

PETROSHARE

Location: COLORADO Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Field: ADAMS COUNTY (NAD83/ GRID NORTH) Well: WAKEMAN 20-17-1NBH
Facility: SEC.20-T01S-R65W Wellbore: WAKEMAN 20-17-1NBH PWB

Plot reference wellpath is WAKEMAN 20-17-1NBH PWB (REV-A.0)

True vertical depths are referenced to RIG (13'KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to RIG (13'KB) (RKB)	North Reference: Grid north
RIG (13'KB) (RKB) to Mean Sea Level: 5203 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'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

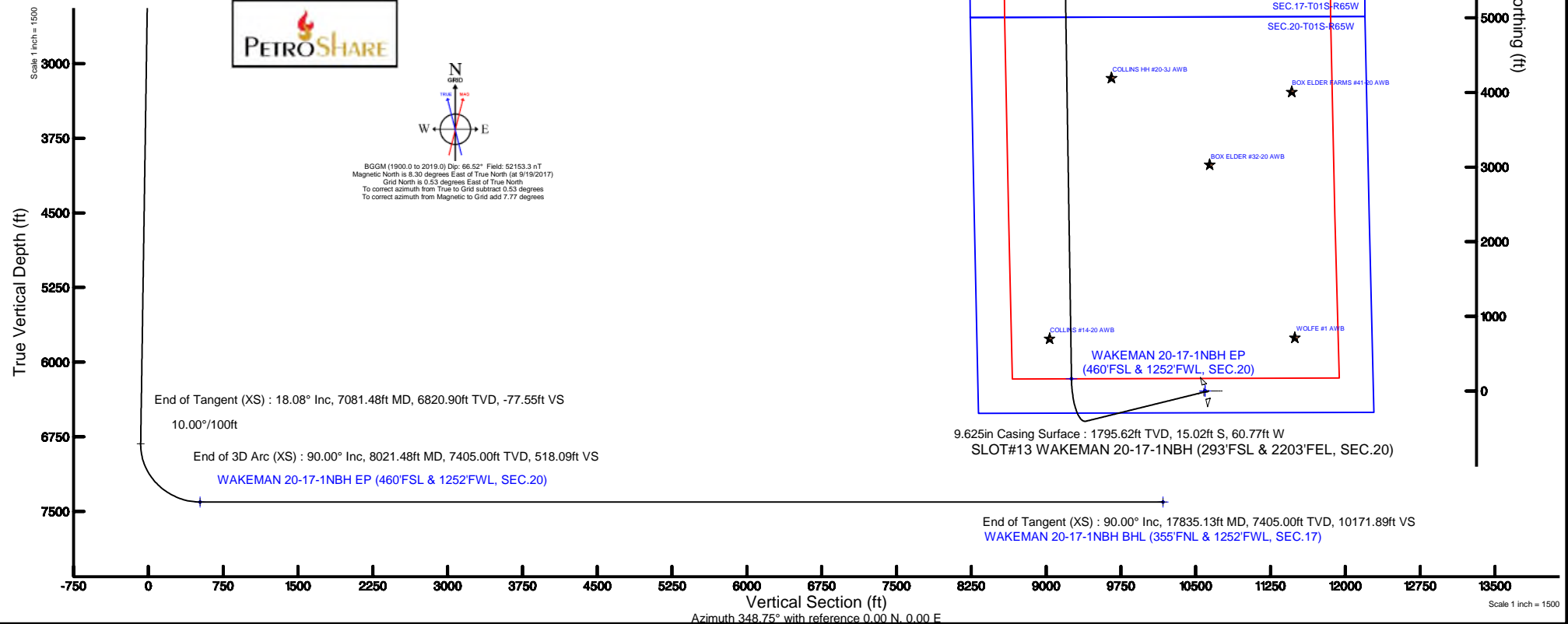
Facility Name			Grid East (US R)	Grid North (US R)	Latitude	Longitude
SEC.20-T01S-R65W			3228360.558	1223518.730	39°56'38.622"N	104°41'07.909"W
Slot	Local N (R)	Local E (R)	Grid East (US R)	Grid North (US R)	Latitude	Longitude
SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)	-0.35	-179.96	3228180.602	1223518.383	39°56'38.630"N	104°41'10.220"W
RIG (13'KB) (RKB) to Ground level (At Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20))					5203R	
Mean Sea Level to Ground level (At Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20))					0ft	
RIG (13'KB) (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	1795.62	0.00	0.00	-15.02	-60.77	WAKEMAN 20-17-1NBH PWB
8.5in Open Hole	1800.00	17835.13	16035.13	1795.62	N/A	-15.02	-60.77	N/A	N/A	WAKEMAN 20-17-1NBH PWB

Survey Program

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





Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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 1:59:27 PM
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB1/WAKEMAN_20-17-1NBH_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	-0.35	-179.96	3228180.60	1223518.38	39°56'38.635"N	104°41'10.220"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#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'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	348.75°



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Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (190 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	256.114	0.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	
13.00	0.000	256.114	13.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	Tie On
113.00†	0.000	256.114	113.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	
213.00†	0.000	256.114	213.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	
313.00†	0.000	256.114	313.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	
413.00†	0.000	256.114	413.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	
513.00†	0.000	256.114	513.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	
613.00†	0.000	256.114	613.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	
713.00†	0.000	256.114	713.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	
813.00†	0.000	256.114	813.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	
913.00†	0.000	256.114	913.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	
1013.00†	0.000	256.114	1013.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	
1113.00†	0.000	256.114	1113.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	
1200.00	0.000	256.114	1200.00	0.00	0.00	0.00	39°56'38.635"N	104°41'10.220"W	0.00	End of Tangent
1213.00†	0.260	256.114	1213.00	0.00	-0.01	-0.03	39°56'38.635"N	104°41'10.220"W	2.00	
1313.00†	2.260	256.114	1312.97	-0.10	-0.53	-2.16	39°56'38.630"N	104°41'10.247"W	2.00	
1413.00†	4.260	256.114	1412.80	-0.36	-1.90	-7.68	39°56'38.617"N	104°41'10.318"W	2.00	
1500.55†	6.011	256.114	1500.00	-0.72	-3.78	-15.29	39°56'38.599"N	104°41'10.416"W	2.00	FOX HILLS
1513.00†	6.260	256.114	1512.38	-0.79	-4.10	-16.58	39°56'38.596"N	104°41'10.433"W	2.00	
1613.00†	8.260	256.114	1611.57	-1.37	-7.13	-28.85	39°56'38.567"N	104°41'10.591"W	2.00	
1713.00†	10.260	256.114	1710.26	-2.11	-10.99	-44.47	39°56'38.530"N	104°41'10.792"W	2.00	
1813.00†	12.260	256.114	1808.33	-3.01	-15.68	-63.42	39°56'38.486"N	104°41'11.036"W	2.00	
1913.00†	14.260	256.114	1905.66	-4.06	-21.18	-85.69	39°56'38.433"N	104°41'11.322"W	2.00	
2013.00†	16.260	256.114	2002.13	-5.27	-27.50	-111.24	39°56'38.373"N	104°41'11.651"W	2.00	
2103.78	18.076	256.114	2088.86	-6.50	-33.93	-137.25	39°56'38.312"N	104°41'11.986"W	2.00	End of Build (XS)
2113.00†	18.076	256.114	2097.63	-6.64	-34.62	-140.03	39°56'38.305"N	104°41'12.021"W	0.00	
2213.00†	18.076	256.114	2192.69	-8.06	-42.06	-170.15	39°56'38.234"N	104°41'12.409"W	0.00	
2313.00†	18.076	256.114	2287.76	-9.49	-49.51	-200.27	39°56'38.164"N	104°41'12.797"W	0.00	
2413.00†	18.076	256.114	2382.82	-10.92	-56.95	-230.39	39°56'38.093"N	104°41'13.184"W	0.00	
2513.00†	18.076	256.114	2477.89	-12.35	-64.40	-260.51	39°56'38.022"N	104°41'13.572"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (190 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2613.00†	18.076	256.114	2572.95	-13.77	-71.85	-290.63	39°56'37.951"N	104°41'13.959"W	0.00	
2713.00†	18.076	256.114	2668.02	-15.20	-79.29	-320.75	39°56'37.880"N	104°41'14.347"W	0.00	
2813.00†	18.076	256.114	2763.08	-16.63	-86.74	-350.87	39°56'37.809"N	104°41'14.735"W	0.00	
2913.00†	18.076	256.114	2858.15	-18.05	-94.18	-380.99	39°56'37.738"N	104°41'15.122"W	0.00	
3013.00†	18.076	256.114	2953.21	-19.48	-101.63	-411.11	39°56'37.668"N	104°41'15.510"W	0.00	
3113.00†	18.076	256.114	3048.28	-20.91	-109.08	-441.23	39°56'37.597"N	104°41'15.897"W	0.00	
3213.00†	18.076	256.114	3143.34	-22.34	-116.52	-471.35	39°56'37.526"N	104°41'16.285"W	0.00	
3313.00†	18.076	256.114	3238.40	-23.76	-123.97	-501.48	39°56'37.455"N	104°41'16.672"W	0.00	
3413.00†	18.076	256.114	3333.47	-25.19	-131.41	-531.60	39°56'37.384"N	104°41'17.060"W	0.00	
3513.00†	18.076	256.114	3428.53	-26.62	-138.86	-561.72	39°56'37.313"N	104°41'17.448"W	0.00	
3613.00†	18.076	256.114	3523.60	-28.05	-146.31	-591.84	39°56'37.243"N	104°41'17.835"W	0.00	
3713.00†	18.076	256.114	3618.66	-29.47	-153.75	-621.96	39°56'37.172"N	104°41'18.223"W	0.00	
3813.00†	18.076	256.114	3713.73	-30.90	-161.20	-652.08	39°56'37.101"N	104°41'18.610"W	0.00	
3913.00†	18.076	256.114	3808.79	-32.33	-168.64	-682.20	39°56'37.030"N	104°41'18.998"W	0.00	
4013.00†	18.076	256.114	3903.86	-33.76	-176.09	-712.32	39°56'36.959"N	104°41'19.385"W	0.00	
4113.00†	18.076	256.114	3998.92	-35.18	-183.54	-742.44	39°56'36.888"N	104°41'19.773"W	0.00	
4213.00†	18.076	256.114	4093.99	-36.61	-190.98	-772.56	39°56'36.817"N	104°41'20.161"W	0.00	
4313.00†	18.076	256.114	4189.05	-38.04	-198.43	-802.68	39°56'36.747"N	104°41'20.548"W	0.00	
4413.00†	18.076	256.114	4284.12	-39.46	-205.87	-832.80	39°56'36.676"N	104°41'20.936"W	0.00	
4513.00†	18.076	256.114	4379.18	-40.89	-213.32	-862.92	39°56'36.605"N	104°41'21.323"W	0.00	
4613.00†	18.076	256.114	4474.25	-42.32	-220.77	-893.04	39°56'36.534"N	104°41'21.711"W	0.00	
4713.00†	18.076	256.114	4569.31	-43.75	-228.21	-923.16	39°56'36.463"N	104°41'22.099"W	0.00	
4813.00†	18.076	256.114	4664.38	-45.17	-235.66	-953.28	39°56'36.392"N	104°41'22.486"W	0.00	
4913.00†	18.076	256.114	4759.44	-46.60	-243.10	-983.40	39°56'36.321"N	104°41'22.874"W	0.00	
5008.26†	18.076	256.114	4850.00	-47.96	-250.20	-1012.10	39°56'36.254"N	104°41'23.243"W	0.00	SUSSEX/SHANNON
5013.00†	18.076	256.114	4854.51	-48.03	-250.55	-1013.52	39°56'36.250"N	104°41'23.261"W	0.00	
5113.00†	18.076	256.114	4949.57	-49.46	-258.00	-1043.64	39°56'36.180"N	104°41'23.649"W	0.00	
5213.00†	18.076	256.114	5044.64	-50.88	-265.44	-1073.77	39°56'36.109"N	104°41'24.036"W	0.00	
5313.00†	18.076	256.114	5139.70	-52.31	-272.89	-1103.89	39°56'36.038"N	104°41'24.424"W	0.00	
5413.00†	18.076	256.114	5234.77	-53.74	-280.33	-1134.01	39°56'35.967"N	104°41'24.812"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (190 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5513.00†	18.076	256.114	5329.83	-55.17	-287.78	-1164.13	39°56'35.896"N	104°41'25.199"W	0.00	
5613.00†	18.076	256.114	5424.89	-56.59	-295.23	-1194.25	39°56'35.825"N	104°41'25.587"W	0.00	
5713.00†	18.076	256.114	5519.96	-58.02	-302.67	-1224.37	39°56'35.754"N	104°41'25.974"W	0.00	
5813.00†	18.076	256.114	5615.02	-59.45	-310.12	-1254.49	39°56'35.684"N	104°41'26.362"W	0.00	
5913.00†	18.076	256.114	5710.09	-60.88	-317.56	-1284.61	39°56'35.613"N	104°41'26.749"W	0.00	
6013.00†	18.076	256.114	5805.15	-62.30	-325.01	-1314.73	39°56'35.542"N	104°41'27.137"W	0.00	
6113.00†	18.076	256.114	5900.22	-63.73	-332.46	-1344.85	39°56'35.471"N	104°41'27.525"W	0.00	
6213.00†	18.076	256.114	5995.28	-65.16	-339.90	-1374.97	39°56'35.400"N	104°41'27.912"W	0.00	
6313.00†	18.076	256.114	6090.35	-66.58	-347.35	-1405.09	39°56'35.329"N	104°41'28.300"W	0.00	
6413.00†	18.076	256.114	6185.41	-68.01	-354.79	-1435.21	39°56'35.258"N	104°41'28.687"W	0.00	
6513.00†	18.076	256.114	6280.48	-69.44	-362.24	-1465.33	39°56'35.188"N	104°41'29.075"W	0.00	
6613.00†	18.076	256.114	6375.54	-70.87	-369.69	-1495.45	39°56'35.117"N	104°41'29.462"W	0.00	
6713.00†	18.076	256.114	6470.61	-72.29	-377.13	-1525.57	39°56'35.046"N	104°41'29.850"W	0.00	
6813.00†	18.076	256.114	6565.67	-73.72	-384.58	-1555.69	39°56'34.975"N	104°41'30.238"W	0.00	
6913.00†	18.076	256.114	6660.74	-75.15	-392.02	-1585.81	39°56'34.904"N	104°41'30.625"W	0.00	
7013.00†	18.076	256.114	6755.80	-76.58	-399.47	-1615.93	39°56'34.833"N	104°41'31.013"W	0.00	
7081.48	18.076	256.114	6820.90	-77.55	-404.57	-1636.56	39°56'34.785"N	104°41'31.278"W	0.00	End of Tangent (XS)
7113.00†	17.662	266.311	6850.91	-77.15	-406.05	-1646.08	39°56'34.771"N	104°41'31.401"W	10.00	
7213.00†	19.807	297.101	6945.84	-64.61	-399.29	-1676.38	39°56'34.840"N	104°41'31.789"W	10.00	
7313.00†	25.813	317.997	7038.12	-35.31	-375.33	-1706.11	39°56'35.080"N	104°41'32.168"W	10.00	
7413.00†	33.669	330.589	7124.97	9.85	-334.90	-1734.36	39°56'35.482"N	104°41'32.526"W	10.00	
7513.00†	42.354	338.690	7203.73	69.51	-279.23	-1760.28	39°56'36.034"N	104°41'32.852"W	10.00	
7548.09†	45.510	340.902	7229.00	93.55	-256.39	-1768.67	39°56'36.261"N	104°41'32.957"W	10.00	NIOBRARA A CHALK
7572.85†	47.760	342.322	7246.00	111.41	-239.31	-1774.35	39°56'36.430"N	104°41'33.028"W	10.00	NIOBRARA A MARL
7613.00†	51.443	344.423	7272.02	141.85	-210.01	-1783.08	39°56'36.720"N	104°41'33.136"W	10.00	
7713.00†	60.748	348.847	7327.76	224.67	-129.34	-1802.06	39°56'37.519"N	104°41'33.371"W	10.00	
7813.00†	70.175	352.523	7369.25	315.46	-39.68	-1816.66	39°56'38.407"N	104°41'33.548"W	10.00	
7913.00†	79.668	355.783	7395.24	411.46	56.26	-1826.42	39°56'39.356"N	104°41'33.662"W	10.00	
8013.00†	89.192	358.850	7404.94	509.75	155.55	-1831.06	39°56'40.337"N	104°41'33.710"W	10.00	
8021.48	90.000	359.107	7405.00†	518.09	164.03	-1831.21	39°56'40.421"N	104°41'33.711"W	10.00	End of 3D Arc (XS)



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

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Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8113.00†	90.000	359.107	7405.00	608.12	255.54	-1832.64	39°56'41.325"N	104°41'33.718"W	0.00	
8213.00†	90.000	359.107	7405.00	706.49	355.53	-1834.19	39°56'42.314"N	104°41'33.727"W	0.00	
8313.00†	90.000	359.107	7405.00	804.86	455.51	-1835.75	39°56'43.302"N	104°41'33.735"W	0.00	
8413.00†	90.000	359.107	7405.00	903.23	555.50	-1837.31	39°56'44.290"N	104°41'33.743"W	0.00	
8513.00†	90.000	359.107	7405.00	1001.60	655.49	-1838.87	39°56'45.278"N	104°41'33.752"W	0.00	
8613.00†	90.000	359.107	7405.00	1099.98	755.48	-1840.43	39°56'46.267"N	104°41'33.760"W	0.00	
8713.00†	90.000	359.107	7405.00	1198.35	855.46	-1841.99	39°56'47.255"N	104°41'33.768"W	0.00	
8813.00†	90.000	359.107	7405.00	1296.72	955.45	-1843.55	39°56'48.243"N	104°41'33.777"W	0.00	
8913.00†	90.000	359.107	7405.00	1395.09	1055.44	-1845.11	39°56'49.231"N	104°41'33.785"W	0.00	
9013.00†	90.000	359.107	7405.00	1493.46	1155.43	-1846.67	39°56'50.219"N	104°41'33.793"W	0.00	
9113.00†	90.000	359.107	7405.00	1591.83	1255.42	-1848.23	39°56'51.208"N	104°41'33.802"W	0.00	
9213.00†	90.000	359.107	7405.00	1690.20	1355.40	-1849.79	39°56'52.196"N	104°41'33.810"W	0.00	
9313.00†	90.000	359.107	7405.00	1788.57	1455.39	-1851.35	39°56'53.184"N	104°41'33.818"W	0.00	
9413.00†	90.000	359.107	7405.00	1886.94	1555.38	-1852.91	39°56'54.172"N	104°41'33.827"W	0.00	
9513.00†	90.000	359.107	7405.00	1985.32	1655.37	-1854.46	39°56'55.161"N	104°41'33.835"W	0.00	
9613.00†	90.000	359.107	7405.00	2083.69	1755.35	-1856.02	39°56'56.149"N	104°41'33.843"W	0.00	
9713.00†	90.000	359.107	7405.00	2182.06	1855.34	-1857.58	39°56'57.137"N	104°41'33.852"W	0.00	
9813.00†	90.000	359.107	7405.00	2280.43	1955.33	-1859.14	39°56'58.125"N	104°41'33.860"W	0.00	
9913.00†	90.000	359.107	7405.00	2378.80	2055.32	-1860.70	39°56'59.113"N	104°41'33.868"W	0.00	
10013.00†	90.000	359.107	7405.00	2477.17	2155.31	-1862.26	39°57'00.102"N	104°41'33.877"W	0.00	
10113.00†	90.000	359.107	7405.00	2575.54	2255.29	-1863.82	39°57'01.090"N	104°41'33.885"W	0.00	
10213.00†	90.000	359.107	7405.00	2673.91	2355.28	-1865.38	39°57'02.078"N	104°41'33.893"W	0.00	
10313.00†	90.000	359.107	7405.00	2772.29	2455.27	-1866.94	39°57'03.066"N	104°41'33.902"W	0.00	
10413.00†	90.000	359.107	7405.00	2870.66	2555.26	-1868.50	39°57'04.055"N	104°41'33.910"W	0.00	
10513.00†	90.000	359.107	7405.00	2969.03	2655.25	-1870.06	39°57'05.043"N	104°41'33.918"W	0.00	
10613.00†	90.000	359.107	7405.00	3067.40	2755.23	-1871.62	39°57'06.031"N	104°41'33.927"W	0.00	
10713.00†	90.000	359.107	7405.00	3165.77	2855.22	-1873.18	39°57'07.019"N	104°41'33.935"W	0.00	
10813.00†	90.000	359.107	7405.00	3264.14	2955.21	-1874.73	39°57'08.007"N	104°41'33.943"W	0.00	
10913.00†	90.000	359.107	7405.00	3362.51	3055.20	-1876.29	39°57'08.996"N	104°41'33.952"W	0.00	
11013.00†	90.000	359.107	7405.00	3460.88	3155.18	-1877.85	39°57'09.984"N	104°41'33.960"W	0.00	



Planned Wellpath Report

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

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Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (190 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11113.00†	90.000	359.107	7405.00	3559.25	3255.17	-1879.41	39°57'10.972"N	104°41'33.968"W	0.00	
11213.00†	90.000	359.107	7405.00	3657.63	3355.16	-1880.97	39°57'11.960"N	104°41'33.977"W	0.00	
11313.00†	90.000	359.107	7405.00	3756.00	3455.15	-1882.53	39°57'12.949"N	104°41'33.985"W	0.00	
11413.00†	90.000	359.107	7405.00	3854.37	3555.14	-1884.09	39°57'13.937"N	104°41'33.993"W	0.00	
11513.00†	90.000	359.107	7405.00	3952.74	3655.12	-1885.65	39°57'14.925"N	104°41'34.002"W	0.00	
11613.00†	90.000	359.107	7405.00	4051.11	3755.11	-1887.21	39°57'15.913"N	104°41'34.010"W	0.00	
11713.00†	90.000	359.107	7405.00	4149.48	3855.10	-1888.77	39°57'16.901"N	104°41'34.018"W	0.00	
11813.00†	90.000	359.107	7405.00	4247.85	3955.09	-1890.33	39°57'17.890"N	104°41'34.027"W	0.00	
11913.00†	90.000	359.107	7405.00	4346.22	4055.08	-1891.89	39°57'18.878"N	104°41'34.035"W	0.00	
12013.00†	90.000	359.107	7405.00	4444.60	4155.06	-1893.45	39°57'19.866"N	104°41'34.043"W	0.00	
12113.00†	90.000	359.107	7405.00	4542.97	4255.05	-1895.00	39°57'20.854"N	104°41'34.052"W	0.00	
12213.00†	90.000	359.107	7405.00	4641.34	4355.04	-1896.56	39°57'21.843"N	104°41'34.060"W	0.00	
12313.00†	90.000	359.107	7405.00	4739.71	4455.03	-1898.12	39°57'22.831"N	104°41'34.068"W	0.00	
12413.00†	90.000	359.107	7405.00	4838.08	4555.01	-1899.68	39°57'23.819"N	104°41'34.077"W	0.00	
12513.00†	90.000	359.107	7405.00	4936.45	4655.00	-1901.24	39°57'24.807"N	104°41'34.085"W	0.00	
12613.00†	90.000	359.107	7405.00	5034.82	4754.99	-1902.80	39°57'25.795"N	104°41'34.093"W	0.00	
12713.00†	90.000	359.107	7405.00	5133.19	4854.98	-1904.36	39°57'26.784"N	104°41'34.102"W	0.00	
12813.00†	90.000	359.107	7405.00	5231.56	4954.97	-1905.92	39°57'27.772"N	104°41'34.110"W	0.00	
12913.00†	90.000	359.107	7405.00	5329.94	5054.95	-1907.48	39°57'28.760"N	104°41'34.118"W	0.00	
13013.00†	90.000	359.107	7405.00	5428.31	5154.94	-1909.04	39°57'29.748"N	104°41'34.127"W	0.00	
13113.00†	90.000	359.107	7405.00	5526.68	5254.93	-1910.60	39°57'30.736"N	104°41'34.135"W	0.00	
13213.00†	90.000	359.107	7405.00	5625.05	5354.92	-1912.16	39°57'31.725"N	104°41'34.143"W	0.00	
13313.00†	90.000	359.107	7405.00	5723.42	5454.91	-1913.72	39°57'32.713"N	104°41'34.152"W	0.00	
13413.00†	90.000	359.107	7405.00	5821.79	5554.89	-1915.27	39°57'33.701"N	104°41'34.160"W	0.00	
13513.00†	90.000	359.107	7405.00	5920.16	5654.88	-1916.83	39°57'34.689"N	104°41'34.168"W	0.00	
13613.00†	90.000	359.107	7405.00	6018.53	5754.87	-1918.39	39°57'35.678"N	104°41'34.177"W	0.00	
13713.00†	90.000	359.107	7405.00	6116.91	5854.86	-1919.95	39°57'36.666"N	104°41'34.185"W	0.00	
13813.00†	90.000	359.107	7405.00	6215.28	5954.84	-1921.51	39°57'37.654"N	104°41'34.193"W	0.00	
13913.00†	90.000	359.107	7405.00	6313.65	6054.83	-1923.07	39°57'38.642"N	104°41'34.202"W	0.00	
14013.00†	90.000	359.107	7405.00	6412.02	6154.82	-1924.63	39°57'39.630"N	104°41'34.210"W	0.00	



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

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HUGHES**
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (190 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14113.00†	90.000	359.107	7405.00	6510.39	6254.81	-1926.19	39°57'40.619"N	104°41'34.218"W	0.00	
14213.00†	90.000	359.107	7405.00	6608.76	6354.80	-1927.75	39°57'41.607"N	104°41'34.227"W	0.00	
14313.00†	90.000	359.107	7405.00	6707.13	6454.78	-1929.31	39°57'42.595"N	104°41'34.235"W	0.00	
14413.00†	90.000	359.107	7405.00	6805.50	6554.77	-1930.87	39°57'43.583"N	104°41'34.243"W	0.00	
14513.00†	90.000	359.107	7405.00	6903.87	6654.76	-1932.43	39°57'44.572"N	104°41'34.252"W	0.00	
14613.00†	90.000	359.107	7405.00	7002.25	6754.75	-1933.99	39°57'45.560"N	104°41'34.260"W	0.00	
14713.00†	90.000	359.107	7405.00	7100.62	6854.73	-1935.54	39°57'46.548"N	104°41'34.268"W	0.00	
14813.00†	90.000	359.107	7405.00	7198.99	6954.72	-1937.10	39°57'47.536"N	104°41'34.277"W	0.00	
14913.00†	90.000	359.107	7405.00	7297.36	7054.71	-1938.66	39°57'48.524"N	104°41'34.285"W	0.00	
15013.00†	90.000	359.107	7405.00	7395.73	7154.70	-1940.22	39°57'49.513"N	104°41'34.293"W	0.00	
15113.00†	90.000	359.107	7405.00	7494.10	7254.69	-1941.78	39°57'50.501"N	104°41'34.302"W	0.00	
15213.00†	90.000	359.107	7405.00	7592.47	7354.67	-1943.34	39°57'51.489"N	104°41'34.310"W	0.00	
15313.00†	90.000	359.107	7405.00	7690.84	7454.66	-1944.90	39°57'52.477"N	104°41'34.318"W	0.00	
15413.00†	90.000	359.107	7405.00	7789.22	7554.65	-1946.46	39°57'53.466"N	104°41'34.327"W	0.00	
15513.00†	90.000	359.107	7405.00	7887.59	7654.64	-1948.02	39°57'54.454"N	104°41'34.335"W	0.00	
15613.00†	90.000	359.107	7405.00	7985.96	7754.63	-1949.58	39°57'55.442"N	104°41'34.343"W	0.00	
15713.00†	90.000	359.107	7405.00	8084.33	7854.61	-1951.14	39°57'56.430"N	104°41'34.352"W	0.00	
15813.00†	90.000	359.107	7405.00	8182.70	7954.60	-1952.70	39°57'57.418"N	104°41'34.360"W	0.00	
15913.00†	90.000	359.107	7405.00	8281.07	8054.59	-1954.26	39°57'58.407"N	104°41'34.368"W	0.00	
16013.00†	90.000	359.107	7405.00	8379.44	8154.58	-1955.81	39°57'59.395"N	104°41'34.377"W	0.00	
16113.00†	90.000	359.107	7405.00	8477.81	8254.56	-1957.37	39°58'00.383"N	104°41'34.385"W	0.00	
16213.00†	90.000	359.107	7405.00	8576.18	8354.55	-1958.93	39°58'01.371"N	104°41'34.393"W	0.00	
16313.00†	90.000	359.107	7405.00	8674.56	8454.54	-1960.49	39°58'02.360"N	104°41'34.402"W	0.00	
16413.00†	90.000	359.107	7405.00	8772.93	8554.53	-1962.05	39°58'03.348"N	104°41'34.410"W	0.00	
16513.00†	90.000	359.107	7405.00	8871.30	8654.52	-1963.61	39°58'04.336"N	104°41'34.418"W	0.00	
16613.00†	90.000	359.107	7405.00	8969.67	8754.50	-1965.17	39°58'05.324"N	104°41'34.427"W	0.00	
16713.00†	90.000	359.107	7405.00	9068.04	8854.49	-1966.73	39°58'06.312"N	104°41'34.435"W	0.00	
16813.00†	90.000	359.107	7405.00	9166.41	8954.48	-1968.29	39°58'07.301"N	104°41'34.443"W	0.00	
16913.00†	90.000	359.107	7405.00	9264.78	9054.47	-1969.85	39°58'08.289"N	104°41'34.452"W	0.00	
17013.00†	90.000	359.107	7405.00	9363.15	9154.46	-1971.41	39°58'09.277"N	104°41'34.460"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (190 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17113.00†	90.000	359.107	7405.00	9461.53	9254.44	-1972.97	39°58'10.265"N	104°41'34.468"W	0.00	
17213.00†	90.000	359.107	7405.00	9559.90	9354.43	-1974.53	39°58'11.253"N	104°41'34.477"W	0.00	
17313.00†	90.000	359.107	7405.00	9658.27	9454.42	-1976.08	39°58'12.242"N	104°41'34.485"W	0.00	
17413.00†	90.000	359.107	7405.00	9756.64	9554.41	-1977.64	39°58'13.230"N	104°41'34.493"W	0.00	
17513.00†	90.000	359.107	7405.00	9855.01	9654.39	-1979.20	39°58'14.218"N	104°41'34.502"W	0.00	
17613.00†	90.000	359.107	7405.00	9953.38	9754.38	-1980.76	39°58'15.206"N	104°41'34.510"W	0.00	
17713.00†	90.000	359.107	7405.00	10051.75	9854.37	-1982.32	39°58'16.195"N	104°41'34.518"W	0.00	
17813.00†	90.000	359.107	7405.00	10150.12	9954.36	-1983.88	39°58'17.183"N	104°41'34.527"W	0.00	
17835.12†	90.000	359.107	7405.00	10171.88	9976.48	-1984.23	39°58'17.401"N	104°41'34.529"W	0.00	NIOBRARA BA CHALK
17835.13	90.000	359.107	7405.00 ²	10171.89	9976.48	-1984.23	39°58'17.401"N	104°41'34.529"W	0.00	End of Tangent (XS)

HOLE & CASING SECTIONS

- Ref Wellbore: WAKEMAN 20-17-1NBH PWB Ref 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	0.00	0.00	-15.02	-60.77
8.5in Open Hole	1800.00	17835.13	16035.13	1795.62	N/A	-15.02	-60.77	N/A	N/A



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

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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	1.34	-44.28	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
SEC.20-T01S-R65W		0.00	1.34	-44.28	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
2) WAKEMAN 20-17-1NBH BHL (355'FNL & 1252'FWL, SEC.17)	17835.13	7405.00	9976.48	-1984.23	3226196.44	1233494.56	39°58'17.401"N	104°41'34.529"W	point
1) WAKEMAN 20-17-1NBH EP (460'FSL & 1252'FWL, SEC.20)	8021.48	7405.00	164.03	-1831.21	3226349.45	1223682.41	39°56'40.421"N	104°41'33.711"W	point
SEC.17/20-T01S-R65W 460'SETBACK		7638.00	1.34	-44.28	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon

SURVEY PROGRAM -

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



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1500.55	6.011	256.114	1500.00	FOX HILLS
5008.26	18.076	256.114	4850.00	SUSSEX/SHANNON
7548.09	45.510	340.902	7229.00	NIOBRARA A CHALK
7572.85	47.760	342.322	7246.00	NIOBRARA A MARL
17835.12	90.000	359.107	7405.00	NIOBRARA BA CHALK

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	256.114	13.00	Tie On
1200.00	0.000	256.114	1200.00	End of Tangent
2103.78	18.076	256.114	2088.86	End of Build (XS)
7081.48	18.076	256.114	6820.90	End of Tangent (XS)
8021.48	90.000	359.107	7405.00	End of 3D Arc (XS)
17835.13	90.000	359.107	7405.00	End of Tangent (XS)



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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 1:59:09 PM
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB1\WAKEMAN_20-17-1NBH_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	-0.35	-179.96	3228180.60	1223518.38	39°56'38.635"N	104°41'10.220"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#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'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 20-17-1NBH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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 20-17-1NBH PWB Ref 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	0.00	0.00	-15.02	-60.77
8.5in Open Hole	1800.00	17835.13	16035.13	1795.62	N/A	-15.02	-60.77	N/A	N/A

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

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



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

CALCULATION RANGE & CUTOFF

From: 13.00ft MD	To: 17835.13ft MD	C-C Cutoff: 1000.00 ft
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OFFSET WELL CLEARANCE SUMMARY (26 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane

Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	C-C Clearance Distance			ACR Separation Ratio			
					Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
SEC.17-T1S-R65W	SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130)	AMOCO #24-17	AMOCO #24-17	AMOCO #24-17 AWP	13823.70	104.20	13823.70	13813.00	0.27	13813.00	FAIL
SEC.20-T01S-R65W	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)	WAKEMAN 20-17-1NCH	WAKEMAN 20-17-1NCH PWB	WAKEMAN 20-17-1NCH PWP (REV-A.0)	13.00	14.94	17835.13	17835.13	0.64	17835.13	FAIL
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	15.00	17827.89	17827.89	0.81	17827.89	FAIL
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	29.98	17822.78	17822.78	0.89	17822.78	FAIL
SEC.20-T1S-R65W	SLOT#01 EX. COLLINS #14-20 (990'FSL & 990'FWL, SEC.20, OG, PR, 8202)	COLLINS #14-20	COLLINS #14-20 AWB	COLLINS #14-20 AWP	8565.68	274.78	8565.68	8664.07	1.07	8664.07	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	30.00	813.00	17835.13	1.15	17835.13	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	45.04	17820.66	17820.66	1.26	17820.66	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	44.94	17835.13	17835.13	1.36	17835.13	PASS
SEC.20-T1S-R65W	SLOT#02 EX. COLLINS HH #20-3J (814'FNL & 1886'FWL, SEC.20, 8163, PR)	COLLINS HH #20-3J	COLLINS HH #20-3J AWB	COLLINS HH #20-3J AWP	12042.82	614.10	12042.82	11994.92	1.83	11994.92	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	17813.00	17813.00	1.89	17813.00	PASS
SEC.17-T1S-R65W	SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17, OG, PR, 8140)	AMOCO #17-32	AMOCO #17-32 AWB	AMOCO #17-32 AWP	14703.09	837.57	14703.09	14813.00	1.99	14813.00	PASS
SEC.20-T01S-R65W	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)	WAKEMAN 20-17-3NCH	WAKEMAN 20-17-3NCH PWB	WAKEMAN 20-17-3NCH PWP (REV-A.0)	13.00	74.98	1200.00	17809.21	2.56	17809.21	PASS
SEC.20-T01S-R65W	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)	WAKEMAN 20-17-3NBH	WAKEMAN 20-17-3NBH PWB	WAKEMAN 20-17-3NBH PWP (REV-A.0)	13.00	90.04	1200.00	17813.00	3.19	17813.00	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	104.98	1200.00	17835.13	3.69	17835.13	PASS
SEC.20-T01S-R65W	SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)	WAKEMAN 20-17-3CDH	WAKEMAN 20-17-3CDH PWB	WAKEMAN 20-17-3CDH PWP (REV-A.0)	13.00	120.01	1200.00	17835.13	3.85	17835.13	PASS
SEC.20-T01S-R65W	SLOT#04 WAKEMAN 20-17-4NCH (293'FSL & 2068'FEL, SEC.20)	WAKEMAN 20-17-4NCH	WAKEMAN 20-17-4NCH PWB	WAKEMAN 20-17-4NCH PWP (REV-A.0)	13.00	135.02	1013.00	17835.13	4.46	17835.13	PASS
SEC.17-T01S-R65W	SLOT#01 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL, SEC.17, OG, SI, 8190)	CHAVEZ #7-17	CHAVEZ #7-17 AWB	CHAVEZ #7-17 AWP	16188.00	2093.71	16188.00	16188.00	4.53	16188.00	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	17093.30	2290.15	17093.30	17459.48	4.60	17459.48	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	150.02	913.00	17835.13	5.08	17835.13	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	164.96	813.00	17835.13	5.57	17835.13	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	179.96	11413.00	17835.13	5.73	17835.13	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	10850.50	1908.70	10850.50	10866.17	6.35	10866.17	PASS
SEC.17-T1S-R65W	SLOT#03 EX. AMOCO #44-17 (990'FSL & 1320'FEL, SEC.17, OG, PR, 8130)	AMOCO #44-17	AMOCO #44-17 AWB	AMOCO #44-17 AWP	13838.00	2770.25	13838.00	13982.34	7.11	13982.34	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	11825.50	3011.12	11825.50	12067.08	9.13	12067.08	PASS
SEC.16-T01S-R65W	SLOT#01 EX. STATE #11-16 (990'FNL & 990'FWL, SEC.16, OG, PR, 8173)	STATE #11-16	STATE #11-16 AWB	STATE #11-16 AWP	17125.50	5030.19	17125.50	17762.92	10.11	17762.92	PASS



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

CALCULATION RANGE & CUTOFF

From: 13.00ft MD	To: 17835.13ft MD	C-C Cutoff: 1000.00 ft
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OFFSET WELL CLEARANCE SUMMARY (26 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane

Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	C-C Clearance Distance			ACR Separation Ratio			
					Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
SEC.20-T01S-R65W	SLOT#01 EX. WOLFE #1 (990'FSL & 990'FEL, SEC.20.OG, PR, 8200)	WOLFE #1	WOLFE #1 AWB	WOLFE #1 AWP	13.00	1379.73	8513.00	8663.46	11.07	8663.46	PASS



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	5966.92	-1817.49	-16.94	6237.87	25.40	253.53	PASS	
113.00†	113.00	0.00	0.00	27.00	113.00	5966.92	-1817.49	-16.94	6237.58	50.60	125.15	PASS	
213.00†	213.00	0.00	0.00	127.00	213.00	5966.92	-1817.49	-16.94	6237.58	52.94	119.54	PASS	
313.00†	313.00	0.00	0.00	227.00	313.00	5966.92	-1817.49	-16.94	6237.58	55.11	114.40	PASS	
413.00†	413.00	0.00	0.00	327.00	413.00	5966.92	-1817.49	-16.94	6237.58	57.46	109.68	PASS	
513.00†	513.00	0.00	0.00	427.00	513.00	5966.92	-1817.49	-16.94	6237.58	59.81	105.32	PASS	
613.00†	613.00	0.00	0.00	527.00	613.00	5966.92	-1817.49	-16.94	6237.58	62.16	101.29	PASS	
713.00†	713.00	0.00	0.00	627.00	713.00	5966.92	-1817.49	-16.94	6237.58	64.52	97.55	PASS	
813.00†	813.00	0.00	0.00	727.00	813.00	5966.92	-1817.49	-16.94	6237.58	66.89	94.08	PASS	
913.00†	913.00	0.00	0.00	827.00	913.00	5966.92	-1817.49	-16.94	6237.58	69.25	90.83	PASS	
1013.00†	1013.00	0.00	0.00	927.00	1013.00	5966.92	-1817.49	-16.94	6237.58	71.63	87.80	PASS	
1113.00†	1113.00	0.00	0.00	1027.00	1113.00	5966.92	-1817.49	-16.94	6237.58	74.00	84.96	PASS	
1200.00	1200.00	0.00	0.00	1114.00	1200.00	5966.92	-1817.49	-16.94	6237.58	76.07	82.63	PASS	
1213.00†	1213.00	-0.01	-0.03	1127.00	1213.00	5966.92	-1817.49	86.95	6237.58	76.38	82.29	PASS	
1313.00†	1312.97	-0.53	-2.16	1226.97	1312.97	5966.92	-1817.49	86.97	6237.46	78.76	79.78	PASS	
1413.00†	1412.80	-1.90	-7.68	1326.80	1412.80	5966.92	-1817.49	87.03	6237.16	81.15	77.42	PASS	
1513.00†	1512.38	-4.10	-16.58	1426.38	1512.38	5966.92	-1817.49	87.12	6236.69	83.53	75.18	PASS	
1613.00†	1611.57	-7.13	-28.85	1525.57	1611.57	5966.92	-1817.49	87.25	6236.07	85.92	73.07	PASS	
1713.00†	1710.26	-10.99	-44.47	1624.26	1710.26	5966.92	-1817.49	87.41	6235.31	88.31	71.07	PASS	
1813.00†	1808.33	-15.68	-63.42	1722.33	1808.33	5966.92	-1817.49	87.60	6234.44	90.66	69.17	PASS	
1913.00†	1905.66	-21.18	-85.69	1819.66	1905.66	5966.92	-1817.49	87.82	6233.50	93.08	67.36	PASS	
2013.00†	2002.13	-27.50	-111.24	1916.13	2002.13	5966.92	-1817.49	88.08	6232.52	95.51	65.63	PASS	
2103.78	2088.86	-33.93	-137.25	2002.86	2088.86	5966.92	-1817.49	88.33	6231.64	97.73	64.11	PASS	
2113.00†	2097.63	-34.62	-140.03	2011.63	2097.63	5966.92	-1817.49	88.36	6231.56	97.96	63.96	PASS	
2213.00†	2192.69	-42.06	-170.15	2106.69	2192.69	5966.92	-1817.49	88.63	6230.70	100.45	62.36	PASS	
2313.00†	2287.76	-49.51	-200.27	2201.76	2287.76	5966.92	-1817.49	88.90	6229.99	102.98	60.81	PASS	
2413.00†	2382.82	-56.95	-230.39	2296.82	2382.82	5966.92	-1817.49	89.17	6229.44	105.54	59.32	PASS	
2513.00†	2477.89	-64.40	-260.51	2391.89	2477.89	5966.92	-1817.49	89.44	6229.05	108.14	57.88	PASS	
2613.00†	2572.95	-71.85	-290.63	2486.95	2572.95	5966.92	-1817.49	89.71	6228.80	110.78	56.50	PASS	
2713.00†	2668.02	-79.29	-320.75	2582.02	2668.02	5966.92	-1817.49	89.98	6228.72	113.44	55.16	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W Slot: SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130) Well: AMOCO #24-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2763.08	-86.74	-350.87	2677.08	2763.08	5966.92	-1817.49	90.25	6228.78	116.14	53.88	PASS	
2913.00†	2858.15	-94.18	-380.99	2772.15	2858.15	5966.92	-1817.49	90.53	6229.01	118.87	52.64	PASS	
3013.00†	2953.21	-101.63	-411.11	2867.21	2953.21	5966.92	-1817.49	90.80	6229.38	121.62	51.45	PASS	
3113.00†	3048.28	-109.08	-441.23	2962.28	3048.28	5966.92	-1817.49	91.07	6229.91	124.40	50.30	PASS	
3213.00†	3143.34	-116.52	-471.35	3057.34	3143.34	5966.92	-1817.49	91.34	6230.60	127.20	49.19	PASS	
3313.00†	3238.40	-123.97	-501.48	3152.40	3238.40	5966.92	-1817.49	91.61	6231.44	130.02	48.12	PASS	
3413.00†	3333.47	-131.41	-531.60	3247.47	3333.47	5966.92	-1817.49	91.88	6232.43	132.87	47.09	PASS	
3513.00†	3428.53	-138.86	-561.72	3342.53	3428.53	5966.92	-1817.49	92.15	6233.58	135.74	46.10	PASS	
3613.00†	3523.60	-146.31	-591.84	3437.60	3523.60	5966.92	-1817.49	92.42	6234.88	138.63	45.15	PASS	
3713.00†	3618.66	-153.75	-621.96	3532.66	3618.66	5966.92	-1817.49	92.69	6236.34	141.53	44.23	PASS	
3813.00†	3713.73	-161.20	-652.08	3627.73	3713.73	5966.92	-1817.49	92.96	6237.95	144.45	43.34	PASS	
3913.00†	3808.79	-168.64	-682.20	3722.79	3808.79	5966.92	-1817.49	93.24	6239.71	147.38	42.49	PASS	
4013.00†	3903.86	-176.09	-712.32	3817.86	3903.86	5966.92	-1817.49	93.51	6241.63	150.33	41.66	PASS	
4113.00†	3998.92	-183.54	-742.44	3912.92	3998.92	5966.92	-1817.49	93.78	6243.70	153.30	40.87	PASS	
4213.00†	4093.99	-190.98	-772.56	4007.99	4093.99	5966.92	-1817.49	94.05	6245.93	156.27	40.10	PASS	
4313.00†	4189.05	-198.43	-802.68	4103.05	4189.05	5966.92	-1817.49	94.32	6248.31	159.26	39.36	PASS	
4413.00†	4284.12	-205.87	-832.80	4198.12	4284.12	5966.92	-1817.49	94.59	6250.84	162.26	38.65	PASS	
4513.00†	4379.18	-213.32	-862.92	4293.18	4379.18	5966.92	-1817.49	94.86	6253.52	165.27	37.96	PASS	
4613.00†	4474.25	-220.77	-893.04	4388.25	4474.25	5966.92	-1817.49	95.12	6256.36	168.28	37.29	PASS	
4713.00†	4569.31	-228.21	-923.16	4483.31	4569.31	5966.92	-1817.49	95.39	6259.35	171.31	36.65	PASS	
4813.00†	4664.38	-235.66	-953.28	4578.38	4664.38	5966.92	-1817.49	95.66	6262.49	174.34	36.03	PASS	
4913.00†	4759.44	-243.10	-983.40	4673.44	4759.44	5966.92	-1817.49	95.93	6265.79	177.38	35.43	PASS	
5013.00†	4854.51	-250.55	-1013.52	4768.51	4854.51	5966.92	-1817.49	96.20	6269.23	180.43	34.85	PASS	
5113.00†	4949.57	-258.00	-1043.64	4863.57	4949.57	5966.92	-1817.49	96.47	6272.83	183.49	34.29	PASS	
5213.00†	5044.64	-265.44	-1073.77	4958.64	5044.64	5966.92	-1817.49	96.73	6276.58	186.54	33.74	PASS	
5313.00†	5139.70	-272.89	-1103.89	5053.70	5139.70	5966.92	-1817.49	97.00	6280.48	189.61	33.22	PASS	
5413.00†	5234.77	-280.33	-1134.01	5148.77	5234.77	5966.92	-1817.49	97.27	6284.53	192.68	32.71	PASS	
5513.00†	5329.83	-287.78	-1164.13	5243.83	5329.83	5966.92	-1817.49	97.54	6288.73	195.75	32.21	PASS	
5613.00†	5424.89	-295.23	-1194.25	5338.89	5424.89	5966.92	-1817.49	97.80	6293.08	198.83	31.73	PASS	
5713.00†	5519.96	-302.67	-1224.37	5433.96	5519.96	5966.92	-1817.49	98.07	6297.59	201.91	31.27	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W Slot: SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130) Well: AMOCO #24-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5615.02	-310.12	-1254.49	5529.02	5615.02	5966.92	-1817.49	98.33	6302.24	205.00	30.82	PASS	
5913.00†	5710.09	-317.56	-1284.61	5624.09	5710.09	5966.92	-1817.49	98.60	6307.04	208.09	30.39	PASS	
6013.00†	5805.15	-325.01	-1314.73	5719.15	5805.15	5966.92	-1817.49	98.87	6311.98	211.18	29.96	PASS	
6113.00†	5900.22	-332.46	-1344.85	5814.22	5900.22	5966.92	-1817.49	99.13	6317.08	214.27	29.55	PASS	
6213.00†	5995.28	-339.90	-1374.97	5909.28	5995.28	5966.92	-1817.49	99.39	6322.33	217.37	29.16	PASS	
6313.00†	6090.35	-347.35	-1405.09	6004.35	6090.35	5966.92	-1817.49	99.66	6327.72	220.46	28.77	PASS	
6413.00†	6185.41	-354.79	-1435.21	6099.41	6185.41	5966.92	-1817.49	99.92	6333.26	223.56	28.40	PASS	
6513.00†	6280.48	-362.24	-1465.33	6194.48	6280.48	5966.92	-1817.49	100.18	6338.95	226.66	28.03	PASS	
6613.00†	6375.54	-369.69	-1495.45	6289.54	6375.54	5966.92	-1817.49	100.45	6344.78	229.76	27.68	PASS	
6713.00†	6470.61	-377.13	-1525.57	6384.61	6470.61	5966.92	-1817.49	100.71	6350.76	232.87	27.33	PASS	
6813.00†	6565.67	-384.58	-1555.69	6479.67	6565.67	5966.92	-1817.49	100.97	6356.89	235.97	27.00	PASS	
6913.00†	6660.74	-392.02	-1585.81	6574.74	6660.74	5966.92	-1817.49	101.23	6363.16	239.07	26.67	PASS	
7013.00†	6755.80	-399.47	-1615.93	6669.80	6755.80	5966.92	-1817.49	101.49	6369.58	242.18	26.36	PASS	
7081.48	6820.90	-404.57	-1636.56	6734.90	6820.90	5966.92	-1817.49	101.67	6374.06	244.30	26.15	PASS	
7113.00†	6850.91	-406.05	-1646.08	6764.91	6850.91	5966.92	-1817.49	92.05	6375.28	245.28	26.05	PASS	
7213.00†	6945.84	-399.29	-1676.38	6859.84	6945.84	5966.92	-1817.49	63.07	6367.77	248.55	25.67	PASS	
7313.00†	7038.12	-375.33	-1706.11	6952.12	7038.12	5966.92	-1817.49	44.00	6343.23	252.16	25.21	PASS	
7413.00†	7124.97	-334.90	-1734.36	7038.97	7124.97	5966.92	-1817.49	33.29	6302.37	255.54	24.71	PASS	
7513.00†	7203.73	-279.23	-1760.28	7117.73	7203.73	5966.92	-1817.49	27.19	6246.42	258.53	24.21	PASS	
7613.00†	7272.02	-210.01	-1783.08	7186.02	7272.02	5966.92	-1817.49	23.64	6177.03	261.08	23.71	PASS	
7713.00†	7327.76	-129.34	-1802.06	7241.76	7327.76	5966.92	-1817.49	21.71	6096.28	263.11	23.22	PASS	
7813.00†	7369.25	-39.68	-1816.66	7283.25	7369.25	5966.92	-1817.49	21.14	6006.60	264.61	22.74	PASS	
7913.00†	7395.24	56.26	-1826.42	7309.24	7395.24	5966.92	-1817.49	22.76	5910.67	265.54	22.30	PASS	
8013.00†	7404.94	155.55	-1831.06	7318.94	7404.94	5966.92	-1817.49	57.83	5811.39	265.92	21.90	PASS	
8021.48	7405.00	164.03	-1831.21	7319.00	7405.00	5966.92	-1817.49	90.00	5802.91	265.92	21.86	PASS	
8113.00†	7405.00	255.54	-1832.64	7319.00	7405.00	5966.92	-1817.49	90.00	5711.40	265.97	21.52	PASS	
8213.00†	7405.00	355.53	-1834.19	7319.00	7405.00	5966.92	-1817.49	90.00	5611.42	266.02	21.13	PASS	
8313.00†	7405.00	455.51	-1835.75	7319.00	7405.00	5966.92	-1817.49	90.00	5511.44	266.08	20.75	PASS	
8413.00†	7405.00	555.50	-1837.31	7319.00	7405.00	5966.92	-1817.49	90.00	5411.46	266.14	20.37	PASS	
8513.00†	7405.00	655.49	-1838.87	7319.00	7405.00	5966.92	-1817.49	90.00	5311.47	266.20	19.99	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W Slot: SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130) Well: AMOCO #24-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
8613.00†	7405.00	755.48	-1840.43	7319.00	7405.00	5966.92	-1817.49	90.00	5211.49	266.26	19.61	PASS	
8713.00†	7405.00	855.46	-1841.99	7319.00	7405.00	5966.92	-1817.49	90.00	5111.51	266.33	19.23	PASS	
8813.00†	7405.00	955.45	-1843.55	7319.00	7405.00	5966.92	-1817.49	90.00	5011.54	266.40	18.85	PASS	
8913.00†	7405.00	1055.44	-1845.11	7319.00	7405.00	5966.92	-1817.49	90.00	4911.56	266.47	18.47	PASS	
9013.00†	7405.00	1155.43	-1846.67	7319.00	7405.00	5966.92	-1817.49	90.00	4811.58	266.55	18.09	PASS	
9113.00†	7405.00	1255.42	-1848.23	7319.00	7405.00	5966.92	-1817.49	90.00	4711.61	266.63	17.70	PASS	
9213.00†	7405.00	1355.40	-1849.79	7319.00	7405.00	5966.92	-1817.49	90.00	4611.63	266.71	17.32	PASS	
9313.00†	7405.00	1455.39	-1851.35	7319.00	7405.00	5966.92	-1817.49	90.00	4511.66	266.80	16.94	PASS	
9413.00†	7405.00	1555.38	-1852.91	7319.00	7405.00	5966.92	-1817.49	90.00	4411.68	266.89	16.56	PASS	
9513.00†	7405.00	1655.37	-1854.46	7319.00	7405.00	5966.92	-1817.49	90.00	4311.71	266.99	16.18	PASS	
9613.00†	7405.00	1755.35	-1856.02	7319.00	7405.00	5966.92	-1817.49	90.00	4211.74	267.09	15.80	PASS	
9713.00†	7405.00	1855.34	-1857.58	7319.00	7405.00	5966.92	-1817.49	90.00	4111.77	267.20	15.42	PASS	
9813.00†	7405.00	1955.33	-1859.14	7319.00	7405.00	5966.92	-1817.49	90.00	4011.81	267.31	15.04	PASS	
9913.00†	7405.00	2055.32	-1860.70	7319.00	7405.00	5966.92	-1817.49	90.00	3911.84	267.43	14.66	PASS	
10013.00†	7405.00	2155.31	-1862.26	7319.00	7405.00	5966.92	-1817.49	90.00	3811.88	267.55	14.27	PASS	
10113.00†	7405.00	2255.29	-1863.82	7319.00	7405.00	5966.92	-1817.49	90.00	3711.92	267.69	13.89	PASS	
10213.00†	7405.00	2355.28	-1865.38	7319.00	7405.00	5966.92	-1817.49	90.00	3611.96	267.82	13.51	PASS	
10313.00†	7405.00	2455.27	-1866.94	7319.00	7405.00	5966.92	-1817.49	90.00	3512.00	267.97	13.13	PASS	
10413.00†	7405.00	2555.26	-1868.50	7319.00	7405.00	5966.92	-1817.49	90.00	3412.04	268.12	12.75	PASS	
10513.00†	7405.00	2655.25	-1870.06	7319.00	7405.00	5966.92	-1817.49	90.00	3312.09	268.28	12.37	PASS	
10613.00†	7405.00	2755.23	-1871.62	7319.00	7405.00	5966.92	-1817.49	90.00	3212.14	268.45	11.99	PASS	
10713.00†	7405.00	2855.22	-1873.18	7319.00	7405.00	5966.92	-1817.49	90.00	3112.20	268.64	11.61	PASS	
10813.00†	7405.00	2955.21	-1874.73	7319.00	7405.00	5966.92	-1817.49	90.00	3012.26	268.83	11.23	PASS	
10913.00†	7405.00	3055.20	-1876.29	7319.00	7405.00	5966.92	-1817.49	90.00	2912.32	269.03	10.84	PASS	
11013.00†	7405.00	3155.18	-1877.85	7319.00	7405.00	5966.92	-1817.49	90.00	2812.38	269.25	10.46	PASS	
11113.00†	7405.00	3255.17	-1879.41	7319.00	7405.00	5966.92	-1817.49	90.00	2712.45	269.49	10.08	PASS	
11213.00†	7405.00	3355.16	-1880.97	7319.00	7405.00	5966.92	-1817.49	90.00	2612.53	269.74	9.70	PASS	
11313.00†	7405.00	3455.15	-1882.53	7319.00	7405.00	5966.92	-1817.49	90.00	2512.61	270.01	9.32	PASS	
11413.00†	7405.00	3555.14	-1884.09	7319.00	7405.00	5966.92	-1817.49	90.00	2412.70	270.30	8.94	PASS	
11513.00†	7405.00	3655.12	-1885.65	7319.00	7405.00	5966.92	-1817.49	90.00	2312.80	270.61	8.56	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W Slot: SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130) Well: AMOCO #24-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
11613.00†	7405.00	3755.11	-1887.21	7319.00	7405.00	5966.92	-1817.49	90.00	2212.91	270.96	8.18	PASS	
11713.00†	7405.00	3855.10	-1888.77	7319.00	7405.00	5966.92	-1817.49	90.00	2113.02	271.33	7.80	PASS	
11813.00†	7405.00	3955.09	-1890.33	7319.00	7405.00	5966.92	-1817.49	90.00	2013.15	271.73	7.42	PASS	
11913.00†	7405.00	4055.08	-1891.89	7319.00	7405.00	5966.92	-1817.49	90.00	1913.29	272.18	7.04	PASS	
12013.00†	7405.00	4155.06	-1893.45	7319.00	7405.00	5966.92	-1817.49	90.00	1813.45	272.67	6.66	PASS	
12113.00†	7405.00	4255.05	-1895.00	7319.00	7405.00	5966.92	-1817.49	90.00	1713.62	273.22	6.28	PASS	
12213.00†	7405.00	4355.04	-1896.56	7319.00	7405.00	5966.92	-1817.49	90.00	1613.82	273.84	5.90	PASS	
12313.00†	7405.00	4455.03	-1898.12	7319.00	7405.00	5966.92	-1817.49	90.00	1514.04	274.53	5.52	PASS	
12413.00†	7405.00	4555.01	-1899.68	7319.00	7405.00	5966.92	-1817.49	90.00	1414.30	275.31	5.15	PASS	
12513.00†	7405.00	4655.00	-1901.24	7319.00	7405.00	5966.92	-1817.49	90.00	1314.59	276.21	4.77	PASS	
12613.00†	7405.00	4754.99	-1902.80	7319.00	7405.00	5966.92	-1817.49	90.00	1214.93	277.26	4.39	PASS	
12713.00†	7405.00	4854.98	-1904.36	7319.00	7405.00	5966.92	-1817.49	90.00	1115.33	278.49	4.01	PASS	
12813.00†	7405.00	4954.97	-1905.92	7319.00	7405.00	5966.92	-1817.49	90.00	1015.81	279.96	3.63	PASS	
12913.00†	7405.00	5054.95	-1907.48	7319.00	7405.00	5966.92	-1817.49	90.00	916.40	281.74	3.26	PASS	
13013.00†	7405.00	5154.94	-1909.04	7319.00	7405.00	5966.92	-1817.49	90.00	817.12	283.95	2.88	PASS	
13113.00†	7405.00	5254.93	-1910.60	7319.00	7405.00	5966.92	-1817.49	90.00	718.05	286.77	2.51	PASS	
13213.00†	7405.00	5354.92	-1912.16	7319.00	7405.00	5966.92	-1817.49	90.00	619.28	290.48	2.13	PASS	
13313.00†	7405.00	5454.91	-1913.72	7319.00	7405.00	5966.92	-1817.49	90.00	520.98	295.56	1.76	PASS	
13413.00†	7405.00	5554.89	-1915.27	7319.00	7405.00	5966.92	-1817.49	90.00	423.47	302.94	1.40	PASS	
13513.00†	7405.00	5654.88	-1916.83	7319.00	7405.00	5966.92	-1817.49	90.00	327.47	314.41	1.04	PASS	
13613.00†	7405.00	5754.87	-1918.39	7319.00	7405.00	5966.92	-1817.49	90.00	234.84	333.99	0.70	FAIL	
13713.00†	7405.00	5854.86	-1919.95	7319.00	7405.00	5966.92	-1817.49	90.00	151.85	369.03	0.41	FAIL	
13813.00†	7405.00	5954.84	-1921.51	7319.00	7405.00	5966.92	-1817.49	90.00	104.72	392.75	0.27	FAIL	
13823.70†	7405.00	5965.55	-1921.68	7319.20	7405.20	5966.92	-1817.49	90.11	104.20	388.36	0.27	FAIL	
13913.00†	7405.00	6054.83	-1923.07	7319.00	7405.00	5966.92	-1817.49	90.00	137.39	311.83	0.44	FAIL	
14013.00†	7405.00	6154.82	-1924.63	7319.00	7405.00	5966.92	-1817.49	90.00	216.30	257.52	0.84	FAIL	
14113.00†	7405.00	6254.81	-1926.19	7319.00	7405.00	5966.92	-1817.49	90.00	307.73	241.56	1.27	PASS	
14213.00†	7405.00	6354.80	-1927.75	7319.00	7405.00	5966.92	-1817.49	90.00	403.24	239.79	1.68	PASS	
14313.00†	7405.00	6454.78	-1929.31	7319.00	7405.00	5966.92	-1817.49	90.00	500.51	241.71	2.07	PASS	
14413.00†	7405.00	6554.77	-1930.87	7319.00	7405.00	5966.92	-1817.49	90.00	598.68	244.17	2.46	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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°FSL, 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	
14513.00†	7405.00	6654.76	-1932.43	7319.00	7405.00	5966.92	-1817.49	90.00	697.38	246.44	2.83	PASS	
14613.00†	7405.00	6754.75	-1933.99	7319.00	7405.00	5966.92	-1817.49	90.00	796.39	248.39	3.21	PASS	
14713.00†	7405.00	6854.73	-1935.54	7319.00	7405.00	5966.92	-1817.49	90.00	895.63	250.04	3.59	PASS	
14813.00†	7405.00	6954.72	-1937.10	7319.00	7405.00	5966.92	-1817.49	90.00	995.02	251.44	3.96	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	218.00	218.00	73.00	291.00	3632.31	-1124.48	3632.31	-1124.48
8.625in Casing Surface	0.00	218.00	218.00	73.00	291.00	3632.31	-1124.48	3632.31	-1124.48
7.875in Open Hole	218.00	8129.00	7911.00	291.00	8202.00	3632.31	-1124.48	3632.31	-1124.48
4.5in Casing Production	0.00	8129.00	8129.00	73.00	8202.00	3632.31	-1124.48	3632.31	-1124.48

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

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



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

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



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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#14 WAKEMAN 20-17-1NBH (293'FSL & 2218'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	16.00	13.00	-0.03	-14.94	-90.10	14.94	1.40	23.57	PASS	
113.00†	113.00	0.00	0.00	116.00	113.00	-0.03	-14.94	-90.10	14.94	1.73	15.19	PASS	
213.00†	213.00	0.00	0.00	216.00	213.00	-0.03	-14.94	-90.10	14.94	2.31	9.38	PASS	
313.00†	313.00	0.00	0.00	316.00	313.00	-0.03	-14.94	-90.10	14.94	2.92	6.69	PASS	
413.00†	413.00	0.00	0.00	416.00	413.00	-0.03	-14.94	-90.10	14.94	3.53	5.18	PASS	
513.00†	513.00	0.00	0.00	516.00	513.00	-0.03	-14.94	-90.10	14.94	4.15	4.22	PASS	
613.00†	613.00	0.00	0.00	616.00	613.00	-0.03	-14.94	-90.10	14.94	4.78	3.56	PASS	
713.00†	713.00	0.00	0.00	716.00	713.00	-0.03	-14.94	-90.10	14.94	5.40	3.07	PASS	
813.00†	813.00	0.00	0.00	816.00	813.00	-0.03	-14.94	-90.10	14.94	6.03	2.71	PASS	
913.00†	913.00	0.00	0.00	916.00	913.00	-0.03	-14.94	-90.10	14.94	6.65	2.42	PASS	
1013.00†	1013.00	0.00	0.00	1015.92	1012.92	-0.03	-14.99	-90.13	14.99	7.28	2.19	PASS	
1113.00†	1113.00	0.00	0.00	1115.35	1112.32	-0.49	-17.22	-91.63	17.24	8.01	2.28	PASS	
1200.00	1200.00	0.00	0.00	1201.63	1198.47	-1.44	-21.89	-93.76	21.99	8.86	2.63	PASS	
1213.00†	1213.00	-0.01	-0.03	1214.50	1211.30	-1.63	-22.81	9.82	22.90	8.99	2.70	PASS	
1313.00†	1312.97	-0.53	-2.16	1313.35	1309.73	-3.44	-31.72	8.24	29.87	9.99	3.16	PASS	
1413.00†	1412.80	-1.90	-7.68	1411.96	1407.55	-5.92	-43.92	7.49	36.83	11.16	3.48	PASS	
1513.00†	1512.38	-4.10	-16.58	1510.35	1504.65	-9.06	-59.37	7.17	43.76	12.23	3.76	PASS	
1613.00†	1611.57	-7.13	-28.85	1608.50	1600.93	-12.86	-78.03	7.10	50.64	13.25	4.01	PASS	
1713.00†	1710.26	-10.99	-44.47	1706.42	1696.28	-17.30	-99.86	7.18	57.47	14.21	4.23	PASS	
1813.00†	1808.33	-15.68	-63.42	1804.12	1790.61	-22.38	-124.81	7.37	64.24	15.04	4.43	PASS	
1913.00†	1905.66	-21.18	-85.69	1901.61	1883.80	-28.08	-152.83	7.65	70.94	15.95	4.61	PASS	
2013.00†	2002.13	-27.50	-111.24	1998.88	1975.76	-34.39	-183.87	7.97	77.57	16.83	4.77	PASS	
2103.78	2088.86	-33.93	-137.25	2088.51	2059.69	-40.67	-214.70	8.35	83.04	17.59	4.88	PASS	
2113.00†	2097.63	-34.62	-140.03	2097.72	2068.30	-41.32	-217.89	8.40	83.47	17.66	4.88	PASS	
2213.00†	2192.69	-42.06	-170.15	2197.60	2161.74	-48.35	-252.48	8.91	88.18	18.32	4.97	PASS	
2313.00†	2287.76	-49.51	-200.27	2297.49	2255.18	-55.39	-287.07	9.38	92.90	19.02	5.03	PASS	
2413.00†	2382.82	-56.95	-230.39	2397.37	2348.62	-62.43	-321.67	9.79	97.63	19.76	5.09	PASS	
2513.00†	2477.89	-64.40	-260.51	2497.26	2442.06	-69.47	-356.26	10.17	102.36	20.53	5.13	PASS	
2613.00†	2572.95	-71.85	-290.63	2597.14	2535.50	-76.51	-390.85	10.52	107.09	21.33	5.16	PASS	
2713.00†	2668.02	-79.29	-320.75	2697.03	2628.94	-83.55	-425.44	10.83	111.83	22.15	5.18	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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#14 WAKEMAN 20-17-1NBH (293'FSL & 2218'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†	2763.08	-86.74	-350.87	2796.92	2722.38	-90.58	-460.03	11.12	116.57	23.00	5.20	PASS	
2913.00†	2858.15	-94.18	-380.99	2896.80	2815.82	-97.62	-494.63	11.39	121.31	23.87	5.21	PASS	
3013.00†	2953.21	-101.63	-411.11	2996.69	2909.28	-104.66	-529.22	11.64	126.06	24.75	5.21	PASS	
3113.00†	3048.28	-109.08	-441.23	3096.57	3002.70	-111.70	-563.81	11.87	130.80	25.66	5.21	PASS	
3213.00†	3143.34	-116.52	-471.35	3196.46	3096.14	-118.74	-598.40	12.08	135.55	26.58	5.21	PASS	
3313.00†	3238.40	-123.97	-501.48	3296.35	3189.58	-125.77	-633.00	12.28	140.30	27.51	5.21	PASS	
3413.00†	3333.47	-131.41	-531.60	3396.23	3283.02	-132.81	-667.59	12.47	145.06	28.46	5.20	PASS	
3513.00†	3428.53	-138.86	-561.72	3496.12	3376.46	-139.85	-702.18	12.64	149.81	29.42	5.19	PASS	
3613.00†	3523.60	-146.31	-591.84	3596.00	3469.90	-146.89	-736.77	12.80	154.57	30.39	5.18	PASS	
3713.00†	3618.66	-153.75	-621.96	3695.89	3563.34	-153.93	-771.37	12.96	159.32	31.38	5.17	PASS	
3813.00†	3713.73	-161.20	-652.08	3795.78	3656.78	-160.96	-805.96	13.10	164.08	32.37	5.16	PASS	
3913.00†	3808.79	-168.64	-682.20	3895.66	3750.22	-168.00	-840.55	13.24	168.84	33.36	5.15	PASS	
4013.00†	3903.86	-176.09	-712.32	3995.55	3843.66	-175.04	-875.14	13.37	173.60	34.37	5.14	PASS	
4113.00†	3998.92	-183.54	-742.44	4095.43	3937.10	-182.08	-909.74	13.49	178.36	35.38	5.12	PASS	
4213.00†	4093.99	-190.98	-772.56	4195.32	4030.54	-189.12	-944.33	13.61	183.12	36.40	5.11	PASS	
4313.00†	4189.05	-198.43	-802.68	4295.21	4123.98	-196.16	-978.92	13.72	187.89	37.43	5.10	PASS	
4413.00†	4284.12	-205.87	-832.80	4395.09	4217.42	-203.19	-1013.51	13.82	192.65	38.46	5.08	PASS	
4513.00†	4379.18	-213.32	-862.92	4494.98	4310.86	-210.23	-1048.11	13.92	197.41	39.49	5.07	PASS	
4613.00†	4474.25	-220.77	-893.04	4594.86	4404.30	-217.27	-1082.70	14.02	202.18	40.54	5.06	PASS	
4713.00†	4569.31	-228.21	-923.16	4694.75	4497.74	-224.31	-1117.29	14.11	206.94	41.58	5.05	PASS	
4813.00†	4664.38	-235.66	-953.28	4794.63	4591.18	-231.35	-1151.88	14.19	211.70	42.63	5.03	PASS	
4913.00†	4759.44	-243.10	-983.40	4894.52	4684.62	-238.38	-1186.48	14.28	216.47	43.68	5.02	PASS	
5013.00†	4854.51	-250.55	-1013.52	4994.41	4778.06	-245.42	-1221.07	14.35	221.24	44.74	5.01	PASS	
5113.00†	4949.57	-258.00	-1043.64	5094.29	4871.50	-252.46	-1255.66	14.43	226.00	45.80	5.00	PASS	
5213.00†	5044.64	-265.44	-1073.77	5194.18	4964.94	-259.50	-1290.25	14.50	230.77	46.87	4.98	PASS	
5313.00†	5139.70	-272.89	-1103.89	5294.06	5058.38	-266.54	-1324.85	14.57	235.54	47.93	4.97	PASS	
5413.00†	5234.77	-280.33	-1134.01	5393.95	5151.82	-273.57	-1359.44	14.64	240.30	49.00	4.96	PASS	
5513.00†	5329.83	-287.78	-1164.13	5493.84	5245.26	-280.61	-1394.03	14.70	245.07	50.07	4.95	PASS	
5613.00†	5424.89	-295.23	-1194.25	5593.72	5338.70	-287.65	-1428.62	14.77	249.84	51.15	4.94	PASS	
5713.00†	5519.96	-302.67	-1224.37	5693.61	5432.14	-294.69	-1463.22	14.82	254.61	52.22	4.93	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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#14 WAKEMAN 20-17-1NBH (293'FSL & 2218'FEL, SEC.20) Well: WAKEMAN 20-17-1NBH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5615.02	-310.12	-1254.49	5793.49	5525.58	-301.73	-1497.81	14.88	259.38	53.30	4.92	PASS	
5913.00†	5710.09	-317.56	-1284.61	5893.38	5619.02	-308.77	-1532.40	14.94	264.14	54.38	4.91	PASS	
6013.00†	5805.15	-325.01	-1314.73	5993.27	5712.46	-315.80	-1566.99	14.99	268.91	55.47	4.90	PASS	
6113.00†	5900.22	-332.46	-1344.85	6093.15	5805.90	-322.84	-1601.58	15.04	273.68	56.55	4.89	PASS	
6213.00†	5995.28	-339.90	-1374.97	6193.04	5899.34	-329.88	-1636.18	15.09	278.45	57.64	4.88	PASS	
6313.00†	6090.35	-347.35	-1405.09	6292.92	5992.78	-336.92	-1670.77	15.14	283.22	58.73	4.87	PASS	
6413.00†	6185.41	-354.79	-1435.21	6392.81	6086.22	-343.96	-1705.36	15.19	287.99	59.81	4.86	PASS	
6513.00†	6280.48	-362.24	-1465.33	6492.70	6179.66	-350.99	-1739.95	15.23	292.76	60.91	4.85	PASS	
6613.00†	6375.54	-369.69	-1495.45	6592.58	6273.10	-358.03	-1774.55	15.27	297.53	62.00	4.84	PASS	
6713.00†	6470.61	-377.13	-1525.57	6692.47	6366.54	-365.07	-1809.14	15.32	302.30	63.09	4.83	PASS	
6813.00†	6565.67	-384.58	-1555.69	6792.35	6459.98	-372.11	-1843.73	15.36	307.07	64.19	4.83	PASS	
6913.00†	6660.74	-392.02	-1585.81	6892.24	6553.42	-379.15	-1878.32	15.40	311.84	65.28	4.82	PASS	
7013.00†	6755.80	-399.47	-1615.93	6992.12	6646.86	-386.18	-1912.92	15.44	316.61	66.38	4.81	PASS	
7081.48	6820.90	-404.57	-1636.56	7060.53	6710.84	-391.00	-1936.61	15.46	319.88	67.13	4.81	PASS	
7113.00†	6850.91	-406.05	-1646.08	7092.00	6740.29	-393.22	-1947.50	5.76	321.34	67.35	4.81	PASS	
7213.00†	6945.84	-399.29	-1676.38	7190.82	6832.73	-400.18	-1981.73	-25.47	325.62	66.46	4.94	PASS	
7313.00†	7038.12	-375.33	-1706.11	7286.97	6922.71	-406.35	-2015.05	-49.26	331.25	64.51	5.18	PASS	
7413.00†	7124.97	-334.90	-1734.36	7388.45	7017.48	-399.85	-2050.35	-65.24	340.03	64.55	5.32	PASS	
7513.00†	7203.73	-279.23	-1760.28	7497.31	7116.13	-373.20	-2087.40	-76.37	351.44	67.01	5.29	PASS	
7613.00†	7272.02	-210.01	-1783.08	7614.84	7215.13	-322.67	-2124.96	-84.59	364.43	70.24	5.23	PASS	
7713.00†	7327.76	-129.34	-1802.06	7742.05	7308.83	-244.96	-2160.97	-90.76	377.54	72.21	5.27	PASS	
7813.00†	7369.25	-39.68	-1816.66	7879.16	7389.04	-138.72	-2192.41	-95.24	389.09	71.82	5.46	PASS	
7913.00†	7395.24	56.26	-1826.42	8025.00	7445.75	-6.79	-2215.53	-98.09	397.40	69.39	5.78	PASS	
8013.00†	7404.94	155.55	-1831.06	8176.56	7469.63	142.01	-2226.72	-99.29	401.14	66.52	6.08	PASS	
8021.48	7405.00	164.03	-1831.21	8189.54	7469.94	154.98	-2227.03	-99.32	401.22	66.31	6.10	PASS	
8113.00†	7405.00	255.54	-1832.64	8283.94	7470.00	249.37	-2228.53	-99.32	401.24	67.30	6.01	PASS	
8213.00†	7405.00	355.53	-1834.19	8383.94	7470.00	349.35	-2230.09	-99.32	401.24	69.09	5.86	PASS	
8313.00†	7405.00	455.51	-1835.75	8483.94	7470.00	449.34	-2231.64	-99.32	401.24	71.39	5.67	PASS	
8413.00†	7405.00	555.50	-1837.31	8583.94	7470.00	549.33	-2233.20	-99.32	401.24	74.15	5.45	PASS	
8513.00†	7405.00	655.49	-1838.87	8683.94	7470.00	649.32	-2234.76	-99.32	401.24	77.30	5.23	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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#14 WAKEMAN 20-17-1NBH (293°FSL & 2218°FEL, SEC.20)		Well: WAKEMAN 20-17-1NBH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8613.00†	7405.00	755.48	-1840.43	8783.94	7470.00	749.31	-2236.32	-99.32	401.24	82.95	4.87	PASS
8713.00†	7405.00	855.46	-1841.99	8883.94	7470.00	849.29	-2237.88	-99.32	401.24	84.63	4.77	PASS
8813.00†	7405.00	955.45	-1843.55	8983.94	7470.00	949.28	-2239.44	-99.32	401.24	88.72	4.55	PASS
8913.00†	7405.00	1055.44	-1845.11	9083.94	7470.00	1049.27	-2241.00	-99.32	401.23	93.05	4.34	PASS
9013.00†	7405.00	1155.43	-1846.67	9183.94	7470.00	1149.26	-2242.55	-99.32	401.23	97.57	4.13	PASS
9113.00†	7405.00	1255.42	-1848.23	9283.94	7470.00	1249.24	-2244.11	-99.32	401.23	102.28	3.94	PASS
9213.00†	7405.00	1355.40	-1849.79	9383.94	7470.00	1349.23	-2245.67	-99.32	401.23	107.13	3.76	PASS
9313.00†	7405.00	1455.39	-1851.35	9483.94	7470.00	1449.22	-2247.23	-99.32	401.23	112.12	3.59	PASS
9413.00†	7405.00	1555.38	-1852.91	9583.94	7470.00	1549.21	-2248.79	-99.32	401.23	117.23	3.44	PASS
9513.00†	7405.00	1655.37	-1854.46	9683.94	7470.00	1649.20	-2250.35	-99.32	401.23	122.43	3.29	PASS
9613.00†	7405.00	1755.35	-1856.02	9783.94	7470.00	1749.18	-2251.91	-99.32	401.23	127.73	3.15	PASS
9713.00†	7405.00	1855.34	-1857.58	9883.94	7470.00	1849.17	-2253.47	-99.32	401.23	133.10	3.03	PASS
9813.00†	7405.00	1955.33	-1859.14	9983.94	7470.00	1949.16	-2255.02	-99.32	401.23	138.54	2.91	PASS
9913.00†	7405.00	2055.32	-1860.70	10083.94	7470.00	2049.15	-2256.58	-99.32	401.23	144.04	2.79	PASS
10013.00†	7405.00	2155.31	-1862.26	10183.94	7470.00	2149.14	-2258.14	-99.32	401.23	149.60	2.69	PASS
10113.00†	7405.00	2255.29	-1863.82	10283.94	7470.00	2249.12	-2259.70	-99.32	401.23	155.21	2.59	PASS
10213.00†	7405.00	2355.28	-1865.38	10383.94	7470.00	2349.11	-2261.26	-99.32	401.23	160.85	2.50	PASS
10313.00†	7405.00	2455.27	-1866.94	10483.94	7470.00	2449.10	-2262.82	-99.32	401.23	166.54	2.42	PASS
10413.00†	7405.00	2555.26	-1868.50	10583.94	7470.00	2549.09	-2264.38	-99.32	401.23	172.26	2.33	PASS
10513.00†	7405.00	2655.25	-1870.06	10683.94	7470.00	2649.07	-2265.93	-99.32	401.23	178.02	2.26	PASS
10613.00†	7405.00	2755.23	-1871.62	10783.94	7470.00	2749.06	-2267.49	-99.32	401.23	183.80	2.19	PASS
10713.00†	7405.00	2855.22	-1873.18	10883.94	7470.00	2849.05	-2269.05	-99.32	401.22	189.61	2.12	PASS
10813.00†	7405.00	2955.21	-1874.73	10983.94	7470.00	2949.04	-2270.61	-99.32	401.22	195.44	2.06	PASS
10913.00†	7405.00	3055.20	-1876.29	11083.94	7470.00	3049.03	-2272.17	-99.32	401.22	201.29	2.00	PASS
11013.00†	7405.00	3155.18	-1877.85	11183.94	7470.00	3149.01	-2273.73	-99.32	401.22	207.17	1.94	PASS
11113.00†	7405.00	3255.17	-1879.41	11283.94	7470.00	3249.00	-2275.29	-99.32	401.22	213.06	1.89	PASS
11213.00†	7405.00	3355.16	-1880.97	11383.94	7470.00	3348.99	-2276.85	-99.32	401.22	218.97	1.84	PASS
11313.00†	7405.00	3455.15	-1882.53	11483.94	7470.00	3448.98	-2278.40	-99.32	401.22	224.89	1.79	PASS
11413.00†	7405.00	3555.14	-1884.09	11583.94	7470.00	3548.97	-2279.96	-99.32	401.22	230.83	1.74	PASS
11513.00†	7405.00	3655.12	-1885.65	11683.94	7470.00	3648.95	-2281.52	-99.32	401.22	236.78	1.70	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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#14 WAKEMAN 20-17-1NBH (293°FSL & 2218°FEL, SEC.20)				Well: WAKEMAN 20-17-1NBH				Threshold Value=1.00	† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]			C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
11613.00†	7405.00	3755.11	-1887.21	11783.94	7470.00	3748.94	-2283.08	-99.32			401.22	242.75	1.65	PASS
11713.00†	7405.00	3855.10	-1888.77	11883.94	7470.00	3848.93	-2284.64	-99.32			401.22	248.72	1.61	PASS
11813.00†	7405.00	3955.09	-1890.33	11983.94	7470.00	3948.92	-2286.20	-99.32			401.22	254.71	1.58	PASS
11913.00†	7405.00	4055.08	-1891.89	12083.94	7470.00	4048.90	-2287.76	-99.32			401.22	260.70	1.54	PASS
12013.00†	7405.00	4155.06	-1893.45	12183.94	7470.00	4148.89	-2289.31	-99.32			401.22	266.70	1.51	PASS
12113.00†	7405.00	4255.05	-1895.00	12283.94	7470.00	4248.88	-2290.87	-99.32			401.22	272.72	1.47	PASS
12213.00†	7405.00	4355.04	-1896.56	12383.94	7470.00	4348.87	-2292.43	-99.32			401.22	278.74	1.44	PASS
12313.00†	7405.00	4455.03	-1898.12	12483.94	7470.00	4448.86	-2293.99	-99.32			401.22	284.77	1.41	PASS
12413.00†	7405.00	4555.01	-1899.68	12583.94	7470.00	4548.84	-2295.55	-99.32			401.22	290.80	1.38	PASS
12513.00†	7405.00	4655.00	-1901.24	12683.94	7470.00	4648.83	-2297.11	-99.32			401.21	296.84	1.35	PASS
12613.00†	7405.00	4754.99	-1902.80	12783.94	7470.00	4748.82	-2298.67	-99.32			401.21	302.89	1.33	PASS
12713.00†	7405.00	4854.98	-1904.36	12883.94	7470.00	4848.81	-2300.23	-99.32			401.21	308.94	1.30	PASS
12813.00†	7405.00	4954.97	-1905.92	12983.94	7470.00	4948.79	-2301.78	-99.32			401.21	315.00	1.27	PASS
12913.00†	7405.00	5054.95	-1907.48	13083.94	7470.00	5048.78	-2303.34	-99.32			401.21	321.06	1.25	PASS
13013.00†	7405.00	5154.94	-1909.04	13183.94	7470.00	5148.77	-2304.90	-99.32			401.21	327.13	1.23	PASS
13113.00†	7405.00	5254.93	-1910.60	13283.94	7470.00	5248.76	-2306.46	-99.32			401.21	333.21	1.20	PASS
13213.00†	7405.00	5354.92	-1912.16	13383.94	7470.00	5348.75	-2308.02	-99.32			401.21	339.28	1.18	PASS
13313.00†	7405.00	5454.91	-1913.72	13483.94	7470.00	5448.73	-2309.58	-99.32			401.21	345.37	1.16	PASS
13413.00†	7405.00	5554.89	-1915.27	13583.94	7470.00	5548.72	-2311.14	-99.32			401.21	351.45	1.14	PASS
13513.00†	7405.00	5654.88	-1916.83	13683.94	7470.00	5648.71	-2312.69	-99.32			401.21	357.54	1.12	PASS
13613.00†	7405.00	5754.87	-1918.39	13783.94	7470.00	5748.70	-2314.25	-99.32			401.21	363.63	1.10	PASS
13713.00†	7405.00	5854.86	-1919.95	13883.94	7470.00	5848.69	-2315.81	-99.32			401.21	369.73	1.09	PASS
13813.00†	7405.00	5954.84	-1921.51	13983.94	7470.00	5948.67	-2317.37	-99.32			401.21	375.83	1.07	PASS
13913.00†	7405.00	6054.83	-1923.07	14083.94	7470.00	6048.66	-2318.93	-99.32			401.21	381.93	1.05	PASS
14013.00†	7405.00	6154.82	-1924.63	14183.94	7470.00	6148.65	-2320.49	-99.32			401.21	388.04	1.03	PASS
14113.00†	7405.00	6254.81	-1926.19	14283.94	7470.00	6248.64	-2322.05	-99.32			401.21	394.15	1.02	PASS
14213.00†	7405.00	6354.80	-1927.75	14383.94	7470.00	6348.62	-2323.61	-99.32			401.21	400.26	1.00	PASS
14313.00†	7405.00	6454.78	-1929.31	14483.94	7470.00	6448.61	-2325.16	-99.32			401.20	406.37	0.99	FAIL
14413.00†	7405.00	6554.77	-1930.87	14583.94	7470.00	6548.60	-2326.72	-99.32			401.20	412.49	0.97	FAIL
14513.00†	7405.00	6654.76	-1932.43	14683.94	7470.00	6648.59	-2328.28	-99.32			401.20	418.60	0.96	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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#14 WAKEMAN 20-17-1NBH (293°FSL & 2218°FEL, SEC.20)				Well: WAKEMAN 20-17-1NBH				Threshold Value=1.00	† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]			C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
14613.00†	7405.00	6754.75	-1933.99	14783.94	7470.00	6748.58	-2329.84	-99.32			401.20	424.72	0.94	FAIL
14713.00†	7405.00	6854.73	-1935.54	14883.94	7470.00	6848.56	-2331.40	-99.32			401.20	430.85	0.93	FAIL
14813.00†	7405.00	6954.72	-1937.10	14983.94	7470.00	6948.55	-2332.96	-99.32			401.20	436.97	0.92	FAIL
14913.00†	7405.00	7054.71	-1938.66	15083.94	7470.00	7048.54	-2334.52	-99.32			401.20	443.10	0.91	FAIL
15013.00†	7405.00	7154.70	-1940.22	15183.94	7470.00	7148.53	-2336.07	-99.32			401.20	449.22	0.89	FAIL
15113.00†	7405.00	7254.69	-1941.78	15283.94	7470.00	7248.52	-2337.63	-99.32			401.20	455.35	0.88	FAIL
15213.00†	7405.00	7354.67	-1943.34	15383.94	7470.00	7348.50	-2339.19	-99.32			401.20	461.49	0.87	FAIL
15313.00†	7405.00	7454.66	-1944.90	15483.94	7470.00	7448.49	-2340.75	-99.32			401.20	467.62	0.86	FAIL
15413.00†	7405.00	7554.65	-1946.46	15583.94	7470.00	7548.48	-2342.31	-99.32			401.20	473.75	0.85	FAIL
15513.00†	7405.00	7654.64	-1948.02	15683.94	7470.00	7648.47	-2343.87	-99.32			401.20	479.89	0.84	FAIL
15613.00†	7405.00	7754.63	-1949.58	15783.94	7470.00	7748.45	-2345.43	-99.32			401.20	486.03	0.83	FAIL
15713.00†	7405.00	7854.61	-1951.14	15883.94	7470.00	7848.44	-2346.99	-99.32			401.20	492.17	0.81	FAIL
15813.00†	7405.00	7954.60	-1952.70	15983.94	7470.00	7948.43	-2348.54	-99.32			401.20	498.31	0.80	FAIL
15913.00†	7405.00	8054.59	-1954.26	16083.94	7470.00	8048.42	-2350.10	-99.32			401.20	504.45	0.80	FAIL
16013.00†	7405.00	8154.58	-1955.81	16183.94	7470.00	8148.41	-2351.66	-99.32			401.20	510.59	0.79	FAIL
16113.00†	7405.00	8254.56	-1957.37	16283.94	7470.00	8248.39	-2353.22	-99.32			401.19	516.73	0.78	FAIL
16213.00†	7405.00	8354.55	-1958.93	16383.94	7470.00	8348.38	-2354.78	-99.32			401.19	522.88	0.77	FAIL
16313.00†	7405.00	8454.54	-1960.49	16483.94	7470.00	8448.37	-2356.34	-99.32			401.19	529.03	0.76	FAIL
16413.00†	7405.00	8554.53	-1962.05	16583.94	7470.00	8548.36	-2357.90	-99.32			401.19	535.17	0.75	FAIL
16513.00†	7405.00	8654.52	-1963.61	16683.94	7470.00	8648.35	-2359.45	-99.32			401.19	541.32	0.74	FAIL
16613.00†	7405.00	8754.50	-1965.17	16783.94	7470.00	8748.33	-2361.01	-99.32			401.19	547.47	0.73	FAIL
16713.00†	7405.00	8854.49	-1966.73	16883.94	7470.00	8848.32	-2362.57	-99.32			401.19	553.62	0.72	FAIL
16813.00†	7405.00	8954.48	-1968.29	16983.94	7470.00	8948.31	-2364.13	-99.32			401.19	559.77	0.72	FAIL
16913.00†	7405.00	9054.47	-1969.85	17083.94	7470.00	9048.30	-2365.69	-99.32			401.19	565.93	0.71	FAIL
17013.00†	7405.00	9154.46	-1971.41	17183.94	7470.00	9148.28	-2367.25	-99.32			401.19	572.08	0.70	FAIL
17113.00†	7405.00	9254.44	-1972.97	17283.94	7470.00	9248.27	-2368.81	-99.32			401.19	578.23	0.69	FAIL
17213.00†	7405.00	9354.43	-1974.53	17383.94	7470.00	9348.26	-2370.37	-99.32			401.19	584.39	0.69	FAIL
17313.00†	7405.00	9454.42	-1976.08	17483.94	7470.00	9448.25	-2371.92	-99.32			401.19	590.54	0.68	FAIL
17413.00†	7405.00	9554.41	-1977.64	17583.94	7470.00	9548.24	-2373.48	-99.32			401.19	596.70	0.67	FAIL
17513.00†	7405.00	9654.39	-1979.20	17683.94	7470.00	9648.22	-2375.04	-99.32			401.19	602.86	0.67	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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#14 WAKEMAN 20-17-1NBH (293°FSL & 2218°FEL, SEC.20) Well: WAKEMAN 20-17-1NBH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
17613.00†	7405.00	9754.38	-1980.76	17783.94	7470.00	9748.21	-2376.60	-99.32	401.19	609.01	0.66	FAIL	
17713.00†	7405.00	9854.37	-1982.32	17883.94	7470.00	9848.20	-2378.16	-99.32	401.19	615.17	0.65	FAIL	
17813.00†	7405.00	9954.36	-1983.88	17983.94	7470.00	9948.19	-2379.72	-99.32	401.18	621.33	0.65	FAIL	
17835.13	7405.00	9976.48	-1984.23	18006.06	7470.00	9970.31	-2380.06	-99.32	401.18	622.70	0.64	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	16.00	1800.00	1784.00	16.00	1789.64	-0.02	-9.11	-6.76	-42.26
8.5in Open Hole	1800.00	18013.26	16213.26	1789.64	N/A	-6.76	-42.26	N/A	N/A

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

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



Clearance Report
WAKEMAN 20-17-1NBH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	0.03	15.00	89.88	15.00	1.40	23.67	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.03	15.00	89.88	15.00	1.73	15.26	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.03	15.00	89.88	15.00	2.31	9.42	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.03	15.00	89.88	15.00	2.92	6.72	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.03	15.00	89.88	15.00	3.53	5.20	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.03	15.00	89.88	15.00	4.15	4.24	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.03	15.00	89.88	15.00	4.78	3.57	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.03	15.00	89.88	15.00	5.40	3.09	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	0.03	15.00	89.88	15.00	6.03	2.72	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	0.03	15.00	89.88	15.00	6.65	2.43	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.03	15.00	89.88	15.00	7.28	2.19	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.03	15.00	89.88	15.00	7.91	2.00	PASS	
1200.00	1200.00	0.00	0.00	1200.00	1200.00	0.03	15.00	89.88	15.00	8.45	1.86	PASS	
1213.00†	1213.00	-0.01	-0.03	1213.00	1213.00	0.03	15.00	-166.26	15.03	8.53	1.84	PASS	
1313.00†	1312.97	-0.53	-2.16	1313.00	1313.00	0.02	14.98	-167.97	17.15	9.25	1.94	PASS	
1413.00†	1412.80	-1.90	-7.68	1413.00	1413.00	-0.64	12.85	-169.62	20.59	10.27	2.09	PASS	
1513.00†	1512.38	-4.10	-16.58	1514.33	1514.13	-2.36	7.35	-170.30	24.06	11.43	2.19	PASS	
1613.00†	1611.57	-7.13	-28.85	1615.15	1614.52	-5.13	-1.53	-170.37	27.55	12.53	2.28	PASS	
1713.00†	1710.26	-10.99	-44.47	1716.10	1714.64	-8.95	-13.79	-170.02	31.06	13.55	2.37	PASS	
1813.00†	1808.33	-15.68	-63.42	1817.16	1814.36	-13.83	-29.44	-169.39	34.57	14.43	2.47	PASS	
1913.00†	1905.66	-21.18	-85.69	1918.34	1913.55	-19.76	-48.45	-168.55	38.09	15.38	2.55	PASS	
2013.00†	2002.13	-27.50	-111.24	2019.48	2011.94	-26.72	-70.77	-167.57	41.65	16.30	2.63	PASS	
2103.78	2088.86	-33.93	-137.25	2110.12	2099.83	-33.33	-91.96	-167.22	46.61	17.01	2.81	PASS	
2113.00†	2097.63	-34.62	-140.03	2119.32	2108.74	-34.00	-94.11	-167.23	47.25	17.08	2.84	PASS	
2213.00†	2192.69	-42.06	-170.15	2219.07	2205.46	-41.27	-117.42	-167.32	54.26	17.76	3.14	PASS	
2313.00†	2287.76	-49.51	-200.27	2318.82	2302.18	-48.54	-140.73	-167.39	61.27	18.43	3.42	PASS	
2413.00†	2382.82	-56.95	-230.39	2418.58	2398.90	-55.81	-164.04	-167.44	68.28	19.14	3.66	PASS	
2513.00†	2477.89	-64.40	-260.51	2518.33	2495.62	-63.08	-187.36	-167.49	75.28	19.88	3.89	PASS	
2613.00†	2572.95	-71.85	-290.63	2618.09	2592.34	-70.35	-210.67	-167.52	82.29	20.64	4.09	PASS	
2713.00†	2668.02	-79.29	-320.75	2717.84	2689.06	-77.62	-233.98	-167.55	89.30	21.41	4.28	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2817.59	2785.78	-84.89	-257.29	-167.58	96.31	22.19	4.45	PASS	
2913.00†	2858.15	-94.18	-380.99	2917.35	2882.49	-92.16	-280.61	-167.60	103.32	23.00	4.60	PASS	
3013.00†	2953.21	-101.63	-411.11	3017.10	2979.21	-99.43	-303.92	-167.62	110.32	23.81	4.74	PASS	
3113.00†	3048.28	-109.08	-441.23	3116.86	3075.93	-106.70	-327.23	-167.64	117.33	24.64	4.87	PASS	
3213.00†	3143.34	-116.52	-471.35	3216.61	3172.65	-113.97	-350.55	-167.66	124.34	25.47	4.99	PASS	
3313.00†	3238.40	-123.97	-501.48	3316.37	3269.37	-121.24	-373.86	-167.67	131.35	26.31	5.10	PASS	
3413.00†	3333.47	-131.41	-531.60	3416.12	3366.09	-128.51	-397.17	-167.68	138.36	27.17	5.20	PASS	
3513.00†	3428.53	-138.86	-561.72	3515.87	3462.81	-135.78	-420.48	-167.69	145.36	28.03	5.30	PASS	
3613.00†	3523.60	-146.31	-591.84	3615.63	3559.53	-143.05	-443.80	-167.70	152.37	28.89	5.38	PASS	
3713.00†	3618.66	-153.75	-621.96	3715.38	3656.25	-150.33	-467.11	-167.71	159.38	29.77	5.46	PASS	
3813.00†	3713.73	-161.20	-652.08	3815.14	3752.96	-157.60	-490.42	-167.72	166.39	30.64	5.53	PASS	
3913.00†	3808.79	-168.64	-682.20	3914.89	3849.68	-164.87	-513.74	-167.73	173.40	31.53	5.60	PASS	
4013.00†	3903.86	-176.09	-712.32	4014.64	3946.40	-172.14	-537.05	-167.74	180.40	32.41	5.67	PASS	
4113.00†	3998.92	-183.54	-742.44	4114.40	4043.12	-179.41	-560.36	-167.74	187.41	33.31	5.73	PASS	
4213.00†	4093.99	-190.98	-772.56	4214.15	4139.84	-186.68	-583.67	-167.75	194.42	34.20	5.78	PASS	
4313.00†	4189.05	-198.43	-802.68	4313.91	4236.56	-193.95	-606.99	-167.76	201.43	35.10	5.84	PASS	
4413.00†	4284.12	-205.87	-832.80	4413.66	4333.28	-201.22	-630.30	-167.76	208.44	36.01	5.88	PASS	
4513.00†	4379.18	-213.32	-862.92	4513.41	4430.00	-208.49	-653.61	-167.77	215.44	36.91	5.93	PASS	
4613.00†	4474.25	-220.77	-893.04	4613.17	4526.72	-215.76	-676.92	-167.77	222.45	37.82	5.97	PASS	
4713.00†	4569.31	-228.21	-923.16	4712.92	4623.43	-223.03	-700.24	-167.78	229.46	38.73	6.02	PASS	
4813.00†	4664.38	-235.66	-953.28	4812.68	4720.15	-230.30	-723.55	-167.78	236.47	39.65	6.05	PASS	
4913.00†	4759.44	-243.10	-983.40	4912.43	4816.87	-237.57	-746.86	-167.78	243.48	40.57	6.09	PASS	
5013.00†	4854.51	-250.55	-1013.52	5012.19	4913.59	-244.84	-770.18	-167.79	250.48	41.49	6.13	PASS	
5113.00†	4949.57	-258.00	-1043.64	5111.94	5010.31	-252.11	-793.49	-167.79	257.49	42.41	6.16	PASS	
5213.00†	5044.64	-265.44	-1073.77	5211.69	5107.03	-259.38	-816.80	-167.79	264.50	43.33	6.19	PASS	
5313.00†	5139.70	-272.89	-1103.89	5311.45	5203.75	-266.65	-840.11	-167.80	271.51	44.25	6.22	PASS	
5413.00†	5234.77	-280.33	-1134.01	5411.20	5300.47	-273.92	-863.43	-167.80	278.52	45.18	6.25	PASS	
5513.00†	5329.83	-287.78	-1164.13	5510.96	5397.19	-281.19	-886.74	-167.80	285.52	46.11	6.27	PASS	
5613.00†	5424.89	-295.23	-1194.25	5610.71	5493.90	-288.47	-910.05	-167.81	292.53	47.04	6.30	PASS	
5713.00†	5519.96	-302.67	-1224.37	5710.46	5590.62	-295.74	-933.36	-167.81	299.54	47.97	6.32	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W				Slot: SLOT#12 WAKEMAN 20-17-2CDH (293'FSL & 2188'FEL, SEC.20)				Well: WAKEMAN 20-17-2CDH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status		
5813.00†	5615.02	-310.12	-1254.49	5810.22	5687.34	-303.01	-956.68	-167.81	306.55	48.90	6.35	PASS		
5913.00†	5710.09	-317.56	-1284.61	5909.97	5784.06	-310.28	-979.99	-167.81	313.56	49.84	6.37	PASS		
6013.00†	5805.15	-325.01	-1314.73	6009.73	5880.78	-317.55	-1003.30	-167.82	320.56	50.77	6.39	PASS		
6113.00†	5900.22	-332.46	-1344.85	6109.48	5977.50	-324.82	-1026.62	-167.82	327.57	51.71	6.41	PASS		
6213.00†	5995.28	-339.90	-1374.97	6209.23	6074.22	-332.09	-1049.93	-167.82	334.58	52.64	6.43	PASS		
6313.00†	6090.35	-347.35	-1405.09	6308.99	6170.94	-339.36	-1073.24	-167.82	341.59	53.58	6.45	PASS		
6413.00†	6185.41	-354.79	-1435.21	6408.74	6267.66	-346.63	-1096.55	-167.82	348.60	54.52	6.47	PASS		
6513.00†	6280.48	-362.24	-1465.33	6508.50	6364.37	-353.90	-1119.87	-167.83	355.60	55.46	6.48	PASS		
6613.00†	6375.54	-369.69	-1495.45	6608.25	6461.09	-361.17	-1143.18	-167.83	362.61	56.40	6.50	PASS		
6713.00†	6470.61	-377.13	-1525.57	6708.01	6557.81	-368.44	-1166.49	-167.83	369.62	57.34	6.51	PASS		
6813.00†	6565.67	-384.58	-1555.69	6807.76	6654.53	-375.71	-1189.80	-167.83	376.63	58.28	6.53	PASS		
6913.00†	6660.74	-392.02	-1585.81	6907.51	6751.25	-382.98	-1213.12	-167.83	383.64	59.22	6.54	PASS		
7013.00†	6755.80	-399.47	-1615.93	7007.27	6847.97	-390.25	-1236.43	-167.83	390.64	60.17	6.56	PASS		
7081.48	6820.90	-404.57	-1636.56	7075.58	6914.20	-395.23	-1252.39	-167.84	395.44	60.81	6.57	PASS		
7113.00†	6850.91	-406.05	-1646.08	7107.01	6944.67	-397.52	-1259.74	-177.64	397.65	61.17	6.57	PASS		
7213.00†	6945.84	-399.29	-1676.38	7205.69	7040.35	-404.71	-1282.80	154.39	404.80	63.13	6.47	PASS		
7313.00†	7038.12	-375.33	-1706.11	7306.99	7138.65	-402.64	-1306.64	137.38	412.82	65.54	6.36	PASS		
7413.00†	7124.97	-334.90	-1734.36	7412.66	7239.06	-381.57	-1331.29	128.58	421.50	67.19	6.33	PASS		
7513.00†	7203.73	-279.23	-1760.28	7523.07	7338.03	-339.70	-1355.92	124.16	430.35	67.61	6.42	PASS		
7613.00†	7272.02	-210.01	-1783.08	7638.40	7430.99	-275.98	-1379.43	121.96	438.82	66.80	6.63	PASS		
7713.00†	7327.76	-129.34	-1802.06	7758.46	7512.50	-190.69	-1400.50	120.89	446.26	65.12	6.92	PASS		
7813.00†	7369.25	-39.68	-1816.66	7882.66	7576.70	-86.05	-1417.68	120.38	452.07	63.46	7.19	PASS		
7913.00†	7395.24	56.26	-1826.42	8009.90	7618.15	33.38	-1429.58	120.12	455.73	63.03	7.30	PASS		
8013.00†	7404.94	155.55	-1831.06	8138.63	7632.99	160.85	-1435.17	119.94	456.90	64.82	7.12	PASS		
8021.48	7405.00	164.03	-1831.21	8147.98	7633.00	170.20	-1435.32	119.94	456.89	65.00	7.10	PASS		
8113.00†	7405.00	255.54	-1832.64	8239.50	7633.00	261.71	-1436.74	119.94	456.89	66.68	6.92	PASS		
8213.00†	7405.00	355.53	-1834.19	8339.50	7633.00	361.70	-1438.30	119.94	456.89	68.90	6.69	PASS		
8313.00†	7405.00	455.51	-1835.75	8439.50	7633.00	461.69	-1439.86	119.94	456.89	71.49	6.44	PASS		
8413.00†	7405.00	555.50	-1837.31	8539.50	7633.00	561.68	-1441.42	119.94	456.89	74.41	6.19	PASS		
8513.00†	7405.00	655.49	-1838.87	8639.50	7633.00	661.67	-1442.98	119.94	456.89	77.62	5.93	PASS		

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
8613.00†	7405.00	755.48	-1840.43	8739.50	7633.00	761.65	-1444.54	119.94	456.89	81.08	5.68	PASS	
8713.00†	7405.00	855.46	-1841.99	8839.50	7633.00	861.64	-1446.10	119.94	456.89	83.73	5.50	PASS	
8813.00†	7405.00	955.45	-1843.55	8939.50	7633.00	961.63	-1447.67	119.94	456.89	88.65	5.19	PASS	
8913.00†	7405.00	1055.44	-1845.11	9039.50	7633.00	1061.62	-1449.23	119.94	456.89	92.70	4.96	PASS	
9013.00†	7405.00	1155.43	-1846.67	9139.50	7633.00	1161.60	-1450.79	119.94	456.89	96.90	4.74	PASS	
9113.00†	7405.00	1255.42	-1848.23	9239.50	7633.00	1261.59	-1452.35	119.94	456.89	101.23	4.54	PASS	
9213.00†	7405.00	1355.40	-1849.79	9339.50	7633.00	1361.58	-1453.91	119.94	456.89	105.67	4.35	PASS	
9313.00†	7405.00	1455.39	-1851.35	9439.50	7633.00	1461.57	-1455.47	119.94	456.88	110.22	4.17	PASS	
9413.00†	7405.00	1555.38	-1852.91	9539.50	7633.00	1561.56	-1457.03	119.94	456.88	114.85	4.00	PASS	
9513.00†	7405.00	1655.37	-1854.46	9639.50	7633.00	1661.54	-1458.59	119.94	456.88	119.56	3.84	PASS	
9613.00†	7405.00	1755.35	-1856.02	9739.50	7633.00	1761.53	-1460.15	119.94	456.88	124.34	3.69	PASS	
9713.00†	7405.00	1855.34	-1857.58	9839.50	7633.00	1861.52	-1461.71	119.94	456.88	129.18	3.55	PASS	
9813.00†	7405.00	1955.33	-1859.14	9939.50	7633.00	1961.51	-1463.27	119.94	456.88	134.08	3.42	PASS	
9913.00†	7405.00	2055.32	-1860.70	10039.50	7633.00	2061.50	-1464.83	119.94	456.88	139.02	3.30	PASS	
10013.00†	7405.00	2155.31	-1862.26	10139.50	7633.00	2161.48	-1466.39	119.94	456.88	144.01	3.18	PASS	
10113.00†	7405.00	2255.29	-1863.82	10239.50	7633.00	2261.47	-1467.95	119.94	456.88	149.04	3.08	PASS	
10213.00†	7405.00	2355.28	-1865.38	10339.50	7633.00	2361.46	-1469.51	119.94	456.88	154.10	2.97	PASS	
10313.00†	7405.00	2455.27	-1866.94	10439.50	7633.00	2461.45	-1471.07	119.94	456.88	159.19	2.88	PASS	
10413.00†	7405.00	2555.26	-1868.50	10539.50	7633.00	2561.43	-1472.63	119.94	456.88	164.32	2.79	PASS	
10513.00†	7405.00	2655.25	-1870.06	10639.50	7633.00	2661.42	-1474.19	119.94	456.88	169.47	2.70	PASS	
10613.00†	7405.00	2755.23	-1871.62	10739.50	7633.00	2761.41	-1475.75	119.94	456.88	174.64	2.62	PASS	
10713.00†	7405.00	2855.22	-1873.18	10839.50	7633.00	2861.40	-1477.31	119.94	456.87	179.84	2.55	PASS	
10813.00†	7405.00	2955.21	-1874.73	10939.50	7633.00	2961.39	-1478.87	119.94	456.87	185.05	2.47	PASS	
10913.00†	7405.00	3055.20	-1876.29	11039.50	7633.00	3061.37	-1480.43	119.94	456.87	190.29	2.41	PASS	
11013.00†	7405.00	3155.18	-1877.85	11139.50	7633.00	3161.36	-1481.99	119.94	456.87	195.54	2.34	PASS	
11113.00†	7405.00	3255.17	-1879.41	11239.50	7633.00	3261.35	-1483.55	119.94	456.87	200.81	2.28	PASS	
11213.00†	7405.00	3355.16	-1880.97	11339.50	7633.00	3361.34	-1485.11	119.94	456.87	206.09	2.22	PASS	
11313.00†	7405.00	3455.15	-1882.53	11439.50	7633.00	3461.32	-1486.67	119.94	456.87	211.38	2.17	PASS	
11413.00†	7405.00	3555.14	-1884.09	11539.50	7633.00	3561.31	-1488.23	119.94	456.87	216.69	2.11	PASS	
11513.00†	7405.00	3655.12	-1885.65	11639.50	7633.00	3661.30	-1489.79	119.94	456.87	222.01	2.06	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
11613.00†	7405.00	3755.11	-1887.21	11739.50	7633.00	3761.29	-1491.35	119.94	456.87	227.34	2.01	PASS	
11713.00†	7405.00	3855.10	-1888.77	11839.50	7633.00	3861.28	-1492.91	119.94	456.87	232.68	1.97	PASS	
11813.00†	7405.00	3955.09	-1890.33	11939.50	7633.00	3961.26	-1494.47	119.94	456.87	238.03	1.92	PASS	
11913.00†	7405.00	4055.08	-1891.89	12039.50	7633.00	4061.25	-1496.03	119.94	456.87	243.39	1.88	PASS	
12013.00†	7405.00	4155.06	-1893.45	12139.50	7633.00	4161.24	-1497.59	119.94	456.86	248.75	1.84	PASS	
12113.00†	7405.00	4255.05	-1895.00	12239.50	7633.00	4261.23	-1499.15	119.94	456.86	254.12	1.80	PASS	
12213.00†	7405.00	4355.04	-1896.56	12339.50	7633.00	4361.22	-1500.71	119.94	456.86	259.51	1.76	PASS	
12313.00†	7405.00	4455.03	-1898.12	12439.50	7633.00	4461.20	-1502.27	119.94	456.86	264.89	1.73	PASS	
12413.00†	7405.00	4555.01	-1899.68	12539.50	7633.00	4561.19	-1503.83	119.94	456.86	270.29	1.69	PASS	
12513.00†	7405.00	4655.00	-1901.24	12639.50	7633.00	4661.18	-1505.39	119.94	456.86	275.68	1.66	PASS	
12613.00†	7405.00	4754.99	-1902.80	12739.50	7633.00	4761.17	-1506.95	119.94	456.86	281.09	1.63	PASS	
12713.00†	7405.00	4854.98	-1904.36	12839.50	7633.00	4861.15	-1508.51	119.94	456.86	286.50	1.60	PASS	
12813.00†	7405.00	4954.97	-1905.92	12939.50	7633.00	4961.14	-1510.07	119.94	456.86	291.91	1.57	PASS	
12913.00†	7405.00	5054.95	-1907.48	13039.50	7633.00	5061.13	-1511.63	119.94	456.86	297.33	1.54	PASS	
13013.00†	7405.00	5154.94	-1909.04	13139.50	7633.00	5161.12	-1513.19	119.94	456.86	302.76	1.51	PASS	
13113.00†	7405.00	5254.93	-1910.60	13239.50	7633.00	5261.11	-1514.75	119.94	456.86	308.19	1.48	PASS	
13213.00†	7405.00	5354.92	-1912.16	13339.50	7633.00	5361.09	-1516.31	119.94	456.86	313.62	1.46	PASS	
13313.00†	7405.00	5454.91	-1913.72	13439.50	7633.00	5461.08	-1517.87	119.94	456.86	319.05	1.43	PASS	
13413.00†	7405.00	5554.89	-1915.27	13539.50	7633.00	5561.07	-1519.43	119.94	456.85	324.49	1.41	PASS	
13513.00†	7405.00	5654.88	-1916.83	13639.50	7633.00	5661.06	-1520.99	119.94	456.85	329.94	1.39	PASS	
13613.00†	7405.00	5754.87	-1918.39	13739.50	7633.00	5761.04	-1522.55	119.94	456.85	335.38	1.36	PASS	
13713.00†	7405.00	5854.86	-1919.95	13839.50	7633.00	5861.03	-1524.11	119.94	456.85	340.83	1.34	PASS	
13813.00†	7405.00	5954.84	-1921.51	13939.50	7633.00	5961.02	-1525.67	119.94	456.85	346.28	1.32	PASS	
13913.00†	7405.00	6054.83	-1923.07	14039.50	7633.00	6061.01	-1527.23	119.94	456.85	351.74	1.30	PASS	
14013.00†	7405.00	6154.82	-1924.63	14139.50	7633.00	6161.00	-1528.79	119.94	456.85	357.20	1.28	PASS	
14113.00†	7405.00	6254.81	-1926.19	14239.50	7633.00	6260.98	-1530.35	119.94	456.85	362.66	1.26	PASS	
14213.00†	7405.00	6354.80	-1927.75	14339.50	7633.00	6360.97	-1531.91	119.94	456.85	368.12	1.24	PASS	
14313.00†	7405.00	6454.78	-1929.31	14439.50	7633.00	6460.96	-1533.47	119.94	456.85	373.58	1.22	PASS	
14413.00†	7405.00	6554.77	-1930.87	14539.50	7633.00	6560.95	-1535.03	119.94	456.85	379.05	1.21	PASS	
14513.00†	7405.00	6654.76	-1932.43	14639.50	7633.00	6660.94	-1536.59	119.94	456.85	384.52	1.19	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
14613.00†	7405.00	6754.75	-1933.99	14739.50	7633.00	6760.92	-1538.15	119.94	456.85	389.99	1.17	PASS	
14713.00†	7405.00	6854.73	-1935.54	14839.50	7633.00	6860.91	-1539.71	119.94	456.84	395.47	1.16	PASS	
14813.00†	7405.00	6954.72	-1937.10	14939.50	7633.00	6960.90	-1541.27	119.94	456.84	400.94	1.14	PASS	
14913.00†	7405.00	7054.71	-1938.66	15039.50	7633.00	7060.89	-1542.83	119.94	456.84	406.42	1.12	PASS	
15013.00†	7405.00	7154.70	-1940.22	15139.50	7633.00	7160.87	-1544.39	119.94	456.84	411.90	1.11	PASS	
15113.00†	7405.00	7254.69	-1941.78	15239.50	7633.00	7260.86	-1545.95	119.94	456.84	417.38	1.09	PASS	
15213.00†	7405.00	7354.67	-1943.34	15339.50	7633.00	7360.85	-1547.51	119.94	456.84	422.86	1.08	PASS	
15313.00†	7405.00	7454.66	-1944.90	15439.50	7633.00	7460.84	-1549.07	119.94	456.84	428.34	1.07	PASS	
15413.00†	7405.00	7554.65	-1946.46	15539.50	7633.00	7560.83	-1550.63	119.94	456.84	433.83	1.05	PASS	
15513.00†	7405.00	7654.64	-1948.02	15639.50	7633.00	7660.81	-1552.19	119.94	456.84	439.31	1.04	PASS	
15613.00†	7405.00	7754.63	-1949.58	15739.50	7633.00	7760.80	-1553.75	119.94	456.84	444.80	1.03	PASS	
15713.00†	7405.00	7854.61	-1951.14	15839.50	7633.00	7860.79	-1555.31	119.94	456.84	450.29	1.01	PASS	
15813.00†	7405.00	7954.60	-1952.70	15939.50	7633.00	7960.78	-1556.87	119.94	456.84	455.78	1.00	PASS	
15913.00†	7405.00	8054.59	-1954.26	16039.50	7633.00	8060.77	-1558.43	119.94	456.84	461.27	0.99	FAIL	
16013.00†	7405.00	8154.58	-1955.81	16139.50	7633.00	8160.75	-1559.99	119.94	456.84	466.77	0.98	FAIL	
16113.00†	7405.00	8254.56	-1957.37	16239.50	7633.00	8260.74	-1561.55	119.94	456.83	472.26	0.97	FAIL	
16213.00†	7405.00	8354.55	-1958.93	16339.50	7633.00	8360.73	-1563.11	119.94	456.83	477.75	0.96	FAIL	
16313.00†	7405.00	8454.54	-1960.49	16439.50	7633.00	8460.72	-1564.67	119.94	456.83	483.25	0.95	FAIL	
16413.00†	7405.00	8554.53	-1962.05	16539.50	7633.00	8560.70	-1566.23	119.94	456.83	488.75	0.93	FAIL	
16513.00†	7405.00	8654.52	-1963.61	16639.50	7633.00	8660.69	-1567.79	119.94	456.83	494.24	0.92	FAIL	
16613.00†	7405.00	8754.50	-1965.17	16739.50	7633.00	8760.68	-1569.35	119.94	456.83	499.74	0.91	FAIL	
16713.00†	7405.00	8854.49	-1966.73	16839.50	7633.00	8860.67	-1570.91	119.94	456.83	505.24	0.90	FAIL	
16813.00†	7405.00	8954.48	-1968.29	16939.50	7633.00	8960.66	-1572.47	119.94	456.83	510.74	0.89	FAIL	
16913.00†	7405.00	9054.47	-1969.85	17039.50	7633.00	9060.64	-1574.03	119.94	456.83	516.25	0.88	FAIL	
17013.00†	7405.00	9154.46	-1971.41	17139.50	7633.00	9160.63	-1575.59	119.94	456.83	521.75	0.88	FAIL	
17113.00†	7405.00	9254.44	-1972.97	17239.50	7633.00	9260.62	-1577.15	119.94	456.83	527.25	0.87	FAIL	
17213.00†	7405.00	9354.43	-1974.53	17339.50	7633.00	9360.61	-1578.71	119.94	456.83	532.76	0.86	FAIL	
17313.00†	7405.00	9454.42	-1976.08	17439.50	7633.00	9460.59	-1580.27	119.94	456.83	538.26	0.85	FAIL	
17413.00†	7405.00	9554.41	-1977.64	17539.50	7633.00	9560.58	-1581.83	119.94	456.82	543.77	0.84	FAIL	
17513.00†	7405.00	9654.39	-1979.20	17639.50	7633.00	9660.57	-1583.39	119.94	456.82	549.27	0.83	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
17613.00†	7405.00	9754.38	-1980.76	17739.50	7633.00	9760.56	-1584.95	119.94	456.82	554.78	0.82	FAIL	
17713.00†	7405.00	9854.37	-1982.32	17839.50	7633.00	9860.55	-1586.51	119.94	456.82	560.29	0.82	FAIL	
17813.00†	7405.00	9954.36	-1983.88	17939.50	7633.00	9960.53	-1588.07	119.94	456.82	565.80	0.81	FAIL	
17827.89†	7405.00	9969.25	-1984.11	17954.40	7633.00	9975.42	-1588.31	119.94	456.82	566.62	0.81	FAIL	
17835.13	7405.00	9976.48	-1984.23	17954.40	7633.00	9975.42	-1588.31	119.94	456.88	565.19	0.81	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1797.47	0.02	9.15	-3.93	-3.52
8.5in Open Hole	1800.00	17954.40	16154.40	1797.47	N/A	-3.93	-3.52	N/A	N/A

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

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



Clearance Report
WAKEMAN 20-17-1NBH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	0.06	29.98	89.89	29.98	1.40	48.63	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.06	29.98	89.89	29.98	1.73	31.36	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.06	29.98	89.89	29.98	2.31	19.36	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.06	29.98	89.89	29.98	2.92	13.80	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.06	29.98	89.89	29.98	3.53	10.69	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.06	29.98	89.89	29.98	4.15	8.71	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.06	29.98	89.89	29.98	4.78	7.34	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.06	29.98	89.89	29.98	5.40	6.34	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	0.06	29.98	89.89	29.98	6.03	5.59	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	0.06	29.98	89.89	29.98	6.65	4.99	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.06	29.98	89.89	29.98	7.28	4.51	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.06	29.98	89.89	29.98	7.91	4.11	PASS	
1200.00	1200.00	0.00	0.00	1200.00	1200.00	0.06	29.98	89.89	29.98	8.45	3.81	PASS	
1213.00†	1213.00	-0.01	-0.03	1213.00	1213.00	0.06	29.98	-166.24	30.01	8.53	3.78	PASS	
1313.00†	1312.97	-0.53	-2.16	1312.97	1312.97	0.06	29.98	-167.16	32.15	9.25	3.71	PASS	
1413.00†	1412.80	-1.90	-7.68	1412.97	1412.97	0.05	29.95	-169.05	37.68	10.18	3.93	PASS	
1513.00†	1512.38	-4.10	-16.58	1514.12	1514.09	-0.70	27.83	-170.48	44.58	11.15	4.23	PASS	
1613.00†	1611.57	-7.13	-28.85	1615.53	1615.32	-2.63	22.33	-171.14	51.52	12.28	4.42	PASS	
1713.00†	1710.26	-10.99	-44.47	1717.18	1716.53	-5.76	13.43	-171.30	58.48	13.33	4.60	PASS	
1813.00†	1808.33	-15.68	-63.42	1819.07	1817.58	-10.10	1.12	-171.12	65.44	14.24	4.78	PASS	
1913.00†	1905.66	-21.18	-85.69	1921.20	1918.33	-15.64	-14.62	-170.70	72.40	15.21	4.94	PASS	
2013.00†	2002.13	-27.50	-111.24	2023.58	2018.67	-22.39	-33.79	-170.09	79.36	16.16	5.09	PASS	
2103.78	2088.86	-33.93	-137.25	2116.22	2108.80	-29.50	-53.99	-169.43	85.73	16.96	5.23	PASS	
2113.00†	2097.63	-34.62	-140.03	2125.41	2117.72	-30.23	-56.09	-169.37	86.42	17.03	5.25	PASS	
2213.00†	2192.69	-42.06	-170.15	2225.13	2214.47	-38.24	-78.82	-168.80	93.96	17.67	5.50	PASS	
2313.00†	2287.76	-49.51	-200.27	2324.84	2311.22	-46.24	-101.56	-168.31	101.51	18.37	5.71	PASS	
2413.00†	2382.82	-56.95	-230.39	2424.55	2407.98	-54.24	-124.30	-167.88	109.07	19.06	5.91	PASS	
2513.00†	2477.89	-64.40	-260.51	2524.26	2504.73	-62.25	-147.03	-167.52	116.63	19.80	6.07	PASS	
2613.00†	2572.95	-71.85	-290.63	2623.97	2601.49	-70.25	-169.77	-167.19	124.19	20.56	6.22	PASS	
2713.00†	2668.02	-79.29	-320.75	2723.68	2698.24	-78.25	-192.51	-166.91	131.76	21.35	6.35	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2823.39	2794.99	-86.25	-215.24	-166.65	139.33	22.16	6.46	PASS	
2913.00†	2858.15	-94.18	-380.99	2923.10	2891.75	-94.26	-237.98	-166.42	146.91	22.99	6.56	PASS	
3013.00†	2953.21	-101.63	-411.11	3022.82	2988.50	-102.26	-260.72	-166.22	154.48	23.84	6.65	PASS	
3113.00†	3048.28	-109.08	-441.23	3122.53	3085.25	-110.26	-283.45	-166.03	162.06	24.70	6.73	PASS	
3213.00†	3143.34	-116.52	-471.35	3222.24	3182.01	-118.27	-306.19	-165.86	169.64	25.58	6.79	PASS	
3313.00†	3238.40	-123.97	-501.48	3321.95	3278.76	-126.27	-328.93	-165.70	177.22	26.47	6.85	PASS	
3413.00†	3333.47	-131.41	-531.60	3421.66	3375.52	-134.27	-351.66	-165.56	184.80	27.36	6.91	PASS	
3513.00†	3428.53	-138.86	-561.72	3521.37	3472.27	-142.28	-374.40	-165.43	192.38	28.27	6.95	PASS	
3613.00†	3523.60	-146.31	-591.84	3621.08	3569.02	-150.28	-397.14	-165.31	199.97	29.19	7.00	PASS	
3713.00†	3618.66	-153.75	-621.96	3720.79	3665.78	-158.28	-419.88	-165.19	207.55	30.12	7.03	PASS	
3813.00†	3713.73	-161.20	-652.08	3820.50	3762.53	-166.28	-442.61	-165.09	215.14	31.06	7.07	PASS	
3913.00†	3808.79	-168.64	-682.20	3920.22	3859.29	-174.29	-465.35	-164.99	222.72	32.00	7.10	PASS	
4013.00†	3903.86	-176.09	-712.32	4019.93	3956.04	-182.29	-488.09	-164.90	230.31	32.95	7.12	PASS	
4113.00†	3998.92	-183.54	-742.44	4119.64	4052.79	-190.29	-510.82	-164.81	237.89	33.90	7.15	PASS	
4213.00†	4093.99	-190.98	-772.56	4219.35	4149.55	-198.30	-533.56	-164.73	245.48	34.86	7.17	PASS	
4313.00†	4189.05	-198.43	-802.68	4319.06	4246.30	-206.30	-556.30	-164.66	253.07	35.82	7.19	PASS	
4413.00†	4284.12	-205.87	-832.80	4418.77	4343.05	-214.30	-579.03	-164.59	260.66	36.79	7.20	PASS	
4513.00†	4379.18	-213.32	-862.92	4518.48	4439.81	-222.30	-601.77	-164.52	268.25	37.76	7.22	PASS	
4613.00†	4474.25	-220.77	-893.04	4618.19	4536.56	-230.31	-624.51	-164.46	275.84	38.74	7.23	PASS	
4713.00†	4569.31	-228.21	-923.16	4717.91	4633.32	-238.31	-647.24	-164.40	283.43	39.72	7.25	PASS	
4813.00†	4664.38	-235.66	-953.28	4817.62	4730.07	-246.31	-669.98	-164.34	291.02	40.70	7.26	PASS	
4913.00†	4759.44	-243.10	-983.40	4917.33	4826.82	-254.32	-692.72	-164.29	298.61	41.69	7.27	PASS	
5013.00†	4854.51	-250.55	-1013.52	5017.04	4923.58	-262.32	-715.45	-164.23	306.20	42.68	7.28	PASS	
5113.00†	4949.57	-258.00	-1043.64	5116.75	5020.33	-270.32	-738.19	-164.19	313.79	43.67	7.29	PASS	
5213.00†	5044.64	-265.44	-1073.77	5216.46	5117.09	-278.32	-760.93	-164.14	321.38	44.67	7.29	PASS	
5313.00†	5139.70	-272.89	-1103.89	5316.17	5213.84	-286.33	-783.66	-164.09	328.97	45.66	7.30	PASS	
5413.00†	5234.77	-280.33	-1134.01	5415.88	5310.59	-294.33	-806.40	-164.05	336.56	46.66	7.31	PASS	
5513.00†	5329.83	-287.78	-1164.13	5515.59	5407.35	-302.33	-829.14	-164.01	344.15	47.66	7.31	PASS	
5613.00†	5424.89	-295.23	-1194.25	5615.31	5504.10	-310.34	-851.87	-163.97	351.74	48.67	7.32	PASS	
5713.00†	5519.96	-302.67	-1224.37	5715.02	5600.86	-318.34	-874.61	-163.94	359.33	49.67	7.32	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W				Slot: SLOT#11 WAKEMAN 20-17-2NAH (293'FSL & 2173'FEL, SEC.20)				Well: WAKEMAN 20-17-2NAH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status		
5813.00†	5615.02	-310.12	-1254.49	5814.73	5697.61	-326.34	-897.35	-163.90	366.92	50.68	7.33	PASS		
5913.00†	5710.09	-317.56	-1284.61	5914.44	5794.36	-334.35	-920.08	-163.87	374.52	51.69	7.33	PASS		
6013.00†	5805.15	-325.01	-1314.73	6014.15	5891.12	-342.35	-942.82	-163.83	382.11	52.70	7.34	PASS		
6113.00†	5900.22	-332.46	-1344.85	6113.86	5987.87	-350.35	-965.56	-163.80	389.70	53.71	7.34	PASS		
6213.00†	5995.28	-339.90	-1374.97	6213.57	6084.62	-358.35	-988.29	-163.77	397.29	54.72	7.34	PASS		
6313.00†	6090.35	-347.35	-1405.09	6313.28	6181.38	-366.36	-1011.03	-163.74	404.88	55.73	7.35	PASS		
6413.00†	6185.41	-354.79	-1435.21	6412.99	6278.13	-374.36	-1033.77	-163.72	412.48	56.75	7.35	PASS		
6513.00†	6280.48	-362.24	-1465.33	6512.71	6374.89	-382.36	-1056.51	-163.69	420.07	57.77	7.35	PASS		
6613.00†	6375.54	-369.69	-1495.45	6612.42	6471.64	-390.37	-1079.24	-163.66	427.66	58.78	7.35	PASS		
6713.00†	6470.61	-377.13	-1525.57	6712.13	6568.39	-398.37	-1101.98	-163.64	435.25	59.80	7.35	PASS		
6813.00†	6565.67	-384.58	-1555.69	6814.13	6667.45	-404.94	-1125.29	-163.82	442.74	60.68	7.37	PASS		
6913.00†	6660.74	-392.02	-1585.81	6916.69	6766.72	-396.31	-1149.00	-165.94	449.51	60.22	7.54	PASS		
7013.00†	6755.80	-399.47	-1615.93	7010.84	6855.13	-372.50	-1170.46	-169.79	457.21	58.97	7.84	PASS		
7081.48	6820.90	-404.57	-1636.56	7068.64	6907.05	-350.61	-1183.25	-172.97	464.57	58.16	8.07	PASS		
7113.00†	6850.91	-406.05	-1646.08	7093.67	6928.80	-339.49	-1188.65	175.43	468.77	57.94	8.18	PASS		
7213.00†	6945.84	-399.29	-1676.38	7170.43	6992.24	-299.42	-1204.56	140.46	484.50	57.92	8.46	PASS		
7313.00†	7038.12	-375.33	-1706.11	7243.96	7047.57	-253.18	-1218.70	115.95	502.57	58.71	8.65	PASS		
7413.00†	7124.97	-334.90	-1734.36	7315.06	7095.13	-201.87	-1231.10	100.43	521.40	59.58	8.84	PASS		
7513.00†	7203.73	-279.23	-1760.28	7384.32	7135.15	-146.41	-1241.81	90.17	539.58	60.16	9.06	PASS		
7613.00†	7272.02	-210.01	-1783.08	7452.20	7167.74	-87.60	-1250.84	83.11	556.00	60.39	9.30	PASS		
7713.00†	7327.76	-129.34	-1802.06	7519.05	7192.99	-26.18	-1258.19	78.20	569.74	60.32	9.55	PASS		
7813.00†	7369.25	-39.68	-1816.66	7585.17	7210.93	37.16	-1263.85	74.92	580.15	60.01	9.77	PASS		
7913.00†	7395.24	56.26	-1826.42	7650.80	7221.60	101.76	-1267.81	72.98	586.75	59.61	9.95	PASS		
8013.00†	7404.94	155.55	-1831.06	7717.23	7225.00	168.03	-1270.09	72.22	589.25	59.33	10.04	PASS		
8021.48	7405.00	164.03	-1831.21	7725.71	7225.00	176.51	-1270.28	72.21	589.23	59.43	10.02	PASS		
8113.00†	7405.00	255.54	-1832.64	7817.23	7225.00	268.01	-1272.32	72.19	588.65	60.61	9.81	PASS		
8213.00†	7405.00	355.53	-1834.19	7917.23	7225.00	367.98	-1274.54	72.18	588.02	62.47	9.51	PASS		
8313.00†	7405.00	455.51	-1835.75	8017.22	7225.00	467.95	-1276.76	72.16	587.39	64.84	9.15	PASS		
8413.00†	7405.00	555.50	-1837.31	8117.22	7225.00	567.92	-1278.99	72.14	586.75	67.66	8.75	PASS		
8513.00†	7405.00	655.49	-1838.87	8217.22	7225.00	667.90	-1281.21	72.11	586.12	70.88	8.34	PASS		

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
8613.00†	7405.00	755.48	-1840.43	8317.22	7225.00	767.87	-1283.44	72.10	585.49	74.45	7.93	PASS	
8713.00†	7405.00	855.46	-1841.99	8417.22	7225.00	867.84	-1285.66	72.08	584.85	78.32	7.53	PASS	
8813.00†	7405.00	955.45	-1843.55	8517.21	7225.00	967.82	-1287.89	72.06	584.22	82.31	7.15	PASS	
8913.00†	7405.00	1055.44	-1845.11	8617.21	7225.00	1067.79	-1290.11	72.04	583.59	86.78	6.77	PASS	
9013.00†	7405.00	1155.43	-1846.67	8717.21	7225.00	1167.76	-1292.34	72.01	582.95	91.31	6.43	PASS	
9113.00†	7405.00	1255.42	-1848.23	8817.21	7225.00	1267.74	-1294.56	71.99	582.32	96.00	6.10	PASS	
9213.00†	7405.00	1355.40	-1849.79	8917.20	7225.00	1367.71	-1296.79	71.97	581.69	100.83	5.80	PASS	
9313.00†	7405.00	1455.39	-1851.35	9017.20	7225.00	1467.68	-1299.01	71.95	581.05	105.77	5.52	PASS	
9413.00†	7405.00	1555.38	-1852.91	9117.20	7225.00	1567.66	-1301.24	71.93	580.42	110.82	5.26	PASS	
9513.00†	7405.00	1655.37	-1854.46	9217.20	7225.00	1667.63	-1303.46	71.91	579.79	115.96	5.02	PASS	
9613.00†	7405.00	1755.35	-1856.02	9317.20	7225.00	1767.60	-1305.69	71.89	579.16	121.17	4.80	PASS	
9713.00†	7405.00	1855.34	-1857.58	9417.19	7225.00	1867.57	-1307.91	71.87	578.52	126.45	4.60	PASS	
9813.00†	7405.00	1955.33	-1859.14	9517.19	7225.00	1967.55	-1310.13	71.85	577.89	131.79	4.40	PASS	
9913.00†	7405.00	2055.32	-1860.70	9617.19	7225.00	2067.52	-1312.36	71.83	577.26	137.19	4.22	PASS	
10013.00†	7405.00	2155.31	-1862.26	9717.19	7225.00	2167.49	-1314.58	71.81	576.63	142.62	4.06	PASS	
10113.00†	7405.00	2255.29	-1863.82	9817.18	7225.00	2267.47	-1316.81	71.79	575.99	148.10	3.90	PASS	
10213.00†	7405.00	2355.28	-1865.38	9917.18	7225.00	2367.44	-1319.03	71.77	575.36	153.62	3.76	PASS	
10313.00†	7405.00	2455.27	-1866.94	10017.18	7225.00	2467.41	-1321.26	71.75	574.73	159.17	3.62	PASS	
10413.00†	7405.00	2555.26	-1868.50	10117.18	7225.00	2567.39	-1323.48	71.73	574.10	164.74	3.50	PASS	
10513.00†	7405.00	2655.25	-1870.06	10217.18	7225.00	2667.36	-1325.71	71.71	573.47	170.34	3.38	PASS	
10613.00†	7405.00	2755.23	-1871.62	10317.17	7225.00	2767.33	-1327.93	71.69	572.83	175.97	3.26	PASS	
10713.00†	7405.00	2855.22	-1873.18	10417.17	7225.00	2867.30	-1330.16	71.67	572.20	181.61	3.16	PASS	
10813.00†	7405.00	2955.21	-1874.73	10517.17	7225.00	2967.28	-1332.38	71.64	571.57	187.28	3.06	PASS	
10913.00†	7405.00	3055.20	-1876.29	10617.17	7225.00	3067.25	-1334.61	71.62	570.94	192.96	2.97	PASS	
11013.00†	7405.00	3155.18	-1877.85	10717.16	7225.00	3167.22	-1336.83	71.60	570.31	198.66	2.88	PASS	
11113.00†	7405.00	3255.17	-1879.41	10817.16	7225.00	3267.20	-1339.05	71.58	569.68	204.37	2.79	PASS	
11213.00†	7405.00	3355.16	-1880.97	10917.16	7225.00	3367.17	-1341.28	71.56	569.04	210.10	2.71	PASS	
11313.00†	7405.00	3455.15	-1882.53	11017.16	7225.00	3467.14	-1343.50	71.54	568.41	215.83	2.64	PASS	
11413.00†	7405.00	3555.14	-1884.09	11117.16	7225.00	3567.12	-1345.73	71.52	567.78	221.58	2.57	PASS	
11513.00†	7405.00	3655.12	-1885.65	11217.15	7225.00	3667.09	-1347.95	71.50	567.15	227.34	2.50	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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
11613.00†	7405.00	3755.11	-1887.21	11317.15	7225.00	3767.06	-1350.18	71.47	566.52	233.10	2.43	PASS
11713.00†	7405.00	3855.10	-1888.77	11417.15	7225.00	3867.04	-1352.40	71.45	565.89	238.87	2.37	PASS
11813.00†	7405.00	3955.09	-1890.33	11517.15	7225.00	3967.01	-1354.63	71.43	565.26	244.65	2.31	PASS
11913.00†	7405.00	4055.08	-1891.89	11617.14	7225.00	4066.98	-1356.85	71.41	564.63	250.44	2.26	PASS
12013.00†	7405.00	4155.06	-1893.45	11717.14	7225.00	4166.95	-1359.08	71.39	564.00	256.24	2.20	PASS
12113.00†	7405.00	4255.05	-1895.00	11817.14	7225.00	4266.93	-1361.30	71.37	563.37	262.04	2.15	PASS
12213.00†	7405.00	4355.04	-1896.56	11917.14	7225.00	4366.90	-1363.53	71.35	562.73	267.84	2.10	PASS
12313.00†	7405.00	4455.03	-1898.12	12017.14	7225.00	4466.87	-1365.75	71.32	562.10	273.65	2.06	PASS
12413.00†	7405.00	4555.01	-1899.68	12117.13	7225.00	4566.85	-1367.98	71.30	561.47	279.47	2.01	PASS
12513.00†	7405.00	4655.00	-1901.24	12217.13	7225.00	4666.82	-1370.20	71.28	560.84	285.28	1.97	PASS
12613.00†	7405.00	4754.99	-1902.80	12317.13	7225.00	4766.79	-1372.42	71.26	560.21	291.11	1.93	PASS
12713.00†	7405.00	4854.98	-1904.36	12417.13	7225.00	4866.77	-1374.65	71.24	559.58	296.93	1.89	PASS
12813.00†	7405.00	4954.97	-1905.92	12517.12	7225.00	4966.74	-1376.87	71.21	558.95	302.76	1.85	PASS
12913.00†	7405.00	5054.95	-1907.48	12617.12	7225.00	5066.71	-1379.10	71.19	558.32	308.59	1.81	PASS
13013.00†	7405.00	5154.94	-1909.04	12717.12	7225.00	5166.68	-1381.32	71.17	557.69	314.43	1.78	PASS
13113.00†	7405.00	5254.93	-1910.60	12817.12	7225.00	5266.66	-1383.55	71.15	557.06	320.26	1.74	PASS
13213.00†	7405.00	5354.92	-1912.16	12917.12	7225.00	5366.63	-1385.77	71.13	556.43	326.10	1.71	PASS
13313.00†	7405.00	5454.91	-1913.72	13017.11	7225.00	5466.60	-1388.00	71.10	555.80	331.94	1.68	PASS
13413.00†	7405.00	5554.89	-1915.27	13117.11	7225.00	5566.58	-1390.22	71.08	555.17	337.78	1.64	PASS
13513.00†	7405.00	5654.88	-1916.83	13217.11	7225.00	5666.55	-1392.45	71.06	554.54	343.63	1.62	PASS
13613.00†	7405.00	5754.87	-1918.39	13317.11	7225.00	5766.52	-1394.67	71.04	553.91	349.47	1.59	PASS
13713.00†	7405.00	5854.86	-1919.95	13417.10	7225.00	5866.50	-1396.90	71.01	553.28	355.32	1.56	PASS
13813.00†	7405.00	5954.84	-1921.51	13517.10	7225.00	5966.47	-1399.12	70.99	552.66	361.17	1.53	PASS
13913.00†	7405.00	6054.83	-1923.07	13617.10	7225.00	6066.44	-1401.34	70.97	552.03	367.02	1.51	PASS
14013.00†	7405.00	6154.82	-1924.63	13717.10	7225.00	6166.41	-1403.57	70.95	551.40	372.87	1.48	PASS
14113.00†	7405.00	6254.81	-1926.19	13817.10	7225.00	6266.39	-1405.79	70.92	550.77	378.72	1.46	PASS
14213.00†	7405.00	6354.80	-1927.75	13917.09	7225.00	6366.36	-1408.02	70.90	550.14	384.57	1.43	PASS
14313.00†	7405.00	6454.78	-1929.31	14017.09	7225.00	6466.33	-1410.24	70.88	549.51	390.42	1.41	PASS
14413.00†	7405.00	6554.77	-1930.87	14117.09	7225.00	6566.31	-1412.47	70.86	548.88	396.27	1.39	PASS
14513.00†	7405.00	6654.76	-1932.43	14217.09	7225.00	6666.28	-1414.69	70.83	548.25	402.12	1.36	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
14613.00†	7405.00	6754.75	-1933.99	14317.08	7225.00	6766.25	-1416.92	70.81	547.62	407.98	1.34	PASS	
14713.00†	7405.00	6854.73	-1935.54	14417.08	7225.00	6866.23	-1419.14	70.79	547.00	413.83	1.32	PASS	
14813.00†	7405.00	6954.72	-1937.10	14517.08	7225.00	6966.20	-1421.37	70.76	546.37	419.68	1.30	PASS	
14913.00†	7405.00	7054.71	-1938.66	14617.08	7225.00	7066.17	-1423.59	70.74	545.74	425.53	1.28	PASS	
15013.00†	7405.00	7154.70	-1940.22	14717.08	7225.00	7166.15	-1425.82	70.72	545.11	431.39	1.26	PASS	
15113.00†	7405.00	7254.69	-1941.78	14817.07	7225.00	7266.12	-1428.04	70.69	544.48	437.24	1.25	PASS	
15213.00†	7405.00	7354.67	-1943.34	14917.07	7225.00	7366.09	-1430.27	70.67	543.85	443.09	1.23	PASS	
15313.00†	7405.00	7454.66	-1944.90	15017.07	7225.00	7466.06	-1432.49	70.65	543.23	448.94	1.21	PASS	
15413.00†	7405.00	7554.65	-1946.46	15117.07	7225.00	7566.04	-1434.71	70.63	542.60	454.80	1.19	PASS	
15513.00†	7405.00	7654.64	-1948.02	15217.07	7225.00	7666.01	-1436.94	70.60	541.97	460.65	1.18	PASS	
15613.00†	7405.00	7754.63	-1949.58	15317.06	7225.00	7766.98	-1439.16	70.58	541.34	466.50	1.16	PASS	
15713.00†	7405.00	7854.61	-1951.14	15417.06	7225.00	7866.96	-1441.39	70.56	540.71	472.35	1.14	PASS	
15813.00†	7405.00	7954.60	-1952.70	15517.06	7225.00	7966.93	-1443.61	70.53	540.09	478.20	1.13	PASS	
15913.00†	7405.00	8054.59	-1954.26	15617.06	7225.00	8066.90	-1445.84	70.51	539.46	484.05	1.11	PASS	
16013.00†	7405.00	8154.58	-1955.81	15717.05	7225.00	8166.88	-1448.06	70.48	538.83	489.89	1.10	PASS	
16113.00†	7405.00	8254.56	-1957.37	15817.05	7225.00	8266.85	-1450.29	70.46	538.21	495.74	1.09	PASS	
16213.00†	7405.00	8354.55	-1958.93	15917.05	7225.00	8366.82	-1452.51	70.44	537.58	501.59	1.07	PASS	
16313.00†	7405.00	8454.54	-1960.49	16017.05	7225.00	8466.79	-1454.74	70.41	536.95	507.44	1.06	PASS	
16413.00†	7405.00	8554.53	-1962.05	16117.05	7225.00	8566.77	-1456.96	70.39	536.32	513.28	1.04	PASS	
16513.00†	7405.00	8654.52	-1963.61	16217.04	7225.00	8666.74	-1459.19	70.37	535.70	519.13	1.03	PASS	
16613.00†	7405.00	8754.50	-1965.17	16317.04	7225.00	8766.71	-1461.41	70.34	535.07	524.97	1.02	PASS	
16713.00†	7405.00	8854.49	-1966.73	16417.04	7225.00	8866.69	-1463.63	70.32	534.44	530.81	1.01	PASS	
16813.00†	7405.00	8954.48	-1968.29	16517.04	7225.00	8966.66	-1465.86	70.29	533.82	536.65	0.99	FAIL	
16913.00†	7405.00	9054.47	-1969.85	16617.03	7225.00	9066.63	-1468.08	70.27	533.19	542.49	0.98	FAIL	
17013.00†	7405.00	9154.46	-1971.41	16717.03	7225.00	9166.61	-1470.31	70.25	532.56	548.33	0.97	FAIL	
17113.00†	7405.00	9254.44	-1972.97	16817.03	7225.00	9266.58	-1472.53	70.22	531.94	554.17	0.96	FAIL	
17213.00†	7405.00	9354.43	-1974.53	16917.03	7225.00	9366.55	-1474.76	70.20	531.31	560.01	0.95	FAIL	
17313.00†	7405.00	9454.42	-1976.08	17017.03	7225.00	9466.53	-1476.98	70.17	530.69	565.84	0.94	FAIL	
17413.00†	7405.00	9554.41	-1977.64	17117.02	7225.00	9566.50	-1479.21	70.15	530.06	571.68	0.93	FAIL	
17513.00†	7405.00	9654.39	-1979.20	17217.02	7225.00	9666.47	-1481.43	70.12	529.43	577.51	0.92	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
17613.00†	7405.00	9754.38	-1980.76	17317.02	7225.00	9765.44	-1483.66	70.10	528.81	583.35	0.91	FAIL	
17713.00†	7405.00	9854.37	-1982.32	17417.02	7225.00	9865.42	-1485.88	70.07	528.18	589.18	0.90	FAIL	
17813.00†	7405.00	9954.36	-1983.88	17517.01	7225.00	9965.39	-1488.11	70.05	527.56	595.01	0.89	FAIL	
17822.78†	7405.00	9964.14	-1984.03	17526.80	7225.00	9975.17	-1488.32	70.05	527.49	595.58	0.89	FAIL	
17835.13	7405.00	9976.48	-1984.23	17526.80	7225.00	9975.17	-1488.32	70.05	527.56	593.60	0.89	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1798.70	0.04	18.27	-2.79	10.26
8.5in Open Hole	1800.00	17526.80	15726.80	1798.70	N/A	-2.79	10.26	N/A	N/A

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

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



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

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



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T1S-R65W Slot: SLOT#01 EX. COLLINS #14-20 (990'FSL & 990'FWL, SEC.20, OG, PR, 8202) Well: COLLINS #14-20 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	17.00	703.75	-2114.44	-71.59	2228.48	25.40	90.55	PASS
113.00†	113.00	0.00	0.00	83.00	113.00	703.75	-2114.44	-71.59	2228.48	51.90	43.56	PASS
213.00†	213.00	0.00	0.00	183.00	213.00	703.75	-2114.44	-71.59	2228.48	54.08	41.65	PASS
313.00†	313.00	0.00	0.00	283.00	313.00	703.75	-2114.44	-71.59	2228.48	56.42	39.90	PASS
413.00†	413.00	0.00	0.00	383.00	413.00	703.75	-2114.44	-71.59	2228.48	58.77	38.29	PASS
513.00†	513.00	0.00	0.00	483.00	513.00	703.75	-2114.44	-71.59	2228.48	61.13	36.80	PASS
613.00†	613.00	0.00	0.00	583.00	613.00	703.75	-2114.44	-71.59	2228.48	63.48	35.42	PASS
713.00†	713.00	0.00	0.00	683.00	713.00	703.75	-2114.44	-71.59	2228.48	65.85	34.14	PASS
813.00†	813.00	0.00	0.00	783.00	813.00	703.75	-2114.44	-71.59	2228.48	68.21	32.95	PASS
913.00†	913.00	0.00	0.00	883.00	913.00	703.75	-2114.44	-71.59	2228.48	70.58	31.83	PASS
1013.00†	1013.00	0.00	0.00	983.00	1013.00	703.75	-2114.44	-71.59	2228.48	72.96	30.79	PASS
1113.00†	1113.00	0.00	0.00	1083.00	1113.00	703.75	-2114.44	-71.59	2228.48	75.33	29.81	PASS
1200.00	1200.00	0.00	0.00	1170.00	1200.00	703.75	-2114.44	-71.59	2228.48	77.41	29.00	PASS
1213.00†	1213.00	-0.01	-0.03	1183.00	1213.00	703.75	-2114.44	32.30	2228.46	77.72	28.89	PASS
1313.00†	1312.97	-0.53	-2.16	1282.97	1312.97	703.75	-2114.44	32.35	2226.60	80.11	27.99	PASS
1413.00†	1412.80	-1.90	-7.68	1382.80	1412.80	703.75	-2114.44	32.48	2221.79	82.54	27.10	PASS
1513.00†	1512.38	-4.10	-16.58	1482.38	1512.38	703.75	-2114.44	32.69	2214.06	84.97	26.23	PASS
1613.00†	1611.57	-7.13	-28.85	1581.57	1611.57	703.75	-2114.44	32.98	2203.42	87.40	25.38	PASS
1713.00†	1710.26	-10.99	-44.47	1680.26	1710.26	703.75	-2114.44	33.36	2189.89	89.82	24.54	PASS
1813.00†	1808.33	-15.68	-63.42	1778.33	1808.33	703.75	-2114.44	33.82	2173.53	92.19	23.71	PASS
1913.00†	1905.66	-21.18	-85.69	1875.66	1905.66	703.75	-2114.44	34.38	2154.38	94.60	22.90	PASS
2013.00†	2002.13	-27.50	-111.24	1972.13	2002.13	703.75	-2114.44	35.03	2132.50	97.00	22.10	PASS
2103.78	2088.86	-33.93	-137.25	2058.86	2088.86	703.75	-2114.44	35.71	2110.32	99.18	21.39	PASS
2113.00†	2097.63	-34.62	-140.03	2067.63	2097.63	703.75	-2114.44	35.75	2107.96	99.40	21.32	PASS
2213.00†	2192.69	-42.06	-170.15	2162.69	2192.69	703.75	-2114.44	36.24	2082.43	101.78	20.56	PASS
2313.00†	2287.76	-49.51	-200.27	2257.76	2287.76	703.75	-2114.44	36.74	2057.05	104.17	19.84	PASS
2413.00†	2382.82	-56.95	-230.39	2352.82	2382.82	703.75	-2114.44	37.26	2031.83	106.59	19.15	PASS
2513.00†	2477.89	-64.40	-260.51	2447.89	2477.89	703.75	-2114.44	37.79	2006.77	109.03	18.49	PASS
2613.00†	2572.95	-71.85	-290.63	2542.95	2572.95	703.75	-2114.44	38.33	1981.88	111.49	17.86	PASS
2713.00†	2668.02	-79.29	-320.75	2638.02	2668.02	703.75	-2114.44	38.88	1957.16	113.98	17.25	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T1S-R65W Slot: SLOT#01 EX. COLLINS #14-20 (990'FSL & 990'FWL, SEC.20, OG, PR, 8202) Well: COLLINS #14-20 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2763.08	-86.74	-350.87	2733.08	2763.08	703.75	-2114.44	39.44	1932.63	116.49	16.66	PASS	
2913.00†	2858.15	-94.18	-380.99	2828.15	2858.15	703.75	-2114.44	40.02	1908.28	119.02	16.10	PASS	
3013.00†	2953.21	-101.63	-411.11	2923.21	2953.21	703.75	-2114.44	40.62	1884.13	121.58	15.56	PASS	
3113.00†	3048.28	-109.08	-441.23	3018.28	3048.28	703.75	-2114.44	41.23	1860.19	124.16	15.04	PASS	
3213.00†	3143.34	-116.52	-471.35	3113.34	3143.34	703.75	-2114.44	41.85	1836.46	126.77	14.54	PASS	
3313.00†	3238.40	-123.97	-501.48	3208.40	3238.40	703.75	-2114.44	42.49	1812.95	129.40	14.07	PASS	
3413.00†	3333.47	-131.41	-531.60	3303.47	3333.47	703.75	-2114.44	43.15	1789.66	132.06	13.60	PASS	
3513.00†	3428.53	-138.86	-561.72	3398.53	3428.53	703.75	-2114.44	43.82	1766.62	134.74	13.16	PASS	
3613.00†	3523.60	-146.31	-591.84	3493.60	3523.60	703.75	-2114.44	44.51	1743.82	137.46	12.73	PASS	
3713.00†	3618.66	-153.75	-621.96	3588.66	3618.66	703.75	-2114.44	45.21	1721.28	140.19	12.32	PASS	
3813.00†	3713.73	-161.20	-652.08	3683.73	3713.73	703.75	-2114.44	45.94	1699.01	142.96	11.93	PASS	
3913.00†	3808.79	-168.64	-682.20	3778.79	3808.79	703.75	-2114.44	46.68	1677.02	145.76	11.54	PASS	
4013.00†	3903.86	-176.09	-712.32	3873.86	3903.86	703.75	-2114.44	47.44	1655.31	148.58	11.18	PASS	
4113.00†	3998.92	-183.54	-742.44	3968.92	3998.92	703.75	-2114.44	48.22	1633.91	151.43	10.83	PASS	
4213.00†	4093.99	-190.98	-772.56	4063.99	4093.99	703.75	-2114.44	49.02	1612.82	154.30	10.49	PASS	
4313.00†	4189.05	-198.43	-802.68	4159.05	4189.05	703.75	-2114.44	49.84	1592.05	157.21	10.16	PASS	
4413.00†	4284.12	-205.87	-832.80	4254.12	4284.12	703.75	-2114.44	50.68	1571.63	160.14	9.84	PASS	
4513.00†	4379.18	-213.32	-862.92	4349.18	4379.18	703.75	-2114.44	51.54	1551.55	163.10	9.54	PASS	
4613.00†	4474.25	-220.77	-893.04	4444.25	4474.25	703.75	-2114.44	52.42	1531.84	166.09	9.25	PASS	
4713.00†	4569.31	-228.21	-923.16	4539.31	4569.31	703.75	-2114.44	53.32	1512.51	169.11	8.97	PASS	
4813.00†	4664.38	-235.66	-953.28	4634.38	4664.38	703.75	-2114.44	54.25	1493.58	172.15	8.70	PASS	
4913.00†	4759.44	-243.10	-983.40	4729.44	4759.44	703.75	-2114.44	55.19	1475.05	175.22	8.44	PASS	
5013.00†	4854.51	-250.55	-1013.52	4824.51	4854.51	703.75	-2114.44	56.16	1456.95	178.32	8.19	PASS	
5113.00†	4949.57	-258.00	-1043.64	4919.57	4949.57	703.75	-2114.44	57.15	1439.29	181.44	7.95	PASS	
5213.00†	5044.64	-265.44	-1073.77	5014.64	5044.64	703.75	-2114.44	58.16	1422.09	184.59	7.72	PASS	
5313.00†	5139.70	-272.89	-1103.89	5109.70	5139.70	703.75	-2114.44	59.20	1405.36	187.76	7.50	PASS	
5413.00†	5234.77	-280.33	-1134.01	5204.77	5234.77	703.75	-2114.44	60.26	1389.12	190.96	7.29	PASS	
5513.00†	5329.83	-287.78	-1164.13	5299.83	5329.83	703.75	-2114.44	61.34	1373.40	194.18	7.09	PASS	
5613.00†	5424.89	-295.23	-1194.25	5394.89	5424.89	703.75	-2114.44	62.44	1358.20	197.42	6.90	PASS	
5713.00†	5519.96	-302.67	-1224.37	5489.96	5519.96	703.75	-2114.44	63.57	1343.54	200.68	6.71	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T1S-R65W Slot: SLOT#01 EX. COLLINS #14-20 (990'FSL & 990'FWL, SEC.20, OG, PR, 8202) Well: COLLINS #14-20 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5615.02	-310.12	-1254.49	5585.02	5615.02	703.75	-2114.44	64.72	1329.45	203.95	6.53	PASS	
5913.00†	5710.09	-317.56	-1284.61	5680.09	5710.09	703.75	-2114.44	65.89	1315.94	207.25	6.36	PASS	
6013.00†	5805.15	-325.01	-1314.73	5775.15	5805.15	703.75	-2114.44	67.08	1303.03	210.56	6.20	PASS	
6113.00†	5900.22	-332.46	-1344.85	5870.22	5900.22	703.75	-2114.44	68.30	1290.73	213.88	6.05	PASS	
6213.00†	5995.28	-339.90	-1374.97	5965.28	5995.28	703.75	-2114.44	69.53	1279.07	217.22	5.90	PASS	
6313.00†	6090.35	-347.35	-1405.09	6060.35	6090.35	703.75	-2114.44	70.79	1268.06	220.56	5.76	PASS	
6413.00†	6185.41	-354.79	-1435.21	6155.41	6185.41	703.75	-2114.44	72.07	1257.72	223.91	5.63	PASS	
6513.00†	6280.48	-362.24	-1465.33	6250.48	6280.48	703.75	-2114.44	73.36	1248.07	227.26	5.50	PASS	
6613.00†	6375.54	-369.69	-1495.45	6345.54	6375.54	703.75	-2114.44	74.67	1239.11	230.62	5.38	PASS	
6713.00†	6470.61	-377.13	-1525.57	6440.61	6470.61	703.75	-2114.44	76.00	1230.88	233.97	5.27	PASS	
6813.00†	6565.67	-384.58	-1555.69	6535.67	6565.67	703.75	-2114.44	77.34	1223.38	237.32	5.16	PASS	
6913.00†	6660.74	-392.02	-1585.81	6630.74	6660.74	703.75	-2114.44	78.70	1216.62	240.67	5.06	PASS	
7013.00†	6755.80	-399.47	-1615.93	6725.80	6755.80	703.75	-2114.44	80.07	1210.62	244.00	4.97	PASS	
7081.48	6820.90	-404.57	-1636.56	6790.90	6820.90	703.75	-2114.44	81.02	1206.95	246.27	4.91	PASS	
7113.00†	6850.91	-406.05	-1646.08	6820.91	6850.91	703.75	-2114.44	71.65	1204.58	247.31	4.88	PASS	
7213.00†	6945.84	-399.29	-1676.38	6915.84	6945.84	703.75	-2114.44	42.98	1186.84	250.59	4.74	PASS	
7313.00†	7038.12	-375.33	-1706.11	7008.12	7038.12	703.75	-2114.44	23.39	1153.75	253.91	4.55	PASS	
7413.00†	7124.97	-334.90	-1734.36	7094.97	7124.97	703.75	-2114.44	11.14	1106.01	256.86	4.31	PASS	
7513.00†	7203.73	-279.23	-1760.28	7173.73	7203.73	703.75	-2114.44	2.03	1044.83	259.32	4.04	PASS	
7613.00†	7272.02	-210.01	-1783.08	7242.02	7272.02	703.75	-2114.44	-6.97	971.99	261.17	3.73	PASS	
7713.00†	7327.76	-129.34	-1802.06	7297.76	7327.76	703.75	-2114.44	-18.72	889.73	262.31	3.40	PASS	
7813.00†	7369.25	-39.68	-1816.66	7339.25	7369.25	703.75	-2114.44	-37.03	800.85	262.59	3.05	PASS	
7913.00†	7395.24	56.26	-1826.42	7365.24	7395.24	703.75	-2114.44	-63.47	708.66	261.85	2.71	PASS	
8013.00†	7404.94	155.55	-1831.06	7374.94	7404.94	703.75	-2114.44	-88.36	617.11	259.82	2.38	PASS	
8021.48	7405.00	164.03	-1831.21	7375.00	7405.00	703.75	-2114.44	-90.00	609.52	259.57	2.35	PASS	
8113.00†	7405.00	255.54	-1832.64	7375.00	7405.00	703.75	-2114.44	-90.00	529.44	256.43	2.07	PASS	
8213.00†	7405.00	355.53	-1834.19	7375.00	7405.00	703.75	-2114.44	-90.00	446.99	251.66	1.78	PASS	
8313.00†	7405.00	455.51	-1835.75	7375.00	7405.00	703.75	-2114.44	-90.00	373.21	245.20	1.52	PASS	
8413.00†	7405.00	555.50	-1837.31	7375.00	7405.00	703.75	-2114.44	-90.00	314.29	238.49	1.32	PASS	
8513.00†	7405.00	655.49	-1838.87	7375.00	7405.00	703.75	-2114.44	-90.00	279.76	238.72	1.17	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T1S-R65W Slot: SLOT#01 EX. COLLINS #14-20 (990'FSL & 990'FWL, SEC.20, OG, PR, 8202) Well: COLLINS #14-20 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8565.68†	7405.00	708.16	-1839.69	7375.09	7405.09	703.75	-2114.44	-90.02	274.78	243.98	1.13	PASS
8613.00†	7405.00	755.48	-1840.43	7375.00	7405.00	703.75	-2114.44	-90.00	278.85	250.48	1.11	PASS
8664.07†	7405.00	806.54	-1841.23	7375.00	7405.00	703.75	-2114.44	-90.00	291.91	272.72	1.07	PASS
8713.00†	7405.00	855.46	-1841.99	7375.00	7405.00	703.75	-2114.44	-90.00	311.85	263.36	1.18	PASS
8813.00†	7405.00	955.45	-1843.55	7375.00	7405.00	703.75	-2114.44	-90.00	369.78	271.25	1.36	PASS
8913.00†	7405.00	1055.44	-1845.11	7375.00	7405.00	703.75	-2114.44	-90.00	442.98	275.18	1.61	PASS
9013.00†	7405.00	1155.43	-1846.67	7375.00	7405.00	703.75	-2114.44	-90.00	525.09	277.01	1.90	PASS
9113.00†	7405.00	1255.42	-1848.23	7375.00	7405.00	703.75	-2114.44	-90.00	612.54	277.82	2.21	PASS
9213.00†	7405.00	1355.40	-1849.79	7375.00	7405.00	703.75	-2114.44	-90.00	703.35	278.14	2.53	PASS
9313.00†	7405.00	1455.39	-1851.35	7375.00	7405.00	703.75	-2114.44	-90.00	796.36	278.22	2.87	PASS
9413.00†	7405.00	1555.38	-1852.91	7375.00	7405.00	703.75	-2114.44	-90.00	890.89	278.18	3.21	PASS
9513.00†	7405.00	1655.37	-1854.46	7375.00	7405.00	703.75	-2114.44	-90.00	986.50	278.08	3.55	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	150.00	150.00	17.00	167.00	423.13	-1290.89	423.13	-1290.89
8.625in Casing Surface	0.00	150.00	150.00	17.00	167.00	423.13	-1290.89	423.13	-1290.89
7.875in Open Hole	150.00	8194.00	8044.00	167.00	8211.00	423.13	-1290.89	423.13	-1290.89
4.5in Casing Production	0.00	8194.00	8194.00	17.00	8211.00	423.13	-1290.89	423.13	-1290.89



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

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

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

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



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	-0.02	-30.00	-90.04	30.00	1.40	48.66	PASS	
113.00†	113.00	0.00	0.00	116.00	113.00	-0.02	-30.00	-90.04	30.00	1.73	31.36	PASS	
213.00†	213.00	0.00	0.00	216.00	213.00	-0.02	-30.00	-90.04	30.00	2.31	19.36	PASS	
313.00†	313.00	0.00	0.00	316.00	313.00	-0.02	-30.00	-90.04	30.00	2.92	13.81	PASS	
413.00†	413.00	0.00	0.00	416.00	413.00	-0.02	-30.00	-90.04	30.00	3.53	10.69	PASS	
513.00†	513.00	0.00	0.00	516.00	513.00	-0.02	-30.00	-90.04	30.00	4.15	8.71	PASS	
613.00†	613.00	0.00	0.00	616.00	613.00	-0.02	-30.00	-90.04	30.00	4.78	7.34	PASS	
713.00†	713.00	0.00	0.00	716.00	713.00	-0.02	-30.00	-90.04	30.00	5.40	6.35	PASS	
813.00†	813.00	0.00	0.00	816.00	813.00	-0.02	-30.00	-90.04	30.00	6.03	5.59	PASS	
913.00†	913.00	0.00	0.00	915.84	912.84	-0.03	-30.04	-90.05	30.04	6.65	5.00	PASS	
1013.00†	1013.00	0.00	0.00	1014.76	1011.73	-0.45	-32.26	-90.81	32.28	7.39	4.78	PASS	
1113.00†	1113.00	0.00	0.00	1113.41	1110.21	-1.52	-37.80	-92.31	37.93	8.39	4.89	PASS	
1200.00	1200.00	0.00	0.00	1198.83	1195.29	-2.97	-45.29	-93.75	45.63	9.20	5.34	PASS	
1213.00†	1213.00	-0.01	-0.03	1211.55	1207.94	-3.22	-46.62	9.93	46.97	9.32	5.42	PASS	
1313.00†	1312.97	-0.53	-2.16	1309.25	1304.86	-5.54	-58.65	8.78	57.29	10.29	5.96	PASS	
1413.00†	1412.80	-1.90	-7.68	1406.60	1400.97	-8.48	-73.87	8.12	67.56	11.40	6.30	PASS	
1513.00†	1512.38	-4.10	-16.58	1503.63	1496.17	-12.02	-92.21	7.77	77.75	12.45	6.60	PASS	
1613.00†	1611.57	-7.13	-28.85	1600.33	1590.38	-16.15	-113.64	7.62	87.86	13.44	6.89	PASS	
1713.00†	1710.26	-10.99	-44.47	1696.72	1683.49	-20.86	-138.08	7.60	97.86	14.38	7.15	PASS	
1813.00†	1808.33	-15.68	-63.42	1792.79	1775.41	-26.15	-165.50	7.68	107.76	15.25	7.38	PASS	
1913.00†	1905.66	-21.18	-85.69	1888.56	1866.06	-32.00	-195.82	7.83	117.53	16.08	7.60	PASS	
2013.00†	2002.13	-27.50	-111.24	1984.03	1955.34	-38.40	-228.99	8.03	127.18	17.01	7.76	PASS	
2103.78	2088.86	-33.93	-137.25	2073.39	2038.14	-44.77	-262.00	8.29	135.10	17.74	7.89	PASS	
2113.00†	2097.63	-34.62	-140.03	2082.58	2046.65	-45.42	-265.40	8.32	135.77	17.80	7.90	PASS	
2213.00†	2192.69	-42.06	-170.15	2182.31	2139.01	-52.55	-302.34	8.69	143.06	18.48	8.01	PASS	
2313.00†	2287.76	-49.51	-200.27	2282.04	2231.38	-59.67	-339.28	9.01	150.36	19.19	8.10	PASS	
2413.00†	2382.82	-56.95	-230.39	2381.77	2323.74	-66.80	-376.22	9.31	157.65	19.94	8.16	PASS	
2513.00†	2477.89	-64.40	-260.51	2481.50	2416.10	-73.92	-413.16	9.58	164.96	20.72	8.21	PASS	
2613.00†	2572.95	-71.85	-290.63	2581.23	2508.46	-81.05	-450.10	9.83	172.26	21.52	8.24	PASS	
2713.00†	2668.02	-79.29	-320.75	2680.96	2600.83	-88.17	-487.04	10.06	179.57	22.35	8.26	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2780.69	2693.19	-95.30	-523.98	10.27	186.88	23.20	8.28	PASS	
2913.00†	2858.15	-94.18	-380.99	2880.42	2785.55	-102.42	-560.92	10.47	194.20	24.07	8.28	PASS	
3013.00†	2953.21	-101.63	-411.11	2980.15	2877.91	-109.55	-597.86	10.65	201.51	24.96	8.28	PASS	
3113.00†	3048.28	-109.08	-441.23	3079.88	2970.27	-116.67	-634.80	10.82	208.83	25.86	8.27	PASS	
3213.00†	3143.34	-116.52	-471.35	3179.61	3062.64	-123.79	-671.74	10.97	216.15	26.78	8.26	PASS	
3313.00†	3238.40	-123.97	-501.48	3279.34	3155.00	-130.92	-708.68	11.12	223.47	27.71	8.25	PASS	
3413.00†	3333.47	-131.41	-531.60	3379.07	3247.36	-138.04	-745.62	11.26	230.79	28.66	8.23	PASS	
3513.00†	3428.53	-138.86	-561.72	3478.80	3339.72	-145.17	-782.56	11.38	238.11	29.61	8.21	PASS	
3613.00†	3523.60	-146.31	-591.84	3578.53	3432.09	-152.29	-819.50	11.51	245.44	30.58	8.19	PASS	
3713.00†	3618.66	-153.75	-621.96	3678.26	3524.45	-159.42	-856.44	11.62	252.76	31.55	8.17	PASS	
3813.00†	3713.73	-161.20	-652.08	3777.99	3616.81	-166.54	-893.38	11.73	260.09	32.53	8.15	PASS	
3913.00†	3808.79	-168.64	-682.20	3877.72	3709.17	-173.67	-930.32	11.83	267.42	33.52	8.13	PASS	
4013.00†	3903.86	-176.09	-712.32	3977.45	3801.54	-180.79	-967.26	11.92	274.74	34.52	8.10	PASS	
4113.00†	3998.92	-183.54	-742.44	4077.18	3893.90	-187.92	-1004.19	12.02	282.07	35.52	8.08	PASS	
4213.00†	4093.99	-190.98	-772.56	4176.91	3986.26	-195.04	-1041.13	12.10	289.40	36.53	8.06	PASS	
4313.00†	4189.05	-198.43	-802.68	4276.64	4078.62	-202.17	-1078.07	12.18	296.73	37.55	8.04	PASS	
4413.00†	4284.12	-205.87	-832.80	4376.37	4170.99	-209.29	-1115.01	12.26	304.06	38.57	8.01	PASS	
4513.00†	4379.18	-213.32	-862.92	4476.10	4263.35	-216.42	-1151.95	12.34	311.39	39.59	7.99	PASS	
4613.00†	4474.25	-220.77	-893.04	4575.83	4355.71	-223.54	-1188.89	12.41	318.73	40.62	7.97	PASS	
4713.00†	4569.31	-228.21	-923.16	4675.56	4448.07	-230.67	-1225.83	12.48	326.06	41.65	7.95	PASS	
4813.00†	4664.38	-235.66	-953.28	4775.29	4540.43	-237.79	-1262.77	12.54	333.39	42.69	7.93	PASS	
4913.00†	4759.44	-243.10	-983.40	4875.02	4632.80	-244.92	-1299.71	12.60	340.72	43.73	7.90	PASS	
5013.00†	4854.51	-250.55	-1013.52	4974.75	4725.16	-252.04	-1336.65	12.66	348.06	44.77	7.88	PASS	
5113.00†	4949.57	-258.00	-1043.64	5074.48	4817.52	-259.17	-1373.59	12.72	355.39	45.82	7.86	PASS	
5213.00†	5044.64	-265.44	-1073.77	5174.21	4909.88	-266.29	-1410.53	12.78	362.72	46.87	7.84	PASS	
5313.00†	5139.70	-272.89	-1103.89	5273.94	5002.25	-273.42	-1447.47	12.83	370.06	47.92	7.82	PASS	
5413.00†	5234.77	-280.33	-1134.01	5373.67	5094.61	-280.54	-1484.41	12.88	377.39	48.97	7.80	PASS	
5513.00†	5329.83	-287.78	-1164.13	5473.40	5186.97	-287.67	-1521.35	12.93	384.73	50.03	7.79	PASS	
5613.00†	5424.89	-295.23	-1194.25	5573.13	5279.33	-294.79	-1558.29	12.97	392.06	51.09	7.77	PASS	
5713.00†	5519.96	-302.67	-1224.37	5672.86	5371.70	-301.91	-1595.23	13.02	399.40	52.15	7.75	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W		Slot: SLOT#15 WAKEMAN 20-17-1NAH (293'FSL & 2233'FEL, SEC.20)				Well: WAKEMAN 20-17-1NAH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5615.02	-310.12	-1254.49	5772.59	5464.06	-309.04	-1632.17	13.06	406.73	53.21	7.73	PASS
5913.00†	5710.09	-317.56	-1284.61	5872.32	5556.42	-316.16	-1669.11	13.11	414.07	54.27	7.72	PASS
6013.00†	5805.15	-325.01	-1314.73	5972.05	5648.78	-323.29	-1706.05	13.15	421.41	55.34	7.70	PASS
6113.00†	5900.22	-332.46	-1344.85	6071.78	5741.15	-330.41	-1742.99	13.19	428.74	56.41	7.68	PASS
6213.00†	5995.28	-339.90	-1374.97	6171.51	5833.51	-337.54	-1779.93	13.22	436.08	57.48	7.67	PASS
6313.00†	6090.35	-347.35	-1405.09	6271.24	5925.87	-344.66	-1816.86	13.26	443.42	58.55	7.65	PASS
6413.00†	6185.41	-354.79	-1435.21	6370.97	6018.23	-351.79	-1853.80	13.29	450.75	59.62	7.64	PASS
6513.00†	6280.48	-362.24	-1465.33	6470.70	6110.59	-358.91	-1890.74	13.33	458.09	60.70	7.62	PASS
6613.00†	6375.54	-369.69	-1495.45	6570.43	6202.96	-366.04	-1927.68	13.36	465.43	61.77	7.61	PASS
6713.00†	6470.61	-377.13	-1525.57	6670.16	6295.32	-373.16	-1964.62	13.39	472.76	62.85	7.60	PASS
6813.00†	6565.67	-384.58	-1555.69	6769.89	6387.68	-380.29	-2001.56	13.43	480.10	63.93	7.58	PASS
6913.00†	6660.74	-392.02	-1585.81	6869.62	6480.04	-387.41	-2038.50	13.46	487.44	65.01	7.57	PASS
7013.00†	6755.80	-399.47	-1615.93	6969.35	6572.41	-394.54	-2075.44	13.48	494.78	66.09	7.56	PASS
7081.48	6820.90	-404.57	-1636.56	7037.65	6635.66	-399.42	-2100.74	13.50	499.80	66.82	7.55	PASS
7113.00†	6850.91	-406.05	-1646.08	7069.04	6664.73	-401.66	-2112.36	3.94	502.10	67.08	7.55	PASS
7213.00†	6945.84	-399.29	-1676.38	7165.75	6754.31	-400.26	-2148.46	-25.15	509.46	67.40	7.63	PASS
7313.00†	7038.12	-375.33	-1706.11	7263.31	6842.98	-382.44	-2184.73	-44.36	516.92	67.49	7.73	PASS
7413.00†	7124.97	-334.90	-1734.36	7361.85	6928.20	-348.24	-2220.14	-55.26	524.28	67.42	7.85	PASS
7513.00†	7203.73	-279.23	-1760.28	7461.47	7007.37	-298.12	-2253.63	-61.64	531.33	67.37	7.96	PASS
7613.00†	7272.02	-210.01	-1783.08	7562.25	7077.87	-233.09	-2284.11	-65.59	537.83	67.52	8.04	PASS
7713.00†	7327.76	-129.34	-1802.06	7664.18	7137.17	-154.68	-2310.53	-68.13	543.60	67.98	8.07	PASS
7813.00†	7369.25	-39.68	-1816.66	7767.28	7182.96	-64.97	-2331.87	-69.77	548.44	68.80	8.04	PASS
7913.00†	7395.24	56.26	-1826.42	7871.44	7213.23	33.36	-2347.25	-70.76	552.19	69.93	7.97	PASS
8013.00†	7404.94	155.55	-1831.06	7976.56	7226.47	137.12	-2355.96	-71.24	554.72	71.30	7.85	PASS
8021.48	7405.00	164.03	-1831.21	7985.51	7226.78	146.06	-2356.37	-71.26	554.87	71.43	7.84	PASS
8113.00†	7405.00	255.54	-1832.64	8077.91	7227.00	238.41	-2359.46	-71.34	556.35	73.12	7.67	PASS
8213.00†	7405.00	355.53	-1834.19	8177.90	7227.00	338.34	-2362.71	-71.39	557.95	75.43	7.46	PASS
8313.00†	7405.00	455.51	-1835.75	8277.88	7227.00	438.27	-2365.96	-71.45	559.55	78.13	7.22	PASS
8413.00†	7405.00	555.50	-1837.31	8377.87	7227.00	538.21	-2369.21	-71.50	561.16	81.20	6.96	PASS
8513.00†	7405.00	655.49	-1838.87	8477.85	7227.00	638.14	-2372.46	-71.56	562.76	84.58	6.70	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
8613.00†	7405.00	755.48	-1840.43	8577.84	7227.00	738.07	-2375.71	-71.61	564.36	88.24	6.44	PASS	
8713.00†	7405.00	855.46	-1841.99	8677.83	7227.00	838.01	-2378.96	-71.67	565.97	95.36	5.97	PASS	
8813.00†	7405.00	955.45	-1843.55	8777.81	7227.00	937.94	-2382.21	-71.72	567.57	96.28	5.93	PASS	
8913.00†	7405.00	1055.44	-1845.11	8877.80	7227.00	1037.87	-2385.46	-71.77	569.18	100.59	5.69	PASS	
9013.00†	7405.00	1155.43	-1846.67	8977.78	7227.00	1137.80	-2388.70	-71.83	570.79	105.08	5.46	PASS	
9113.00†	7405.00	1255.42	-1848.23	9077.77	7227.00	1237.74	-2391.95	-71.88	572.39	109.71	5.24	PASS	
9213.00†	7405.00	1355.40	-1849.79	9177.75	7227.00	1337.67	-2395.20	-71.93	574.00	114.48	5.04	PASS	
9313.00†	7405.00	1455.39	-1851.35	9277.74	7227.00	1437.60	-2398.45	-71.98	575.61	119.36	4.85	PASS	
9413.00†	7405.00	1555.38	-1852.91	9377.73	7227.00	1537.54	-2401.70	-72.04	577.22	124.34	4.66	PASS	
9513.00†	7405.00	1655.37	-1854.46	9477.71	7227.00	1637.47	-2404.95	-72.09	578.83	129.41	4.49	PASS	
9613.00†	7405.00	1755.35	-1856.02	9577.70	7227.00	1737.40	-2408.20	-72.14	580.43	134.56	4.33	PASS	
9713.00†	7405.00	1855.34	-1857.58	9677.68	7227.00	1837.33	-2411.45	-72.19	582.04	139.78	4.18	PASS	
9813.00†	7405.00	1955.33	-1859.14	9777.67	7227.00	1937.27	-2414.70	-72.24	583.65	145.07	4.04	PASS	
9913.00†	7405.00	2055.32	-1860.70	9877.65	7227.00	2037.20	-2417.95	-72.29	585.26	150.42	3.90	PASS	
10013.00†	7405.00	2155.31	-1862.26	9977.64	7227.00	2137.13	-2421.20	-72.34	586.88	155.82	3.78	PASS	
10113.00†	7405.00	2255.29	-1863.82	10077.63	7227.00	2237.07	-2424.45	-72.39	588.49	161.26	3.66	PASS	
10213.00†	7405.00	2355.28	-1865.38	10177.61	7227.00	2337.00	-2427.69	-72.44	590.10	166.75	3.55	PASS	
10313.00†	7405.00	2455.27	-1866.94	10277.60	7227.00	2436.93	-2430.94	-72.49	591.71	172.28	3.44	PASS	
10413.00†	7405.00	2555.26	-1868.50	10377.58	7227.00	2536.86	-2434.19	-72.54	593.32	177.84	3.35	PASS	
10513.00†	7405.00	2655.25	-1870.06	10477.57	7227.00	2636.80	-2437.44	-72.59	594.94	183.43	3.25	PASS	
10613.00†	7405.00	2755.23	-1871.62	10577.55	7227.00	2736.73	-2440.69	-72.64	596.55	189.06	3.16	PASS	
10713.00†	7405.00	2855.22	-1873.18	10677.54	7227.00	2836.66	-2443.94	-72.69	598.16	194.71	3.08	PASS	
10813.00†	7405.00	2955.21	-1874.73	10777.53	7227.00	2936.60	-2447.19	-72.73	599.78	200.39	3.00	PASS	
10913.00†	7405.00	3055.20	-1876.29	10877.51	7227.00	3036.53	-2450.44	-72.78	601.39	206.09	2.92	PASS	
11013.00†	7405.00	3155.18	-1877.85	10977.50	7227.00	3136.46	-2453.69	-72.83	603.01	211.81	2.85	PASS	
11113.00†	7405.00	3255.17	-1879.41	11077.48	7227.00	3236.40	-2456.94	-72.88	604.62	217.55	2.79	PASS	
11213.00†	7405.00	3355.16	-1880.97	11177.47	7227.00	3336.33	-2460.19	-72.92	606.24	223.32	2.72	PASS	
11313.00†	7405.00	3455.15	-1882.53	11277.45	7227.00	3436.26	-2463.44	-72.97	607.86	229.09	2.66	PASS	
11413.00†	7405.00	3555.14	-1884.09	11377.44	7227.00	3536.19	-2466.68	-73.02	609.47	234.89	2.60	PASS	
11513.00†	7405.00	3655.12	-1885.65	11477.43	7227.00	3636.13	-2469.93	-73.06	611.09	240.70	2.54	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
11613.00†	7405.00	3755.11	-1887.21	11577.41	7227.00	3736.06	-2473.18	-73.11	612.71	246.53	2.49	PASS	
11713.00†	7405.00	3855.10	-1888.77	11677.40	7227.00	3835.99	-2476.43	-73.16	614.33	252.37	2.44	PASS	
11813.00†	7405.00	3955.09	-1890.33	11777.38	7227.00	3935.93	-2479.68	-73.20	615.95	258.22	2.39	PASS	
11913.00†	7405.00	4055.08	-1891.89	11877.37	7227.00	4035.86	-2482.93	-73.25	617.56	264.08	2.34	PASS	
12013.00†	7405.00	4155.06	-1893.45	11977.35	7227.00	4135.79	-2486.18	-73.29	619.18	269.96	2.30	PASS	
12113.00†	7405.00	4255.05	-1895.00	12077.34	7227.00	4235.72	-2489.43	-73.34	620.80	275.84	2.25	PASS	
12213.00†	7405.00	4355.04	-1896.56	12177.33	7227.00	4335.66	-2492.68	-73.38	622.42	281.74	2.21	PASS	
12313.00†	7405.00	4455.03	-1898.12	12277.31	7227.00	4435.59	-2495.93	-73.43	624.04	287.64	2.17	PASS	
12413.00†	7405.00	4555.01	-1899.68	12377.30	7227.00	4535.52	-2499.18	-73.47	625.67	293.56	2.13	PASS	
12513.00†	7405.00	4655.00	-1901.24	12477.28	7227.00	4635.46	-2502.43	-73.51	627.29	299.48	2.10	PASS	
12613.00†	7405.00	4754.99	-1902.80	12577.27	7227.00	4735.39	-2505.67	-73.56	628.91	305.41	2.06	PASS	
12713.00†	7405.00	4854.98	-1904.36	12677.25	7227.00	4835.32	-2508.92	-73.60	630.53	311.35	2.03	PASS	
12813.00†	7405.00	4954.97	-1905.92	12777.24	7227.00	4935.25	-2512.17	-73.64	632.15	317.30	1.99	PASS	
12913.00†	7405.00	5054.95	-1907.48	12877.23	7227.00	5035.19	-2515.42	-73.69	633.77	323.26	1.96	PASS	
13013.00†	7405.00	5154.94	-1909.04	12977.21	7227.00	5135.12	-2518.67	-73.73	635.40	329.22	1.93	PASS	
13113.00†	7405.00	5254.93	-1910.60	13077.20	7227.00	5235.05	-2521.92	-73.77	637.02	335.19	1.90	PASS	
13213.00†	7405.00	5354.92	-1912.16	13177.18	7227.00	5334.99	-2525.17	-73.81	638.64	341.16	1.87	PASS	
13313.00†	7405.00	5454.91	-1913.72	13277.17	7227.00	5434.92	-2528.42	-73.86	640.27	347.14	1.85	PASS	
13413.00†	7405.00	5554.89	-1915.27	13377.15	7227.00	5534.85	-2531.67	-73.90	641.89	353.13	1.82	PASS	
13513.00†	7405.00	5654.88	-1916.83	13477.14	7227.00	5634.78	-2534.92	-73.94	643.52	359.12	1.79	PASS	
13613.00†	7405.00	5754.87	-1918.39	13577.13	7227.00	5734.72	-2538.17	-73.98	645.14	365.12	1.77	PASS	
13713.00†	7405.00	5854.86	-1919.95	13677.11	7227.00	5834.65	-2541.42	-74.02	646.77	371.12	1.74	PASS	
13813.00†	7405.00	5954.84	-1921.51	13777.10	7227.00	5934.58	-2544.66	-74.06	648.39	377.13	1.72	PASS	
13913.00†	7405.00	6054.83	-1923.07	13877.08	7227.00	6034.52	-2547.91	-74.11	650.02	383.15	1.70	PASS	
14013.00†	7405.00	6154.82	-1924.63	13977.07	7227.00	6134.45	-2551.16	-74.15	651.65	389.16	1.68	PASS	
14113.00†	7405.00	6254.81	-1926.19	14077.05	7227.00	6234.38	-2554.41	-74.19	653.27	395.19	1.65	PASS	
14213.00†	7405.00	6354.80	-1927.75	14177.04	7227.00	6334.32	-2557.66	-74.23	654.90	401.21	1.63	PASS	
14313.00†	7405.00	6454.78	-1929.31	14277.03	7227.00	6434.25	-2560.91	-74.27	656.53	407.25	1.61	PASS	
14413.00†	7405.00	6554.77	-1930.87	14377.01	7227.00	6534.18	-2564.16	-74.31	658.15	413.28	1.59	PASS	
14513.00†	7405.00	6654.76	-1932.43	14477.00	7227.00	6634.11	-2567.41	-74.35	659.78	419.32	1.57	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
14613.00†	7405.00	6754.75	-1933.99	14576.98	7227.00	6734.05	-2570.66	-74.39	661.41	425.37	1.56	PASS	
14713.00†	7405.00	6854.73	-1935.54	14676.97	7227.00	6833.98	-2573.91	-74.43	663.04	431.41	1.54	PASS	
14813.00†	7405.00	6954.72	-1937.10	14776.95	7227.00	6933.91	-2577.16	-74.46	664.67	437.46	1.52	PASS	
14913.00†	7405.00	7054.71	-1938.66	14876.94	7227.00	7033.85	-2580.41	-74.50	666.30	443.52	1.50	PASS	
15013.00†	7405.00	7154.70	-1940.22	14976.93	7227.00	7133.78	-2583.65	-74.54	667.93	449.58	1.49	PASS	
15113.00†	7405.00	7254.69	-1941.78	15076.91	7227.00	7233.71	-2586.90	-74.58	669.56	455.64	1.47	PASS	
15213.00†	7405.00	7354.67	-1943.34	15176.90	7227.00	7333.64	-2590.15	-74.62	671.19	461.70	1.45	PASS	
15313.00†	7405.00	7454.66	-1944.90	15276.88	7227.00	7433.58	-2593.40	-74.66	672.82	467.77	1.44	PASS	
15413.00†	7405.00	7554.65	-1946.46	15376.87	7227.00	7533.51	-2596.65	-74.69	674.45	473.84	1.42	PASS	
15513.00†	7405.00	7654.64	-1948.02	15476.85	7227.00	7633.44	-2599.90	-74.73	676.08	479.92	1.41	PASS	
15613.00†	7405.00	7754.63	-1949.58	15576.84	7227.00	7733.38	-2603.15	-74.77	677.71	486.00	1.40	PASS	
15713.00†	7405.00	7854.61	-1951.14	15676.83	7227.00	7833.31	-2606.40	-74.81	679.34	492.08	1.38	PASS	
15813.00†	7405.00	7954.60	-1952.70	15776.81	7227.00	7933.24	-2609.65	-74.85	680.97	498.16	1.37	PASS	
15913.00†	7405.00	8054.59	-1954.26	15876.80	7227.00	8033.17	-2612.90	-74.88	682.61	504.25	1.35	PASS	
16013.00†	7405.00	8154.58	-1955.81	15976.78	7227.00	8133.11	-2616.15	-74.92	684.24	510.33	1.34	PASS	
16113.00†	7405.00	8254.56	-1957.37	16076.77	7227.00	8233.04	-2619.40	-74.96	685.87	516.43	1.33	PASS	
16213.00†	7405.00	8354.55	-1958.93	16176.75	7227.00	8332.97	-2622.64	-74.99	687.50	522.52	1.32	PASS	
16313.00†	7405.00	8454.54	-1960.49	16276.74	7227.00	8432.91	-2625.89	-75.03	689.14	528.62	1.30	PASS	
16413.00†	7405.00	8554.53	-1962.05	16376.72	7227.00	8532.84	-2629.14	-75.07	690.77	534.71	1.29	PASS	
16513.00†	7405.00	8654.52	-1963.61	16476.71	7227.00	8632.77	-2632.39	-75.10	692.41	540.82	1.28	PASS	
16613.00†	7405.00	8754.50	-1965.17	16576.70	7227.00	8732.70	-2635.64	-75.14	694.04	546.92	1.27	PASS	
16713.00†	7405.00	8854.49	-1966.73	16676.68	7227.00	8832.64	-2638.89	-75.17	695.67	553.03	1.26	PASS	
16813.00†	7405.00	8954.48	-1968.29	16776.67	7227.00	8932.57	-2642.14	-75.21	697.31	559.13	1.25	PASS	
16913.00†	7405.00	9054.47	-1969.85	16876.65	7227.00	9032.50	-2645.39	-75.24	698.94	565.24	1.24	PASS	
17013.00†	7405.00	9154.46	-1971.41	16976.64	7227.00	9132.44	-2648.64	-75.28	700.58	571.36	1.23	PASS	
17113.00†	7405.00	9254.44	-1972.97	17076.62	7227.00	9232.37	-2651.89	-75.31	702.21	577.47	1.22	PASS	
17213.00†	7405.00	9354.43	-1974.53	17176.61	7227.00	9332.30	-2655.14	-75.35	703.85	583.59	1.21	PASS	
17313.00†	7405.00	9454.42	-1976.08	17276.60	7227.00	9432.23	-2658.39	-75.38	705.49	589.71	1.20	PASS	
17413.00†	7405.00	9554.41	-1977.64	17376.58	7227.00	9532.17	-2661.63	-75.42	707.12	595.83	1.19	PASS	
17513.00†	7405.00	9654.39	-1979.20	17476.57	7227.00	9632.10	-2664.88	-75.45	708.76	601.95	1.18	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
17613.00†	7405.00	9754.38	-1980.76	17576.55	7227.00	9732.03	-2668.13	-75.49	710.40	608.08	1.17	PASS	
17713.00†	7405.00	9854.37	-1982.32	17676.54	7227.00	9831.97	-2671.38	-75.52	712.03	614.20	1.16	PASS	
17813.00†	7405.00	9954.36	-1983.88	17776.52	7227.00	9931.90	-2674.63	-75.56	713.67	620.33	1.15	PASS	
17835.13	7405.00	9976.48	-1984.23	17798.65	7227.00	9954.01	-2675.35	-75.56	714.03	621.69	1.15	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	-0.01	-18.29	-8.10	-60.25
8.5in Open Hole	1800.00	17822.97	16022.97	1785.27	7230.00	-8.10	-60.25	3041.39	-824.83

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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 20-17-1NBH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	0.00	45.04	89.89	45.04	1.40	73.72	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.00	45.04	89.89	45.04	1.73	47.56	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.00	45.04	89.89	45.04	2.31	29.36	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.00	45.04	89.89	45.04	2.91	20.94	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.00	45.04	89.89	45.04	3.53	16.21	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.00	45.04	89.89	45.04	4.15	13.20	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.00	45.04	89.89	45.04	4.77	11.13	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.00	45.04	89.89	45.04	5.40	9.62	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	0.00	45.04	89.89	45.04	6.02	8.47	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	0.00	45.04	89.89	45.04	6.65	7.56	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.00	45.04	89.89	45.04	7.28	6.83	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.00	45.04	89.89	45.04	7.90	6.23	PASS	
1200.00	1200.00	0.00	0.00	1200.00	1200.00	0.00	45.04	89.89	45.04	8.45	5.78	PASS	
1213.00†	1213.00	-0.01	-0.03	1213.00	1213.00	0.00	45.04	-166.24	45.06	8.53	5.73	PASS	
1313.00†	1312.97	-0.53	-2.16	1312.97	1312.97	0.00	45.04	-166.86	47.20	9.24	5.50	PASS	
1413.00†	1412.80	-1.90	-7.68	1412.80	1412.80	0.00	45.04	-168.24	52.76	10.18	5.54	PASS	
1513.00†	1512.38	-4.10	-16.58	1512.64	1512.64	0.08	45.01	-169.94	61.73	11.07	5.93	PASS	
1613.00†	1611.57	-7.13	-28.85	1614.34	1614.31	-0.80	42.93	-171.12	72.11	12.00	6.37	PASS	
1713.00†	1710.26	-10.99	-44.47	1716.42	1716.21	-3.08	37.50	-171.60	82.57	13.09	6.66	PASS	
1813.00†	1808.33	-15.68	-63.42	1818.87	1818.21	-6.79	28.70	-171.63	93.07	14.02	6.94	PASS	
1913.00†	1905.66	-21.18	-85.69	1921.68	1920.16	-11.93	16.48	-171.33	103.61	15.00	7.20	PASS	
2013.00†	2002.13	-27.50	-111.24	2024.85	2021.92	-18.51	0.84	-170.79	114.17	15.96	7.44	PASS	
2103.78	2088.86	-33.93	-137.25	2117.24	2112.53	-25.51	-15.80	-170.19	124.02	16.73	7.70	PASS	
2113.00†	2097.63	-34.62	-140.03	2126.39	2121.49	-26.23	-17.50	-170.15	125.11	16.80	7.73	PASS	
2213.00†	2192.69	-42.06	-170.15	2225.68	2218.75	-33.98	-35.91	-169.68	136.98	17.43	8.15	PASS	
2313.00†	2287.76	-49.51	-200.27	2324.97	2316.01	-41.72	-54.32	-169.29	148.86	18.09	8.52	PASS	
2413.00†	2382.82	-56.95	-230.39	2424.26	2413.26	-49.47	-72.73	-168.96	160.74	18.80	8.85	PASS	
2513.00†	2477.89	-64.40	-260.51	2523.54	2510.52	-57.22	-91.14	-168.67	172.63	19.49	9.15	PASS	
2613.00†	2572.95	-71.85	-290.63	2622.83	2607.78	-64.97	-109.56	-168.42	184.52	20.23	9.42	PASS	
2713.00†	2668.02	-79.29	-320.75	2722.12	2705.04	-72.71	-127.97	-168.20	196.42	20.99	9.65	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2821.41	2802.29	-80.46	-146.38	-168.01	208.31	21.76	9.86	PASS
2913.00†	2858.15	-94.18	-380.99	2920.69	2899.55	-88.21	-164.79	-167.83	220.21	22.55	10.05	PASS
3013.00†	2953.21	-101.63	-411.11	3019.98	2996.81	-95.96	-183.20	-167.68	232.11	23.36	10.22	PASS
3113.00†	3048.28	-109.08	-441.23	3119.27	3094.06	-103.71	-201.61	-167.54	244.02	24.18	10.37	PASS
3213.00†	3143.34	-116.52	-471.35	3218.56	3191.32	-111.45	-220.02	-167.41	255.92	25.01	10.50	PASS
3313.00†	3238.40	-123.97	-501.48	3317.84	3288.58	-119.20	-238.43	-167.29	267.83	25.85	10.63	PASS
3413.00†	3333.47	-131.41	-531.60	3417.13	3385.84	-126.95	-256.85	-167.19	279.73	26.70	10.74	PASS
3513.00†	3428.53	-138.86	-561.72	3516.42	3483.09	-134.70	-275.26	-167.09	291.64	27.55	10.84	PASS
3613.00†	3523.60	-146.31	-591.84	3615.71	3580.35	-142.44	-293.67	-167.00	303.55	28.42	10.93	PASS
3713.00†	3618.66	-153.75	-621.96	3714.99	3677.61	-150.19	-312.08	-166.92	315.45	29.29	11.01	PASS
3813.00†	3713.73	-161.20	-652.08	3814.28	3774.87	-157.94	-330.49	-166.84	327.36	30.17	11.09	PASS
3913.00†	3808.79	-168.64	-682.20	3913.57	3872.12	-165.69	-348.90	-166.77	339.27	31.06	11.16	PASS
4013.00†	3903.86	-176.09	-712.32	4012.85	3969.38	-173.44	-367.31	-166.70	351.18	31.95	11.22	PASS
4113.00†	3998.92	-183.54	-742.44	4112.14	4066.64	-181.18	-385.72	-166.64	363.09	32.85	11.28	PASS
4213.00†	4093.99	-190.98	-772.56	4211.43	4163.90	-188.93	-404.13	-166.58	375.00	33.75	11.33	PASS
4313.00†	4189.05	-198.43	-802.68	4310.72	4261.15	-196.68	-422.55	-166.52	386.92	34.65	11.38	PASS
4413.00†	4284.12	-205.87	-832.80	4410.00	4358.41	-204.43	-440.96	-166.47	398.83	35.56	11.42	PASS
4513.00†	4379.18	-213.32	-862.92	4509.29	4455.67	-212.17	-459.37	-166.42	410.74	36.47	11.47	PASS
4613.00†	4474.25	-220.77	-893.04	4608.58	4552.93	-219.92	-477.78	-166.38	422.65	37.39	11.50	PASS
4713.00†	4569.31	-228.21	-923.16	4707.87	4650.18	-227.67	-496.19	-166.33	434.56	38.30	11.54	PASS
4813.00†	4664.38	-235.66	-953.28	4807.15	4747.44	-235.42	-514.60	-166.29	446.48	39.23	11.57	PASS
4913.00†	4759.44	-243.10	-983.40	4906.44	4844.70	-243.17	-533.01	-166.25	458.39	40.15	11.60	PASS
5013.00†	4854.51	-250.55	-1013.52	5005.73	4941.95	-250.91	-551.42	-166.22	470.30	41.08	11.63	PASS
5113.00†	4949.57	-258.00	-1043.64	5105.02	5039.21	-258.66	-569.84	-166.18	482.21	42.01	11.66	PASS
5213.00†	5044.64	-265.44	-1073.77	5204.30	5136.47	-266.41	-588.25	-166.15	494.13	42.94	11.68	PASS
5313.00†	5139.70	-272.89	-1103.89	5303.59	5233.73	-274.16	-606.66	-166.12	506.04	43.87	11.71	PASS
5413.00†	5234.77	-280.33	-1134.01	5402.88	5330.98	-281.90	-625.07	-166.09	517.96	44.80	11.73	PASS
5513.00†	5329.83	-287.78	-1164.13	5502.17	5428.24	-289.65	-643.48	-166.06	529.87	45.74	11.75	PASS
5613.00†	5424.89	-295.23	-1194.25	5601.45	5525.50	-297.40	-661.89	-166.03	541.78	46.68	11.77	PASS
5713.00†	5519.96	-302.67	-1224.37	5700.74	5622.76	-305.15	-680.30	-166.00	553.70	47.62	11.79	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
5813.00†	5615.02	-310.12	-1254.49	5800.03	5720.01	-312.90	-698.71	-165.98	565.61	48.56	11.81	PASS	
5913.00†	5710.09	-317.56	-1284.61	5899.32	5817.27	-320.64	-717.12	-165.95	577.53	49.50	11.82	PASS	
6013.00†	5805.15	-325.01	-1314.73	5998.60	5914.53	-328.39	-735.54	-165.93	589.44	50.45	11.84	PASS	
6113.00†	5900.22	-332.46	-1344.85	6097.89	6011.79	-336.14	-753.95	-165.91	601.35	51.39	11.85	PASS	
6213.00†	5995.28	-339.90	-1374.97	6197.18	6109.04	-343.89	-772.36	-165.89	613.27	52.34	11.86	PASS	
6313.00†	6090.35	-347.35	-1405.09	6296.47	6206.30	-351.63	-790.77	-165.87	625.18	53.29	11.88	PASS	
6413.00†	6185.41	-354.79	-1435.21	6395.75	6303.56	-359.38	-809.18	-165.85	637.10	54.24	11.89	PASS	
6513.00†	6280.48	-362.24	-1465.33	6495.04	6400.81	-367.13	-827.59	-165.83	649.01	55.19	11.90	PASS	
6613.00†	6375.54	-369.69	-1495.45	6594.33	6498.07	-374.88	-846.00	-165.81	660.93	56.14	11.91	PASS	
6713.00†	6470.61	-377.13	-1525.57	6693.62	6595.33	-382.62	-864.41	-165.79	672.84	57.09	11.92	PASS	
6813.00†	6565.67	-384.58	-1555.69	6792.90	6692.59	-390.37	-882.83	-165.77	684.76	58.04	11.93	PASS	
6913.00†	6660.74	-392.02	-1585.81	6892.19	6789.84	-398.12	-901.24	-165.76	696.67	59.00	11.94	PASS	
7013.00†	6755.80	-399.47	-1615.93	6992.23	6887.87	-405.36	-919.80	-165.79	708.57	59.92	11.96	PASS	
7081.48	6820.90	-404.57	-1636.56	7061.54	6955.89	-403.50	-932.79	-166.36	716.60	60.17	12.04	PASS	
7113.00†	6850.91	-406.05	-1646.08	7092.84	6986.42	-399.92	-938.67	-176.84	720.30	60.19	12.10	PASS	
7213.00†	6945.84	-399.29	-1676.38	7190.43	7079.64	-377.98	-956.77	151.51	732.25	60.19	12.30	PASS	
7313.00†	7038.12	-375.33	-1706.11	7285.64	7165.75	-341.36	-973.75	129.90	744.17	60.07	12.52	PASS	
7413.00†	7124.97	-334.90	-1734.36	7378.82	7243.09	-291.94	-989.26	116.82	755.63	59.86	12.76	PASS	
7513.00†	7203.73	-279.23	-1760.28	7470.30	7310.35	-231.63	-1003.02	108.54	766.21	59.69	12.98	PASS	
7613.00†	7272.02	-210.01	-1783.08	7560.38	7366.52	-162.32	-1014.80	103.00	775.54	59.65	13.14	PASS	
7713.00†	7327.76	-129.34	-1802.06	7649.33	7410.82	-85.89	-1024.44	99.22	783.26	59.82	13.24	PASS	
7813.00†	7369.25	-39.68	-1816.66	7737.42	7442.71	-4.20	-1031.79	96.69	789.10	60.21	13.25	PASS	
7913.00†	7395.24	56.26	-1826.42	7824.87	7461.82	80.90	-1036.76	95.18	792.85	60.83	13.18	PASS	
8013.00†	7404.94	155.55	-1831.06	7912.22	7468.00	167.91	-1039.29	94.56	794.37	61.69	13.02	PASS	
8021.48	7405.00	164.03	-1831.21	7920.69	7468.00	176.39	-1039.42	94.55	794.38	61.81	12.99	PASS	
8113.00†	7405.00	255.54	-1832.64	8012.22	7468.00	267.90	-1040.85	94.55	794.38	63.34	12.67	PASS	
8213.00†	7405.00	355.53	-1834.19	8112.22	7468.00	367.88	-1042.41	94.55	794.38	65.58	12.23	PASS	
8313.00†	7405.00	455.51	-1835.75	8212.22	7468.00	467.87	-1043.97	94.55	794.38	68.33	11.74	PASS	
8413.00†	7405.00	555.50	-1837.31	8312.22	7468.00	567.86	-1045.54	94.55	794.38	71.53	11.21	PASS	
8513.00†	7405.00	655.49	-1838.87	8412.22	7468.00	667.85	-1047.10	94.55	794.37	75.11	10.67	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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
8613.00†	7405.00	755.48	-1840.43	8512.22	7468.00	767.83	-1048.66	94.55	794.37	79.03	10.13	PASS
8713.00†	7405.00	855.46	-1841.99	8612.22	7468.00	867.82	-1050.22	94.55	794.37	83.24	9.62	PASS
8813.00†	7405.00	955.45	-1843.55	8712.22	7468.00	967.81	-1051.78	94.55	794.37	87.69	9.12	PASS
8913.00†	7405.00	1055.44	-1845.11	8812.22	7468.00	1067.80	-1053.34	94.55	794.37	92.38	8.66	PASS
9013.00†	7405.00	1155.43	-1846.67	8912.22	7468.00	1167.79	-1054.90	94.55	794.37	97.19	8.23	PASS
9113.00†	7405.00	1255.42	-1848.23	9012.22	7468.00	1267.77	-1056.46	94.55	794.37	102.19	7.82	PASS
9213.00†	7405.00	1355.40	-1849.79	9112.22	7468.00	1367.76	-1058.02	94.55	794.37	107.31	7.44	PASS
9313.00†	7405.00	1455.39	-1851.35	9212.22	7468.00	1467.75	-1059.58	94.55	794.36	112.55	7.10	PASS
9413.00†	7405.00	1555.38	-1852.91	9312.22	7468.00	1567.74	-1061.14	94.55	794.36	117.89	6.77	PASS
9513.00†	7405.00	1655.37	-1854.46	9412.22	7468.00	1667.73	-1062.70	94.55	794.36	123.31	6.47	PASS
9613.00†	7405.00	1755.35	-1856.02	9512.22	7468.00	1767.71	-1064.26	94.55	794.36	128.81	6.20	PASS
9713.00†	7405.00	1855.34	-1857.58	9612.22	7468.00	1867.70	-1065.82	94.55	794.36	134.38	5.94	PASS
9813.00†	7405.00	1955.33	-1859.14	9712.22	7468.00	1967.69	-1067.38	94.55	794.36	140.00	5.70	PASS
9913.00†	7405.00	2055.32	-1860.70	9812.22	7468.00	2067.68	-1068.95	94.55	794.36	145.68	5.47	PASS
10013.00†	7405.00	2155.31	-1862.26	9912.22	7468.00	2167.66	-1070.51	94.55	794.35	151.39	5.27	PASS
10113.00†	7405.00	2255.29	-1863.82	10012.22	7468.00	2267.65	-1072.07	94.55	794.35	157.15	5.07	PASS
10213.00†	7405.00	2355.28	-1865.38	10112.22	7468.00	2367.64	-1073.63	94.55	794.35	162.95	4.89	PASS
10313.00†	7405.00	2455.27	-1866.94	10212.22	7468.00	2467.63	-1075.19	94.55	794.35	168.78	4.72	PASS
10413.00†	7405.00	2555.26	-1868.50	10312.22	7468.00	2567.62	-1076.75	94.55	794.35	174.63	4.56	PASS
10513.00†	7405.00	2655.25	-1870.06	10412.22	7468.00	2667.60	-1078.31	94.55	794.35	180.52	4.41	PASS
10613.00†	7405.00	2755.23	-1871.62	10512.22	7468.00	2767.59	-1079.87	94.55	794.35	186.42	4.27	PASS
10713.00†	7405.00	2855.22	-1873.18	10612.22	7468.00	2867.58	-1081.43	94.55	794.34	192.35	4.14	PASS
10813.00†	7405.00	2955.21	-1874.73	10712.22	7468.00	2967.57	-1082.99	94.55	794.34	198.30	4.02	PASS
10913.00†	7405.00	3055.20	-1876.29	10812.22	7468.00	3067.55	-1084.55	94.55	794.34	204.27	3.90	PASS
11013.00†	7405.00	3155.18	-1877.85	10912.22	7468.00	3167.54	-1086.11	94.55	794.34	210.25	3.79	PASS
11113.00†	7405.00	3255.17	-1879.41	11012.22	7468.00	3267.53	-1087.67	94.55	794.34	216.25	3.68	PASS
11213.00†	7405.00	3355.16	-1880.97	11112.22	7468.00	3367.52	-1089.23	94.55	794.34	222.26	3.58	PASS
11313.00†	7405.00	3455.15	-1882.53	11212.22	7468.00	3467.51	-1090.79	94.55	794.34	228.29	3.49	PASS
11413.00†	7405.00	3555.14	-1884.09	11312.22	7468.00	3567.49	-1092.35	94.55	794.33	234.32	3.40	PASS
11513.00†	7405.00	3655.12	-1885.65	11412.22	7468.00	3667.48	-1093.92	94.55	794.33	240.37	3.31	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
11613.00†	7405.00	3755.11	-1887.21	11512.22	7468.00	3767.47	-1095.48	94.55	794.33	246.43	3.23	PASS	
11713.00†	7405.00	3855.10	-1888.77	11612.22	7468.00	3867.46	-1097.04	94.55	794.33	252.49	3.15	PASS	
11813.00†	7405.00	3955.09	-1890.33	11712.22	7468.00	3967.45	-1098.60	94.55	794.33	258.57	3.08	PASS	
11913.00†	7405.00	4055.08	-1891.89	11812.22	7468.00	4067.43	-1100.16	94.55	794.33	264.65	3.01	PASS	
12013.00†	7405.00	4155.06	-1893.45	11912.22	7468.00	4167.42	-1101.72	94.55	794.33	270.74	2.94	PASS	
12113.00†	7405.00	4255.05	-1895.00	12012.22	7468.00	4267.41	-1103.28	94.55	794.32	276.84	2.87	PASS	
12213.00†	7405.00	4355.04	-1896.56	12112.22	7468.00	4367.40	-1104.84	94.55	794.32	282.94	2.81	PASS	
12313.00†	7405.00	4455.03	-1898.12	12212.22	7468.00	4467.38	-1106.40	94.55	794.32	289.05	2.75	PASS	
12413.00†	7405.00	4555.01	-1899.68	12312.22	7468.00	4567.37	-1107.96	94.55	794.32	295.17	2.70	PASS	
12513.00†	7405.00	4655.00	-1901.24	12412.22	7468.00	4667.36	-1109.52	94.55	794.32	301.29	2.64	PASS	
12613.00†	7405.00	4754.99	-1902.80	12512.22	7468.00	4767.35	-1111.08	94.55	794.32	307.42	2.59	PASS	
12713.00†	7405.00	4854.98	-1904.36	12612.22	7468.00	4867.34	-1112.64	94.55	794.32	313.55	2.54	PASS	
12813.00†	7405.00	4954.97	-1905.92	12712.22	7468.00	4967.32	-1114.20	94.55	794.31	319.69	2.49	PASS	
12913.00†	7405.00	5054.95	-1907.48	12812.22	7468.00	5067.31	-1115.76	94.55	794.31	325.83	2.44	PASS	
13013.00†	7405.00	5154.94	-1909.04	12912.22	7468.00	5167.30	-1117.33	94.55	794.31	331.97	2.40	PASS	
13113.00†	7405.00	5254.93	-1910.60	13012.22	7468.00	5267.29	-1118.89	94.55	794.31	338.12	2.35	PASS	
13213.00†	7405.00	5354.92	-1912.16	13112.22	7468.00	5367.27	-1120.45	94.55	794.31	344.27	2.31	PASS	
13313.00†	7405.00	5454.91	-1913.72	13212.22	7468.00	5467.26	-1122.01	94.55	794.31	350.43	2.27	PASS	
13413.00†	7405.00	5554.89	-1915.27	13312.22	7468.00	5567.25	-1123.57	94.55	794.31	356.59	2.23	PASS	
13513.00†	7405.00	5654.88	-1916.83	13412.22	7468.00	5667.24	-1125.13	94.55	794.30	362.75	2.19	PASS	
13613.00†	7405.00	5754.87	-1918.39	13512.22	7468.00	5767.23	-1126.69	94.55	794.30	368.91	2.16	PASS	
13713.00†	7405.00	5854.86	-1919.95	13612.22	7468.00	5867.21	-1128.25	94.55	794.30	375.08	2.12	PASS	
13813.00†	7405.00	5954.84	-1921.51	13712.22	7468.00	5967.20	-1129.81	94.55	794.30	381.25	2.09	PASS	
13913.00†	7405.00	6054.83	-1923.07	13812.22	7468.00	6067.19	-1131.37	94.55	794.30	387.42	2.05	PASS	
14013.00†	7405.00	6154.82	-1924.63	13912.22	7468.00	6167.18	-1132.93	94.55	794.30	393.60	2.02	PASS	
14113.00†	7405.00	6254.81	-1926.19	14012.22	7468.00	6267.17	-1134.49	94.55	794.30	399.77	1.99	PASS	
14213.00†	7405.00	6354.80	-1927.75	14112.22	7468.00	6367.15	-1136.05	94.55	794.29	405.95	1.96	PASS	
14313.00†	7405.00	6454.78	-1929.31	14212.22	7468.00	6467.14	-1137.61	94.55	794.29	412.13	1.93	PASS	
14413.00†	7405.00	6554.77	-1930.87	14312.22	7468.00	6567.13	-1139.17	94.55	794.29	418.32	1.90	PASS	
14513.00†	7405.00	6654.76	-1932.43	14412.22	7468.00	6667.12	-1140.74	94.55	794.29	424.50	1.87	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
14613.00†	7405.00	6754.75	-1933.99	14512.22	7468.00	6767.10	-1142.30	94.55	794.29	430.69	1.85	PASS	
14713.00†	7405.00	6854.73	-1935.54	14612.22	7468.00	6867.09	-1143.86	94.55	794.29	436.88	1.82	PASS	
14813.00†	7405.00	6954.72	-1937.10	14712.22	7468.00	6967.08	-1145.42	94.55	794.29	443.07	1.79	PASS	
14913.00†	7405.00	7054.71	-1938.66	14812.22	7468.00	7067.07	-1146.98	94.55	794.28	449.26	1.77	PASS	
15013.00†	7405.00	7154.70	-1940.22	14912.22	7468.00	7167.06	-1148.54	94.55	794.28	455.46	1.75	PASS	
15113.00†	7405.00	7254.69	-1941.78	15012.22	7468.00	7267.04	-1150.10	94.55	794.28	461.65	1.72	PASS	
15213.00†	7405.00	7354.67	-1943.34	15112.22	7468.00	7367.03	-1151.66	94.55	794.28	467.85	1.70	PASS	
15313.00†	7405.00	7454.66	-1944.90	15212.22	7468.00	7467.02	-1153.22	94.55	794.28	474.05	1.68	PASS	
15413.00†	7405.00	7554.65	-1946.46	15312.22	7468.00	7567.01	-1154.78	94.55	794.28	480.24	1.65	PASS	
15513.00†	7405.00	7654.64	-1948.02	15412.22	7468.00	7666.99	-1156.34	94.55	794.28	486.44	1.63	PASS	
15613.00†	7405.00	7754.63	-1949.58	15512.22	7468.00	7766.98	-1157.90	94.55	794.27	492.65	1.61	PASS	
15713.00†	7405.00	7854.61	-1951.14	15612.22	7468.00	7866.97	-1159.46	94.55	794.27	498.85	1.59	PASS	
15813.00†	7405.00	7954.60	-1952.70	15712.22	7468.00	7966.96	-1161.02	94.55	794.27	505.05	1.57	PASS	
15913.00†	7405.00	8054.59	-1954.26	15812.22	7468.00	8066.95	-1162.58	94.55	794.27	511.26	1.55	PASS	
16013.00†	7405.00	8154.58	-1955.81	15912.22	7468.00	8166.93	-1164.15	94.55	794.27	517.46	1.54	PASS	
16113.00†	7405.00	8254.56	-1957.37	16012.22	7468.00	8266.92	-1165.71	94.55	794.27	523.67	1.52	PASS	
16213.00†	7405.00	8354.55	-1958.93	16112.22	7468.00	8366.91	-1167.27	94.55	794.27	529.88	1.50	PASS	
16313.00†	7405.00	8454.54	-1960.49	16212.22	7468.00	8466.90	-1168.83	94.55	794.26	536.09	1.48	PASS	
16413.00†	7405.00	8554.53	-1962.05	16312.22	7468.00	8566.88	-1170.39	94.55	794.26	542.30	1.47	PASS	
16513.00†	7405.00	8654.52	-1963.61	16412.22	7468.00	8666.87	-1171.95	94.55	794.26	548.51	1.45	PASS	
16613.00†	7405.00	8754.50	-1965.17	16512.22	7468.00	8766.86	-1173.51	94.55	794.26	554.72	1.43	PASS	
16713.00†	7405.00	8854.49	-1966.73	16612.22	7468.00	8866.85	-1175.07	94.55	794.26	560.93	1.42	PASS	
16813.00†	7405.00	8954.48	-1968.29	16712.22	7468.00	8966.84	-1176.63	94.55	794.26	567.15	1.40	PASS	
16913.00†	7405.00	9054.47	-1969.85	16812.22	7468.00	9066.82	-1178.19	94.55	794.26	573.36	1.39	PASS	
17013.00†	7405.00	9154.46	-1971.41	16912.22	7468.00	9166.81	-1179.75	94.55	794.25	579.58	1.37	PASS	
17113.00†	7405.00	9254.44	-1972.97	17012.22	7468.00	9266.80	-1181.31	94.55	794.25	585.79	1.36	PASS	
17213.00†	7405.00	9354.43	-1974.53	17112.22	7468.00	9366.79	-1182.87	94.55	794.25	592.01	1.34	PASS	
17313.00†	7405.00	9454.42	-1976.08	17212.22	7468.00	9466.78	-1184.43	94.55	794.25	598.22	1.33	PASS	
17413.00†	7405.00	9554.41	-1977.64	17312.22	7468.00	9566.76	-1185.99	94.55	794.25	604.44	1.31	PASS	
17513.00†	7405.00	9654.39	-1979.20	17412.22	7468.00	9666.75	-1187.56	94.55	794.25	610.66	1.30	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
17613.00†	7405.00	9754.38	-1980.76	17512.22	7468.00	9766.74	-1189.12	94.55	794.25	616.88	1.29	PASS	
17713.00†	7405.00	9854.37	-1982.32	17612.22	7468.00	9866.73	-1190.68	94.55	794.24	623.10	1.27	PASS	
17813.00†	7405.00	9954.36	-1983.88	17712.22	7468.00	9966.71	-1192.24	94.55	794.24	629.32	1.26	PASS	
17820.66†	7405.00	9962.02	-1984.00	17719.88	7468.00	9974.38	-1192.36	94.55	794.24	629.79	1.26	PASS	
17835.13	7405.00	9976.48	-1984.23	17719.88	7468.00	9974.38	-1192.36	94.55	794.37	628.51	1.26	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.45	0.05	27.45	-1.80	23.04
8.5in Open Hole	1800.00	17719.88	15919.88	1799.45	N/A	-1.80	23.04	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



Clearance Report
WAKEMAN 20-17-1NBH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	-0.12	-44.94	-90.15	44.94	1.40	73.57	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	-0.12	-44.94	-90.15	44.94	1.73	47.41	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	-0.12	-44.94	-90.15	44.94	2.31	29.27	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	-0.12	-44.94	-90.15	44.94	2.92	20.87	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	-0.12	-44.94	-90.15	44.94	3.53	16.16	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	-0.12	-44.94	-90.15	44.94	4.15	13.17	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	-0.12	-44.94	-90.15	44.94	4.78	11.10	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	-0.12	-44.94	-90.15	44.94	5.40	9.60	PASS	
813.00†	813.00	0.00	0.00	812.80	812.80	-0.12	-44.97	-90.16	44.97	6.03	8.46	PASS	
913.00†	913.00	0.00	0.00	911.22	911.20	-0.49	-47.07	-90.59	47.11	6.77	7.75	PASS	
1013.00†	1013.00	0.00	0.00	1009.38	1009.20	-1.43	-52.48	-91.56	52.64	7.80	7.41	PASS	
1113.00†	1113.00	0.00	0.00	1107.05	1106.46	-2.93	-61.14	-92.74	61.56	8.75	7.65	PASS	
1200.00	1200.00	0.00	0.00	1191.45	1190.24	-4.68	-71.25	-93.76	72.07	9.54	8.16	PASS	
1213.00†	1213.00	-0.01	-0.03	1204.01	1202.68	-4.98	-72.97	9.98	73.83	9.64	8.26	PASS	
1313.00†	1312.97	-0.53	-2.16	1300.39	1297.85	-7.57	-87.89	9.14	87.34	10.53	8.89	PASS	
1413.00†	1412.80	-1.90	-7.68	1396.35	1392.05	-10.69	-105.88	8.66	100.75	11.65	9.22	PASS	
1513.00†	1512.38	-4.10	-16.58	1491.89	1485.18	-14.33	-126.87	8.41	114.05	12.66	9.55	PASS	
1613.00†	1611.57	-7.13	-28.85	1587.02	1577.16	-18.48	-150.79	8.32	127.21	13.63	9.86	PASS	
1713.00†	1710.26	-10.99	-44.47	1681.76	1667.91	-23.13	-177.60	8.34	140.23	14.56	10.14	PASS	
1813.00†	1808.33	-15.68	-63.42	1776.12	1757.34	-28.27	-207.21	8.44	153.08	15.40	10.40	PASS	
1913.00†	1905.66	-21.18	-85.69	1870.09	1845.38	-33.88	-239.58	8.61	165.76	16.31	10.58	PASS	
2013.00†	2002.13	-27.50	-111.24	1965.82	1934.00	-40.07	-275.25	8.83	178.05	17.10	10.82	PASS	
2103.78	2088.86	-33.93	-137.25	2056.17	2017.41	-46.00	-309.45	9.15	186.82	17.84	10.86	PASS	
2113.00†	2097.63	-34.62	-140.03	2065.35	2025.89	-46.60	-312.93	9.19	187.57	17.91	10.86	PASS	
2213.00†	2192.69	-42.06	-170.15	2165.01	2117.90	-53.15	-350.65	9.61	195.69	18.60	10.90	PASS	
2313.00†	2287.76	-49.51	-200.27	2264.67	2209.92	-59.69	-388.37	9.99	203.83	19.34	10.90	PASS	
2413.00†	2382.82	-56.95	-230.39	2364.33	2301.93	-66.23	-426.09	10.35	211.97	20.11	10.89	PASS	
2513.00†	2477.89	-64.40	-260.51	2463.99	2393.94	-72.78	-463.82	10.68	220.11	20.90	10.86	PASS	
2613.00†	2572.95	-71.85	-290.63	2563.65	2485.96	-79.32	-501.54	10.99	228.27	21.73	10.82	PASS	
2713.00†	2668.02	-79.29	-320.75	2663.31	2577.97	-85.86	-539.26	11.27	236.43	22.59	10.77	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2762.97	2669.98	-92.41	-576.98	11.54	244.59	23.46	10.72	PASS	
2913.00†	2858.15	-94.18	-380.99	2862.63	2761.99	-98.95	-614.70	11.79	252.76	24.36	10.66	PASS	
3013.00†	2953.21	-101.63	-411.11	2962.29	2854.01	-105.49	-652.43	12.02	260.94	25.28	10.59	PASS	
3113.00†	3048.28	-109.08	-441.23	3061.95	2946.02	-112.04	-690.15	12.24	269.12	26.21	10.53	PASS	
3213.00†	3143.34	-116.52	-471.35	3161.61	3038.03	-118.58	-727.87	12.45	277.30	27.16	10.46	PASS	
3313.00†	3238.40	-123.97	-501.48	3261.27	3130.04	-125.12	-765.59	12.64	285.49	28.12	10.39	PASS	
3413.00†	3333.47	-131.41	-531.60	3360.93	3222.06	-131.66	-803.32	12.82	293.68	29.10	10.32	PASS	
3513.00†	3428.53	-138.86	-561.72	3460.59	3314.07	-138.21	-841.04	13.00	301.87	30.09	10.25	PASS	
3613.00†	3523.60	-146.31	-591.84	3560.25	3406.08	-144.75	-878.76	13.16	310.06	31.09	10.18	PASS	
3713.00†	3618.66	-153.75	-621.96	3659.91	3498.09	-151.29	-916.48	13.32	318.26	32.10	10.12	PASS	
3813.00†	3713.73	-161.20	-652.08	3759.57	3590.11	-157.84	-954.20	13.47	326.46	33.12	10.05	PASS	
3913.00†	3808.79	-168.64	-682.20	3859.23	3682.12	-164.38	-991.93	13.61	334.66	34.15	9.99	PASS	
4013.00†	3903.86	-176.09	-712.32	3958.89	3774.13	-170.92	-1029.65	13.74	342.86	35.18	9.92	PASS	
4113.00†	3998.92	-183.54	-742.44	4058.55	3866.14	-177.47	-1067.37	13.87	351.07	36.23	9.86	PASS	
4213.00†	4093.99	-190.98	-772.56	4158.21	3958.16	-184.01	-1105.09	13.99	359.27	37.28	9.81	PASS	
4313.00†	4189.05	-198.43	-802.68	4257.87	4050.17	-190.55	-1142.82	14.11	367.48	38.33	9.75	PASS	
4413.00†	4284.12	-205.87	-832.80	4357.53	4142.18	-197.10	-1180.54	14.22	375.69	39.40	9.69	PASS	
4513.00†	4379.18	-213.32	-862.92	4457.19	4234.19	-203.64	-1218.26	14.33	383.90	40.46	9.64	PASS	
4613.00†	4474.25	-220.77	-893.04	4556.85	4326.21	-210.18	-1255.98	14.43	392.11	41.54	9.59	PASS	
4713.00†	4569.31	-228.21	-923.16	4656.51	4418.22	-216.73	-1293.70	14.53	400.33	42.61	9.54	PASS	
4813.00†	4664.38	-235.66	-953.28	4756.17	4510.23	-223.27	-1331.43	14.62	408.54	43.70	9.49	PASS	
4913.00†	4759.44	-243.10	-983.40	4855.83	4602.24	-229.81	-1369.15	14.71	416.76	44.78	9.44	PASS	
5013.00†	4854.51	-250.55	-1013.52	4955.49	4694.26	-236.36	-1406.87	14.80	424.97	45.87	9.39	PASS	
5113.00†	4949.57	-258.00	-1043.64	5055.15	4786.27	-242.90	-1444.59	14.88	433.19	46.97	9.35	PASS	
5213.00†	5044.64	-265.44	-1073.77	5154.81	4878.28	-249.44	-1482.32	14.96	441.41	48.06	9.31	PASS	
5313.00†	5139.70	-272.89	-1103.89	5254.47	4970.29	-255.99	-1520.04	15.04	449.63	49.16	9.26	PASS	
5413.00†	5234.77	-280.33	-1134.01	5354.13	5062.31	-262.53	-1557.76	15.11	457.85	50.27	9.22	PASS	
5513.00†	5329.83	-287.78	-1164.13	5453.79	5154.32	-269.07	-1595.48	15.19	466.07	51.37	9.19	PASS	
5613.00†	5424.89	-295.23	-1194.25	5553.45	5246.33	-275.62	-1633.20	15.26	474.29	52.48	9.15	PASS	
5713.00†	5519.96	-302.67	-1224.37	5653.11	5338.34	-282.16	-1670.93	15.32	482.51	53.59	9.11	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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
5813.00†	5615.02	-310.12	-1254.49	5752.77	5430.36	-288.70	-1708.65	15.39	490.74	54.71	9.07	PASS
5913.00†	5710.09	-317.56	-1284.61	5852.43	5522.37	-295.25	-1746.37	15.45	498.96	55.82	9.04	PASS
6013.00†	5805.15	-325.01	-1314.73	5952.09	5614.38	-301.79	-1784.09	15.51	507.18	56.94	9.01	PASS
6113.00†	5900.22	-332.46	-1344.85	6051.75	5706.39	-308.33	-1821.82	15.57	515.41	58.06	8.97	PASS
6213.00†	5995.28	-339.90	-1374.97	6151.41	5798.41	-314.87	-1859.54	15.63	523.63	59.18	8.94	PASS
6313.00†	6090.35	-347.35	-1405.09	6251.07	5890.42	-321.42	-1897.26	15.68	531.86	60.31	8.91	PASS
6413.00†	6185.41	-354.79	-1435.21	6350.73	5982.43	-327.96	-1934.98	15.74	540.09	61.43	8.88	PASS
6513.00†	6280.48	-362.24	-1465.33	6450.39	6074.44	-334.50	-1972.70	15.79	548.31	62.56	8.85	PASS
6613.00†	6375.54	-369.69	-1495.45	6550.05	6166.46	-341.05	-2010.43	15.84	556.54	63.69	8.83	PASS
6713.00†	6470.61	-377.13	-1525.57	6649.71	6258.47	-347.59	-2048.15	15.89	564.77	64.82	8.80	PASS
6813.00†	6565.67	-384.58	-1555.69	6749.37	6350.48	-354.13	-2085.87	15.94	572.99	65.95	8.77	PASS
6913.00†	6660.74	-392.02	-1585.81	6849.03	6442.49	-360.68	-2123.59	15.98	581.22	67.08	8.75	PASS
7013.00†	6755.80	-399.47	-1615.93	6948.69	6534.51	-367.22	-2161.32	16.03	589.45	68.22	8.72	PASS
7081.48	6820.90	-404.57	-1636.56	7016.93	6597.52	-371.70	-2187.15	16.06	595.09	68.99	8.70	PASS
7113.00†	6850.91	-406.05	-1646.08	7048.34	6626.51	-373.76	-2199.03	6.53	597.62	69.27	8.71	PASS
7213.00†	6945.84	-399.29	-1676.38	7147.00	6717.61	-380.24	-2236.38	-23.24	605.02	69.14	8.83	PASS
7313.00†	7038.12	-375.33	-1706.11	7241.89	6805.21	-386.47	-2272.30	-44.55	612.32	67.88	9.10	PASS
7413.00†	7124.97	-334.90	-1734.36	7330.11	6886.66	-392.26	-2305.69	-58.36	621.69	66.56	9.43	PASS
7513.00†	7203.73	-279.23	-1760.28	7408.98	6959.48	-397.44	-2335.54	-67.68	636.05	66.88	9.60	PASS
7613.00†	7272.02	-210.01	-1783.08	7476.12	7021.47	-401.85	-2360.95	-73.73	658.42	70.46	9.43	PASS
7713.00†	7327.76	-129.34	-1802.06	7529.47	7070.72	-405.35	-2381.15	-76.72	691.07	77.57	8.98	PASS
7813.00†	7369.25	-39.68	-1816.66	7620.46	7154.79	-405.05	-2415.71	-80.68	733.72	87.17	8.48	PASS
7913.00†	7395.24	56.26	-1826.42	7782.57	7300.30	-369.19	-2476.09	-87.82	782.35	94.89	8.30	PASS
8013.00†	7404.94	155.55	-1831.06	8280.73	7609.39	-23.00	-2608.54	-104.83	823.50	75.13	11.06	PASS
8021.48	7405.00	164.03	-1831.21	8361.23	7628.50	54.60	-2617.60	-105.84	824.83	70.77	11.76	PASS
8113.00†	7405.00	255.54	-1832.64	8550.57	7638.00	243.20	-2624.45	-106.40	825.47	67.33	12.38	PASS
8213.00†	7405.00	355.53	-1834.19	8650.57	7638.00	343.19	-2626.00	-106.40	825.47	68.90	12.09	PASS
8313.00†	7405.00	455.51	-1835.75	8750.57	7638.00	443.18	-2627.56	-106.40	825.47	70.96	11.74	PASS
8413.00†	7405.00	555.50	-1837.31	8850.57	7638.00	543.16	-2629.12	-106.40	825.47	73.46	11.34	PASS
8513.00†	7405.00	655.49	-1838.87	8950.57	7638.00	643.15	-2630.68	-106.40	825.47	76.37	10.90	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
8613.00†	7405.00	755.48	-1840.43	9050.57	7638.00	743.14	-2632.23	-106.40	825.47	76.79	10.84	PASS	
8713.00†	7405.00	855.46	-1841.99	9150.57	7638.00	843.13	-2633.79	-106.40	825.46	83.20	10.00	PASS	
8813.00†	7405.00	955.45	-1843.55	9250.57	7638.00	943.12	-2635.35	-106.40	825.46	87.05	9.55	PASS	
8913.00†	7405.00	1055.44	-1845.11	9350.57	7638.00	1043.10	-2636.91	-106.40	825.46	91.14	9.12	PASS	
9013.00†	7405.00	1155.43	-1846.67	9450.57	7638.00	1143.09	-2638.47	-106.40	825.46	95.44	8.71	PASS	
9113.00†	7405.00	1255.42	-1848.23	9550.57	7638.00	1243.08	-2640.02	-106.40	825.46	99.92	8.31	PASS	
9213.00†	7405.00	1355.40	-1849.79	9650.57	7638.00	1343.07	-2641.58	-106.40	825.46	104.56	7.94	PASS	
9313.00†	7405.00	1455.39	-1851.35	9750.57	7638.00	1443.06	-2643.14	-106.40	825.46	109.34	7.59	PASS	
9413.00†	7405.00	1555.38	-1852.91	9850.57	7638.00	1543.04	-2644.70	-106.40	825.45	114.23	7.26	PASS	
9513.00†	7405.00	1655.37	-1854.46	9950.57	7638.00	1643.03	-2646.26	-106.40	825.45	119.24	6.96	PASS	
9613.00†	7405.00	1755.35	-1856.02	10050.57	7638.00	1743.02	-2647.81	-106.40	825.45	124.33	6.67	PASS	
9713.00†	7405.00	1855.34	-1857.58	10150.57	7638.00	1843.01	-2649.37	-106.40	825.45	129.51	6.40	PASS	
9813.00†	7405.00	1955.33	-1859.14	10250.57	7638.00	1942.99	-2650.93	-106.40	825.45	134.76	6.15	PASS	
9913.00†	7405.00	2055.32	-1860.70	10350.57	7638.00	2042.98	-2652.49	-106.40	825.45	140.07	5.92	PASS	
10013.00†	7405.00	2155.31	-1862.26	10450.57	7638.00	2142.97	-2654.04	-106.40	825.45	145.44	5.70	PASS	
10113.00†	7405.00	2255.29	-1863.82	10550.57	7638.00	2242.96	-2655.60	-106.40	825.45	150.86	5.49	PASS	
10213.00†	7405.00	2355.28	-1865.38	10650.57	7638.00	2342.95	-2657.16	-106.40	825.44	156.33	5.30	PASS	
10313.00†	7405.00	2455.27	-1866.94	10750.57	7638.00	2442.93	-2658.72	-106.40	825.44	161.84	5.12	PASS	
10413.00†	7405.00	2555.26	-1868.50	10850.57	7638.00	2542.92	-2660.28	-106.40	825.44	167.39	4.95	PASS	
10513.00†	7405.00	2655.25	-1870.06	10950.57	7638.00	2642.91	-2661.83	-106.40	825.44	172.97	4.79	PASS	
10613.00†	7405.00	2755.23	-1871.62	11050.57	7638.00	2742.90	-2663.39	-106.40	825.44	178.58	4.64	PASS	
10713.00†	7405.00	2855.22	-1873.18	11150.57	7638.00	2842.89	-2664.95	-106.40	825.44	184.21	4.49	PASS	
10813.00†	7405.00	2955.21	-1874.73	11250.57	7638.00	2942.87	-2666.51	-106.40	825.44	189.88	4.36	PASS	
10913.00†	7405.00	3055.20	-1876.29	11350.57	7638.00	3042.86	-2668.06	-106.40	825.43	195.56	4.23	PASS	
11013.00†	7405.00	3155.18	-1877.85	11450.57	7638.00	3142.85	-2669.62	-106.40	825.43	201.27	4.11	PASS	
11113.00†	7405.00	3255.17	-1879.41	11550.57	7638.00	3242.84	-2671.18	-106.40	825.43	206.99	4.00	PASS	
11213.00†	7405.00	3355.16	-1880.97	11650.57	7638.00	3342.82	-2672.74	-106.40	825.43	212.74	3.89	PASS	
11313.00†	7405.00	3455.15	-1882.53	11750.57	7638.00	3442.81	-2674.30	-106.40	825.43	218.49	3.79	PASS	
11413.00†	7405.00	3555.14	-1884.09	11850.57	7638.00	3542.80	-2675.85	-106.40	825.43	224.27	3.69	PASS	
11513.00†	7405.00	3655.12	-1885.65	11950.57	7638.00	3642.79	-2677.41	-106.40	825.43	230.06	3.60	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
11613.00†	7405.00	3755.11	-1887.21	12050.57	7638.00	3742.78	-2678.97	-106.40	825.42	235.86	3.51	PASS	
11713.00†	7405.00	3855.10	-1888.77	12150.57	7638.00	3842.76	-2680.53	-106.40	825.42	241.67	3.42	PASS	
11813.00†	7405.00	3955.09	-1890.33	12250.57	7638.00	3942.75	-2682.08	-106.40	825.42	247.49	3.34	PASS	
11913.00†	7405.00	4055.08	-1891.89	12350.57	7638.00	4042.74	-2683.64	-106.40	825.42	253.33	3.26	PASS	
12013.00†	7405.00	4155.06	-1893.45	12450.57	7638.00	4142.73	-2685.20	-106.40	825.42	259.17	3.19	PASS	
12113.00†	7405.00	4255.05	-1895.00	12550.57	7638.00	4242.72	-2686.76	-106.40	825.42	265.03	3.12	PASS	
12213.00†	7405.00	4355.04	-1896.56	12650.57	7638.00	4342.70	-2688.32	-106.40	825.42	270.89	3.05	PASS	
12313.00†	7405.00	4455.03	-1898.12	12750.57	7638.00	4442.69	-2689.87	-106.40	825.42	276.76	2.99	PASS	
12413.00†	7405.00	4555.01	-1899.68	12850.57	7638.00	4542.68	-2691.43	-106.40	825.41	282.63	2.93	PASS	
12513.00†	7405.00	4655.00	-1901.24	12950.57	7638.00	4642.67	-2692.99	-106.40	825.41	288.51	2.87	PASS	
12613.00†	7405.00	4754.99	-1902.80	13050.57	7638.00	4742.65	-2694.55	-106.40	825.41	294.40	2.81	PASS	
12713.00†	7405.00	4854.98	-1904.36	13150.57	7638.00	4842.64	-2696.11	-106.40	825.41	300.30	2.75	PASS	
12813.00†	7405.00	4954.97	-1905.92	13250.57	7638.00	4942.63	-2697.66	-106.40	825.41	306.20	2.70	PASS	
12913.00†	7405.00	5054.95	-1907.48	13350.57	7638.00	5042.62	-2699.22	-106.40	825.41	312.11	2.65	PASS	
13013.00†	7405.00	5154.94	-1909.04	13450.57	7638.00	5142.61	-2700.78	-106.40	825.41	318.02	2.60	PASS	
13113.00†	7405.00	5254.93	-1910.60	13550.57	7638.00	5242.59	-2702.34	-106.40	825.40	323.94	2.55	PASS	
13213.00†	7405.00	5354.92	-1912.16	13650.57	7638.00	5342.58	-2703.89	-106.40	825.40	329.86	2.51	PASS	
13313.00†	7405.00	5454.91	-1913.72	13750.57	7638.00	5442.57	-2705.45	-106.40	825.40	335.79	2.46	PASS	
13413.00†	7405.00	5554.89	-1915.27	13850.57	7638.00	5542.56	-2707.01	-106.40	825.40	341.72	2.42	PASS	
13513.00†	7405.00	5654.88	-1916.83	13950.57	7638.00	5642.55	-2708.57	-106.40	825.40	347.65	2.38	PASS	
13613.00†	7405.00	5754.87	-1918.39	14050.57	7638.00	5742.53	-2710.13	-106.40	825.40	353.59	2.34	PASS	
13713.00†	7405.00	5854.86	-1919.95	14150.57	7638.00	5842.52	-2711.68	-106.40	825.40	359.53	2.30	PASS	
13813.00†	7405.00	5954.84	-1921.51	14250.57	7638.00	5942.51	-2713.24	-106.40	825.39	365.47	2.26	PASS	
13913.00†	7405.00	6054.83	-1923.07	14350.57	7638.00	6042.50	-2714.80	-106.40	825.39	371.42	2.22	PASS	
14013.00†	7405.00	6154.82	-1924.63	14450.57	7638.00	6142.48	-2716.36	-106.40	825.39	377.37	2.19	PASS	
14113.00†	7405.00	6254.81	-1926.19	14550.57	7638.00	6242.47	-2717.91	-106.40	825.39	383.33	2.16	PASS	
14213.00†	7405.00	6354.80	-1927.75	14650.57	7638.00	6342.46	-2719.47	-106.40	825.39	389.28	2.12	PASS	
14313.00†	7405.00	6454.78	-1929.31	14750.57	7638.00	6442.45	-2721.03	-106.40	825.39	395.24	2.09	PASS	
14413.00†	7405.00	6554.77	-1930.87	14850.57	7638.00	6542.44	-2722.59	-106.40	825.39	401.20	2.06	PASS	
14513.00†	7405.00	6654.76	-1932.43	14950.57	7638.00	6642.42	-2724.15	-106.40	825.39	407.17	2.03	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
14613.00†	7405.00	6754.75	-1933.99	15050.57	7638.00	6742.41	-2725.70	-106.40	825.38	413.13	2.00	PASS	
14713.00†	7405.00	6854.73	-1935.54	15150.57	7638.00	6842.40	-2727.26	-106.40	825.38	419.10	1.97	PASS	
14813.00†	7405.00	6954.72	-1937.10	15250.57	7638.00	6942.39	-2728.82	-106.40	825.38	425.07	1.94	PASS	
14913.00†	7405.00	7054.71	-1938.66	15350.57	7638.00	7042.38	-2730.38	-106.40	825.38	431.05	1.92	PASS	
15013.00†	7405.00	7154.70	-1940.22	15450.57	7638.00	7142.36	-2731.93	-106.40	825.38	437.02	1.89	PASS	
15113.00†	7405.00	7254.69	-1941.78	15550.57	7638.00	7242.35	-2733.49	-106.40	825.38	443.00	1.86	PASS	
15213.00†	7405.00	7354.67	-1943.34	15650.57	7638.00	7342.34	-2735.05	-106.40	825.38	448.98	1.84	PASS	
15313.00†	7405.00	7454.66	-1944.90	15750.57	7638.00	7442.33	-2736.61	-106.40	825.37	454.96	1.82	PASS	
15413.00†	7405.00	7554.65	-1946.46	15850.57	7638.00	7542.32	-2738.17	-106.40	825.37	460.94	1.79	PASS	
15513.00†	7405.00	7654.64	-1948.02	15950.57	7638.00	7642.30	-2739.72	-106.40	825.37	466.92	1.77	PASS	
15613.00†	7405.00	7754.63	-1949.58	16050.57	7638.00	7742.29	-2741.28	-106.40	825.37	472.91	1.75	PASS	
15713.00†	7405.00	7854.61	-1951.14	16150.57	7638.00	7842.28	-2742.84	-106.40	825.37	478.89	1.72	PASS	
15813.00†	7405.00	7954.60	-1952.70	16250.57	7638.00	7942.27	-2744.40	-106.40	825.37	484.88	1.70	PASS	
15913.00†	7405.00	8054.59	-1954.26	16350.57	7638.00	8042.25	-2745.95	-106.40	825.37	490.87	1.68	PASS	
16013.00†	7405.00	8154.58	-1955.81	16450.57	7638.00	8142.24	-2747.51	-106.40	825.36	496.86	1.66	PASS	
16113.00†	7405.00	8254.56	-1957.37	16550.57	7638.00	8242.23	-2749.07	-106.40	825.36	502.85	1.64	PASS	
16213.00†	7405.00	8354.55	-1958.93	16650.57	7638.00	8342.22	-2750.63	-106.40	825.36	508.84	1.62	PASS	
16313.00†	7405.00	8454.54	-1960.49	16750.57	7638.00	8442.21	-2752.19	-106.40	825.36	514.84	1.60	PASS	
16413.00†	7405.00	8554.53	-1962.05	16850.57	7638.00	8542.19	-2753.74	-106.40	825.36	520.83	1.59	PASS	
16513.00†	7405.00	8654.52	-1963.61	16950.57	7638.00	8642.18	-2755.30	-106.40	825.36	526.83	1.57	PASS	
16613.00†	7405.00	8754.50	-1965.17	17050.57	7638.00	8742.17	-2756.86	-106.40	825.36	532.83	1.55	PASS	
16713.00†	7405.00	8854.49	-1966.73	17150.57	7638.00	8842.16	-2758.42	-106.40	825.36	538.83	1.53	PASS	
16813.00†	7405.00	8954.48	-1968.29	17250.57	7638.00	8942.15	-2759.98	-106.40	825.35	544.83	1.52	PASS	
16913.00†	7405.00	9054.47	-1969.85	17350.57	7638.00	9042.13	-2761.53	-106.40	825.35	550.83	1.50	PASS	
17013.00†	7405.00	9154.46	-1971.41	17450.57	7638.00	9142.12	-2763.09	-106.40	825.35	556.83	1.48	PASS	
17113.00†	7405.00	9254.44	-1972.97	17550.57	7638.00	9242.11	-2764.65	-106.40	825.35	562.83	1.47	PASS	
17213.00†	7405.00	9354.43	-1974.53	17650.57	7638.00	9342.10	-2766.21	-106.40	825.35	568.83	1.45	PASS	
17313.00†	7405.00	9454.42	-1976.08	17750.57	7638.00	9442.08	-2767.76	-106.40	825.35	574.84	1.44	PASS	
17413.00†	7405.00	9554.41	-1977.64	17850.57	7638.00	9542.07	-2769.32	-106.40	825.35	580.84	1.42	PASS	
17513.00†	7405.00	9654.39	-1979.20	17950.57	7638.00	9642.06	-2770.88	-106.40	825.34	586.85	1.41	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
17613.00†	7405.00	9754.38	-1980.76	18050.57	7638.00	9742.05	-2772.44	-106.40	825.34	592.85	1.39	PASS	
17713.00†	7405.00	9854.37	-1982.32	18150.57	7638.00	9842.04	-2774.00	-106.40	825.34	598.86	1.38	PASS	
17813.00†	7405.00	9954.36	-1983.88	18250.57	7638.00	9942.02	-2775.55	-106.40	825.34	604.87	1.36	PASS	
17835.13	7405.00	9976.48	-1984.23	18272.69	7638.00	9964.15	-2775.90	-106.40	825.34	606.20	1.36	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	-0.07	-27.40	-9.07	-79.28
8.5in Open Hole	1800.00	18287.12	16487.12	1779.82	7638.00	-9.07	-79.28	3041.43	-859.86

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

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



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T1S-R65W Slot: SLOT#02 EX. COLLINS HH #20-3J (814'FNL & 1886'FWL, SEC.20, 8163, PR) Well: COLLINS HH #20-3J Threshold Value=1.00 † = Interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	49.00	4194.04	-1279.88	-16.97	4385.13	25.40	178.22	PASS	
113.00†	113.00	0.00	0.00	51.00	113.00	4194.04	-1279.88	-16.97	4384.99	51.16	86.99	PASS	
213.00†	213.00	0.00	0.00	151.00	213.00	4194.04	-1279.88	-16.97	4384.99	53.50	83.13	PASS	
313.00†	313.00	0.00	0.00	251.00	313.00	4194.04	-1279.88	-16.97	4384.99	55.84	79.59	PASS	
413.00†	413.00	0.00	0.00	351.00	413.00	4194.04	-1279.88	-16.97	4384.99	58.19	76.34	PASS	
513.00†	513.00	0.00	0.00	451.00	513.00	4194.04	-1279.88	-16.97	4384.99	60.54	73.34	PASS	
613.00†	613.00	0.00	0.00	551.00	613.00	4194.04	-1279.88	-16.97	4384.99	62.90	70.55	PASS	
713.00†	713.00	0.00	0.00	651.00	713.00	4194.04	-1279.88	-16.97	4384.99	65.26	67.97	PASS	
813.00†	813.00	0.00	0.00	751.00	813.00	4194.04	-1279.88	-16.97	4384.99	67.63	65.57	PASS	
913.00†	913.00	0.00	0.00	851.00	913.00	4194.04	-1279.88	-16.97	4384.99	69.99	63.32	PASS	
1013.00†	1013.00	0.00	0.00	951.00	1013.00	4194.04	-1279.88	-16.97	4384.99	72.37	61.23	PASS	
1113.00†	1113.00	0.00	0.00	1051.00	1113.00	4194.04	-1279.88	-16.97	4384.99	74.74	59.26	PASS	
1200.00	1200.00	0.00	0.00	1138.00	1200.00	4194.04	-1279.88	-16.97	4384.99	76.81	57.65	PASS	
1213.00†	1213.00	-0.01	-0.03	1151.00	1213.00	4194.04	-1279.88	86.92	4384.98	77.12	57.41	PASS	
1313.00†	1312.97	-0.53	-2.16	1250.97	1312.97	4194.04	-1279.88	86.95	4384.87	79.51	55.67	PASS	
1413.00†	1412.80	-1.90	-7.68	1350.80	1412.80	4194.04	-1279.88	87.03	4384.57	81.89	54.03	PASS	
1513.00†	1512.38	-4.10	-16.58	1450.38	1512.38	4194.04	-1279.88	87.16	4384.10	84.28	52.48	PASS	
1613.00†	1611.57	-7.13	-28.85	1549.57	1611.57	4194.04	-1279.88	87.33	4383.49	86.50	51.02	PASS	
1713.00†	1710.26	-10.99	-44.47	1648.26	1710.26	4194.04	-1279.88	87.55	4382.76	88.89	49.63	PASS	
1813.00†	1808.33	-15.68	-63.42	1746.33	1808.33	4194.04	-1279.88	87.82	4381.95	91.24	48.31	PASS	
1913.00†	1905.66	-21.18	-85.69	1843.66	1905.66	4194.04	-1279.88	88.13	4381.12	93.65	47.05	PASS	
2013.00†	2002.13	-27.50	-111.24	1940.13	2002.13	4194.04	-1279.88	88.48	4380.31	96.09	45.84	PASS	
2103.78	2088.86	-33.93	-137.25	2026.86	2088.86	4194.04	-1279.88	88.82	4379.65	98.31	44.79	PASS	
2113.00†	2097.63	-34.62	-140.03	2035.63	2097.63	4194.04	-1279.88	88.86	4379.59	98.54	44.68	PASS	
2213.00†	2192.69	-42.06	-170.15	2130.69	2192.69	4194.04	-1279.88	89.25	4379.05	101.03	43.57	PASS	
2313.00†	2287.76	-49.51	-200.27	2225.76	2287.76	4194.04	-1279.88	89.63	4378.73	103.56	42.50	PASS	
2413.00†	2382.82	-56.95	-230.39	2320.82	2382.82	4194.04	-1279.88	90.02	4378.63	106.13	41.46	PASS	
2513.00†	2477.89	-64.40	-260.51	2415.89	2477.89	4194.04	-1279.88	90.40	4378.75	108.73	40.47	PASS	
2613.00†	2572.95	-71.85	-290.63	2510.95	2572.95	4194.04	-1279.88	90.79	4379.09	111.36	39.51	PASS	
2713.00†	2668.02	-79.29	-320.75	2606.02	2668.02	4194.04	-1279.88	91.17	4379.65	114.03	38.59	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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
2813.00†	2763.08	-86.74	-350.87	2701.08	2763.08	4194.04	-1279.88	91.56	4380.43	116.73	37.70	PASS
2913.00†	2858.15	-94.18	-380.99	2796.15	2858.15	4194.04	-1279.88	91.95	4381.43	119.45	36.84	PASS
3013.00†	2953.21	-101.63	-411.11	2891.21	2953.21	4194.04	-1279.88	92.33	4382.64	122.20	36.02	PASS
3113.00†	3048.28	-109.08	-441.23	2986.28	3048.28	4194.04	-1279.88	92.72	4384.08	124.98	35.23	PASS
3213.00†	3143.34	-116.52	-471.35	3081.34	3143.34	4194.04	-1279.88	93.10	4385.74	127.78	34.46	PASS
3313.00†	3238.40	-123.97	-501.48	3176.40	3238.40	4194.04	-1279.88	93.49	4387.61	130.61	33.73	PASS
3413.00†	3333.47	-131.41	-531.60	3271.47	3333.47	4194.04	-1279.88	93.87	4389.71	133.45	33.02	PASS
3513.00†	3428.53	-138.86	-561.72	3366.53	3428.53	4194.04	-1279.88	94.25	4392.02	136.31	32.34	PASS
3613.00†	3523.60	-146.31	-591.84	3461.60	3523.60	4194.04	-1279.88	94.64	4394.55	139.19	31.69	PASS
3713.00†	3618.66	-153.75	-621.96	3556.66	3618.66	4194.04	-1279.88	95.02	4397.29	142.09	31.06	PASS
3813.00†	3713.73	-161.20	-652.08	3651.73	3713.73	4194.04	-1279.88	95.40	4400.26	145.01	30.46	PASS
3913.00†	3808.79	-168.64	-682.20	3746.79	3808.79	4194.04	-1279.88	95.79	4403.44	147.93	29.87	PASS
4013.00†	3903.86	-176.09	-712.32	3841.86	3903.86	4194.04	-1279.88	96.17	4406.83	150.87	29.31	PASS
4113.00†	3998.92	-183.54	-742.44	3936.92	3998.92	4194.04	-1279.88	96.55	4410.45	153.83	28.77	PASS
4213.00†	4093.99	-190.98	-772.56	4031.99	4093.99	4194.04	-1279.88	96.93	4414.27	156.79	28.25	PASS
4313.00†	4189.05	-198.43	-802.68	4127.05	4189.05	4194.04	-1279.88	97.31	4418.32	159.77	27.75	PASS
4413.00†	4284.12	-205.87	-832.80	4222.12	4284.12	4194.04	-1279.88	97.69	4422.57	162.75	27.26	PASS
4513.00†	4379.18	-213.32	-862.92	4317.18	4379.18	4194.04	-1279.88	98.07	4427.04	165.74	26.79	PASS
4613.00†	4474.25	-220.77	-893.04	4412.25	4474.25	4194.04	-1279.88	98.45	4431.72	168.74	26.34	PASS
4713.00†	4569.31	-228.21	-923.16	4507.31	4569.31	4194.04	-1279.88	98.82	4436.62	171.75	25.91	PASS
4813.00†	4664.38	-235.66	-953.28	4602.38	4664.38	4194.04	-1279.88	99.20	4441.72	174.76	25.49	PASS
4913.00†	4759.44	-243.10	-983.40	4697.44	4759.44	4194.04	-1279.88	99.58	4447.04	177.78	25.09	PASS
5013.00†	4854.51	-250.55	-1013.52	4792.51	4854.51	4194.04	-1279.88	99.95	4452.57	180.81	24.70	PASS
5113.00†	4949.57	-258.00	-1043.64	4887.57	4949.57	4194.04	-1279.88	100.33	4458.30	183.84	24.32	PASS
5213.00†	5044.64	-265.44	-1073.77	4982.64	5044.64	4194.04	-1279.88	100.70	4464.25	186.87	23.96	PASS
5313.00†	5139.70	-272.89	-1103.89	5077.70	5139.70	4194.04	-1279.88	101.07	4470.40	189.91	23.60	PASS
5413.00†	5234.77	-280.33	-1134.01	5172.77	5234.77	4194.04	-1279.88	101.44	4476.75	192.95	23.26	PASS
5513.00†	5329.83	-287.78	-1164.13	5267.83	5329.83	4194.04	-1279.88	101.81	4483.32	195.99	22.94	PASS
5613.00†	5424.89	-295.23	-1194.25	5362.89	5424.89	4194.04	-1279.88	102.18	4490.09	199.04	22.62	PASS
5713.00†	5519.96	-302.67	-1224.37	5457.96	5519.96	4194.04	-1279.88	102.55	4497.06	202.08	22.31	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	
5813.00†	5615.02	-310.12	-1254.49	5553.02	5615.02	4194.04	-1279.88	102.92	4504.23	205.13	22.01	PASS	
5913.00†	5710.09	-317.56	-1284.61	5648.09	5710.09	4194.04	-1279.88	103.28	4511.61	208.18	21.73	PASS	
6013.00†	5805.15	-325.01	-1314.73	5743.15	5805.15	4194.04	-1279.88	103.65	4519.19	211.23	21.45	PASS	
6113.00†	5900.22	-332.46	-1344.85	5838.22	5900.22	4194.04	-1279.88	104.01	4526.97	214.28	21.18	PASS	
6213.00†	5995.28	-339.90	-1374.97	5933.28	5995.28	4194.04	-1279.88	104.37	4534.94	217.33	20.92	PASS	
6313.00†	6090.35	-347.35	-1405.09	6028.35	6090.35	4194.04	-1279.88	104.74	4543.12	220.38	20.66	PASS	
6413.00†	6185.41	-354.79	-1435.21	6123.41	6185.41	4194.04	-1279.88	105.10	4551.49	223.43	20.42	PASS	
6513.00†	6280.48	-362.24	-1465.33	6218.48	6280.48	4194.04	-1279.88	105.46	4560.06	226.48	20.18	PASS	
6613.00†	6375.54	-369.69	-1495.45	6313.54	6375.54	4194.04	-1279.88	105.81	4568.82	229.52	19.95	PASS	
6713.00†	6470.61	-377.13	-1525.57	6408.61	6470.61	4194.04	-1279.88	106.17	4577.77	232.57	19.73	PASS	
6813.00†	6565.67	-384.58	-1555.69	6503.67	6565.67	4194.04	-1279.88	106.53	4586.92	235.62	19.51	PASS	
6913.00†	6660.74	-392.02	-1585.81	6598.74	6660.74	4194.04	-1279.88	106.88	4596.26	238.66	19.30	PASS	
7013.00†	6755.80	-399.47	-1615.93	6693.80	6755.80	4194.04	-1279.88	107.23	4605.79	241.70	19.10	PASS	
7081.48	6820.90	-404.57	-1636.56	6758.90	6820.90	4194.04	-1279.88	107.47	4612.42	243.79	18.96	PASS	
7113.00†	6850.91	-406.05	-1646.08	6788.91	6850.91	4194.04	-1279.88	97.86	4614.65	244.75	18.89	PASS	
7213.00†	6945.84	-399.29	-1676.38	6883.84	6945.84	4194.04	-1279.88	69.03	4610.42	247.99	18.63	PASS	
7313.00†	7038.12	-375.33	-1706.11	6976.12	7038.12	4194.04	-1279.88	50.32	4589.21	251.66	18.27	PASS	
7413.00†	7124.97	-334.90	-1734.36	7062.97	7124.97	4194.04	-1279.88	40.22	4551.69	255.12	17.88	PASS	
7513.00†	7203.73	-279.23	-1760.28	7141.73	7203.73	4194.04	-1279.88	35.09	4499.00	258.25	17.46	PASS	
7613.00†	7272.02	-210.01	-1783.08	7210.02	7272.02	4194.04	-1279.88	33.08	4432.71	260.95	17.02	PASS	
7713.00†	7327.76	-129.34	-1802.06	7265.76	7327.76	4194.04	-1279.88	33.69	4354.81	263.20	16.58	PASS	
7813.00†	7369.25	-39.68	-1816.66	7307.25	7369.25	4194.04	-1279.88	37.73	4267.62	264.94	16.14	PASS	
7913.00†	7395.24	56.26	-1826.42	7333.24	7395.24	4194.04	-1279.88	49.21	4173.73	266.16	15.71	PASS	
8013.00†	7404.94	155.55	-1831.06	7342.94	7404.94	4194.04	-1279.88	84.87	4075.93	266.85	15.30	PASS	
8021.48	7405.00	164.03	-1831.21	7343.00	7405.00	4194.04	-1279.88	90.00	4067.55	266.89	15.27	PASS	
8113.00†	7405.00	255.54	-1832.64	7343.00	7405.00	4194.04	-1279.88	90.00	3977.11	267.25	14.91	PASS	
8213.00†	7405.00	355.53	-1834.19	7343.00	7405.00	4194.04	-1279.88	90.00	3878.34	267.65	14.52	PASS	
8313.00†	7405.00	455.51	-1835.75	7343.00	7405.00	4194.04	-1279.88	90.00	3779.63	268.08	14.13	PASS	
8413.00†	7405.00	555.50	-1837.31	7343.00	7405.00	4194.04	-1279.88	90.00	3681.00	268.54	13.73	PASS	
8513.00†	7405.00	655.49	-1838.87	7343.00	7405.00	4194.04	-1279.88	90.00	3582.44	269.02	13.34	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

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	
8613.00†	7405.00	755.48	-1840.43	7343.00	7405.00	4194.04	-1279.88	90.00	3483.96	269.52	12.95	PASS	
8713.00†	7405.00	855.46	-1841.99	7343.00	7405.00	4194.04	-1279.88	90.00	3385.57	270.06	12.56	PASS	
8813.00†	7405.00	955.45	-1843.55	7343.00	7405.00	4194.04	-1279.88	90.00	3287.28	270.63	12.17	PASS	
8913.00†	7405.00	1055.44	-1845.11	7343.00	7405.00	4194.04	-1279.88	90.00	3189.09	271.24	11.78	PASS	
9013.00†	7405.00	1155.43	-1846.67	7343.00	7405.00	4194.04	-1279.88	90.00	3091.02	271.89	11.39	PASS	
9113.00†	7405.00	1255.42	-1848.23	7343.00	7405.00	4194.04	-1279.88	90.00	2993.08	272.57	11.00	PASS	
9213.00†	7405.00	1355.40	-1849.79	7343.00	7405.00	4194.04	-1279.88	90.00	2895.28	273.31	10.61	PASS	
9313.00†	7405.00	1455.39	-1851.35	7343.00	7405.00	4194.04	-1279.88	90.00	2797.64	274.09	10.23	PASS	
9413.00†	7405.00	1555.38	-1852.91	7343.00	7405.00	4194.04	-1279.88	90.00	2700.17	274.93	9.84	PASS	
9513.00†	7405.00	1655.37	-1854.46	7343.00	7405.00	4194.04	-1279.88	90.00	2602.89	275.84	9.45	PASS	
9613.00†	7405.00	1755.35	-1856.02	7343.00	7405.00	4194.04	-1279.88	90.00	2505.82	276.81	9.07	PASS	
9713.00†	7405.00	1855.34	-1857.58	7343.00	7405.00	4194.04	-1279.88	90.00	2409.00	277.86	8.68	PASS	
9813.00†	7405.00	1955.33	-1859.14	7343.00	7405.00	4194.04	-1279.88	90.00	2312.44	278.99	8.30	PASS	
9913.00†	7405.00	2055.32	-1860.70	7343.00	7405.00	4194.04	-1279.88	90.00	2216.19	280.22	7.92	PASS	
10013.00†	7405.00	2155.31	-1862.26	7343.00	7405.00	4194.04	-1279.88	90.00	2120.29	281.56	7.54	PASS	
10113.00†	7405.00	2255.29	-1863.82	7343.00	7405.00	4194.04	-1279.88	90.00	2024.78	283.01	7.17	PASS	
10213.00†	7405.00	2355.28	-1865.38	7343.00	7405.00	4194.04	-1279.88	90.00	1929.73	284.60	6.79	PASS	
10313.00†	7405.00	2455.27	-1866.94	7343.00	7405.00	4194.04	-1279.88	90.00	1835.20	286.34	6.42	PASS	
10413.00†	7405.00	2555.26	-1868.50	7343.00	7405.00	4194.04	-1279.88	90.00	1741.29	288.25	6.05	PASS	
10513.00†	7405.00	2655.25	-1870.06	7343.00	7405.00	4194.04	-1279.88	90.00	1648.09	290.36	5.68	PASS	
10613.00†	7405.00	2755.23	-1871.62	7343.00	7405.00	4194.04	-1279.88	90.00	1555.74	292.69	5.32	PASS	
10713.00†	7405.00	2855.22	-1873.18	7343.00	7405.00	4194.04	-1279.88	90.00	1464.39	295.27	4.97	PASS	
10813.00†	7405.00	2955.21	-1874.73	7343.00	7405.00	4194.04	-1279.88	90.00	1374.25	298.13	4.62	PASS	
10913.00†	7405.00	3055.20	-1876.29	7343.00	7405.00	4194.04	-1279.88	90.00	1285.57	301.32	4.27	PASS	
11013.00†	7405.00	3155.18	-1877.85	7343.00	7405.00	4194.04	-1279.88	90.00	1198.67	304.85	3.94	PASS	
11113.00†	7405.00	3255.17	-1879.41	7343.00	7405.00	4194.04	-1279.88	90.00	1113.97	308.77	3.61	PASS	
11213.00†	7405.00	3355.16	-1880.97	7343.00	7405.00	4194.04	-1279.88	90.00	1032.01	313.09	3.30	PASS	
11313.00†	7405.00	3455.15	-1882.53	7343.00	7405.00	4194.04	-1279.88	90.00	953.50	317.79	3.00	PASS	
11413.00†	7405.00	3555.14	-1884.09	7343.00	7405.00	4194.04	-1279.88	90.00	879.36	322.80	2.73	PASS	
11513.00†	7405.00	3655.12	-1885.65	7343.00	7405.00	4194.04	-1279.88	90.00	810.80	327.94	2.47	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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
11613.00†	7405.00	3755.11	-1887.21	7343.00	7405.00	4194.04	-1279.88	90.00	749.34	332.87	2.25	PASS
11713.00†	7405.00	3855.10	-1888.77	7343.00	7405.00	4194.04	-1279.88	90.00	696.87	337.04	2.07	PASS
11813.00†	7405.00	3955.09	-1890.33	7343.00	7405.00	4194.04	-1279.88	90.00	655.55	339.63	1.93	PASS
11913.00†	7405.00	4055.08	-1891.89	7343.00	7405.00	4194.04	-1279.88	90.00	627.59	339.72	1.85	PASS
11994.92†	7405.00	4136.98	-1893.16	7343.00	7405.00	4194.04	-1279.88	90.00	615.93	337.42	1.83	PASS
12013.00†	7405.00	4155.06	-1893.45	7343.00	7405.00	4194.04	-1279.88	90.00	614.80	336.60	1.83	PASS
12042.82†	7405.00	4184.88	-1893.91	7341.72	7403.72	4194.04	-1279.88	89.88	614.10	334.96	1.83	PASS
12113.00†	7405.00	4255.05	-1895.00	7343.00	7405.00	4194.04	-1279.88	90.00	618.14	330.13	1.87	PASS
12213.00†	7405.00	4355.04	-1896.56	7343.00	7405.00	4194.04	-1279.88	90.00	637.35	320.95	1.99	PASS
12313.00†	7405.00	4455.03	-1898.12	7343.00	7405.00	4194.04	-1279.88	90.00	671.07	310.22	2.17	PASS
12413.00†	7405.00	4555.01	-1899.68	7343.00	7405.00	4194.04	-1279.88	90.00	717.26	299.16	2.40	PASS
12513.00†	7405.00	4655.00	-1901.24	7343.00	7405.00	4194.04	-1279.88	90.00	773.68	288.68	2.68	PASS
12613.00†	7405.00	4754.99	-1902.80	7343.00	7405.00	4194.04	-1279.88	90.00	838.27	279.28	3.01	PASS
12713.00†	7405.00	4854.98	-1904.36	7343.00	7405.00	4194.04	-1279.88	90.00	909.29	271.18	3.36	PASS
12813.00†	7405.00	4954.97	-1905.92	7343.00	7405.00	4194.04	-1279.88	90.00	985.36	264.37	3.73	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



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1529.00	1529.00	49.00	1578.00	2553.07	-791.87	2553.07	-791.87
8.625in Casing Surface	0.00	1529.00	1529.00	49.00	1578.00	2553.07	-791.87	2553.07	-791.87
7.875in Open Hole	1529.00	8141.00	6612.00	1578.00	8190.00	2553.07	-791.87	2553.07	-791.87
4.5in Casing Production	0.00	8141.00	8141.00	49.00	8190.00	2553.07	-791.87	2553.07	-791.87

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: Rlg 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 20-17-1NBH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	0.08	60.01	89.92	60.01	1.40	98.68	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.08	60.01	89.92	60.01	1.73	63.75	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.08	60.01	89.92	60.01	2.31	39.38	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.08	60.01	89.92	60.01	2.91	28.06	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.08	60.01	89.92	60.01	3.53	21.72	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.08	60.01	89.92	60.01	4.15	17.69	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.08	60.01	89.92	60.01	4.77	14.91	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.08	60.01	89.92	60.01	5.40	12.89	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	0.08	60.01	89.92	60.01	6.02	11.34	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	0.08	60.01	89.92	60.01	6.65	10.13	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.08	60.01	89.92	60.01	7.27	9.15	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.08	60.01	89.92	60.01	7.90	8.34	PASS	
1200.00	1200.00	0.00	0.00	1200.00	1200.00	0.08	60.01	89.92	60.01	8.45	7.75	PASS	
1213.00†	1213.00	-0.01	-0.03	1213.00	1213.00	0.08	60.01	-166.20	60.04	8.53	7.67	PASS	
1313.00†	1312.97	-0.53	-2.16	1312.97	1312.97	0.08	60.01	-166.67	62.18	9.24	7.27	PASS	
1413.00†	1412.80	-1.90	-7.68	1412.80	1412.80	0.08	60.01	-167.76	67.72	10.18	7.14	PASS	
1513.00†	1512.38	-4.10	-16.58	1512.38	1512.38	0.08	60.01	-169.17	76.71	11.07	7.40	PASS	
1613.00†	1611.57	-7.13	-28.85	1611.90	1611.90	0.07	59.99	-170.66	89.13	11.92	7.94	PASS	
1713.00†	1710.26	-10.99	-44.47	1713.92	1713.89	-1.16	58.11	-171.51	103.12	12.82	8.51	PASS	
1813.00†	1808.33	-15.68	-63.42	1816.39	1816.19	-4.39	53.17	-171.57	117.40	13.75	8.95	PASS	
1913.00†	1905.66	-21.18	-85.69	1919.28	1918.62	-9.65	45.13	-171.10	131.97	14.73	9.36	PASS	
2013.00†	2002.13	-27.50	-111.24	2022.54	2021.01	-16.94	33.97	-170.24	146.82	15.67	9.76	PASS	
2103.78	2088.86	-33.93	-137.25	2112.05	2109.55	-24.13	22.99	-169.53	161.87	16.37	10.29	PASS	
2113.00†	2097.63	-34.62	-140.03	2121.11	2118.51	-24.85	21.87	-169.48	163.54	16.44	10.35	PASS	
2213.00†	2192.69	-42.06	-170.15	2219.44	2215.78	-32.75	9.80	-168.98	181.67	17.08	11.06	PASS	
2313.00†	2287.76	-49.51	-200.27	2317.77	2313.05	-40.64	-2.27	-168.58	199.81	17.74	11.69	PASS	
2413.00†	2382.82	-56.95	-230.39	2416.11	2410.32	-48.53	-14.34	-168.24	217.95	18.43	12.26	PASS	
2513.00†	2477.89	-64.40	-260.51	2514.44	2507.59	-56.42	-26.41	-167.96	236.11	19.14	12.77	PASS	
2613.00†	2572.95	-71.85	-290.63	2612.77	2604.86	-64.32	-38.49	-167.72	254.27	19.87	13.23	PASS	
2713.00†	2668.02	-79.29	-320.75	2711.10	2702.12	-72.21	-50.56	-167.50	272.43	20.63	13.64	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2809.43	2799.39	-80.10	-62.63	-167.32	290.60	21.39	14.02	PASS
2913.00†	2858.15	-94.18	-380.99	2907.77	2896.66	-87.99	-74.70	-167.16	308.77	22.17	14.35	PASS
3013.00†	2953.21	-101.63	-411.11	3006.10	2993.93	-95.89	-86.77	-167.01	326.94	22.97	14.66	PASS
3113.00†	3048.28	-109.08	-441.23	3104.43	3091.20	-103.78	-98.84	-166.88	345.11	23.77	14.93	PASS
3213.00†	3143.34	-116.52	-471.35	3202.76	3188.47	-111.67	-110.92	-166.77	363.28	24.59	15.18	PASS
3313.00†	3238.40	-123.97	-501.48	3301.09	3285.74	-119.56	-122.99	-166.66	381.46	25.41	15.41	PASS
3413.00†	3333.47	-131.41	-531.60	3399.43	3383.00	-127.45	-135.06	-166.56	399.64	26.24	15.62	PASS
3513.00†	3428.53	-138.86	-561.72	3497.76	3480.27	-135.35	-147.13	-166.48	417.82	27.08	15.81	PASS
3613.00†	3523.60	-146.31	-591.84	3596.09	3577.54	-143.24	-159.20	-166.40	435.99	27.93	15.99	PASS
3713.00†	3618.66	-153.75	-621.96	3694.42	3674.81	-151.13	-171.28	-166.32	454.17	28.79	16.15	PASS
3813.00†	3713.73	-161.20	-652.08	3792.75	3772.08	-159.02	-183.35	-166.25	472.35	29.65	16.30	PASS
3913.00†	3808.79	-168.64	-682.20	3891.09	3869.35	-166.92	-195.42	-166.19	490.53	30.51	16.44	PASS
4013.00†	3903.86	-176.09	-712.32	3989.42	3966.62	-174.81	-207.49	-166.13	508.72	31.38	16.56	PASS
4113.00†	3998.92	-183.54	-742.44	4087.75	4063.88	-182.70	-219.56	-166.08	526.90	32.25	16.68	PASS
4213.00†	4093.99	-190.98	-772.56	4186.08	4161.15	-190.59	-231.63	-166.03	545.08	33.13	16.79	PASS
4313.00†	4189.05	-198.43	-802.68	4284.41	4258.42	-198.49	-243.71	-165.98	563.26	34.01	16.89	PASS
4413.00†	4284.12	-205.87	-832.80	4382.75	4355.69	-206.38	-255.78	-165.93	581.44	34.90	16.99	PASS
4513.00†	4379.18	-213.32	-862.92	4481.08	4452.96	-214.27	-267.85	-165.89	599.63	35.78	17.07	PASS
4613.00†	4474.25	-220.77	-893.04	4579.41	4550.23	-222.16	-279.92	-165.85	617.81	36.68	17.16	PASS
4713.00†	4569.31	-228.21	-923.16	4677.74	4647.50	-230.06	-291.99	-165.81	636.00	37.57	17.23	PASS
4813.00†	4664.38	-235.66	-953.28	4776.07	4744.76	-237.95	-304.07	-165.78	654.18	38.47	17.31	PASS
4913.00†	4759.44	-243.10	-983.40	4874.41	4842.03	-245.84	-316.14	-165.75	672.36	39.36	17.38	PASS
5013.00†	4854.51	-250.55	-1013.52	4972.74	4939.30	-253.73	-328.21	-165.72	690.55	40.26	17.44	PASS
5113.00†	4949.57	-258.00	-1043.64	5071.07	5036.57	-261.63	-340.28	-165.69	708.73	41.17	17.50	PASS
5213.00†	5044.64	-265.44	-1073.77	5169.40	5133.84	-269.52	-352.35	-165.66	726.92	42.07	17.56	PASS
5313.00†	5139.70	-272.89	-1103.89	5267.73	5231.11	-277.41	-364.42	-165.63	745.10	42.98	17.61	PASS
5413.00†	5234.77	-280.33	-1134.01	5366.07	5328.38	-285.30	-376.50	-165.60	763.29	43.89	17.66	PASS
5513.00†	5329.83	-287.78	-1164.13	5464.40	5425.64	-293.20	-388.57	-165.58	781.47	44.80	17.71	PASS
5613.00†	5424.89	-295.23	-1194.25	5562.73	5522.91	-301.09	-400.64	-165.56	799.66	45.71	17.75	PASS
5713.00†	5519.96	-302.67	-1224.37	5661.06	5620.18	-308.98	-412.71	-165.53	817.84	46.62	17.80	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	5615.02	-310.12	-1254.49	5759.39	5717.45	-316.87	-424.78	-165.51	836.03	47.54	17.84	PASS
5913.00†	5710.09	-317.56	-1284.61	5857.73	5814.72	-324.77	-436.86	-165.49	854.22	48.45	17.88	PASS
6013.00†	5805.15	-325.01	-1314.73	5956.06	5911.99	-332.66	-448.93	-165.47	872.40	49.37	17.91	PASS
6113.00†	5900.22	-332.46	-1344.85	6054.39	6009.25	-340.55	-461.00	-165.45	890.59	50.28	17.95	PASS
6213.00†	5995.28	-339.90	-1374.97	6152.72	6106.52	-348.44	-473.07	-165.44	908.77	51.20	17.98	PASS
6313.00†	6090.35	-347.35	-1405.09	6251.05	6203.79	-356.34	-485.14	-165.42	926.96	52.12	18.02	PASS
6413.00†	6185.41	-354.79	-1435.21	6349.39	6301.06	-364.23	-497.21	-165.40	945.15	53.04	18.05	PASS
6513.00†	6280.48	-362.24	-1465.33	6447.72	6398.33	-372.12	-509.29	-165.38	963.33	53.97	18.07	PASS
6613.00†	6375.54	-369.69	-1495.45	6546.05	6495.60	-380.01	-521.36	-165.37	981.52	54.89	18.10	PASS
6713.00†	6470.61	-377.13	-1525.57	6644.38	6592.87	-387.90	-533.43	-165.35	999.71	55.81	18.13	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	0.05	36.58	-1.12	34.80
8.5in Open Hole	1800.00	17593.78	15793.78	1799.84	N/A	-1.12	34.80	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 20-17-1NBH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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 20-17-1NBH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	6832.56	-2772.87	-22.09	7374.09	25.40	299.72	PASS	
113.00†	113.00	0.00	0.00	19.00	113.00	6832.56	-2772.87	-22.09	7373.78	50.41	148.50	PASS	
213.00†	213.00	0.00	0.00	119.00	213.00	6832.56	-2772.87	-22.09	7373.78	52.75	141.82	PASS	
313.00†	313.00	0.00	0.00	219.00	313.00	6832.56	-2772.87	-22.09	7373.78	55.09	135.70	PASS	
413.00†	413.00	0.00	0.00	319.00	413.00	6832.56	-2772.87	-22.09	7373.78	57.44	130.08	PASS	
513.00†	513.00	0.00	0.00	419.00	513.00	6832.56	-2772.87	-22.09	7373.78	59.79	124.90	PASS	
613.00†	613.00	0.00	0.00	519.00	613.00	6832.56	-2772.87	-22.09	7373.78	62.15	120.10	PASS	
713.00†	713.00	0.00	0.00	619.00	713.00	6832.56	-2772.87	-22.09	7373.78	64.51	115.66	PASS	
813.00†	813.00	0.00	0.00	719.00	813.00	6832.56	-2772.87	-22.09	7373.78	66.87	111.52	PASS	
913.00†	913.00	0.00	0.00	819.00	913.00	6832.56	-2772.87	-22.09	7373.78	69.24	107.66	PASS	
1013.00†	1013.00	0.00	0.00	919.00	1013.00	6832.56	-2772.87	-22.09	7373.78	71.61	104.06	PASS	
1113.00†	1113.00	0.00	0.00	1019.00	1113.00	6832.56	-2772.87	-22.09	7373.78	73.99	100.68	PASS	
1200.00	1200.00	0.00	0.00	1106.00	1200.00	6832.56	-2772.87	-22.09	7373.78	76.06	97.92	PASS	
1213.00†	1213.00	-0.01	-0.03	1119.00	1213.00	6832.56	-2772.87	81.80	7373.78	76.37	97.52	PASS	
1313.00†	1312.97	-0.53	-2.16	1218.97	1312.97	6832.56	-2772.87	81.82	7373.46	78.75	94.53	PASS	
1413.00†	1412.80	-1.90	-7.68	1318.80	1412.80	6832.56	-2772.87	81.88	7372.66	81.14	91.72	PASS	
1513.00†	1512.38	-4.10	-16.58	1418.38	1512.38	6832.56	-2772.87	81.98	7371.36	83.52	89.06	PASS	
1613.00†	1611.57	-7.13	-28.85	1517.57	1611.57	6832.56	-2772.87	82.11	7369.60	85.74	86.54	PASS	
1713.00†	1710.26	-10.99	-44.47	1616.26	1710.26	6832.56	-2772.87	82.27	7367.38	88.13	84.15	PASS	
1813.00†	1808.33	-15.68	-63.42	1714.33	1808.33	6832.56	-2772.87	82.47	7364.74	90.49	81.87	PASS	
1913.00†	1905.66	-21.18	-85.69	1811.66	1905.66	6832.56	-2772.87	82.71	7361.70	92.90	79.70	PASS	
2013.00†	2002.13	-27.50	-111.24	1908.13	2002.13	6832.56	-2772.87	82.97	7358.30	95.33	77.62	PASS	
2103.78	2088.86	-33.93	-137.25	1994.86	2088.86	6832.56	-2772.87	83.23	7354.94	97.56	75.81	PASS	
2113.00†	2097.63	-34.62	-140.03	2003.63	2097.63	6832.56	-2772.87	83.26	7354.58	97.78	75.63	PASS	
2213.00†	2192.69	-42.06	-170.15	2098.69	2192.69	6832.56	-2772.87	83.48	7350.82	100.27	73.70	PASS	
2313.00†	2287.76	-49.51	-200.27	2193.76	2287.76	6832.56	-2772.87	83.71	7347.18	102.80	71.85	PASS	
2413.00†	2382.82	-56.95	-230.39	2288.82	2382.82	6832.56	-2772.87	83.94	7343.68	105.36	70.06	PASS	
2513.00†	2477.89	-64.40	-260.51	2383.89	2477.89	6832.56	-2772.87	84.17	7340.30	107.96	68.33	PASS	
2613.00†	2572.95	-71.85	-290.63	2478.95	2572.95	6832.56	-2772.87	84.40	7337.05	110.59	66.67	PASS	
2713.00†	2668.02	-79.29	-320.75	2574.02	2668.02	6832.56	-2772.87	84.63	7333.93	113.26	65.06	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17-OG, PR, 8140) Well: AMOCO #17-32 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2763.08	-86.74	-350.87	2669.08	2763.08	6832.56	-2772.87	84.86	7330.94	115.95	63.52	PASS	
2913.00†	2858.15	-94.18	-380.99	2764.15	2858.15	6832.56	-2772.87	85.09	7328.08	118.68	62.03	PASS	
3013.00†	2953.21	-101.63	-411.11	2859.21	2953.21	6832.56	-2772.87	85.32	7325.36	121.43	60.59	PASS	
3113.00†	3048.28	-109.08	-441.23	2954.28	3048.28	6832.56	-2772.87	85.55	7322.76	124.21	59.21	PASS	
3213.00†	3143.34	-116.52	-471.35	3049.34	3143.34	6832.56	-2772.87	85.78	7320.29	127.01	57.88	PASS	
3313.00†	3238.40	-123.97	-501.48	3144.40	3238.40	6832.56	-2772.87	86.01	7317.96	129.84	56.59	PASS	
3413.00†	3333.47	-131.41	-531.60	3239.47	3333.47	6832.56	-2772.87	86.24	7315.75	132.69	55.36	PASS	
3513.00†	3428.53	-138.86	-561.72	3334.53	3428.53	6832.56	-2772.87	86.47	7313.68	135.56	54.16	PASS	
3613.00†	3523.60	-146.31	-591.84	3429.60	3523.60	6832.56	-2772.87	86.70	7311.73	138.45	53.01	PASS	
3713.00†	3618.66	-153.75	-621.96	3524.66	3618.66	6832.56	-2772.87	86.93	7309.92	141.36	51.91	PASS	
3813.00†	3713.73	-161.20	-652.08	3619.73	3713.73	6832.56	-2772.87	87.16	7308.24	144.29	50.84	PASS	
3913.00†	3808.79	-168.64	-682.20	3714.79	3808.79	6832.56	-2772.87	87.39	7306.69	147.23	49.81	PASS	
4013.00†	3903.86	-176.09	-712.32	3809.86	3903.86	6832.56	-2772.87	87.63	7305.27	150.19	48.81	PASS	
4113.00†	3998.92	-183.54	-742.44	3904.92	3998.92	6832.56	-2772.87	87.86	7303.99	153.16	47.85	PASS	
4213.00†	4093.99	-190.98	-772.56	3999.99	4093.99	6832.56	-2772.87	88.09	7302.83	156.15	46.93	PASS	
4313.00†	4189.05	-198.43	-802.68	4095.05	4189.05	6832.56	-2772.87	88.32	7301.81	159.14	46.03	PASS	
4413.00†	4284.12	-205.87	-832.80	4190.12	4284.12	6832.56	-2772.87	88.55	7300.92	162.16	45.17	PASS	
4513.00†	4379.18	-213.32	-862.92	4285.18	4379.18	6832.56	-2772.87	88.78	7300.16	165.18	44.34	PASS	
4613.00†	4474.25	-220.77	-893.04	4380.25	4474.25	6832.56	-2772.87	89.01	7299.53	168.21	43.53	PASS	
4713.00†	4569.31	-228.21	-923.16	4475.31	4569.31	6832.56	-2772.87	89.25	7299.03	171.25	42.75	PASS	
4813.00†	4664.38	-235.66	-953.28	4570.38	4664.38	6832.56	-2772.87	89.48	7298.67	174.30	42.00	PASS	
4913.00†	4759.44	-243.10	-983.40	4665.44	4759.44	6832.56	-2772.87	89.71	7298.44	177.36	41.27	PASS	
5013.00†	4854.51	-250.55	-1013.52	4760.51	4854.51	6832.56	-2772.87	89.94	7298.33	180.42	40.57	PASS	
5113.00†	4949.57	-258.00	-1043.64	4855.57	4949.57	6832.56	-2772.87	90.17	7298.37	183.50	39.89	PASS	
5213.00†	5044.64	-265.44	-1073.77	4950.64	5044.64	6832.56	-2772.87	90.40	7298.53	186.58	39.23	PASS	
5313.00†	5139.70	-272.89	-1103.89	5045.70	5139.70	6832.56	-2772.87	90.63	7298.82	189.67	38.59	PASS	
5413.00†	5234.77	-280.33	-1134.01	5140.77	5234.77	6832.56	-2772.87	90.87	7299.25	192.76	37.97	PASS	
5513.00†	5329.83	-287.78	-1164.13	5235.83	5329.83	6832.56	-2772.87	91.10	7299.81	195.86	37.37	PASS	
5613.00†	5424.89	-295.23	-1194.25	5330.89	5424.89	6832.56	-2772.87	91.33	7300.50	198.96	36.79	PASS	
5713.00†	5519.96	-302.67	-1224.37	5425.96	5519.96	6832.56	-2772.87	91.56	7301.32	202.07	36.23	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17-OG, PR, 8140) Well: AMOCO #17-32 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5615.02	-310.12	-1254.49	5521.02	5615.02	6832.56	-2772.87	91.79	7302.28	205.18	35.68	PASS	
5913.00†	5710.09	-317.56	-1284.61	5616.09	5710.09	6832.56	-2772.87	92.02	7303.36	208.30	35.15	PASS	
6013.00†	5805.15	-325.01	-1314.73	5711.15	5805.15	6832.56	-2772.87	92.25	7304.58	211.42	34.64	PASS	
6113.00†	5900.22	-332.46	-1344.85	5806.22	5900.22	6832.56	-2772.87	92.49	7305.93	214.55	34.14	PASS	
6213.00†	5995.28	-339.90	-1374.97	5901.28	5995.28	6832.56	-2772.87	92.72	7307.41	217.68	33.65	PASS	
6313.00†	6090.35	-347.35	-1405.09	5996.35	6090.35	6832.56	-2772.87	92.95	7309.02	220.81	33.18	PASS	
6413.00†	6185.41	-354.79	-1435.21	6091.41	6185.41	6832.56	-2772.87	93.18	7310.77	223.94	32.72	PASS	
6513.00†	6280.48	-362.24	-1465.33	6186.48	6280.48	6832.56	-2772.87	93.41	7312.64	227.08	32.28	PASS	
6613.00†	6375.54	-369.69	-1495.45	6281.54	6375.54	6832.56	-2772.87	93.64	7314.65	230.22	31.85	PASS	
6713.00†	6470.61	-377.13	-1525.57	6376.61	6470.61	6832.56	-2772.87	93.87	7316.79	233.36	31.42	PASS	
6813.00†	6565.67	-384.58	-1555.69	6471.67	6565.67	6832.56	-2772.87	94.10	7319.05	236.50	31.02	PASS	
6913.00†	6660.74	-392.02	-1585.81	6566.74	6660.74	6832.56	-2772.87	94.33	7321.45	239.65	30.62	PASS	
7013.00†	6755.80	-399.47	-1615.93	6661.80	6755.80	6832.56	-2772.87	94.56	7323.98	242.80	30.23	PASS	
7081.48	6820.90	-404.57	-1636.56	6726.90	6820.90	6832.56	-2772.87	94.72	7325.79	244.95	29.97	PASS	
7113.00†	6850.91	-406.05	-1646.08	6756.91	6850.91	6832.56	-2772.87	85.08	7325.78	245.94	29.85	PASS	
7213.00†	6945.84	-399.29	-1676.38	6851.84	6945.84	6832.56	-2772.87	55.92	7314.50	249.20	29.41	PASS	
7313.00†	7038.12	-375.33	-1706.11	6944.12	7038.12	6832.56	-2772.87	36.41	7286.40	252.69	28.89	PASS	
7413.00†	7124.97	-334.90	-1734.36	7030.97	7124.97	6832.56	-2772.87	24.95	7242.31	255.91	28.36	PASS	
7513.00†	7203.73	-279.23	-1760.28	7109.73	7203.73	6832.56	-2772.87	17.62	7183.52	258.70	27.82	PASS	
7613.00†	7272.02	-210.01	-1783.08	7178.02	7272.02	6832.56	-2772.87	12.05	7111.78	261.00	27.30	PASS	
7713.00†	7327.76	-129.34	-1802.06	7233.76	7327.76	6832.56	-2772.87	6.56	7029.26	262.75	26.81	PASS	
7813.00†	7369.25	-39.68	-1816.66	7275.25	7369.25	6832.56	-2772.87	-1.31	6938.44	263.93	26.34	PASS	
7913.00†	7395.24	56.26	-1826.42	7301.24	7395.24	6832.56	-2772.87	-20.00	6842.07	264.51	25.92	PASS	
8013.00†	7404.94	155.55	-1831.06	7310.94	7404.94	6832.56	-2772.87	-83.33	6743.10	264.51	25.54	PASS	
8021.48	7405.00	164.03	-1831.21	7311.00	7405.00	6832.56	-2772.87	-90.00	6734.69	264.49	25.51	PASS	
8113.00†	7405.00	255.54	-1832.64	7311.00	7405.00	6832.56	-2772.87	-90.00	6643.89	264.18	25.20	PASS	
8213.00†	7405.00	355.53	-1834.19	7311.00	7405.00	6832.56	-2772.87	-90.00	6544.70	263.84	24.85	PASS	
8313.00†	7405.00	455.51	-1835.75	7311.00	7405.00	6832.56	-2772.87	-90.00	6445.53	263.49	24.51	PASS	
8413.00†	7405.00	555.50	-1837.31	7311.00	7405.00	6832.56	-2772.87	-90.00	6346.39	263.13	24.17	PASS	
8513.00†	7405.00	655.49	-1838.87	7311.00	7405.00	6832.56	-2772.87	-90.00	6247.28	262.76	23.82	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17, OG, PR, 8140) Well: AMOCO #17-32 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8613.00†	7405.00	755.48	-1840.43	7311.00	7405.00	6832.56	-2772.87	-90.00	6148.20	262.38	23.48	PASS
8713.00†	7405.00	855.46	-1841.99	7311.00	7405.00	6832.56	-2772.87	-90.00	6049.15	261.99	23.14	PASS
8813.00†	7405.00	955.45	-1843.55	7311.00	7405.00	6832.56	-2772.87	-90.00	5950.12	261.58	22.79	PASS
8913.00†	7405.00	1055.44	-1845.11	7311.00	7405.00	6832.56	-2772.87	-90.00	5851.14	261.17	22.45	PASS
9013.00†	7405.00	1155.43	-1846.67	7311.00	7405.00	6832.56	-2772.87	-90.00	5752.19	260.75	22.10	PASS
9113.00†	7405.00	1255.42	-1848.23	7311.00	7405.00	6832.56	-2772.87	-90.00	5653.27	260.31	21.76	PASS
9213.00†	7405.00	1355.40	-1849.79	7311.00	7405.00	6832.56	-2772.87	-90.00	5554.39	259.86	21.42	PASS
9313.00†	7405.00	1455.39	-1851.35	7311.00	7405.00	6832.56	-2772.87	-90.00	5455.56	259.39	21.07	PASS
9413.00†	7405.00	1555.38	-1852.91	7311.00	7405.00	6832.56	-2772.87	-90.00	5356.76	258.91	20.73	PASS
9513.00†	7405.00	1655.37	-1854.46	7311.00	7405.00	6832.56	-2772.87	-90.00	5258.02	258.42	20.39	PASS
9613.00†	7405.00	1755.35	-1856.02	7311.00	7405.00	6832.56	-2772.87	-90.00	5159.32	257.91	20.04	PASS
9713.00†	7405.00	1855.34	-1857.58	7311.00	7405.00	6832.56	-2772.87	-90.00	5060.67	257.39	19.70	PASS
9813.00†	7405.00	1955.33	-1859.14	7311.00	7405.00	6832.56	-2772.87	-90.00	4962.08	256.84	19.36	PASS
9913.00†	7405.00	2055.32	-1860.70	7311.00	7405.00	6832.56	-2772.87	-90.00	4863.54	256.28	19.02	PASS
10013.00†	7405.00	2155.31	-1862.26	7311.00	7405.00	6832.56	-2772.87	-90.00	4765.07	255.71	18.67	PASS
10113.00†	7405.00	2255.29	-1863.82	7311.00	7405.00	6832.56	-2772.87	-90.00	4666.66	255.11	18.33	PASS
10213.00†	7405.00	2355.28	-1865.38	7311.00	7405.00	6832.56	-2772.87	-90.00	4568.32	254.50	17.99	PASS
10313.00†	7405.00	2455.27	-1866.94	7311.00	7405.00	6832.56	-2772.87	-90.00	4470.05	253.86	17.64	PASS
10413.00†	7405.00	2555.26	-1868.50	7311.00	7405.00	6832.56	-2772.87	-90.00	4371.86	253.20	17.30	PASS
10513.00†	7405.00	2655.25	-1870.06	7311.00	7405.00	6832.56	-2772.87	-90.00	4273.76	252.53	16.96	PASS
10613.00†	7405.00	2755.23	-1871.62	7311.00	7405.00	6832.56	-2772.87	-90.00	4175.74	251.83	16.62	PASS
10713.00†	7405.00	2855.22	-1873.18	7311.00	7405.00	6832.56	-2772.87	-90.00	4077.82	251.11	16.27	PASS
10813.00†	7405.00	2955.21	-1874.73	7311.00	7405.00	6832.56	-2772.87	-90.00	3980.01	250.37	15.93	PASS
10913.00†	7405.00	3055.20	-1876.29	7311.00	7405.00	6832.56	-2772.87	-90.00	3882.31	249.60	15.59	PASS
11013.00†	7405.00	3155.18	-1877.85	7311.00	7405.00	6832.56	-2772.87	-90.00	3784.72	248.81	15.24	PASS
11113.00†	7405.00	3255.17	-1879.41	7311.00	7405.00	6832.56	-2772.87	-90.00	3687.27	248.01	14.90	PASS
11213.00†	7405.00	3355.16	-1880.97	7311.00	7405.00	6832.56	-2772.87	-90.00	3589.95	247.18	14.55	PASS
11313.00†	7405.00	3455.15	-1882.53	7311.00	7405.00	6832.56	-2772.87	-90.00	3492.79	246.33	14.21	PASS
11413.00†	7405.00	3555.14	-1884.09	7311.00	7405.00	6832.56	-2772.87	-90.00	3395.79	245.48	13.86	PASS
11513.00†	7405.00	3655.12	-1885.65	7311.00	7405.00	6832.56	-2772.87	-90.00	3298.98	244.60	13.51	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17, OG, PR, 8140) Well: AMOCO #17-32 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
11613.00†	7405.00	3755.11	-1887.21	7311.00	7405.00	6832.56	-2772.87	-90.00	3202.35	243.73	13.17	PASS
11713.00†	7405.00	3855.10	-1888.77	7311.00	7405.00	6832.56	-2772.87	-90.00	3105.94	242.86	12.82	PASS
11813.00†	7405.00	3955.09	-1890.33	7311.00	7405.00	6832.56	-2772.87	-90.00	3009.77	241.99	12.46	PASS
11913.00†	7405.00	4055.08	-1891.89	7311.00	7405.00	6832.56	-2772.87	-90.00	2913.85	241.16	12.11	PASS
12013.00†	7405.00	4155.06	-1893.45	7311.00	7405.00	6832.56	-2772.87	-90.00	2818.22	240.36	11.75	PASS
12113.00†	7405.00	4255.05	-1895.00	7311.00	7405.00	6832.56	-2772.87	-90.00	2722.90	239.63	11.39	PASS
12213.00†	7405.00	4355.04	-1896.56	7311.00	7405.00	6832.56	-2772.87	-90.00	2627.93	239.00	11.02	PASS
12313.00†	7405.00	4455.03	-1898.12	7311.00	7405.00	6832.56	-2772.87	-90.00	2533.34	238.49	10.64	PASS
12413.00†	7405.00	4555.01	-1899.68	7311.00	7405.00	6832.56	-2772.87	-90.00	2439.19	238.15	10.26	PASS
12513.00†	7405.00	4655.00	-1901.24	7311.00	7405.00	6832.56	-2772.87	-90.00	2345.52	238.04	9.87	PASS
12613.00†	7405.00	4754.99	-1902.80	7311.00	7405.00	6832.56	-2772.87	-90.00	2252.40	238.22	9.47	PASS
12713.00†	7405.00	4854.98	-1904.36	7311.00	7405.00	6832.56	-2772.87	-90.00	2159.89	238.76	9.06	PASS
12813.00†	7405.00	4954.97	-1905.92	7311.00	7405.00	6832.56	-2772.87	-90.00	2068.08	239.75	8.64	PASS
12913.00†	7405.00	5054.95	-1907.48	7311.00	7405.00	6832.56	-2772.87	-90.00	1977.06	241.27	8.21	PASS
13013.00†	7405.00	5154.94	-1909.04	7311.00	7405.00	6832.56	-2772.87	-90.00	1886.96	243.40	7.77	PASS
13113.00†	7405.00	5254.93	-1910.60	7311.00	7405.00	6832.56	-2772.87	-90.00	1797.89	246.25	7.32	PASS
13213.00†	7405.00	5354.92	-1912.16	7311.00	7405.00	6832.56	-2772.87	-90.00	1710.04	249.89	6.86	PASS
13313.00†	7405.00	5454.91	-1913.72	7311.00	7405.00	6832.56	-2772.87	-90.00	1623.60	254.40	6.39	PASS
13413.00†	7405.00	5554.89	-1915.27	7311.00	7405.00	6832.56	-2772.87	-90.00	1538.80	259.88	5.93	PASS
13513.00†	7405.00	5654.88	-1916.83	7311.00	7405.00	6832.56	-2772.87	-90.00	1455.93	266.39	5.47	PASS
13613.00†	7405.00	5754.87	-1918.39	7311.00	7405.00	6832.56	-2772.87	-90.00	1375.34	274.02	5.03	PASS
13713.00†	7405.00	5854.86	-1919.95	7311.00	7405.00	6832.56	-2772.87	-90.00	1297.45	282.85	4.59	PASS
13813.00†	7405.00	5954.84	-1921.51	7311.00	7405.00	6832.56	-2772.87	-90.00	1222.78	292.94	4.18	PASS
13913.00†	7405.00	6054.83	-1923.07	7311.00	7405.00	6832.56	-2772.87	-90.00	1151.96	304.35	3.79	PASS
14013.00†	7405.00	6154.82	-1924.63	7311.00	7405.00	6832.56	-2772.87	-90.00	1085.75	317.06	3.43	PASS
14113.00†	7405.00	6254.81	-1926.19	7311.00	7405.00	6832.56	-2772.87	-90.00	1025.02	331.00	3.10	PASS
14213.00†	7405.00	6354.80	-1927.75	7311.00	7405.00	6832.56	-2772.87	-90.00	970.82	345.96	2.81	PASS
14313.00†	7405.00	6454.78	-1929.31	7311.00	7405.00	6832.56	-2772.87	-90.00	924.29	361.55	2.56	PASS
14413.00†	7405.00	6554.77	-1930.87	7311.00	7405.00	6832.56	-2772.87	-90.00	886.65	377.18	2.35	PASS
14513.00†	7405.00	6654.76	-1932.43	7311.00	7405.00	6832.56	-2772.87	-90.00	859.05	392.08	2.19	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17, OG, PR, 8140) Well: AMOCO #17-32 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
14613.00†	7405.00	6754.75	-1933.99	7311.00	7405.00	6832.56	-2772.87	-90.00	842.49	405.37	2.08	PASS	
14703.09†	7405.00	6844.82	-1935.39	7311.99	7405.99	6832.56	-2772.87	-90.07	837.57	415.29	2.02	PASS	
14713.00†	7405.00	6854.73	-1935.54	7311.00	7405.00	6832.56	-2772.87	-90.00	837.62	416.23	2.01	PASS	
14813.00†	7405.00	6954.72	-1937.10	7311.00	7405.00	6832.56	-2772.87	-90.00	844.65	424.10	1.99	PASS	
14913.00†	7405.00	7054.71	-1938.66	7311.00	7405.00	6832.56	-2772.87	-90.00	863.28	428.78	2.01	PASS	
15013.00†	7405.00	7154.70	-1940.22	7311.00	7405.00	6832.56	-2772.87	-90.00	892.80	430.48	2.08	PASS	
15113.00†	7405.00	7254.69	-1941.78	7311.00	7405.00	6832.56	-2772.87	-90.00	932.15	429.66	2.17	PASS	
15213.00†	7405.00	7354.67	-1943.34	7311.00	7405.00	6832.56	-2772.87	-90.00	980.17	426.92	2.30	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	4157.37	-1709.19	4157.37	-1709.19
8.625in Casing Surface	0.00	1450.00	1450.00	81.00	1531.00	4157.37	-1709.19	4157.37	-1709.19
7.875in Open Hole	1450.00	8150.00	6700.00	1531.00	N/A	4157.37	-1709.19	N/A	N/A
4.5in Casing Production	0.00	8150.00	8150.00	81.00	N/A	4157.37	-1709.19	N/A	N/A



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	0.14	74.98	89.89	74.98	1.40	123.63	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.14	74.98	89.89	74.98	1.73	80.13	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.14	74.98	89.89	74.98	2.30	49.50	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.14	74.98	89.89	74.98	2.91	35.27	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.14	74.98	89.89	74.98	3.52	27.28	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.14	74.98	89.89	74.98	4.14	22.22	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.14	74.98	89.89	74.98	4.76	18.72	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.14	74.98	89.89	74.98	5.39	16.17	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	0.14	74.98	89.89	74.98	6.01	14.23	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	0.14	74.98	89.89	74.98	6.64	12.71	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.14	74.98	89.89	74.98	7.27	11.48	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.14	74.98	89.89	74.98	7.89	10.46	PASS	
1200.00	1200.00	0.00	0.00	1200.00	1200.00	0.14	74.98	89.89	74.98	8.44	9.72	PASS	
1213.00†	1213.00	-0.01	-0.03	1213.00	1213.00	0.14	74.98	-166.23	75.01	8.52	9.62	PASS	
1313.00†	1312.97	-0.53	-2.16	1312.97	1312.97	0.14	74.98	-166.61	77.15	9.23	9.06	PASS	
1413.00†	1412.80	-1.90	-7.68	1412.80	1412.80	0.14	74.98	-167.50	82.69	10.17	8.74	PASS	
1513.00†	1512.38	-4.10	-16.58	1512.62	1512.62	0.12	74.97	-168.69	91.65	11.06	8.86	PASS	
1613.00†	1611.57	-7.13	-28.85	1614.08	1614.08	-1.73	73.70	-169.06	102.73	11.94	9.15	PASS	
1713.00†	1710.26	-10.99	-44.47	1715.62	1715.42	-6.56	70.42	-168.24	115.09	12.87	9.47	PASS	
1813.00†	1808.33	-15.68	-63.42	1815.87	1815.27	-13.90	65.41	-166.76	129.04	13.61	9.95	PASS	
1913.00†	1905.66	-21.18	-85.69	1914.37	1913.34	-21.50	60.24	-165.75	146.13	14.41	10.61	PASS	
2013.00†	2002.13	-27.50	-111.24	2012.25	2010.79	-29.05	55.10	-165.23	166.57	15.23	11.42	PASS	
2103.78	2088.86	-33.93	-137.25	2100.46	2098.62	-35.86	50.46	-165.06	187.98	15.96	12.28	PASS	
2113.00†	2097.63	-34.62	-140.03	2109.39	2107.51	-36.54	49.99	-165.07	190.29	16.04	12.37	PASS	
2213.00†	2192.69	-42.06	-170.15	2206.19	2203.89	-44.01	44.90	-165.13	215.35	16.71	13.42	PASS	
2313.00†	2287.76	-49.51	-200.27	2303.00	2300.28	-51.48	39.82	-165.18	240.42	17.40	14.36	PASS	
2413.00†	2382.82	-56.95	-230.39	2399.81	2396.66	-58.95	34.73	-165.22	265.49	18.11	15.21	PASS	
2513.00†	2477.89	-64.40	-260.51	2496.62	2493.04	-66.42	29.64	-165.26	290.56	18.85	15.98	PASS	
2613.00†	2572.95	-71.85	-290.63	2593.42	2589.43	-73.88	24.56	-165.28	315.63	19.58	16.69	PASS	
2713.00†	2668.02	-79.29	-320.75	2690.23	2685.81	-81.35	19.47	-165.31	340.69	20.34	17.32	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2787.04	2782.20	-88.82	14.38	-165.33	365.76	21.10	17.90	PASS
2913.00†	2858.15	-94.18	-380.99	2883.84	2878.58	-96.29	9.30	-165.35	390.83	21.88	18.43	PASS
3013.00†	2953.21	-101.63	-411.11	2980.65	2974.97	-103.76	4.21	-165.36	415.90	22.66	18.91	PASS
3113.00†	3048.28	-109.08	-441.23	3077.46	3071.35	-111.22	-0.88	-165.38	440.97	23.46	19.35	PASS
3213.00†	3143.34	-116.52	-471.35	3174.26	3167.73	-118.69	-5.96	-165.39	466.03	24.26	19.76	PASS
3313.00†	3238.40	-123.97	-501.48	3271.07	3264.12	-126.16	-11.05	-165.40	491.10	25.07	20.13	PASS
3413.00†	3333.47	-131.41	-531.60	3367.88	3360.50	-133.63	-16.14	-165.41	516.17	25.88	20.48	PASS
3513.00†	3428.53	-138.86	-561.72	3464.68	3456.89	-141.10	-21.22	-165.42	541.24	26.70	20.80	PASS
3613.00†	3523.60	-146.31	-591.84	3561.49	3553.27	-148.56	-26.31	-165.43	566.31	27.52	21.09	PASS
3713.00†	3618.66	-153.75	-621.96	3658.30	3649.66	-156.03	-31.40	-165.44	591.38	28.35	21.37	PASS
3813.00†	3713.73	-161.20	-652.08	3755.10	3746.04	-163.50	-36.48	-165.45	616.44	29.18	21.62	PASS
3913.00†	3808.79	-168.64	-682.20	3851.91	3842.42	-170.97	-41.57	-165.45	641.51	30.02	21.86	PASS
4013.00†	3903.86	-176.09	-712.32	3948.72	3938.81	-178.44	-46.66	-165.46	666.58	30.86	22.08	PASS
4113.00†	3998.92	-183.54	-742.44	4045.53	4035.19	-185.90	-51.75	-165.46	691.65	31.71	22.29	PASS
4213.00†	4093.99	-190.98	-772.56	4142.33	4131.58	-193.37	-56.83	-165.47	716.72	32.55	22.49	PASS
4313.00†	4189.05	-198.43	-802.68	4239.14	4227.96	-200.84	-61.92	-165.47	741.79	33.40	22.67	PASS
4413.00†	4284.12	-205.87	-832.80	4335.95	4324.34	-208.31	-67.01	-165.48	766.85	34.25	22.84	PASS
4513.00†	4379.18	-213.32	-862.92	4432.75	4420.73	-215.78	-72.09	-165.48	791.92	35.11	23.00	PASS
4613.00†	4474.25	-220.77	-893.04	4529.56	4517.11	-223.24	-77.18	-165.49	816.99	35.96	23.15	PASS
4713.00†	4569.31	-228.21	-923.16	4626.37	4613.50	-230.71	-82.27	-165.49	842.06	36.82	23.30	PASS
4813.00†	4664.38	-235.66	-953.28	4723.17	4709.88	-238.18	-87.35	-165.50	867.13	37.68	23.43	PASS
4913.00†	4759.44	-243.10	-983.40	4819.98	4806.27	-245.65	-92.44	-165.50	892.20	38.54	23.56	PASS
5013.00†	4854.51	-250.55	-1013.52	4916.79	4902.65	-253.12	-97.53	-165.50	917.27	39.41	23.69	PASS
5113.00†	4949.57	-258.00	-1043.64	5013.59	4999.03	-260.58	-102.61	-165.50	942.33	40.27	23.80	PASS
5213.00†	5044.64	-265.44	-1073.77	5110.40	5095.42	-268.05	-107.70	-165.51	967.40	41.14	23.91	PASS
5313.00†	5139.70	-272.89	-1103.89	5207.21	5191.80	-275.52	-112.79	-165.51	992.47	42.01	24.02	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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	0.09	45.71	-3.82	43.05
8.5in Open Hole	1800.00	17619.74	15819.74	1799.47	N/A	-3.82	43.05	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 20-17-1NBH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	0.14	90.04	89.91	90.04	1.40	148.73	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.14	90.04	89.91	90.04	1.73	96.65	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.14	90.04	89.91	90.04	2.30	59.73	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.14	90.04	89.91	90.04	2.90	42.53	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.14	90.04	89.91	90.04	3.52	32.89	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.14	90.04	89.91	90.04	4.14	26.77	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.14	90.04	89.91	90.04	4.76	22.56	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.14	90.04	89.91	90.04	5.38	19.48	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	0.14	90.04	89.91	90.04	6.01	17.14	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	0.14	90.04	89.91	90.04	6.63	15.30	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.14	90.04	89.91	90.04	7.26	13.82	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.14	90.04	89.91	90.04	7.89	12.60	PASS	
1200.00	1200.00	0.00	0.00	1200.00	1200.00	0.14	90.04	89.91	90.04	8.43	11.70	PASS	
1213.00†	1213.00	-0.01	-0.03	1213.00	1213.00	0.14	90.04	-166.21	90.07	8.51	11.58	PASS	
1313.00†	1312.97	-0.53	-2.16	1312.97	1312.97	0.14	90.04	-166.52	92.21	9.22	10.85	PASS	
1413.00†	1412.80	-1.90	-7.68	1412.74	1412.74	0.11	90.04	-167.26	97.75	10.16	10.36	PASS	
1513.00†	1512.38	-4.10	-16.58	1511.82	1511.79	-2.02	90.39	-167.15	106.99	11.04	10.37	PASS	
1613.00†	1611.57	-7.13	-28.85	1610.32	1610.13	-7.48	91.28	-165.78	120.14	11.89	10.76	PASS	
1713.00†	1710.26	-10.99	-44.47	1708.73	1708.25	-14.98	92.50	-164.17	137.04	12.73	11.43	PASS	
1813.00†	1808.33	-15.68	-63.42	1806.63	1805.85	-22.46	93.71	-163.23	157.30	13.44	12.30	PASS	
1913.00†	1905.66	-21.18	-85.69	1903.81	1902.74	-29.89	94.92	-162.79	180.85	14.27	13.29	PASS	
2013.00†	2002.13	-27.50	-111.24	2000.16	1998.80	-37.25	96.12	-162.69	207.62	15.09	14.39	PASS	
2103.78	2088.86	-33.93	-137.25	2086.80	2085.18	-43.87	97.20	-162.80	234.69	15.83	15.47	PASS	
2113.00†	2097.63	-34.62	-140.03	2095.55	2093.91	-44.54	97.31	-162.84	237.57	15.90	15.59	PASS	
2213.00†	2192.69	-42.06	-170.15	2190.53	2188.60	-51.80	98.49	-163.17	268.84	16.58	16.90	PASS	
2313.00†	2287.76	-49.51	-200.27	2285.50	2283.29	-59.06	99.67	-163.44	300.12	17.27	18.08	PASS	
2413.00†	2382.82	-56.95	-230.39	2380.47	2377.98	-66.31	100.85	-163.66	331.40	17.99	19.14	PASS	
2513.00†	2477.89	-64.40	-260.51	2475.45	2472.66	-73.57	102.03	-163.84	362.69	18.71	20.11	PASS	
2613.00†	2572.95	-71.85	-290.63	2570.42	2567.35	-80.83	103.21	-163.99	393.98	19.44	20.99	PASS	
2713.00†	2668.02	-79.29	-320.75	2665.40	2662.04	-88.09	104.39	-164.11	425.27	20.19	21.79	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2760.37	2756.73	-95.35	105.57	-164.22	456.57	20.95	22.52	PASS
2913.00†	2858.15	-94.18	-380.99	2855.34	2851.42	-102.60	106.75	-164.32	487.86	21.72	23.19	PASS
3013.00†	2953.21	-101.63	-411.11	2950.32	2946.11	-109.86	107.93	-164.41	519.16	22.49	23.80	PASS
3113.00†	3048.28	-109.08	-441.23	3045.29	3040.80	-117.12	109.11	-164.48	550.45	23.28	24.36	PASS
3213.00†	3143.34	-116.52	-471.35	3140.27	3135.49	-124.38	110.29	-164.55	581.75	24.07	24.88	PASS
3313.00†	3238.40	-123.97	-501.48	3235.24	3230.18	-131.64	111.47	-164.61	613.05	24.86	25.35	PASS
3413.00†	3333.47	-131.41	-531.60	3330.22	3324.87	-138.90	112.65	-164.66	644.35	25.66	25.79	PASS
3513.00†	3428.53	-138.86	-561.72	3425.19	3419.55	-146.15	113.83	-164.71	675.65	26.47	26.20	PASS
3613.00†	3523.60	-146.31	-591.84	3520.16	3514.24	-153.41	115.01	-164.76	706.94	27.28	26.58	PASS
3713.00†	3618.66	-153.75	-621.96	3615.14	3608.93	-160.67	116.19	-164.80	738.24	28.09	26.93	PASS
3813.00†	3713.73	-161.20	-652.08	3710.11	3703.62	-167.93	117.37	-164.84	769.54	28.91	27.26	PASS
3913.00†	3808.79	-168.64	-682.20	3805.09	3798.31	-175.19	118.55	-164.87	800.85	29.73	27.57	PASS
4013.00†	3903.86	-176.09	-712.32	3900.06	3893.00	-182.44	119.73	-164.90	832.15	30.55	27.86	PASS
4113.00†	3998.92	-183.54	-742.44	3995.03	3987.69	-189.70	120.91	-164.93	863.45	31.38	28.13	PASS
4213.00†	4093.99	-190.98	-772.56	4090.01	4082.38	-196.96	122.09	-164.96	894.75	32.21	28.38	PASS
4313.00†	4189.05	-198.43	-802.68	4184.98	4177.07	-204.22	123.27	-164.99	926.05	33.04	28.62	PASS
4413.00†	4284.12	-205.87	-832.80	4279.96	4271.76	-211.48	124.45	-165.01	957.35	33.88	28.84	PASS
4513.00†	4379.18	-213.32	-862.92	4374.93	4366.44	-218.74	125.63	-165.03	988.65	34.72	29.05	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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	0.08	54.89	-6.65	55.98
8.5in Open Hole	1800.00	17542.23	15742.23	1799.24	7395.00	-6.65	55.98	3039.26	34.51

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	0.24	104.98	89.87	104.98	1.40	173.64	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.24	104.98	89.87	104.98	1.73	112.48	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.24	104.98	89.87	104.98	2.30	69.48	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.24	104.98	89.87	104.98	2.91	49.51	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.24	104.98	89.87	104.98	3.52	38.30	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.24	104.98	89.87	104.98	4.14	31.19	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.24	104.98	89.87	104.98	4.77	26.29	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.24	104.98	89.87	104.98	5.39	22.71	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.24	104.98	89.87	104.98	6.01	19.99	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.24	104.98	89.87	104.98	6.64	17.84	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.24	104.98	89.87	104.98	7.27	16.11	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.24	104.98	89.87	104.98	7.89	14.69	PASS
1200.00	1200.00	0.00	0.00	1200.00	1200.00	0.24	104.98	89.87	104.98	8.44	13.64	PASS
1213.00†	1213.00	-0.01	-0.03	1213.00	1213.00	0.24	104.98	-166.25	105.01	8.52	13.50	PASS
1313.00†	1312.97	-0.53	-2.16	1312.68	1312.68	0.22	105.00	-166.50	107.17	9.23	12.62	PASS
1413.00†	1412.80	-1.90	-7.68	1410.14	1410.11	-1.43	106.29	-166.29	114.01	10.19	12.06	PASS
1513.00†	1512.38	-4.10	-16.58	1506.84	1506.66	-5.64	109.59	-165.26	126.31	11.18	12.10	PASS
1613.00†	1611.57	-7.13	-28.85	1602.91	1602.35	-12.30	114.82	-163.75	144.06	12.09	12.69	PASS
1713.00†	1710.26	-10.99	-44.47	1700.47	1699.43	-19.89	120.77	-162.57	165.84	12.92	13.62	PASS
1813.00†	1808.33	-15.68	-63.42	1797.26	1795.75	-27.42	126.68	-161.94	190.88	13.67	14.72	PASS
1913.00†	1905.66	-21.18	-85.69	1893.19	1891.21	-34.89	132.54	-161.70	219.13	14.43	15.91	PASS
2013.00†	2002.13	-27.50	-111.24	1988.11	1985.67	-42.27	138.33	-161.71	250.55	15.24	17.19	PASS
2103.78	2088.86	-33.93	-137.25	2073.34	2070.47	-48.90	143.53	-161.86	281.78	15.98	18.40	PASS
2113.00†	2097.63	-34.62	-140.03	2081.94	2079.03	-49.57	144.06	-161.90	285.09	16.05	18.54	PASS
2213.00†	2192.69	-42.06	-170.15	2175.28	2171.92	-56.84	149.75	-162.29	320.92	16.71	20.01	PASS
2313.00†	2287.76	-49.51	-200.27	2268.62	2264.80	-64.10	155.45	-162.61	356.76	17.41	21.32	PASS
2413.00†	2382.82	-56.95	-230.39	2361.96	2357.68	-71.36	161.15	-162.87	392.61	18.10	22.54	PASS
2513.00†	2477.89	-64.40	-260.51	2455.30	2450.56	-78.62	166.85	-163.09	428.46	18.81	23.63	PASS
2613.00†	2572.95	-71.85	-290.63	2548.64	2543.44	-85.89	172.54	-163.27	464.32	19.54	24.62	PASS
2713.00†	2668.02	-79.29	-320.75	2641.98	2636.33	-93.15	178.24	-163.42	500.19	20.28	25.52	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2735.32	2729.21	-100.41	183.94	-163.56	536.05	21.03	26.34	PASS
2913.00†	2858.15	-94.18	-380.99	2828.66	2822.09	-107.68	189.63	-163.68	571.92	21.79	27.10	PASS
3013.00†	2953.21	-101.63	-411.11	2922.00	2914.97	-114.94	195.33	-163.78	607.79	22.56	27.78	PASS
3113.00†	3048.28	-109.08	-441.23	3015.34	3007.86	-122.20	201.03	-163.88	643.67	23.33	28.42	PASS
3213.00†	3143.34	-116.52	-471.35	3108.68	3100.74	-129.46	206.72	-163.96	679.54	24.12	29.00	PASS
3313.00†	3238.40	-123.97	-501.48	3202.02	3193.62	-136.73	212.42	-164.03	715.41	24.91	29.54	PASS
3413.00†	3333.47	-131.41	-531.60	3295.36	3286.50	-143.99	218.12	-164.10	751.29	25.70	30.03	PASS
3513.00†	3428.53	-138.86	-561.72	3388.70	3379.38	-151.25	223.82	-164.16	787.16	26.50	30.49	PASS
3613.00†	3523.60	-146.31	-591.84	3482.04	3472.27	-158.51	229.51	-164.22	823.04	27.30	30.92	PASS
3713.00†	3618.66	-153.75	-621.96	3575.38	3565.15	-165.78	235.21	-164.27	858.92	28.11	31.32	PASS
3813.00†	3713.73	-161.20	-652.08	3668.71	3658.03	-173.04	240.91	-164.32	894.80	28.93	31.69	PASS
3913.00†	3808.79	-168.64	-682.20	3762.05	3750.91	-180.30	246.60	-164.36	930.68	29.74	32.03	PASS
4013.00†	3903.86	-176.09	-712.32	3855.39	3843.80	-187.56	252.30	-164.40	966.55	30.56	32.35	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	0.14	64.00	-8.35	70.66
8.5in Open Hole	1800.00	17376.39	15576.39	1798.48	N/A	-8.35	70.66	N/A	N/A



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20) Well: WAKEMAN 20-17-3CDH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	0.19	120.01	89.91	120.01	1.40	198.69	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.19	120.01	89.91	120.01	1.73	128.59	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.19	120.01	89.91	120.01	2.30	79.42	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.19	120.01	89.91	120.01	2.91	56.60	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.19	120.01	89.91	120.01	3.52	43.80	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.19	120.01	89.91	120.01	4.14	35.67	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.19	120.01	89.91	120.01	4.77	30.06	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.19	120.01	89.91	120.01	5.39	25.97	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	0.19	120.01	89.91	120.01	6.02	22.86	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	0.19	120.01	89.91	120.01	6.64	20.41	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.19	120.01	89.91	120.01	7.27	18.43	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.19	120.01	89.91	120.01	7.90	16.80	PASS	
1200.00	1200.00	0.00	0.00	1200.00	1200.00	0.19	120.01	89.91	120.01	8.44	15.61	PASS	
1213.00†	1213.00	-0.01	-0.03	1212.63	1212.63	0.17	120.03	-166.20	120.06	8.52	15.45	PASS	
1313.00†	1312.97	-0.53	-2.16	1309.66	1309.63	-1.30	121.48	-165.73	123.70	9.27	14.52	PASS	
1413.00†	1412.80	-1.90	-7.68	1406.11	1405.93	-5.09	125.21	-164.64	133.11	10.35	13.86	PASS	
1513.00†	1512.38	-4.10	-16.58	1502.11	1501.55	-11.12	131.13	-163.17	148.28	11.32	14.02	PASS	
1613.00†	1611.57	-7.13	-28.85	1600.17	1599.13	-18.07	137.95	-162.00	167.62	12.16	14.69	PASS	
1713.00†	1710.26	-10.99	-44.47	1697.56	1696.05	-24.96	144.72	-161.37	190.24	12.99	15.54	PASS	
1813.00†	1808.33	-15.68	-63.42	1794.16	1792.17	-31.80	151.44	-161.13	216.08	13.74	16.58	PASS	
1913.00†	1905.66	-21.18	-85.69	1889.85	1887.38	-38.58	158.10	-161.15	245.09	14.50	17.72	PASS	
2013.00†	2002.13	-27.50	-111.24	1984.52	1981.58	-45.28	164.68	-161.35	277.26	15.31	18.94	PASS	
2103.78	2088.86	-33.93	-137.25	2069.47	2066.11	-51.30	170.59	-161.62	309.17	16.03	20.14	PASS	
2113.00†	2097.63	-34.62	-140.03	2078.04	2074.65	-51.90	171.19	-161.67	312.54	16.10	20.26	PASS	
2213.00†	2192.69	-42.06	-170.15	2171.07	2167.21	-58.49	177.66	-162.18	349.12	16.77	21.69	PASS	
2313.00†	2287.76	-49.51	-200.27	2264.10	2259.78	-65.08	184.13	-162.60	385.73	17.44	23.02	PASS	
2413.00†	2382.82	-56.95	-230.39	2357.13	2352.35	-71.66	190.60	-162.94	422.34	18.13	24.21	PASS	
2513.00†	2477.89	-64.40	-260.51	2450.15	2444.92	-78.25	197.07	-163.23	458.97	18.83	25.28	PASS	
2613.00†	2572.95	-71.85	-290.63	2543.18	2537.49	-84.84	203.54	-163.47	495.61	19.55	26.26	PASS	
2713.00†	2668.02	-79.29	-320.75	2636.21	2630.06	-91.43	210.01	-163.68	532.25	20.28	27.16	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W				Slot: SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)		Well: WAKEMAN 20-17-3CDH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2763.08	-86.74	-350.87	2729.24	2722.62	-98.01	216.48	-163.87	568.90	21.02	27.97	PASS
2913.00†	2858.15	-94.18	-380.99	2822.27	2815.19	-104.60	222.95	-164.03	605.55	21.77	28.72	PASS
3013.00†	2953.21	-101.63	-411.11	2915.29	2907.76	-111.19	229.42	-164.17	642.21	22.52	29.41	PASS
3113.00†	3048.28	-109.08	-441.23	3008.32	3000.33	-117.77	235.89	-164.30	678.87	23.28	30.04	PASS
3213.00†	3143.34	-116.52	-471.35	3101.35	3092.90	-124.36	242.36	-164.41	715.53	24.05	30.62	PASS
3313.00†	3238.40	-123.97	-501.48	3194.38	3185.47	-130.95	248.83	-164.52	752.20	24.83	31.16	PASS
3413.00†	3333.47	-131.41	-531.60	3287.40	3278.03	-137.53	255.30	-164.61	788.87	25.61	31.65	PASS
3513.00†	3428.53	-138.86	-561.72	3380.43	3370.60	-144.12	261.77	-164.70	825.53	26.39	32.11	PASS
3613.00†	3523.60	-146.31	-591.84	3473.46	3463.17	-150.71	268.24	-164.77	862.20	27.18	32.54	PASS
3713.00†	3618.66	-153.75	-621.96	3566.49	3555.74	-157.29	274.71	-164.85	898.88	27.98	32.94	PASS
3813.00†	3713.73	-161.20	-652.08	3659.52	3648.31	-163.88	281.18	-164.91	935.55	28.77	33.31	PASS
3913.00†	3808.79	-168.64	-682.20	3752.54	3740.88	-170.47	287.65	-164.97	972.22	29.57	33.66	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1797.97	0.12	73.16	-9.76	82.86
8.5in Open Hole	1800.00	17786.94	15986.94	1797.97	7628.00	-9.76	82.86	3038.95	164.32



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

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

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

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



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	0.29	135.01	89.88	135.02	1.40	223.69	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.29	135.01	89.88	135.02	1.73	144.42	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.29	135.01	89.88	135.02	2.31	89.16	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.29	135.01	89.88	135.02	2.91	63.57	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.29	135.01	89.88	135.02	3.53	49.21	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.29	135.01	89.88	135.02	4.15	40.09	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.29	135.01	89.88	135.02	4.77	33.80	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.29	135.01	89.88	135.02	5.40	29.20	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.29	135.01	89.88	135.02	6.02	25.71	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.29	135.01	89.88	135.02	6.65	22.95	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.29	135.01	89.88	135.02	7.28	20.73	PASS
1113.00†	1113.00	0.00	0.00	1112.48	1112.48	0.28	135.04	89.88	135.04	7.90	18.91	PASS
1200.00	1200.00	0.00	0.00	1196.00	1195.98	-0.48	136.43	90.20	136.49	8.50	17.63	PASS
1213.00†	1213.00	-0.01	-0.03	1208.46	1208.44	-0.69	136.82	-165.83	136.92	8.59	17.48	PASS
1313.00†	1312.97	-0.53	-2.16	1304.06	1303.89	-3.19	141.39	-165.01	143.87	9.54	16.37	PASS
1413.00†	1412.80	-1.90	-7.68	1398.72	1398.18	-7.16	148.67	-164.04	157.13	10.70	15.79	PASS
1513.00†	1512.38	-4.10	-16.58	1491.89	1490.67	-12.53	158.50	-163.04	176.63	11.72	16.10	PASS
1613.00†	1611.57	-7.13	-28.85	1586.29	1584.03	-19.20	170.72	-162.13	201.82	12.60	17.04	PASS
1713.00†	1710.26	-10.99	-44.47	1682.07	1678.73	-26.11	183.36	-161.60	230.50	13.39	18.25	PASS
1813.00†	1808.33	-15.68	-63.42	1776.86	1772.44	-32.95	195.88	-161.37	262.35	14.14	19.54	PASS
1913.00†	1905.66	-21.18	-85.69	1870.54	1865.05	-39.70	208.25	-161.35	297.31	14.84	20.98	PASS
2013.00†	2002.13	-27.50	-111.24	1962.99	1956.45	-46.37	220.46	-161.46	335.36	15.62	22.44	PASS
2103.78	2088.86	-33.93	-137.25	2045.76	2038.28	-52.34	231.39	-161.63	372.55	16.35	23.77	PASS
2113.00†	2097.63	-34.62	-140.03	2054.11	2046.53	-52.94	232.49	-161.68	376.46	16.43	23.91	PASS
2213.00†	2192.69	-42.06	-170.15	2144.65	2136.04	-59.47	244.45	-162.13	418.81	17.03	25.62	PASS
2313.00†	2287.76	-49.51	-200.27	2235.19	2225.55	-66.00	256.41	-162.50	461.19	17.69	27.12	PASS
2413.00†	2382.82	-56.95	-230.39	2325.74	2315.06	-72.53	268.36	-162.81	503.59	18.36	28.48	PASS
2513.00†	2477.89	-64.40	-260.51	2416.28	2404.58	-79.06	280.32	-163.07	545.97	19.05	29.72	PASS
2613.00†	2572.95	-71.85	-290.63	2506.82	2494.09	-85.59	292.28	-163.29	588.38	19.76	30.85	PASS
2713.00†	2668.02	-79.29	-320.75	2597.36	2583.60	-92.12	304.23	-163.48	630.79	20.47	31.88	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2687.90	2673.11	-98.65	316.19	-163.65	673.21	21.20	32.81	PASS	
2913.00†	2858.15	-94.18	-380.99	2778.45	2762.62	-105.18	328.15	-163.79	715.63	21.94	33.67	PASS	
3013.00†	2953.21	-101.63	-411.11	2868.99	2852.13	-111.71	340.10	-163.93	758.05	22.69	34.46	PASS	
3113.00†	3048.28	-109.08	-441.23	2959.53	2941.64	-118.24	352.06	-164.04	800.48	23.44	35.18	PASS	
3213.00†	3143.34	-116.52	-471.35	3050.07	3031.15	-124.77	364.02	-164.15	842.91	24.20	35.85	PASS	
3313.00†	3238.40	-123.97	-501.48	3140.61	3120.67	-131.30	375.97	-164.24	885.34	24.97	36.46	PASS	
3413.00†	3333.47	-131.41	-531.60	3231.16	3210.18	-137.83	387.93	-164.33	927.78	25.74	37.03	PASS	
3513.00†	3428.53	-138.86	-561.72	3321.70	3299.69	-144.36	399.88	-164.41	970.21	26.52	37.56	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1795.31	0.18	82.31	-10.46	101.79
8.5in Open Hole	1800.00	17654.03	15854.03	1795.31	7458.00	-10.46	101.79	3038.66	289.57

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

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



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

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



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	8360.37	134.93	0.93	8361.51	25.40	339.84	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1472.00	1472.00	40.00	1512.00	5096.75	58.85	5096.75	58.85
8.625in Casing Surface	0.00	1472.00	1472.00	40.00	1512.00	5096.75	58.85	5096.75	58.85
7.875in Open Hole	1472.00	8173.00	6701.00	1512.00	8213.00	5096.75	58.85	5096.75	58.85
4.5in Casing Production	0.00	8173.00	8173.00	40.00	8213.00	5096.75	58.85	5096.75	58.85

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	9200.51	-4262.56	-24.86	10140.37	25.40	412.16	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

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

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

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



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	0.36	150.02	89.86	150.02	1.40	248.69	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.36	150.02	89.86	150.02	1.73	160.41	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.36	150.02	89.86	150.02	2.31	99.02	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.36	150.02	89.86	150.02	2.92	70.61	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.36	150.02	89.86	150.02	3.53	54.67	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.36	150.02	89.86	150.02	4.15	44.54	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.36	150.02	89.86	150.02	4.78	37.55	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.36	150.02	89.86	150.02	5.40	32.45	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.36	150.02	89.86	150.02	6.03	28.57	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.36	150.02	89.86	150.02	6.65	25.51	PASS
1013.00†	1013.00	0.00	0.00	1012.39	1012.39	0.35	150.04	89.87	150.04	7.28	23.06	PASS
1113.00†	1113.00	0.00	0.00	1107.67	1107.64	-0.35	151.91	90.13	152.01	7.98	21.07	PASS
1200.00	1200.00	0.00	0.00	1190.37	1190.23	-1.85	155.94	90.68	156.26	8.77	19.51	PASS
1213.00†	1213.00	-0.01	-0.03	1202.71	1202.54	-2.14	156.73	-165.33	157.13	8.89	19.33	PASS
1313.00†	1312.97	-0.53	-2.16	1297.09	1296.56	-5.02	164.44	-164.50	167.47	9.85	18.42	PASS
1413.00†	1412.80	-1.90	-7.68	1389.02	1389.02	-8.91	174.88	-163.72	184.24	10.97	18.05	PASS
1513.00†	1512.38	-4.10	-16.58	1481.56	1479.30	-13.74	187.85	-163.02	207.32	12.01	18.43	PASS
1613.00†	1611.57	-7.13	-28.85	1570.60	1566.83	-19.42	203.09	-162.43	236.53	12.97	19.38	PASS
1713.00†	1710.26	-10.99	-44.47	1662.58	1656.86	-26.00	220.75	-161.97	270.96	13.76	20.86	PASS
1813.00†	1808.33	-15.68	-63.42	1755.22	1747.52	-32.66	238.63	-161.74	308.58	14.46	22.46	PASS
1913.00†	1905.66	-21.18	-85.69	1846.57	1836.90	-39.23	256.25	-161.67	349.25	15.16	24.11	PASS
2013.00†	2002.13	-27.50	-111.24	1936.49	1924.90	-45.70	273.60	-161.71	392.94	15.96	25.72	PASS
2103.78	2088.86	-33.93	-137.25	2016.81	2003.50	-51.48	289.10	-161.80	435.17	16.59	27.36	PASS
2113.00†	2097.63	-34.62	-140.03	2024.90	2011.41	-52.06	290.66	-161.84	439.58	16.66	27.51	PASS
2213.00†	2192.69	-42.06	-170.15	2112.65	2097.28	-58.37	307.60	-162.25	487.45	17.28	29.37	PASS
2313.00†	2287.76	-49.51	-200.27	2200.40	2183.15	-64.68	324.53	-162.58	535.34	17.92	31.06	PASS
2413.00†	2382.82	-56.95	-230.39	2288.15	2269.02	-70.99	341.46	-162.86	583.24	18.58	32.59	PASS
2513.00†	2477.89	-64.40	-260.51	2375.90	2354.89	-77.30	358.40	-163.10	631.14	19.26	33.98	PASS
2613.00†	2572.95	-71.85	-290.63	2463.65	2440.76	-83.61	375.33	-163.30	679.06	19.95	35.25	PASS
2713.00†	2668.02	-79.29	-320.75	2551.40	2526.63	-89.92	392.27	-163.48	726.98	20.66	36.41	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2639.15	2612.50	-96.23	409.20	-163.64	774.90	21.37	37.46	PASS
2913.00†	2858.15	-94.18	-380.99	2726.90	2698.37	-102.55	426.13	-163.77	822.83	22.10	38.43	PASS
3013.00†	2953.21	-101.63	-411.11	2814.65	2784.24	-108.86	443.07	-163.89	870.76	22.84	39.31	PASS
3113.00†	3048.28	-109.08	-441.23	2902.40	2870.11	-115.17	460.00	-164.00	918.70	23.59	40.12	PASS
3213.00†	3143.34	-116.52	-471.35	2990.15	2955.97	-121.48	476.93	-164.10	966.63	24.34	40.87	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	0.22	91.45	-10.83	121.09
8.5in Open Hole	1800.00	17645.62	15845.62	1791.34	7390.00	-10.83	121.09	3038.36	414.82

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



Clearance Report
WAKEMAN 20-17-1NBH PWP (REV-A.0)
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	0.28	164.96	89.90	164.96	1.40	273.60	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.28	164.96	89.90	164.96	1.73	176.43	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.28	164.96	89.90	164.96	2.31	108.91	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.28	164.96	89.90	164.96	2.92	77.66	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.28	164.96	89.90	164.96	3.53	60.13	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.28	164.96	89.90	164.96	4.15	48.99	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.28	164.96	89.90	164.96	4.78	41.31	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.28	164.96	89.90	164.96	5.40	35.70	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	0.28	164.96	89.90	164.96	6.03	31.42	PASS	
913.00†	913.00	0.00	0.00	912.32	912.32	0.27	164.99	89.91	164.99	6.65	28.08	PASS	
1013.00†	1013.00	0.00	0.00	1007.07	1007.04	-0.32	166.87	90.11	166.98	7.36	25.33	PASS	
1113.00†	1113.00	0.00	0.00	1101.58	1101.42	-1.85	171.72	90.62	172.12	8.30	22.84	PASS	
1200.00	1200.00	0.00	0.00	1183.46	1183.00	-3.93	178.33	91.26	179.18	9.08	21.55	PASS	
1213.00†	1213.00	-0.01	-0.03	1195.66	1195.13	-4.30	179.50	-164.74	180.47	9.20	21.40	PASS	
1313.00†	1312.97	-0.53	-2.16	1288.83	1287.64	-7.64	190.09	-163.91	194.05	10.16	20.66	PASS	
1413.00†	1412.80	-1.90	-7.68	1380.48	1378.23	-11.80	203.30	-163.18	214.03	11.23	20.45	PASS	
1513.00†	1512.38	-4.10	-16.58	1470.08	1466.32	-16.70	218.89	-162.59	240.26	12.28	20.87	PASS	
1613.00†	1611.57	-7.13	-28.85	1557.15	1551.40	-22.26	236.54	-162.10	272.54	13.18	21.96	PASS	
1713.00†	1710.26	-10.99	-44.47	1645.55	1637.25	-28.60	256.65	-161.72	310.35	13.99	23.48	PASS	
1813.00†	1808.33	-15.68	-63.42	1736.67	1725.65	-35.23	277.70	-161.51	351.54	14.68	25.20	PASS	
1913.00†	1905.66	-21.18	-85.69	1826.36	1812.67	-41.75	298.41	-161.42	395.73	15.40	26.89	PASS	
2013.00†	2002.13	-27.50	-111.24	1914.51	1898.21	-48.16	318.78	-161.43	442.88	16.11	28.72	PASS	
2103.78	2088.86	-33.93	-137.25	1993.12	1974.48	-53.88	336.93	-161.48	488.20	16.78	30.34	PASS	
2113.00†	2097.63	-34.62	-140.03	2001.03	1982.15	-54.46	338.76	-161.52	492.92	16.85	30.50	PASS	
2213.00†	2192.69	-42.06	-170.15	2086.85	2065.42	-60.70	358.59	-161.92	544.16	17.46	32.44	PASS	
2313.00†	2287.76	-49.51	-200.27	2172.67	2148.68	-66.94	378.41	-162.26	595.41	18.10	34.20	PASS	
2413.00†	2382.82	-56.95	-230.39	2258.49	2231.95	-73.19	398.23	-162.54	646.68	18.75	35.80	PASS	
2513.00†	2477.89	-64.40	-260.51	2344.31	2315.21	-79.43	418.05	-162.78	697.95	19.43	37.25	PASS	
2613.00†	2572.95	-71.85	-290.63	2430.13	2398.48	-85.67	437.88	-162.98	749.24	20.12	38.57	PASS	
2713.00†	2668.02	-79.29	-320.75	2515.95	2481.74	-91.92	457.70	-163.16	800.53	20.82	39.77	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2601.77	2565.00	-98.16	477.52	-163.32	851.82	21.54	40.86	PASS
2913.00†	2858.15	-94.18	-380.98	2687.59	2648.27	-104.40	497.35	-163.46	903.12	22.26	41.87	PASS
3013.00†	2953.21	-101.63	-411.11	2773.41	2731.53	-110.65	517.17	-163.58	954.43	23.00	42.78	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	0.17	100.56	-12.06	139.38
8.5in Open Hole	1800.00	17516.82	15716.82	1787.10	7215.00	-12.06	139.38	3038.11	509.58

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	0.34	179.96	89.89	179.96	1.40	298.60	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.34	179.96	89.89	179.96	1.73	192.52	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.34	179.96	89.89	179.96	2.31	118.84	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.34	179.96	89.89	179.96	2.92	84.75	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.34	179.96	89.89	179.96	3.53	65.62	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.34	179.96	89.89	179.96	4.15	53.46	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.34	179.96	89.89	179.96	4.78	45.08	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.34	179.96	89.89	179.96	5.40	38.96	PASS	
813.00†	813.00	0.00	0.00	812.26	812.26	0.34	179.99	89.89	179.99	6.02	34.32	PASS	
913.00†	913.00	0.00	0.00	906.51	906.49	-0.20	181.87	90.06	181.99	6.75	30.48	PASS	
1013.00†	1013.00	0.00	0.00	1000.54	1000.37	-1.56	186.71	90.48	187.15	7.71	26.96	PASS	
1113.00†	1113.00	0.00	0.00	1094.13	1093.61	-3.76	194.48	91.11	195.48	8.63	24.88	PASS	
1200.00	1200.00	0.00	0.00	1175.05	1173.98	-6.32	203.55	91.78	205.31	9.40	23.79	PASS	
1213.00†	1213.00	-0.01	-0.03	1187.09	1185.92	-6.76	205.09	-164.22	207.01	9.51	23.68	PASS	
1313.00†	1312.97	-0.53	-2.16	1278.92	1276.70	-10.52	218.40	-163.41	223.75	10.37	23.31	PASS	
1413.00†	1412.80	-1.90	-7.68	1368.98	1365.25	-14.97	234.16	-162.73	246.82	11.50	22.99	PASS	
1513.00†	1512.38	-4.10	-16.58	1456.77	1451.03	-20.04	252.09	-162.18	276.05	12.46	23.60	PASS	
1613.00†	1611.57	-7.13	-28.85	1544.83	1536.51	-25.79	272.46	-161.75	311.08	13.32	24.78	PASS	
1713.00†	1710.26	-10.99	-44.47	1637.02	1625.86	-31.98	294.34	-161.49	349.79	14.07	26.31	PASS	
1813.00†	1808.33	-15.68	-63.42	1727.88	1713.91	-38.07	315.90	-161.37	391.54	14.79	27.83	PASS	
1913.00†	1905.66	-21.18	-85.69	1817.29	1800.56	-44.06	337.11	-161.36	436.27	15.45	29.54	PASS	
2013.00†	2002.13	-27.50	-111.24	1905.14	1885.70	-49.95	357.96	-161.41	483.95	16.20	31.20	PASS	
2103.78	2088.86	-33.93	-137.25	1983.46	1961.59	-55.20	376.54	-161.48	529.75	16.87	32.74	PASS	
2113.00†	2097.63	-34.62	-140.03	1991.34	1969.23	-55.73	378.41	-161.53	534.52	16.94	32.89	PASS	
2213.00†	2192.69	-42.06	-170.15	2076.82	2052.07	-61.46	398.69	-161.96	586.29	17.55	34.76	PASS	
2313.00†	2287.76	-49.51	-200.27	2162.30	2134.92	-67.19	418.98	-162.32	638.07	18.19	36.46	PASS	
2413.00†	2382.82	-56.95	-230.39	2247.78	2217.76	-72.93	439.26	-162.63	689.88	18.85	38.00	PASS	
2513.00†	2477.89	-64.40	-260.51	2333.26	2300.60	-78.66	459.54	-162.89	741.69	19.52	39.39	PASS	
2613.00†	2572.95	-71.85	-290.63	2418.75	2383.44	-84.39	479.83	-163.12	793.52	20.21	40.66	PASS	
2713.00†	2668.02	-79.29	-320.75	2504.23	2466.28	-90.12	500.11	-163.32	845.36	20.91	41.82	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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†	2763.08	-86.74	-350.87	2589.71	2549.13	-95.85	520.39	-163.50	897.20	21.62	42.87	PASS			
2913.00†	2858.15	-94.18	-380.99	2675.19	2631.97	-101.58	540.68	-163.66	949.04	22.34	43.84	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	0.21	109.71	-12.97	156.35
8.5in Open Hole	13.00	17963.99	17950.99	13.00	7638.00	0.21	109.71	3038.04	544.63

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

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

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

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



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980°FNL & 2080°FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = Interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	18.00	3025.01	33.11	0.63	3025.19	25.40	122.93	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	1844.10	11.72	1844.10	11.72
8.625in Casing Surface	0.00	1561.00	1561.00	18.00	1579.00	1844.10	11.72	1844.10	11.72
7.875in Open Hole	1561.00	8292.00	6731.00	1579.00	8310.00	1844.10	11.72	1844.10	11.72
4.5in Casing Production	0.00	8292.00	8292.00	18.00	8310.00	1844.10	11.72	1844.10	11.72

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

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

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

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



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W Slot: SLOT#03 EX. AMOCO #44-17 (990°FSL & 1320°FEL, SEC.17, OG, PR, 8130) Well: AMOCO #44-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	46.00	6024.12	847.98	8.01	6083.60	25.40	247.25	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	3674.61	500.00	3674.61	500.00
9.625in Casing Surface	0.00	224.00	224.00	46.00	270.00	3674.61	500.00	3674.61	500.00
7.875in Open Hole	224.00	8129.00	7905.00	270.00	8175.00	3674.61	500.00	3674.61	500.00
4.5in Casing Production	0.00	8129.00	8129.00	46.00	8175.00	3674.61	500.00	3674.61	500.00

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

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

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

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



Clearance Report

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#01 EX. BOX ELDER FARMS #41-20 (990°FNL & 990°FEL, SEC.20,OG,PA, 8145) Well: BOX ELDER FARMS #41-20 Threshold Value=1.00 † = interpolated/extrapolated sz													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACF Statu	
13.00	13.00	0.00	0.00	-13.00	29.00	4015.70	1120.22	15.59	4169.05	25.40	169.43	PAS	

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	91.00	91.00	29.00	120.00	2451.07	671.58	2451.07	671.58
8.625in Casing Surface	0.00	91.00	91.00	29.00	120.00	2451.07	671.58	2451.07	671.58
7.875in Open Hole	91.00	8123.00	8032.00	120.00	8152.00	2451.07	671.58	2451.07	671.58
4.5in Casing Production	0.00	8123.00	8123.00	29.00	8152.00	2451.07	671.58	2451.07	671.58

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

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

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

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



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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	9345.49	3056.41	18.11	9832.60	25.40	399.64	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	5705.55	1836.64	5705.55	1836.64
8.625in Casing Surface	0.00	1549.00	1549.00	23.00	1572.00	5705.55	1836.64	5705.55	1836.64
7.875in Open Hole	1549.00	8173.00	6624.00	1572.00	8196.00	5705.55	1836.64	5705.55	1836.64
4.5in Casing Production	0.00	8173.00	8173.00	23.00	8196.00	5705.55	1836.64	5705.55	1836.64

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

Operator	PETROSHARE	Slot	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-1NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-1NBH 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	718.60	1177.83	58.61	1379.73	50.15	27.92	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	250.00	250.00	-8.00	242.00	441.36	715.97	441.36	715.97
8.625in Casing Surface	0.00	250.00	250.00	-8.00	242.00	441.36	715.97	441.36	715.97
7.875in Open Hole	250.00	8200.00	7950.00	242.00	8192.00	441.36	715.97	441.36	715.97
4.5in Casing Production	0.00	8200.00	8200.00	-8.00	8192.00	441.36	715.97	441.36	715.97

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