV-A.0)	13.00	15.00	17713.00	17786.94	0.73	17786.94	FAIL
SEC.20-T01S-R65W	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)	WAKEMAN 20-17-3NBH	WAKEMAN 20-17-3NBH PWB	WAKEMAN 20-17-3NBH PWP (REV-A.0)	13.00	29.97	17786.94	17786.94	0.83	17786.94	FAIL
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	13833.98	375.74	13833.98	13851.85	0.95	13851.85	FAIL
SEC.20-T01S-R65W	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)	WAKEMAN 20-17-3NCH	WAKEMAN 20-17-3NCH PWB	WAKEMAN 20-17-3NCH PWP (REV-A.0)	13.00	45.03	17786.94	17786.94	1.31	17786.94	PASS
SEC.20-T01S-R65W	SLOT#06 WAKEMAN 20-17-3NAH (293'FSL & 2098'FEL, SEC.20)	WAKEMAN 20-17-3NAH	WAKEMAN 20-17-3NAH PWB	WAKEMAN 20-17-3NAH PWP (REV-A.0)	13.00	15.03	17786.94	6781.46	1.32	17786.94	PASS
SEC.20-T01S-R65W	SLOT#03 WAKEMAN 20-17-4NBH (293'FSL & 2053'FEL, SEC.20)	WAKEMAN 20-17-4NBH	WAKEMAN 20-17-4NBH PWB	WAKEMAN 20-17-4NBH PWP (REV-A.0)	13.00	30.00	17713.00	17786.94	1.36	17786.94	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	10847.38	479.44	10847.38	10848.49	1.58	10848.49	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	11823.58	620.90	11823.58	11867.74	1.86	11867.74	PASS
SEC.20-T01S-R65W	SLOT#01 WAKEMAN 20-17-4CDH (293'FSL & 2023'FEL, SEC.20)	WAKEMAN 20-17-4CDH	WAKEMAN 20-17-4CDH PWB	WAKEMAN 20-17-4CDH PWP (REV-A.0)	13.00	59.95	11613.00	17786.94	1.89	17786.94	PASS
SEC.20-T01S-R65W	SLOT#02 WAKEMAN 20-17-4NAH (293'FSL & 2038'FEL, SEC.20)	WAKEMAN 20-17-4NAH	WAKEMAN 20-17-4NAH PWB	WAKEMAN 20-17-4NAH PWP (REV-A.0)	13.00	44.95	813.00	17786.94	1.95	17786.94	PASS
SEC.20-T01S-R65W	SLOT#09 WAKEMAN 20-17-2NBH (293'FSL & 2143'FEL, SEC.20)	WAKEMAN 20-17-2NBH	WAKEMAN 20-17-2NBH PWB	WAKEMAN 20-17-2NBH PWP (REV-A.0)	13.00	60.01	1200.00	17786.94	2.00	17786.94	PASS
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	8525.50	634.13	8525.50	8578.69	2.58	8578.69	PASS
SEC.20-T01S-R65W	SLOT#10 WAKEMAN 20-17-2NCH (293'FSL & 2158'FEL, SEC.20)	WAKEMAN 20-17-2NCH	WAKEMAN 20-17-2NCH PWB	WAKEMAN 20-17-2NCH PWP (REV-A.0)	13.00	74.98	1200.00	17786.94	2.59	17786.94	PASS
SEC.20-T01S-R65W	SLOT#11 WAKEMAN 20-17-2NAH (293'FSL & 2173'FEL, SEC.20)	WAKEMAN 20-17-2NAH	WAKEMAN 20-17-2NAH PWB	WAKEMAN 20-17-2NAH PWP (REV-A.0)	13.00	90.04	1200.00	17786.94	3.16	17786.94	PASS
SEC.20-T01S-R65W	SLOT#12 WAKEMAN 20-17-2CDH (293'FSL & 2188'FEL, SEC.20)	WAKEMAN 20-17-2CDH	WAKEMAN 20-17-2CDH PWB	WAKEMAN 20-17-2CDH PWP (REV-A.0)	13.00	105.01	1200.00	17786.94	3.20	17786.94	PASS
SEC.20-T01S-R65W	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)	WAKEMAN 20-17-1NBH	WAKEMAN 20-17-1NBH PWB	WAKEMAN 20-17-1NBH PWP (REV-A.0)	13.00	120.01	1200.00	17786.94	3.85	17786.94	PASS
SEC.20-T01S-R65W	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)	WAKEMAN 20-17-1NCH	WAKEMAN 20-17-1NCH PWB	WAKEMAN 20-17-1NCH PWP (REV-A.0)	13.00	134.96	913.00	17786.94	4.47	17786.94	PASS
SEC.20-T01S-R65W	SLOT#15 WAKEMAN 20-17-1NAH (293'FSL & 2233'FEL, SEC.20)	WAKEMAN 20-17-1NAH	WAKEMAN 20-17-1NAH PWB	WAKEMAN 20-17-1NAH PWP (REV-A.0)	13.00	150.01	813.00	17786.94	4.99	17786.94	PASS
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)	13.00	164.96	713.00	17786.94	5.08	17786.94	PASS
SEC.20-T1S-R65W	SLOT#02 EX. COLLINS HH #20-3J (814'FNL & 1886'FNL, SEC.20, 8163, PR)	COLLINS HH #20-3J	COLLINS HH #20-3J AWB	COLLINS HH #20-3J AWP	12033.28	1776.58	12033.28	12187.29	5.23	12187.29	PASS
SEC.16-T01S-R65W	SLOT#01 EX. STATE #11-16 (990'FNL & 990'FNL, SEC.16, OG, PR, 8173)	STATE #11-16	STATE #11-16 AWB	STATE #11-16 AWP	17125.50	2628.66	17125.50	17441.58	5.24	17441.58	PASS
SEC.17-T1S-R65W	SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FNL, SEC.17, OG, PR, 8130)	AMOCO #24-17	AMOCO #24-17	AMOCO #24-17 AWP	13813.00	2290.27	13813.00	14038.91	5.80	14038.91	PASS
SEC.17-T1S-R65W	SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FNL, SEC.17, OG, PR, 8140)	AMOCO #17-32	AMOCO #17-32 AWB	AMOCO #17-32 AWP	14688.00	3233.93	14688.00	15113.00	7.61	15113.00	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	17075.50	4691.60	17075.50	17786.94	9.32	17786.94	PASS





**Clearance Report**  
**WAKEMAN 20-17-3CDH PWP (REV-A.0)**  
**Closest Approach**  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

**CALCULATION RANGE & CUTOFF**

From: 13.00ft MD	To: 17786.94ft 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°FSL, SEC.20, OG, PR, 8202)	COLLINS #14-20	COLLINS #14-20 AWB	COLLINS #14-20 AWP	113.00	2342.60	8513.00	9064.38	10.51	9064.38	PASS



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T01S-R65W		Slot: SLOT#01 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL, SEC.17, OG, SI, 8190)				Well: CHAVEZ #7-17		Threshold Value=1.00	† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	40.00	8360.18	14.92	0.10	8360.24	25.40	339.79	PASS
113.00†	113.00	0.00	0.00	60.00	113.00	8360.18	14.92	0.10	8360.19	51.37	165.18	PASS
213.00†	213.00	0.00	0.00	160.00	213.00	8360.18	14.92	0.10	8360.19	53.71	157.88	PASS
313.00†	313.00	0.00	0.00	260.00	313.00	8360.18	14.92	0.10	8360.19	56.06	151.18	PASS
413.00†	413.00	0.00	0.00	360.00	413.00	8360.18	14.92	0.10	8360.19	58.40	145.02	PASS
513.00†	513.00	0.00	0.00	460.00	513.00	8360.18	14.92	0.10	8360.19	60.76	139.33	PASS
613.00†	613.00	0.00	0.00	560.00	613.00	8360.18	14.92	0.10	8360.19	63.12	134.06	PASS
713.00†	713.00	0.00	0.00	660.00	713.00	8360.18	14.92	0.10	8360.19	65.48	129.17	PASS
813.00†	813.00	0.00	0.00	760.00	813.00	8360.18	14.92	0.10	8360.19	67.84	124.61	PASS
913.00†	913.00	0.00	0.00	860.00	913.00	8360.18	14.92	0.10	8360.19	70.21	120.36	PASS
1013.00†	1013.00	0.00	0.00	960.00	1013.00	8360.18	14.92	0.10	8360.19	72.59	116.38	PASS
1113.00†	1113.00	0.00	0.00	1060.00	1113.00	8360.18	14.92	0.10	8360.19	74.96	112.65	PASS
1200.00	1200.00	0.00	0.00	1147.00	1200.00	8360.18	14.92	0.10	8360.19	77.04	109.59	PASS
1213.00†	1213.00	-0.02	0.02	1160.00	1213.00	8360.18	14.92	-135.41	8360.21	77.35	109.15	PASS
1313.00†	1312.97	-1.59	1.56	1259.97	1312.97	8360.18	14.92	-135.40	8361.78	79.74	105.87	PASS
1413.00†	1412.80	-5.65	5.55	1359.80	1412.80	8360.18	14.92	-135.37	8365.83	82.16	102.77	PASS
1484.80	1484.33	-10.09	9.91	1431.33	1484.33	8360.18	14.92	-135.34	8370.27	83.89	100.69	PASS
1513.00†	1512.39	-12.09	11.87	1459.39	1512.39	8360.18	14.92	-135.35	8372.27	84.56	99.90	PASS
1613.00†	1611.90	-19.17	18.83	1558.90	1611.90	8360.18	14.92	-135.40	8379.35	86.78	97.21	PASS
1713.00†	1711.40	-26.25	25.78	1658.40	1711.40	8360.18	14.92	-135.45	8386.44	89.17	94.67	PASS
1813.00†	1810.91	-33.33	32.74	1757.91	1810.91	8360.18	14.92	-135.49	8393.53	91.53	92.25	PASS
1913.00†	1910.42	-40.41	39.69	1857.42	1910.42	8360.18	14.92	-135.54	8400.63	93.93	89.94	PASS
2013.00†	2009.92	-47.49	46.65	1956.92	2009.92	8360.18	14.92	-135.59	8407.73	96.35	87.75	PASS
2113.00†	2109.43	-54.57	53.60	2056.43	2109.43	8360.18	14.92	-135.64	8414.84	98.76	85.67	PASS
2213.00†	2208.94	-61.65	60.56	2155.94	2208.94	8360.18	14.92	-135.68	8421.96	101.19	83.67	PASS
2313.00†	2308.44	-68.73	67.51	2255.44	2308.44	8360.18	14.92	-135.73	8429.08	103.61	81.77	PASS
2413.00†	2407.95	-75.81	74.47	2354.95	2407.95	8360.18	14.92	-135.78	8436.20	106.05	79.95	PASS
2513.00†	2507.45	-82.89	81.42	2454.45	2507.45	8360.18	14.92	-135.82	8443.34	108.49	78.21	PASS
2613.00†	2606.96	-89.97	88.38	2553.96	2606.96	8360.18	14.92	-135.87	8450.47	110.93	76.55	PASS
2713.00†	2706.47	-97.06	95.33	2653.47	2706.47	8360.18	14.92	-135.92	8457.62	113.38	74.95	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
2813.00†	2805.97	-104.14	102.29	2752.97	2805.97	8360.18	14.92	-135.96	8464.77	115.84	73.41	PASS	
2913.00†	2905.48	-111.22	109.24	2852.48	2905.48	8360.18	14.92	-136.01	8471.92	118.30	71.94	PASS	
3013.00†	3004.99	-118.30	116.20	2951.99	3004.99	8360.18	14.92	-136.06	8479.08	120.76	70.53	PASS	
3113.00†	3104.49	-125.38	123.15	3051.49	3104.49	8360.18	14.92	-136.10	8486.25	123.23	69.17	PASS	
3213.00†	3204.00	-132.46	130.11	3151.00	3204.00	8360.18	14.92	-136.15	8493.42	125.70	67.86	PASS	
3313.00†	3303.50	-139.54	137.06	3250.50	3303.50	8360.18	14.92	-136.20	8500.60	128.18	66.59	PASS	
3413.00†	3403.01	-146.62	144.02	3350.01	3403.01	8360.18	14.92	-136.24	8507.78	130.66	65.38	PASS	
3513.00†	3502.52	-153.70	150.97	3449.52	3502.52	8360.18	14.92	-136.29	8514.97	133.15	64.21	PASS	
3613.00†	3602.02	-160.78	157.93	3549.02	3602.02	8360.18	14.92	-136.33	8522.16	135.64	63.08	PASS	
3713.00†	3701.53	-167.86	164.88	3648.53	3701.53	8360.18	14.92	-136.38	8529.36	138.14	61.98	PASS	
3813.00†	3801.04	-174.94	171.84	3748.04	3801.04	8360.18	14.92	-136.43	8536.57	140.64	60.93	PASS	
3913.00†	3900.54	-182.02	178.79	3847.54	3900.54	8360.18	14.92	-136.47	8543.78	143.14	59.91	PASS	
4013.00†	4000.05	-189.10	185.75	3947.05	4000.05	8360.18	14.92	-136.52	8550.99	145.65	58.93	PASS	
4113.00†	4099.55	-196.18	192.70	4046.55	4099.55	8360.18	14.92	-136.56	8558.21	148.16	57.97	PASS	
4213.00†	4199.06	-203.27	199.66	4146.06	4199.06	8360.18	14.92	-136.61	8565.44	150.68	57.05	PASS	
4313.00†	4298.57	-210.35	206.61	4245.57	4298.57	8360.18	14.92	-136.65	8572.67	153.20	56.15	PASS	
4413.00†	4398.07	-217.43	213.57	4345.07	4398.07	8360.18	14.92	-136.70	8579.91	155.72	55.29	PASS	
4513.00†	4497.58	-224.51	220.52	4444.58	4497.58	8360.18	14.92	-136.74	8587.15	158.25	54.45	PASS	
4613.00†	4597.09	-231.59	227.48	4544.09	4597.09	8360.18	14.92	-136.79	8594.40	160.78	53.63	PASS	
4713.00†	4696.59	-238.67	234.43	4643.59	4696.59	8360.18	14.92	-136.83	8601.65	163.31	52.84	PASS	
4813.00†	4796.10	-245.75	241.39	4743.10	4796.10	8360.18	14.92	-136.88	8608.91	165.85	52.08	PASS	
4913.00†	4895.60	-252.83	248.34	4842.60	4895.60	8360.18	14.92	-136.92	8616.17	168.39	51.33	PASS	
5013.00†	4995.11	-259.91	255.30	4942.11	4995.11	8360.18	14.92	-136.97	8623.44	170.93	50.61	PASS	
5113.00†	5094.62	-266.99	262.25	5041.62	5094.62	8360.18	14.92	-137.01	8630.72	173.48	49.90	PASS	
5213.00†	5194.12	-274.07	269.21	5141.12	5194.12	8360.18	14.92	-137.06	8638.00	176.03	49.22	PASS	
5313.00†	5293.63	-281.15	276.16	5240.63	5293.63	8360.18	14.92	-137.10	8645.28	178.58	48.56	PASS	
5413.00†	5393.14	-288.23	283.12	5340.14	5393.14	8360.18	14.92	-137.15	8652.57	181.13	47.91	PASS	
5513.00†	5492.64	-295.31	290.07	5439.64	5492.64	8360.18	14.92	-137.19	8659.87	183.69	47.28	PASS	
5613.00†	5592.15	-302.39	297.03	5539.15	5592.15	8360.18	14.92	-137.24	8667.17	186.25	46.67	PASS	
5713.00†	5691.65	-309.47	303.98	5638.65	5691.65	8360.18	14.92	-137.28	8674.47	188.82	46.07	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
5813.00†	5791.16	-316.56	310.94	5738.16	5791.16	8360.18	14.92	-137.33	8681.78	191.38	45.49	PASS	
5913.00†	5890.67	-323.64	317.89	5837.67	5890.67	8360.18	14.92	-137.37	8689.10	193.95	44.92	PASS	
6013.00†	5990.17	-330.72	324.85	5937.17	5990.17	8360.18	14.92	-137.41	8696.42	196.53	44.37	PASS	
6113.00†	6089.68	-337.80	331.80	6036.68	6089.68	8360.18	14.92	-137.46	8703.75	199.10	43.83	PASS	
6213.00†	6189.19	-344.88	338.76	6136.19	6189.19	8360.18	14.92	-137.50	8711.08	201.68	43.31	PASS	
6313.00†	6288.69	-351.96	345.71	6235.69	6288.69	8360.18	14.92	-137.55	8718.42	204.25	42.79	PASS	
6413.00†	6388.20	-359.04	352.66	6335.20	6388.20	8360.18	14.92	-137.59	8725.76	206.84	42.30	PASS	
6513.00†	6487.70	-366.12	359.62	6434.70	6487.70	8360.18	14.92	-137.63	8733.11	209.42	41.81	PASS	
6613.00†	6587.21	-373.20	366.57	6534.21	6587.21	8360.18	14.92	-137.68	8740.46	212.00	41.33	PASS	
6713.00†	6686.72	-380.28	373.53	6633.72	6686.72	8360.18	14.92	-137.72	8747.82	214.59	40.87	PASS	
6813.00†	6786.22	-387.36	380.48	6733.22	6786.22	8360.18	14.92	-137.76	8755.18	217.18	40.41	PASS	
6913.00†	6885.73	-394.44	387.44	6832.73	6885.73	8360.18	14.92	-137.81	8762.54	219.77	39.97	PASS	
7013.00†	6985.24	-401.52	394.39	6932.24	6985.24	8360.18	14.92	-137.85	8769.92	222.37	39.53	PASS	
7043.31	7015.39	-403.67	396.50	6962.39	7015.39	8360.18	14.92	-137.87	8772.15	223.15	39.40	PASS	
7113.00†	7084.87	-404.37	401.30	7031.87	7084.87	8360.18	14.92	-55.90	8773.06	225.00	39.08	PASS	
7213.00†	7183.58	-390.63	407.92	7130.58	7183.58	8360.18	14.92	-19.06	8759.63	228.03	38.50	PASS	
7313.00†	7278.41	-359.92	414.05	7225.41	7278.41	8360.18	14.92	-12.06	8729.23	231.57	37.78	PASS	
7413.00†	7366.50	-313.18	419.49	7313.50	7366.50	8360.18	14.92	-9.49	8682.79	234.65	37.09	PASS	
7513.00†	7445.17	-251.82	424.09	7392.17	7445.17	8360.18	14.92	-8.43	8621.72	237.31	36.41	PASS	
7613.00†	7512.03	-177.71	427.70	7459.03	7512.03	8360.18	14.92	-8.23	8547.87	239.49	35.77	PASS	
7713.00†	7565.04	-93.11	430.21	7512.04	7565.04	8360.18	14.92	-8.87	8463.49	241.15	35.17	PASS	
7813.00†	7602.60	-0.58	431.56	7549.60	7602.60	8360.18	14.92	-11.08	8371.13	242.28	34.63	PASS	
7913.00†	7623.56	97.07	431.69	7570.56	7623.56	8360.18	14.92	-20.17	8273.61	242.91	34.13	PASS	
7984.45	7628.00	168.33	431.03	7575.00	7628.00	8360.18	14.92	-90.00	8202.41	243.06	33.82	PASS	
8013.00†	7628.00	196.88	430.65	7575.00	7628.00	8360.18	14.92	-90.00	8173.88	243.07	33.70	PASS	
8113.00†	7628.00	296.87	429.30	7575.00	7628.00	8360.18	14.92	-90.00	8073.95	243.12	33.28	PASS	
8213.00†	7628.00	396.86	427.96	7575.00	7628.00	8360.18	14.92	-90.00	7974.02	243.17	32.86	PASS	
8313.00†	7628.00	496.85	426.61	7575.00	7628.00	8360.18	14.92	-90.00	7874.10	243.22	32.44	PASS	
8413.00†	7628.00	596.85	425.27	7575.00	7628.00	8360.18	14.92	-90.00	7774.17	243.27	32.03	PASS	
8513.00†	7628.00	696.84	423.92	7575.00	7628.00	8360.18	14.92	-90.00	7674.25	243.33	31.61	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
Page 8 of 110



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
8613.00†	7628.00	796.83	422.57	7575.00	7628.00	8360.18	14.92	-90.00	7574.33	243.39	31.19	PASS
8713.00†	7628.00	896.82	421.23	7575.00	7628.00	8360.18	14.92	-90.00	7474.41	243.46	30.77	PASS
8813.00†	7628.00	996.81	419.88	7575.00	7628.00	8360.18	14.92	-90.00	7374.50	243.52	30.35	PASS
8913.00†	7628.00	1096.80	418.54	7575.00	7628.00	8360.18	14.92	-90.00	7274.59	243.59	29.93	PASS
9013.00†	7628.00	1196.79	417.19	7575.00	7628.00	8360.18	14.92	-90.00	7174.68	243.67	29.51	PASS
9113.00†	7628.00	1296.78	415.84	7575.00	7628.00	8360.18	14.92	-90.00	7074.77	243.74	29.09	PASS
9213.00†	7628.00	1396.77	414.50	7575.00	7628.00	8360.18	14.92	-90.00	6974.86	243.82	28.67	PASS
9313.00†	7628.00	1496.76	413.15	7575.00	7628.00	8360.18	14.92	-90.00	6874.96	243.91	28.25	PASS
9413.00†	7628.00	1596.75	411.81	7575.00	7628.00	8360.18	14.92	-90.00	6775.06	244.00	27.83	PASS
9513.00†	7628.00	1696.75	410.46	7575.00	7628.00	8360.18	14.92	-90.00	6675.16	244.09	27.41	PASS
9613.00†	7628.00	1796.74	409.11	7575.00	7628.00	8360.18	14.92	-90.00	6575.27	244.18	26.99	PASS
9713.00†	7628.00	1896.73	407.77	7575.00	7628.00	8360.18	14.92	-90.00	6475.38	244.28	26.56	PASS
9813.00†	7628.00	1996.72	406.42	7575.00	7628.00	8360.18	14.92	-90.00	6375.49	244.39	26.14	PASS
9913.00†	7628.00	2096.71	405.07	7575.00	7628.00	8360.18	14.92	-90.00	6275.61	244.50	25.72	PASS
10013.00†	7628.00	2196.70	403.73	7575.00	7628.00	8360.18	14.92	-90.00	6175.73	244.61	25.30	PASS
10113.00†	7628.00	2296.69	402.38	7575.00	7628.00	8360.18	14.92	-90.00	6075.86	244.73	24.88	PASS
10213.00†	7628.00	2396.68	401.04	7575.00	7628.00	8360.18	14.92	-90.00	5975.99	244.85	24.46	PASS
10313.00†	7628.00	2496.67	399.69	7575.00	7628.00	8360.18	14.92	-90.00	5876.12	244.98	24.04	PASS
10413.00†	7628.00	2596.66	398.34	7575.00	7628.00	8360.18	14.92	-90.00	5776.26	245.11	23.62	PASS
10513.00†	7628.00	2696.66	397.00	7575.00	7628.00	8360.18	14.92	-90.00	5676.40	245.25	23.19	PASS
10613.00†	7628.00	2796.65	395.65	7575.00	7628.00	8360.18	14.92	-90.00	5576.55	245.40	22.77	PASS
10713.00†	7628.00	2896.64	394.31	7575.00	7628.00	8360.18	14.92	-90.00	5476.70	245.55	22.35	PASS
10813.00†	7628.00	2996.63	392.96	7575.00	7628.00	8360.18	14.92	-90.00	5376.86	245.71	21.93	PASS
10913.00†	7628.00	3096.62	391.61	7575.00	7628.00	8360.18	14.92	-90.00	5277.02	245.87	21.51	PASS
11013.00†	7628.00	3196.61	390.27	7575.00	7628.00	8360.18	14.92	-90.00	5177.20	246.04	21.09	PASS
11113.00†	7628.00	3296.60	388.92	7575.00	7628.00	8360.18	14.92	-90.00	5077.37	246.22	20.66	PASS
11213.00†	7628.00	3396.59	387.58	7575.00	7628.00	8360.18	14.92	-90.00	4977.56	246.41	20.24	PASS
11313.00†	7628.00	3496.58	386.23	7575.00	7628.00	8360.18	14.92	-90.00	4877.75	246.61	19.82	PASS
11413.00†	7628.00	3596.57	384.88	7575.00	7628.00	8360.18	14.92	-90.00	4777.95	246.81	19.40	PASS
11513.00†	7628.00	3696.56	383.54	7575.00	7628.00	8360.18	14.92	-90.00	4678.16	247.03	18.98	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
11613.00†	7628.00	3796.56	382.19	7575.00	7628.00	8360.18	14.92	-90.00	4578.38	247.26	18.56	PASS
11713.00†	7628.00	3896.55	380.85	7575.00	7628.00	8360.18	14.92	-90.00	4478.61	247.49	18.13	PASS
11813.00†	7628.00	3996.54	379.50	7575.00	7628.00	8360.18	14.92	-90.00	4378.85	247.74	17.71	PASS
11913.00†	7628.00	4096.53	378.15	7575.00	7628.00	8360.18	14.92	-90.00	4279.10	248.00	17.29	PASS
12013.00†	7628.00	4196.52	376.81	7575.00	7628.00	8360.18	14.92	-90.00	4179.36	248.28	16.87	PASS
12113.00†	7628.00	4296.51	375.46	7575.00	7628.00	8360.18	14.92	-90.00	4079.63	248.57	16.45	PASS
12213.00†	7628.00	4396.50	374.12	7575.00	7628.00	8360.18	14.92	-90.00	3979.92	248.88	16.02	PASS
12313.00†	7628.00	4496.49	372.77	7575.00	7628.00	8360.18	14.92	-90.00	3880.23	249.20	15.60	PASS
12413.00†	7628.00	4596.48	371.42	7575.00	7628.00	8360.18	14.92	-90.00	3780.54	249.54	15.18	PASS
12513.00†	7628.00	4696.47	370.08	7575.00	7628.00	8360.18	14.92	-90.00	3680.88	249.91	14.76	PASS
12613.00†	7628.00	4796.46	368.73	7575.00	7628.00	8360.18	14.92	-90.00	3581.24	250.30	14.34	PASS
12713.00†	7628.00	4896.46	367.39	7575.00	7628.00	8360.18	14.92	-90.00	3481.61	250.71	13.92	PASS
12813.00†	7628.00	4996.45	366.04	7575.00	7628.00	8360.18	14.92	-90.00	3382.01	251.14	13.49	PASS
12913.00†	7628.00	5096.44	364.69	7575.00	7628.00	8360.18	14.92	-90.00	3282.43	251.61	13.07	PASS
13013.00†	7628.00	5196.43	363.35	7575.00	7628.00	8360.18	14.92	-90.00	3182.88	252.11	12.65	PASS
13113.00†	7628.00	5296.42	362.00	7575.00	7628.00	8360.18	14.92	-90.00	3083.36	252.65	12.23	PASS
13213.00†	7628.00	5396.41	360.66	7575.00	7628.00	8360.18	14.92	-90.00	2983.87	253.23	11.81	PASS
13313.00†	7628.00	5496.40	359.31	7575.00	7628.00	8360.18	14.92	-90.00	2884.41	253.85	11.38	PASS
13413.00†	7628.00	5596.39	357.96	7575.00	7628.00	8360.18	14.92	-90.00	2785.00	254.52	10.96	PASS
13513.00†	7628.00	5696.38	356.62	7575.00	7628.00	8360.18	14.92	-90.00	2685.62	255.26	10.54	PASS
13613.00†	7628.00	5796.37	355.27	7575.00	7628.00	8360.18	14.92	-90.00	2586.30	256.05	10.12	PASS
13713.00†	7628.00	5896.37	353.93	7575.00	7628.00	8360.18	14.92	-90.00	2487.03	256.92	9.70	PASS
13813.00†	7628.00	5996.36	352.58	7575.00	7628.00	8360.18	14.92	-90.00	2387.82	257.87	9.28	PASS
13913.00†	7628.00	6096.35	351.23	7575.00	7628.00	8360.18	14.92	-90.00	2288.68	258.91	8.86	PASS
14013.00†	7628.00	6196.34	349.89	7575.00	7628.00	8360.18	14.92	-90.00	2189.62	260.06	8.44	PASS
14113.00†	7628.00	6296.33	348.54	7575.00	7628.00	8360.18	14.92	-90.00	2090.64	261.34	8.01	PASS
14213.00†	7628.00	6396.32	347.20	7575.00	7628.00	8360.18	14.92	-90.00	1991.77	262.77	7.59	PASS
14313.00†	7628.00	6496.31	345.85	7575.00	7628.00	8360.18	14.92	-90.00	1893.02	264.36	7.17	PASS
14413.00†	7628.00	6596.30	344.50	7575.00	7628.00	8360.18	14.92	-90.00	1794.41	266.15	6.75	PASS
14513.00†	7628.00	6696.29	343.16	7575.00	7628.00	8360.18	14.92	-90.00	1695.96	268.18	6.33	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
Page 10 of 110



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
14613.00†	7628.00	6796.28	341.81	7575.00	7628.00	8360.18	14.92	-90.00	1597.70	270.49	5.92	PASS
14713.00†	7628.00	6896.27	340.47	7575.00	7628.00	8360.18	14.92	-90.00	1499.67	273.15	5.50	PASS
14813.00†	7628.00	6996.27	339.12	7575.00	7628.00	8360.18	14.92	-90.00	1401.92	276.21	5.08	PASS
14913.00†	7628.00	7096.26	337.77	7575.00	7628.00	8360.18	14.92	-90.00	1304.51	279.78	4.67	PASS
15013.00†	7628.00	7196.25	336.43	7575.00	7628.00	8360.18	14.92	-90.00	1207.52	283.98	4.26	PASS
15113.00†	7628.00	7296.24	335.08	7575.00	7628.00	8360.18	14.92	-90.00	1111.07	288.96	3.85	PASS
15213.00†	7628.00	7396.23	333.74	7575.00	7628.00	8360.18	14.92	-90.00	1015.31	294.94	3.45	PASS
15313.00†	7628.00	7496.22	332.39	7575.00	7628.00	8360.18	14.92	-90.00	920.44	302.21	3.05	PASS
15413.00†	7628.00	7596.21	331.04	7575.00	7628.00	8360.18	14.92	-90.00	826.79	311.16	2.66	PASS
15513.00†	7628.00	7696.20	329.70	7575.00	7628.00	8360.18	14.92	-90.00	734.81	322.32	2.28	PASS
15613.00†	7628.00	7796.19	328.35	7575.00	7628.00	8360.18	14.92	-90.00	645.23	336.43	1.92	PASS
15713.00†	7628.00	7896.18	327.01	7575.00	7628.00	8360.18	14.92	-90.00	559.19	354.43	1.58	PASS
15813.00†	7628.00	7996.17	325.66	7575.00	7628.00	8360.18	14.92	-90.00	478.60	377.35	1.27	PASS
15913.00†	7628.00	8096.17	324.31	7575.00	7628.00	8360.18	14.92	-90.00	406.73	405.60	1.00	PASS
16013.00†	7628.00	8196.16	322.97	7575.00	7628.00	8360.18	14.92	-90.00	349.00	436.70	0.80	FAIL
16113.00†	7628.00	8296.15	321.62	7575.00	7628.00	8360.18	14.92	-90.00	313.32	461.26	0.68	FAIL
16179.44†	7628.00	8362.59	320.73	7575.00	7628.00	8360.18	14.92	-90.00	305.82	466.56	0.66	FAIL
16180.78†	7628.00	8363.93	320.71	7573.95	7626.95	8360.18	14.92	-89.80	305.81	466.51	0.66	FAIL
16213.00†	7628.00	8396.14	320.28	7575.00	7628.00	8360.18	14.92	-90.00	307.47	464.74	0.66	FAIL
16313.00†	7628.00	8496.13	318.93	7575.00	7628.00	8360.18	14.92	-90.00	333.02	443.95	0.75	FAIL
16413.00†	7628.00	8596.12	317.58	7575.00	7628.00	8360.18	14.92	-90.00	383.76	412.05	0.93	FAIL
16513.00†	7628.00	8696.11	316.24	7575.00	7628.00	8360.18	14.92	-90.00	451.27	381.26	1.18	PASS
16613.00†	7628.00	8796.10	314.89	7575.00	7628.00	8360.18	14.92	-90.00	529.16	355.88	1.49	PASS
16713.00†	7628.00	8896.09	313.55	7575.00	7628.00	8360.18	14.92	-90.00	613.50	336.00	1.83	PASS
16813.00†	7628.00	8996.08	312.20	7575.00	7628.00	8360.18	14.92	-90.00	701.96	320.58	2.19	PASS
16913.00†	7628.00	9096.08	310.85	7575.00	7628.00	8360.18	14.92	-90.00	793.17	308.54	2.57	PASS
17013.00†	7628.00	9196.07	309.51	7575.00	7628.00	8360.18	14.92	-90.00	886.28	299.04	2.97	PASS
17113.00†	7628.00	9296.06	308.16	7575.00	7628.00	8360.18	14.92	-90.00	980.74	291.46	3.37	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



**Clearance Report**  
WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

**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	5096.30	-14.31	5096.30	-14.31
8.625in Casing Surface	0.00	1472.00	1472.00	40.00	1512.00	5096.30	-14.31	5096.30	-14.31
7.875in Open Hole	1472.00	8173.00	6701.00	1512.00	8213.00	5096.30	-14.31	5096.30	-14.31
4.5in Casing Production	0.00	8173.00	8173.00	40.00	8213.00	5096.30	-14.31	5096.30	-14.31

**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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#04 WAKEMAN 20-17-4NCH (293'FSL & 2068'FEL, SEC.20)		Well: WAKEMAN 20-17-4NCH		Threshold Value=1.00		† = Interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.10	15.00	89.61	15.00	1.40	23.66	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.10	15.00	89.61	15.00	1.73	15.34	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.10	15.00	89.61	15.00	2.30	9.48	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.10	15.00	89.61	15.00	2.91	6.75	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.10	15.00	89.61	15.00	3.52	5.22	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.10	15.00	89.61	15.00	4.14	4.25	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.10	15.00	89.61	15.00	4.76	3.58	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.10	15.00	89.61	15.00	5.39	3.10	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.10	15.00	89.61	15.00	6.01	2.72	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.10	15.00	89.61	15.00	6.64	2.43	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.10	15.00	89.61	15.00	7.27	2.20	PASS
1113.00†	1113.00	0.00	0.00	1112.94	1112.94	0.09	15.03	89.67	15.03	7.89	2.01	PASS
1200.00	1200.00	0.00	0.00	1199.50	1199.48	-0.73	16.52	92.52	16.54	8.51	2.04	PASS
1213.00†	1213.00	-0.02	0.02	1212.43	1212.40	-0.96	16.94	-42.34	16.95	8.60	2.07	PASS
1313.00†	1312.97	-1.59	1.56	1311.77	1311.58	-3.65	21.87	-39.65	20.46	9.57	2.24	PASS
1413.00†	1412.80	-5.65	5.55	1410.97	1410.36	-7.98	29.80	-39.82	24.49	10.63	2.41	PASS
1484.80	1484.33	-10.09	9.91	1482.11	1480.97	-12.09	37.33	-41.02	27.70	11.27	2.57	PASS
1513.00†	1512.39	-12.09	11.87	1510.02	1508.62	-13.94	40.71	-41.49	29.14	11.51	2.65	PASS
1613.00†	1611.90	-19.17	18.83	1609.61	1607.09	-21.08	53.78	-42.00	35.33	12.14	3.05	PASS
1713.00†	1711.40	-26.25	25.78	1709.41	1705.76	-28.28	66.96	-42.31	41.61	12.76	3.41	PASS
1813.00†	1810.91	-33.33	32.74	1809.21	1804.42	-35.47	80.14	-42.54	47.89	13.31	3.74	PASS
1913.00†	1910.42	-40.41	39.69	1909.02	1903.09	-42.67	93.32	-42.71	54.17	13.97	4.03	PASS
2013.00†	2009.92	-47.49	46.65	2008.82	2001.76	-49.87	106.50	-42.85	60.45	14.65	4.29	PASS
2113.00†	2109.43	-54.57	53.60	2108.62	2100.42	-57.07	119.68	-42.96	66.73	15.34	4.51	PASS
2213.00†	2208.94	-61.65	60.56	2208.42	2199.09	-64.26	132.86	-43.06	73.01	16.04	4.72	PASS
2313.00†	2308.44	-68.73	67.51	2308.23	2297.75	-71.46	146.04	-43.14	79.30	16.75	4.90	PASS
2413.00†	2407.95	-75.81	74.47	2408.03	2396.42	-78.66	159.22	-43.20	85.58	17.46	5.06	PASS
2513.00†	2507.45	-82.89	81.42	2507.83	2495.09	-85.86	172.40	-43.26	91.86	18.19	5.21	PASS
2613.00†	2606.96	-89.97	88.38	2607.63	2593.75	-93.05	185.58	-43.31	98.14	18.92	5.35	PASS
2713.00†	2706.47	-97.06	95.33	2707.44	2692.42	-100.25	198.75	-43.35	104.42	19.65	5.47	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#04 WAKEMAN 20-17-4NCH (293'FSL & 2068'FEL, SEC.20) Well: WAKEMAN 20-17-4NCH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2805.97	-104.14	102.29	2807.24	2791.09	-107.45	211.93	-43.39	110.70	20.39	5.59	PASS
2913.00†	2905.48	-111.22	109.24	2907.04	2889.75	-114.65	225.11	-43.43	116.98	21.14	5.69	PASS
3013.00†	3004.99	-118.30	116.20	3006.84	2988.42	-121.84	238.29	-43.46	123.27	21.89	5.79	PASS
3113.00†	3104.49	-125.38	123.15	3106.65	3087.08	-129.04	251.47	-43.49	129.55	22.64	5.87	PASS
3213.00†	3204.00	-132.46	130.11	3206.45	3185.75	-136.24	264.65	-43.51	135.83	23.39	5.96	PASS
3313.00†	3303.50	-139.54	137.06	3306.25	3284.42	-143.44	277.83	-43.54	142.11	24.15	6.03	PASS
3413.00†	3403.01	-146.62	144.02	3406.05	3383.08	-150.63	291.01	-43.56	148.39	24.91	6.10	PASS
3513.00†	3502.52	-153.70	150.97	3505.86	3481.75	-157.83	304.19	-43.58	154.67	25.67	6.17	PASS
3613.00†	3602.02	-160.78	157.93	3605.66	3580.42	-165.03	317.37	-43.60	160.96	26.44	6.23	PASS
3713.00†	3701.53	-167.86	164.88	3705.46	3679.08	-172.23	330.55	-43.61	167.24	27.21	6.28	PASS
3813.00†	3801.04	-174.94	171.84	3805.26	3777.75	-179.43	343.73	-43.63	173.52	27.97	6.34	PASS
3913.00†	3900.54	-182.02	178.79	3905.07	3876.41	-186.62	356.91	-43.64	179.80	28.74	6.39	PASS
4013.00†	4000.05	-189.10	185.75	4004.87	3975.08	-193.82	370.09	-43.66	186.08	29.52	6.44	PASS
4113.00†	4099.55	-196.18	192.70	4104.67	4073.75	-201.02	383.27	-43.67	192.36	30.29	6.48	PASS
4213.00†	4199.06	-203.27	199.66	4204.47	4172.41	-208.22	396.44	-43.68	198.65	31.06	6.52	PASS
4313.00†	4298.57	-210.35	206.61	4304.28	4271.08	-215.41	409.62	-43.69	204.93	31.84	6.56	PASS
4413.00†	4398.07	-217.43	213.57	4404.08	4369.75	-222.61	422.80	-43.70	211.21	32.61	6.60	PASS
4513.00†	4497.58	-224.51	220.52	4503.88	4468.41	-229.81	435.98	-43.71	217.49	33.39	6.63	PASS
4613.00†	4597.09	-231.59	227.48	4603.68	4567.08	-237.01	449.16	-43.72	223.77	34.17	6.67	PASS
4713.00†	4696.59	-238.67	234.43	4703.49	4665.74	-244.20	462.34	-43.73	230.06	34.95	6.70	PASS
4813.00†	4796.10	-245.75	241.39	4803.29	4764.41	-251.40	475.52	-43.74	236.34	35.73	6.73	PASS
4913.00†	4895.60	-252.83	248.34	4903.09	4863.08	-258.60	488.70	-43.75	242.62	36.51	6.76	PASS
5013.00†	4995.11	-259.91	255.30	5002.89	4961.74	-265.80	501.88	-43.75	248.90	37.29	6.78	PASS
5113.00†	5094.62	-266.99	262.25	5102.70	5060.41	-272.99	515.06	-43.76	255.18	38.07	6.81	PASS
5213.00†	5194.12	-274.07	269.21	5202.50	5159.08	-280.19	528.24	-43.77	261.46	38.85	6.84	PASS
5313.00†	5293.63	-281.15	276.16	5302.30	5257.74	-287.39	541.42	-43.77	267.75	39.64	6.86	PASS
5413.00†	5393.14	-288.23	283.12	5402.10	5356.41	-294.59	554.60	-43.78	274.03	40.42	6.88	PASS
5513.00†	5492.64	-295.31	290.07	5501.91	5455.08	-301.78	567.78	-43.79	280.31	41.21	6.90	PASS
5613.00†	5592.15	-302.39	297.03	5601.71	5553.74	-308.98	580.96	-43.79	286.59	41.99	6.93	PASS
5713.00†	5691.65	-309.47	303.98	5701.51	5652.41	-316.18	594.14	-43.80	292.87	42.78	6.95	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
5813.00†	5791.16	-316.56	310.94	5801.31	5751.07	-323.38	607.31	-43.80	299.16	43.56	6.96	PASS
5913.00†	5890.67	-323.64	317.89	5901.12	5849.74	-330.57	620.49	-43.81	305.44	44.35	6.98	PASS
6013.00†	5990.17	-330.72	324.85	6000.92	5948.41	-337.77	633.67	-43.81	311.72	45.13	7.00	PASS
6113.00†	6089.68	-337.80	331.80	6100.72	6047.07	-344.97	646.85	-43.82	318.00	45.92	7.02	PASS
6213.00†	6189.19	-344.88	338.76	6200.52	6145.74	-352.17	660.03	-43.82	324.28	46.71	7.03	PASS
6313.00†	6288.69	-351.96	345.71	6300.33	6244.41	-359.37	673.21	-43.83	330.57	47.50	7.05	PASS
6413.00†	6388.20	-359.04	352.66	6400.13	6343.07	-366.56	686.39	-43.83	336.85	48.28	7.07	PASS
6513.00†	6487.70	-366.12	359.62	6499.93	6441.74	-373.76	699.57	-43.83	343.13	49.07	7.08	PASS
6613.00†	6587.21	-373.20	366.57	6599.73	6540.40	-380.96	712.75	-43.84	349.41	49.86	7.09	PASS
6713.00†	6686.72	-380.28	373.53	6699.54	6639.07	-388.16	725.93	-43.84	355.69	50.65	7.11	PASS
6813.00†	6786.22	-387.36	380.48	6799.34	6737.74	-395.35	739.11	-43.84	361.97	51.44	7.12	PASS
6913.00†	6885.73	-394.44	387.44	6899.14	6836.40	-402.55	752.29	-43.85	368.26	52.23	7.13	PASS
7013.00†	6985.24	-401.52	394.39	7000.30	6936.56	-402.88	765.57	-44.92	374.36	53.23	7.11	PASS
7043.31	7015.39	-403.67	396.50	7030.25	6966.07	-399.60	769.44	-45.74	376.21	53.73	7.08	PASS
7113.00†	7084.87	-404.37	401.30	7097.64	7031.60	-386.55	777.95	33.73	380.82	54.72	7.04	PASS
7213.00†	7183.58	-390.63	407.92	7191.74	7119.63	-355.58	789.21	67.22	388.20	55.03	7.13	PASS
7313.00†	7278.41	-359.92	414.05	7283.18	7199.27	-311.97	799.18	71.23	396.10	55.37	7.23	PASS
7413.00†	7366.50	-313.18	419.49	7372.39	7269.41	-257.66	807.75	71.26	404.05	54.56	7.49	PASS
7513.00†	7445.17	-251.82	424.09	7459.76	7329.21	-194.48	814.83	70.32	411.60	53.56	7.77	PASS
7613.00†	7512.03	-177.71	427.70	7545.66	7378.08	-124.15	820.36	69.20	418.33	52.64	8.04	PASS
7713.00†	7565.04	-93.11	430.21	7630.42	7415.57	-48.32	824.31	68.18	423.86	52.07	8.24	PASS
7813.00†	7602.60	-0.58	431.56	7714.34	7441.38	31.42	826.66	67.39	427.93	52.10	8.31	PASS
7913.00†	7623.56	97.07	431.69	7797.74	7455.33	113.56	827.40	66.91	430.31	52.97	8.22	PASS
7984.45	7628.00	168.33	431.03	7857.92	7458.00	173.66	826.95	66.76	430.90	53.99	8.07	PASS
8013.00†	7628.00	196.88	430.65	7886.48	7458.00	202.21	826.56	66.76	430.90	54.41	8.01	PASS
8113.00†	7628.00	296.87	429.30	7986.48	7458.00	302.21	825.21	66.76	430.90	56.20	7.75	PASS
8213.00†	7628.00	396.86	427.96	8086.48	7458.00	402.20	823.87	66.76	430.90	58.54	7.44	PASS
8313.00†	7628.00	496.85	426.61	8186.48	7458.00	502.19	822.52	66.76	430.90	61.35	7.09	PASS
8413.00†	7628.00	596.85	425.27	8286.48	7458.00	602.18	821.17	66.76	430.90	64.57	6.74	PASS
8513.00†	7628.00	696.84	423.92	8386.48	7458.00	702.17	819.83	66.76	430.90	68.15	6.38	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
8613.00†	7628.00	796.83	422.57	8486.48	7458.00	802.16	818.48	66.76	430.90	72.01	6.03	PASS	
8713.00†	7628.00	896.82	421.23	8586.48	7458.00	902.15	817.13	66.76	430.89	76.13	5.70	PASS	
8813.00†	7628.00	996.81	419.88	8686.48	7458.00	1002.14	815.79	66.76	430.89	80.47	5.39	PASS	
8913.00†	7628.00	1096.80	418.54	8786.48	7458.00	1102.13	814.44	66.76	430.89	85.89	5.05	PASS	
9013.00†	7628.00	1196.79	417.19	8886.48	7458.00	1202.12	813.09	66.76	430.89	89.65	4.84	PASS	
9113.00†	7628.00	1296.78	415.84	8986.48	7458.00	1302.11	811.75	66.76	430.89	94.44	4.59	PASS	
9213.00†	7628.00	1396.77	414.50	9086.48	7458.00	1402.11	810.40	66.76	430.89	99.35	4.36	PASS	
9313.00†	7628.00	1496.76	413.15	9186.48	7458.00	1502.10	809.05	66.76	430.89	104.35	4.15	PASS	
9413.00†	7628.00	1596.75	411.81	9286.48	7458.00	1602.09	807.71	66.76	430.89	109.43	3.96	PASS	
9513.00†	7628.00	1696.75	410.46	9386.48	7458.00	1702.08	806.36	66.76	430.89	114.59	3.78	PASS	
9613.00†	7628.00	1796.74	409.11	9486.48	7458.00	1802.07	805.01	66.76	430.89	119.80	3.61	PASS	
9713.00†	7628.00	1896.73	407.77	9586.48	7458.00	1902.06	803.67	66.76	430.89	125.07	3.46	PASS	
9813.00†	7628.00	1996.72	406.42	9686.48	7458.00	2002.05	802.32	66.76	430.89	130.39	3.32	PASS	
9913.00†	7628.00	2096.71	405.07	9786.48	7458.00	2102.04	800.97	66.76	430.89	135.75	3.19	PASS	
10013.00†	7628.00	2196.70	403.73	9886.48	7458.00	2202.03	799.63	66.76	430.89	141.14	3.06	PASS	
10113.00†	7628.00	2296.69	402.38	9986.48	7458.00	2302.02	798.28	66.76	430.88	146.57	2.95	PASS	
10213.00†	7628.00	2396.68	401.04	10086.48	7458.00	2402.01	796.93	66.76	430.88	152.03	2.84	PASS	
10313.00†	7628.00	2496.67	399.69	10186.48	7458.00	2502.01	795.58	66.76	430.88	157.51	2.74	PASS	
10413.00†	7628.00	2596.66	398.34	10286.48	7458.00	2602.00	794.24	66.76	430.88	163.02	2.65	PASS	
10513.00†	7628.00	2696.66	397.00	10386.48	7458.00	2701.99	792.89	66.76	430.88	168.55	2.56	PASS	
10613.00†	7628.00	2796.65	395.65	10486.48	7458.00	2801.98	791.54	66.76	430.88	174.09	2.48	PASS	
10713.00†	7628.00	2896.64	394.31	10586.48	7458.00	2901.97	790.20	66.76	430.88	179.66	2.40	PASS	
10813.00†	7628.00	2996.63	392.96	10686.48	7458.00	3001.96	788.85	66.76	430.88	185.24	2.33	PASS	
10913.00†	7628.00	3096.62	391.61	10786.48	7458.00	3101.95	787.50	66.76	430.88	190.84	2.26	PASS	
11013.00†	7628.00	3196.61	390.27	10886.48	7458.00	3201.94	786.16	66.76	430.88	196.45	2.20	PASS	
11113.00†	7628.00	3296.60	388.92	10986.48	7458.00	3301.93	784.81	66.76	430.88	202.07	2.14	PASS	
11213.00†	7628.00	3396.59	387.58	11086.48	7458.00	3401.92	783.46	66.76	430.88	207.70	2.08	PASS	
11313.00†	7628.00	3496.58	386.23	11186.48	7458.00	3501.91	782.12	66.76	430.88	213.34	2.02	PASS	
11413.00†	7628.00	3596.57	384.88	11286.48	7458.00	3601.91	780.77	66.76	430.88	218.99	1.97	PASS	
11513.00†	7628.00	3696.56	383.54	11386.48	7458.00	3701.90	779.42	66.76	430.87	224.65	1.92	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
11613.00†	7628.00	3796.56	382.19	11486.48	7458.00	3801.89	778.08	66.76	430.87	230.32	1.87	PASS
11713.00†	7628.00	3896.55	380.85	11586.48	7458.00	3901.88	776.73	66.76	430.87	236.00	1.83	PASS
11813.00†	7628.00	3996.54	379.50	11686.48	7458.00	4001.87	775.38	66.76	430.87	241.68	1.79	PASS
11913.00†	7628.00	4096.53	378.15	11786.48	7458.00	4101.86	774.04	66.76	430.87	247.37	1.74	PASS
12013.00†	7628.00	4196.52	376.81	11886.48	7458.00	4201.85	772.69	66.76	430.87	253.07	1.70	PASS
12113.00†	7628.00	4296.51	375.46	11986.48	7458.00	4301.84	771.34	66.76	430.87	258.77	1.67	PASS
12213.00†	7628.00	4396.50	374.12	12086.48	7458.00	4401.83	770.00	66.76	430.87	264.48	1.63	PASS
12313.00†	7628.00	4496.49	372.77	12186.48	7458.00	4501.82	768.65	66.76	430.87	270.19	1.60	PASS
12413.00†	7628.00	4596.48	371.42	12286.48	7458.00	4601.82	767.30	66.76	430.87	275.90	1.56	PASS
12513.00†	7628.00	4696.47	370.08	12386.48	7458.00	4701.81	765.96	66.76	430.87	281.63	1.53	PASS
12613.00†	7628.00	4796.46	368.73	12486.48	7458.00	4801.80	764.61	66.76	430.87	287.34	1.50	PASS
12713.00†	7628.00	4896.46	367.39	12586.48	7458.00	4901.79	763.26	66.76	430.87	293.08	1.47	PASS
12813.00†	7628.00	4996.45	366.04	12686.48	7458.00	5001.78	761.91	66.76	430.87	298.81	1.44	PASS
12913.00†	7628.00	5096.44	364.69	12786.48	7458.00	5101.77	760.57	66.76	430.86	304.55	1.42	PASS
13013.00†	7628.00	5196.43	363.35	12886.48	7458.00	5201.76	759.22	66.76	430.86	310.29	1.39	PASS
13113.00†	7628.00	5296.42	362.00	12986.48	7458.00	5301.75	757.87	66.76	430.86	316.03	1.36	PASS
13213.00†	7628.00	5396.41	360.66	13086.48	7458.00	5401.74	756.53	66.76	430.86	321.77	1.34	PASS
13313.00†	7628.00	5496.40	359.31	13186.48	7458.00	5501.73	755.18	66.76	430.86	327.52	1.32	PASS
13413.00†	7628.00	5596.39	357.96	13286.48	7458.00	5601.72	753.83	66.76	430.86	333.27	1.29	PASS
13513.00†	7628.00	5696.38	356.62	13386.48	7458.00	5701.72	752.49	66.76	430.86	339.02	1.27	PASS
13613.00†	7628.00	5796.37	355.27	13486.48	7458.00	5801.71	751.14	66.76	430.86	344.78	1.25	PASS
13713.00†	7628.00	5896.37	353.93	13586.48	7458.00	5901.70	749.79	66.76	430.86	350.54	1.23	PASS
13813.00†	7628.00	5996.36	352.58	13686.48	7458.00	6001.69	748.45	66.76	430.86	356.30	1.21	PASS
13913.00†	7628.00	6096.35	351.23	13786.48	7458.00	6101.68	747.10	66.76	430.86	362.06	1.19	PASS
14013.00†	7628.00	6196.34	349.89	13886.48	7458.00	6201.67	745.75	66.76	430.86	367.82	1.17	PASS
14113.00†	7628.00	6296.33	348.54	13986.48	7458.00	6301.66	744.41	66.76	430.86	373.59	1.15	PASS
14213.00†	7628.00	6396.32	347.20	14086.48	7458.00	6401.65	743.06	66.76	430.86	379.35	1.14	PASS
14313.00†	7628.00	6496.31	345.85	14186.48	7458.00	6501.64	741.71	66.76	430.85	385.12	1.12	PASS
14413.00†	7628.00	6596.30	344.50	14286.48	7458.00	6601.63	740.37	66.76	430.85	390.89	1.10	PASS
14513.00†	7628.00	6696.29	343.16	14386.48	7458.00	6701.62	739.02	66.76	430.85	396.66	1.09	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
14613.00†	7628.00	6796.28	341.81	14486.48	7458.00	6801.62	737.67	66.76	430.85	402.44	1.07	PASS
14713.00†	7628.00	6896.27	340.47	14586.48	7458.00	6901.61	736.33	66.76	430.85	408.21	1.06	PASS
14813.00†	7628.00	6996.27	339.12	14686.48	7458.00	7001.60	734.98	66.76	430.85	413.99	1.04	PASS
14913.00†	7628.00	7096.26	337.77	14786.48	7458.00	7101.59	733.63	66.76	430.85	419.76	1.03	PASS
15013.00†	7628.00	7196.25	336.43	14886.48	7458.00	7201.58	732.29	66.76	430.85	425.54	1.01	PASS
15113.00†	7628.00	7296.24	335.08	14986.48	7458.00	7301.57	730.94	66.76	430.85	431.32	1.00	FAIL
15213.00†	7628.00	7396.23	333.74	15086.48	7458.00	7401.56	729.59	66.76	430.85	437.10	0.99	FAIL
15313.00†	7628.00	7496.22	332.39	15186.48	7458.00	7501.55	728.25	66.76	430.85	442.89	0.97	FAIL
15413.00†	7628.00	7596.21	331.04	15286.48	7458.00	7601.54	726.90	66.76	430.85	448.67	0.96	FAIL
15513.00†	7628.00	7696.20	329.70	15386.48	7458.00	7701.53	725.55	66.76	430.85	454.45	0.95	FAIL
15613.00†	7628.00	7796.19	328.35	15486.48	7458.00	7801.52	724.20	66.76	430.85	460.24	0.94	FAIL
15713.00†	7628.00	7896.18	327.01	15586.48	7458.00	7901.52	722.86	66.76	430.84	466.02	0.92	FAIL
15813.00†	7628.00	7996.17	325.66	15686.48	7458.00	8001.51	721.51	66.76	430.84	471.81	0.91	FAIL
15913.00†	7628.00	8096.17	324.31	15786.48	7458.00	8101.50	720.16	66.76	430.84	477.60	0.90	FAIL
16013.00†	7628.00	8196.16	322.97	15886.48	7458.00	8201.49	718.82	66.76	430.84	483.39	0.89	FAIL
16113.00†	7628.00	8296.15	321.62	15986.48	7458.00	8301.48	717.47	66.76	430.84	489.18	0.88	FAIL
16213.00†	7628.00	8396.14	320.28	16086.48	7458.00	8401.47	716.12	66.76	430.84	494.97	0.87	FAIL
16313.00†	7628.00	8496.13	318.93	16186.48	7458.00	8501.46	714.78	66.76	430.84	500.76	0.86	FAIL
16413.00†	7628.00	8596.12	317.58	16286.48	7458.00	8601.45	713.43	66.76	430.84	506.55	0.85	FAIL
16513.00†	7628.00	8696.11	316.24	16386.48	7458.00	8701.44	712.08	66.76	430.84	512.34	0.84	FAIL
16613.00†	7628.00	8796.10	314.89	16486.48	7458.00	8801.43	710.74	66.76	430.84	518.13	0.83	FAIL
16713.00†	7628.00	8896.09	313.55	16586.48	7458.00	8901.43	709.39	66.76	430.84	523.93	0.82	FAIL
16813.00†	7628.00	8996.08	312.20	16686.48	7458.00	9001.42	708.04	66.76	430.84	529.72	0.81	FAIL
16913.00†	7628.00	9096.08	310.85	16786.48	7458.00	9101.41	706.70	66.76	430.84	535.52	0.80	FAIL
17013.00†	7628.00	9196.07	309.51	16886.48	7458.00	9201.40	705.35	66.76	430.84	541.31	0.80	FAIL
17113.00†	7628.00	9296.06	308.16	16986.48	7458.00	9301.39	704.00	66.76	430.83	547.11	0.79	FAIL
17213.00†	7628.00	9396.05	306.82	17086.48	7458.00	9401.38	702.66	66.76	430.83	552.90	0.78	FAIL
17313.00†	7628.00	9496.04	305.47	17186.48	7458.00	9501.37	701.31	66.76	430.83	558.70	0.77	FAIL
17413.00†	7628.00	9596.03	304.12	17286.48	7458.00	9601.36	699.96	66.76	430.83	564.50	0.76	FAIL
17513.00†	7628.00	9696.02	302.78	17386.48	7458.00	9701.35	698.62	66.76	430.83	570.30	0.76	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
17613.00†	7628.00	9796.01	301.43	17486.48	7458.00	9801.34	697.27	66.76	430.83	576.10	0.75	FAIL	
17713.00†	7628.00	9896.00	300.09	17586.48	7458.00	9901.33	695.92	66.76	430.83	581.90	0.74	FAIL	
17786.94	7628.00	9969.94	299.09	17654.03	7458.00	9968.88	695.01	66.76	430.88	586.52	0.73	FAIL	

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	0.06	9.14	-10.58	28.63
8.5in Open Hole	1800.00	17654.03	15854.03	1795.31	7458.00	-10.58	28.63	3038.55	216.41

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

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

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

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



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)				Well: WAKEMAN 20-17-3NBH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	-0.06	-29.97	-90.11	29.97	1.40	48.62	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.06	-29.97	-90.11	29.97	1.72	31.72	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.06	-29.97	-90.11	29.97	2.29	19.61	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.06	-29.97	-90.11	29.97	2.89	13.96	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.06	-29.97	-90.11	29.97	3.51	10.79	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.06	-29.97	-90.11	29.97	4.13	8.78	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.06	-29.97	-90.11	29.97	4.75	7.39	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.06	-29.97	-90.11	29.97	5.37	6.38	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.06	-29.97	-90.11	29.97	6.00	5.62	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.06	-29.97	-90.11	29.97	6.62	5.01	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.06	-29.97	-90.11	29.97	7.25	4.52	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.06	-29.97	-90.11	29.97	7.88	4.12	PASS
1200.00	1200.00	0.00	0.00	1200.00	1200.00	-0.06	-29.97	-90.11	29.97	8.42	3.83	PASS
1213.00†	1213.00	-0.02	0.02	1213.00	1213.00	-0.06	-29.97	134.42	30.00	8.50	3.79	PASS
1313.00†	1312.97	-1.59	1.56	1312.97	1312.97	-0.06	-29.97	137.25	31.57	9.18	3.67	PASS
1413.00†	1412.80	-5.65	5.55	1412.85	1412.85	-0.09	-29.97	143.31	35.95	10.03	3.81	PASS
1484.80	1484.33	-10.09	9.91	1484.79	1484.78	-1.30	-29.77	146.89	40.65	10.63	4.06	PASS
1513.00†	1512.39	-12.09	11.87	1513.07	1513.04	-2.26	-29.62	147.73	42.64	10.82	4.17	PASS
1613.00†	1611.90	-19.17	18.83	1613.50	1613.30	-7.91	-28.70	147.78	48.86	11.49	4.50	PASS
1713.00†	1711.40	-26.25	25.78	1713.39	1712.89	-15.53	-27.46	145.83	54.33	12.10	4.74	PASS
1813.00†	1810.91	-33.33	32.74	1813.22	1812.43	-23.16	-26.22	144.23	59.85	12.65	4.95	PASS
1913.00†	1910.42	-40.41	39.69	1913.06	1911.96	-30.79	-24.98	142.90	65.40	13.31	5.14	PASS
2013.00†	2009.92	-47.49	46.65	2012.89	2011.50	-38.42	-23.74	141.78	70.98	13.98	5.29	PASS
2113.00†	2109.43	-54.57	53.60	2112.73	2111.03	-46.05	-22.50	140.82	76.59	14.67	5.43	PASS
2213.00†	2208.94	-61.65	60.56	2212.56	2210.57	-53.67	-21.25	139.99	82.22	15.37	5.56	PASS
2313.00†	2308.44	-68.73	67.51	2312.40	2310.10	-61.30	-20.01	139.27	87.86	16.08	5.67	PASS
2413.00†	2407.95	-75.81	74.47	2412.23	2409.64	-68.93	-18.77	138.63	93.51	16.80	5.77	PASS
2513.00†	2507.45	-82.89	81.42	2512.07	2509.17	-76.56	-17.53	138.07	99.17	17.53	5.85	PASS
2613.00†	2606.96	-89.97	88.38	2611.90	2608.71	-84.19	-16.29	137.57	104.84	18.26	5.93	PASS
2713.00†	2706.47	-97.06	95.33	2711.74	2708.24	-91.82	-15.05	137.12	110.52	19.00	6.00	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)		Well: WAKEMAN 20-17-3NBH		Threshold Value=1.00		† = interpolated/extrapolated station					
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2805.97	-104.14	102.29	2811.57	2807.78	-99.45	-13.81	136.72	116.21	19.74	6.07	PASS	
2913.00†	2905.48	-111.22	109.24	2911.41	2907.31	-107.08	-12.57	136.35	121.90	20.49	6.13	PASS	
3013.00†	3004.99	-118.30	116.20	3011.24	3006.85	-114.71	-11.33	136.01	127.59	21.24	6.18	PASS	
3113.00†	3104.49	-125.38	123.15	3111.08	3106.39	-122.34	-10.09	135.71	133.29	21.99	6.23	PASS	
3213.00†	3204.00	-132.46	130.11	3210.91	3205.92	-129.97	-8.85	135.43	138.99	22.75	6.27	PASS	
3313.00†	3303.50	-139.54	137.06	3310.75	3305.46	-137.60	-7.61	135.17	144.69	23.51	6.31	PASS	
3413.00†	3403.01	-146.62	144.02	3410.58	3404.99	-145.23	-6.37	134.93	150.40	24.27	6.35	PASS	
3513.00†	3502.52	-153.70	150.97	3510.42	3504.53	-152.86	-5.12	134.71	156.11	25.04	6.39	PASS	
3613.00†	3602.02	-160.78	157.93	3610.25	3604.06	-160.49	-3.88	134.50	161.82	25.81	6.42	PASS	
3713.00†	3701.53	-167.86	164.88	3710.09	3703.60	-168.12	-2.64	134.31	167.54	26.57	6.45	PASS	
3813.00†	3801.04	-174.94	171.84	3809.92	3803.13	-175.75	-1.40	134.13	173.25	27.34	6.48	PASS	
3913.00†	3900.54	-182.02	178.79	3909.76	3902.67	-183.38	-0.16	133.96	178.97	28.12	6.50	PASS	
4013.00†	4000.05	-189.10	185.75	4009.59	4002.20	-191.01	1.08	133.80	184.69	28.89	6.53	PASS	
4113.00†	4099.55	-196.18	192.70	4109.43	4101.74	-198.64	2.32	133.65	190.41	29.66	6.55	PASS	
4213.00†	4199.06	-203.27	199.66	4209.26	4201.27	-206.27	3.56	133.51	196.13	30.44	6.57	PASS	
4313.00†	4298.57	-210.35	206.61	4309.10	4300.81	-213.90	4.80	133.38	201.85	31.21	6.59	PASS	
4413.00†	4398.07	-217.43	213.57	4408.93	4400.35	-221.53	6.04	133.26	207.58	31.99	6.61	PASS	
4513.00†	4497.58	-224.51	220.52	4508.77	4499.88	-229.16	7.28	133.14	213.30	32.77	6.63	PASS	
4613.00†	4597.09	-231.59	227.48	4608.60	4599.42	-236.79	8.52	133.03	219.03	33.55	6.65	PASS	
4713.00†	4696.59	-238.67	234.43	4708.44	4698.95	-244.42	9.76	132.92	224.75	34.33	6.66	PASS	
4813.00†	4796.10	-245.75	241.39	4808.27	4798.49	-252.05	11.01	132.82	230.48	35.11	6.68	PASS	
4913.00†	4895.60	-252.83	248.34	4908.11	4898.02	-259.67	12.25	132.73	236.21	35.89	6.69	PASS	
5013.00†	4995.11	-259.91	255.30	5007.94	4997.56	-267.30	13.49	132.64	241.93	36.67	6.71	PASS	
5113.00†	5094.62	-266.99	262.25	5107.78	5097.09	-274.93	14.73	132.55	247.66	37.46	6.72	PASS	
5213.00†	5194.12	-274.07	269.21	5207.61	5196.63	-282.56	15.97	132.47	253.39	38.24	6.73	PASS	
5313.00†	5293.63	-281.15	276.16	5307.45	5296.16	-290.19	17.21	132.39	259.12	39.02	6.74	PASS	
5413.00†	5393.14	-288.23	283.12	5407.28	5395.70	-297.82	18.45	132.31	264.85	39.81	6.76	PASS	
5513.00†	5492.64	-295.31	290.07	5507.12	5495.24	-305.45	19.69	132.24	270.58	40.59	6.77	PASS	
5613.00†	5592.15	-302.39	297.03	5606.96	5594.77	-313.08	20.93	132.17	276.31	41.38	6.78	PASS	
5713.00†	5691.65	-309.47	303.98	5706.79	5694.31	-320.71	22.17	132.10	282.04	42.16	6.79	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
5813.00†	5791.16	-316.56	310.94	5806.63	5793.84	-328.34	23.41	132.04	287.78	42.95	6.80	PASS	
5913.00†	5890.67	-323.64	317.89	5906.46	5893.38	-335.97	24.65	131.98	293.51	43.73	6.81	PASS	
6013.00†	5990.17	-330.72	324.85	6006.30	5992.91	-343.60	25.89	131.92	299.24	44.52	6.81	PASS	
6113.00†	6089.68	-337.80	331.80	6106.13	6092.45	-351.23	27.14	131.86	304.97	45.31	6.82	PASS	
6213.00†	6189.19	-344.88	338.76	6205.97	6191.98	-358.86	28.38	131.81	310.71	46.10	6.83	PASS	
6313.00†	6288.69	-351.96	345.71	6305.80	6291.52	-366.49	29.62	131.75	316.44	46.88	6.84	PASS	
6413.00†	6388.20	-359.04	352.66	6405.64	6391.05	-374.12	30.86	131.70	322.17	47.67	6.85	PASS	
6513.00†	6487.70	-366.12	359.62	6505.47	6490.59	-381.75	32.10	131.65	327.91	48.46	6.85	PASS	
6613.00†	6587.21	-373.20	366.57	6605.31	6590.12	-389.38	33.34	131.60	333.64	49.25	6.86	PASS	
6713.00†	6686.72	-380.28	373.53	6705.14	6689.66	-397.01	34.58	131.56	339.37	50.04	6.87	PASS	
6813.00†	6786.22	-387.36	380.48	6805.22	6789.45	-404.55	35.82	131.53	345.11	50.82	6.87	PASS	
6913.00†	6885.73	-394.44	387.44	6905.96	6890.01	-401.42	36.93	133.26	350.60	52.71	6.73	PASS	
7013.00†	6985.24	-401.52	394.39	7000.36	6982.39	-382.56	37.73	137.36	357.18	56.64	6.37	PASS	
7043.31	7015.39	-403.67	396.50	7027.06	7007.84	-374.49	37.92	138.92	359.85	57.15	6.36	PASS	
7113.00†	7084.87	-404.37	401.30	7086.24	7062.72	-352.45	38.25	-134.82	367.42	57.01	6.51	PASS	
7213.00†	7183.58	-390.63	407.92	7167.90	7134.13	-312.98	38.53	-92.27	380.69	57.03	6.75	PASS	
7313.00†	7278.41	-359.92	414.05	7246.49	7196.90	-265.79	38.62	-80.18	395.54	57.25	6.98	PASS	
7413.00†	7366.50	-313.18	419.49	7322.70	7251.05	-212.25	38.51	-73.16	410.68	56.81	7.31	PASS	
7513.00†	7445.17	-251.82	424.09	7397.07	7296.60	-153.52	38.24	-68.25	424.98	56.36	7.62	PASS	
7613.00†	7512.03	-177.71	427.70	7470.06	7333.54	-90.63	37.82	-64.69	437.54	56.00	7.90	PASS	
7713.00†	7565.04	-93.11	430.21	7542.04	7361.86	-24.51	37.26	-62.16	447.67	55.73	8.12	PASS	
7813.00†	7602.60	-0.58	431.56	7613.31	7381.51	43.94	36.56	-60.52	454.85	55.64	8.27	PASS	
7913.00†	7623.56	97.07	431.69	7684.16	7392.48	113.89	35.74	-59.67	458.75	55.84	8.31	PASS	
7984.45	7628.00	168.33	431.03	7734.68	7394.99	164.33	35.09	-59.52	459.43	55.99	8.30	PASS	
8013.00†	7628.00	196.88	430.65	7761.91	7395.00	191.56	34.73	-59.53	459.42	56.26	8.26	PASS	
8113.00†	7628.00	296.87	429.30	7861.91	7395.00	291.55	33.38	-59.53	459.42	57.61	8.06	PASS	
8213.00†	7628.00	396.86	427.96	7961.91	7395.00	391.54	32.04	-59.53	459.42	59.43	7.81	PASS	
8313.00†	7628.00	496.85	426.61	8061.91	7395.00	491.53	30.69	-59.53	459.42	61.71	7.52	PASS	
8413.00†	7628.00	596.85	425.27	8161.91	7395.00	591.52	29.35	-59.53	459.42	64.38	7.20	PASS	
8513.00†	7628.00	696.84	423.92	8261.91	7395.00	691.51	28.00	-59.53	459.42	67.40	6.88	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
8613.00†	7628.00	796.83	422.57	8361.91	7395.00	791.50	26.66	-59.53	459.42	70.73	6.55	PASS
8713.00†	7628.00	896.82	421.23	8461.91	7395.00	891.49	25.31	-59.53	459.42	74.32	6.23	PASS
8813.00†	7628.00	996.81	419.88	8561.91	7395.00	991.48	23.97	-59.53	459.42	78.14	5.92	PASS
8913.00†	7628.00	1096.80	418.54	8661.91	7395.00	1091.47	22.62	-59.53	459.42	82.15	5.63	PASS
9013.00†	7628.00	1196.79	417.19	8761.91	7395.00	1191.46	21.28	-59.53	459.42	86.33	5.36	PASS
9113.00†	7628.00	1296.78	415.84	8861.91	7395.00	1291.46	19.93	-59.53	459.42	90.66	5.10	PASS
9213.00†	7628.00	1396.77	414.50	8961.91	7395.00	1391.45	18.59	-59.53	459.42	95.11	4.86	PASS
9313.00†	7628.00	1496.76	413.15	9061.91	7395.00	1491.44	17.24	-59.53	459.42	99.66	4.64	PASS
9413.00†	7628.00	1596.75	411.81	9161.91	7395.00	1591.43	15.90	-59.53	459.41	104.31	4.43	PASS
9513.00†	7628.00	1696.75	410.46	9261.91	7395.00	1691.42	14.55	-59.53	459.41	109.04	4.23	PASS
9613.00†	7628.00	1796.74	409.11	9361.91	7395.00	1791.41	13.21	-59.53	459.41	113.84	4.05	PASS
9713.00†	7628.00	1896.73	407.77	9461.91	7395.00	1891.40	11.86	-59.52	459.41	118.71	3.89	PASS
9813.00†	7628.00	1996.72	406.42	9561.91	7395.00	1991.39	10.52	-59.52	459.41	123.05	3.75	PASS
9913.00†	7628.00	2096.71	405.07	9661.91	7395.00	2091.38	9.17	-59.52	459.41	128.59	3.59	PASS
10013.00†	7628.00	2196.70	403.73	9761.91	7395.00	2191.37	7.83	-59.52	459.41	133.61	3.45	PASS
10113.00†	7628.00	2296.69	402.38	9861.91	7395.00	2291.37	6.48	-59.52	459.41	138.65	3.33	PASS
10213.00†	7628.00	2396.68	401.04	9961.91	7395.00	2391.36	5.13	-59.52	459.41	143.74	3.21	PASS
10313.00†	7628.00	2496.67	399.69	10061.91	7395.00	2491.35	3.79	-59.52	459.41	148.85	3.10	PASS
10413.00†	7628.00	2596.66	398.34	10161.91	7395.00	2591.34	2.44	-59.52	459.41	154.00	2.99	PASS
10513.00†	7628.00	2696.66	397.00	10261.91	7395.00	2691.33	1.10	-59.52	459.41	159.16	2.89	PASS
10613.00†	7628.00	2796.65	395.65	10361.91	7395.00	2791.32	-0.25	-59.52	459.41	164.35	2.80	PASS
10713.00†	7628.00	2896.64	394.31	10461.91	7395.00	2891.31	-1.59	-59.52	459.40	169.56	2.72	PASS
10813.00†	7628.00	2996.63	392.96	10561.91	7395.00	2991.30	-2.94	-59.52	459.40	174.79	2.63	PASS
10913.00†	7628.00	3096.62	391.61	10661.91	7395.00	3091.29	-4.28	-59.52	459.40	180.04	2.56	PASS
11013.00†	7628.00	3196.61	390.27	10761.91	7395.00	3191.28	-5.63	-59.52	459.40	185.30	2.48	PASS
11113.00†	7628.00	3296.60	388.92	10861.91	7395.00	3291.27	-6.97	-59.52	459.40	190.58	2.42	PASS
11213.00†	7628.00	3396.59	387.58	10961.91	7395.00	3391.27	-8.32	-59.52	459.40	195.85	2.35	PASS
11313.00†	7628.00	3496.58	386.23	11061.91	7395.00	3491.26	-9.66	-59.52	459.40	201.17	2.29	PASS
11413.00†	7628.00	3596.57	384.88	11161.91	7395.00	3591.25	-11.01	-59.52	459.40	206.48	2.23	PASS
11513.00†	7628.00	3696.56	383.54	11261.91	7395.00	3691.24	-12.35	-59.52	459.40	211.81	2.17	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
11613.00†	7628.00	3796.56	382.19	11361.91	7395.00	3791.23	-13.70	-59.52	459.40	217.14	2.12	PASS	
11713.00†	7628.00	3896.55	380.85	11461.91	7395.00	3891.22	-15.04	-59.52	459.40	222.48	2.07	PASS	
11813.00†	7628.00	3996.54	379.50	11561.91	7395.00	3991.21	-16.39	-59.52	459.40	227.83	2.02	PASS	
11913.00†	7628.00	4096.53	378.15	11661.91	7395.00	4091.20	-17.73	-59.52	459.40	233.19	1.97	PASS	
12013.00†	7628.00	4196.52	376.81	11761.91	7395.00	4191.19	-19.08	-59.52	459.39	238.56	1.93	PASS	
12113.00†	7628.00	4296.51	375.46	11861.91	7395.00	4291.18	-20.42	-59.52	459.39	243.93	1.89	PASS	
12213.00†	7628.00	4396.50	374.12	11961.91	7395.00	4391.18	-21.77	-59.52	459.39	249.31	1.85	PASS	
12313.00†	7628.00	4496.49	372.77	12061.91	7395.00	4491.17	-23.11	-59.52	459.39	254.69	1.81	PASS	
12413.00†	7628.00	4596.48	371.42	12161.91	7395.00	4591.16	-24.46	-59.52	459.39	260.08	1.77	PASS	
12513.00†	7628.00	4696.47	370.08	12261.91	7395.00	4691.15	-25.80	-59.52	459.39	265.47	1.73	PASS	
12613.00†	7628.00	4796.46	368.73	12361.91	7395.00	4791.14	-27.15	-59.52	459.39	270.87	1.70	PASS	
12713.00†	7628.00	4896.46	367.39	12461.91	7395.00	4891.13	-28.49	-59.52	459.39	276.28	1.66	PASS	
12813.00†	7628.00	4996.45	366.04	12561.91	7395.00	4991.12	-29.84	-59.52	459.39	281.69	1.63	PASS	
12913.00†	7628.00	5096.44	364.69	12661.91	7395.00	5091.11	-31.18	-59.52	459.39	287.10	1.60	PASS	
13013.00†	7628.00	5196.43	363.35	12761.91	7395.00	5191.10	-32.53	-59.52	459.39	292.52	1.57	PASS	
13113.00†	7628.00	5296.42	362.00	12861.91	7395.00	5291.09	-33.87	-59.52	459.39	297.94	1.54	PASS	
13213.00†	7628.00	5396.41	360.66	12961.91	7395.00	5391.08	-35.22	-59.52	459.39	303.36	1.52	PASS	
13313.00†	7628.00	5496.40	359.31	13061.91	7395.00	5491.08	-36.56	-59.52	459.38	308.79	1.49	PASS	
13413.00†	7628.00	5596.39	357.96	13161.91	7395.00	5591.07	-37.91	-59.52	459.38	314.22	1.46	PASS	
13513.00†	7628.00	5696.38	356.62	13261.91	7395.00	5691.06	-39.25	-59.52	459.38	319.65	1.44	PASS	
13613.00†	7628.00	5796.37	355.27	13361.91	7395.00	5791.05	-40.60	-59.52	459.38	325.08	1.41	PASS	
13713.00†	7628.00	5896.37	353.93	13461.91	7395.00	5891.04	-41.94	-59.52	459.38	330.52	1.39	PASS	
13813.00†	7628.00	5996.36	352.58	13561.91	7395.00	5991.03	-43.29	-59.52	459.38	335.96	1.37	PASS	
13913.00†	7628.00	6096.35	351.23	13661.91	7395.00	6091.02	-44.64	-59.52	459.38	341.41	1.35	PASS	
14013.00†	7628.00	6196.34	349.89	13761.91	7395.00	6191.01	-45.98	-59.52	459.38	346.85	1.33	PASS	
14113.00†	7628.00	6296.33	348.54	13861.91	7395.00	6291.00	-47.33	-59.52	459.38	352.30	1.30	PASS	
14213.00†	7628.00	6396.32	347.20	13961.91	7395.00	6390.99	-48.67	-59.52	459.38	357.75	1.28	PASS	
14313.00†	7628.00	6496.31	345.85	14061.91	7395.00	6490.98	-50.02	-59.52	459.38	363.20	1.27	PASS	
14413.00†	7628.00	6596.30	344.50	14161.91	7395.00	6590.98	-51.36	-59.52	459.38	368.65	1.25	PASS	
14513.00†	7628.00	6696.29	343.16	14261.91	7395.00	6690.97	-52.71	-59.52	459.38	374.11	1.23	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
14613.00†	7628.00	6796.28	341.81	14361.91	7395.00	6790.96	-54.05	-59.52	459.37	379.57	1.21	PASS
14713.00†	7628.00	6896.27	340.47	14461.91	7395.00	6890.95	-55.40	-59.52	459.37	385.02	1.19	PASS
14813.00†	7628.00	6996.27	339.12	14561.91	7395.00	6990.94	-56.74	-59.52	459.37	390.48	1.18	PASS
14913.00†	7628.00	7096.26	337.77	14661.91	7395.00	7090.93	-58.09	-59.52	459.37	395.95	1.16	PASS
15013.00†	7628.00	7196.25	336.43	14761.91	7395.00	7190.92	-59.43	-59.52	459.37	401.41	1.14	PASS
15113.00†	7628.00	7296.24	335.08	14861.91	7395.00	7290.91	-60.78	-59.52	459.37	406.87	1.13	PASS
15213.00†	7628.00	7396.23	333.74	14961.91	7395.00	7390.90	-62.12	-59.52	459.37	412.34	1.11	PASS
15313.00†	7628.00	7496.22	332.39	15061.91	7395.00	7490.89	-63.47	-59.52	459.37	417.81	1.10	PASS
15413.00†	7628.00	7596.21	331.04	15161.91	7395.00	7590.88	-64.81	-59.52	459.37	423.28	1.09	PASS
15513.00†	7628.00	7696.20	329.70	15261.91	7395.00	7690.88	-66.16	-59.52	459.37	428.75	1.07	PASS
15613.00†	7628.00	7796.19	328.35	15361.91	7395.00	7790.87	-67.50	-59.52	459.37	434.22	1.06	PASS
15713.00†	7628.00	7896.18	327.01	15461.91	7395.00	7890.86	-68.85	-59.52	459.37	439.69	1.04	PASS
15813.00†	7628.00	7996.17	325.66	15561.91	7395.00	7990.85	-70.19	-59.52	459.37	445.16	1.03	PASS
15913.00†	7628.00	8096.17	324.31	15661.91	7395.00	8090.84	-71.54	-59.52	459.36	450.64	1.02	PASS
16013.00†	7628.00	8196.16	322.97	15761.91	7395.00	8190.83	-72.88	-59.52	459.36	456.11	1.01	PASS
16113.00†	7628.00	8296.15	321.62	15861.91	7395.00	8290.82	-74.23	-59.52	459.36	461.59	1.00	FAIL
16213.00†	7628.00	8396.14	320.28	15961.91	7395.00	8390.81	-75.57	-59.52	459.36	467.06	0.98	FAIL
16313.00†	7628.00	8496.13	318.93	16061.91	7395.00	8490.80	-76.92	-59.52	459.36	472.54	0.97	FAIL
16413.00†	7628.00	8596.12	317.58	16161.91	7395.00	8590.80	-78.26	-59.52	459.36	478.02	0.96	FAIL
16513.00†	7628.00	8696.11	316.24	16261.91	7395.00	8690.79	-79.61	-59.52	459.36	483.50	0.95	FAIL
16613.00†	7628.00	8796.10	314.89	16361.91	7395.00	8790.78	-80.95	-59.52	459.36	488.98	0.94	FAIL
16713.00†	7628.00	8896.09	313.55	16461.91	7395.00	8890.77	-82.30	-59.52	459.36	494.46	0.93	FAIL
16813.00†	7628.00	8996.08	312.20	16561.91	7395.00	8990.76	-83.64	-59.52	459.36	499.94	0.92	FAIL
16913.00†	7628.00	9096.08	310.85	16661.91	7395.00	9090.75	-84.99	-59.52	459.36	505.43	0.91	FAIL
17013.00†	7628.00	9196.07	309.51	16761.91	7395.00	9190.74	-86.33	-59.52	459.36	510.91	0.90	FAIL
17113.00†	7628.00	9296.06	308.16	16861.91	7395.00	9290.73	-87.68	-59.52	459.36	516.39	0.89	FAIL
17213.00†	7628.00	9396.05	306.82	16961.91	7395.00	9390.72	-89.02	-59.52	459.36	521.88	0.88	FAIL
17313.00†	7628.00	9496.04	305.47	17061.91	7395.00	9490.71	-90.37	-59.52	459.35	527.36	0.87	FAIL
17413.00†	7628.00	9596.03	304.12	17161.91	7395.00	9590.70	-91.71	-59.52	459.35	532.85	0.86	FAIL
17513.00†	7628.00	9696.02	302.78	17261.91	7395.00	9690.70	-93.06	-59.52	459.35	538.33	0.85	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
17613.00†	7628.00	9796.01	301.43	17361.91	7395.00	9790.69	-94.41	-59.52	459.35	543.82	0.84	FAIL	
17713.00†	7628.00	9896.00	300.09	17461.91	7395.00	9890.68	-95.75	-59.52	459.35	549.31	0.84	FAIL	
17786.94	7628.00	9969.94	299.09	17535.85	7395.00	9964.61	-96.74	-59.52	459.35	553.37	0.83	FAIL	

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	-0.03	-18.27	-6.77	-17.18
8.5in Open Hole	1800.00	17542.23	15742.23	1799.24	7395.00	-6.77	-17.18	3039.14	-38.65

## 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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W Slot: SLOT#03 EX. AMOCO #44-17 (990'FSL & 1320'FEL, SEC.17, OG, PR, 8130) Well: AMOCO #44-17 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	46.00	6023.93	727.97	6.89	6067.85	25.40	246.61	PASS
113.00†	113.00	0.00	0.00	54.00	113.00	6023.93	727.97	6.89	6067.76	51.27	120.22	PASS
213.00†	213.00	0.00	0.00	154.00	213.00	6023.93	727.97	6.89	6067.76	53.61	114.89	PASS
313.00†	313.00	0.00	0.00	254.00	313.00	6023.93	727.97	6.89	6067.76	55.74	110.01	PASS
413.00†	413.00	0.00	0.00	354.00	413.00	6023.93	727.97	6.89	6067.76	58.09	105.52	PASS
513.00†	513.00	0.00	0.00	454.00	513.00	6023.93	727.97	6.89	6067.76	60.44	101.37	PASS
613.00†	613.00	0.00	0.00	554.00	613.00	6023.93	727.97	6.89	6067.76	62.79	97.54	PASS
713.00†	713.00	0.00	0.00	654.00	713.00	6023.93	727.97	6.89	6067.76	65.15	93.97	PASS
813.00†	813.00	0.00	0.00	754.00	813.00	6023.93	727.97	6.89	6067.76	67.52	90.65	PASS
913.00†	913.00	0.00	0.00	854.00	913.00	6023.93	727.97	6.89	6067.76	69.88	87.55	PASS
1013.00†	1013.00	0.00	0.00	954.00	1013.00	6023.93	727.97	6.89	6067.76	72.26	84.66	PASS
1113.00†	1113.00	0.00	0.00	1054.00	1113.00	6023.93	727.97	6.89	6067.76	74.63	81.94	PASS
1200.00	1200.00	0.00	0.00	1141.00	1200.00	6023.93	727.97	6.89	6067.76	76.70	79.71	PASS
1213.00†	1213.00	-0.02	0.02	1154.00	1213.00	6023.93	727.97	-128.62	6067.78	77.01	79.39	PASS
1313.00†	1312.97	-1.59	1.56	1253.97	1312.97	6023.93	727.97	-128.62	6069.15	79.40	77.00	PASS
1413.00†	1412.80	-5.65	5.55	1353.80	1412.80	6023.93	727.97	-128.60	6072.70	81.81	74.76	PASS
1484.80	1484.33	-10.09	9.91	1425.33	1484.33	6023.93	727.97	-128.59	6076.60	83.53	73.25	PASS
1513.00†	1512.39	-12.09	11.87	1453.39	1512.39	6023.93	727.97	-128.61	6078.35	84.21	72.68	PASS
1613.00†	1611.90	-19.17	18.83	1552.90	1611.90	6023.93	727.97	-128.68	6084.57	86.59	70.74	PASS
1713.00†	1711.40	-26.25	25.78	1652.40	1711.40	6023.93	727.97	-128.75	6090.79	88.99	68.89	PASS
1813.00†	1810.91	-33.33	32.74	1751.91	1810.91	6023.93	727.97	-128.83	6097.03	91.34	67.14	PASS
1913.00†	1910.42	-40.41	39.69	1851.42	1910.42	6023.93	727.97	-128.90	6103.28	93.75	65.47	PASS
2013.00†	2009.92	-47.49	46.65	1950.92	2009.92	6023.93	727.97	-128.97	6109.53	96.16	63.89	PASS
2113.00†	2109.43	-54.57	53.60	2050.43	2109.43	6023.93	727.97	-129.04	6115.80	98.58	62.38	PASS
2213.00†	2208.94	-61.65	60.56	2149.94	2208.94	6023.93	727.97	-129.12	6122.07	101.01	60.93	PASS
2313.00†	2308.44	-68.73	67.51	2249.44	2308.44	6023.93	727.97	-129.19	6128.36	103.44	59.55	PASS
2413.00†	2407.95	-75.81	74.47	2348.95	2407.95	6023.93	727.97	-129.26	6134.65	105.87	58.24	PASS
2513.00†	2507.45	-82.89	81.42	2448.45	2507.45	6023.93	727.97	-129.33	6140.96	108.31	56.98	PASS
2613.00†	2606.96	-89.97	88.38	2547.96	2606.96	6023.93	727.97	-129.40	6147.27	110.76	55.77	PASS
2713.00†	2706.47	-97.06	95.33	2647.47	2706.47	6023.93	727.97	-129.47	6153.59	113.21	54.61	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
2813.00†	2805.97	-104.14	102.29	2746.97	2805.97	6023.93	727.97	-129.54	6159.93	115.67	53.50	PASS	
2913.00†	2905.48	-111.22	109.24	2846.48	2905.48	6023.93	727.97	-129.62	6166.27	118.13	52.43	PASS	
3013.00†	3004.99	-118.30	116.20	2945.99	3004.99	6023.93	727.97	-129.69	6172.62	120.60	51.41	PASS	
3113.00†	3104.49	-125.38	123.15	3045.49	3104.49	6023.93	727.97	-129.76	6178.98	123.07	50.42	PASS	
3213.00†	3204.00	-132.46	130.11	3145.00	3204.00	6023.93	727.97	-129.83	6185.35	125.55	49.48	PASS	
3313.00†	3303.50	-139.54	137.06	3244.50	3303.50	6023.93	727.97	-129.90	6191.73	128.03	48.56	PASS	
3413.00†	3403.01	-146.62	144.02	3344.01	3403.01	6023.93	727.97	-129.97	6198.12	130.52	47.68	PASS	
3513.00†	3502.52	-153.70	150.97	3443.52	3502.52	6023.93	727.97	-130.04	6204.52	133.01	46.83	PASS	
3613.00†	3602.02	-160.78	157.93	3543.02	3602.02	6023.93	727.97	-130.11	6210.93	135.51	46.02	PASS	
3713.00†	3701.53	-167.86	164.88	3642.53	3701.53	6023.93	727.97	-130.18	6217.34	138.01	45.22	PASS	
3813.00†	3801.04	-174.94	171.84	3742.04	3801.04	6023.93	727.97	-130.25	6223.77	140.51	44.46	PASS	
3913.00†	3900.54	-182.02	178.79	3841.54	3900.54	6023.93	727.97	-130.32	6230.21	143.02	43.72	PASS	
4013.00†	4000.05	-189.10	185.75	3941.05	4000.05	6023.93	727.97	-130.39	6236.65	145.53	43.01	PASS	
4113.00†	4099.55	-196.18	192.70	4040.55	4099.55	6023.93	727.97	-130.46	6243.10	148.05	42.32	PASS	
4213.00†	4199.06	-203.27	199.66	4140.06	4199.06	6023.93	727.97	-130.52	6249.57	150.57	41.65	PASS	
4313.00†	4298.57	-210.35	206.61	4239.57	4298.57	6023.93	727.97	-130.59	6256.04	153.10	41.00	PASS	
4413.00†	4398.07	-217.43	213.57	4339.07	4398.07	6023.93	727.97	-130.66	6262.52	155.63	40.38	PASS	
4513.00†	4497.58	-224.51	220.52	4438.58	4497.58	6023.93	727.97	-130.73	6269.01	158.16	39.77	PASS	
4613.00†	4597.09	-231.59	227.48	4538.09	4597.09	6023.93	727.97	-130.80	6275.51	160.69	39.18	PASS	
4713.00†	4696.59	-238.67	234.43	4637.59	4696.59	6023.93	727.97	-130.87	6282.02	163.23	38.61	PASS	
4813.00†	4796.10	-245.75	241.39	4737.10	4796.10	6023.93	727.97	-130.94	6288.53	165.78	38.05	PASS	
4913.00†	4895.60	-252.83	248.34	4836.60	4895.60	6023.93	727.97	-131.00	6295.06	168.32	37.52	PASS	
5013.00†	4995.11	-259.91	255.30	4936.11	4995.11	6023.93	727.97	-131.07	6301.59	170.87	36.99	PASS	
5113.00†	5094.62	-266.99	262.25	5035.62	5094.62	6023.93	727.97	-131.14	6308.14	173.43	36.48	PASS	
5213.00†	5194.12	-274.07	269.21	5135.12	5194.12	6023.93	727.97	-131.21	6314.69	175.98	35.99	PASS	
5313.00†	5293.63	-281.15	276.16	5234.63	5293.63	6023.93	727.97	-131.27	6321.25	178.54	35.51	PASS	
5413.00†	5393.14	-288.23	283.12	5334.14	5393.14	6023.93	727.97	-131.34	6327.82	181.10	35.04	PASS	
5513.00†	5492.64	-295.31	290.07	5433.64	5492.64	6023.93	727.97	-131.41	6334.40	183.67	34.59	PASS	
5613.00†	5592.15	-302.39	297.03	5533.15	5592.15	6023.93	727.97	-131.48	6340.99	186.24	34.14	PASS	
5713.00†	5691.65	-309.47	303.98	5632.65	5691.65	6023.93	727.97	-131.54	6347.58	188.81	33.71	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
5813.00†	5791.16	-316.56	310.94	5732.16	5791.16	6023.93	727.97	-131.61	6354.19	191.38	33.29	PASS	
5913.00†	5890.67	-323.64	317.89	5831.67	5890.67	6023.93	727.97	-131.68	6360.80	193.96	32.88	PASS	
6013.00†	5990.17	-330.72	324.85	5931.17	5990.17	6023.93	727.97	-131.74	6367.42	196.53	32.49	PASS	
6113.00†	6089.68	-337.80	331.80	6030.68	6089.68	6023.93	727.97	-131.81	6374.05	199.12	32.10	PASS	
6213.00†	6189.19	-344.88	338.76	6130.19	6189.19	6023.93	727.97	-131.88	6380.69	201.70	31.72	PASS	
6313.00†	6288.69	-351.96	345.71	6229.69	6288.69	6023.93	727.97	-131.94	6387.34	204.28	31.35	PASS	
6413.00†	6388.20	-359.04	352.66	6329.20	6388.20	6023.93	727.97	-132.01	6393.99	206.87	30.99	PASS	
6513.00†	6487.70	-366.12	359.62	6428.70	6487.70	6023.93	727.97	-132.07	6400.66	209.46	30.63	PASS	
6613.00†	6587.21	-373.20	366.57	6528.21	6587.21	6023.93	727.97	-132.14	6407.33	212.05	30.29	PASS	
6713.00†	6686.72	-380.28	373.53	6627.72	6686.72	6023.93	727.97	-132.20	6414.01	214.65	29.95	PASS	
6813.00†	6786.22	-387.36	380.48	6727.22	6786.22	6023.93	727.97	-132.27	6420.70	217.24	29.63	PASS	
6913.00†	6885.73	-394.44	387.44	6826.73	6885.73	6023.93	727.97	-132.34	6427.40	219.84	29.31	PASS	
7013.00†	6985.24	-401.52	394.39	6926.24	6985.24	6023.93	727.97	-132.40	6434.11	222.44	28.99	PASS	
7043.31	7015.39	-403.67	396.50	6956.39	7015.39	6023.93	727.97	-132.42	6436.14	223.23	28.90	PASS	
7113.00†	7084.87	-404.37	401.30	7025.87	7084.87	6023.93	727.97	-50.47	6436.60	225.07	28.67	PASS	
7213.00†	7183.58	-390.63	407.92	7124.58	7183.58	6023.93	727.97	-13.50	6422.54	228.02	28.23	PASS	
7313.00†	7278.41	-359.92	414.05	7219.41	7278.41	6023.93	727.97	-6.17	6391.57	231.44	27.68	PASS	
7413.00†	7366.50	-313.18	419.49	7307.50	7366.50	6023.93	727.97	-3.01	6344.61	234.45	27.12	PASS	
7513.00†	7445.17	-251.82	424.09	7386.17	7445.17	6023.93	727.97	-0.95	6283.11	237.04	26.56	PASS	
7613.00†	7512.03	-177.71	427.70	7453.03	7512.03	6023.93	727.97	0.93	6208.91	239.14	26.02	PASS	
7713.00†	7565.04	-93.11	430.21	7506.04	7565.04	6023.93	727.97	3.38	6124.28	240.72	25.50	PASS	
7813.00†	7602.60	-0.58	431.56	7543.60	7602.60	6023.93	727.97	8.02	6031.80	241.76	25.00	PASS	
7913.00†	7623.56	97.07	431.69	7564.56	7623.56	6023.93	727.97	23.85	5934.26	242.28	24.55	PASS	
7984.45	7628.00	168.33	431.03	7569.00	7628.00	6023.93	727.97	90.00	5863.13	242.35	24.24	PASS	
8013.00†	7628.00	196.88	430.65	7569.00	7628.00	6023.93	727.97	90.00	5834.63	242.33	24.13	PASS	
8113.00†	7628.00	296.87	429.30	7569.00	7628.00	6023.93	727.97	90.00	5734.84	242.27	23.72	PASS	
8213.00†	7628.00	396.86	427.96	7569.00	7628.00	6023.93	727.97	90.00	5635.06	242.20	23.32	PASS	
8313.00†	7628.00	496.85	426.61	7569.00	7628.00	6023.93	727.97	90.00	5535.29	242.14	22.91	PASS	
8413.00†	7628.00	596.85	425.27	7569.00	7628.00	6023.93	727.97	90.00	5435.52	242.08	22.50	PASS	
8513.00†	7628.00	696.84	423.92	7569.00	7628.00	6023.93	727.97	90.00	5335.77	242.01	22.09	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
8613.00†	7628.00	796.83	422.57	7569.00	7628.00	6023.93	727.97	90.00	5236.02	241.95	21.69	PASS	
8713.00†	7628.00	896.82	421.23	7569.00	7628.00	6023.93	727.97	90.00	5136.28	241.88	21.28	PASS	
8813.00†	7628.00	996.81	419.88	7569.00	7628.00	6023.93	727.97	90.00	5036.55	241.82	20.87	PASS	
8913.00†	7628.00	1096.80	418.54	7569.00	7628.00	6023.93	727.97	90.00	4936.84	241.75	20.46	PASS	
9013.00†	7628.00	1196.79	417.19	7569.00	7628.00	6023.93	727.97	90.00	4837.13	241.69	20.06	PASS	
9113.00†	7628.00	1296.78	415.84	7569.00	7628.00	6023.93	727.97	90.00	4737.44	241.62	19.65	PASS	
9213.00†	7628.00	1396.77	414.50	7569.00	7628.00	6023.93	727.97	90.00	4637.77	241.56	19.24	PASS	
9313.00†	7628.00	1496.76	413.15	7569.00	7628.00	6023.93	727.97	90.00	4538.10	241.50	18.83	PASS	
9413.00†	7628.00	1596.75	411.81	7569.00	7628.00	6023.93	727.97	90.00	4438.45	241.43	18.42	PASS	
9513.00†	7628.00	1696.75	410.46	7569.00	7628.00	6023.93	727.97	90.00	4338.82	241.37	18.01	PASS	
9613.00†	7628.00	1796.74	409.11	7569.00	7628.00	6023.93	727.97	90.00	4239.20	241.31	17.60	PASS	
9713.00†	7628.00	1896.73	407.77	7569.00	7628.00	6023.93	727.97	90.00	4139.61	241.25	17.20	PASS	
9813.00†	7628.00	1996.72	406.42	7569.00	7628.00	6023.93	727.97	90.00	4040.03	241.19	16.79	PASS	
9913.00†	7628.00	2096.71	405.07	7569.00	7628.00	6023.93	727.97	90.00	3940.47	241.13	16.38	PASS	
10013.00†	7628.00	2196.70	403.73	7569.00	7628.00	6023.93	727.97	90.00	3840.94	241.08	15.97	PASS	
10113.00†	7628.00	2296.69	402.38	7569.00	7628.00	6023.93	727.97	90.00	3741.43	241.03	15.56	PASS	
10213.00†	7628.00	2396.68	401.04	7569.00	7628.00	6023.93	727.97	90.00	3641.95	240.98	15.15	PASS	
10313.00†	7628.00	2496.67	399.69	7569.00	7628.00	6023.93	727.97	90.00	3542.50	240.93	14.73	PASS	
10413.00†	7628.00	2596.66	398.34	7569.00	7628.00	6023.93	727.97	90.00	3443.08	240.89	14.32	PASS	
10513.00†	7628.00	2696.66	397.00	7569.00	7628.00	6023.93	727.97	90.00	3343.70	240.86	13.91	PASS	
10613.00†	7628.00	2796.65	395.65	7569.00	7628.00	6023.93	727.97	90.00	3244.35	240.83	13.50	PASS	
10713.00†	7628.00	2896.64	394.31	7569.00	7628.00	6023.93	727.97	90.00	3145.04	240.82	13.09	PASS	
10813.00†	7628.00	2996.63	392.96	7569.00	7628.00	6023.93	727.97	90.00	3045.78	240.81	12.67	PASS	
10913.00†	7628.00	3096.62	391.61	7569.00	7628.00	6023.93	727.97	90.00	2946.57	240.82	12.26	PASS	
11013.00†	7628.00	3196.61	390.27	7569.00	7628.00	6023.93	727.97	90.00	2847.42	240.85	11.85	PASS	
11113.00†	7628.00	3296.60	388.92	7569.00	7628.00	6023.93	727.97	90.00	2748.32	240.89	11.43	PASS	
11213.00†	7628.00	3396.59	387.58	7569.00	7628.00	6023.93	727.97	90.00	2649.30	240.96	11.02	PASS	
11313.00†	7628.00	3496.58	386.23	7569.00	7628.00	6023.93	727.97	90.00	2550.35	241.06	10.60	PASS	
11413.00†	7628.00	3596.57	384.88	7569.00	7628.00	6023.93	727.97	90.00	2451.48	241.20	10.18	PASS	
11513.00†	7628.00	3696.56	383.54	7569.00	7628.00	6023.93	727.97	90.00	2352.72	241.38	9.77	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
11613.00†	7628.00	3796.56	382.19	7569.00	7628.00	6023.93	727.97	90.00	2254.06	241.61	9.35	PASS	
11713.00†	7628.00	3896.55	380.85	7569.00	7628.00	6023.93	727.97	90.00	2155.52	241.91	8.93	PASS	
11813.00†	7628.00	3996.54	379.50	7569.00	7628.00	6023.93	727.97	90.00	2057.12	242.30	8.51	PASS	
11913.00†	7628.00	4096.53	378.15	7569.00	7628.00	6023.93	727.97	90.00	1958.89	242.79	8.08	PASS	
12013.00†	7628.00	4196.52	376.81	7569.00	7628.00	6023.93	727.97	90.00	1860.85	243.40	7.66	PASS	
12113.00†	7628.00	4296.51	375.46	7569.00	7628.00	6023.93	727.97	90.00	1763.02	244.17	7.23	PASS	
12213.00†	7628.00	4396.50	374.12	7569.00	7628.00	6023.93	727.97	90.00	1665.46	245.14	6.81	PASS	
12313.00†	7628.00	4496.49	372.77	7569.00	7628.00	6023.93	727.97	90.00	1568.20	246.35	6.38	PASS	
12413.00†	7628.00	4596.48	371.42	7569.00	7628.00	6023.93	727.97	90.00	1471.30	247.86	5.95	PASS	
12513.00†	7628.00	4696.47	370.08	7569.00	7628.00	6023.93	727.97	90.00	1374.86	249.76	5.51	PASS	
12613.00†	7628.00	4796.46	368.73	7569.00	7628.00	6023.93	727.97	90.00	1278.96	252.14	5.08	PASS	
12713.00†	7628.00	4896.46	367.39	7569.00	7628.00	6023.93	727.97	90.00	1183.73	255.13	4.65	PASS	
12813.00†	7628.00	4996.45	366.04	7569.00	7628.00	6023.93	727.97	90.00	1089.37	258.88	4.21	PASS	
12913.00†	7628.00	5096.44	364.69	7569.00	7628.00	6023.93	727.97	90.00	996.10	263.62	3.78	PASS	
13013.00†	7628.00	5196.43	363.35	7569.00	7628.00	6023.93	727.97	90.00	904.27	269.62	3.36	PASS	
13113.00†	7628.00	5296.42	362.00	7569.00	7628.00	6023.93	727.97	90.00	814.38	277.24	2.94	PASS	
13213.00†	7628.00	5396.41	360.66	7569.00	7628.00	6023.93	727.97	90.00	727.12	286.93	2.54	PASS	
13313.00†	7628.00	5496.40	359.31	7569.00	7628.00	6023.93	727.97	90.00	643.58	299.24	2.15	PASS	
13413.00†	7628.00	5596.39	357.96	7569.00	7628.00	6023.93	727.97	90.00	565.42	314.75	1.80	PASS	
13513.00†	7628.00	5696.38	356.62	7569.00	7628.00	6023.93	727.97	90.00	495.17	333.77	1.48	PASS	
13613.00†	7628.00	5796.37	355.27	7569.00	7628.00	6023.93	727.97	90.00	436.68	355.54	1.23	PASS	
13713.00†	7628.00	5896.37	353.93	7569.00	7628.00	6023.93	727.97	90.00	395.20	376.92	1.05	PASS	
13813.00†	7628.00	5996.36	352.58	7569.00	7628.00	6023.93	727.97	90.00	376.40	391.87	0.96	FAIL	
13833.98†	7628.00	6017.34	352.30	7567.09	7626.09	6023.93	727.97	89.71	375.74	393.55	0.95	FAIL	
13851.85†	7628.00	6035.21	352.06	7569.00	7628.00	6023.93	727.97	90.00	376.08	394.62	0.95	FAIL	
13913.00†	7628.00	6096.35	351.23	7569.00	7628.00	6023.93	727.97	90.00	383.63	395.00	0.97	FAIL	
14013.00†	7628.00	6196.34	349.89	7569.00	7628.00	6023.93	727.97	90.00	415.54	386.89	1.07	PASS	
14113.00†	7628.00	6296.33	348.54	7569.00	7628.00	6023.93	727.97	90.00	467.08	372.87	1.25	PASS	
14213.00†	7628.00	6396.32	347.20	7569.00	7628.00	6023.93	727.97	90.00	532.60	357.79	1.49	PASS	
14313.00†	7628.00	6496.31	345.85	7569.00	7628.00	6023.93	727.97	90.00	607.58	344.03	1.77	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
14413.00†	7628.00	6596.30	344.50	7569.00	7628.00	6023.93	727.97	90.00	688.95	332.30	2.08	PASS	
14513.00†	7628.00	6696.29	343.16	7569.00	7628.00	6023.93	727.97	90.00	774.69	322.53	2.40	PASS	
14613.00†	7628.00	6796.28	341.81	7569.00	7628.00	6023.93	727.97	90.00	863.51	314.45	2.75	PASS	
14713.00†	7628.00	6896.27	340.47	7569.00	7628.00	6023.93	727.97	90.00	954.54	307.74	3.11	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	3674.15	426.84	3674.15	426.84
9.625in Casing Surface	0.00	224.00	224.00	46.00	270.00	3674.15	426.84	3674.15	426.84
7.875in Open Hole	224.00	8129.00	7905.00	270.00	8175.00	3674.15	426.84	3674.15	426.84
4.5in Casing Production	0.00	8129.00	8129.00	46.00	8175.00	3674.15	426.84	3674.15	426.84

## 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



**Clearance Report**  
**WAKEMAN 20-17-3CDH PWP (REV-A.0)**  
**Closest Approach**  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

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



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)				Well: WAKEMAN 20-17-3NCH		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	-0.05	-45.03	-90.06	45.03	1.40	73.72	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	-0.05	-45.03	-90.06	45.03	1.72	47.97	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	-0.05	-45.03	-90.06	45.03	2.29	29.65	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	-0.05	-45.03	-90.06	45.03	2.90	21.11	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	-0.05	-45.03	-90.06	45.03	3.51	16.32	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	-0.05	-45.03	-90.06	45.03	4.13	13.28	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	-0.05	-45.03	-90.06	45.03	4.75	11.19	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	-0.05	-45.03	-90.06	45.03	5.38	9.66	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	-0.05	-45.03	-90.06	45.03	6.00	8.50	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	-0.05	-45.03	-90.06	45.03	6.63	7.59	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.05	-45.03	-90.06	45.03	7.26	6.85	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.05	-45.03	-90.06	45.03	7.88	6.25	PASS	
1200.00	1200.00	0.00	0.00	1200.00	1200.00	-0.05	-45.03	-90.06	45.03	8.43	5.80	PASS	
1213.00†	1213.00	-0.02	0.02	1213.00	1213.00	-0.05	-45.03	134.45	45.05	8.51	5.74	PASS	
1313.00†	1312.97	-1.59	1.56	1312.97	1312.97	-0.05	-45.03	136.36	46.62	9.18	5.47	PASS	
1413.00†	1412.80	-5.65	5.55	1412.80	1412.80	-0.05	-45.03	140.72	50.89	10.02	5.44	PASS	
1484.80	1484.33	-10.09	9.91	1484.33	1484.33	-0.05	-45.03	144.71	55.85	10.60	5.62	PASS	
1513.00†	1512.39	-12.09	11.87	1512.30	1512.30	-0.07	-45.05	146.27	58.18	10.80	5.74	PASS	
1613.00†	1611.90	-19.17	18.83	1611.06	1611.03	-1.83	-46.24	149.25	67.35	11.44	6.25	PASS	
1713.00†	1711.40	-26.25	25.78	1709.69	1709.51	-6.39	-49.35	149.10	77.74	12.10	6.81	PASS	
1813.00†	1810.91	-33.33	32.74	1808.42	1807.86	-13.52	-54.21	147.09	89.23	12.65	7.41	PASS	
1913.00†	1910.42	-40.41	39.69	1907.68	1906.68	-21.18	-59.42	145.22	101.03	13.31	7.96	PASS	
2013.00†	2009.92	-47.49	46.65	2006.93	2005.50	-28.83	-64.64	143.74	112.93	13.98	8.45	PASS	
2113.00†	2109.43	-54.57	53.60	2106.18	2104.31	-36.49	-69.85	142.54	124.88	14.67	8.89	PASS	
2213.00†	2208.94	-61.65	60.56	2205.43	2203.13	-44.15	-75.07	141.55	136.88	15.37	9.29	PASS	
2313.00†	2308.44	-68.73	67.51	2304.69	2301.95	-51.80	-80.29	140.73	148.91	16.08	9.64	PASS	
2413.00†	2407.95	-75.81	74.47	2403.94	2400.77	-59.46	-85.50	140.02	160.96	16.79	9.96	PASS	
2513.00†	2507.45	-82.89	81.42	2503.19	2499.59	-67.12	-90.72	139.42	173.04	17.52	10.25	PASS	
2613.00†	2606.96	-89.97	88.38	2602.44	2598.41	-74.77	-95.93	138.89	185.13	18.24	10.52	PASS	
2713.00†	2706.47	-97.06	95.33	2701.70	2697.23	-82.43	-101.15	138.43	197.24	18.97	10.76	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
Page 34 of 110



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#08 WAKEMAN 20-17-3NCH (293°FSL & 2128°FEL, SEC.20) Well: WAKEMAN 20-17-3NCH Threshold Value=1.00 † = interpolated/extrapolated station															
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status			
2813.00†	2805.97	-104.14	102.29	2800.95	2796.05	-90.09	-106.36	138.02	209.36	19.71	10.98	PASS			
2913.00†	2905.48	-111.22	109.24	2900.20	2894.87	-97.74	-111.58	137.65	221.48	20.45	11.18	PASS			
3013.00†	3004.99	-118.30	116.20	2999.46	2993.69	-105.40	-116.79	137.33	233.62	21.20	11.37	PASS			
3113.00†	3104.49	-125.38	123.15	3098.71	3092.51	-113.06	-122.01	137.03	245.76	21.94	11.54	PASS			
3213.00†	3204.00	-132.46	130.11	3197.96	3191.33	-120.71	-127.22	136.77	257.91	22.69	11.70	PASS			
3313.00†	3303.50	-139.54	137.06	3297.21	3290.15	-128.37	-132.44	136.52	270.06	23.45	11.85	PASS			
3413.00†	3403.01	-146.62	144.02	3396.47	3388.97	-136.03	-137.65	136.30	282.22	24.20	11.98	PASS			
3513.00†	3502.52	-153.70	150.97	3495.72	3487.79	-143.68	-142.87	136.10	294.38	24.96	12.11	PASS			
3613.00†	3602.02	-160.78	157.93	3594.97	3586.60	-151.34	-148.08	135.91	306.54	25.72	12.23	PASS			
3713.00†	3701.53	-167.86	164.88	3694.22	3685.42	-159.00	-153.30	135.74	318.71	26.48	12.34	PASS			
3813.00†	3801.04	-174.94	171.84	3793.48	3784.24	-166.65	-158.52	135.58	330.88	27.24	12.44	PASS			
3913.00†	3900.54	-182.02	178.79	3892.73	3883.06	-174.31	-163.73	135.43	343.05	28.01	12.54	PASS			
4013.00†	4000.05	-189.10	185.75	3991.98	3981.88	-181.97	-168.95	135.29	355.23	28.77	12.63	PASS			
4113.00†	4099.55	-196.18	192.70	4091.23	4080.70	-189.62	-174.16	135.16	367.41	29.54	12.72	PASS			
4213.00†	4199.06	-203.27	199.66	4190.49	4179.52	-197.28	-179.38	135.04	379.58	30.31	12.80	PASS			
4313.00†	4298.57	-210.35	206.61	4289.74	4278.34	-204.94	-184.59	134.93	391.76	31.07	12.88	PASS			
4413.00†	4398.07	-217.43	213.57	4388.99	4377.16	-212.59	-189.81	134.82	403.94	31.84	12.95	PASS			
4513.00†	4497.58	-224.51	220.52	4488.24	4475.98	-220.25	-195.02	134.72	416.13	32.61	13.02	PASS			
4613.00†	4597.09	-231.59	227.48	4587.50	4574.80	-227.91	-200.24	134.63	428.31	33.39	13.09	PASS			
4713.00†	4696.59	-238.67	234.43	4686.75	4673.62	-235.56	-205.45	134.54	440.49	34.16	13.15	PASS			
4813.00†	4796.10	-245.75	241.39	4786.00	4772.44	-243.22	-210.67	134.45	452.68	34.93	13.21	PASS			
4913.00†	4895.60	-252.83	248.34	4885.25	4871.26	-250.88	-215.88	134.37	464.87	35.70	13.26	PASS			
5013.00†	4995.11	-259.91	255.30	4984.51	4970.07	-258.53	-221.10	134.30	477.05	36.48	13.32	PASS			
5113.00†	5094.62	-266.99	262.25	5083.76	5068.89	-266.19	-226.31	134.22	489.24	37.25	13.37	PASS			
5213.00†	5194.12	-274.07	269.21	5183.01	5167.71	-273.85	-231.53	134.16	501.43	38.03	13.42	PASS			
5313.00†	5293.63	-281.15	276.16	5282.27	5266.53	-281.50	-236.75	134.09	513.62	38.80	13.46	PASS			
5413.00†	5393.14	-288.23	283.12	5381.52	5365.35	-289.16	-241.96	134.03	525.81	39.58	13.51	PASS			
5513.00†	5492.64	-295.31	290.07	5480.77	5464.17	-296.82	-247.18	133.97	538.00	40.36	13.55	PASS			
5613.00†	5592.15	-302.39	297.03	5580.02	5562.99	-304.47	-252.39	133.91	550.19	41.13	13.59	PASS			
5713.00†	5691.65	-309.47	303.98	5679.28	5661.81	-312.13	-257.61	133.86	562.39	41.91	13.63	PASS			

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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		
5813.00†	5791.16	-316.56	310.94	5778.53	5760.63	-319.79	-262.82	133.80	574.58	42.69	13.67	PASS		
5913.00†	5890.67	-323.64	317.89	5877.78	5859.45	-327.44	-268.04	133.75	586.77	43.47	13.71	PASS		
6013.00†	5990.17	-330.72	324.85	5977.03	5958.27	-335.10	-273.25	133.71	598.96	44.25	13.74	PASS		
6113.00†	6089.68	-337.80	331.80	6076.29	6057.09	-342.76	-278.47	133.66	611.16	45.03	13.77	PASS		
6213.00†	6189.19	-344.88	338.76	6175.54	6155.91	-350.41	-283.68	133.62	623.35	45.81	13.81	PASS		
6313.00†	6288.69	-351.96	345.71	6274.79	6254.73	-358.07	-288.90	133.57	635.55	46.58	13.84	PASS		
6413.00†	6388.20	-359.04	352.66	6374.04	6353.55	-365.73	-294.11	133.53	647.74	47.36	13.87	PASS		
6513.00†	6487.70	-366.12	359.62	6473.30	6452.36	-373.38	-299.33	133.49	659.94	48.15	13.90	PASS		
6613.00†	6587.21	-373.20	366.57	6572.55	6551.18	-381.04	-304.54	133.45	672.13	48.93	13.92	PASS		
6713.00†	6686.72	-380.28	373.53	6671.80	6650.00	-388.70	-309.76	133.42	684.33	49.71	13.95	PASS		
6813.00†	6786.22	-387.36	380.48	6771.05	6748.82	-396.35	-314.98	133.38	696.52	50.49	13.98	PASS		
6913.00†	6885.73	-394.44	387.44	6870.31	6847.64	-404.01	-320.19	133.35	708.72	51.27	14.00	PASS		
7013.00†	6985.24	-401.52	394.39	6968.65	6945.72	-403.08	-325.48	134.00	720.96	52.12	14.01	PASS		
7043.31	7015.39	-403.67	396.50	6997.61	6974.42	-399.60	-327.07	134.44	724.75	52.38	14.01	PASS		
7113.00†	7084.87	-404.37	401.30	7062.77	7038.11	-386.49	-330.68	-141.58	733.69	53.51	13.88	PASS		
7213.00†	7183.58	-390.63	407.92	7153.86	7123.77	-356.23	-335.69	-101.95	746.81	54.10	13.97	PASS		
7313.00†	7278.41	-359.92	414.05	7242.57	7201.58	-314.06	-340.45	-92.32	759.78	53.83	14.29	PASS		
7413.00†	7366.50	-313.18	419.49	7329.37	7270.52	-261.64	-344.86	-87.30	772.08	53.19	14.70	PASS		
7513.00†	7445.17	-251.82	424.09	7414.65	7329.80	-200.57	-348.87	-83.96	783.20	52.48	15.11	PASS		
7613.00†	7512.03	-177.71	427.70	7498.78	7378.77	-132.34	-352.43	-81.59	792.72	51.92	15.47	PASS		
7713.00†	7565.04	-93.11	430.21	7582.08	7416.91	-58.44	-355.47	-79.91	800.28	51.65	15.70	PASS		
7813.00†	7602.60	-0.58	431.56	7664.81	7443.81	19.68	-357.97	-78.83	805.59	51.79	15.76	PASS		
7913.00†	7623.56	97.07	431.69	7747.26	7459.16	100.59	-359.88	-78.29	808.47	52.40	15.63	PASS		
7984.45	7628.00	168.33	431.03	7806.12	7462.95	159.29	-360.88	-78.23	808.98	53.08	15.43	PASS		
8013.00†	7628.00	196.88	430.65	7833.06	7463.00	186.24	-361.24	-78.23	808.97	53.46	15.32	PASS		
8113.00†	7628.00	296.87	429.30	7933.06	7463.00	286.23	-362.58	-78.23	808.96	55.21	14.83	PASS		
8213.00†	7628.00	396.86	427.96	8033.06	7463.00	386.22	-363.93	-78.23	808.96	57.60	14.21	PASS		
8313.00†	7628.00	496.85	426.61	8133.06	7463.00	486.21	-365.27	-78.23	808.96	60.53	13.51	PASS		
8413.00†	7628.00	596.85	425.27	8233.06	7463.00	586.20	-366.62	-78.23	808.96	63.92	12.79	PASS		
8513.00†	7628.00	696.84	423.92	8333.06	7463.00	686.19	-367.96	-78.23	808.96	67.70	12.06	PASS		

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
8613.00†	7628.00	796.83	422.57	8433.06	7463.00	786.19	-369.30	-78.23	808.95	71.82	11.37	PASS
8713.00†	7628.00	896.82	421.23	8533.06	7463.00	886.18	-370.65	-78.23	808.95	76.22	10.70	PASS
8813.00†	7628.00	996.81	419.88	8633.06	7463.00	986.17	-371.99	-78.23	808.95	80.84	10.09	PASS
8913.00†	7628.00	1096.80	418.54	8733.06	7463.00	1086.16	-373.33	-78.23	808.95	85.67	9.51	PASS
9013.00†	7628.00	1196.79	417.19	8833.06	7463.00	1186.15	-374.68	-78.23	808.94	90.65	8.99	PASS
9113.00†	7628.00	1296.78	415.84	8933.06	7463.00	1286.14	-376.02	-78.23	808.94	95.77	8.50	PASS
9213.00†	7628.00	1396.77	414.50	9033.06	7463.00	1386.13	-377.37	-78.23	808.94	100.83	8.07	PASS
9313.00†	7628.00	1496.76	413.15	9133.06	7463.00	1486.12	-378.71	-78.23	808.94	106.34	7.65	PASS
9413.00†	7628.00	1596.75	411.81	9233.06	7463.00	1586.11	-380.05	-78.23	808.94	111.76	7.28	PASS
9513.00†	7628.00	1696.75	410.46	9333.06	7463.00	1686.10	-381.40	-78.23	808.93	117.25	6.94	PASS
9613.00†	7628.00	1796.74	409.11	9433.06	7463.00	1786.09	-382.74	-78.23	808.93	122.80	6.62	PASS
9713.00†	7628.00	1896.73	407.77	9533.06	7463.00	1886.09	-384.08	-78.23	808.93	128.41	6.33	PASS
9813.00†	7628.00	1996.72	406.42	9633.06	7463.00	1986.08	-385.43	-78.23	808.93	134.07	6.06	PASS
9913.00†	7628.00	2096.71	405.07	9733.06	7463.00	2086.07	-386.77	-78.23	808.93	139.77	5.81	PASS
10013.00†	7628.00	2196.70	403.73	9833.06	7463.00	2186.06	-388.12	-78.23	808.92	145.50	5.58	PASS
10113.00†	7628.00	2296.69	402.38	9933.06	7463.00	2286.05	-389.46	-78.23	808.92	151.27	5.37	PASS
10213.00†	7628.00	2396.68	401.04	10033.06	7463.00	2386.04	-390.80	-78.23	808.92	157.07	5.17	PASS
10313.00†	7628.00	2496.67	399.69	10133.06	7463.00	2486.03	-392.15	-78.23	808.92	162.89	4.98	PASS
10413.00†	7628.00	2596.66	398.34	10233.06	7463.00	2586.02	-393.49	-78.23	808.91	168.73	4.81	PASS
10513.00†	7628.00	2696.66	397.00	10333.06	7463.00	2686.01	-394.83	-78.23	808.91	174.60	4.65	PASS
10613.00†	7628.00	2796.65	395.65	10433.06	7463.00	2786.00	-396.18	-78.23	808.91	180.49	4.50	PASS
10713.00†	7628.00	2896.64	394.31	10533.06	7463.00	2886.00	-397.52	-78.23	808.91	186.39	4.35	PASS
10813.00†	7628.00	2996.63	392.96	10633.06	7463.00	2986.00	-398.87	-78.23	808.91	192.31	4.22	PASS
10913.00†	7628.00	3096.62	391.61	10733.06	7463.00	3086.00	-400.21	-78.23	808.90	198.24	4.09	PASS
11013.00†	7628.00	3196.61	390.27	10833.06	7463.00	3186.00	-401.55	-78.23	808.90	204.19	3.97	PASS
11113.00†	7628.00	3296.60	388.92	10933.06	7463.00	3286.00	-402.90	-78.23	808.90	210.14	3.86	PASS
11213.00†	7628.00	3396.59	387.58	11033.06	7463.00	3386.00	-404.24	-78.23	808.90	216.11	3.75	PASS
11313.00†	7628.00	3496.58	386.23	11133.06	7463.00	3486.00	-405.58	-78.23	808.89	222.09	3.65	PASS
11413.00†	7628.00	3596.57	384.88	11233.06	7463.00	3586.00	-406.93	-78.23	808.89	228.08	3.55	PASS
11513.00†	7628.00	3696.56	383.54	11333.06	7463.00	3686.00	-408.27	-78.23	808.89	234.07	3.46	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
11613.00†	7628.00	3796.56	382.19	11433.06	7463.00	3785.91	-409.62	-78.23	808.89	240.08	3.38	PASS	
11713.00†	7628.00	3896.55	380.85	11533.06	7463.00	3885.91	-410.96	-78.23	808.89	246.09	3.29	PASS	
11813.00†	7628.00	3996.54	379.50	11633.06	7463.00	3985.90	-412.30	-78.23	808.88	252.10	3.21	PASS	
11913.00†	7628.00	4096.53	378.15	11733.06	7463.00	4085.89	-413.65	-78.23	808.88	258.13	3.14	PASS	
12013.00†	7628.00	4196.52	376.81	11833.06	7463.00	4185.88	-414.99	-78.23	808.88	264.16	3.07	PASS	
12113.00†	7628.00	4296.51	375.46	11933.06	7463.00	4285.87	-416.34	-78.23	808.88	270.19	3.00	PASS	
12213.00†	7628.00	4396.50	374.12	12033.06	7463.00	4385.86	-417.68	-78.23	808.87	276.23	2.93	PASS	
12313.00†	7628.00	4496.49	372.77	12133.06	7463.00	4485.85	-419.02	-78.23	808.87	282.28	2.87	PASS	
12413.00†	7628.00	4596.48	371.42	12233.06	7463.00	4585.84	-420.37	-78.23	808.87	288.33	2.81	PASS	
12513.00†	7628.00	4696.47	370.08	12333.06	7463.00	4685.83	-421.71	-78.23	808.87	294.38	2.75	PASS	
12613.00†	7628.00	4796.46	368.73	12433.06	7463.00	4785.82	-423.05	-78.23	808.87	300.44	2.70	PASS	
12713.00†	7628.00	4896.46	367.39	12533.06	7463.00	4885.81	-424.40	-78.23	808.86	306.50	2.64	PASS	
12813.00†	7628.00	4996.45	366.04	12633.06	7463.00	4985.81	-425.74	-78.23	808.86	312.56	2.59	PASS	
12913.00†	7628.00	5096.44	364.69	12733.06	7463.00	5085.80	-427.09	-78.23	808.86	318.63	2.54	PASS	
13013.00†	7628.00	5196.43	363.35	12833.06	7463.00	5185.79	-428.43	-78.23	808.86	324.70	2.49	PASS	
13113.00†	7628.00	5296.42	362.00	12933.06	7463.00	5285.78	-429.77	-78.23	808.86	330.77	2.45	PASS	
13213.00†	7628.00	5396.41	360.66	13033.06	7463.00	5385.77	-431.12	-78.23	808.85	336.85	2.40	PASS	
13313.00†	7628.00	5496.40	359.31	13133.06	7463.00	5485.76	-432.46	-78.23	808.85	342.93	2.36	PASS	
13413.00†	7628.00	5596.39	357.96	13233.06	7463.00	5585.75	-433.80	-78.23	808.85	349.01	2.32	PASS	
13513.00†	7628.00	5696.38	356.62	13333.06	7463.00	5685.74	-435.15	-78.23	808.85	355.09	2.28	PASS	
13613.00†	7628.00	5796.37	355.27	13433.06	7463.00	5785.73	-436.49	-78.23	808.84	361.18	2.24	PASS	
13713.00†	7628.00	5896.37	353.93	13533.06	7463.00	5885.72	-437.84	-78.23	808.84	367.27	2.20	PASS	
13813.00†	7628.00	5996.36	352.58	13633.06	7463.00	5985.72	-439.18	-78.23	808.84	373.36	2.17	PASS	
13913.00†	7628.00	6096.35	351.23	13733.06	7463.00	6085.71	-440.52	-78.23	808.84	379.45	2.13	PASS	
14013.00†	7628.00	6196.34	349.89	13833.06	7463.00	6185.70	-441.87	-78.23	808.84	385.54	2.10	PASS	
14113.00†	7628.00	6296.33	348.54	13933.06	7463.00	6285.69	-443.21	-78.23	808.83	391.64	2.07	PASS	
14213.00†	7628.00	6396.32	347.20	14033.06	7463.00	6385.68	-444.55	-78.23	808.83	397.74	2.04	PASS	
14313.00†	7628.00	6496.31	345.85	14133.06	7463.00	6485.67	-445.90	-78.23	808.83	403.83	2.00	PASS	
14413.00†	7628.00	6596.30	344.50	14233.06	7463.00	6585.66	-447.24	-78.23	808.83	409.93	1.97	PASS	
14513.00†	7628.00	6696.29	343.16	14333.06	7463.00	6685.65	-448.59	-78.23	808.82	416.04	1.95	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
14613.00†	7628.00	6796.28	341.81	14433.06	7463.00	6785.64	-449.93	-78.23	808.82	422.14	1.92	PASS	
14713.00†	7628.00	6896.27	340.47	14533.06	7463.00	6885.63	-451.27	-78.23	808.82	428.24	1.89	PASS	
14813.00†	7628.00	6996.27	339.12	14633.06	7463.00	6985.63	-452.62	-78.23	808.82	434.35	1.86	PASS	
14913.00†	7628.00	7096.26	337.77	14733.06	7463.00	7085.62	-453.96	-78.23	808.82	440.46	1.84	PASS	
15013.00†	7628.00	7196.25	336.43	14833.06	7463.00	7185.61	-455.30	-78.23	808.81	446.56	1.81	PASS	
15113.00†	7628.00	7296.24	335.08	14933.06	7463.00	7285.60	-456.65	-78.23	808.81	452.67	1.79	PASS	
15213.00†	7628.00	7396.23	333.74	15033.06	7463.00	7385.59	-457.99	-78.23	808.81	458.78	1.76	PASS	
15313.00†	7628.00	7496.22	332.39	15133.06	7463.00	7485.58	-459.34	-78.23	808.81	464.90	1.74	PASS	
15413.00†	7628.00	7596.21	331.04	15233.06	7463.00	7585.57	-460.68	-78.23	808.81	471.01	1.72	PASS	
15513.00†	7628.00	7696.20	329.70	15333.06	7463.00	7685.56	-462.02	-78.23	808.80	477.12	1.70	PASS	
15613.00†	7628.00	7796.19	328.35	15433.06	7463.00	7785.55	-463.37	-78.23	808.80	483.24	1.67	PASS	
15713.00†	7628.00	7896.18	327.01	15533.06	7463.00	7885.54	-464.71	-78.23	808.80	489.35	1.65	PASS	
15813.00†	7628.00	7996.17	325.66	15633.06	7463.00	7985.53	-466.06	-78.23	808.80	495.47	1.63	PASS	
15913.00†	7628.00	8096.17	324.31	15733.06	7463.00	8085.53	-467.40	-78.23	808.79	501.58	1.61	PASS	
16013.00†	7628.00	8196.16	322.97	15833.06	7463.00	8185.52	-468.74	-78.23	808.79	507.70	1.59	PASS	
16113.00†	7628.00	8296.15	321.62	15933.06	7463.00	8285.51	-470.09	-78.23	808.79	513.82	1.57	PASS	
16213.00†	7628.00	8396.14	320.28	16033.06	7463.00	8385.50	-471.43	-78.23	808.79	519.94	1.56	PASS	
16313.00†	7628.00	8496.13	318.93	16133.06	7463.00	8485.49	-472.77	-78.23	808.79	526.06	1.54	PASS	
16413.00†	7628.00	8596.12	317.58	16233.06	7463.00	8585.48	-474.12	-78.23	808.78	532.18	1.52	PASS	
16513.00†	7628.00	8696.11	316.24	16333.06	7463.00	8685.47	-475.46	-78.23	808.78	538.30	1.50	PASS	
16613.00†	7628.00	8796.10	314.89	16433.06	7463.00	8785.46	-476.81	-78.23	808.78	544.42	1.49	PASS	
16713.00†	7628.00	8896.09	313.55	16533.06	7463.00	8885.45	-478.15	-78.23	808.78	550.54	1.47	PASS	
16813.00†	7628.00	8996.08	312.20	16633.06	7463.00	8985.44	-479.49	-78.23	808.77	556.67	1.45	PASS	
16913.00†	7628.00	9096.08	310.85	16733.06	7463.00	9085.44	-480.84	-78.23	808.77	562.79	1.44	PASS	
17013.00†	7628.00	9196.07	309.51	16833.06	7463.00	9185.43	-482.18	-78.23	808.77	568.91	1.42	PASS	
17113.00†	7628.00	9296.06	308.16	16933.06	7463.00	9285.42	-483.52	-78.23	808.77	575.04	1.41	PASS	
17213.00†	7628.00	9396.05	306.82	17033.06	7463.00	9385.41	-484.87	-78.23	808.77	581.16	1.39	PASS	
17313.00†	7628.00	9496.04	305.47	17133.06	7463.00	9485.40	-486.21	-78.23	808.76	587.29	1.38	PASS	
17413.00†	7628.00	9596.03	304.12	17233.06	7463.00	9585.39	-487.56	-78.23	808.76	593.42	1.36	PASS	
17513.00†	7628.00	9696.02	302.78	17333.06	7463.00	9685.38	-488.90	-78.23	808.76	599.54	1.35	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
17613.00†	7628.00	9796.01	301.43	17433.06	7463.00	9785.37	-490.24	-78.23	808.76	605.67	1.34	PASS	
17713.00†	7628.00	9896.00	300.09	17533.06	7463.00	9885.36	-491.59	-78.23	808.75	611.80	1.32	PASS	
17786.94	7628.00	9969.94	299.09	17607.01	7463.00	9959.30	-492.58	-78.23	808.75	616.33	1.31	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.47	-0.03	-27.45	-3.94	-30.11
8.5in Open Hole	1800.00	17619.74	15819.74	1799.47	N/A	-3.94	-30.11	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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#06 WAKEMAN 20-17-3NAH (293'FSL & 2098'FEL, SEC.20)				Well: WAKEMAN 20-17-3NAH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.04	-15.03	-89.83	15.03	1.40	23.71	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.04	-15.03	-89.83	15.03	1.72	15.42	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.04	-15.03	-89.83	15.03	2.29	9.53	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.04	-15.03	-89.83	15.03	2.90	6.79	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.04	-15.03	-89.83	15.03	3.51	5.25	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.04	-15.03	-89.83	15.03	4.13	4.27	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.04	-15.03	-89.83	15.03	4.76	3.60	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.04	-15.03	-89.83	15.03	5.38	3.11	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.04	-15.03	-89.83	15.03	6.01	2.73	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.04	-15.03	-89.83	15.03	6.63	2.44	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.04	-15.03	-89.83	15.03	7.26	2.20	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.04	-15.03	-89.83	15.03	7.88	2.01	PASS
1200.00	1200.00	0.00	0.00	1200.00	1200.00	0.04	-15.03	-89.83	15.03	8.43	1.87	PASS
1213.00†	1213.00	-0.02	0.02	1213.00	1213.00	0.04	-15.03	134.74	15.05	8.51	1.85	PASS
1313.00†	1312.97	-1.59	1.56	1313.02	1313.02	0.02	-15.01	140.02	16.65	9.19	1.89	PASS
1413.00†	1412.80	-5.65	5.55	1413.42	1413.40	-1.72	-13.64	146.04	19.60	10.11	2.02	PASS
1484.80	1484.33	-10.09	9.91	1485.59	1485.46	-4.68	-11.32	148.80	21.94	10.84	2.11	PASS
1513.00†	1512.39	-12.09	11.87	1513.95	1513.75	-6.24	-10.10	149.44	22.78	11.09	2.14	PASS
1613.00†	1611.90	-19.17	18.83	1614.39	1613.78	-13.39	-4.49	148.51	24.10	11.79	2.12	PASS
1713.00†	1711.40	-26.25	25.78	1714.39	1713.28	-21.17	1.61	146.47	24.77	12.38	2.07	PASS
1813.00†	1810.91	-33.33	32.74	1814.38	1812.79	-28.95	7.71	144.53	25.48	12.90	2.03	PASS
1913.00†	1910.42	-40.41	39.69	1914.38	1912.29	-36.73	13.82	142.70	26.21	13.54	1.99	PASS
2013.00†	2009.92	-47.49	46.65	2014.37	2011.80	-44.51	19.92	140.96	26.96	14.20	1.95	PASS
2113.00†	2109.43	-54.57	53.60	2114.36	2111.30	-52.29	26.02	139.33	27.74	14.89	1.91	PASS
2213.00†	2208.94	-61.65	60.56	2214.36	2210.80	-60.07	32.13	137.78	28.54	15.59	1.87	PASS
2313.00†	2308.44	-68.73	67.51	2314.35	2310.31	-67.85	38.23	136.32	29.36	16.30	1.84	PASS
2413.00†	2407.95	-75.81	74.47	2414.35	2409.81	-75.63	44.33	134.94	30.19	17.04	1.81	PASS
2513.00†	2507.45	-82.89	81.42	2514.34	2509.31	-83.41	50.43	133.64	31.05	17.78	1.78	PASS
2613.00†	2606.96	-89.97	88.38	2614.33	2608.82	-91.19	56.54	132.40	31.92	18.54	1.75	PASS
2713.00†	2706.47	-97.06	95.33	2714.33	2708.32	-98.97	62.64	131.23	32.80	19.32	1.72	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#06 WAKEMAN 20-17-3NAH (293°FSL & 2098°FEL, SEC.20) Well: WAKEMAN 20-17-3NAH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2805.97	-104.14	102.29	2814.32	2807.83	-106.75	68.74	130.13	33.70	20.10	1.70	PASS
2913.00†	2905.48	-111.22	109.24	2914.32	2907.33	-114.53	74.85	129.08	34.60	20.89	1.68	PASS
3013.00†	3004.99	-118.30	116.20	3014.31	3006.83	-122.31	80.99	128.08	35.52	21.69	1.66	PASS
3113.00†	3104.49	-125.38	123.15	3114.30	3106.34	-130.09	87.05	127.14	36.45	22.49	1.64	PASS
3213.00†	3204.00	-132.46	130.11	3214.30	3205.84	-137.87	93.16	126.24	37.39	23.31	1.62	PASS
3313.00†	3303.50	-139.54	137.06	3314.29	3305.34	-145.66	99.26	125.39	38.34	24.13	1.61	PASS
3413.00†	3403.01	-146.62	144.02	3414.29	3404.85	-153.44	105.36	124.58	39.29	24.95	1.59	PASS
3513.00†	3502.52	-153.70	150.97	3514.28	3504.35	-161.22	111.47	123.80	40.26	25.78	1.58	PASS
3613.00†	3602.02	-160.78	157.93	3614.27	3603.86	-169.00	117.57	123.06	41.23	26.61	1.56	PASS
3713.00†	3701.53	-167.86	164.88	3714.27	3703.36	-176.78	123.67	122.36	42.20	27.45	1.55	PASS
3813.00†	3801.04	-174.94	171.84	3814.26	3802.86	-184.56	129.78	121.69	43.19	28.29	1.54	PASS
3913.00†	3900.54	-182.02	178.79	3914.25	3902.37	-192.34	135.88	121.05	44.17	29.14	1.53	PASS
4013.00†	4000.05	-189.10	185.75	4014.25	4001.87	-200.12	141.98	120.44	45.17	29.99	1.52	PASS
4113.00†	4099.55	-196.18	192.70	4114.24	4101.38	-207.90	148.08	119.85	46.16	30.84	1.51	PASS
4213.00†	4199.06	-203.27	199.66	4214.24	4200.88	-215.68	154.19	119.29	47.17	31.69	1.50	PASS
4313.00†	4298.57	-210.35	206.61	4314.23	4300.38	-223.46	160.29	118.75	48.18	32.55	1.49	PASS
4413.00†	4398.07	-217.43	213.57	4414.22	4399.89	-231.24	166.39	118.23	49.19	33.40	1.48	PASS
4513.00†	4497.58	-224.51	220.52	4514.22	4499.39	-239.02	172.50	117.74	50.20	34.26	1.48	PASS
4613.00†	4597.09	-231.59	227.48	4614.21	4598.89	-246.80	178.60	117.26	51.22	35.12	1.47	PASS
4713.00†	4696.59	-238.67	234.43	4714.21	4698.40	-254.58	184.70	116.80	52.24	35.98	1.46	PASS
4813.00†	4796.10	-245.75	241.39	4814.20	4797.90	-262.36	190.81	116.37	53.27	36.85	1.45	PASS
4913.00†	4895.60	-252.83	248.34	4914.19	4897.41	-270.14	196.91	115.94	54.30	37.71	1.45	PASS
5013.00†	4995.11	-259.91	255.30	5014.19	4996.91	-277.92	203.01	115.54	55.33	38.58	1.44	PASS
5113.00†	5094.62	-266.99	262.25	5114.18	5096.41	-285.70	209.12	115.14	56.36	39.44	1.44	PASS
5213.00†	5194.12	-274.07	269.21	5214.18	5195.92	-293.48	215.22	114.76	57.40	40.31	1.43	PASS
5313.00†	5293.63	-281.15	276.16	5314.17	5295.42	-301.26	221.32	114.40	58.44	41.18	1.43	PASS
5413.00†	5393.14	-288.23	283.12	5414.16	5394.92	-309.04	227.43	114.05	59.48	42.05	1.42	PASS
5513.00†	5492.64	-295.31	290.07	5514.16	5494.43	-316.82	233.53	113.71	60.52	42.92	1.42	PASS
5613.00†	5592.15	-302.39	297.03	5614.15	5593.93	-324.60	239.63	113.38	61.57	43.79	1.41	PASS
5713.00†	5691.65	-309.47	303.98	5714.15	5693.44	-332.39	245.73	113.06	62.61	44.66	1.41	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
5813.00†	5791.16	-316.56	310.94	5814.14	5792.94	-340.17	251.84	112.76	63.66	45.53	1.40	PASS	
5913.00†	5890.67	-323.64	317.89	5914.13	5892.44	-347.95	257.94	112.46	64.72	46.40	1.40	PASS	
6013.00†	5990.17	-330.72	324.85	6014.13	5991.95	-355.73	264.04	112.17	65.77	47.28	1.40	PASS	
6113.00†	6089.68	-337.80	331.80	6114.12	6091.45	-363.51	270.15	111.89	66.82	48.15	1.39	PASS	
6213.00†	6189.19	-344.88	338.76	6214.12	6190.95	-371.29	276.25	111.62	67.88	49.02	1.39	PASS	
6313.00†	6288.69	-351.96	345.71	6314.11	6290.46	-379.07	282.35	111.36	68.94	49.90	1.39	PASS	
6413.00†	6388.20	-359.04	352.66	6414.10	6389.96	-386.85	288.46	111.11	69.99	50.77	1.38	PASS	
6513.00†	6487.70	-366.12	359.62	6514.10	6489.47	-394.63	294.56	110.86	71.05	51.65	1.38	PASS	
6613.00†	6587.21	-373.20	366.57	6614.09	6588.97	-402.41	300.66	110.62	72.12	52.52	1.38	PASS	
6713.00†	6686.72	-380.28	373.53	6717.94	6692.49	-403.49	306.92	115.59	70.77	52.83	1.34	PASS	
6781.46†	6754.84	-385.13	378.29	6786.77	6760.51	-393.98	310.89	127.25	68.22	52.04	1.32	PASS	
6813.00†	6786.22	-387.36	380.48	6817.12	6790.04	-387.21	312.58	134.70	68.01	51.36	1.33	PASS	
6913.00†	6885.73	-394.44	387.44	6906.10	6874.03	-358.46	317.26	161.27	79.73	48.88	1.64	PASS	
7013.00†	6985.24	-401.52	394.39	6982.82	6942.14	-323.48	320.89	-178.74	115.54	48.07	2.42	PASS	
7043.31	7015.39	-403.67	396.50	7003.64	6959.77	-312.44	321.81	-174.54	130.37	48.12	2.73	PASS	
7113.00†	7084.87	-404.37	401.30	7049.57	6997.17	-285.86	323.70	-83.51	166.60	48.16	3.50	PASS	
7213.00†	7183.58	-390.63	407.92	7113.53	7045.46	-244.05	326.05	-38.98	217.40	48.72	4.51	PASS	
7313.00†	7278.41	-359.92	414.05	7175.74	7087.70	-198.45	327.98	-27.41	264.30	49.69	5.38	PASS	
7413.00†	7366.50	-313.18	419.49	7236.67	7124.04	-149.61	329.52	-21.80	306.00	50.05	6.19	PASS	
7513.00†	7445.17	-251.82	424.09	7296.63	7154.56	-98.04	330.66	-18.51	341.81	50.30	6.88	PASS	
7613.00†	7512.03	-177.71	427.70	7355.90	7179.28	-44.21	331.43	-16.43	371.23	50.55	7.43	PASS	
7713.00†	7565.04	-93.11	430.21	7414.64	7198.19	11.38	331.82	-15.09	393.93	50.92	7.83	PASS	
7813.00†	7602.60	-0.58	431.56	7473.04	7211.25	68.27	331.84	-14.27	409.68	51.37	8.07	PASS	
7913.00†	7623.56	97.07	431.69	7531.23	7218.45	125.99	331.50	-13.86	418.32	51.99	8.14	PASS	
7984.45	7628.00	168.33	431.03	7572.74	7220.00	167.46	331.03	-13.77	420.08	52.21	8.14	PASS	
8013.00†	7628.00	196.88	430.65	7600.82	7220.00	195.54	330.66	-13.77	420.08	52.47	8.10	PASS	
8113.00†	7628.00	296.87	429.30	7700.82	7220.00	295.53	329.31	-13.77	420.08	53.05	8.01	PASS	
8213.00†	7628.00	396.86	427.96	7800.82	7220.00	395.52	327.97	-13.77	420.08	53.72	7.91	PASS	
8313.00†	7628.00	496.85	426.61	7900.82	7220.00	495.51	326.62	-13.77	420.08	54.51	7.79	PASS	
8413.00†	7628.00	596.85	425.27	8000.82	7220.00	595.50	325.27	-13.77	420.08	55.42	7.67	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
8513.00†	7628.00	696.84	423.92	8100.82	7220.00	695.49	323.93	-13.77	420.08	56.43	7.53	PASS	
8613.00†	7628.00	796.83	422.57	8200.82	7220.00	795.48	322.58	-13.77	420.08	57.55	7.38	PASS	
8713.00†	7628.00	896.82	421.23	8300.82	7220.00	895.47	321.24	-13.77	420.08	58.76	7.22	PASS	
8813.00†	7628.00	996.81	419.88	8400.82	7220.00	995.46	319.89	-13.77	420.08	60.07	7.06	PASS	
8913.00†	7628.00	1096.80	418.54	8500.82	7220.00	1095.45	318.55	-13.77	420.08	61.46	6.90	PASS	
9013.00†	7628.00	1196.79	417.19	8600.82	7220.00	1195.45	317.20	-13.77	420.08	62.93	6.74	PASS	
9113.00†	7628.00	1296.78	415.84	8700.82	7220.00	1295.44	315.85	-13.77	420.08	64.49	6.58	PASS	
9213.00†	7628.00	1396.77	414.50	8800.82	7220.00	1395.43	314.51	-13.77	420.08	66.09	6.41	PASS	
9313.00†	7628.00	1496.76	413.15	8900.82	7220.00	1495.42	313.16	-13.77	420.08	67.77	6.25	PASS	
9413.00†	7628.00	1596.75	411.81	9000.82	7220.00	1595.41	311.82	-13.77	420.08	69.50	6.10	PASS	
9513.00†	7628.00	1696.75	410.46	9100.82	7220.00	1695.40	310.47	-13.77	420.08	71.30	5.94	PASS	
9613.00†	7628.00	1796.74	409.11	9200.82	7220.00	1795.39	309.13	-13.77	420.08	73.14	5.79	PASS	
9713.00†	7628.00	1896.73	407.77	9300.82	7220.00	1895.38	307.78	-13.77	420.08	75.03	5.64	PASS	
9813.00†	7628.00	1996.72	406.42	9400.82	7220.00	1995.37	306.43	-13.77	420.08	76.96	5.50	PASS	
9913.00†	7628.00	2096.71	405.07	9500.82	7220.00	2095.36	305.09	-13.77	420.08	78.94	5.36	PASS	
10013.00†	7628.00	2196.70	403.73	9600.82	7220.00	2195.35	303.74	-13.77	420.08	80.95	5.23	PASS	
10113.00†	7628.00	2296.69	402.38	9700.82	7220.00	2295.35	302.40	-13.77	420.07	82.99	5.10	PASS	
10213.00†	7628.00	2396.68	401.04	9800.82	7220.00	2395.34	301.05	-13.77	420.07	85.07	4.97	PASS	
10313.00†	7628.00	2496.67	399.69	9900.82	7220.00	2495.33	299.71	-13.77	420.07	87.18	4.85	PASS	
10413.00†	7628.00	2596.66	398.34	10000.82	7220.00	2595.32	298.36	-13.77	420.07	89.32	4.73	PASS	
10513.00†	7628.00	2696.66	397.00	10100.82	7220.00	2695.31	297.01	-13.77	420.07	91.48	4.62	PASS	
10613.00†	7628.00	2796.65	395.65	10200.82	7220.00	2795.30	295.67	-13.77	420.07	93.66	4.51	PASS	
10713.00†	7628.00	2896.64	394.31	10300.82	7220.00	2895.29	294.32	-13.77	420.07	95.87	4.41	PASS	
10813.00†	7628.00	2996.63	392.96	10400.82	7220.00	2995.28	292.98	-13.77	420.07	98.10	4.31	PASS	
10913.00†	7628.00	3096.62	391.61	10500.82	7220.00	3095.27	291.63	-13.77	420.07	100.34	4.21	PASS	
11013.00†	7628.00	3196.61	390.27	10600.82	7220.00	3195.26	290.29	-13.77	420.07	102.61	4.12	PASS	
11113.00†	7628.00	3296.60	388.92	10700.82	7220.00	3295.26	288.94	-13.77	420.07	104.89	4.03	PASS	
11213.00†	7628.00	3396.59	387.58	10800.82	7220.00	3395.25	287.59	-13.77	420.07	107.19	3.94	PASS	
11313.00†	7628.00	3496.58	386.23	10900.82	7220.00	3495.24	286.25	-13.77	420.07	109.50	3.85	PASS	
11413.00†	7628.00	3596.57	384.88	11000.82	7220.00	3595.23	284.90	-13.77	420.07	111.83	3.77	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
11513.00†	7628.00	3696.56	383.54	11100.82	7220.00	3695.22	283.56	-13.77	420.07	114.17	3.70	PASS
11613.00†	7628.00	3796.56	382.19	11200.82	7220.00	3795.21	282.21	-13.77	420.07	116.52	3.62	PASS
11713.00†	7628.00	3896.55	380.85	11300.82	7220.00	3895.20	280.87	-13.77	420.07	118.88	3.55	PASS
11813.00†	7628.00	3996.54	379.50	11400.82	7220.00	3995.19	279.52	-13.77	420.07	121.26	3.48	PASS
11913.00†	7628.00	4096.53	378.15	11500.82	7220.00	4095.18	278.17	-13.77	420.07	123.64	3.41	PASS
12013.00†	7628.00	4196.52	376.81	11600.82	7220.00	4195.17	276.83	-13.77	420.07	126.03	3.35	PASS
12113.00†	7628.00	4296.51	375.46	11700.82	7220.00	4295.16	275.48	-13.77	420.07	128.44	3.28	PASS
12213.00†	7628.00	4396.50	374.12	11800.82	7220.00	4395.16	274.14	-13.77	420.07	130.85	3.22	PASS
12313.00†	7628.00	4496.49	372.77	11900.82	7220.00	4495.15	272.79	-13.77	420.07	133.27	3.16	PASS
12413.00†	7628.00	4596.48	371.42	12000.82	7220.00	4595.14	271.45	-13.77	420.07	135.70	3.11	PASS
12513.00†	7628.00	4696.47	370.08	12100.82	7220.00	4695.13	270.10	-13.77	420.07	138.13	3.05	PASS
12613.00†	7628.00	4796.46	368.73	12200.82	7220.00	4795.12	268.76	-13.77	420.07	140.57	3.00	PASS
12713.00†	7628.00	4896.46	367.39	12300.82	7220.00	4895.11	267.41	-13.77	420.07	143.02	2.95	PASS
12813.00†	7628.00	4996.45	366.04	12400.82	7220.00	4995.10	266.06	-13.77	420.07	145.47	2.90	PASS
12913.00†	7628.00	5096.44	364.69	12500.82	7220.00	5095.09	264.72	-13.77	420.07	147.93	2.85	PASS
13013.00†	7628.00	5196.43	363.35	12600.82	7220.00	5195.08	263.37	-13.77	420.07	150.40	2.80	PASS
13113.00†	7628.00	5296.42	362.00	12700.82	7220.00	5295.07	262.03	-13.77	420.07	152.87	2.76	PASS
13213.00†	7628.00	5396.41	360.66	12800.82	7220.00	5395.06	260.68	-13.77	420.07	155.35	2.71	PASS
13313.00†	7628.00	5496.40	359.31	12900.82	7220.00	5495.06	259.34	-13.77	420.07	157.83	2.67	PASS
13413.00†	7628.00	5596.39	357.96	13000.82	7220.00	5595.05	257.99	-13.77	420.07	160.31	2.63	PASS
13513.00†	7628.00	5696.38	356.62	13100.82	7220.00	5695.04	256.64	-13.77	420.07	162.80	2.59	PASS
13613.00†	7628.00	5796.37	355.27	13200.82	7220.00	5795.03	255.30	-13.77	420.07	165.30	2.55	PASS
13713.00†	7628.00	5896.37	353.93	13300.82	7220.00	5895.02	253.95	-13.77	420.07	167.80	2.51	PASS
13813.00†	7628.00	5996.36	352.58	13400.82	7220.00	5995.01	252.61	-13.77	420.07	170.30	2.47	PASS
13913.00†	7628.00	6096.35	351.23	13500.82	7220.00	6095.00	251.26	-13.77	420.07	172.80	2.44	PASS
14013.00†	7628.00	6196.34	349.89	13600.82	7220.00	6194.99	249.92	-13.77	420.07	175.31	2.40	PASS
14113.00†	7628.00	6296.33	348.54	13700.82	7220.00	6294.98	248.57	-13.77	420.07	177.82	2.37	PASS
14213.00†	7628.00	6396.32	347.20	13800.82	7220.00	6394.97	247.22	-13.77	420.07	180.34	2.33	PASS
14313.00†	7628.00	6496.31	345.85	13900.82	7220.00	6494.97	245.88	-13.77	420.07	182.86	2.30	PASS
14413.00†	7628.00	6596.30	344.50	14000.82	7220.00	6594.96	244.53	-13.77	420.07	185.38	2.27	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
14513.00†	7628.00	6696.29	343.16	14100.82	7220.00	6694.95	243.19	-13.77	420.07	187.91	2.24	PASS
14613.00†	7628.00	6796.28	341.81	14200.82	7220.00	6794.94	241.84	-13.77	420.07	190.43	2.21	PASS
14713.00†	7628.00	6896.27	340.47	14300.82	7220.00	6894.93	240.50	-13.77	420.07	192.96	2.18	PASS
14813.00†	7628.00	6996.27	339.12	14400.82	7220.00	6994.92	239.15	-13.77	420.07	195.49	2.15	PASS
14913.00†	7628.00	7096.26	337.77	14500.82	7220.00	7094.91	237.80	-13.77	420.07	198.03	2.13	PASS
15013.00†	7628.00	7196.25	336.43	14600.82	7220.00	7194.90	236.46	-13.77	420.07	200.57	2.10	PASS
15113.00†	7628.00	7296.24	335.08	14700.82	7220.00	7294.89	235.11	-13.77	420.07	203.11	2.07	PASS
15213.00†	7628.00	7396.23	333.74	14800.82	7220.00	7394.88	233.77	-13.77	420.07	205.65	2.05	PASS
15313.00†	7628.00	7496.22	332.39	14900.82	7220.00	7494.87	232.42	-13.77	420.07	208.19	2.02	PASS
15413.00†	7628.00	7596.21	331.04	15000.82	7220.00	7594.87	231.08	-13.77	420.07	210.74	2.00	PASS
15513.00†	7628.00	7696.20	329.70	15100.82	7220.00	7694.86	229.73	-13.77	420.07	213.28	1.97	PASS
15613.00†	7628.00	7796.19	328.35	15200.82	7220.00	7794.85	228.38	-13.77	420.07	215.83	1.95	PASS
15713.00†	7628.00	7896.18	327.01	15300.82	7220.00	7894.84	227.04	-13.77	420.07	218.38	1.93	PASS
15813.00†	7628.00	7996.17	325.66	15400.82	7220.00	7994.83	225.69	-13.77	420.07	220.94	1.90	PASS
15913.00†	7628.00	8096.17	324.31	15500.82	7220.00	8094.82	224.35	-13.77	420.07	223.49	1.88	PASS
16013.00†	7628.00	8196.16	322.97	15600.82	7220.00	8194.81	223.00	-13.77	420.07	226.05	1.86	PASS
16113.00†	7628.00	8296.15	321.62	15700.82	7220.00	8294.80	221.66	-13.77	420.07	228.61	1.84	PASS
16213.00†	7628.00	8396.14	320.28	15800.82	7220.00	8394.79	220.31	-13.77	420.07	231.16	1.82	PASS
16313.00†	7628.00	8496.13	318.93	15900.82	7220.00	8494.78	218.96	-13.77	420.07	233.73	1.80	PASS
16413.00†	7628.00	8596.12	317.58	16000.82	7220.00	8594.78	217.62	-13.77	420.07	236.29	1.78	PASS
16513.00†	7628.00	8696.11	316.24	16100.82	7220.00	8694.77	216.27	-13.77	420.07	238.85	1.76	PASS
16613.00†	7628.00	8796.10	314.89	16200.82	7220.00	8794.76	214.93	-13.77	420.07	241.42	1.74	PASS
16713.00†	7628.00	8896.09	313.55	16300.82	7220.00	8894.75	213.58	-13.77	420.07	243.98	1.72	PASS
16813.00†	7628.00	8996.08	312.20	16400.82	7220.00	8994.74	212.24	-13.77	420.07	246.55	1.71	PASS
16913.00†	7628.00	9096.08	310.85	16500.82	7220.00	9094.73	210.89	-13.77	420.07	249.12	1.69	PASS
17013.00†	7628.00	9196.07	309.51	16600.82	7220.00	9194.72	209.54	-13.77	420.07	251.69	1.67	PASS
17113.00†	7628.00	9296.06	308.16	16700.82	7220.00	9294.71	208.20	-13.77	420.07	254.26	1.65	PASS
17213.00†	7628.00	9396.05	306.82	16800.82	7220.00	9394.70	206.85	-13.77	420.07	256.83	1.64	PASS
17313.00†	7628.00	9496.04	305.47	16900.82	7220.00	9494.69	205.51	-13.77	420.07	259.40	1.62	PASS
17413.00†	7628.00	9596.03	304.12	17000.82	7220.00	9594.68	204.16	-13.77	420.07	261.98	1.61	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
17513.00†	7628.00	9696.02	302.78	17100.82	7220.00	9694.68	202.82	-13.77	420.07	264.55	1.59	PASS
17613.00†	7628.00	9796.01	301.43	17200.82	7220.00	9794.67	201.47	-13.77	420.07	267.13	1.57	PASS
17713.00†	7628.00	9896.00	300.09	17300.82	7220.00	9894.66	200.13	-13.77	420.07	269.70	1.56	PASS
17786.94	7628.00	9969.94	299.09	17374.76	7220.00	9968.59	199.13	-13.77	420.07	271.61	1.55	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	0.03	-9.16	-8.47	-2.50
8.5in Open Hole	1800.00	17376.39	15576.39	1798.48	N/A	-8.47	-2.50	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 20-17-3CDH PWP (REV-A.0)**  
**Closest Approach**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#03 WAKEMAN 20-17-4NBH (293'FSL & 2053'FEL, SEC.20)				Well: WAKEMAN 20-17-4NBH		Threshold Value=1.00		† = Interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.17	30.00	89.68	30.00	1.40	48.67	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.17	30.00	89.68	30.00	1.73	31.52	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.17	30.00	89.68	30.00	2.30	19.47	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.17	30.00	89.68	30.00	2.91	13.87	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.17	30.00	89.68	30.00	3.52	10.73	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.17	30.00	89.68	30.00	4.14	8.74	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.17	30.00	89.68	30.00	4.77	7.37	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.17	30.00	89.68	30.00	5.39	6.36	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.17	30.00	89.68	30.00	6.02	5.60	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.17	30.00	89.68	30.00	6.64	5.00	PASS
1013.00†	1013.00	0.00	0.00	1012.87	1012.87	0.16	30.03	89.70	30.03	7.27	4.52	PASS
1113.00†	1113.00	0.00	0.00	1111.85	1111.82	-0.60	32.05	91.07	32.07	7.99	4.35	PASS
1200.00	1200.00	0.00	0.00	1197.75	1197.59	-2.22	36.39	93.49	36.54	8.82	4.46	PASS
1213.00†	1213.00	-0.02	0.02	1210.56	1210.37	-2.53	37.25	-41.64	37.41	8.95	4.49	PASS
1313.00†	1312.97	-1.59	1.56	1308.95	1308.35	-5.65	45.60	-40.12	44.46	9.90	4.80	PASS
1413.00†	1412.80	-5.65	5.55	1407.05	1405.69	-9.92	57.05	-40.47	52.17	10.93	5.07	PASS
1484.80	1484.33	-10.09	9.91	1477.30	1475.10	-13.69	67.17	-41.45	58.11	11.58	5.32	PASS
1513.00†	1512.39	-12.09	11.87	1504.84	1502.23	-15.33	71.58	-41.90	60.65	11.81	5.44	PASS
1613.00†	1611.90	-19.17	18.83	1602.27	1597.84	-21.86	89.10	-42.69	71.71	12.55	6.04	PASS
1713.00†	1711.40	-26.25	25.78	1701.49	1694.94	-28.99	108.24	-42.97	84.13	13.16	6.74	PASS
1813.00†	1810.91	-33.33	32.74	1800.72	1792.04	-36.13	127.39	-43.18	96.56	13.70	7.38	PASS
1913.00†	1910.42	-40.41	39.69	1899.94	1889.14	-43.27	146.54	-43.35	108.98	14.36	7.93	PASS
2013.00†	2009.92	-47.49	46.65	1999.17	1986.24	-50.40	165.69	-43.47	121.41	15.05	8.42	PASS
2113.00†	2109.43	-54.57	53.60	2098.39	2083.33	-57.54	184.83	-43.58	133.83	15.72	8.87	PASS
2213.00†	2208.94	-61.65	60.56	2197.62	2180.43	-64.67	203.98	-43.67	146.26	16.42	9.26	PASS
2313.00†	2308.44	-68.73	67.51	2296.84	2277.53	-71.81	223.13	-43.74	158.69	17.14	9.62	PASS
2413.00†	2407.95	-75.81	74.47	2396.07	2374.63	-78.95	242.28	-43.80	171.11	17.86	9.93	PASS
2513.00†	2507.45	-82.89	81.42	2495.29	2471.72	-86.08	261.42	-43.86	183.54	18.59	10.22	PASS
2613.00†	2606.96	-89.97	88.38	2594.51	2568.82	-93.22	280.57	-43.90	195.97	19.33	10.48	PASS
2713.00†	2706.47	-97.06	95.33	2693.74	2665.92	-100.35	299.72	-43.95	208.40	20.08	10.72	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
2813.00†	2805.97	-104.14	102.29	2792.96	2763.02	-107.49	318.87	-43.98	220.82	20.84	10.94	PASS	
2913.00†	2905.48	-111.22	109.24	2892.19	2860.12	-114.63	338.01	-44.02	233.25	21.59	11.13	PASS	
3013.00†	3004.99	-118.30	116.20	2991.41	2957.21	-121.76	357.16	-44.05	245.68	22.36	11.31	PASS	
3113.00†	3104.49	-125.38	123.15	3090.64	3054.31	-128.90	376.31	-44.07	258.11	23.13	11.48	PASS	
3213.00†	3204.00	-132.46	130.11	3189.86	3151.41	-136.03	395.46	-44.10	270.53	23.90	11.64	PASS	
3313.00†	3303.50	-139.54	137.06	3289.09	3248.51	-143.17	414.60	-44.12	282.96	24.67	11.78	PASS	
3413.00†	3403.01	-146.62	144.02	3388.31	3345.60	-150.31	433.75	-44.14	295.39	25.45	11.91	PASS	
3513.00†	3502.52	-153.70	150.97	3487.54	3442.70	-157.44	452.90	-44.16	307.82	26.24	12.03	PASS	
3613.00†	3602.02	-160.78	157.93	3586.76	3539.80	-164.58	472.05	-44.18	320.25	27.02	12.14	PASS	
3713.00†	3701.53	-167.86	164.88	3685.99	3636.90	-171.71	491.20	-44.19	332.67	27.81	12.25	PASS	
3813.00†	3801.04	-174.94	171.84	3785.21	3734.00	-178.85	510.34	-44.21	345.10	28.60	12.35	PASS	
3913.00†	3900.54	-182.02	178.79	3884.44	3831.09	-185.99	529.49	-44.22	357.53	29.39	12.44	PASS	
4013.00†	4000.05	-189.10	185.75	3983.66	3928.19	-193.12	548.64	-44.23	369.96	30.18	12.53	PASS	
4113.00†	4099.55	-196.18	192.70	4082.88	4025.29	-200.26	567.79	-44.25	382.39	30.97	12.61	PASS	
4213.00†	4199.06	-203.27	199.66	4182.11	4122.39	-207.39	586.93	-44.26	394.82	31.77	12.69	PASS	
4313.00†	4298.57	-210.35	206.61	4281.33	4219.48	-214.53	606.08	-44.27	407.24	32.57	12.76	PASS	
4413.00†	4398.07	-217.43	213.57	4380.56	4316.58	-221.67	625.23	-44.28	419.67	33.37	12.83	PASS	
4513.00†	4497.58	-224.51	220.52	4479.78	4413.68	-228.80	644.38	-44.29	432.10	34.17	12.89	PASS	
4613.00†	4597.09	-231.59	227.48	4579.01	4510.78	-235.94	663.52	-44.30	444.53	34.97	12.95	PASS	
4713.00†	4696.59	-238.67	234.43	4678.23	4607.88	-243.08	682.67	-44.30	456.96	35.77	13.01	PASS	
4813.00†	4796.10	-245.75	241.39	4777.46	4704.97	-250.21	701.82	-44.31	469.38	36.58	13.07	PASS	
4913.00†	4895.60	-252.83	248.34	4876.68	4802.07	-257.35	720.97	-44.32	481.81	37.38	13.12	PASS	
5013.00†	4995.11	-259.91	255.30	4975.91	4899.17	-264.48	740.11	-44.33	494.24	38.19	13.17	PASS	
5113.00†	5094.62	-266.99	262.25	5075.13	4996.27	-271.62	759.26	-44.33	506.67	39.00	13.21	PASS	
5213.00†	5194.12	-274.07	269.21	5174.36	5093.36	-278.76	778.41	-44.34	519.10	39.80	13.26	PASS	
5313.00†	5293.63	-281.15	276.16	5273.58	5190.46	-285.89	797.56	-44.35	531.53	40.61	13.30	PASS	
5413.00†	5393.14	-288.23	283.12	5372.81	5287.56	-293.03	816.70	-44.35	543.95	41.42	13.34	PASS	
5513.00†	5492.64	-295.31	290.07	5472.03	5384.66	-300.16	835.85	-44.36	556.38	42.23	13.38	PASS	
5613.00†	5592.15	-302.39	297.03	5571.25	5481.76	-307.30	855.00	-44.36	568.81	43.04	13.42	PASS	
5713.00†	5691.65	-309.47	303.98	5670.48	5578.85	-314.44	874.15	-44.37	581.24	43.85	13.46	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
5813.00†	5791.16	-316.56	310.94	5769.70	5675.95	-321.57	893.30	-44.37	593.67	44.66	13.49	PASS
5913.00†	5890.67	-323.64	317.89	5868.93	5773.05	-328.71	912.44	-44.38	606.10	45.48	13.52	PASS
6013.00†	5990.17	-330.72	324.85	5968.15	5870.15	-335.84	931.59	-44.38	618.52	46.29	13.55	PASS
6113.00†	6089.68	-337.80	331.80	6067.38	5967.24	-342.98	950.74	-44.39	630.95	47.10	13.58	PASS
6213.00†	6189.19	-344.88	338.76	6166.60	6064.34	-350.12	969.89	-44.39	643.38	47.92	13.61	PASS
6313.00†	6288.69	-351.96	345.71	6265.83	6161.44	-357.25	989.03	-44.40	655.81	48.73	13.64	PASS
6413.00†	6388.20	-359.04	352.66	6365.05	6258.54	-364.39	1008.18	-44.40	668.24	49.54	13.67	PASS
6513.00†	6487.70	-366.12	359.62	6464.28	6355.64	-371.52	1027.33	-44.40	680.67	50.36	13.69	PASS
6613.00†	6587.21	-373.20	366.57	6563.50	6452.73	-378.66	1046.48	-44.41	693.09	51.17	13.72	PASS
6713.00†	6686.72	-380.28	373.53	6662.73	6549.83	-385.80	1065.62	-44.41	705.52	51.99	13.74	PASS
6813.00†	6786.22	-387.36	380.48	6761.95	6646.93	-392.93	1084.77	-44.41	717.95	52.81	13.77	PASS
6913.00†	6885.73	-394.44	387.44	6861.18	6744.03	-400.07	1103.92	-44.42	730.38	53.62	13.79	PASS
7013.00†	6985.24	-401.52	394.39	6961.78	6842.59	-404.39	1123.32	-44.65	742.75	54.48	13.80	PASS
7043.31	7015.39	-403.67	396.50	6992.19	6872.39	-402.70	1129.14	-44.95	746.46	54.80	13.79	PASS
7113.00†	7084.87	-404.37	401.30	7061.01	6939.22	-392.96	1142.12	35.39	755.09	55.49	13.77	PASS
7213.00†	7183.58	-390.63	407.92	7157.72	7030.21	-365.66	1159.61	70.00	767.58	56.24	13.81	PASS
7313.00†	7278.41	-359.92	414.05	7252.32	7113.67	-324.26	1175.43	74.98	779.81	56.37	14.00	PASS
7413.00†	7366.50	-313.18	419.49	7345.14	7188.01	-270.62	1189.29	75.83	791.37	55.79	14.35	PASS
7513.00†	7445.17	-251.82	424.09	7436.46	7251.96	-206.61	1200.97	75.55	801.83	55.04	14.75	PASS
7613.00†	7512.03	-177.71	427.70	7526.58	7304.52	-134.12	1210.31	74.93	810.83	54.34	15.11	PASS
7713.00†	7565.04	-93.11	430.21	7615.74	7344.95	-55.05	1217.18	74.29	818.05	53.93	15.36	PASS
7813.00†	7602.60	-0.58	431.56	7704.19	7372.71	28.72	1221.49	73.75	823.23	54.04	15.42	PASS
7913.00†	7623.56	97.07	431.69	7792.13	7387.45	115.31	1223.22	73.40	826.20	54.78	15.27	PASS
7984.45	7628.00	168.33	431.03	7855.90	7390.00	179.00	1222.86	73.27	826.89	55.68	15.03	PASS
8013.00†	7628.00	196.88	430.65	7884.45	7390.00	207.55	1222.48	73.27	826.89	56.10	14.92	PASS
8113.00†	7628.00	296.87	429.30	7984.45	7390.00	307.54	1221.13	73.27	826.89	57.92	14.44	PASS
8213.00†	7628.00	396.86	427.96	8084.45	7390.00	407.53	1219.78	73.27	826.89	60.32	13.86	PASS
8313.00†	7628.00	496.85	426.61	8184.45	7390.00	507.53	1218.43	73.27	826.89	63.21	13.22	PASS
8413.00†	7628.00	596.85	425.27	8284.45	7390.00	607.52	1217.09	73.27	826.88	66.53	12.55	PASS
8513.00†	7628.00	696.84	423.92	8384.45	7390.00	707.51	1215.74	73.27	826.88	70.21	11.89	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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		
8613.00†	7628.00	796.83	422.57	8484.45	7390.00	807.50	1214.39	73.27	826.88	74.21	11.24	PASS		
8713.00†	7628.00	896.82	421.23	8584.45	7390.00	907.49	1213.04	73.27	826.88	78.47	10.62	PASS		
8813.00†	7628.00	996.81	419.88	8684.45	7390.00	1007.48	1211.69	73.27	826.88	84.35	9.88	PASS		
8913.00†	7628.00	1096.80	418.54	8784.45	7390.00	1107.47	1210.35	73.27	826.88	87.62	9.51	PASS		
9013.00†	7628.00	1196.79	417.19	8884.45	7390.00	1207.46	1209.00	73.27	826.87	92.45	9.00	PASS		
9113.00†	7628.00	1296.78	415.84	8984.45	7390.00	1307.45	1207.65	73.27	826.87	97.42	8.54	PASS		
9213.00†	7628.00	1396.77	414.50	9084.45	7390.00	1407.44	1206.30	73.27	826.87	102.50	8.12	PASS		
9313.00†	7628.00	1496.76	413.15	9184.45	7390.00	1507.44	1204.96	73.27	826.87	107.68	7.72	PASS		
9413.00†	7628.00	1596.75	411.81	9284.45	7390.00	1607.43	1203.61	73.27	826.87	112.95	7.36	PASS		
9513.00†	7628.00	1696.75	410.46	9384.45	7390.00	1707.42	1202.26	73.27	826.87	118.28	7.03	PASS		
9613.00†	7628.00	1796.74	409.11	9484.45	7390.00	1807.41	1200.91	73.27	826.87	123.69	6.72	PASS		
9713.00†	7628.00	1896.73	407.77	9584.45	7390.00	1907.40	1199.57	73.27	826.86	129.15	6.43	PASS		
9813.00†	7628.00	1996.72	406.42	9684.45	7390.00	2007.39	1198.22	73.27	826.86	134.66	6.17	PASS		
9913.00†	7628.00	2096.71	405.07	9784.45	7390.00	2107.38	1196.87	73.27	826.86	140.21	5.92	PASS		
10013.00†	7628.00	2196.70	403.73	9884.45	7390.00	2207.37	1195.52	73.27	826.86	145.80	5.69	PASS		
10113.00†	7628.00	2296.69	402.38	9984.45	7390.00	2307.36	1194.18	73.27	826.86	151.42	5.48	PASS		
10213.00†	7628.00	2396.68	401.04	10084.45	7390.00	2407.35	1192.83	73.27	826.86	157.08	5.28	PASS		
10313.00†	7628.00	2496.67	399.69	10184.45	7390.00	2507.34	1191.48	73.27	826.85	162.76	5.10	PASS		
10413.00†	7628.00	2596.66	398.34	10284.45	7390.00	2607.34	1190.13	73.27	826.85	168.47	4.92	PASS		
10513.00†	7628.00	2696.66	397.00	10384.45	7390.00	2707.33	1188.79	73.27	826.85	174.19	4.76	PASS		
10613.00†	7628.00	2796.65	395.65	10484.45	7390.00	2807.32	1187.44	73.27	826.85	179.94	4.61	PASS		
10713.00†	7628.00	2896.64	394.31	10584.45	7390.00	2907.31	1186.09	73.27	826.85	185.71	4.47	PASS		
10813.00†	7628.00	2996.63	392.96	10684.45	7390.00	3007.30	1184.74	73.27	826.85	191.49	4.33	PASS		
10913.00†	7628.00	3096.62	391.61	10784.45	7390.00	3107.29	1183.40	73.27	826.85	197.29	4.20	PASS		
11013.00†	7628.00	3196.61	390.27	10884.45	7390.00	3207.28	1182.05	73.27	826.84	203.10	4.08	PASS		
11113.00†	7628.00	3296.60	388.92	10984.45	7390.00	3307.27	1180.70	73.27	826.84	208.93	3.97	PASS		
11213.00†	7628.00	3396.59	387.58	11084.45	7390.00	3407.26	1179.35	73.27	826.84	214.76	3.86	PASS		
11313.00†	7628.00	3496.58	386.23	11184.45	7390.00	3507.25	1178.00	73.27	826.84	220.61	3.76	PASS		
11413.00†	7628.00	3596.57	384.88	11284.45	7390.00	3607.24	1176.66	73.27	826.84	226.47	3.66	PASS		
11513.00†	7628.00	3696.56	383.54	11384.45	7390.00	3707.24	1175.31	73.27	826.84	232.33	3.57	PASS		

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
11613.00†	7628.00	3796.56	382.19	11484.45	7390.00	3807.23	1173.96	73.27	826.84	238.21	3.48	PASS	
11713.00†	7628.00	3896.55	380.85	11584.45	7390.00	3907.22	1172.61	73.27	826.83	244.09	3.39	PASS	
11813.00†	7628.00	3996.54	379.50	11684.45	7390.00	4007.21	1171.27	73.27	826.83	249.98	3.31	PASS	
11913.00†	7628.00	4096.53	378.15	11784.45	7390.00	4107.20	1169.92	73.27	826.83	255.87	3.24	PASS	
12013.00†	7628.00	4196.52	376.81	11884.45	7390.00	4207.19	1168.57	73.27	826.83	261.78	3.16	PASS	
12113.00†	7628.00	4296.51	375.46	11984.45	7390.00	4307.18	1167.22	73.27	826.83	267.68	3.09	PASS	
12213.00†	7628.00	4396.50	374.12	12084.45	7390.00	4407.17	1165.88	73.27	826.83	273.60	3.03	PASS	
12313.00†	7628.00	4496.49	372.77	12184.45	7390.00	4507.16	1164.53	73.27	826.82	279.52	2.96	PASS	
12413.00†	7628.00	4596.48	371.42	12284.45	7390.00	4607.15	1163.18	73.27	826.82	285.44	2.90	PASS	
12513.00†	7628.00	4696.47	370.08	12384.45	7390.00	4707.14	1161.83	73.27	826.82	291.37	2.84	PASS	
12613.00†	7628.00	4796.46	368.73	12484.45	7390.00	4807.14	1160.49	73.27	826.82	297.30	2.79	PASS	
12713.00†	7628.00	4896.46	367.39	12584.45	7390.00	4907.13	1159.14	73.27	826.82	303.23	2.73	PASS	
12813.00†	7628.00	4996.45	366.04	12684.45	7390.00	5007.12	1157.79	73.27	826.82	309.17	2.68	PASS	
12913.00†	7628.00	5096.44	364.69	12784.45	7390.00	5107.11	1156.44	73.27	826.82	315.12	2.63	PASS	
13013.00†	7628.00	5196.43	363.35	12884.45	7390.00	5207.10	1155.10	73.27	826.81	321.06	2.58	PASS	
13113.00†	7628.00	5296.42	362.00	12984.45	7390.00	5307.09	1153.75	73.27	826.81	327.01	2.53	PASS	
13213.00†	7628.00	5396.41	360.66	13084.45	7390.00	5407.08	1152.40	73.27	826.81	332.97	2.49	PASS	
13313.00†	7628.00	5496.40	359.31	13184.45	7390.00	5507.07	1151.05	73.27	826.81	338.92	2.44	PASS	
13413.00†	7628.00	5596.39	357.96	13284.45	7390.00	5607.06	1149.71	73.27	826.81	344.88	2.40	PASS	
13513.00†	7628.00	5696.38	356.62	13384.45	7390.00	5707.05	1148.36	73.27	826.81	350.84	2.36	PASS	
13613.00†	7628.00	5796.37	355.27	13484.45	7390.00	5807.04	1147.01	73.27	826.80	356.81	2.32	PASS	
13713.00†	7628.00	5896.37	353.93	13584.45	7390.00	5907.04	1145.66	73.27	826.80	362.77	2.28	PASS	
13813.00†	7628.00	5996.36	352.58	13684.45	7390.00	6007.03	1144.31	73.27	826.80	368.74	2.24	PASS	
13913.00†	7628.00	6096.35	351.23	13784.45	7390.00	6107.02	1142.97	73.27	826.80	374.71	2.21	PASS	
14013.00†	7628.00	6196.34	349.89	13884.45	7390.00	6207.01	1141.62	73.27	826.80	380.68	2.17	PASS	
14113.00†	7628.00	6296.33	348.54	13984.45	7390.00	6307.00	1140.27	73.27	826.80	386.66	2.14	PASS	
14213.00†	7628.00	6396.32	347.20	14084.45	7390.00	6406.99	1138.92	73.27	826.80	392.63	2.11	PASS	
14313.00†	7628.00	6496.31	345.85	14184.45	7390.00	6506.98	1137.58	73.27	826.79	398.61	2.08	PASS	
14413.00†	7628.00	6596.30	344.50	14284.45	7390.00	6606.97	1136.23	73.27	826.79	404.59	2.05	PASS	
14513.00†	7628.00	6696.29	343.16	14384.45	7390.00	6706.96	1134.88	73.27	826.79	410.57	2.02	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
14613.00†	7628.00	6796.28	341.81	14484.45	7390.00	6806.95	1133.53	73.27	826.79	416.55	1.99	PASS	
14713.00†	7628.00	6896.27	340.47	14584.45	7390.00	6906.94	1132.19	73.27	826.79	422.54	1.96	PASS	
14813.00†	7628.00	6996.27	339.12	14684.45	7390.00	7006.94	1130.84	73.27	826.79	428.52	1.93	PASS	
14913.00†	7628.00	7096.26	337.77	14784.45	7390.00	7106.93	1129.49	73.27	826.78	434.51	1.90	PASS	
15013.00†	7628.00	7196.25	336.43	14884.45	7390.00	7206.92	1128.14	73.27	826.78	440.49	1.88	PASS	
15113.00†	7628.00	7296.24	335.08	14984.45	7390.00	7306.91	1126.80	73.27	826.78	446.48	1.85	PASS	
15213.00†	7628.00	7396.23	333.74	15084.45	7390.00	7406.90	1125.45	73.27	826.78	452.47	1.83	PASS	
15313.00†	7628.00	7496.22	332.39	15184.45	7390.00	7506.89	1124.10	73.27	826.78	458.47	1.80	PASS	
15413.00†	7628.00	7596.21	331.04	15284.45	7390.00	7606.88	1122.75	73.27	826.78	464.46	1.78	PASS	
15513.00†	7628.00	7696.20	329.70	15384.45	7390.00	7706.87	1121.41	73.27	826.78	470.45	1.76	PASS	
15613.00†	7628.00	7796.19	328.35	15484.45	7390.00	7806.86	1120.06	73.27	826.77	476.45	1.74	PASS	
15713.00†	7628.00	7896.18	327.01	15584.45	7390.00	7906.85	1118.71	73.27	826.77	482.44	1.71	PASS	
15813.00†	7628.00	7996.17	325.66	15684.45	7390.00	8006.84	1117.36	73.27	826.77	488.44	1.69	PASS	
15913.00†	7628.00	8096.17	324.31	15784.45	7390.00	8106.84	1116.02	73.27	826.77	494.43	1.67	PASS	
16013.00†	7628.00	8196.16	322.97	15884.45	7390.00	8206.83	1114.67	73.27	826.77	500.43	1.65	PASS	
16113.00†	7628.00	8296.15	321.62	15984.45	7390.00	8306.82	1113.32	73.27	826.77	506.43	1.63	PASS	
16213.00†	7628.00	8396.14	320.28	16084.45	7390.00	8406.81	1111.97	73.27	826.77	512.43	1.61	PASS	
16313.00†	7628.00	8496.13	318.93	16184.45	7390.00	8506.80	1110.62	73.27	826.76	518.43	1.60	PASS	
16413.00†	7628.00	8596.12	317.58	16284.45	7390.00	8606.79	1109.28	73.27	826.76	524.43	1.58	PASS	
16513.00†	7628.00	8696.11	316.24	16384.45	7390.00	8706.78	1107.93	73.27	826.76	530.43	1.56	PASS	
16613.00†	7628.00	8796.10	314.89	16484.45	7390.00	8806.77	1106.58	73.27	826.76	536.44	1.54	PASS	
16713.00†	7628.00	8896.09	313.55	16584.45	7390.00	8906.76	1105.23	73.27	826.76	542.44	1.52	PASS	
16813.00†	7628.00	8996.08	312.20	16684.45	7390.00	9006.75	1103.89	73.27	826.76	548.44	1.51	PASS	
16913.00†	7628.00	9096.08	310.85	16784.45	7390.00	9106.74	1102.54	73.27	826.75	554.45	1.49	PASS	
17013.00†	7628.00	9196.07	309.51	16884.45	7390.00	9206.74	1101.19	73.27	826.75	560.45	1.48	PASS	
17113.00†	7628.00	9296.06	308.16	16984.45	7390.00	9306.73	1099.84	73.27	826.75	566.46	1.46	PASS	
17213.00†	7628.00	9396.05	306.82	17084.45	7390.00	9406.72	1098.50	73.27	826.75	572.47	1.44	PASS	
17313.00†	7628.00	9496.04	305.47	17184.45	7390.00	9506.71	1097.15	73.27	826.75	578.47	1.43	PASS	
17413.00†	7628.00	9596.03	304.12	17284.45	7390.00	9606.70	1095.80	73.27	826.75	584.48	1.41	PASS	
17513.00†	7628.00	9696.02	302.78	17384.45	7390.00	9706.69	1094.45	73.27	826.75	590.49	1.40	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
17613.00†	7628.00	9796.01	301.43	17484.45	7390.00	9806.68	1093.11	73.27	826.74	596.50	1.39	PASS
17713.00†	7628.00	9896.00	300.09	17584.45	7390.00	9906.67	1091.76	73.27	826.74	602.51	1.37	PASS
17786.94	7628.00	9969.94	299.09	17645.62	7390.00	9967.83	1090.93	73.27	826.84	607.28	1.36	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	0.10	18.29	-10.95	47.93
8.5in Open Hole	1800.00	17645.62	15845.62	1791.34	7390.00	-10.95	47.93	3038.25	341.66

## 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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980'FNL & 2080'FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	18.00	3024.81	-86.91	-1.65	3026.07	25.40	122.97	PASS
113.00†	113.00	0.00	0.00	82.00	113.00	3024.81	-86.91	-1.65	3026.06	51.88	59.18	PASS
213.00†	213.00	0.00	0.00	182.00	213.00	3024.81	-86.91	-1.65	3026.06	54.23	56.58	PASS
313.00†	313.00	0.00	0.00	282.00	313.00	3024.81	-86.91	-1.65	3026.06	56.58	54.20	PASS
413.00†	413.00	0.00	0.00	382.00	413.00	3024.81	-86.91	-1.65	3026.06	58.93	52.00	PASS
513.00†	513.00	0.00	0.00	482.00	513.00	3024.81	-86.91	-1.65	3026.06	61.29	49.98	PASS
613.00†	613.00	0.00	0.00	582.00	613.00	3024.81	-86.91	-1.65	3026.06	63.65	48.10	PASS
713.00†	713.00	0.00	0.00	682.00	713.00	3024.81	-86.91	-1.65	3026.06	66.02	46.36	PASS
813.00†	813.00	0.00	0.00	782.00	813.00	3024.81	-86.91	-1.65	3026.06	68.39	44.73	PASS
913.00†	913.00	0.00	0.00	882.00	913.00	3024.81	-86.91	-1.65	3026.06	70.76	43.22	PASS
1013.00†	1013.00	0.00	0.00	982.00	1013.00	3024.81	-86.91	-1.65	3026.06	73.14	41.80	PASS
1113.00†	1113.00	0.00	0.00	1082.00	1113.00	3024.81	-86.91	-1.65	3026.06	75.52	40.47	PASS
1200.00	1200.00	0.00	0.00	1169.00	1200.00	3024.81	-86.91	-1.65	3026.06	77.60	39.37	PASS
1213.00†	1213.00	-0.02	0.02	1182.00	1213.00	3024.81	-86.91	-137.16	3026.08	77.91	39.22	PASS
1313.00†	1312.97	-1.59	1.56	1281.97	1312.97	3024.81	-86.91	-137.17	3027.70	80.30	38.05	PASS
1413.00†	1412.80	-5.65	5.55	1381.80	1412.80	3024.81	-86.91	-137.18	3031.87	82.73	36.98	PASS
1484.80	1484.33	-10.09	9.91	1453.33	1484.33	3024.81	-86.91	-137.20	3036.45	84.46	36.27	PASS
1513.00†	1512.39	-12.09	11.87	1481.39	1512.39	3024.81	-86.91	-137.24	3038.51	85.14	36.00	PASS
1613.00†	1611.90	-19.17	18.83	1580.90	1611.90	3024.81	-86.91	-137.36	3045.82	87.36	35.10	PASS
1713.00†	1711.40	-26.25	25.78	1680.40	1711.40	3024.81	-86.91	-137.49	3053.14	89.76	34.23	PASS
1813.00†	1810.91	-33.33	32.74	1779.91	1810.91	3024.81	-86.91	-137.61	3060.48	92.11	33.42	PASS
1913.00†	1910.42	-40.41	39.69	1879.42	1910.42	3024.81	-86.91	-137.74	3067.84	94.52	32.64	PASS
2013.00†	2009.92	-47.49	46.65	1978.92	2009.92	3024.81	-86.91	-137.86	3075.21	96.94	31.90	PASS
2113.00†	2109.43	-54.57	53.60	2078.43	2109.43	3024.81	-86.91	-137.99	3082.59	99.36	31.19	PASS
2213.00†	2208.94	-61.65	60.56	2177.94	2208.94	3024.81	-86.91	-138.11	3089.99	101.79	30.51	PASS
2313.00†	2308.44	-68.73	67.51	2277.44	2308.44	3024.81	-86.91	-138.23	3097.40	104.22	29.87	PASS
2413.00†	2407.95	-75.81	74.47	2376.95	2407.95	3024.81	-86.91	-138.35	3104.82	106.65	29.25	PASS
2513.00†	2507.45	-82.89	81.42	2476.45	2507.45	3024.81	-86.91	-138.47	3112.26	109.09	28.67	PASS
2613.00†	2606.96	-89.97	88.38	2575.96	2606.96	3024.81	-86.91	-138.59	3119.72	111.54	28.10	PASS
2713.00†	2706.47	-97.06	95.33	2675.47	2706.47	3024.81	-86.91	-138.71	3127.18	113.99	27.56	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
2813.00†	2805.97	-104.14	102.29	2774.97	2805.97	3024.81	-86.91	-138.83	3134.66	116.45	27.04	PASS
2913.00†	2905.48	-111.22	109.24	2874.48	2905.48	3024.81	-86.91	-138.95	3142.16	118.91	26.54	PASS
3013.00†	3004.99	-118.30	116.20	2973.99	3004.99	3024.81	-86.91	-139.07	3149.67	121.37	26.06	PASS
3113.00†	3104.49	-125.38	123.15	3073.49	3104.49	3024.81	-86.91	-139.19	3157.19	123.84	25.60	PASS
3213.00†	3204.00	-132.46	130.11	3173.00	3204.00	3024.81	-86.91	-139.31	3164.72	126.32	25.16	PASS
3313.00†	3303.50	-139.54	137.06	3272.50	3303.50	3024.81	-86.91	-139.42	3172.27	128.80	24.73	PASS
3413.00†	3403.01	-146.62	144.02	3372.01	3403.01	3024.81	-86.91	-139.54	3179.83	131.28	24.32	PASS
3513.00†	3502.52	-153.70	150.97	3471.52	3502.52	3024.81	-86.91	-139.65	3187.40	133.77	23.92	PASS
3613.00†	3602.02	-160.78	157.93	3571.02	3602.02	3024.81	-86.91	-139.77	3194.99	136.26	23.54	PASS
3713.00†	3701.53	-167.86	164.88	3670.53	3701.53	3024.81	-86.91	-139.88	3202.59	138.75	23.17	PASS
3813.00†	3801.04	-174.94	171.84	3770.04	3801.04	3024.81	-86.91	-140.00	3210.20	141.25	22.81	PASS
3913.00†	3900.54	-182.02	178.79	3869.54	3900.54	3024.81	-86.91	-140.11	3217.82	143.75	22.47	PASS
4013.00†	4000.05	-189.10	185.75	3969.05	4000.05	3024.81	-86.91	-140.22	3225.46	146.26	22.13	PASS
4113.00†	4099.55	-196.18	192.70	4068.55	4099.55	3024.81	-86.91	-140.34	3233.11	148.77	21.81	PASS
4213.00†	4199.06	-203.27	199.66	4168.06	4199.06	3024.81	-86.91	-140.45	3240.77	151.28	21.50	PASS
4313.00†	4298.57	-210.35	206.61	4267.57	4298.57	3024.81	-86.91	-140.56	3248.45	153.80	21.19	PASS
4413.00†	4398.07	-217.43	213.57	4367.07	4398.07	3024.81	-86.91	-140.67	3256.13	156.32	20.90	PASS
4513.00†	4497.58	-224.51	220.52	4466.58	4497.58	3024.81	-86.91	-140.78	3263.83	158.84	20.61	PASS
4613.00†	4597.09	-231.59	227.48	4566.09	4597.09	3024.81	-86.91	-140.89	3271.54	161.37	20.34	PASS
4713.00†	4696.59	-238.67	234.43	4665.59	4696.59	3024.81	-86.91	-141.00	3279.26	163.90	20.07	PASS
4813.00†	4796.10	-245.75	241.39	4765.10	4796.10	3024.81	-86.91	-141.11	3287.00	166.43	19.81	PASS
4913.00†	4895.60	-252.83	248.34	4864.60	4895.60	3024.81	-86.91	-141.22	3294.74	168.97	19.56	PASS
5013.00†	4995.11	-259.91	255.30	4964.11	4995.11	3024.81	-86.91	-141.32	3302.50	171.51	19.31	PASS
5113.00†	5094.62	-266.99	262.25	5063.62	5094.62	3024.81	-86.91	-141.43	3310.27	174.05	19.08	PASS
5213.00†	5194.12	-274.07	269.21	5163.12	5194.12	3024.81	-86.91	-141.54	3318.05	176.60	18.84	PASS
5313.00†	5293.63	-281.15	276.16	5262.63	5293.63	3024.81	-86.91	-141.64	3325.84	179.14	18.62	PASS
5413.00†	5393.14	-288.23	283.12	5362.14	5393.14	3024.81	-86.91	-141.75	3333.64	181.69	18.40	PASS
5513.00†	5492.64	-295.31	290.07	5461.64	5492.64	3024.81	-86.91	-141.85	3341.46	184.25	18.19	PASS
5613.00†	5592.15	-302.39	297.03	5561.15	5592.15	3024.81	-86.91	-141.96	3349.28	186.80	17.98	PASS
5713.00†	5691.65	-309.47	303.98	5660.65	5691.65	3024.81	-86.91	-142.06	3357.12	189.36	17.78	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
5813.00†	5791.16	-316.56	310.94	5760.16	5791.16	3024.81	-86.91	-142.17	3364.97	191.92	17.58	PASS
5913.00†	5890.67	-323.64	317.89	5859.67	5890.67	3024.81	-86.91	-142.27	3372.83	194.48	17.39	PASS
6013.00†	5990.17	-330.72	324.85	5959.17	5990.17	3024.81	-86.91	-142.37	3380.70	197.05	17.20	PASS
6113.00†	6089.68	-337.80	331.80	6058.68	6089.68	3024.81	-86.91	-142.47	3388.58	199.61	17.02	PASS
6213.00†	6189.19	-344.88	338.76	6158.19	6189.19	3024.81	-86.91	-142.58	3396.47	202.18	16.84	PASS
6313.00†	6288.69	-351.96	345.71	6257.69	6288.69	3024.81	-86.91	-142.68	3404.37	204.75	16.67	PASS
6413.00†	6388.20	-359.04	352.66	6357.20	6388.20	3024.81	-86.91	-142.78	3412.28	207.33	16.50	PASS
6513.00†	6487.70	-366.12	359.62	6456.70	6487.70	3024.81	-86.91	-142.88	3420.21	209.90	16.33	PASS
6613.00†	6587.21	-373.20	366.57	6556.21	6587.21	3024.81	-86.91	-142.98	3428.14	212.48	16.17	PASS
6713.00†	6686.72	-380.28	373.53	6655.72	6686.72	3024.81	-86.91	-143.08	3436.08	215.06	16.02	PASS
6813.00†	6786.22	-387.36	380.48	6755.22	6786.22	3024.81	-86.91	-143.18	3444.04	217.64	15.86	PASS
6913.00†	6885.73	-394.44	387.44	6854.73	6885.73	3024.81	-86.91	-143.28	3452.00	220.22	15.71	PASS
7013.00†	6985.24	-401.52	394.39	6954.24	6985.24	3024.81	-86.91	-143.37	3459.98	222.81	15.56	PASS
7043.31	7015.39	-403.67	396.50	6984.39	7015.39	3024.81	-86.91	-143.40	3462.39	223.59	15.52	PASS
7113.00†	7084.87	-404.37	401.30	7053.87	7084.87	3024.81	-86.91	-61.46	3463.76	225.43	15.40	PASS
7213.00†	7183.58	-390.63	407.92	7152.58	7183.58	3024.81	-86.91	-24.84	3451.10	228.53	15.13	PASS
7313.00†	7278.41	-359.92	414.05	7247.41	7278.41	3024.81	-86.91	-18.30	3421.60	232.19	14.77	PASS
7413.00†	7366.50	-313.18	419.49	7335.50	7366.50	3024.81	-86.91	-16.49	3376.18	235.32	14.38	PASS
7513.00†	7445.17	-251.82	424.09	7414.17	7445.17	3024.81	-86.91	-16.64	3316.24	238.02	13.96	PASS
7613.00†	7512.03	-177.71	427.70	7481.03	7512.03	3024.81	-86.91	-18.41	3243.61	240.26	13.53	PASS
7713.00†	7565.04	-93.11	430.21	7534.04	7565.04	3024.81	-86.91	-22.48	3160.51	242.01	13.09	PASS
7813.00†	7602.60	-0.58	431.56	7571.60	7602.60	3024.81	-86.91	-31.38	3069.49	243.25	12.64	PASS
7913.00†	7623.56	97.07	431.69	7592.56	7623.56	3024.81	-86.91	-54.22	2973.32	244.00	12.21	PASS
7984.45	7628.00	168.33	431.03	7597.00	7628.00	3024.81	-86.91	-90.00	2903.06	244.25	11.91	PASS
8013.00†	7628.00	196.88	430.65	7597.00	7628.00	3024.81	-86.91	-90.00	2874.90	244.31	11.79	PASS
8113.00†	7628.00	296.87	429.30	7597.00	7628.00	3024.81	-86.91	-90.00	2776.35	244.52	11.38	PASS
8213.00†	7628.00	396.86	427.96	7597.00	7628.00	3024.81	-86.91	-90.00	2677.91	244.75	10.96	PASS
8313.00†	7628.00	496.85	426.61	7597.00	7628.00	3024.81	-86.91	-90.00	2579.59	245.00	10.55	PASS
8413.00†	7628.00	596.85	425.27	7597.00	7628.00	3024.81	-86.91	-90.00	2481.40	245.29	10.14	PASS
8513.00†	7628.00	696.84	423.92	7597.00	7628.00	3024.81	-86.91	-90.00	2383.36	245.61	9.72	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
8613.00†	7628.00	796.83	422.57	7597.00	7628.00	3024.81	-86.91	-90.00	2285.50	245.97	9.31	PASS	
8713.00†	7628.00	896.82	421.23	7597.00	7628.00	3024.81	-86.91	-90.00	2187.82	246.38	8.90	PASS	
8813.00†	7628.00	996.81	419.88	7597.00	7628.00	3024.81	-86.91	-90.00	2090.37	246.84	8.49	PASS	
8913.00†	7628.00	1096.80	418.54	7597.00	7628.00	3024.81	-86.91	-90.00	1993.16	247.36	8.07	PASS	
9013.00†	7628.00	1196.79	417.19	7597.00	7628.00	3024.81	-86.91	-90.00	1896.25	247.95	7.66	PASS	
9113.00†	7628.00	1296.78	415.84	7597.00	7628.00	3024.81	-86.91	-90.00	1799.68	248.63	7.25	PASS	
9213.00†	7628.00	1396.77	414.50	7597.00	7628.00	3024.81	-86.91	-90.00	1703.50	249.41	6.84	PASS	
9313.00†	7628.00	1496.76	413.15	7597.00	7628.00	3024.81	-86.91	-90.00	1607.79	250.31	6.43	PASS	
9413.00†	7628.00	1596.75	411.81	7597.00	7628.00	3024.81	-86.91	-90.00	1512.63	251.36	6.03	PASS	
9513.00†	7628.00	1696.75	410.46	7597.00	7628.00	3024.81	-86.91	-90.00	1418.14	252.59	5.62	PASS	
9613.00†	7628.00	1796.74	409.11	7597.00	7628.00	3024.81	-86.91	-90.00	1324.46	254.04	5.22	PASS	
9713.00†	7628.00	1896.73	407.77	7597.00	7628.00	3024.81	-86.91	-90.00	1231.78	255.75	4.82	PASS	
9813.00†	7628.00	1996.72	406.42	7597.00	7628.00	3024.81	-86.91	-90.00	1140.33	257.80	4.43	PASS	
9913.00†	7628.00	2096.71	405.07	7597.00	7628.00	3024.81	-86.91	-90.00	1050.44	260.25	4.04	PASS	
10013.00†	7628.00	2196.70	403.73	7597.00	7628.00	3024.81	-86.91	-90.00	962.55	263.20	3.66	PASS	
10113.00†	7628.00	2296.69	402.38	7597.00	7628.00	3024.81	-86.91	-90.00	877.25	266.75	3.29	PASS	
10213.00†	7628.00	2396.68	401.04	7597.00	7628.00	3024.81	-86.91	-90.00	795.38	271.03	2.94	PASS	
10313.00†	7628.00	2496.67	399.69	7597.00	7628.00	3024.81	-86.91	-90.00	718.13	276.13	2.60	PASS	
10413.00†	7628.00	2596.66	398.34	7597.00	7628.00	3024.81	-86.91	-90.00	647.13	282.06	2.30	PASS	
10513.00†	7628.00	2696.66	397.00	7597.00	7628.00	3024.81	-86.91	-90.00	584.68	288.64	2.03	PASS	
10613.00†	7628.00	2796.65	395.65	7597.00	7628.00	3024.81	-86.91	-90.00	533.78	295.30	1.81	PASS	
10713.00†	7628.00	2896.64	394.31	7597.00	7628.00	3024.81	-86.91	-90.00	497.99	300.92	1.66	PASS	
10813.00†	7628.00	2996.63	392.96	7597.00	7628.00	3024.81	-86.91	-90.00	480.69	304.03	1.58	PASS	
10847.38†	7628.00	3031.00	392.50	7596.63	7627.63	3024.81	-86.91	-89.96	479.44	304.29	1.58	PASS	
10848.49†	7628.00	3032.12	392.48	7597.00	7628.00	3024.81	-86.91	-90.00	479.44	304.31	1.58	PASS	
10913.00†	7628.00	3096.62	391.61	7597.00	7628.00	3024.81	-86.91	-90.00	483.88	303.61	1.59	PASS	
11013.00†	7628.00	3196.61	390.27	7597.00	7628.00	3024.81	-86.91	-90.00	507.16	299.84	1.69	PASS	
11113.00†	7628.00	3296.60	388.92	7597.00	7628.00	3024.81	-86.91	-90.00	547.98	293.98	1.87	PASS	
11213.00†	7628.00	3396.59	387.58	7597.00	7628.00	3024.81	-86.91	-90.00	602.79	287.44	2.10	PASS	
11313.00†	7628.00	3496.58	386.23	7597.00	7628.00	3024.81	-86.91	-90.00	668.15	281.16	2.38	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
11413.00†	7628.00	3596.57	384.88	7597.00	7628.00	3024.81	-86.91	-90.00	741.28	275.60	2.69	PASS
11513.00†	7628.00	3696.56	383.54	7597.00	7628.00	3024.81	-86.91	-90.00	820.10	270.86	3.03	PASS
11613.00†	7628.00	3796.56	382.19	7597.00	7628.00	3024.81	-86.91	-90.00	903.13	266.90	3.39	PASS
11713.00†	7628.00	3896.55	380.85	7597.00	7628.00	3024.81	-86.91	-90.00	989.30	263.63	3.76	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	8.200ft	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	1843.64	-61.44	1843.64	-61.44
8.625in Casing Surface	0.00	1561.00	1561.00	18.00	1579.00	1843.64	-61.44	1843.64	-61.44
7.875in Open Hole	1561.00	8292.00	6731.00	1579.00	8310.00	1843.64	-61.44	1843.64	-61.44
4.5in Casing Production	0.00	8292.00	8292.00	18.00	8310.00	1843.64	-61.44	1843.64	-61.44

## 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



**Clearance Report**  
WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

**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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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 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 [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	AC Stat	
13.00	13.00	0.00	0.00	-13.00	29.00	4015.51	1000.20	13.99	4138.23	25.40	168.18	PA5	
113.00†	113.00	0.00	0.00	71.00	113.00	4015.51	1000.20	13.99	4138.20	51.62	81.35	PA5	
213.00†	213.00	0.00	0.00	171.00	213.00	4015.51	1000.20	13.99	4138.20	53.79	77.77	PA5	
313.00†	313.00	0.00	0.00	271.00	313.00	4015.51	1000.20	13.99	4138.20	56.14	74.49	PA5	
413.00†	413.00	0.00	0.00	371.00	413.00	4015.51	1000.20	13.99	4138.20	58.48	71.47	PA5	
513.00†	513.00	0.00	0.00	471.00	513.00	4015.51	1000.20	13.99	4138.20	60.84	68.68	PA5	
613.00†	613.00	0.00	0.00	571.00	613.00	4015.51	1000.20	13.99	4138.20	63.19	66.09	PA5	
713.00†	713.00	0.00	0.00	671.00	713.00	4015.51	1000.20	13.99	4138.20	65.55	63.69	PA5	
813.00†	813.00	0.00	0.00	771.00	813.00	4015.51	1000.20	13.99	4138.20	67.92	61.45	PA5	
913.00†	913.00	0.00	0.00	871.00	913.00	4015.51	1000.20	13.99	4138.20	70.29	59.37	PA5	
1013.00†	1013.00	0.00	0.00	971.00	1013.00	4015.51	1000.20	13.99	4138.20	72.66	57.41	PA5	
1113.00†	1113.00	0.00	0.00	1071.00	1113.00	4015.51	1000.20	13.99	4138.20	75.03	55.58	PA5	
1200.00	1200.00	0.00	0.00	1158.00	1200.00	4015.51	1000.20	13.99	4138.20	77.10	54.08	PA5	
1213.00†	1213.00	-0.02	0.02	1171.00	1213.00	4015.51	1000.20	-121.53	4138.22	77.41	53.86	PA5	
1313.00†	1312.97	-1.59	1.56	1270.97	1312.97	4015.51	1000.20	-121.53	4139.37	79.80	52.25	PA5	
1413.00†	1412.80	-5.65	5.55	1370.80	1412.80	4015.51	1000.20	-121.55	4142.35	82.20	50.75	PA5	
1484.80	1484.33	-10.09	9.91	1442.33	1484.33	4015.51	1000.20	-121.57	4145.62	83.92	49.74	PA5	
1513.00†	1512.39	-12.09	11.87	1470.39	1512.39	4015.51	1000.20	-121.60	4147.09	84.60	49.36	PA5	
1613.00†	1611.90	-19.17	18.83	1569.90	1611.90	4015.51	1000.20	-121.72	4152.32	86.99	48.05	PA5	
1713.00†	1711.40	-26.25	25.78	1669.40	1711.40	4015.51	1000.20	-121.83	4157.56	89.38	46.82	PA5	
1813.00†	1810.91	-33.33	32.74	1768.91	1810.91	4015.51	1000.20	-121.95	4162.82	91.74	45.64	PA5	
1913.00†	1910.42	-40.41	39.69	1868.42	1910.42	4015.51	1000.20	-122.06	4168.10	94.15	44.52	PA5	
2013.00†	2009.92	-47.49	46.65	1967.92	2009.92	4015.51	1000.20	-122.18	4173.40	96.56	43.46	PA5	
2113.00†	2109.43	-54.57	53.60	2067.43	2109.43	4015.51	1000.20	-122.29	4178.71	98.99	42.44	PA5	
2213.00†	2208.94	-61.65	60.56	2166.94	2208.94	4015.51	1000.20	-122.41	4184.04	101.41	41.47	PA5	
2313.00†	2308.44	-68.73	67.51	2266.44	2308.44	4015.51	1000.20	-122.52	4189.39	103.85	40.55	PA5	
2413.00†	2407.95	-75.81	74.47	2365.95	2407.95	4015.51	1000.20	-122.64	4194.75	106.29	39.66	PA5	
2513.00†	2507.45	-82.89	81.42	2465.45	2507.45	4015.51	1000.20	-122.75	4200.13	108.73	38.82	PA5	
2613.00†	2606.96	-89.97	88.38	2564.96	2606.96	4015.51	1000.20	-122.86	4205.52	111.18	38.01	PA5	
2713.00†	2706.47	-97.06	95.33	2664.47	2706.47	4015.51	1000.20	-122.98	4210.94	113.64	37.23	PA5	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#01 EX. BOX ELDER FARMS #41-20 (990'FNL & 990'FEL, SEC.20,OG,PA, 8145) Well: BOX ELDER FARMS #41-20 Threshold Value=1.00 † = interpolated/extrapolated sts												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	AC Stat
2813.00†	2805.97	-104.14	102.29	2763.97	2805.97	4015.51	1000.20	-123.09	4216.36	116.10	36.48	PA5
2913.00†	2905.48	-111.22	109.24	2863.48	2905.48	4015.51	1000.20	-123.20	4221.81	118.57	35.76	PA5
3013.00†	3004.99	-118.30	116.20	2962.99	3004.99	4015.51	1000.20	-123.31	4227.27	121.04	35.08	PA5
3113.00†	3104.49	-125.38	123.15	3062.49	3104.49	4015.51	1000.20	-123.42	4232.75	123.52	34.41	PA5
3213.00†	3204.00	-132.46	130.11	3162.00	3204.00	4015.51	1000.20	-123.54	4238.24	126.01	33.78	PA5
3313.00†	3303.50	-139.54	137.06	3261.50	3303.50	4015.51	1000.20	-123.65	4243.75	128.50	33.16	PA5
3413.00†	3403.01	-146.62	144.02	3361.01	3403.01	4015.51	1000.20	-123.76	4249.28	130.99	32.57	PA5
3513.00†	3502.52	-153.70	150.97	3460.52	3502.52	4015.51	1000.20	-123.87	4254.82	133.49	32.00	PA5
3613.00†	3602.02	-160.78	157.93	3560.02	3602.02	4015.51	1000.20	-123.98	4260.38	135.99	31.45	PA5
3713.00†	3701.53	-167.86	164.88	3659.53	3701.53	4015.51	1000.20	-124.09	4265.95	138.50	30.92	PA5
3813.00†	3801.04	-174.94	171.84	3759.04	3801.04	4015.51	1000.20	-124.20	4271.54	141.01	30.41	PA5
3913.00†	3900.54	-182.02	178.79	3858.54	3900.54	4015.51	1000.20	-124.31	4277.15	143.52	29.91	PA5
4013.00†	4000.05	-189.10	185.75	3958.05	4000.05	4015.51	1000.20	-124.42	4282.77	146.05	29.43	PA5
4113.00†	4099.55	-196.18	192.70	4057.55	4099.55	4015.51	1000.20	-124.53	4288.41	148.57	28.97	PA5
4213.00†	4199.06	-203.27	199.66	4157.06	4199.06	4015.51	1000.20	-124.64	4294.06	151.10	28.52	PA5
4313.00†	4298.57	-210.35	206.61	4256.57	4298.57	4015.51	1000.20	-124.74	4299.73	153.63	28.08	PA5
4413.00†	4398.07	-217.43	213.57	4356.07	4398.07	4015.51	1000.20	-124.85	4305.41	156.17	27.66	PA5
4513.00†	4497.58	-224.51	220.52	4455.58	4497.58	4015.51	1000.20	-124.96	4311.11	158.71	27.25	PA5
4613.00†	4597.09	-231.59	227.48	4555.09	4597.09	4015.51	1000.20	-125.07	4316.82	161.25	26.86	PA5
4713.00†	4696.59	-238.67	234.43	4654.59	4696.59	4015.51	1000.20	-125.18	4322.55	163.80	26.47	PA5
4813.00†	4796.10	-245.75	241.39	4754.10	4796.10	4015.51	1000.20	-125.28	4328.29	166.35	26.10	PA5
4913.00†	4895.60	-252.83	248.34	4853.60	4895.60	4015.51	1000.20	-125.39	4334.05	168.90	25.74	PA5
5013.00†	4995.11	-259.91	255.30	4953.11	4995.11	4015.51	1000.20	-125.50	4339.83	171.46	25.39	PA5
5113.00†	5094.62	-266.99	262.25	5052.62	5094.62	4015.51	1000.20	-125.60	4345.62	174.02	25.05	PA5
5213.00†	5194.12	-274.07	269.21	5152.12	5194.12	4015.51	1000.20	-125.71	4351.42	176.59	24.71	PA5
5313.00†	5293.63	-281.15	276.16	5251.63	5293.63	4015.51	1000.20	-125.81	4357.24	179.15	24.39	PA5
5413.00†	5393.14	-288.23	283.12	5351.14	5393.14	4015.51	1000.20	-125.92	4363.07	181.72	24.08	PA5
5513.00†	5492.64	-295.31	290.07	5450.64	5492.64	4015.51	1000.20	-126.02	4368.92	184.29	23.77	PA5
5613.00†	5592.15	-302.39	297.03	5550.15	5592.15	4015.51	1000.20	-126.13	4374.79	186.87	23.48	PA5
5713.00†	5691.65	-309.47	303.98	5649.65	5691.65	4015.51	1000.20	-126.23	4380.66	189.45	23.19	PA5

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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 str				
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	AC Stat
5813.00†	5791.16	-316.56	310.94	5749.16	5791.16	4015.51	1000.20	-126.34	4386.56	192.03	22.91	PA5
5913.00†	5890.67	-323.64	317.89	5848.67	5890.67	4015.51	1000.20	-126.44	4392.46	194.61	22.63	PA5
6013.00†	5990.17	-330.72	324.85	5948.17	5990.17	4015.51	1000.20	-126.55	4398.38	197.20	22.36	PA5
6113.00†	6089.68	-337.80	331.80	6047.68	6089.68	4015.51	1000.20	-126.65	4404.32	199.79	22.10	PA5
6213.00†	6189.19	-344.88	338.76	6147.19	6189.19	4015.51	1000.20	-126.75	4410.27	202.38	21.85	PA5
6313.00†	6288.69	-351.96	345.71	6246.69	6288.69	4015.51	1000.20	-126.85	4416.24	204.97	21.60	PA5
6413.00†	6388.20	-359.04	352.66	6346.20	6388.20	4015.51	1000.20	-126.96	4422.21	207.56	21.36	PA5
6513.00†	6487.70	-366.12	359.62	6445.70	6487.70	4015.51	1000.20	-127.06	4428.21	210.16	21.12	PA5
6613.00†	6587.21	-373.20	366.57	6545.21	6587.21	4015.51	1000.20	-127.16	4434.21	212.76	20.89	PA5
6713.00†	6686.72	-380.28	373.53	6644.72	6686.72	4015.51	1000.20	-127.26	4440.24	215.36	20.67	PA5
6813.00†	6786.22	-387.36	380.48	6744.22	6786.22	4015.51	1000.20	-127.36	4446.27	217.97	20.45	PA5
6913.00†	6885.73	-394.44	387.44	6843.73	6885.73	4015.51	1000.20	-127.47	4452.32	220.57	20.23	PA5
7013.00†	6985.24	-401.52	394.39	6943.24	6985.24	4015.51	1000.20	-127.57	4458.38	223.18	20.02	PA5
7043.31	7015.39	-403.67	396.50	6973.39	7015.39	4015.51	1000.20	-127.60	4460.22	223.97	19.96	PA5
7113.00†	7084.87	-404.37	401.30	7042.87	7084.87	4015.51	1000.20	-45.66	4460.27	225.80	19.80	PA5
7213.00†	7183.58	-390.63	407.92	7141.58	7183.58	4015.51	1000.20	-8.57	4445.77	228.69	19.48	PA5
7313.00†	7278.41	-359.92	414.05	7236.41	7278.41	4015.51	1000.20	-0.94	4414.52	231.98	19.07	PA5
7413.00†	7366.50	-313.18	419.49	7324.50	7366.50	4015.51	1000.20	2.79	4367.47	234.92	18.63	PA5
7513.00†	7445.17	-251.82	424.09	7403.17	7445.17	4015.51	1000.20	5.76	4306.05	237.44	18.17	PA5
7613.00†	7512.03	-177.71	427.70	7470.03	7512.03	4015.51	1000.20	9.19	4232.13	239.46	17.71	PA5
7713.00†	7565.04	-93.11	430.21	7523.04	7565.04	4015.51	1000.20	14.37	4147.97	240.94	17.25	PA5
7813.00†	7602.60	-0.58	431.56	7560.60	7602.60	4015.51	1000.20	24.45	4056.15	241.89	16.80	PA5
7913.00†	7623.56	97.07	431.69	7581.56	7623.56	4015.51	1000.20	50.41	3959.47	242.31	16.38	PA5
7984.45	7628.00	168.33	431.03	7586.00	7628.00	4015.51	1000.20	90.00	3889.06	242.30	16.08	PA5
8013.00†	7628.00	196.88	430.65	7586.00	7628.00	4015.51	1000.20	90.00	3860.87	242.26	15.97	PA5
8113.00†	7628.00	296.87	429.30	7586.00	7628.00	4015.51	1000.20	90.00	3762.21	242.08	15.57	PA5
8213.00†	7628.00	396.86	427.96	7586.00	7628.00	4015.51	1000.20	90.00	3663.61	241.91	15.18	PA5
8313.00†	7628.00	496.85	426.61	7586.00	7628.00	4015.51	1000.20	90.00	3565.10	241.74	14.78	PA5
8413.00†	7628.00	596.85	425.27	7586.00	7628.00	4015.51	1000.20	90.00	3466.67	241.57	14.38	PA5
8513.00†	7628.00	696.84	423.92	7586.00	7628.00	4015.51	1000.20	90.00	3368.34	241.40	13.98	PA5

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS #41-20 AWP 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 st												
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	AC Stat
8613.00†	7628.00	796.83	422.57	7586.00	7628.00	4015.51	1000.20	90.00	3270.10	241.23	13.58	PA5
8713.00†	7628.00	896.82	421.23	7586.00	7628.00	4015.51	1000.20	90.00	3171.98	241.06	13.19	PA5
8813.00†	7628.00	996.81	419.88	7586.00	7628.00	4015.51	1000.20	90.00	3073.98	240.91	12.79	PA5
8913.00†	7628.00	1096.80	418.54	7586.00	7628.00	4015.51	1000.20	90.00	2976.11	240.76	12.39	PA5
9013.00†	7628.00	1196.79	417.19	7586.00	7628.00	4015.51	1000.20	90.00	2878.38	240.62	11.99	PA5
9113.00†	7628.00	1296.78	415.84	7586.00	7628.00	4015.51	1000.20	90.00	2780.82	240.50	11.59	PA5
9213.00†	7628.00	1396.77	414.50	7586.00	7628.00	4015.51	1000.20	90.00	2683.44	240.39	11.19	PA5
9313.00†	7628.00	1496.76	413.15	7586.00	7628.00	4015.51	1000.20	90.00	2586.25	240.32	10.78	PA5
9413.00†	7628.00	1596.75	411.81	7586.00	7628.00	4015.51	1000.20	90.00	2489.29	240.27	10.38	PA5
9513.00†	7628.00	1696.75	410.46	7586.00	7628.00	4015.51	1000.20	90.00	2392.59	240.27	9.98	PA5
9613.00†	7628.00	1796.74	409.11	7586.00	7628.00	4015.51	1000.20	90.00	2296.16	240.32	9.57	PA5
9713.00†	7628.00	1896.73	407.77	7586.00	7628.00	4015.51	1000.20	90.00	2200.05	240.43	9.17	PA5
9813.00†	7628.00	1996.72	406.42	7586.00	7628.00	4015.51	1000.20	90.00	2104.30	240.63	8.76	PA5
9913.00†	7628.00	2096.71	405.07	7586.00	7628.00	4015.51	1000.20	90.00	2008.97	240.93	8.35	PA5
10013.00†	7628.00	2196.70	403.73	7586.00	7628.00	4015.51	1000.20	90.00	1914.12	241.37	7.95	PA5
10113.00†	7628.00	2296.69	402.38	7586.00	7628.00	4015.51	1000.20	90.00	1819.81	241.97	7.54	PA5
10213.00†	7628.00	2396.68	401.04	7586.00	7628.00	4015.51	1000.20	90.00	1726.15	242.77	7.12	PA5
10313.00†	7628.00	2496.67	399.69	7586.00	7628.00	4015.51	1000.20	90.00	1633.24	243.82	6.71	PA5
10413.00†	7628.00	2596.66	398.34	7586.00	7628.00	4015.51	1000.20	90.00	1541.22	245.18	6.30	PA5
10513.00†	7628.00	2696.66	397.00	7586.00	7628.00	4015.51	1000.20	90.00	1450.25	246.92	5.88	PA5
10613.00†	7628.00	2796.65	395.65	7586.00	7628.00	4015.51	1000.20	90.00	1360.55	249.12	5.47	PA5
10713.00†	7628.00	2896.64	394.31	7586.00	7628.00	4015.51	1000.20	90.00	1272.39	251.87	5.06	PA5
10813.00†	7628.00	2996.63	392.96	7586.00	7628.00	4015.51	1000.20	90.00	1186.11	255.29	4.65	PA5
10913.00†	7628.00	3096.62	391.61	7586.00	7628.00	4015.51	1000.20	90.00	1102.15	259.49	4.25	PA5
11013.00†	7628.00	3196.61	390.27	7586.00	7628.00	4015.51	1000.20	90.00	1021.09	264.60	3.86	PA5
11113.00†	7628.00	3296.60	388.92	7586.00	7628.00	4015.51	1000.20	90.00	943.66	270.75	3.49	PA5
11213.00†	7628.00	3396.59	387.58	7586.00	7628.00	4015.51	1000.20	90.00	870.84	278.02	3.14	PA5
11313.00†	7628.00	3496.58	386.23	7586.00	7628.00	4015.51	1000.20	90.00	803.89	286.46	2.81	PA5
11413.00†	7628.00	3596.57	384.88	7586.00	7628.00	4015.51	1000.20	90.00	744.39	295.93	2.52	PA5
11513.00†	7628.00	3696.56	383.54	7586.00	7628.00	4015.51	1000.20	90.00	694.26	306.07	2.27	PA5

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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 sta													
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	AC Stat	
11613.00†	7628.00	3796.56	382.19	7586.00	7628.00	4015.51	1000.20	90.00	655.65	316.18	2.08	PAS	
11713.00†	7628.00	3896.55	380.85	7586.00	7628.00	4015.51	1000.20	90.00	630.68	325.24	1.94	PAS	
11813.00†	7628.00	3996.54	379.50	7586.00	7628.00	4015.51	1000.20	90.00	620.99	332.15	1.87	PAS	
11823.58†	7628.00	4007.11	379.36	7585.47	7627.47	4015.51	1000.20	89.95	620.90	332.70	1.87	PAS	
11867.74†	7628.00	4051.27	378.76	7586.00	7628.00	4015.51	1000.20	90.00	622.47	334.70	1.86	PAS	
11913.00†	7628.00	4096.53	378.15	7586.00	7628.00	4015.51	1000.20	90.00	627.30	336.10	1.87	PAS	
12013.00†	7628.00	4196.52	376.81	7586.00	7628.00	4015.51	1000.20	90.00	649.14	336.96	1.93	PAS	
12113.00†	7628.00	4296.51	375.46	7586.00	7628.00	4015.51	1000.20	90.00	685.03	335.22	2.05	PAS	
12213.00†	7628.00	4396.50	374.12	7586.00	7628.00	4015.51	1000.20	90.00	732.90	331.70	2.21	PAS	
12313.00†	7628.00	4496.49	372.77	7586.00	7628.00	4015.51	1000.20	90.00	790.58	327.21	2.42	PAS	
12413.00†	7628.00	4596.48	371.42	7586.00	7628.00	4015.51	1000.20	90.00	856.09	322.36	2.66	PAS	
12513.00†	7628.00	4696.47	370.08	7586.00	7628.00	4015.51	1000.20	90.00	927.78	317.54	2.93	PAS	

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	91.00	91.00	29.00	120.00	2450.61	598.42	2450.61	598.42
8.625in Casing Surface	0.00	91.00	91.00	29.00	120.00	2450.61	598.42	2450.61	598.42
7.875in Open Hole	91.00	8123.00	8032.00	120.00	8152.00	2450.61	598.42	2450.61	598.42
4.5in Casing Production	0.00	8123.00	8123.00	29.00	8152.00	2450.61	598.42	2450.61	598.42



**Clearance Report**  
**WAKEMAN 20-17-3CDH PWP (REV-A.0)**  
**Closest Approach**  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

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

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

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



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#01 WAKEMAN 20-17-4CDH (293'FSL & 2023'FEL, SEC.20)				Well: WAKEMAN 20-17-4CDH		Threshold Value=1.00		† = Interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.15	59.95	89.86	59.95	1.40	98.58	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.15	59.95	89.86	59.95	1.73	63.81	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.15	59.95	89.86	59.95	2.30	39.41	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.15	59.95	89.86	59.95	2.91	28.09	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.15	59.95	89.86	59.95	3.52	21.73	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.15	59.95	89.86	59.95	4.14	17.70	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.15	59.95	89.86	59.95	4.77	14.92	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.15	59.95	89.86	59.95	5.39	12.89	PASS
813.00†	813.00	0.00	0.00	812.74	812.74	0.14	59.98	89.86	59.98	6.01	11.35	PASS
913.00†	913.00	0.00	0.00	910.72	910.69	-0.43	62.01	90.40	62.05	6.76	10.29	PASS
1013.00†	1013.00	0.00	0.00	1008.43	1008.25	-1.91	67.24	91.63	67.44	7.77	9.57	PASS
1113.00†	1113.00	0.00	0.00	1105.66	1105.08	-4.28	75.63	93.24	76.16	8.70	9.54	PASS
1200.00	1200.00	0.00	0.00	1189.69	1188.49	-7.05	85.41	94.72	86.47	9.50	9.86	PASS
1213.00†	1213.00	-0.02	0.02	1202.19	1200.87	-7.51	87.07	-40.57	88.21	9.60	9.93	PASS
1313.00†	1312.97	-1.59	1.56	1298.10	1295.60	-11.60	101.52	-39.57	101.94	10.46	10.47	PASS
1413.00†	1412.80	-5.65	5.55	1393.49	1389.26	-16.51	118.90	-39.56	116.28	11.46	10.84	PASS
1484.80	1484.33	-10.09	9.91	1461.64	1455.78	-20.53	133.15	-39.96	126.93	12.09	11.17	PASS
1513.00†	1512.39	-12.09	11.87	1488.31	1481.71	-22.23	139.14	-40.21	131.31	12.31	11.34	PASS
1613.00†	1611.90	-19.17	18.83	1585.73	1576.15	-28.73	162.15	-40.91	148.02	12.93	12.14	PASS
1713.00†	1711.40	-26.25	25.78	1684.29	1671.66	-35.34	185.54	-41.46	164.87	13.53	12.89	PASS
1813.00†	1810.91	-33.33	32.74	1782.85	1767.18	-41.95	208.92	-41.91	181.74	14.14	13.53	PASS
1913.00†	1910.42	-40.41	39.69	1881.41	1862.69	-48.55	232.31	-42.28	198.61	14.73	14.12	PASS
2013.00†	2009.92	-47.49	46.65	1979.96	1958.21	-55.16	255.70	-42.60	215.49	15.40	14.62	PASS
2113.00†	2109.43	-54.57	53.60	2078.52	2053.72	-61.77	279.08	-42.87	232.37	16.09	15.06	PASS
2213.00†	2208.94	-61.65	60.56	2177.08	2149.24	-68.38	302.47	-43.10	249.26	16.80	15.45	PASS
2313.00†	2308.44	-68.73	67.51	2275.64	2244.76	-74.99	325.86	-43.30	266.15	17.52	15.79	PASS
2413.00†	2407.95	-75.81	74.47	2374.20	2340.27	-81.60	349.24	-43.48	283.04	18.25	16.09	PASS
2513.00†	2507.45	-82.89	81.42	2472.76	2435.79	-88.20	372.63	-43.64	299.94	19.00	16.36	PASS
2613.00†	2606.96	-89.97	88.38	2571.32	2531.30	-94.81	396.01	-43.78	316.84	19.75	16.60	PASS
2713.00†	2706.47	-97.06	95.33	2669.88	2626.82	-101.42	419.40	-43.91	333.74	20.51	16.82	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
2813.00†	2805.97	-104.14	102.29	2768.44	2722.33	-108.03	442.79	-44.03	350.64	21.28	17.01	PASS
2913.00†	2905.48	-111.22	109.24	2866.99	2817.85	-114.64	466.17	-44.13	367.55	22.05	17.19	PASS
3013.00†	3004.99	-118.30	116.20	2965.55	2913.37	-121.24	489.56	-44.23	384.45	22.83	17.34	PASS
3113.00†	3104.49	-125.38	123.15	3064.11	3008.88	-127.85	512.95	-44.31	401.36	23.62	17.49	PASS
3213.00†	3204.00	-132.46	130.11	3162.67	3104.40	-134.46	536.33	-44.40	418.26	24.41	17.62	PASS
3313.00†	3303.50	-139.54	137.06	3261.23	3199.91	-141.07	559.72	-44.47	435.17	25.20	17.74	PASS
3413.00†	3403.01	-146.62	144.02	3359.79	3295.43	-147.68	583.11	-44.54	452.08	26.00	17.85	PASS
3513.00†	3502.52	-153.70	150.97	3458.35	3390.94	-154.29	606.49	-44.60	468.99	26.80	17.95	PASS
3613.00†	3602.02	-160.78	157.93	3556.91	3486.46	-160.89	629.88	-44.66	485.89	27.61	18.04	PASS
3713.00†	3701.53	-167.86	164.88	3655.47	3581.98	-167.50	653.27	-44.72	502.80	28.42	18.12	PASS
3813.00†	3801.04	-174.94	171.84	3754.02	3677.49	-174.11	676.65	-44.77	519.71	29.23	18.20	PASS
3913.00†	3900.54	-182.02	178.79	3852.58	3773.01	-180.72	700.04	-44.82	536.62	30.04	18.27	PASS
4013.00†	4000.05	-189.10	185.75	3951.14	3868.52	-187.33	723.42	-44.86	553.53	30.85	18.34	PASS
4113.00†	4099.55	-196.18	192.70	4049.70	3964.04	-193.94	746.81	-44.90	570.44	31.67	18.40	PASS
4213.00†	4199.06	-203.27	199.66	4148.26	4059.56	-200.54	770.20	-44.94	587.36	32.49	18.46	PASS
4313.00†	4298.57	-210.35	206.61	4246.82	4155.07	-207.15	793.58	-44.98	604.27	33.31	18.51	PASS
4413.00†	4398.07	-217.43	213.57	4345.38	4250.59	-213.76	816.97	-45.02	621.18	34.13	18.56	PASS
4513.00†	4497.58	-224.51	220.52	4443.94	4346.10	-220.37	840.36	-45.05	638.09	34.96	18.61	PASS
4613.00†	4597.09	-231.59	227.48	4542.50	4441.62	-226.98	863.74	-45.08	655.00	35.78	18.66	PASS
4713.00†	4696.59	-238.67	234.43	4641.06	4537.13	-233.59	887.13	-45.11	671.91	36.61	18.70	PASS
4813.00†	4796.10	-245.75	241.39	4739.61	4632.65	-240.19	910.52	-45.14	688.83	37.44	18.74	PASS
4913.00†	4895.60	-252.83	248.34	4838.17	4728.17	-246.80	933.90	-45.17	705.74	38.26	18.77	PASS
5013.00†	4995.11	-259.91	255.30	4936.73	4823.68	-253.41	957.29	-45.20	722.65	39.09	18.81	PASS
5113.00†	5094.62	-266.99	262.25	5035.29	4919.20	-260.02	980.68	-45.22	739.56	39.93	18.84	PASS
5213.00†	5194.12	-274.07	269.21	5133.85	5014.71	-266.63	1004.06	-45.25	756.48	40.76	18.87	PASS
5313.00†	5293.63	-281.15	276.16	5232.41	5110.23	-273.23	1027.45	-45.27	773.39	41.59	18.90	PASS
5413.00†	5393.14	-288.23	283.12	5330.97	5205.74	-279.84	1050.84	-45.29	790.30	42.42	18.93	PASS
5513.00†	5492.64	-295.31	290.07	5429.53	5301.26	-286.45	1074.22	-45.31	807.22	43.26	18.95	PASS
5613.00†	5592.15	-302.39	297.03	5528.09	5396.78	-293.06	1097.61	-45.33	824.13	44.10	18.98	PASS
5713.00†	5691.65	-309.47	303.98	5626.64	5492.29	-299.67	1120.99	-45.35	841.04	44.93	19.00	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



**Clearance Report**  
**WAKEMAN 20-17-3CDH PWP (REV-A.0)**  
**Closest Approach**  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
5813.00†	5791.16	-316.56	310.94	5725.20	5587.81	-306.28	1144.38	-45.37	857.96	45.77	19.02	PASS
5913.00†	5890.67	-323.64	317.89	5823.76	5683.32	-312.88	1167.77	-45.39	874.87	46.61	19.05	PASS
6013.00†	5990.17	-330.72	324.85	5922.32	5778.84	-319.49	1191.15	-45.41	891.78	47.44	19.07	PASS
6113.00†	6089.68	-337.80	331.80	6020.88	5874.36	-326.10	1214.54	-45.42	908.70	48.28	19.09	PASS
6213.00†	6189.19	-344.88	338.76	6119.44	5969.87	-332.71	1237.93	-45.44	925.61	49.12	19.10	PASS
6313.00†	6288.69	-351.96	345.71	6218.00	6065.39	-339.32	1261.31	-45.46	942.53	49.96	19.12	PASS
6413.00†	6388.20	-359.04	352.66	6316.56	6160.90	-345.93	1284.70	-45.47	959.44	50.80	19.14	PASS
6513.00†	6487.70	-366.12	359.62	6415.12	6256.42	-352.53	1308.09	-45.48	976.35	51.64	19.15	PASS
6613.00†	6587.21	-373.20	366.57	6513.67	6351.93	-359.14	1331.47	-45.50	993.27	52.49	19.17	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

**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	0.09	36.54	-13.09	83.19
8.5in Open Hole	13.00	17963.99	17950.99	13.00	7638.00	0.09	36.54	3037.92	471.47

**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





**Clearance Report**  
**WAKEMAN 20-17-3CDH PWP (REV-A.0)**  
**Closest Approach**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#02 WAKEMAN 20-17-4NAH (293'FSL & 2038'FEL, SEC.20)				Well: WAKEMAN 20-17-4NAH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.08	44.95	89.89	44.95	1.40	73.58	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.08	44.95	89.89	44.95	1.73	47.63	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.08	44.95	89.89	44.95	2.30	29.42	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.08	44.95	89.89	44.95	2.91	20.96	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.08	44.95	89.89	44.95	3.52	16.22	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.08	44.95	89.89	44.95	4.14	13.21	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.08	44.95	89.89	44.95	4.77	11.13	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.08	44.95	89.89	44.95	5.39	9.62	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.08	44.95	89.89	44.95	6.02	8.47	PASS
913.00†	913.00	0.00	0.00	912.81	912.81	0.08	44.98	89.90	44.98	6.64	7.57	PASS
1013.00†	1013.00	0.00	0.00	1011.28	1011.25	-0.56	47.01	90.69	47.05	7.37	7.04	PASS
1113.00†	1113.00	0.00	0.00	1109.49	1109.30	-2.21	52.25	92.43	52.43	8.35	6.84	PASS
1200.00	1200.00	0.00	0.00	1194.54	1194.02	-4.46	59.38	94.30	59.84	9.16	7.07	PASS
1213.00†	1213.00	-0.02	0.02	1207.21	1206.62	-4.86	60.64	-40.93	61.15	9.28	7.12	PASS
1313.00†	1312.97	-1.59	1.56	1304.45	1303.11	-8.48	72.13	-39.76	71.59	10.21	7.53	PASS
1413.00†	1412.80	-5.65	5.55	1401.28	1398.73	-13.06	86.67	-39.90	82.67	11.20	7.88	PASS
1484.80	1484.33	-10.09	9.91	1470.54	1466.78	-16.93	98.96	-40.54	91.02	11.88	8.14	PASS
1513.00†	1512.39	-12.09	11.87	1497.66	1493.34	-18.57	104.20	-40.87	94.49	12.08	8.31	PASS
1613.00†	1611.90	-19.17	18.83	1593.32	1586.57	-24.99	124.58	-41.60	108.90	12.81	9.00	PASS
1713.00†	1711.40	-26.25	25.78	1691.71	1682.03	-32.15	147.30	-41.95	125.15	13.44	9.84	PASS
1813.00†	1810.91	-33.33	32.74	1790.37	1777.76	-39.33	170.09	-42.23	141.42	14.02	10.60	PASS
1913.00†	1910.42	-40.41	39.69	1889.04	1873.49	-46.50	192.88	-42.45	157.69	14.64	11.27	PASS
2013.00†	2009.92	-47.49	46.65	1987.70	1969.22	-53.68	215.67	-42.63	173.96	15.30	11.88	PASS
2113.00†	2109.43	-54.57	53.60	2086.37	2064.95	-60.86	238.46	-42.78	190.24	15.98	12.41	PASS
2213.00†	2208.94	-61.65	60.56	2185.04	2160.68	-68.04	261.25	-42.90	206.51	16.69	12.88	PASS
2313.00†	2308.44	-68.73	67.51	2283.70	2256.41	-75.22	284.04	-43.01	222.79	17.41	13.30	PASS
2413.00†	2407.95	-75.81	74.47	2382.37	2352.14	-82.39	306.83	-43.10	239.06	18.13	13.68	PASS
2513.00†	2507.45	-82.89	81.42	2481.03	2447.86	-89.57	329.62	-43.18	255.34	18.87	14.02	PASS
2613.00†	2606.96	-89.97	88.38	2579.70	2543.59	-96.75	352.41	-43.25	271.62	19.62	14.32	PASS
2713.00†	2706.47	-97.06	95.33	2678.37	2639.32	-103.93	375.20	-43.31	287.89	20.38	14.60	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
2813.00†	2805.97	-104.14	102.29	2777.03	2735.05	-111.10	397.99	-43.37	304.17	21.14	14.85	PASS	
2913.00†	2905.48	-111.22	109.24	2875.70	2830.78	-118.28	420.78	-43.42	320.45	21.91	15.08	PASS	
3013.00†	3004.99	-118.30	116.20	2974.36	2926.51	-125.46	443.57	-43.46	336.73	22.68	15.29	PASS	
3113.00†	3104.49	-125.38	123.15	3073.03	3022.24	-132.64	466.37	-43.50	353.01	23.46	15.49	PASS	
3213.00†	3204.00	-132.46	130.11	3171.70	3117.97	-139.81	489.16	-43.54	369.29	24.24	15.66	PASS	
3313.00†	3303.50	-139.54	137.06	3270.36	3213.70	-146.99	511.95	-43.58	385.56	25.03	15.82	PASS	
3413.00†	3403.01	-146.62	144.02	3369.03	3309.42	-154.17	534.74	-43.61	401.84	25.82	15.97	PASS	
3513.00†	3502.52	-153.70	150.97	3467.69	3405.15	-161.35	557.53	-43.64	418.12	26.61	16.11	PASS	
3613.00†	3602.02	-160.78	157.93	3566.36	3500.88	-168.52	580.32	-43.66	434.40	27.41	16.24	PASS	
3713.00†	3701.53	-167.86	164.88	3665.02	3596.61	-175.70	603.11	-43.69	450.68	28.21	16.36	PASS	
3813.00†	3801.04	-174.94	171.84	3763.69	3692.34	-182.88	625.90	-43.71	466.96	29.02	16.47	PASS	
3913.00†	3900.54	-182.02	178.79	3862.36	3788.07	-190.06	648.69	-43.73	483.24	29.82	16.57	PASS	
4013.00†	4000.05	-189.10	185.75	3961.02	3883.80	-197.24	671.48	-43.75	499.52	30.63	16.67	PASS	
4113.00†	4099.55	-196.18	192.70	4059.69	3979.53	-204.41	694.27	-43.77	515.80	31.44	16.76	PASS	
4213.00†	4199.06	-203.27	199.66	4158.35	4075.26	-211.59	717.06	-43.79	532.08	32.25	16.85	PASS	
4313.00†	4298.57	-210.35	206.61	4257.02	4170.98	-218.77	739.85	-43.81	548.36	33.06	16.93	PASS	
4413.00†	4398.07	-217.43	213.57	4355.69	4266.71	-225.95	762.64	-43.82	564.63	33.88	17.00	PASS	
4513.00†	4497.58	-224.51	220.52	4454.35	4362.44	-233.12	785.43	-43.84	580.91	34.69	17.07	PASS	
4613.00†	4597.09	-231.59	227.48	4553.02	4458.17	-240.30	808.22	-43.85	597.19	35.51	17.14	PASS	
4713.00†	4696.59	-238.67	234.43	4651.68	4553.90	-247.48	831.01	-43.86	613.47	36.33	17.20	PASS	
4813.00†	4796.10	-245.75	241.39	4750.35	4649.63	-254.66	853.80	-43.88	629.75	37.15	17.26	PASS	
4913.00†	4895.60	-252.83	248.34	4849.02	4745.36	-261.83	876.60	-43.89	646.03	37.97	17.32	PASS	
5013.00†	4995.11	-259.91	255.30	4947.68	4841.09	-269.01	899.39	-43.90	662.31	38.79	17.37	PASS	
5113.00†	5094.62	-266.99	262.25	5046.35	4936.82	-276.19	922.18	-43.91	678.59	39.61	17.42	PASS	
5213.00†	5194.12	-274.07	269.21	5145.01	5032.54	-283.37	944.97	-43.92	694.87	40.44	17.47	PASS	
5313.00†	5293.63	-281.15	276.16	5243.68	5128.27	-290.55	967.76	-43.93	711.15	41.26	17.52	PASS	
5413.00†	5393.14	-288.23	283.12	5342.34	5224.00	-297.72	990.55	-43.94	727.43	42.09	17.56	PASS	
5513.00†	5492.64	-295.31	290.07	5441.01	5319.73	-304.90	1013.34	-43.95	743.71	42.91	17.60	PASS	
5613.00†	5592.15	-302.39	297.03	5539.68	5415.46	-312.08	1036.13	-43.96	759.99	43.74	17.64	PASS	
5713.00†	5691.65	-309.47	303.98	5638.34	5511.19	-319.26	1058.92	-43.97	776.27	44.57	17.68	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
5813.00†	5791.16	-316.56	310.94	5737.01	5606.92	-326.43	1081.71	-43.98	792.55	45.40	17.72	PASS
5913.00†	5890.67	-323.64	317.89	5835.67	5702.65	-333.61	1104.50	-43.98	808.83	46.23	17.75	PASS
6013.00†	5990.17	-330.72	324.85	5934.34	5798.38	-340.79	1127.29	-43.99	825.11	47.06	17.79	PASS
6113.00†	6089.68	-337.80	331.80	6033.01	5894.11	-347.97	1150.08	-44.00	841.39	47.89	17.82	PASS
6213.00†	6189.19	-344.88	338.76	6131.67	5989.83	-355.14	1172.87	-44.00	857.67	48.72	17.85	PASS
6313.00†	6288.69	-351.96	345.71	6230.34	6085.56	-362.32	1195.66	-44.01	873.95	49.55	17.88	PASS
6413.00†	6388.20	-359.04	352.66	6329.00	6181.29	-369.50	1218.45	-44.02	890.23	50.38	17.91	PASS
6513.00†	6487.70	-366.12	359.62	6427.67	6277.02	-376.68	1241.24	-44.02	906.51	51.21	17.93	PASS
6613.00†	6587.21	-373.20	366.57	6526.34	6372.75	-383.86	1264.03	-44.03	922.79	52.05	17.96	PASS
6713.00†	6686.72	-380.28	373.53	6625.00	6468.48	-391.03	1286.83	-44.03	939.07	52.88	17.99	PASS
6813.00†	6786.22	-387.36	380.48	6723.67	6564.21	-398.21	1309.62	-44.04	955.35	53.71	18.01	PASS
6913.00†	6885.73	-394.44	387.44	6823.70	6661.35	-403.59	1332.73	-44.16	971.60	54.57	18.03	PASS
7013.00†	6985.24	-401.52	394.39	6922.53	6756.97	-394.25	1355.37	-45.13	987.74	55.58	17.99	PASS
7043.31	7015.39	-403.67	396.50	6951.09	6784.18	-388.41	1361.79	-45.59	992.71	55.89	17.98	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	0.05	27.40	-12.17	66.22
8.5in Open Hole	1800.00	17516.82	15716.82	1787.10	7215.00	-12.17	66.22	3037.99	436.42



**Clearance Report**  
**WAKEMAN 20-17-3CDH PWP (REV-A.0)**  
**Closest Approach**  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

**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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#09 WAKEMAN 20-17-2NBH (293'FSL & 2143'FEL, SEC.20)				Well: WAKEMAN 20-17-2NBH		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	-0.11	-60.01	-90.11	60.01	1.40	98.67	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	-0.11	-60.01	-90.11	60.01	1.73	63.99	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	-0.11	-60.01	-90.11	60.01	2.30	39.54	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	-0.11	-60.01	-90.11	60.01	2.90	28.16	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	-0.11	-60.01	-90.11	60.01	3.52	21.79	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	-0.11	-60.01	-90.11	60.01	4.14	17.74	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	-0.11	-60.01	-90.11	60.01	4.76	14.95	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	-0.11	-60.01	-90.11	60.01	5.39	12.91	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	-0.11	-60.01	-90.11	60.01	6.01	11.36	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	-0.11	-60.01	-90.11	60.01	6.64	10.14	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.11	-60.01	-90.11	60.01	7.26	9.16	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.11	-60.01	-90.11	60.01	7.89	8.35	PASS	
1200.00	1200.00	0.00	0.00	1200.00	1200.00	-0.11	-60.01	-90.11	60.01	8.44	7.76	PASS	
1213.00†	1213.00	-0.02	0.02	1213.00	1213.00	-0.11	-60.01	134.40	60.03	8.52	7.68	PASS	
1313.00†	1312.97	-1.59	1.56	1312.97	1312.97	-0.11	-60.01	135.84	61.58	9.19	7.25	PASS	
1413.00†	1412.80	-5.65	5.55	1412.80	1412.80	-0.11	-60.01	139.23	65.78	10.02	7.05	PASS	
1484.80	1484.33	-10.09	9.91	1484.33	1484.33	-0.11	-60.01	142.47	70.63	10.59	7.13	PASS	
1513.00†	1512.39	-12.09	11.87	1512.39	1512.39	-0.11	-60.01	143.81	72.87	10.79	7.22	PASS	
1613.00†	1611.90	-19.17	18.83	1611.67	1611.67	-0.13	-60.03	147.93	81.12	11.44	7.55	PASS	
1713.00†	1711.40	-26.25	25.78	1709.16	1709.13	-1.25	-61.75	150.23	91.06	12.10	7.99	PASS	
1813.00†	1810.91	-33.33	32.74	1806.27	1806.09	-4.18	-66.22	150.65	103.27	12.72	8.54	PASS	
1913.00†	1910.42	-40.41	39.69	1902.77	1902.21	-8.86	-73.38	149.75	117.68	13.45	9.18	PASS	
2013.00†	2009.92	-47.49	46.65	1998.47	1997.18	-15.25	-83.16	148.02	134.36	14.19	9.92	PASS	
2113.00†	2109.43	-54.57	53.60	2095.86	2093.54	-23.02	-95.04	146.01	152.78	14.87	10.74	PASS	
2213.00†	2208.94	-61.65	60.56	2194.01	2190.62	-30.90	-107.09	144.39	171.43	15.56	11.49	PASS	
2313.00†	2308.44	-68.73	67.51	2292.15	2287.71	-38.77	-119.14	143.09	190.17	16.26	12.19	PASS	
2413.00†	2407.95	-75.81	74.47	2390.30	2384.79	-46.65	-131.19	142.03	209.00	16.96	12.82	PASS	
2513.00†	2507.45	-82.89	81.42	2488.44	2481.87	-54.53	-143.24	141.14	227.88	17.68	13.39	PASS	
2613.00†	2606.96	-89.97	88.38	2586.59	2578.96	-62.41	-155.29	140.39	246.81	18.42	13.90	PASS	
2713.00†	2706.47	-97.06	95.33	2684.73	2676.04	-70.28	-167.33	139.74	265.77	19.13	14.39	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#09 WAKEMAN 20-17-2NBH (293°FSL & 2143°FEL, SEC.20)		Well: WAKEMAN 20-17-2NBH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2805.97	-104.14	102.29	2782.88	2773.12	-78.16	-179.38	139.18	284.77	19.86	14.83	PASS
2913.00†	2905.48	-111.22	109.24	2881.02	2870.21	-86.04	-191.43	138.69	303.78	20.60	15.24	PASS
3013.00†	3004.99	-118.30	116.20	2979.17	2967.29	-93.92	-203.48	138.26	322.81	21.34	15.61	PASS
3113.00†	3104.49	-125.38	123.15	3077.31	3064.37	-101.79	-215.53	137.88	341.86	22.08	15.96	PASS
3213.00†	3204.00	-132.46	130.11	3175.45	3161.46	-109.67	-227.58	137.53	360.93	22.84	16.28	PASS
3313.00†	3303.50	-139.54	137.06	3273.60	3258.54	-117.55	-239.63	137.23	380.00	23.59	16.58	PASS
3413.00†	3403.01	-146.62	144.02	3371.74	3355.62	-125.43	-251.68	136.95	399.08	24.35	16.85	PASS
3513.00†	3502.52	-153.70	150.97	3469.89	3452.70	-133.30	-263.72	136.69	418.18	25.11	17.11	PASS
3613.00†	3602.02	-160.78	157.93	3568.03	3549.79	-141.18	-275.77	136.46	437.27	25.87	17.35	PASS
3713.00†	3701.53	-167.86	164.88	3666.18	3646.87	-149.06	-287.82	136.25	456.38	26.63	17.58	PASS
3813.00†	3801.04	-174.94	171.84	3764.32	3743.95	-156.94	-299.87	136.05	475.49	27.40	17.79	PASS
3913.00†	3900.54	-182.02	178.79	3862.47	3841.04	-164.81	-311.92	135.87	494.61	28.17	17.99	PASS
4013.00†	4000.05	-189.10	185.75	3960.61	3938.12	-172.69	-323.97	135.71	513.73	28.94	18.17	PASS
4113.00†	4099.55	-196.18	192.70	4058.76	4035.20	-180.57	-336.02	135.55	532.85	29.71	18.35	PASS
4213.00†	4199.06	-203.27	199.66	4156.90	4132.29	-188.44	-348.07	135.41	551.98	30.48	18.52	PASS
4313.00†	4298.57	-210.35	206.61	4255.04	4229.37	-196.32	-360.11	135.27	571.11	31.26	18.67	PASS
4413.00†	4398.07	-217.43	213.57	4353.19	4326.45	-204.20	-372.16	135.15	590.24	32.03	18.82	PASS
4513.00†	4497.58	-224.51	220.52	4451.33	4423.54	-212.08	-384.21	135.03	609.38	32.81	18.96	PASS
4613.00†	4597.09	-231.59	227.48	4549.48	4520.62	-219.95	-396.26	134.92	628.51	33.59	19.09	PASS
4713.00†	4696.59	-238.67	234.43	4647.62	4617.70	-227.83	-408.31	134.82	647.66	34.37	19.22	PASS
4813.00†	4796.10	-245.75	241.39	4745.77	4714.78	-235.71	-420.36	134.72	666.80	35.15	19.34	PASS
4913.00†	4895.60	-252.83	248.34	4843.91	4811.87	-243.59	-432.41	134.62	685.94	35.93	19.45	PASS
5013.00†	4995.11	-259.91	255.30	4942.06	4908.95	-251.46	-444.46	134.54	705.09	36.71	19.56	PASS
5113.00†	5094.62	-266.99	262.25	5040.20	5006.03	-259.34	-456.51	134.45	724.23	37.50	19.67	PASS
5213.00†	5194.12	-274.07	269.21	5138.35	5103.12	-267.22	-468.55	134.38	743.38	38.28	19.77	PASS
5313.00†	5293.63	-281.15	276.16	5236.49	5200.20	-275.10	-480.60	134.30	762.53	39.06	19.86	PASS
5413.00†	5393.14	-288.23	283.12	5334.63	5297.28	-282.97	-492.65	134.23	781.68	39.85	19.95	PASS
5513.00†	5492.64	-295.31	290.07	5432.78	5394.37	-290.85	-504.70	134.16	800.84	40.64	20.04	PASS
5613.00†	5592.15	-302.39	297.03	5530.92	5491.45	-298.73	-516.75	134.10	819.99	41.42	20.12	PASS
5713.00†	5691.65	-309.47	303.98	5629.07	5588.53	-306.61	-528.80	134.04	839.14	42.21	20.20	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
5813.00†	5791.16	-316.56	310.94	5727.21	5685.62	-314.48	-540.85	133.98	858.30	43.00	20.28	PASS
5913.00†	5890.67	-323.64	317.89	5825.36	5782.70	-322.36	-552.90	133.92	877.45	43.79	20.35	PASS
6013.00†	5990.17	-330.72	324.85	5923.50	5879.78	-330.24	-564.94	133.87	896.61	44.58	20.42	PASS
6113.00†	6089.68	-337.80	331.80	6021.65	5976.86	-338.12	-576.99	133.81	915.77	45.37	20.49	PASS
6213.00†	6189.19	-344.88	338.76	6119.79	6073.95	-345.99	-589.04	133.76	934.93	46.16	20.56	PASS
6313.00†	6288.69	-351.96	345.71	6217.94	6171.03	-353.87	-601.09	133.72	954.09	46.95	20.62	PASS
6413.00†	6388.20	-359.04	352.66	6316.08	6268.11	-361.75	-613.14	133.67	973.24	47.74	20.68	PASS
6513.00†	6487.70	-366.12	359.62	6414.22	6365.20	-369.62	-625.19	133.63	992.40	48.53	20.74	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

## 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	-0.07	-36.58	-1.23	-38.36
8.5in Open Hole	1800.00	17593.78	15793.78	1799.84	N/A	-1.23	-38.36	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





**Clearance Report**  
**WAKEMAN 20-17-3CDH PWP (REV-A.0)**  
**Closest Approach**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#01 EX. WOLFE #1 (990'FSL & 990'FEL, SEC.20, OG, PR, 8200) Well: WOLFE #1 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	8.00	13.00	718.41	1057.81	55.82	1278.70	50.15	25.87	PASS	
113.00†	113.00	0.00	0.00	108.00	113.00	718.41	1057.81	55.82	1278.70	52.49	24.71	PASS	
213.00†	213.00	0.00	0.00	208.00	213.00	718.41	1057.81	55.82	1278.70	54.83	23.63	PASS	
313.00†	313.00	0.00	0.00	308.00	313.00	718.41	1057.81	55.82	1278.70	57.00	22.66	PASS	
413.00†	413.00	0.00	0.00	408.00	413.00	718.41	1057.81	55.82	1278.70	59.35	21.75	PASS	
513.00†	513.00	0.00	0.00	508.00	513.00	718.41	1057.81	55.82	1278.70	61.71	20.91	PASS	
613.00†	613.00	0.00	0.00	608.00	613.00	718.41	1057.81	55.82	1278.70	64.07	20.13	PASS	
713.00†	713.00	0.00	0.00	708.00	713.00	718.41	1057.81	55.82	1278.70	66.43	19.41	PASS	
813.00†	813.00	0.00	0.00	808.00	813.00	718.41	1057.81	55.82	1278.70	68.79	18.74	PASS	
913.00†	913.00	0.00	0.00	908.00	913.00	718.41	1057.81	55.82	1278.70	71.16	18.11	PASS	
1013.00†	1013.00	0.00	0.00	1008.00	1013.00	718.41	1057.81	55.82	1278.70	73.54	17.52	PASS	
1113.00†	1113.00	0.00	0.00	1108.00	1113.00	718.41	1057.81	55.82	1278.70	75.92	16.97	PASS	
1200.00	1200.00	0.00	0.00	1195.00	1200.00	718.41	1057.81	55.82	1278.70	77.99	16.51	PASS	
1213.00†	1213.00	-0.02	0.02	1208.00	1213.00	718.41	1057.81	-79.70	1278.70	78.30	16.45	PASS	
1313.00†	1312.97	-1.59	1.56	1307.97	1312.97	718.41	1057.81	-79.80	1278.31	80.68	15.95	PASS	
1413.00†	1412.80	-5.65	5.55	1407.80	1412.80	718.41	1057.81	-80.07	1277.31	83.07	15.48	PASS	
1484.80	1484.33	-10.09	9.91	1479.33	1484.33	718.41	1057.81	-80.37	1276.25	84.79	15.15	PASS	
1513.00†	1512.39	-12.09	11.87	1507.39	1512.39	718.41	1057.81	-80.49	1275.78	85.46	15.03	PASS	
1613.00†	1611.90	-19.17	18.83	1606.90	1611.90	718.41	1057.81	-80.93	1274.17	87.85	14.59	PASS	
1713.00†	1711.40	-26.25	25.78	1706.40	1711.40	718.41	1057.81	-81.37	1272.63	90.25	14.19	PASS	
1813.00†	1810.91	-33.33	32.74	1805.91	1810.91	718.41	1057.81	-81.81	1271.18	92.61	13.80	PASS	
1913.00†	1910.42	-40.41	39.69	1905.42	1910.42	718.41	1057.81	-82.25	1269.79	95.03	13.43	PASS	
2013.00†	2009.92	-47.49	46.65	2004.92	2009.92	718.41	1057.81	-82.69	1268.49	97.45	13.08	PASS	
2113.00†	2109.43	-54.57	53.60	2104.43	2109.43	718.41	1057.81	-83.13	1267.26	99.88	12.75	PASS	
2213.00†	2208.94	-61.65	60.56	2203.94	2208.94	718.41	1057.81	-83.58	1266.10	102.32	12.43	PASS	
2313.00†	2308.44	-68.73	67.51	2303.44	2308.44	718.41	1057.81	-84.02	1265.02	104.77	12.13	PASS	
2413.00†	2407.95	-75.81	74.47	2402.95	2407.95	718.41	1057.81	-84.47	1264.02	107.22	11.84	PASS	
2513.00†	2507.45	-82.89	81.42	2502.45	2507.45	718.41	1057.81	-84.91	1263.10	109.68	11.57	PASS	
2613.00†	2606.96	-89.97	88.38	2601.96	2606.96	718.41	1057.81	-85.36	1262.25	112.14	11.31	PASS	
2713.00†	2706.47	-97.06	95.33	2701.47	2706.47	718.41	1057.81	-85.81	1261.49	114.61	11.05	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## CLEARANCE DATA - Offset Wellbore: WOLFE #1 AWP 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	
2813.00†	2805.97	-104.14	102.29	2800.97	2805.97	718.41	1057.81	-86.25	1260.80	117.09	10.81	PASS	
2913.00†	2905.48	-111.22	109.24	2900.48	2905.48	718.41	1057.81	-86.70	1260.18	119.57	10.58	PASS	
3013.00†	3004.99	-118.30	116.20	2999.99	3004.99	718.41	1057.81	-87.13	1259.65	122.07	10.36	PASS	
3113.00†	3104.49	-125.38	123.15	3099.49	3104.49	718.41	1057.81	-87.60	1259.19	124.56	10.15	PASS	
3213.00†	3204.00	-132.46	130.11	3199.00	3204.00	718.41	1057.81	-88.05	1258.81	127.07	9.94	PASS	
3313.00†	3303.50	-139.54	137.06	3298.50	3303.50	718.41	1057.81	-88.50	1258.51	129.57	9.75	PASS	
3413.00†	3403.01	-146.62	144.02	3398.01	3403.01	718.41	1057.81	-88.95	1258.29	132.09	9.56	PASS	
3513.00†	3502.52	-153.70	150.97	3497.52	3502.52	718.41	1057.81	-89.40	1258.15	134.61	9.38	PASS	
3613.00†	3602.02	-160.78	157.93	3597.02	3602.02	718.41	1057.81	-89.85	1258.08	137.13	9.21	PASS	
3713.00†	3701.53	-167.86	164.88	3696.53	3701.53	718.41	1057.81	-90.30	1258.09	139.67	9.04	PASS	
3813.00†	3801.04	-174.94	171.84	3796.04	3801.04	718.41	1057.81	-90.75	1258.18	142.20	8.88	PASS	
3913.00†	3900.54	-182.02	178.79	3895.54	3900.54	718.41	1057.81	-91.20	1258.35	144.74	8.72	PASS	
4013.00†	4000.05	-189.10	185.75	3995.05	4000.05	718.41	1057.81	-91.65	1258.60	147.29	8.57	PASS	
4113.00†	4099.55	-196.18	192.70	4094.55	4099.55	718.41	1057.81	-92.10	1258.93	149.84	8.43	PASS	
4213.00†	4199.06	-203.27	199.66	4194.06	4199.06	718.41	1057.81	-92.54	1259.33	152.40	8.29	PASS	
4313.00†	4298.57	-210.35	206.61	4293.57	4298.57	718.41	1057.81	-92.99	1259.81	154.96	8.16	PASS	
4413.00†	4398.07	-217.43	213.57	4393.07	4398.07	718.41	1057.81	-93.44	1260.37	157.52	8.03	PASS	
4513.00†	4497.58	-224.51	220.52	4492.58	4497.58	718.41	1057.81	-93.89	1261.01	160.09	7.90	PASS	
4613.00†	4597.09	-231.59	227.48	4592.09	4597.09	718.41	1057.81	-94.34	1261.72	162.66	7.78	PASS	
4713.00†	4696.59	-238.67	234.43	4691.59	4696.59	718.41	1057.81	-94.78	1262.52	165.24	7.66	PASS	
4813.00†	4796.10	-245.75	241.39	4791.10	4796.10	718.41	1057.81	-95.23	1263.39	167.82	7.55	PASS	
4913.00†	4895.60	-252.83	248.34	4890.60	4895.60	718.41	1057.81	-95.68	1264.34	170.40	7.44	PASS	
5013.00†	4995.11	-259.91	255.30	4990.11	4995.11	718.41	1057.81	-96.12	1265.36	172.99	7.33	PASS	
5113.00†	5094.62	-266.99	262.25	5089.62	5094.62	718.41	1057.81	-96.57	1266.46	175.58	7.23	PASS	
5213.00†	5194.12	-274.07	269.21	5189.12	5194.12	718.41	1057.81	-97.01	1267.64	178.17	7.13	PASS	
5313.00†	5293.63	-281.15	276.16	5288.63	5293.63	718.41	1057.81	-97.45	1268.90	180.77	7.04	PASS	
5413.00†	5393.14	-288.23	283.12	5388.14	5393.14	718.41	1057.81	-97.89	1270.23	183.37	6.94	PASS	
5513.00†	5492.64	-295.31	290.07	5487.64	5492.64	718.41	1057.81	-98.33	1271.64	185.97	6.85	PASS	
5613.00†	5592.15	-302.39	297.03	5587.15	5592.15	718.41	1057.81	-98.77	1273.12	188.58	6.77	PASS	
5713.00†	5691.65	-309.47	303.98	5686.65	5691.65	718.41	1057.81	-99.21	1274.68	191.19	6.68	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
5813.00†	5791.16	-316.56	310.94	5786.16	5791.16	718.41	1057.81	-99.65	1276.31	193.80	6.60	PASS	
5913.00†	5890.67	-323.64	317.89	5885.67	5890.67	718.41	1057.81	-100.09	1278.02	196.41	6.52	PASS	
6013.00†	5990.17	-330.72	324.85	5985.17	5990.17	718.41	1057.81	-100.52	1279.81	199.02	6.45	PASS	
6113.00†	6089.68	-337.80	331.80	6084.68	6089.68	718.41	1057.81	-100.96	1281.66	201.64	6.37	PASS	
6213.00†	6189.19	-344.88	338.76	6184.19	6189.19	718.41	1057.81	-101.39	1283.60	204.26	6.30	PASS	
6313.00†	6288.69	-351.96	345.71	6283.69	6288.69	718.41	1057.81	-101.82	1285.60	206.88	6.23	PASS	
6413.00†	6388.20	-359.04	352.66	6383.20	6388.20	718.41	1057.81	-102.25	1287.68	209.51	6.16	PASS	
6513.00†	6487.70	-366.12	359.62	6482.70	6487.70	718.41	1057.81	-102.68	1289.83	212.13	6.09	PASS	
6613.00†	6587.21	-373.20	366.57	6582.21	6587.21	718.41	1057.81	-103.11	1292.06	214.76	6.03	PASS	
6713.00†	6686.72	-380.28	373.53	6681.72	6686.72	718.41	1057.81	-103.53	1294.36	217.39	5.97	PASS	
6813.00†	6786.22	-387.36	380.48	6781.22	6786.22	718.41	1057.81	-103.96	1296.73	220.02	5.91	PASS	
6913.00†	6885.73	-394.44	387.44	6880.73	6885.73	718.41	1057.81	-104.38	1299.17	222.65	5.85	PASS	
7013.00†	6985.24	-401.52	394.39	6980.24	6985.24	718.41	1057.81	-104.80	1301.68	225.28	5.79	PASS	
7043.31	7015.39	-403.67	396.50	7010.39	7015.39	718.41	1057.81	-104.93	1302.45	226.08	5.77	PASS	
7113.00†	7084.87	-404.37	401.30	7079.87	7084.87	718.41	1057.81	-23.03	1300.63	227.89	5.72	PASS	
7213.00†	7183.58	-390.63	407.92	7178.58	7183.58	718.41	1057.81	14.76	1285.43	230.48	5.59	PASS	
7313.00†	7278.41	-359.92	414.05	7273.41	7278.41	718.41	1057.81	24.09	1255.88	233.11	5.40	PASS	
7413.00†	7366.50	-313.18	419.49	7361.50	7366.50	718.41	1057.81	30.69	1213.11	235.54	5.16	PASS	
7513.00†	7445.17	-251.82	424.09	7440.17	7445.17	718.41	1057.81	37.93	1158.86	237.49	4.89	PASS	
7613.00†	7512.03	-177.71	427.70	7507.03	7512.03	718.41	1057.81	47.04	1095.48	238.87	4.59	PASS	
7713.00†	7565.04	-93.11	430.21	7560.04	7565.04	718.41	1057.81	58.38	1025.89	239.65	4.29	PASS	
7813.00†	7602.60	-0.58	431.56	7597.60	7602.60	718.41	1057.81	71.07	953.49	239.83	3.98	PASS	
7913.00†	7623.56	97.07	431.69	7618.56	7623.56	718.41	1057.81	83.05	882.10	239.50	3.69	PASS	
7984.45	7628.00	168.33	431.03	7623.00	7628.00	718.41	1057.81	90.00	833.93	239.04	3.49	PASS	
8013.00†	7628.00	196.88	430.65	7623.00	7628.00	718.41	1057.81	90.00	815.67	238.84	3.42	PASS	
8113.00†	7628.00	296.87	429.30	7623.00	7628.00	718.41	1057.81	90.00	756.78	238.43	3.18	PASS	
8213.00†	7628.00	396.86	427.96	7623.00	7628.00	718.41	1057.81	90.00	707.18	238.64	2.97	PASS	
8313.00†	7628.00	496.85	426.61	7623.00	7628.00	718.41	1057.81	90.00	668.96	239.74	2.79	PASS	
8413.00†	7628.00	596.85	425.27	7623.00	7628.00	718.41	1057.81	90.00	644.12	241.81	2.67	PASS	
8513.00†	7628.00	696.84	423.92	7623.00	7628.00	718.41	1057.81	90.00	634.26	244.66	2.60	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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	
8525.50†	7628.00	709.34	423.75	7623.44	7628.44	718.41	1057.81	90.04	634.13	245.06	2.59	PASS	
8578.69†	7628.00	762.52	423.03	7623.00	7628.00	718.41	1057.81	90.00	636.31	246.74	2.58	PASS	
8613.00†	7628.00	796.83	422.57	7623.00	7628.00	718.41	1057.81	90.00	640.06	247.84	2.59	PASS	
8713.00†	7628.00	896.82	421.23	7623.00	7628.00	718.41	1057.81	90.00	661.12	250.87	2.64	PASS	
8813.00†	7628.00	996.81	419.88	7623.00	7628.00	718.41	1057.81	90.00	696.04	253.42	2.75	PASS	
8913.00†	7628.00	1096.80	418.54	7623.00	7628.00	718.41	1057.81	90.00	742.87	255.39	2.91	PASS	
9013.00†	7628.00	1196.79	417.19	7623.00	7628.00	718.41	1057.81	90.00	799.53	256.80	3.12	PASS	
9113.00†	7628.00	1296.78	415.84	7623.00	7628.00	718.41	1057.81	90.00	864.09	257.75	3.36	PASS	
9213.00†	7628.00	1396.77	414.50	7623.00	7628.00	718.41	1057.81	90.00	934.90	258.37	3.62	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	440.91	642.81	440.91	642.81
8.625in Casing Surface	0.00	250.00	250.00	-8.00	242.00	440.91	642.81	440.91	642.81
7.875in Open Hole	250.00	8200.00	7950.00	242.00	8192.00	440.91	642.81	440.91	642.81
4.5in Casing Production	0.00	8200.00	8200.00	-8.00	8192.00	440.91	642.81	440.91	642.81



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#10 WAKEMAN 20-17-2NCH (293°FSL & 2158°FEL, SEC.20) Well: WAKEMAN 20-17-2NCH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	-0.11	-74.98	-90.08	74.98	1.40	123.63	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	-0.11	-74.98	-90.08	74.98	1.73	80.08	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	-0.11	-74.98	-90.08	74.98	2.30	49.46	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	-0.11	-74.98	-90.08	74.98	2.91	35.24	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	-0.11	-74.98	-90.08	74.98	3.52	27.27	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	-0.11	-74.98	-90.08	74.98	4.14	22.20	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	-0.11	-74.98	-90.08	74.98	4.77	18.72	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	-0.11	-74.98	-90.08	74.98	5.39	16.17	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	-0.11	-74.98	-90.08	74.98	6.02	14.23	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	-0.11	-74.98	-90.08	74.98	6.64	12.70	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.11	-74.98	-90.08	74.98	7.27	11.47	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.11	-74.98	-90.08	74.98	7.89	10.46	PASS	
1200.00	1200.00	0.00	0.00	1200.00	1200.00	-0.11	-74.98	-90.08	74.98	8.44	9.71	PASS	
1213.00†	1213.00	-0.02	0.02	1213.00	1213.00	-0.11	-74.98	134.42	75.00	8.52	9.61	PASS	
1313.00†	1312.97	-1.59	1.56	1312.97	1312.97	-0.11	-74.98	135.57	76.55	9.19	9.03	PASS	
1413.00†	1412.80	-5.65	5.55	1412.80	1412.80	-0.11	-74.98	138.34	80.72	10.01	8.68	PASS	
1484.80	1484.33	-10.09	9.91	1484.33	1484.33	-0.11	-74.98	141.06	85.48	10.58	8.66	PASS	
1513.00†	1512.39	-12.09	11.87	1512.07	1512.07	-0.12	-75.00	142.18	87.70	10.78	8.71	PASS	
1613.00†	1611.90	-19.17	18.83	1608.84	1608.81	-0.91	-76.88	145.05	97.49	11.46	9.07	PASS	
1713.00†	1711.40	-26.25	25.78	1705.12	1704.94	-2.95	-81.74	146.40	110.21	12.26	9.55	PASS	
1813.00†	1810.91	-33.33	32.74	1800.70	1800.15	-6.22	-89.51	146.59	125.68	12.93	10.23	PASS	
1913.00†	1910.42	-40.41	39.69	1895.38	1894.12	-10.67	-100.09	146.00	143.83	13.69	11.03	PASS	
2013.00†	2009.92	-47.49	46.65	1988.96	1986.59	-16.25	-113.35	144.93	164.68	14.46	11.93	PASS	
2113.00†	2109.43	-54.57	53.60	2081.34	2077.35	-22.91	-129.16	143.60	188.24	15.18	12.96	PASS	
2213.00†	2208.94	-61.65	60.56	2178.07	2172.11	-30.45	-147.10	142.28	213.19	15.86	14.03	PASS	
2313.00†	2308.44	-68.73	67.51	2274.81	2266.87	-38.00	-165.03	141.24	238.22	16.54	15.00	PASS	
2413.00†	2407.95	-75.81	74.47	2371.54	2361.62	-45.55	-182.97	140.40	263.32	17.24	15.89	PASS	
2513.00†	2507.45	-82.89	81.42	2468.27	2456.38	-53.10	-200.91	139.71	288.46	18.00	16.64	PASS	
2613.00†	2606.96	-89.97	88.38	2565.01	2551.14	-60.65	-218.85	139.13	313.63	18.65	17.44	PASS	
2713.00†	2706.47	-97.06	95.33	2661.74	2645.89	-68.20	-236.79	138.63	338.83	19.37	18.11	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#10 WAKEMAN 20-17-2NCH (293°FSL & 2158°FEL, SEC.20)				Well: WAKEMAN 20-17-2NCH		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2805.97	-104.14	102.29	2758.48	2740.65	-75.75	-254.72	138.20	364.05	20.10	18.73	PASS	
2913.00†	2905.48	-111.22	109.24	2855.21	2835.41	-83.29	-272.66	137.83	389.28	20.84	19.30	PASS	
3013.00†	3004.99	-118.30	116.20	2951.95	2930.16	-90.84	-290.60	137.50	414.53	21.58	19.83	PASS	
3113.00†	3104.49	-125.38	123.15	3048.68	3024.92	-98.39	-308.54	137.21	439.79	22.32	20.31	PASS	
3213.00†	3204.00	-132.46	130.11	3145.42	3119.68	-105.94	-326.47	136.95	465.06	23.07	20.76	PASS	
3313.00†	3303.50	-139.54	137.06	3242.15	3214.43	-113.49	-344.41	136.72	490.34	23.83	21.18	PASS	
3413.00†	3403.01	-146.62	144.02	3338.89	3309.19	-121.04	-362.35	136.51	515.62	24.59	21.56	PASS	
3513.00†	3502.52	-153.70	150.97	3435.62	3403.95	-128.58	-380.29	136.32	540.91	25.35	21.92	PASS	
3613.00†	3602.02	-160.78	157.93	3532.35	3498.70	-136.13	-398.23	136.15	566.20	26.12	22.26	PASS	
3713.00†	3701.53	-167.86	164.88	3629.09	3593.46	-143.88	-416.16	135.99	591.50	26.88	22.57	PASS	
3813.00†	3801.04	-174.94	171.84	3725.82	3688.22	-151.23	-434.10	135.85	616.81	27.66	22.86	PASS	
3913.00†	3900.54	-182.02	178.79	3822.56	3782.97	-158.78	-452.04	135.71	642.11	28.43	23.14	PASS	
4013.00†	4000.05	-189.10	185.75	3919.29	3877.73	-166.33	-469.98	135.59	667.42	29.21	23.39	PASS	
4113.00†	4099.55	-196.18	192.70	4016.03	3972.49	-173.88	-487.91	135.48	692.74	29.99	23.64	PASS	
4213.00†	4199.06	-203.27	199.66	4112.76	4067.24	-181.42	-505.85	135.37	718.05	30.77	23.87	PASS	
4313.00†	4298.57	-210.35	206.61	4209.50	4162.00	-188.97	-523.79	135.27	743.37	31.55	24.08	PASS	
4413.00†	4398.07	-217.43	213.57	4306.23	4256.76	-196.52	-541.73	135.18	768.68	32.33	24.28	PASS	
4513.00†	4497.58	-224.51	220.52	4402.97	4351.51	-204.07	-559.67	135.09	794.01	33.12	24.48	PASS	
4613.00†	4597.09	-231.59	227.48	4499.70	4446.27	-211.62	-577.60	135.01	819.33	33.91	24.66	PASS	
4713.00†	4696.59	-238.67	234.43	4596.43	4541.03	-219.17	-595.54	134.94	844.65	34.69	24.83	PASS	
4813.00†	4796.10	-245.75	241.39	4693.17	4635.78	-226.72	-613.48	134.86	869.98	35.48	25.00	PASS	
4913.00†	4895.60	-252.83	248.34	4789.90	4730.54	-234.26	-631.42	134.79	895.30	36.28	25.15	PASS	
5013.00†	4995.11	-259.91	255.30	4886.64	4825.30	-241.81	-649.35	134.73	920.63	37.07	25.30	PASS	
5113.00†	5094.62	-266.99	262.25	4983.37	4920.06	-249.36	-667.29	134.67	945.96	37.86	25.44	PASS	
5213.00†	5194.12	-274.07	269.21	5080.11	5014.81	-256.91	-685.23	134.61	971.29	38.66	25.58	PASS	
5313.00†	5293.63	-281.15	276.16	5176.84	5109.57	-264.46	-703.17	134.56	996.62	39.45	25.70	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.45	-0.06	-45.71	-1.92	-50.12
8.5in Open Hole	1800.00	17719.88	15919.88	1799.45	N/A	-1.92	-50.12	N/A	N/A

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

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

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

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



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#11 WAKEMAN 20-17-2NAH (293'FSL & 2173'FEL, SEC.20)		Well: WAKEMAN 20-17-2NAH		Threshold Value=1.00		† = interpolated/extrapolated station					
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	-0.13	-90.04	-90.09	90.04	1.40	148.72	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	-0.13	-90.04	-90.09	90.04	1.73	96.30	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	-0.13	-90.04	-90.09	90.04	2.30	59.48	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	-0.13	-90.04	-90.09	90.04	2.91	42.38	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	-0.13	-90.04	-90.09	90.04	3.52	32.79	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	-0.13	-90.04	-90.09	90.04	4.14	26.71	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	-0.13	-90.04	-90.09	90.04	4.77	22.51	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	-0.13	-90.04	-90.09	90.04	5.39	19.45	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	-0.13	-90.04	-90.09	90.04	6.02	17.11	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	-0.13	-90.04	-90.09	90.04	6.64	15.28	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.13	-90.04	-90.09	90.04	7.27	13.80	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.13	-90.04	-90.09	90.04	7.90	12.58	PASS	
1200.00	1200.00	0.00	0.00	1200.00	1200.00	-0.13	-90.04	-90.09	90.04	8.44	11.68	PASS	
1213.00†	1213.00	-0.02	0.02	1213.00	1213.00	-0.13	-90.04	-90.04	134.41	90.06	8.52	11.56	PASS
1313.00†	1312.97	-1.59	1.56	1312.97	1312.97	-0.13	-90.04	-90.04	135.38	91.61	9.19	10.82	PASS
1413.00†	1412.80	-5.65	5.55	1412.42	1412.42	-0.14	-90.06	-90.06	137.69	95.77	10.01	10.32	PASS
1484.80	1484.33	-10.09	9.91	1481.71	1481.70	-0.52	-91.14	-91.14	139.66	101.53	10.61	10.27	PASS
1513.00†	1512.39	-12.09	11.87	1508.84	1508.81	-0.82	-91.99	-91.99	140.42	104.53	10.82	10.36	PASS
1613.00†	1611.90	-19.17	18.83	1604.65	1604.48	-2.56	-96.93	-96.93	142.29	117.18	11.66	10.72	PASS
1713.00†	1711.40	-26.25	25.78	1699.74	1699.20	-5.34	-104.81	-104.81	143.13	132.82	12.45	11.34	PASS
1813.00†	1810.91	-33.33	32.74	1793.91	1792.67	-9.11	-115.54	-115.54	143.21	151.35	13.17	12.13	PASS
1913.00†	1910.42	-40.41	39.69	1886.96	1884.62	-13.84	-128.98	-128.98	142.78	172.69	13.89	13.05	PASS
2013.00†	2009.92	-47.49	46.65	1978.73	1974.81	-19.48	-144.99	-144.99	142.03	196.83	14.68	14.04	PASS
2113.00†	2109.43	-54.57	53.60	2069.06	2063.00	-25.96	-163.40	-163.40	141.10	223.75	15.38	15.20	PASS
2213.00†	2208.94	-61.65	60.56	2162.47	2153.67	-33.40	-184.55	-184.55	140.10	252.84	16.08	16.40	PASS
2313.00†	2308.44	-68.73	67.51	2258.01	2246.38	-41.07	-206.34	-206.34	139.28	282.15	16.76	17.53	PASS
2413.00†	2407.95	-75.81	74.47	2353.55	2339.08	-48.74	-228.12	-228.12	138.60	311.51	17.51	18.50	PASS
2513.00†	2507.45	-82.89	81.42	2449.08	2431.78	-56.41	-249.91	-249.91	138.05	340.89	18.15	19.51	PASS
2613.00†	2606.96	-89.97	88.38	2544.62	2524.49	-64.07	-271.69	-271.69	137.58	370.30	18.86	20.36	PASS
2713.00†	2706.47	-97.06	95.33	2640.16	2617.19	-71.74	-293.48	-293.48	137.18	399.73	19.58	21.14	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#11 WAKEMAN 20-17-2NAH (293°FSL & 2173°FEL, SEC.20)		Well: WAKEMAN 20-17-2NAH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2805.97	-104.14	102.29	2735.69	2709.90	-79.41	-315.26	136.84	429.17	20.31	21.86	PASS
2913.00†	2905.48	-111.22	109.24	2831.23	2802.60	-87.08	-337.05	136.54	458.63	21.05	22.51	PASS
3013.00†	3004.99	-118.30	116.20	2926.77	2895.30	-94.75	-358.83	136.28	488.09	21.79	23.11	PASS
3113.00†	3104.49	-125.38	123.15	3022.31	2988.01	-102.41	-380.62	136.04	517.57	22.55	23.67	PASS
3213.00†	3204.00	-132.46	130.11	3117.84	3080.71	-110.08	-402.40	135.83	547.05	23.30	24.18	PASS
3313.00†	3303.50	-139.54	137.06	3213.38	3173.42	-117.75	-424.19	135.65	576.54	24.06	24.66	PASS
3413.00†	3403.01	-146.62	144.02	3308.92	3266.12	-125.42	-445.97	135.48	606.03	24.83	25.09	PASS
3513.00†	3502.52	-153.70	150.97	3404.46	3358.82	-133.08	-467.76	135.32	635.53	25.60	25.50	PASS
3613.00†	3602.02	-160.78	157.93	3499.99	3451.53	-140.75	-489.54	135.18	665.03	26.38	25.88	PASS
3713.00†	3701.53	-167.86	164.88	3595.53	3544.23	-148.42	-511.33	135.06	694.53	27.15	26.24	PASS
3813.00†	3801.04	-174.94	171.84	3691.07	3636.93	-156.09	-533.11	134.94	724.04	27.94	26.57	PASS
3913.00†	3900.54	-182.02	178.79	3786.61	3729.64	-163.76	-554.90	134.83	753.55	28.72	26.88	PASS
4013.00†	4000.05	-189.10	185.75	3882.14	3822.34	-171.42	-576.68	134.73	783.06	29.51	27.17	PASS
4113.00†	4099.55	-196.18	192.70	3977.68	3915.05	-179.09	-598.47	134.64	812.58	30.30	27.44	PASS
4213.00†	4199.06	-203.27	199.66	4073.22	4007.75	-186.76	-620.25	134.55	842.09	31.09	27.69	PASS
4313.00†	4298.57	-210.35	206.61	4168.76	4100.45	-194.43	-642.04	134.47	871.61	31.88	27.94	PASS
4413.00†	4398.07	-217.43	213.57	4264.29	4193.16	-202.10	-663.82	134.40	901.13	32.68	28.16	PASS
4513.00†	4497.58	-224.51	220.52	4359.83	4285.86	-209.76	-685.61	134.32	930.65	33.48	28.38	PASS
4613.00†	4597.09	-231.59	227.48	4455.37	4378.57	-217.43	-707.39	134.26	960.17	34.28	28.58	PASS
4713.00†	4696.59	-238.67	234.43	4550.91	4471.27	-225.10	-729.18	134.20	989.69	35.08	28.77	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



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

## 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	-0.08	-54.89	-2.90	-62.90
8.5in Open Hole	1800.00	17526.80	15726.80	1798.70	N/A	-2.90	-62.90	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

## 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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#12 WAKEMAN 20-17-2CDH (293°FSL & 2188°FEL, SEC.20) Well: WAKEMAN 20-17-2CDH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	-0.16	-105.01	-90.09	105.01	1.40	173.68	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	-0.16	-105.01	-90.09	105.01	1.73	112.43	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	-0.16	-105.01	-90.09	105.01	2.30	69.44	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	-0.16	-105.01	-90.09	105.01	2.91	49.49	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	-0.16	-105.01	-90.09	105.01	3.52	38.29	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	-0.16	-105.01	-90.09	105.01	4.14	31.18	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	-0.16	-105.01	-90.09	105.01	4.77	26.28	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	-0.16	-105.01	-90.09	105.01	5.39	22.71	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	-0.16	-105.01	-90.09	105.01	6.02	19.98	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	-0.16	-105.01	-90.09	105.01	6.64	17.84	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.16	-105.01	-90.09	105.01	7.27	16.11	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.16	-105.01	-90.09	105.01	7.90	14.69	PASS	
1200.00	1200.00	0.00	0.00	1200.00	1200.00	-0.16	-105.01	-90.09	105.01	8.44	13.64	PASS	
1213.00†	1213.00	-0.02	0.02	1213.00	1213.00	-0.16	-105.01	134.41	105.03	8.52	13.50	PASS	
1313.00†	1312.97	-1.59	1.56	1312.53	1312.53	-0.17	-105.04	135.22	106.61	9.19	12.61	PASS	
1413.00†	1412.80	-5.65	5.55	1408.80	1408.78	-0.78	-106.98	136.78	112.71	10.06	12.08	PASS	
1484.80	1484.33	-10.09	9.91	1477.48	1477.37	-1.80	-110.26	138.07	120.66	10.79	12.00	PASS	
1513.00†	1512.39	-12.09	11.87	1504.33	1504.15	-2.33	-111.96	138.60	124.49	11.04	12.08	PASS	
1613.00†	1611.90	-19.17	18.83	1599.02	1598.47	-4.80	-119.89	139.91	140.11	11.85	12.61	PASS	
1713.00†	1711.40	-26.25	25.78	1692.77	1691.54	-8.17	-130.67	140.48	158.75	12.65	13.33	PASS	
1813.00†	1810.91	-33.33	32.74	1785.40	1783.08	-12.38	-144.17	140.54	180.31	13.37	14.23	PASS	
1913.00†	1910.42	-40.41	39.69	1876.75	1872.86	-17.39	-160.25	140.24	204.73	14.12	15.21	PASS	
2013.00†	2009.92	-47.49	46.65	1966.65	1960.65	-23.15	-178.73	139.71	231.98	14.82	16.38	PASS	
2113.00†	2109.43	-54.57	53.60	2058.90	2050.16	-29.79	-200.00	139.06	261.61	15.51	17.62	PASS	
2213.00†	2208.94	-61.65	60.56	2154.27	2142.63	-36.74	-222.29	138.50	291.58	16.18	18.81	PASS	
2313.00†	2308.44	-68.73	67.51	2249.64	2235.10	-43.69	-244.58	138.04	321.57	16.91	19.80	PASS	
2413.00†	2407.95	-75.81	74.47	2345.01	2327.57	-50.64	-266.86	137.66	351.57	17.54	20.85	PASS	
2513.00†	2507.45	-82.89	81.42	2440.38	2420.03	-57.59	-289.15	137.34	381.59	18.23	21.73	PASS	
2613.00†	2606.96	-89.97	88.38	2535.74	2512.50	-64.54	-311.44	137.07	411.61	18.94	22.53	PASS	
2713.00†	2706.47	-97.06	95.33	2631.11	2604.97	-71.49	-333.73	136.83	441.64	19.66	23.26	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#12 WAKEMAN 20-17-2CDH (293°FSL & 2188°FEL, SEC.20) Well: WAKEMAN 20-17-2CDH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2805.97	-104.14	102.29	2726.48	2697.44	-78.44	-356.02	136.63	471.68	20.39	23.93	PASS
2913.00†	2905.48	-111.22	109.24	2821.85	2789.90	-85.39	-378.30	136.45	501.72	21.13	24.54	PASS
3013.00†	3004.99	-118.30	116.20	2917.22	2882.37	-92.35	-400.59	136.29	531.77	21.87	25.10	PASS
3113.00†	3104.49	-125.38	123.15	3012.59	2974.84	-99.30	-422.88	136.14	561.82	22.62	25.61	PASS
3213.00†	3204.00	-132.46	130.11	3107.96	3067.31	-106.25	-445.17	136.01	591.87	23.37	26.08	PASS
3313.00†	3303.50	-139.54	137.06	3203.33	3159.77	-113.20	-467.46	135.90	621.93	24.13	26.52	PASS
3413.00†	3403.01	-146.62	144.02	3298.70	3252.24	-120.15	-489.74	135.79	651.99	24.90	26.93	PASS
3513.00†	3502.52	-153.70	150.97	3394.07	3344.71	-127.10	-512.03	135.70	682.05	25.66	27.30	PASS
3613.00†	3602.02	-160.78	157.93	3489.44	3437.18	-134.05	-534.32	135.61	712.11	26.44	27.65	PASS
3713.00†	3701.53	-167.86	164.88	3584.81	3529.64	-141.00	-556.61	135.53	742.17	27.21	27.98	PASS
3813.00†	3801.04	-174.94	171.84	3680.18	3622.11	-147.95	-578.90	135.45	772.23	27.99	28.28	PASS
3913.00†	3900.54	-182.02	178.79	3775.54	3714.58	-154.90	-601.18	135.38	802.30	28.77	28.56	PASS
4013.00†	4000.05	-189.10	185.75	3870.91	3807.05	-161.85	-623.47	135.32	832.36	29.55	28.83	PASS
4113.00†	4099.55	-196.18	192.70	3966.28	3899.51	-168.81	-645.76	135.26	862.43	30.34	29.08	PASS
4213.00†	4199.06	-203.27	199.66	4061.65	3991.98	-175.76	-668.05	135.20	892.50	31.13	29.31	PASS
4313.00†	4298.57	-210.35	206.61	4157.02	4084.45	-182.71	-690.34	135.15	922.56	31.92	29.53	PASS
4413.00†	4398.07	-217.43	213.57	4252.39	4176.92	-189.66	-712.62	135.10	952.63	32.71	29.74	PASS
4513.00†	4497.58	-224.51	220.52	4347.76	4269.38	-196.61	-734.91	135.06	982.70	33.51	29.94	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



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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	-0.10	-64.01	-4.05	-76.68
8.5in Open Hole	1800.00	17954.40	16154.40	1797.47	N/A	-4.05	-76.68	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
13.00	17954.40	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)	WAKEMAN 20-17-2CDH PWB

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



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)				Well: WAKEMAN 20-17-1NBH		Threshold Value=1.00 † = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	-0.19	-120.01	-90.09	120.01	1.40	198.69	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.19	-120.01	-90.09	120.01	1.73	128.59	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.19	-120.01	-90.09	120.01	2.30	79.42	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.19	-120.01	-90.09	120.01	2.91	56.60	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.19	-120.01	-90.09	120.01	3.52	43.80	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.19	-120.01	-90.09	120.01	4.14	35.67	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.19	-120.01	-90.09	120.01	4.77	30.06	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.19	-120.01	-90.09	120.01	5.39	25.97	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.19	-120.01	-90.09	120.01	6.02	22.86	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.19	-120.01	-90.09	120.01	6.64	20.41	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.19	-120.01	-90.09	120.01	7.27	18.43	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.19	-120.01	-90.09	120.01	7.90	16.80	PASS
1200.00	1200.00	0.00	0.00	1200.00	1200.00	-0.19	-120.01	-90.09	120.01	8.44	15.61	PASS
1213.00†	1213.00	-0.02	0.02	1212.49	1212.49	-0.20	-120.04	134.40	120.06	8.52	15.45	PASS
1313.00†	1312.97	-1.59	1.56	1308.46	1308.44	-0.69	-122.01	134.82	123.66	9.26	14.52	PASS
1413.00†	1412.80	-5.65	5.55	1403.86	1403.69	-1.93	-127.05	135.81	132.96	10.33	13.87	PASS
1484.80	1484.33	-10.09	9.91	1471.74	1471.33	-3.28	-132.52	136.73	143.18	11.03	13.92	PASS
1513.00†	1512.39	-12.09	11.87	1498.23	1497.69	-3.91	-135.07	137.14	147.90	11.29	14.02	PASS
1613.00†	1611.90	-19.17	18.83	1591.53	1590.31	-6.60	-145.95	138.21	166.66	12.08	14.70	PASS
1713.00†	1711.40	-26.25	25.78	1683.69	1681.40	-9.97	-159.56	138.76	188.46	12.87	15.55	PASS
1813.00†	1810.91	-33.33	32.74	1774.55	1770.71	-13.97	-175.76	138.93	213.22	13.63	16.50	PASS
1913.00†	1910.42	-40.41	39.69	1863.96	1858.03	-18.57	-194.37	138.84	240.85	14.27	17.71	PASS
2013.00†	2009.92	-47.49	46.65	1951.77	1943.17	-23.73	-215.22	138.57	271.29	15.00	18.93	PASS
2113.00†	2109.43	-54.57	53.60	2037.87	2025.98	-29.39	-238.12	138.20	304.46	15.72	20.23	PASS
2213.00†	2208.94	-61.65	60.56	2124.25	2108.32	-35.65	-263.43	137.75	340.25	16.44	21.58	PASS
2313.00†	2308.44	-68.73	67.51	2217.27	2196.76	-42.57	-291.45	137.31	376.85	17.08	22.98	PASS
2413.00†	2407.95	-75.81	74.47	2310.30	2285.19	-49.50	-319.47	136.96	413.46	17.76	24.21	PASS
2513.00†	2507.45	-82.89	81.42	2403.33	2373.63	-56.43	-347.49	136.66	450.09	18.45	25.33	PASS
2613.00†	2606.96	-89.97	88.38	2496.36	2462.07	-63.35	-375.51	136.40	486.72	19.16	26.34	PASS
2713.00†	2706.47	-97.06	95.33	2589.39	2550.50	-70.28	-403.53	136.19	523.36	19.88	27.26	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20) Well: WAKEMAN 20-17-1NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2805.97	-104.14	102.29	2682.41	2638.94	-77.21	-431.55	136.00	560.01	20.61	28.10	PASS
2913.00†	2905.48	-111.22	109.24	2775.44	2727.38	-84.13	-459.57	135.83	596.66	21.35	28.87	PASS
3013.00†	3004.99	-118.30	116.20	2868.47	2815.81	-91.06	-487.59	135.68	633.32	22.10	29.57	PASS
3113.00†	3104.49	-125.38	123.15	2961.50	2904.25	-97.99	-515.61	135.55	669.98	22.86	30.22	PASS
3213.00†	3204.00	-132.46	130.11	3054.52	2992.69	-104.91	-543.63	135.43	706.64	23.62	30.81	PASS
3313.00†	3303.50	-139.54	137.06	3147.55	3081.12	-111.84	-571.66	135.33	743.30	24.39	31.35	PASS
3413.00†	3403.01	-146.62	144.02	3240.58	3169.56	-118.77	-599.68	135.23	779.97	25.17	31.86	PASS
3513.00†	3502.52	-153.70	150.97	3333.61	3258.00	-125.70	-627.70	135.14	816.64	25.95	32.32	PASS
3613.00†	3602.02	-160.78	157.93	3426.64	3346.43	-132.62	-655.72	135.06	853.31	26.74	32.76	PASS
3713.00†	3701.53	-167.86	164.88	3519.66	3434.87	-139.55	-683.74	134.99	889.98	27.53	33.16	PASS
3813.00†	3801.04	-174.94	171.84	3612.69	3523.31	-146.48	-711.76	134.92	926.65	28.32	33.53	PASS
3913.00†	3900.54	-182.02	178.79	3705.72	3611.74	-153.40	-739.78	134.86	963.32	29.12	33.88	PASS
4013.00†	4000.05	-189.10	185.75	3798.75	3700.18	-160.33	-767.80	134.80	1000.00	29.93	34.20	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1795.62	-0.12	-73.16	-4.70	-91.68
8.5in Open Hole	1800.00	17835.13	16035.13	1795.62	N/A	-4.70	-91.68	N/A	N/A



**Clearance Report**  
**WAKEMAN 20-17-3CDH PWP (REV-A.0)**  
**Closest Approach**  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

**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

**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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20) Well: WAKEMAN 20-17-1NCH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	16.00	13.00	-0.22	-134.96	-90.09	134.96	1.40	223.59	PASS	
113.00†	113.00	0.00	0.00	116.00	113.00	-0.22	-134.96	-90.09	134.96	1.73	144.68	PASS	
213.00†	213.00	0.00	0.00	216.00	213.00	-0.22	-134.96	-90.09	134.96	2.30	89.36	PASS	
313.00†	313.00	0.00	0.00	316.00	313.00	-0.22	-134.96	-90.09	134.96	2.91	63.68	PASS	
413.00†	413.00	0.00	0.00	416.00	413.00	-0.22	-134.96	-90.09	134.96	3.52	49.28	PASS	
513.00†	513.00	0.00	0.00	516.00	513.00	-0.22	-134.96	-90.09	134.96	4.14	40.13	PASS	
613.00†	613.00	0.00	0.00	616.00	613.00	-0.22	-134.96	-90.09	134.96	4.77	33.83	PASS	
713.00†	713.00	0.00	0.00	716.00	713.00	-0.22	-134.96	-90.09	134.96	5.39	29.23	PASS	
813.00†	813.00	0.00	0.00	816.00	813.00	-0.22	-134.96	-90.09	134.96	6.02	25.72	PASS	
913.00†	913.00	0.00	0.00	916.00	913.00	-0.22	-134.96	-90.09	134.96	6.64	22.97	PASS	
1013.00†	1013.00	0.00	0.00	1015.29	1012.29	-0.23	-135.00	-90.10	135.00	7.27	20.76	PASS	
1113.00†	1113.00	0.00	0.00	1110.82	1107.80	-0.65	-137.06	-90.27	137.16	7.98	19.00	PASS	
1200.00	1200.00	0.00	0.00	1193.74	1190.60	-1.52	-141.37	-90.62	141.69	8.79	17.63	PASS	
1213.00†	1213.00	-0.02	0.02	1206.11	1202.93	-1.70	-142.22		133.80	142.61	8.92	17.47	PASS
1313.00†	1312.97	-1.59	1.56	1300.79	1297.24	-3.36	-150.42		133.63	152.80	9.85	16.80	PASS
1413.00†	1412.80	-5.65	5.55	1394.37	1390.13	-5.62	-161.51		134.00	168.59	10.84	16.71	PASS
1484.80	1484.33	-10.09	9.91	1460.62	1455.63	-7.59	-171.17		134.49	183.35	11.51	17.04	PASS
1513.00†	1512.39	-12.09	11.87	1486.40	1481.07	-8.43	-175.32		134.79	189.83	11.75	17.27	PASS
1613.00†	1611.90	-19.17	18.83	1576.97	1570.08	-11.76	-191.70		135.57	214.77	12.54	18.23	PASS
1713.00†	1711.40	-26.25	25.78	1666.07	1657.08	-15.59	-210.49		136.02	242.67	13.26	19.42	PASS
1813.00†	1810.91	-33.33	32.74	1753.56	1741.90	-19.87	-231.52		136.23	273.45	13.94	20.68	PASS
1913.00†	1910.42	-40.41	39.69	1839.34	1824.38	-24.56	-254.58		136.28	307.01	14.62	22.02	PASS
2013.00†	2009.92	-47.49	46.65	1923.29	1904.39	-29.63	-279.49		136.21	343.26	15.33	23.43	PASS
2113.00†	2109.43	-54.57	53.60	2005.34	1981.84	-35.03	-306.05		136.05	382.12	16.02	24.91	PASS
2213.00†	2208.94	-61.65	60.56	2092.70	2063.61	-41.16	-336.17		135.85	423.00	16.68	26.43	PASS
2313.00†	2308.44	-68.73	67.51	2183.88	2148.90	-47.58	-367.74		135.67	464.06	17.34	27.86	PASS
2413.00†	2407.95	-75.81	74.47	2275.05	2234.19	-54.01	-399.32		135.52	505.11	18.03	29.13	PASS
2513.00†	2507.45	-82.89	81.42	2366.23	2319.48	-60.43	-430.89		135.39	546.17	18.73	30.27	PASS
2613.00†	2606.96	-89.97	88.38	2457.40	2404.77	-66.85	-462.47		135.28	587.24	19.44	31.31	PASS
2713.00†	2706.47	-97.06	95.33	2548.58	2490.06	-73.28	-494.04		135.18	628.30	20.17	32.25	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20) Well: WAKEMAN 20-17-1NCH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2805.97	-104.14	102.29	2639.75	2575.36	-79.70	-525.62	135.10	669.36	20.91	33.10	PASS
2913.00†	2905.48	-111.22	109.24	2730.93	2660.65	-86.13	-557.20	135.02	710.43	21.66	33.88	PASS
3013.00†	3004.99	-118.30	116.20	2822.10	2745.94	-92.55	-588.77	134.96	751.50	22.42	34.58	PASS
3113.00†	3104.49	-125.38	123.15	2913.28	2831.23	-98.98	-620.35	134.90	792.57	23.19	35.23	PASS
3213.00†	3204.00	-132.46	130.11	3004.45	2916.52	-105.40	-651.92	134.84	833.63	23.96	35.82	PASS
3313.00†	3303.50	-139.54	137.06	3095.63	3001.81	-111.82	-683.50	134.79	874.70	24.74	36.36	PASS
3413.00†	3403.01	-146.62	144.02	3186.80	3087.10	-118.25	-715.07	134.75	915.77	25.53	36.86	PASS
3513.00†	3502.52	-153.70	150.97	3277.98	3172.39	-124.67	-746.65	134.71	956.84	26.33	37.32	PASS
3613.00†	3602.02	-160.78	157.93	3369.15	3257.69	-131.10	-778.23	134.67	997.91	27.12	37.75	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	16.00	1800.00	1784.00	16.00	1789.64	-0.13	-82.27	-6.88	-115.42
8.5in Open Hole	1800.00	18013.26	16213.26	1789.64	N/A	-6.88	-115.42	N/A	N/A

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

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



**Clearance Report**  
**WAKEMAN 20-17-3CDH PWP (REV-A.0)**  
**Closest Approach**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)	
MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	16.00ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#15 WAKEMAN 20-17-1NAH (293'FSL & 2233'FEL, SEC.20) Well: WAKEMAN 20-17-1NAH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	16.00	13.00	-0.21	-150.01	-90.08	150.01	1.40	248.69	PASS	
113.00†	113.00	0.00	0.00	116.00	113.00	-0.21	-150.01	-90.08	150.01	1.73	160.92	PASS	
213.00†	213.00	0.00	0.00	216.00	213.00	-0.21	-150.01	-90.08	150.01	2.30	99.38	PASS	
313.00†	313.00	0.00	0.00	316.00	313.00	-0.21	-150.01	-90.08	150.01	2.91	70.83	PASS	
413.00†	413.00	0.00	0.00	416.00	413.00	-0.21	-150.01	-90.08	150.01	3.52	54.81	PASS	
513.00†	513.00	0.00	0.00	516.00	513.00	-0.21	-150.01	-90.08	150.01	4.14	44.64	PASS	
613.00†	613.00	0.00	0.00	616.00	613.00	-0.21	-150.01	-90.08	150.01	4.77	37.62	PASS	
713.00†	713.00	0.00	0.00	716.00	713.00	-0.21	-150.01	-90.08	150.01	5.39	32.51	PASS	
813.00†	813.00	0.00	0.00	816.00	813.00	-0.21	-150.01	-90.08	150.01	6.02	28.61	PASS	
913.00†	913.00	0.00	0.00	915.22	912.22	-0.22	-150.05	-90.08	150.06	6.64	25.57	PASS	
1013.00†	1013.00	0.00	0.00	1010.27	1007.24	-0.61	-152.10	-90.23	152.21	7.36	23.08	PASS	
1113.00†	1113.00	0.00	0.00	1105.08	1101.91	-1.60	-157.22	-90.58	157.62	8.32	20.86	PASS	
1200.00	1200.00	0.00	0.00	1187.21	1183.73	-2.94	-164.14	-91.03	164.97	9.11	19.76	PASS	
1213.00†	1213.00	-0.02	0.02	1199.45	1195.90	-3.17	-165.37	133.38	166.30	9.23	19.65	PASS	
1313.00†	1312.97	-1.59	1.56	1292.98	1288.75	-5.31	-176.44	133.04	179.68	10.15	19.14	PASS	
1413.00†	1412.80	-5.65	5.55	1385.17	1379.85	-7.97	-190.26	133.20	198.57	11.09	19.23	PASS	
1484.80	1484.33	-10.09	9.91	1450.29	1443.91	-10.19	-201.75	133.53	215.49	11.71	19.68	PASS	
1513.00†	1512.39	-12.09	11.87	1475.60	1468.74	-11.13	-206.60	133.78	222.80	11.99	19.84	PASS	
1613.00†	1611.90	-19.17	18.83	1564.42	1555.48	-14.74	-225.33	134.44	250.63	12.71	20.97	PASS	
1713.00†	1711.40	-26.25	25.78	1651.64	1640.04	-18.78	-246.28	134.86	281.36	13.44	22.20	PASS	
1813.00†	1810.91	-33.33	32.74	1737.14	1722.28	-23.21	-269.26	135.08	314.90	14.11	23.52	PASS	
1913.00†	1910.42	-40.41	39.69	1820.84	1802.07	-28.00	-294.08	135.17	351.14	14.78	24.91	PASS	
2013.00†	2009.92	-47.49	46.65	1902.65	1879.31	-33.10	-320.55	135.16	390.00	15.46	26.39	PASS	
2113.00†	2109.43	-54.57	53.60	1982.51	1953.93	-38.49	-348.46	135.08	431.38	16.19	27.82	PASS	
2213.00†	2208.94	-61.65	60.56	2068.83	2033.92	-44.63	-380.33	134.96	474.66	16.82	29.42	PASS	
2313.00†	2308.44	-68.73	67.51	2158.92	2117.35	-51.07	-413.69	134.84	518.06	17.48	30.84	PASS	
2413.00†	2407.95	-75.81	74.47	2249.00	2200.78	-57.50	-447.06	134.75	561.47	18.17	32.11	PASS	
2513.00†	2507.45	-82.89	81.42	2339.09	2284.21	-63.94	-480.43	134.67	604.87	18.88	33.25	PASS	
2613.00†	2606.96	-89.97	88.38	2429.17	2367.64	-70.38	-513.79	134.60	648.28	19.60	34.28	PASS	
2713.00†	2706.47	-97.06	95.33	2519.26	2451.07	-76.81	-547.16	134.54	691.69	20.33	35.22	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W				Slot: SLOT#15 WAKEMAN 20-17-1NAH (293°FSL & 2233°FEL, SEC.20)		Well: WAKEMAN 20-17-1NAH		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2805.97	-104.14	102.29	2609.34	2534.50	-83.25	-580.53	134.48	735.10	21.08	36.06	PASS	
2913.00†	2905.48	-111.22	109.24	2699.43	2617.93	-89.68	-613.90	134.43	778.51	21.83	36.82	PASS	
3013.00†	3004.99	-118.30	116.20	2789.51	2701.36	-96.12	-647.26	134.39	821.92	22.60	37.52	PASS	
3113.00†	3104.49	-125.38	123.15	2879.60	2784.79	-102.55	-680.63	134.35	865.33	23.37	38.15	PASS	
3213.00†	3204.00	-132.46	130.11	2969.68	2868.22	-108.99	-714.00	134.32	908.74	24.15	38.73	PASS	
3313.00†	3303.50	-139.54	137.06	3059.77	2951.65	-115.43	-747.36	134.28	952.15	24.94	39.26	PASS	
3413.00†	3403.01	-146.62	144.02	3149.85	3035.08	-121.86	-780.73	134.25	995.56	25.74	39.74	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	16.00	1800.00	1784.00	16.00	1785.27	-0.13	-91.45	-8.22	-133.41
8.5in Open Hole	1800.00	17822.97	16022.97	1785.27	7230.00	-8.22	-133.41	3041.27	-897.99

## 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 20-17-3CDH PWP (REV-A.0)**  
**Closest Approach**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
13.00	13.00	0.00	0.00	13.00	13.00	-0.31	-164.96	-90.11	164.96	1.40	273.59	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.31	-164.96	-90.11	164.96	1.73	177.02	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.31	-164.96	-90.11	164.96	2.30	109.33	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.31	-164.96	-90.11	164.96	2.91	77.92	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.31	-164.96	-90.11	164.96	3.52	60.29	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.31	-164.96	-90.11	164.96	4.15	49.10	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.31	-164.96	-90.11	164.96	4.77	41.39	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.31	-164.96	-90.11	164.96	5.39	35.76	PASS
813.00†	813.00	0.00	0.00	812.30	812.30	-0.32	-164.98	-90.11	164.99	6.01	31.50	PASS
913.00†	913.00	0.00	0.00	906.88	906.88	-0.65	-166.92	-90.22	167.04	6.74	27.98	PASS
1013.00†	1013.00	0.00	0.00	1001.23	1001.06	-1.52	-171.92	-90.51	172.34	7.73	24.76	PASS
1113.00†	1113.00	0.00	0.00	1095.14	1094.62	-2.91	-179.93	-90.93	180.88	8.65	22.94	PASS
1200.00	1200.00	0.00	0.00	1176.34	1175.26	-4.53	-189.28	-91.37	190.94	9.43	22.04	PASS
1213.00†	1213.00	-0.02	0.02	1188.42	1187.23	-4.81	-190.86	133.03	192.67	9.54	21.96	PASS
1313.00†	1312.97	-1.59	1.56	1280.66	1278.40	-7.19	-204.59	132.63	209.11	10.36	21.80	PASS
1413.00†	1412.80	-5.65	5.55	1371.34	1367.56	-10.02	-220.91	132.68	230.97	11.35	21.81	PASS
1484.80	1484.33	-10.09	9.91	1435.24	1430.05	-12.30	-234.07	132.90	249.96	11.96	22.34	PASS
1513.00†	1512.39	-12.09	11.87	1460.06	1454.24	-13.25	-239.55	133.12	258.06	12.18	22.61	PASS
1613.00†	1611.90	-19.17	18.83	1547.03	1538.60	-16.86	-260.38	133.74	288.68	12.90	23.79	PASS
1713.00†	1711.40	-26.25	25.78	1632.30	1620.64	-20.83	-283.25	134.15	322.13	13.62	25.07	PASS
1813.00†	1810.91	-33.33	32.74	1715.78	1700.26	-25.12	-307.95	134.40	358.30	14.28	26.44	PASS
1913.00†	1910.42	-40.41	39.69	1797.37	1777.35	-29.69	-334.30	134.54	397.11	14.97	27.89	PASS
2013.00†	2009.92	-47.49	46.65	1877.02	1851.83	-34.51	-362.10	134.60	438.44	15.68	29.24	PASS
2113.00†	2109.43	-54.57	53.60	1958.83	1927.54	-39.80	-392.62	134.59	482.10	16.27	30.94	PASS
2213.00†	2208.94	-61.65	60.56	2048.53	2010.36	-45.69	-426.57	134.57	526.29	16.92	32.42	PASS
2313.00†	2308.44	-68.73	67.51	2138.24	2093.18	-51.58	-460.53	134.55	570.49	17.60	33.74	PASS
2413.00†	2407.95	-75.81	74.47	2227.94	2176.00	-57.47	-494.48	134.54	614.69	18.29	34.92	PASS
2513.00†	2507.45	-82.89	81.42	2317.64	2258.82	-63.36	-528.43	134.52	658.88	19.00	35.98	PASS
2613.00†	2606.96	-89.97	88.38	2407.34	2341.64	-69.25	-562.39	134.51	703.08	19.73	36.93	PASS
2713.00†	2706.47	-97.06	95.33	2497.05	2424.46	-75.14	-596.34	134.50	747.28	20.46	37.79	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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
2813.00†	2805.97	-104.14	102.29	2586.75	2507.28	-81.03	-630.30	134.49	791.47	21.21	38.56	PASS
2913.00†	2905.48	-111.22	109.24	2676.45	2590.10	-86.92	-664.25	134.49	835.67	21.97	39.27	PASS
3013.00†	3004.99	-118.30	116.20	2766.16	2672.92	-92.81	-698.20	134.48	879.87	22.74	39.90	PASS
3113.00†	3104.49	-125.38	123.15	2855.86	2755.74	-98.70	-732.16	134.47	924.06	23.52	40.48	PASS
3213.00†	3204.00	-132.46	130.11	2945.56	2838.56	-104.59	-766.11	134.47	968.26	24.30	41.01	PASS

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	-0.19	-100.56	-9.19	-152.44
8.5in Open Hole	1800.00	18287.12	16487.12	1779.82	7638.00	-9.19	-152.44	3041.32	-933.02

## 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 20-17-3CDH PWP (REV-A.0)**  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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



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WAKEMAN 20-17-3CDH PWP (REV-A.0)  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T1S-R65W		Slot: SLOT#02 EX. COLLINS HH #20-3J (814'FNL & 1886'FWL, SEC.20, 8163, PR)		Well: COLLINS HH #20-3J		Threshold Value=1.00 † = Interpolated/extrapolated station							
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	49.00	4193.85	-1399.89	-18.46	4421.47	25.40	179.69	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	2552.62	-865.02	2552.62	-865.02
8.625in Casing Surface	0.00	1529.00	1529.00	49.00	1578.00	2552.62	-865.02	2552.62	-865.02
7.875in Open Hole	1529.00	8141.00	6612.00	1578.00	8190.00	2552.62	-865.02	2552.62	-865.02
4.5in Casing Production	0.00	8141.00	8141.00	49.00	8190.00	2552.62	-865.02	2552.62	-865.02

## 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 20-17-3CDH PWP (REV-A.0)  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.16-T01S-R65W Slot: SLOT#01 EX. STATE #11-16 (990°FNL & 990°FWL, SEC.16, OG, PR, 8173) Well: STATE #11-16 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	23.00	9345.30	2936.39	17.44	9795.77	25.40	398.14	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	5705.09	1763.48	5705.09	1763.48
8.625in Casing Surface	0.00	1549.00	1549.00	23.00	1572.00	5705.09	1763.48	5705.09	1763.48
7.875in Open Hole	1549.00	8173.00	6624.00	1572.00	8196.00	5705.09	1763.48	5705.09	1763.48
4.5in Casing Production	0.00	8173.00	8173.00	23.00	8196.00	5705.09	1763.48	5705.09	1763.48

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

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

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

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



# Clearance Report

WAKEMAN 20-17-3CDH PWP (REV-A.0)  
Closest Approach  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W		Slot: SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130)				Well: AMOCO #24-17		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]		C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	73.00	5966.73	-1937.50	-17.99		6273.70	25.40	254.99	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	3631.86	-1197.64	3631.86	-1197.64
8.625in Casing Surface	0.00	218.00	218.00	73.00	291.00	3631.86	-1197.64	3631.86	-1197.64
7.875in Open Hole	218.00	8129.00	7911.00	291.00	8202.00	3631.86	-1197.64	3631.86	-1197.64
4.5in Casing Production	0.00	8129.00	8129.00	73.00	8202.00	3631.86	-1197.64	3631.86	-1197.64

## 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

## 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



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WAKEMAN 20-17-3CDH PWP (REV-A.0)  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W		Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17, OG, PR, 8140)					Well: AMOCO #17-32		Threshold Value=1.00    † = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	81.00	6832.36	-2892.89	-22.95	7419.88	25.40	301.58	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

## 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	4156.92	-1782.35	4156.92	-1782.35
8.625in Casing Surface	0.00	1450.00	1450.00	81.00	1531.00	4156.92	-1782.35	4156.92	-1782.35
7.875in Open Hole	1450.00	8150.00	6700.00	1531.00	N/A	4156.92	-1782.35	N/A	N/A
4.5in Casing Production	0.00	8150.00	8150.00	81.00	N/A	4156.92	-1782.35	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 20-17-3CDH PWP (REV-A.0)  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.18-T01S-R65W Slot: SLOT#01 EX PUTNAM 41-18 (990'FNL & 990'FEL, SEC.18, SI,8092') Well: PUTNAM 41-18 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	104.00	9200.32	-4382.57	-25.47	10191.23	25.40	414.23	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





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## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3CDH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3CDH 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°FSL, 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]	ACR Status
13.00	13.00	0.00	0.00	-13.00	17.00	703.55	-2234.46	-72.52	2342.61	25.40	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	422.68	-1364.05	422.68	-1364.05
8.625in Casing Surface	0.00	150.00	150.00	17.00	167.00	422.68	-1364.05	422.68	-1364.05
7.875in Open Hole	150.00	8194.00	8044.00	167.00	8211.00	422.68	-1364.05	422.68	-1364.05
4.5in Casing Production	0.00	8194.00	8194.00	17.00	8211.00	422.68	-1364.05	422.68	-1364.05

## 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°FSL, 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