

PETROSHARE

Location: COLORADO Slot: SLOT#08 WAKEMAN 20-17-3NCH (293°FSL & 2128°FEL, SEC.20)
Field: ADAMS COUNTY (NAD83/ GRID NORTH) Well: WAKEMAN 20-17-3NCH
Facility: SEC.20-T01S-R65W Wellbore: WAKEMAN 20-17-3NCH PWB

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

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

Location Information

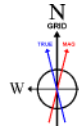
Facility Name				Grid East (US Rt)	Grid North (US Rt)	Latitude	Longitude
SEC.20-T01S-R65W				3228360.558	1223518.730	39°56'38.622"N	104°41'07.909"W
Slot		Local N (ft)	Local E (ft)	Grid East (US Rt)	Grid North (US Rt)	Latitude	Longitude
SLOT#08 WAKEMAN 20-17-3NCH (293°FSL & 2128°FEL, SEC.20)		-0.20	-104.98	3228255.581	1223518.527	39°56'38.629"N	104°41'09.257"W
RIG (13KB) (RKB) to Ground level (At Slot: SLOT#08 WAKEMAN 20-17-3NCH (293°FSL & 2128°FEL, SEC.20))						5203R	
Mean Sea Level to Ground level (At Slot: SLOT#08 WAKEMAN 20-17-3NCH (293°FSL & 2128°FEL, SEC.20))						0ft	
RIG (13KB) (RKB) to Mean Sea Level						5203R	

Hole and Casing Sections

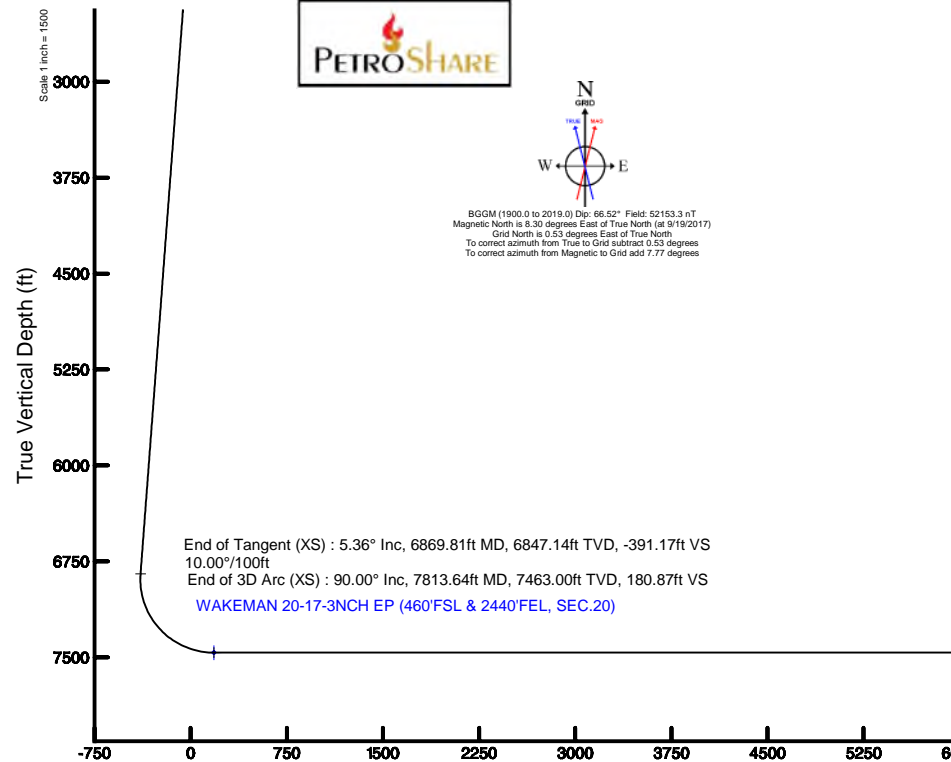
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.47	0.00	0.00	-12.82	-8.73	WAKEMAN 20-17-3NCH PWB
8.5in Open Hole	1800.00	17619.74	15819.74	1799.47	N/A	-12.82	-8.73	N/A	N/A	WAKEMAN 20-17-3NCH PWB

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
13.00	17619.74	BHI NavTrak	Custom BHI NavTrak (Standard Rotating+Axial Cor) (Rockies 0.03Gt model)		WAKEMAN 20-17-3NCH PWB



BGGM (1900.0 to 2019.0) Dip: 66.52° Field: 52153.3 nT
Magnetic North is 8.30 degrees East of True North (at 9/19/2017)
Grid North is 0.53 degrees East of True North
To correct azimuth from True to Grid subtract 0.53 degrees
To correct azimuth from Magnetic to Grid add 7.77 degrees

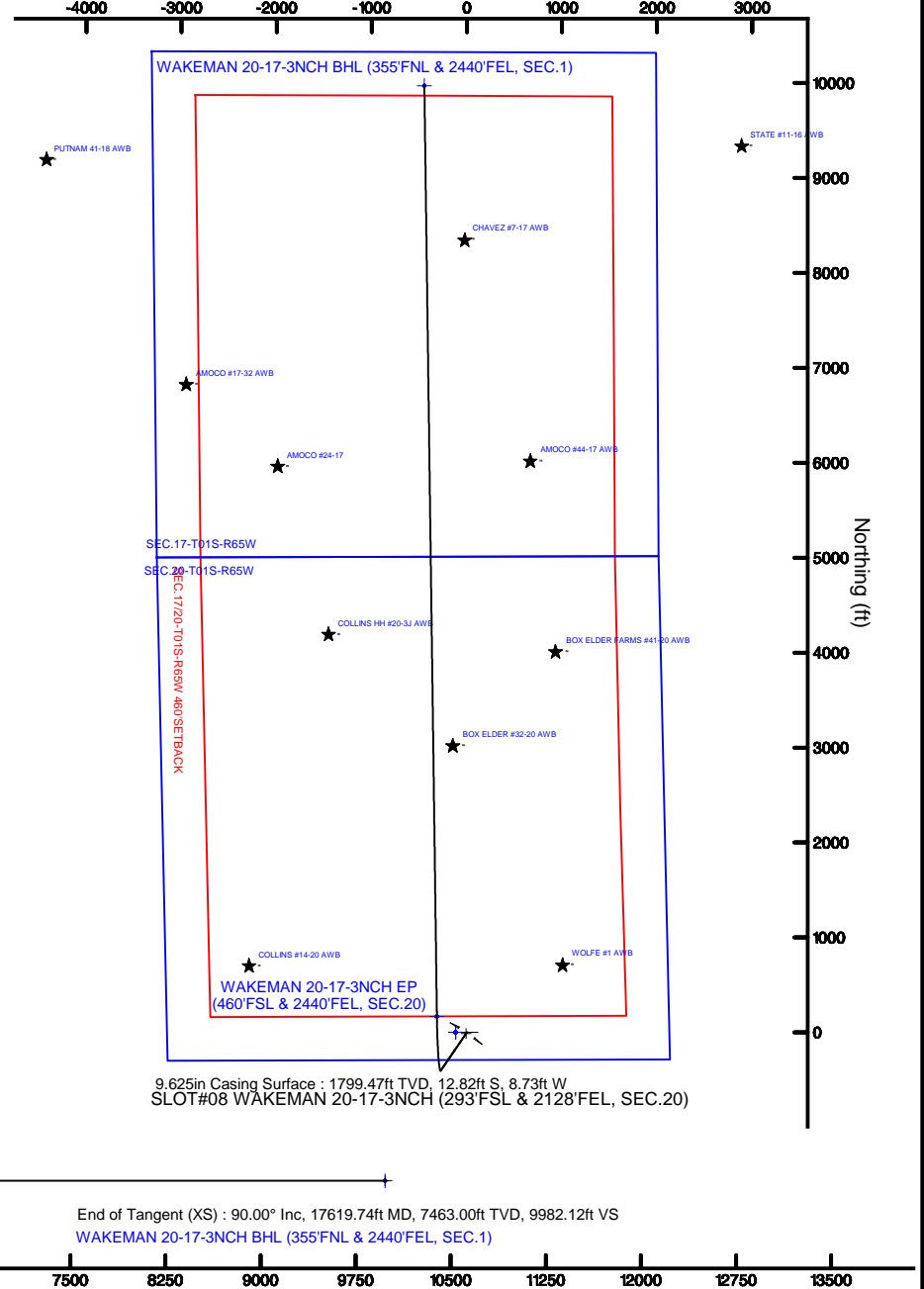


End of Tangent (XS) : 5.36° Inc, 6869.81ft MD, 6847.14ft TVD, -391.17ft VS
10.00°/100ft
End of 3D Arc (XS) : 90.00° Inc, 7813.64ft MD, 7463.00ft TVD, 180.87ft VS
WAKEMAN 20-17-3NCH EP (460°FSL & 2440°FEL, SEC.20)



Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)
Tie On	13.00	0.000	214.261	13.00	0.00	0.00	0.00
End of Tangent	1500.00	0.000	214.261	1500.00	0.00	0.00	0.00
End of Build (XS)	1767.79	5.356	214.261	1767.40	-10.34	-7.04	2.00
End of Tangent (XS)	6869.81	5.356	214.261	6847.14	-403.92	-275.13	0.00
End of 3D Arc (XS)	7813.64	90.000	359.230	7463.00	166.86	-315.95	10.00
End of Tangent (XS)	17619.74	90.000	359.230	7463.00	9972.08	-447.72	0.00

Scale 1 inch = 2000



WAKEMAN 20-17-3NCH BHL (355°FNL & 2440°FEL, SEC.1)

SEC.17-T01S-R65W

SEC.20-T01S-R65W

COLLINS #14-20 AWB

SEC.1720-T01S-R65W 460°SETBACK

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

COLLINS #14-20 AWB

9.625in Casing Surface : 1799.47ft TVD, 12.82ft S, 8.73ft W
SLOT#08 WAKEMAN 20-17-3NCH (293°FSL & 2128°FEL, SEC.20)

End of Tangent (XS) : 90.00° Inc, 17619.74ft MD, 7463.00ft TVD, 9982.12ft VS
WAKEMAN 20-17-3NCH BHL (355°FNL & 2440°FEL, SEC.1)

Vertical Section (ft)
Azimuth 357.43° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500



Planned Wellpath Report

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

Page 1 of 10

**BAKER
HUGHES**
a GE company



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Ingmjmr
Scale	0.999971	Report Generated	9/22/2017 at 12:48:29 PM
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB1/WAKEMAN_20-17-3NCH_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	-0.20	-104.98	3228255.58	1223518.53	39°56'38.629"N	104°41'09.257"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#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'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	357.43°



Planned Wellpath Report

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

Page 2 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (189 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	214.261	0.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
13.00	0.000	214.261	13.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	Tie On
113.00†	0.000	214.261	113.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
213.00†	0.000	214.261	213.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
313.00†	0.000	214.261	313.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
413.00†	0.000	214.261	413.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
513.00†	0.000	214.261	513.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
613.00†	0.000	214.261	613.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
713.00†	0.000	214.261	713.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
813.00†	0.000	214.261	813.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
913.00†	0.000	214.261	913.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
1013.00†	0.000	214.261	1013.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
1113.00†	0.000	214.261	1113.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
1213.00†	0.000	214.261	1213.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
1313.00†	0.000	214.261	1313.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
1413.00†	0.000	214.261	1413.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	
1500.00	0.000	214.261	1500.00	0.00	0.00	0.00	39°56'38.629"N	104°41'09.257"W	0.00	End of Tangent; FOX HILLS
1513.00†	0.260	214.261	1513.00	-0.02	-0.02	-0.02	39°56'38.629"N	104°41'09.257"W	2.00	
1613.00†	2.260	214.261	1612.97	-1.78	-1.84	-1.25	39°56'38.611"N	104°41'09.273"W	2.00	
1713.00†	4.260	214.261	1712.80	-6.33	-6.54	-4.46	39°56'38.565"N	104°41'09.315"W	2.00	
1767.79	5.356	214.261	1767.40	-10.01	-10.34	-7.04	39°56'38.528"N	104°41'09.349"W	2.00	End of Build (XS)
1813.00†	5.356	214.261	1812.41	-13.39	-13.82	-9.42	39°56'38.494"N	104°41'09.379"W	0.00	
1913.00†	5.356	214.261	1911.98	-20.86	-21.54	-14.67	39°56'38.418"N	104°41'09.448"W	0.00	
2013.00†	5.356	214.261	2011.54	-28.33	-29.25	-19.93	39°56'38.342"N	104°41'09.516"W	0.00	
2113.00†	5.356	214.261	2111.10	-35.80	-36.97	-25.18	39°56'38.266"N	104°41'09.585"W	0.00	
2213.00†	5.356	214.261	2210.67	-43.27	-44.68	-30.43	39°56'38.191"N	104°41'09.653"W	0.00	
2313.00†	5.356	214.261	2310.23	-50.74	-52.40	-35.69	39°56'38.115"N	104°41'09.721"W	0.00	
2413.00†	5.356	214.261	2409.79	-58.21	-60.11	-40.94	39°56'38.039"N	104°41'09.790"W	0.00	
2513.00†	5.356	214.261	2509.36	-65.68	-67.82	-46.20	39°56'37.963"N	104°41'09.858"W	0.00	
2613.00†	5.356	214.261	2608.92	-73.15	-75.54	-51.45	39°56'37.888"N	104°41'09.926"W	0.00	



Planned Wellpath Report

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

Page 3 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2713.00†	5.356	214.261	2708.48	-80.63	-83.25	-56.71	39°56'37.812"N	104°41'09.995"W	0.00	
2813.00†	5.356	214.261	2808.05	-88.10	-90.97	-61.96	39°56'37.736"N	104°41'10.063"W	0.00	
2913.00†	5.356	214.261	2907.61	-95.57	-98.68	-67.22	39°56'37.660"N	104°41'10.132"W	0.00	
3013.00†	5.356	214.261	3007.17	-103.04	-106.40	-72.47	39°56'37.584"N	104°41'10.200"W	0.00	
3113.00†	5.356	214.261	3106.74	-110.51	-114.11	-77.73	39°56'37.509"N	104°41'10.268"W	0.00	
3213.00†	5.356	214.261	3206.30	-117.98	-121.82	-82.98	39°56'37.433"N	104°41'10.337"W	0.00	
3313.00†	5.356	214.261	3305.86	-125.45	-129.54	-88.24	39°56'37.357"N	104°41'10.405"W	0.00	
3413.00†	5.356	214.261	3405.43	-132.92	-137.25	-93.49	39°56'37.281"N	104°41'10.473"W	0.00	
3513.00†	5.356	214.261	3504.99	-140.39	-144.97	-98.74	39°56'37.206"N	104°41'10.542"W	0.00	
3613.00†	5.356	214.261	3604.55	-147.86	-152.68	-104.00	39°56'37.130"N	104°41'10.610"W	0.00	
3713.00†	5.356	214.261	3704.12	-155.33	-160.40	-109.25	39°56'37.054"N	104°41'10.678"W	0.00	
3813.00†	5.356	214.261	3803.68	-162.80	-168.11	-114.51	39°56'36.978"N	104°41'10.747"W	0.00	
3913.00†	5.356	214.261	3903.25	-170.28	-175.82	-119.76	39°56'36.903"N	104°41'10.815"W	0.00	
4013.00†	5.356	214.261	4002.81	-177.75	-183.54	-125.02	39°56'36.827"N	104°41'10.884"W	0.00	
4113.00†	5.356	214.261	4102.37	-185.22	-191.25	-130.27	39°56'36.751"N	104°41'10.952"W	0.00	
4213.00†	5.356	214.261	4201.94	-192.69	-198.97	-135.53	39°56'36.675"N	104°41'11.020"W	0.00	
4313.00†	5.356	214.261	4301.50	-200.16	-206.68	-140.78	39°56'36.600"N	104°41'11.089"W	0.00	
4413.00†	5.356	214.261	4401.06	-207.63	-214.40	-146.04	39°56'36.524"N	104°41'11.157"W	0.00	
4513.00†	5.356	214.261	4500.63	-215.10	-222.11	-151.29	39°56'36.448"N	104°41'11.225"W	0.00	
4613.00†	5.356	214.261	4600.19	-222.57	-229.82	-156.55	39°56'36.372"N	104°41'11.294"W	0.00	
4713.00†	5.356	214.261	4699.75	-230.04	-237.54	-161.80	39°56'36.297"N	104°41'11.362"W	0.00	
4813.00†	5.356	214.261	4799.32	-237.51	-245.25	-167.05	39°56'36.221"N	104°41'11.431"W	0.00	
4863.91†	5.356	214.261	4850.00	-241.32	-249.18	-169.73	39°56'36.182"N	104°41'11.465"W	0.00	SUSSEX/SHANNON
4913.00†	5.356	214.261	4898.88	-244.98	-252.97	-172.31	39°56'36.145"N	104°41'11.499"W	0.00	
5013.00†	5.356	214.261	4998.44	-252.45	-260.68	-177.56	39°56'36.069"N	104°41'11.567"W	0.00	
5113.00†	5.356	214.261	5098.01	-259.93	-268.40	-182.82	39°56'35.994"N	104°41'11.636"W	0.00	
5213.00†	5.356	214.261	5197.57	-267.40	-276.11	-188.07	39°56'35.918"N	104°41'11.704"W	0.00	
5313.00†	5.356	214.261	5297.13	-274.87	-283.82	-193.33	39°56'35.842"N	104°41'11.772"W	0.00	
5413.00†	5.356	214.261	5396.70	-282.34	-291.54	-198.58	39°56'35.766"N	104°41'11.841"W	0.00	
5513.00†	5.356	214.261	5496.26	-289.81	-299.25	-203.84	39°56'35.691"N	104°41'11.909"W	0.00	



Planned Wellpath Report

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

Page 4 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5613.00†	5.356	214.261	5595.82	-297.28	-306.97	-209.09	39°56'35.615"N	104°41'11.978"W	0.00	
5713.00†	5.356	214.261	5695.39	-304.75	-314.68	-214.35	39°56'35.539"N	104°41'12.046"W	0.00	
5813.00†	5.356	214.261	5794.95	-312.22	-322.40	-219.60	39°56'35.463"N	104°41'12.114"W	0.00	
5913.00†	5.356	214.261	5894.51	-319.69	-330.11	-224.86	39°56'35.388"N	104°41'12.183"W	0.00	
6013.00†	5.356	214.261	5994.08	-327.16	-337.82	-230.11	39°56'35.312"N	104°41'12.251"W	0.00	
6113.00†	5.356	214.261	6093.64	-334.63	-345.54	-235.36	39°56'35.236"N	104°41'12.319"W	0.00	
6213.00†	5.356	214.261	6193.20	-342.10	-353.25	-240.62	39°56'35.160"N	104°41'12.388"W	0.00	
6313.00†	5.356	214.261	6292.77	-349.58	-360.97	-245.87	39°56'35.085"N	104°41'12.456"W	0.00	
6413.00†	5.356	214.261	6392.33	-357.05	-368.68	-251.13	39°56'35.009"N	104°41'12.524"W	0.00	
6513.00†	5.356	214.261	6491.89	-364.52	-376.40	-256.38	39°56'34.933"N	104°41'12.593"W	0.00	
6613.00†	5.356	214.261	6591.46	-371.99	-384.11	-261.64	39°56'34.857"N	104°41'12.661"W	0.00	
6713.00†	5.356	214.261	6691.02	-379.46	-391.82	-266.89	39°56'34.782"N	104°41'12.730"W	0.00	
6813.00†	5.356	214.261	6790.58	-386.93	-399.54	-272.15	39°56'34.706"N	104°41'12.798"W	0.00	
6869.81	5.356	214.261	6847.14	-391.17	-403.92	-275.13	39°56'34.663"N	104°41'12.837"W	0.00	End of Tangent (XS)
6913.00†	3.081	268.041	6890.23	-392.78	-405.63	-277.43	39°56'34.646"N	104°41'12.866"W	10.00	
7013.00†	10.398	342.177	6989.59	-384.02	-397.11	-282.89	39°56'34.731"N	104°41'12.936"W	10.00	
7113.00†	20.163	350.803	7085.95	-358.13	-371.44	-288.42	39°56'34.985"N	104°41'13.004"W	10.00	
7213.00†	30.080	353.899	7176.38	-315.89	-329.40	-293.85	39°56'35.401"N	104°41'13.068"W	10.00	
7264.83†	35.236	354.861	7220.00	-287.97	-301.58	-296.57	39°56'35.676"N	104°41'13.100"W	10.00	NIOBRARA A CHALK
7287.18†	37.462	355.203	7238.00	-274.74	-288.38	-297.72	39°56'35.807"N	104°41'13.113"W	10.00	NIOBRARA A MARL
7313.00†	40.035	355.558	7258.14	-258.58	-272.27	-299.02	39°56'35.966"N	104°41'13.128"W	10.00	
7413.00†	50.006	356.643	7328.74	-187.96	-201.78	-303.77	39°56'36.663"N	104°41'13.181"W	10.00	
7513.00†	59.984	357.448	7386.03	-106.15	-120.09	-307.95	39°56'37.471"N	104°41'13.225"W	10.00	
7533.57†	62.037	357.593	7396.00	-88.16	-102.11	-308.73	39°56'37.648"N	104°41'13.233"W	10.00	NIOBRARA B CHALK
7609.30†	69.597	358.083	7427.00	-19.13	-33.12	-311.32	39°56'38.330"N	104°41'13.258"W	10.00	NIOBRARA B MARL
7613.00†	69.966	358.106	7428.28	-15.66	-29.66	-311.44	39°56'38.364"N	104°41'13.259"W	10.00	
7713.00†	79.951	358.684	7454.20	80.78	66.76	-314.13	39°56'39.317"N	104°41'13.282"W	10.00	
7813.00†	89.936	359.227	7463.00	180.23	166.23	-315.94	39°56'40.301"N	104°41'13.294"W	10.00	
7813.64	90.000	359.230	7463.00 [†]	180.87	166.86	-315.95	39°56'40.307"N	104°41'13.294"W	10.00	End of 3D Arc (XS)
7913.00†	90.000	359.230	7463.00	280.18	266.22	-317.28	39°56'41.289"N	104°41'13.299"W	0.00	



Planned Wellpath Report

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

Page 5 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8013.00†	90.000	359.230	7463.00	380.13	366.21	-318.63	39°56'42.277"N	104°41'13.305"W	0.00	
8113.00†	90.000	359.230	7463.00	480.08	466.20	-319.97	39°56'43.265"N	104°41'13.310"W	0.00	
8213.00†	90.000	359.230	7463.00	580.03	566.19	-321.31	39°56'44.254"N	104°41'13.315"W	0.00	
8313.00†	90.000	359.230	7463.00	679.98	666.18	-322.66	39°56'45.242"N	104°41'13.321"W	0.00	
8413.00†	90.000	359.230	7463.00	779.93	766.17	-324.00	39°56'46.230"N	104°41'13.326"W	0.00	
8513.00†	90.000	359.230	7463.00	879.88	866.16	-325.34	39°56'47.218"N	104°41'13.332"W	0.00	
8613.00†	90.000	359.230	7463.00	979.83	966.15	-326.69	39°56'48.206"N	104°41'13.337"W	0.00	
8713.00†	90.000	359.230	7463.00	1079.78	1066.14	-328.03	39°56'49.195"N	104°41'13.343"W	0.00	
8813.00†	90.000	359.230	7463.00	1179.73	1166.14	-329.38	39°56'50.183"N	104°41'13.348"W	0.00	
8913.00†	90.000	359.230	7463.00	1279.69	1266.13	-330.72	39°56'51.171"N	104°41'13.354"W	0.00	
9013.00†	90.000	359.230	7463.00	1379.64	1366.12	-332.06	39°56'52.159"N	104°41'13.359"W	0.00	
9113.00†	90.000	359.230	7463.00	1479.59	1466.11	-333.41	39°56'53.148"N	104°41'13.365"W	0.00	
9213.00†	90.000	359.230	7463.00	1579.54	1566.10	-334.75	39°56'54.136"N	104°41'13.370"W	0.00	
9313.00†	90.000	359.230	7463.00	1679.49	1666.09	-336.09	39°56'55.124"N	104°41'13.376"W	0.00	
9413.00†	90.000	359.230	7463.00	1779.44	1766.08	-337.44	39°56'56.112"N	104°41'13.381"W	0.00	
9513.00†	90.000	359.230	7463.00	1879.39	1866.07	-338.78	39°56'57.101"N	104°41'13.387"W	0.00	
9613.00†	90.000	359.230	7463.00	1979.34	1966.06	-340.13	39°56'58.089"N	104°41'13.392"W	0.00	
9713.00†	90.000	359.230	7463.00	2079.29	2066.05	-341.47	39°56'59.077"N	104°41'13.398"W	0.00	
9813.00†	90.000	359.230	7463.00	2179.24	2166.04	-342.81	39°57'00.065"N	104°41'13.403"W	0.00	
9913.00†	90.000	359.230	7463.00	2279.19	2266.04	-344.16	39°57'01.053"N	104°41'13.409"W	0.00	
10013.00†	90.000	359.230	7463.00	2379.14	2366.03	-345.50	39°57'02.042"N	104°41'13.414"W	0.00	
10113.00†	90.000	359.230	7463.00	2479.09	2466.02	-346.85	39°57'03.030"N	104°41'13.420"W	0.00	
10213.00†	90.000	359.230	7463.00	2579.04	2566.01	-348.19	39°57'04.018"N	104°41'13.425"W	0.00	
10313.00†	90.000	359.230	7463.00	2678.99	2666.00	-349.53	39°57'05.006"N	104°41'13.431"W	0.00	
10413.00†	90.000	359.230	7463.00	2778.94	2765.99	-350.88	39°57'05.995"N	104°41'13.436"W	0.00	
10513.00†	90.000	359.230	7463.00	2878.90	2865.98	-352.22	39°57'06.983"N	104°41'13.442"W	0.00	
10613.00†	90.000	359.230	7463.00	2978.85	2965.97	-353.56	39°57'07.971"N	104°41'13.447"W	0.00	
10713.00†	90.000	359.230	7463.00	3078.80	3065.96	-354.91	39°57'08.959"N	104°41'13.453"W	0.00	
10813.00†	90.000	359.230	7463.00	3178.75	3165.95	-356.25	39°57'09.948"N	104°41'13.458"W	0.00	
10913.00†	90.000	359.230	7463.00	3278.70	3265.95	-357.60	39°57'10.936"N	104°41'13.464"W	0.00	



Planned Wellpath Report

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

Page 6 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11013.00†	90.000	359.230	7463.00	3378.65	3365.94	-358.94	39°57'11.924"N	104°41'13.469"W	0.00	
11113.00†	90.000	359.230	7463.00	3478.60	3465.93	-360.28	39°57'12.912"N	104°41'13.475"W	0.00	
11213.00†	90.000	359.230	7463.00	3578.55	3565.92	-361.63	39°57'13.901"N	104°41'13.480"W	0.00	
11313.00†	90.000	359.230	7463.00	3678.50	3665.91	-362.97	39°57'14.889"N	104°41'13.485"W	0.00	
11413.00†	90.000	359.230	7463.00	3778.45	3765.90	-364.31	39°57'15.877"N	104°41'13.491"W	0.00	
11513.00†	90.000	359.230	7463.00	3878.40	3865.89	-365.66	39°57'16.865"N	104°41'13.496"W	0.00	
11613.00†	90.000	359.230	7463.00	3978.35	3965.88	-367.00	39°57'17.853"N	104°41'13.502"W	0.00	
11713.00†	90.000	359.230	7463.00	4078.30	4065.87	-368.35	39°57'18.842"N	104°41'13.507"W	0.00	
11813.00†	90.000	359.230	7463.00	4178.25	4165.86	-369.69	39°57'19.830"N	104°41'13.513"W	0.00	
11913.00†	90.000	359.230	7463.00	4278.20	4265.86	-371.03	39°57'20.818"N	104°41'13.518"W	0.00	
12013.00†	90.000	359.230	7463.00	4378.15	4365.85	-372.38	39°57'21.806"N	104°41'13.524"W	0.00	
12113.00†	90.000	359.230	7463.00	4478.11	4465.84	-373.72	39°57'22.795"N	104°41'13.529"W	0.00	
12213.00†	90.000	359.230	7463.00	4578.06	4565.83	-375.06	39°57'23.783"N	104°41'13.535"W	0.00	
12313.00†	90.000	359.230	7463.00	4678.01	4665.82	-376.41	39°57'24.771"N	104°41'13.540"W	0.00	
12413.00†	90.000	359.230	7463.00	4777.96	4765.81	-377.75	39°57'25.759"N	104°41'13.546"W	0.00	
12513.00†	90.000	359.230	7463.00	4877.91	4865.80	-379.10	39°57'26.748"N	104°41'13.551"W	0.00	
12613.00†	90.000	359.230	7463.00	4977.86	4965.79	-380.44	39°57'27.736"N	104°41'13.557"W	0.00	
12713.00†	90.000	359.230	7463.00	5077.81	5065.78	-381.78	39°57'28.724"N	104°41'13.562"W	0.00	
12813.00†	90.000	359.230	7463.00	5177.76	5165.77	-383.13	39°57'29.712"N	104°41'13.568"W	0.00	
12913.00†	90.000	359.230	7463.00	5277.71	5265.76	-384.47	39°57'30.700"N	104°41'13.573"W	0.00	
13013.00†	90.000	359.230	7463.00	5377.66	5365.76	-385.81	39°57'31.689"N	104°41'13.579"W	0.00	
13113.00†	90.000	359.230	7463.00	5477.61	5465.75	-387.16	39°57'32.677"N	104°41'13.584"W	0.00	
13213.00†	90.000	359.230	7463.00	5577.56	5565.74	-388.50	39°57'33.665"N	104°41'13.590"W	0.00	
13313.00†	90.000	359.230	7463.00	5677.51	5665.73	-389.85	39°57'34.653"N	104°41'13.595"W	0.00	
13413.00†	90.000	359.230	7463.00	5777.46	5765.72	-391.19	39°57'35.642"N	104°41'13.601"W	0.00	
13513.00†	90.000	359.230	7463.00	5877.41	5865.71	-392.53	39°57'36.630"N	104°41'13.606"W	0.00	
13613.00†	90.000	359.230	7463.00	5977.36	5965.70	-393.88	39°57'37.618"N	104°41'13.612"W	0.00	
13713.00†	90.000	359.230	7463.00	6077.31	6065.69	-395.22	39°57'38.606"N	104°41'13.617"W	0.00	
13813.00†	90.000	359.230	7463.00	6177.27	6165.68	-396.56	39°57'39.595"N	104°41'13.623"W	0.00	
13913.00†	90.000	359.230	7463.00	6277.22	6265.67	-397.91	39°57'40.583"N	104°41'13.628"W	0.00	



Planned Wellpath Report

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

Page 7 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14013.00†	90.000	359.230	7463.00	6377.17	6365.67	-399.25	39°57'41.571"N	104°41'13.634"W	0.00	
14113.00†	90.000	359.230	7463.00	6477.12	6465.66	-400.60	39°57'42.559"N	104°41'13.639"W	0.00	
14213.00†	90.000	359.230	7463.00	6577.07	6565.65	-401.94	39°57'43.547"N	104°41'13.645"W	0.00	
14313.00†	90.000	359.230	7463.00	6677.02	6665.64	-403.28	39°57'44.536"N	104°41'13.650"W	0.00	
14413.00†	90.000	359.230	7463.00	6776.97	6765.63	-404.63	39°57'45.524"N	104°41'13.656"W	0.00	
14513.00†	90.000	359.230	7463.00	6876.92	6865.62	-405.97	39°57'46.512"N	104°41'13.661"W	0.00	
14613.00†	90.000	359.230	7463.00	6976.87	6965.61	-407.32	39°57'47.500"N	104°41'13.666"W	0.00	
14713.00†	90.000	359.230	7463.00	7076.82	7065.60	-408.66	39°57'48.489"N	104°41'13.672"W	0.00	
14813.00†	90.000	359.230	7463.00	7176.77	7165.59	-410.00	39°57'49.477"N	104°41'13.677"W	0.00	
14913.00†	90.000	359.230	7463.00	7276.72	7265.58	-411.35	39°57'50.465"N	104°41'13.683"W	0.00	
15013.00†	90.000	359.230	7463.00	7376.67	7365.58	-412.69	39°57'51.453"N	104°41'13.688"W	0.00	
15113.00†	90.000	359.230	7463.00	7476.62	7465.57	-414.03	39°57'52.442"N	104°41'13.694"W	0.00	
15213.00†	90.000	359.230	7463.00	7576.57	7565.56	-415.38	39°57'53.430"N	104°41'13.699"W	0.00	
15313.00†	90.000	359.230	7463.00	7676.52	7665.55	-416.72	39°57'54.418"N	104°41'13.705"W	0.00	
15413.00†	90.000	359.230	7463.00	7776.48	7765.54	-418.07	39°57'55.406"N	104°41'13.710"W	0.00	
15513.00†	90.000	359.230	7463.00	7876.43	7865.53	-419.41	39°57'56.394"N	104°41'13.716"W	0.00	
15613.00†	90.000	359.230	7463.00	7976.38	7965.52	-420.75	39°57'57.383"N	104°41'13.721"W	0.00	
15713.00†	90.000	359.230	7463.00	8076.33	8065.51	-422.10	39°57'58.371"N	104°41'13.727"W	0.00	
15813.00†	90.000	359.230	7463.00	8176.28	8165.50	-423.44	39°57'59.359"N	104°41'13.732"W	0.00	
15913.00†	90.000	359.230	7463.00	8276.23	8265.49	-424.78	39°58'00.347"N	104°41'13.738"W	0.00	
16013.00†	90.000	359.230	7463.00	8376.18	8365.49	-426.13	39°58'01.336"N	104°41'13.743"W	0.00	
16113.00†	90.000	359.230	7463.00	8476.13	8465.48	-427.47	39°58'02.324"N	104°41'13.749"W	0.00	
16213.00†	90.000	359.230	7463.00	8576.08	8565.47	-428.82	39°58'03.312"N	104°41'13.754"W	0.00	
16313.00†	90.000	359.230	7463.00	8676.03	8665.46	-430.16	39°58'04.300"N	104°41'13.760"W	0.00	
16413.00†	90.000	359.230	7463.00	8775.98	8765.45	-431.50	39°58'05.289"N	104°41'13.765"W	0.00	
16513.00†	90.000	359.230	7463.00	8875.93	8865.44	-432.85	39°58'06.277"N	104°41'13.771"W	0.00	
16613.00†	90.000	359.230	7463.00	8975.88	8965.43	-434.19	39°58'07.265"N	104°41'13.776"W	0.00	
16713.00†	90.000	359.230	7463.00	9075.83	9065.42	-435.53	39°58'08.253"N	104°41'13.782"W	0.00	
16813.00†	90.000	359.230	7463.00	9175.78	9165.41	-436.88	39°58'09.241"N	104°41'13.787"W	0.00	
16913.00†	90.000	359.230	7463.00	9275.73	9265.40	-438.22	39°58'10.230"N	104°41'13.793"W	0.00	



Planned Wellpath Report

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

Page 8 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17013.00†	90.000	359.230	7463.00	9375.69	9365.39	-439.57	39°58'11.218"N	104°41'13.798"W	0.00	
17113.00†	90.000	359.230	7463.00	9475.64	9465.39	-440.91	39°58'12.206"N	104°41'13.804"W	0.00	
17213.00†	90.000	359.230	7463.00	9575.59	9565.38	-442.25	39°58'13.194"N	104°41'13.809"W	0.00	
17313.00†	90.000	359.230	7463.00	9675.54	9665.37	-443.60	39°58'14.183"N	104°41'13.815"W	0.00	
17413.00†	90.000	359.230	7463.00	9775.49	9765.36	-444.94	39°58'15.171"N	104°41'13.820"W	0.00	
17513.00†	90.000	359.230	7463.00	9875.44	9865.35	-446.28	39°58'16.159"N	104°41'13.826"W	0.00	
17613.00†	90.000	359.230	7463.00	9975.39	9965.34	-447.63	39°58'17.147"N	104°41'13.831"W	0.00	
17619.73†	90.000	359.230	7463.00	9982.12	9972.07	-447.72	39°58'17.214"N	104°41'13.831"W	0.00	NIOBRARA C CHALK
17619.74	90.000	359.230	7463.00 ²	9982.12	9972.08	-447.72	39°58'17.214"N	104°41'13.831"W	0.00	End of Tangent (XS)

HOLE & CASING SECTIONS

- Ref Wellbore: WAKEMAN 20-17-3NCH PWB Ref 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	0.00	0.00	-12.82	-8.73
8.5in Open Hole	1800.00	17619.74	15819.74	1799.47	N/A	-12.82	-8.73	N/A	N/A



Planned Wellpath Report

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

Page 9 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	1.20	-119.27	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
SEC.20-T01S-R65W		0.00	1.20	-119.27	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
2) WAKEMAN 20-17-3NCH BHL (355'FNL & 2440'FEL, SEC.1)	17619.74	7463.00	9972.08	-447.72	3227807.88	1233490.30	39°58'17.214"N	104°41'13.831"W	point
1) WAKEMAN 20-17-3NCH EP (460'FSL & 2440'FEL, SEC.20)	7813.64	7463.00	166.86	-315.95	3227939.64	1223685.39	39°56'40.307"N	104°41'13.294"W	point
SEC.17/20-T01S-R65W 460'SETBACK		7638.00	1.20	-119.27	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon

SURVEY PROGRAM -

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



Planned Wellpath Report

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

Page 10 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1500.00	0.000	214.261	1500.00	FOX HILLS
4863.91	5.356	214.261	4850.00	SUSSEX/SHANNON
7264.83	35.236	354.861	7220.00	NIOBRARA A CHALK
7287.18	37.462	355.203	7238.00	NIOBRARA A MARL
7533.57	62.037	357.593	7396.00	NIOBRARA B CHALK
7609.30	69.597	358.083	7427.00	NIOBRARA B MARL
17619.73	90.000	359.230	7463.00	NIOBRARA C CHALK

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	214.261	13.00	Tie On
1500.00	0.000	214.261	1500.00	End of Tangent
1767.79	5.356	214.261	1767.40	End of Build (XS)
6869.81	5.356	214.261	6847.14	End of Tangent (XS)
7813.64	90.000	359.230	7463.00	End of 3D Arc (XS)
17619.74	90.000	359.230	7463.00	End of Tangent (XS)



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 1 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Ingmjmr
Scale	0.999971	Report Generated	9/22/2017 at 12:48:19 PM
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB1/WAKEMAN_20-17-3NCH_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	-0.20	-104.98	3228255.58	1223518.53	39°56'38.629"N	104°41'09.257"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#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'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 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 2 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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 20-17-3NCH PWB Ref 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	0.00	0.00	-12.82	-8.73
8.5in Open Hole	1800.00	17619.74	15819.74	1799.47	N/A	-12.82	-8.73	N/A	N/A

SURVEY PROGRAM - Ref Wellbore: WAKEMAN 20-17-3NCH PWB Ref 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



Clearance Report

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

Closest Approach

Page 3 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

CALCULATION RANGE & CUTOFF

From: 13.00ft MD	To: 17619.74ft MD	C-C Cutoff: 1000.00 ft
------------------	-------------------	------------------------

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#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	15.06	17613.00	17613.00	0.65	17613.00	FAIL
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)	1682.34	13.33	1682.34	17619.74	0.69	17619.74	FAIL
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	10666.85	312.45	10667.50	10666.85	1.04	10666.85	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	16001.96	485.97	16001.96	16001.96	1.05	16001.96	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	30.00	17513.00	17619.74	1.23	17619.74	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	29.95	1500.00	17619.74	1.30	17619.74	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	45.03	17513.00	17619.74	1.31	17619.74	PASS
SEC.20-T01S-R65W	SLOT#11 WAKEMAN 20-17-2NAH (293'FSL & 2173'FEL, SEC.20)	WAKEMAN 20-17-2NAH	WAKEMAN 20-17-2NAH PWB	WAKEMAN 20-17-2NAH PWP (REV-A.0)	13.00	45.00	1313.00	17619.74	1.84	17619.74	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	60.03	17513.00	17619.74	1.89	17619.74	PASS
SEC.20-T01S-R65W	SLOT#12 WAKEMAN 20-17-2CDH (293'FSL & 2188'FEL, SEC.20)	WAKEMAN 20-17-2CDH	WAKEMAN 20-17-2CDH PWB	WAKEMAN 20-17-2CDH PWP (REV-A.0)	13.00	59.98	1213.00	17619.74	1.97	17619.74	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	75.03	17513.00	17619.74	2.53	17619.74	PASS
SEC.20-T01S-R65W	SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)	WAKEMAN 20-17-1NBH	WAKEMAN 20-17-1NBH PWB	WAKEMAN 20-17-1NBH PWP (REV-A.0)	13.00	74.98	1113.00	17619.74	2.56	17619.74	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	11855.24	984.71	11855.24	11939.08	2.93	11939.08	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	13660.50	1167.58	13660.50	13713.00	2.99	13713.00	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	89.98	813.00	17619.74	3.04	17619.74	PASS
SEC.20-T01S-R65W	SLOT#01 WAKEMAN 20-17-4CDH (293'FSL & 2023'FEL, SEC.20)	WAKEMAN 20-17-4CDH	WAKEMAN 20-17-4CDH PWB	WAKEMAN 20-17-4CDH PWP (REV-A.0)	13.00	104.98	11413.00	17619.74	3.18	17619.74	PASS
SEC.20-T01S-R65W	SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20)	WAKEMAN 20-17-1NCH	WAKEMAN 20-17-1NCH PWB	WAKEMAN 20-17-1NCH PWP (REV-A.0)	13.00	89.92	913.00	17619.74	3.19	17619.74	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	104.98	813.00	17619.74	3.68	17619.74	PASS
SEC.17-T1S-R65W	SLOT#02 EX. AMOCO #24-17 (990'FSL & 1360'FWL, SEC.17, OG, PR, 8130)	AMOCO #24-17	AMOCO #24-17	AMOCO #24-17 AWP	13634.23	1498.44	13634.23	13780.11	3.83	13780.11	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	119.93	713.00	17619.74	3.84	17619.74	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	11643.18	1412.78	11643.18	11745.60	4.28	11745.60	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	14513.00	2442.11	14513.00	14839.64	5.80	14839.64	PASS
SEC.20-T01S-R65W	SLOT#01 EX. WOLFE #1 (990'FSL & 990'FEL, SEC.20, OG, PR, 8200)	WOLFE #1	WOLFE #1 AWB	WOLFE #1 AWP	13.00	1316.23	8313.00	8444.99	5.91	8444.99	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	16950.50	3420.42	16950.50	17363.24	6.87	17363.24	PASS
SEC.20-T1S-R65W	SLOT#01 EX. COLLINS #14-20 (990'FSL & 990'FWL, SEC.20, OG, PR, 8202)	COLLINS #14-20	COLLINS #14-20 AWB	COLLINS #14-20 AWP	8375.50	1866.10	8375.50	8730.26	7.62	8730.26	PASS



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 4 of 99



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

CALCULATION RANGE & CUTOFF		
From: 13.00ft MD	To: 17619.74ft MD	C-C Cutoff: 1000.00 ft

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.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	16900.50	3899.84	16900.50	17541.39	7.81	17541.39	PASS



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 5 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	-0.01	15.06	90.03	15.06	1.40	23.76	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.01	15.06	90.03	15.06	1.72	15.52	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.01	15.06	90.03	15.06	2.29	9.60	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.01	15.06	90.03	15.06	2.89	6.83	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.01	15.06	90.03	15.06	3.50	5.28	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.01	15.06	90.03	15.06	4.12	4.29	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.01	15.06	90.03	15.06	4.74	3.62	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.01	15.06	90.03	15.06	5.37	3.12	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.01	15.06	90.03	15.06	5.99	2.75	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.01	15.06	90.03	15.06	6.62	2.45	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.01	15.06	90.03	15.06	7.25	2.21	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.01	15.06	90.03	15.06	7.87	2.02	PASS
1213.00†	1213.00	0.00	0.00	1213.00	1213.00	-0.01	15.06	90.03	15.06	8.50	1.85	PASS
1313.00†	1313.00	0.00	0.00	1313.00	1313.00	-0.01	15.06	90.03	15.06	9.13	1.71	PASS
1413.00†	1413.00	0.00	0.00	1412.99	1412.99	-0.04	15.06	90.14	15.06	9.75	1.59	PASS
1500.00	1500.00	0.00	0.00	1499.87	1499.85	-1.73	15.34	96.42	15.43	10.30	1.54	PASS
1513.00†	1513.00	-0.02	-0.02	1512.85	1512.82	-2.20	15.41	-116.23	15.58	10.38	1.54	PASS
1613.00†	1612.97	-1.84	-1.25	1612.52	1612.33	-7.78	16.32	-105.49	18.57	11.09	1.73	PASS
1713.00†	1712.80	-6.54	-4.46	1712.34	1711.85	-15.40	17.56	-102.15	23.75	11.76	2.09	PASS
1767.79	1767.40	-10.34	-7.04	1767.03	1766.37	-19.58	18.24	-103.93	26.94	12.12	2.31	PASS
1813.00†	1812.41	-13.82	-9.42	1812.15	1811.36	-23.02	18.80	-105.95	29.70	12.33	2.49	PASS
1913.00†	1911.98	-21.54	-14.67	1911.94	1910.85	-30.65	20.04	-109.31	35.91	13.00	2.86	PASS
2013.00†	2011.54	-29.25	-19.93	2011.73	2010.33	-38.28	21.28	-111.68	42.20	13.70	3.19	PASS
2113.00†	2111.10	-36.97	-25.18	2111.52	2109.82	-45.90	22.52	-113.43	48.55	14.40	3.49	PASS
2213.00†	2210.67	-44.68	-30.43	2211.30	2209.31	-53.53	23.76	-114.77	54.93	15.12	3.76	PASS
2313.00†	2310.23	-52.40	-35.69	2311.09	2308.80	-61.16	25.00	-115.84	61.34	15.84	4.01	PASS
2413.00†	2409.79	-60.11	-40.94	2410.88	2408.29	-68.78	26.24	-116.70	67.76	16.57	4.23	PASS
2513.00†	2509.36	-67.82	-46.20	2510.67	2507.78	-76.41	27.48	-117.41	74.20	17.30	4.43	PASS
2613.00†	2608.92	-75.54	-51.45	2610.46	2607.27	-84.03	28.72	-118.01	80.64	18.04	4.61	PASS
2713.00†	2708.48	-83.25	-56.71	2710.25	2706.76	-91.66	29.96	-118.52	87.09	18.79	4.78	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 6 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2810.04	2806.25	-99.29	31.20	-118.96	93.55	19.53	4.93	PASS
2913.00†	2907.61	-98.68	-67.22	2909.83	2905.74	-106.91	32.44	-119.35	100.02	20.28	5.07	PASS
3013.00†	3007.17	-106.40	-72.47	3009.61	3005.23	-114.54	33.68	-119.68	106.48	21.04	5.20	PASS
3113.00†	3106.74	-114.11	-77.73	3109.40	3104.72	-122.16	34.92	-119.98	112.96	21.79	5.32	PASS
3213.00†	3206.30	-121.82	-82.98	3209.19	3204.21	-129.79	36.16	-120.25	119.43	22.55	5.43	PASS
3313.00†	3305.86	-129.54	-88.24	3308.98	3303.69	-137.42	37.40	-120.48	125.91	23.31	5.54	PASS
3413.00†	3405.43	-137.25	-93.49	3408.77	3403.18	-145.04	38.64	-120.70	132.38	24.08	5.63	PASS
3513.00†	3504.99	-144.97	-98.74	3508.56	3502.67	-152.67	39.88	-120.89	138.86	24.84	5.72	PASS
3613.00†	3604.55	-152.68	-104.00	3608.35	3602.16	-160.29	41.12	-121.07	145.34	25.61	5.81	PASS
3713.00†	3704.12	-160.40	-109.25	3708.14	3701.65	-167.92	42.36	-121.23	151.83	26.38	5.89	PASS
3813.00†	3803.68	-168.11	-114.51	3807.92	3801.14	-175.55	43.61	-121.38	158.31	27.14	5.96	PASS
3913.00†	3903.25	-175.82	-119.76	3907.71	3900.63	-183.17	44.85	-121.52	164.79	27.91	6.03	PASS
4013.00†	4002.81	-183.54	-125.02	4007.50	4000.12	-190.80	46.09	-121.65	171.28	28.69	6.10	PASS
4113.00†	4102.37	-191.25	-130.27	4107.29	4099.61	-198.43	47.33	-121.77	177.76	29.46	6.16	PASS
4213.00†	4201.94	-198.97	-135.53	4207.08	4199.10	-206.05	48.57	-121.87	184.25	30.23	6.22	PASS
4313.00†	4301.50	-206.68	-140.78	4306.87	4298.59	-213.68	49.81	-121.98	190.74	31.01	6.27	PASS
4413.00†	4401.06	-214.40	-146.04	4406.66	4398.08	-221.30	51.05	-122.07	197.23	31.78	6.32	PASS
4513.00†	4500.63	-222.11	-151.29	4506.45	4497.57	-228.93	52.29	-122.16	203.71	32.56	6.37	PASS
4613.00†	4600.19	-229.82	-156.55	4606.24	4597.05	-236.56	53.53	-122.25	210.20	33.33	6.42	PASS
4713.00†	4699.75	-237.54	-161.80	4706.02	4696.54	-244.18	54.77	-122.32	216.69	34.11	6.47	PASS
4813.00†	4799.32	-245.25	-167.05	4805.81	4796.03	-251.81	56.01	-122.40	223.18	34.89	6.51	PASS
4913.00†	4898.88	-252.97	-172.31	4905.60	4895.52	-259.43	57.25	-122.47	229.67	35.67	6.55	PASS
5013.00†	4998.44	-260.68	-177.56	5005.39	4995.01	-267.06	58.49	-122.53	236.16	36.45	6.59	PASS
5113.00†	5098.01	-268.40	-182.82	5105.18	5094.50	-274.69	59.73	-122.60	242.65	37.23	6.63	PASS
5213.00†	5197.57	-276.11	-188.07	5204.97	5193.99	-282.31	60.97	-122.66	249.14	38.01	6.66	PASS
5313.00†	5297.13	-283.82	-193.33	5304.76	5293.48	-289.94	62.21	-122.71	255.64	38.79	6.69	PASS
5413.00†	5396.70	-291.54	-198.58	5404.55	5392.97	-297.56	63.45	-122.77	262.13	39.57	6.73	PASS
5513.00†	5496.26	-299.25	-203.84	5504.33	5492.46	-305.19	64.69	-122.82	268.62	40.35	6.76	PASS
5613.00†	5595.82	-306.97	-209.09	5604.12	5591.95	-312.82	65.93	-122.86	275.11	41.13	6.79	PASS
5713.00†	5695.39	-314.68	-214.35	5703.91	5691.44	-320.44	67.17	-122.91	281.60	41.91	6.82	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 7 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20) Well: WAKEMAN 20-17-3NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5794.95	-322.40	-219.60	5803.70	5790.93	-328.07	68.41	-122.96	288.09	42.69	6.84	PASS
5913.00†	5894.51	-330.11	-224.86	5903.49	5890.41	-335.70	69.65	-123.00	294.59	43.48	6.87	PASS
6013.00†	5994.08	-337.82	-230.11	6003.28	5989.90	-343.32	70.89	-123.04	301.08	44.26	6.90	PASS
6113.00†	6093.64	-345.54	-235.36	6103.07	6089.39	-350.95	72.13	-123.08	307.57	45.04	6.92	PASS
6213.00†	6193.20	-353.25	-240.62	6202.86	6188.88	-358.57	73.37	-123.11	314.06	45.83	6.95	PASS
6313.00†	6292.77	-360.97	-245.87	6302.64	6288.37	-366.20	74.61	-123.15	320.56	46.61	6.97	PASS
6413.00†	6392.33	-368.68	-251.13	6402.43	6387.86	-373.83	75.85	-123.18	327.05	47.39	6.99	PASS
6513.00†	6491.89	-376.40	-256.38	6502.22	6487.35	-381.45	77.09	-123.22	333.54	48.18	7.01	PASS
6613.00†	6591.46	-384.11	-261.64	6602.01	6586.84	-389.08	78.33	-123.25	340.04	48.96	7.03	PASS
6713.00†	6691.02	-391.82	-266.89	6701.80	6686.33	-396.70	79.57	-123.28	346.53	49.75	7.05	PASS
6813.00†	6790.58	-399.54	-272.15	6801.72	6785.95	-404.29	80.81	-123.32	353.02	50.53	7.07	PASS
6869.81	6847.14	-403.92	-275.13	6859.09	6843.29	-405.03	81.48	-123.92	356.63	51.61	6.99	PASS
6913.00†	6890.23	-405.63	-277.43	6902.17	6886.24	-401.81	81.93	-178.65	359.40	52.46	6.93	PASS
7013.00†	6989.59	-397.11	-282.89	7000.55	6982.57	-382.46	82.77	105.10	366.02	56.76	6.52	PASS
7113.00†	7085.95	-371.44	-288.42	7097.16	7072.59	-347.71	83.33	94.50	372.74	58.17	6.47	PASS
7213.00†	7176.38	-329.40	-293.85	7192.21	7154.23	-299.26	83.61	89.65	379.31	57.58	6.66	PASS
7313.00†	7258.14	-272.27	-299.02	7285.89	7225.79	-238.96	83.62	86.49	385.44	56.87	6.85	PASS
7413.00†	7328.74	-201.78	-303.77	7378.43	7285.91	-168.74	83.36	84.20	390.89	56.22	7.03	PASS
7513.00†	7386.03	-120.09	-307.95	7470.05	7333.54	-90.59	82.85	82.51	395.41	55.80	7.16	PASS
7613.00†	7428.28	-29.66	-311.44	7560.95	7367.90	-6.54	82.12	81.32	398.83	55.75	7.23	PASS
7713.00†	7454.20	66.76	-314.13	7651.35	7388.48	81.39	81.17	80.57	400.99	56.14	7.22	PASS
7813.00†	7463.00	166.23	-315.94	7741.85	7395.00	171.55	80.03	80.26	401.80	57.01	7.12	PASS
7813.64	7463.00	166.86	-315.95	7742.49	7395.00	172.19	80.02	80.26	401.80	57.02	7.12	PASS
7913.00†	7463.00	266.22	-317.28	7841.85	7395.00	271.54	78.68	80.26	401.80	58.56	6.93	PASS
8013.00†	7463.00	366.21	-318.63	7941.85	7395.00	371.53	77.34	80.26	401.80	60.70	6.69	PASS
8113.00†	7463.00	466.20	-319.97	8041.85	7395.00	471.53	75.99	80.26	401.80	63.39	6.40	PASS
8213.00†	7463.00	566.19	-321.31	8141.85	7395.00	571.52	74.65	80.26	401.79	66.56	6.09	PASS
8313.00†	7463.00	666.18	-322.66	8241.85	7395.00	671.51	73.30	80.26	401.79	70.13	5.78	PASS
8413.00†	7463.00	766.17	-324.00	8341.85	7395.00	771.50	71.96	80.26	401.79	74.06	5.47	PASS
8513.00†	7463.00	866.16	-325.34	8441.85	7395.00	871.49	70.61	80.26	401.79	78.28	5.17	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 8 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20) Well: WAKEMAN 20-17-3NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8613.00†	7463.00	966.15	-326.69	8541.85	7395.00	971.48	69.27	80.26	401.79	82.74	4.89	PASS
8713.00†	7463.00	1066.14	-328.03	8641.85	7395.00	1071.47	67.92	80.26	401.79	87.42	4.63	PASS
8813.00†	7463.00	1166.14	-329.38	8741.85	7395.00	1171.46	66.58	80.26	401.79	92.28	4.38	PASS
8913.00†	7463.00	1266.13	-330.72	8841.85	7395.00	1271.45	65.23	80.26	401.79	97.29	4.15	PASS
9013.00†	7463.00	1366.12	-332.06	8941.85	7395.00	1371.44	63.89	80.26	401.78	102.43	3.94	PASS
9113.00†	7463.00	1466.11	-333.41	9041.85	7395.00	1471.43	62.54	80.26	401.78	107.68	3.75	PASS
9213.00†	7463.00	1566.10	-334.75	9141.85	7395.00	1571.43	61.20	80.26	401.78	113.02	3.57	PASS
9313.00†	7463.00	1666.09	-336.09	9241.85	7395.00	1671.42	59.85	80.26	401.78	118.45	3.41	PASS
9413.00†	7463.00	1766.08	-337.44	9341.85	7395.00	1771.41	58.51	80.26	401.78	123.94	3.25	PASS
9513.00†	7463.00	1866.07	-338.78	9441.85	7395.00	1871.40	57.16	80.26	401.78	129.50	3.11	PASS
9613.00†	7463.00	1966.06	-340.13	9541.85	7395.00	1971.39	55.82	80.26	401.78	135.10	2.98	PASS
9713.00†	7463.00	2066.05	-341.47	9641.85	7395.00	2071.38	54.47	80.26	401.77	140.78	2.86	PASS
9813.00†	7463.00	2166.04	-342.81	9741.85	7395.00	2171.37	53.13	80.26	401.77	146.49	2.75	PASS
9913.00†	7463.00	2266.04	-344.16	9841.85	7395.00	2271.36	51.78	80.26	401.77	152.23	2.65	PASS
10013.00†	7463.00	2366.03	-345.50	9941.85	7395.00	2371.35	50.44	80.26	401.77	158.01	2.55	PASS
10113.00†	7463.00	2466.02	-346.85	10041.85	7395.00	2471.34	49.09	80.26	401.77	163.81	2.46	PASS
10213.00†	7463.00	2566.01	-348.19	10141.85	7395.00	2571.34	47.75	80.26	401.77	169.64	2.37	PASS
10313.00†	7463.00	2666.00	-349.53	10241.85	7395.00	2671.33	46.40	80.26	401.77	175.50	2.29	PASS
10413.00†	7463.00	2765.99	-350.88	10341.85	7395.00	2771.32	45.06	80.26	401.77	181.38	2.22	PASS
10513.00†	7463.00	2865.98	-352.22	10441.85	7395.00	2871.31	43.71	80.26	401.76	187.28	2.15	PASS
10613.00†	7463.00	2965.97	-353.56	10541.85	7395.00	2971.30	42.37	80.26	401.76	193.20	2.08	PASS
10713.00†	7463.00	3065.96	-354.91	10641.85	7395.00	3071.29	41.02	80.26	401.76	199.13	2.02	PASS
10813.00†	7463.00	3165.95	-356.25	10741.85	7395.00	3171.28	39.68	80.26	401.76	205.08	1.96	PASS
10913.00†	7463.00	3265.95	-357.60	10841.85	7395.00	3271.27	38.33	80.26	401.76	211.04	1.91	PASS
11013.00†	7463.00	3365.94	-358.94	10941.85	7395.00	3371.26	36.99	80.26	401.76	217.02	1.85	PASS
11113.00†	7463.00	3465.93	-360.28	11041.85	7395.00	3471.25	35.64	80.26	401.76	223.00	1.80	PASS
11213.00†	7463.00	3565.92	-361.63	11141.85	7395.00	3571.24	34.30	80.26	401.75	229.00	1.76	PASS
11313.00†	7463.00	3665.91	-362.97	11241.85	7395.00	3671.24	32.95	80.26	401.75	235.01	1.71	PASS
11413.00†	7463.00	3765.90	-364.31	11341.85	7395.00	3771.23	31.61	80.26	401.75	241.02	1.67	PASS
11513.00†	7463.00	3865.89	-365.66	11441.85	7395.00	3871.22	30.26	80.26	401.75	247.04	1.63	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 9 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20) Well: WAKEMAN 20-17-3NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
11613.00†	7463.00	3965.88	-367.00	11541.85	7395.00	3971.21	28.91	80.26	401.75	253.08	1.59	PASS
11713.00†	7463.00	4065.87	-368.35	11641.85	7395.00	4071.20	27.57	80.26	401.75	259.12	1.55	PASS
11813.00†	7463.00	4165.86	-369.69	11741.85	7395.00	4171.19	26.22	80.26	401.75	265.16	1.52	PASS
11913.00†	7463.00	4265.86	-371.03	11841.85	7395.00	4271.18	24.88	80.26	401.75	271.21	1.48	PASS
12013.00†	7463.00	4365.85	-372.38	11941.85	7395.00	4371.17	23.53	80.26	401.74	277.27	1.45	PASS
12113.00†	7463.00	4465.84	-373.72	12041.85	7395.00	4471.16	22.19	80.26	401.74	283.34	1.42	PASS
12213.00†	7463.00	4565.83	-375.06	12141.85	7395.00	4571.15	20.84	80.26	401.74	289.40	1.39	PASS
12313.00†	7463.00	4665.82	-376.41	12241.85	7395.00	4671.15	19.50	80.26	401.74	295.48	1.36	PASS
12413.00†	7463.00	4765.81	-377.75	12341.85	7395.00	4771.14	18.15	80.26	401.74	301.56	1.33	PASS
12513.00†	7463.00	4865.80	-379.10	12441.85	7395.00	4871.13	16.81	80.26	401.74	307.64	1.31	PASS
12613.00†	7463.00	4965.79	-380.44	12541.85	7395.00	4971.12	15.46	80.26	401.74	313.72	1.28	PASS
12713.00†	7463.00	5065.78	-381.78	12641.85	7395.00	5071.11	14.12	80.26	401.73	319.81	1.26	PASS
12813.00†	7463.00	5165.77	-383.13	12741.85	7395.00	5171.10	12.77	80.26	401.73	325.91	1.23	PASS
12913.00†	7463.00	5265.76	-384.47	12841.85	7395.00	5271.09	11.43	80.26	401.73	332.01	1.21	PASS
13013.00†	7463.00	5365.76	-385.81	12941.85	7395.00	5371.08	10.08	80.26	401.73	338.11	1.19	PASS
13113.00†	7463.00	5465.75	-387.16	13041.85	7395.00	5471.07	8.74	80.26	401.73	344.21	1.17	PASS
13213.00†	7463.00	5565.74	-388.50	13141.85	7395.00	5571.06	7.39	80.26	401.73	350.32	1.15	PASS
13313.00†	7463.00	5665.73	-389.85	13241.85	7395.00	5671.05	6.05	80.26	401.73	356.43	1.13	PASS
13413.00†	7463.00	5765.72	-391.19	13341.85	7395.00	5771.05	4.70	80.26	401.73	362.54	1.11	PASS
13513.00†	7463.00	5865.71	-392.53	13441.85	7395.00	5871.04	3.36	80.26	401.72	368.65	1.09	PASS
13613.00†	7463.00	5965.70	-393.88	13541.85	7395.00	5971.03	2.01	80.26	401.72	374.77	1.07	PASS
13713.00†	7463.00	6065.69	-395.22	13641.85	7395.00	6071.02	0.67	80.26	401.72	380.89	1.05	PASS
13813.00†	7463.00	6165.68	-396.56	13741.85	7395.00	6171.01	-0.68	80.25	401.72	387.01	1.04	PASS
13913.00†	7463.00	6265.67	-397.91	13841.85	7395.00	6271.00	-2.02	80.25	401.72	393.13	1.02	PASS
14013.00†	7463.00	6365.67	-399.25	13941.85	7395.00	6370.99	-3.37	80.25	401.72	399.25	1.01	PASS
14113.00†	7463.00	6465.66	-400.60	14041.85	7395.00	6470.98	-4.71	80.25	401.72	405.38	0.99	FAIL
14213.00†	7463.00	6565.65	-401.94	14141.85	7395.00	6570.97	-6.06	80.25	401.71	411.51	0.98	FAIL
14313.00†	7463.00	6665.64	-403.28	14241.85	7395.00	6670.96	-7.40	80.25	401.71	417.64	0.96	FAIL
14413.00†	7463.00	6765.63	-404.63	14341.85	7395.00	6770.96	-8.75	80.25	401.71	423.77	0.95	FAIL
14513.00†	7463.00	6865.62	-405.97	14441.85	7395.00	6870.95	-10.09	80.25	401.71	429.90	0.93	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 10 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20) Well: WAKEMAN 20-17-3NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
14613.00†	7463.00	6965.61	-407.32	14541.85	7395.00	6970.94	-11.44	80.25	401.71	436.04	0.92	FAIL
14713.00†	7463.00	7065.60	-408.66	14641.85	7395.00	7070.93	-12.78	80.25	401.71	442.18	0.91	FAIL
14813.00†	7463.00	7165.59	-410.00	14741.85	7395.00	7170.92	-14.13	80.25	401.71	448.31	0.90	FAIL
14913.00†	7463.00	7265.58	-411.35	14841.85	7395.00	7270.91	-15.47	80.25	401.71	454.45	0.88	FAIL
15013.00†	7463.00	7365.58	-412.69	14941.85	7395.00	7370.90	-16.82	80.25	401.70	460.59	0.87	FAIL
15113.00†	7463.00	7465.57	-414.03	15041.85	7395.00	7470.89	-18.16	80.25	401.70	466.73	0.86	FAIL
15213.00†	7463.00	7565.56	-415.38	15141.85	7395.00	7570.88	-19.51	80.25	401.70	472.88	0.85	FAIL
15313.00†	7463.00	7665.55	-416.72	15241.85	7395.00	7670.87	-20.86	80.25	401.70	479.02	0.84	FAIL
15413.00†	7463.00	7765.54	-418.07	15341.85	7395.00	7770.86	-22.20	80.25	401.70	485.16	0.83	FAIL
15513.00†	7463.00	7865.53	-419.41	15441.85	7395.00	7870.86	-23.55	80.25	401.70	491.31	0.82	FAIL
15613.00†	7463.00	7965.52	-420.75	15541.85	7395.00	7970.85	-24.89	80.25	401.70	497.46	0.81	FAIL
15713.00†	7463.00	8065.51	-422.10	15641.85	7395.00	8070.84	-26.24	80.25	401.69	503.60	0.80	FAIL
15813.00†	7463.00	8165.50	-423.44	15741.85	7395.00	8170.83	-27.58	80.25	401.69	509.75	0.79	FAIL
15913.00†	7463.00	8265.49	-424.78	15841.85	7395.00	8270.82	-28.93	80.25	401.69	515.90	0.78	FAIL
16013.00†	7463.00	8365.49	-426.13	15941.85	7395.00	8370.81	-30.27	80.25	401.69	522.05	0.77	FAIL
16113.00†	7463.00	8465.48	-427.47	16041.85	7395.00	8470.80	-31.62	80.25	401.69	528.20	0.76	FAIL
16213.00†	7463.00	8565.47	-428.82	16141.85	7395.00	8570.79	-32.96	80.25	401.69	534.35	0.75	FAIL
16313.00†	7463.00	8665.46	-430.16	16241.85	7395.00	8670.78	-34.31	80.25	401.69	540.51	0.74	FAIL
16413.00†	7463.00	8765.45	-431.50	16341.85	7395.00	8770.77	-35.65	80.25	401.69	546.66	0.73	FAIL
16513.00†	7463.00	8865.44	-432.85	16441.85	7395.00	8870.77	-37.00	80.25	401.68	552.81	0.73	FAIL
16613.00†	7463.00	8965.43	-434.19	16541.85	7395.00	8970.76	-38.34	80.25	401.68	558.97	0.72	FAIL
16713.00†	7463.00	9065.42	-435.53	16641.85	7395.00	9070.75	-39.69	80.25	401.68	565.12	0.71	FAIL
16813.00†	7463.00	9165.41	-436.88	16741.85	7395.00	9170.74	-41.03	80.25	401.68	571.28	0.70	FAIL
16913.00†	7463.00	9265.40	-438.22	16841.85	7395.00	9270.73	-42.38	80.25	401.68	577.44	0.70	FAIL
17013.00†	7463.00	9365.39	-439.57	16941.85	7395.00	9370.72	-43.72	80.25	401.68	583.59	0.69	FAIL
17113.00†	7463.00	9465.39	-440.91	17041.85	7395.00	9470.71	-45.07	80.25	401.68	589.75	0.68	FAIL
17213.00†	7463.00	9565.38	-442.25	17141.85	7395.00	9570.70	-46.41	80.25	401.67	595.91	0.67	FAIL
17313.00†	7463.00	9665.37	-443.60	17241.85	7395.00	9670.69	-47.76	80.25	401.67	602.07	0.67	FAIL
17413.00†	7463.00	9765.36	-444.94	17341.85	7395.00	9770.68	-49.10	80.25	401.67	608.23	0.66	FAIL
17513.00†	7463.00	9865.35	-446.28	17441.85	7395.00	9870.67	-50.45	80.25	401.67	614.39	0.65	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 11 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20) Well: WAKEMAN 20-17-3NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17613.00†	7463.00	9965.34	-447.63	17541.85	7395.00	9970.67	-51.79	80.25	401.67	620.55	0.65	FAIL
17619.74	7463.00	9972.08	-447.72	17542.23	7395.00	9971.05	-51.80	80.25	401.72	620.58	0.65	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.24	0.00	9.18	-6.74	10.27
8.5in Open Hole	1800.00	17542.23	15742.23	1799.24	7395.00	-6.74	10.27	3039.17	-11.20

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 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 12 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	-0.06	-14.97	-90.25	14.97	1.40	23.62	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.06	-14.97	-90.25	14.97	1.73	15.34	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.06	-14.97	-90.25	14.97	2.30	9.48	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.06	-14.97	-90.25	14.97	2.90	6.75	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.06	-14.97	-90.25	14.97	3.52	5.22	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.06	-14.97	-90.25	14.97	4.14	4.25	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.06	-14.97	-90.25	14.97	4.76	3.58	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.06	-14.97	-90.25	14.97	5.38	3.09	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.06	-14.97	-90.25	14.97	6.01	2.72	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.06	-14.97	-90.25	14.97	6.63	2.43	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.06	-14.97	-90.25	14.97	7.26	2.19	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.06	-14.97	-90.25	14.97	7.89	2.00	PASS
1213.00†	1213.00	0.00	0.00	1213.00	1213.00	-0.06	-14.97	-90.25	14.97	8.51	1.84	PASS
1313.00†	1313.00	0.00	0.00	1313.00	1313.00	-0.06	-14.97	-90.25	14.97	9.14	1.70	PASS
1413.00†	1413.00	0.00	0.00	1413.00	1413.00	-0.06	-14.97	-90.25	14.97	9.77	1.58	PASS
1500.00	1500.00	0.00	0.00	1500.00	1500.00	-0.06	-14.97	-90.25	14.97	10.31	1.49	PASS
1513.00†	1513.00	-0.02	-0.02	1513.00	1513.00	-0.06	-14.97	55.59	14.96	10.40	1.48	PASS
1613.00†	1612.97	-1.84	-1.25	1612.92	1612.92	-0.08	-15.00	63.05	13.86	11.03	1.28	PASS
1682.34†	1682.22	-4.79	-3.27	1681.98	1681.97	-0.71	-15.95	73.56	13.33	11.50	1.17	PASS
1713.00†	1712.80	-6.54	-4.46	1712.54	1712.51	-1.27	-16.82	78.75	13.45	11.67	1.16	PASS
1767.79	1767.40	-10.34	-7.04	1767.15	1767.05	-2.73	-19.05	87.95	14.22	12.07	1.19	PASS
1813.00†	1812.41	-13.82	-9.42	1812.24	1812.04	-4.36	-21.55	93.54	15.39	12.22	1.28	PASS
1913.00†	1911.98	-21.54	-14.67	1911.99	1911.38	-9.35	-29.18	95.58	18.96	12.91	1.50	PASS
2013.00†	2011.54	-29.25	-19.93	2011.59	2010.18	-16.22	-39.68	88.86	23.71	13.68	1.77	PASS
2113.00†	2111.10	-36.97	-25.18	2111.31	2108.82	-24.21	-51.91	80.89	29.70	14.49	2.10	PASS
2213.00†	2210.67	-44.68	-30.43	2211.06	2207.49	-32.22	-64.15	75.63	36.09	15.28	2.43	PASS
2313.00†	2310.23	-52.40	-35.69	2310.81	2306.17	-40.22	-76.40	71.97	42.68	16.05	2.74	PASS
2413.00†	2409.79	-60.11	-40.94	2410.56	2404.84	-48.23	-88.64	69.30	49.41	16.82	3.02	PASS
2513.00†	2509.36	-67.82	-46.20	2510.32	2503.51	-56.24	-100.89	67.27	56.21	17.58	3.29	PASS
2613.00†	2608.92	-75.54	-51.45	2610.07	2602.18	-64.24	-113.14	65.69	63.07	18.34	3.54	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 13 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
2713.00†	2708.48	-83.25	-56.71	2709.82	2700.85	-72.25	-125.38	64.41	69.97	19.10	3.77	PASS
2813.00†	2808.05	-90.97	-61.96	2809.57	2799.53	-80.25	-137.63	63.36	76.89	19.86	3.98	PASS
2913.00†	2907.61	-98.68	-67.22	2909.32	2898.20	-88.26	-149.87	62.49	83.84	20.63	4.17	PASS
3013.00†	3007.17	-106.40	-72.47	3009.07	2996.87	-96.27	-162.12	61.75	90.80	21.39	4.36	PASS
3113.00†	3106.74	-114.11	-77.73	3108.82	3095.54	-104.27	-174.37	61.12	97.78	22.16	4.53	PASS
3213.00†	3206.30	-121.82	-82.98	3208.57	3194.21	-112.28	-186.61	60.57	104.77	22.92	4.68	PASS
3313.00†	3305.86	-129.54	-88.24	3308.32	3292.89	-120.29	-198.86	60.09	111.76	23.69	4.83	PASS
3413.00†	3405.43	-137.25	-93.49	3408.07	3391.56	-128.29	-211.10	59.66	118.77	24.47	4.97	PASS
3513.00†	3504.99	-144.97	-98.74	3507.82	3490.23	-136.30	-223.35	59.28	125.77	25.24	5.10	PASS
3613.00†	3604.55	-152.68	-104.00	3607.58	3588.90	-144.31	-235.60	58.95	132.79	26.02	5.22	PASS
3713.00†	3704.12	-160.40	-109.25	3707.33	3687.57	-152.31	-247.84	58.64	139.81	26.79	5.33	PASS
3813.00†	3803.68	-168.11	-114.51	3807.08	3786.25	-160.32	-260.09	58.37	146.83	27.57	5.44	PASS
3913.00†	3903.25	-175.82	-119.76	3906.83	3884.92	-168.32	-272.33	58.12	153.85	28.35	5.54	PASS
4013.00†	4002.81	-183.54	-125.02	4006.58	3983.59	-176.33	-284.58	57.89	160.88	29.13	5.63	PASS
4113.00†	4102.37	-191.25	-130.27	4106.33	4082.26	-184.34	-296.83	57.68	167.90	29.92	5.72	PASS
4213.00†	4201.94	-198.97	-135.53	4206.08	4180.93	-192.34	-309.07	57.49	174.94	30.70	5.81	PASS
4313.00†	4301.50	-206.68	-140.78	4305.83	4279.61	-200.35	-321.32	57.32	181.97	31.49	5.89	PASS
4413.00†	4401.06	-214.40	-146.04	4405.58	4378.28	-208.36	-333.56	57.15	189.00	32.27	5.97	PASS
4513.00†	4500.63	-222.11	-151.29	4505.33	4476.95	-216.36	-345.81	57.00	196.04	33.06	6.04	PASS
4613.00†	4600.19	-229.82	-156.55	4605.08	4575.62	-224.37	-358.06	56.86	203.07	33.85	6.11	PASS
4713.00†	4699.75	-237.54	-161.80	4704.84	4674.29	-232.37	-370.30	56.73	210.11	34.64	6.17	PASS
4813.00†	4799.32	-245.25	-167.05	4804.59	4772.97	-240.38	-382.55	56.60	217.15	35.43	6.23	PASS
4913.00†	4898.88	-252.97	-172.31	4904.34	4871.64	-248.39	-394.79	56.49	224.19	36.22	6.29	PASS
5013.00†	4998.44	-260.68	-177.56	5004.09	4970.31	-256.39	-407.04	56.38	231.23	37.01	6.35	PASS
5113.00†	5098.01	-268.40	-182.82	5103.84	5068.98	-264.40	-419.29	56.28	238.27	37.80	6.40	PASS
5213.00†	5197.57	-276.11	-188.07	5203.59	5167.66	-272.41	-431.53	56.18	245.32	38.60	6.46	PASS
5313.00†	5297.13	-283.82	-193.33	5303.34	5266.33	-280.41	-443.78	56.09	252.36	39.39	6.51	PASS
5413.00†	5396.70	-291.54	-198.58	5403.09	5365.00	-288.42	-456.02	56.00	259.40	40.19	6.55	PASS
5513.00†	5496.26	-299.25	-203.84	5502.84	5463.67	-296.43	-468.27	55.92	266.45	40.98	6.60	PASS
5613.00†	5595.82	-306.97	-209.09	5602.59	5562.34	-304.43	-480.52	55.84	273.49	41.78	6.64	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 14 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
5713.00†	5695.39	-314.68	-214.35	5702.34	5661.02	-312.44	-492.76	55.77	280.54	42.57	6.68	PASS
5813.00†	5794.95	-322.40	-219.60	5802.09	5759.69	-320.44	-505.01	55.70	287.58	43.37	6.72	PASS
5913.00†	5894.51	-330.11	-224.86	5901.85	5858.36	-328.45	-517.25	55.63	294.63	44.16	6.76	PASS
6013.00†	5994.08	-337.82	-230.11	6001.60	5957.03	-336.46	-529.50	55.57	301.68	44.96	6.80	PASS
6113.00†	6093.64	-345.54	-235.36	6101.35	6055.70	-344.46	-541.75	55.51	308.72	45.76	6.84	PASS
6213.00†	6193.20	-353.25	-240.62	6201.10	6154.38	-352.47	-553.99	55.45	315.77	46.56	6.87	PASS
6313.00†	6292.77	-360.97	-245.87	6300.85	6253.05	-360.48	-566.24	55.40	322.82	47.36	6.91	PASS
6413.00†	6392.33	-368.68	-251.13	6400.60	6351.72	-368.48	-578.48	55.34	329.86	48.15	6.94	PASS
6513.00†	6491.89	-376.40	-256.38	6500.35	6450.39	-376.49	-590.73	55.29	336.91	48.95	6.97	PASS
6613.00†	6591.46	-384.11	-261.64	6600.10	6549.06	-384.49	-602.98	55.25	343.96	49.75	7.00	PASS
6713.00†	6691.02	-391.82	-266.89	6699.85	6647.74	-392.50	-615.22	55.20	351.01	50.55	7.03	PASS
6813.00†	6790.58	-399.54	-272.15	6799.60	6746.41	-400.51	-627.47	55.15	358.06	51.35	7.06	PASS
6869.81	6847.14	-403.92	-275.13	6856.14	6802.35	-404.83	-634.41	55.16	362.06	51.85	7.07	PASS
6913.00†	6890.23	-405.63	-277.43	6898.82	6844.69	-405.52	-639.71	1.97	365.13	52.09	7.09	PASS
7013.00†	6989.59	-397.11	-282.89	6997.36	6941.75	-394.98	-652.04	-70.86	372.25	53.03	7.10	PASS
7113.00†	7085.95	-371.44	-288.42	7095.55	7035.25	-367.98	-664.19	-78.25	379.19	53.88	7.12	PASS
7213.00†	7176.38	-329.40	-293.85	7193.48	7122.55	-325.44	-675.80	-80.20	385.74	53.77	7.26	PASS
7313.00†	7258.14	-272.27	-299.02	7291.22	7201.23	-268.66	-686.55	-80.83	391.70	53.02	7.47	PASS
7413.00†	7328.74	-201.78	-303.77	7388.84	7269.10	-199.31	-696.14	-81.00	396.89	52.26	7.69	PASS
7513.00†	7386.03	-120.09	-307.95	7486.43	7324.28	-119.39	-704.31	-81.01	401.14	51.74	7.85	PASS
7613.00†	7428.28	-29.66	-311.44	7584.02	7365.20	-31.16	-710.82	-80.99	404.33	51.67	7.92	PASS
7713.00†	7454.20	66.76	-314.13	7681.69	7390.69	62.89	-715.48	-81.01	406.37	52.20	7.88	PASS
7813.00†	7463.00	166.23	-315.94	7779.47	7399.97	160.08	-718.16	-81.10	407.18	53.35	7.72	PASS
7813.64	7463.00	166.86	-315.95	7780.10	7399.97	160.70	-718.17	-81.10	407.18	53.35	7.72	PASS
7913.00†	7463.00	266.22	-317.28	7879.34	7400.00	259.93	-719.73	-81.10	407.39	55.09	7.48	PASS
8013.00†	7463.00	366.21	-318.63	7979.34	7400.00	359.92	-721.29	-81.11	407.61	57.46	7.17	PASS
8113.00†	7463.00	466.20	-319.97	8079.34	7400.00	459.91	-722.85	-81.11	407.82	60.40	6.82	PASS
8213.00†	7463.00	566.19	-321.31	8179.34	7400.00	559.89	-724.41	-81.12	408.04	63.81	6.46	PASS
8313.00†	7463.00	666.18	-322.66	8279.34	7400.00	659.88	-725.97	-81.12	408.25	67.62	6.09	PASS
8413.00†	7463.00	766.17	-324.00	8379.34	7400.00	759.87	-727.53	-81.13	408.47	71.77	5.74	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 15 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
8513.00†	7463.00	866.16	-325.34	8479.34	7400.00	859.86	-729.09	-81.13	408.68	76.20	5.40	PASS
8613.00†	7463.00	966.15	-326.69	8579.34	7400.00	959.84	-730.66	-81.14	408.90	80.86	5.09	PASS
8713.00†	7463.00	1066.14	-328.03	8679.34	7400.00	1059.83	-732.22	-81.14	409.11	85.73	4.80	PASS
8813.00†	7463.00	1166.14	-329.38	8779.34	7400.00	1159.82	-733.78	-81.15	409.33	92.16	4.47	PASS
8913.00†	7463.00	1266.13	-330.72	8879.34	7400.00	1259.81	-735.34	-81.15	409.54	95.92	4.29	PASS
9013.00†	7463.00	1366.12	-332.06	8979.34	7400.00	1359.79	-736.90	-81.16	409.76	101.20	4.07	PASS
9113.00†	7463.00	1466.11	-333.41	9079.34	7400.00	1459.78	-738.46	-81.16	409.98	106.59	3.87	PASS
9213.00†	7463.00	1566.10	-334.75	9179.34	7400.00	1559.77	-740.03	-81.17	410.19	112.06	3.68	PASS
9313.00†	7463.00	1666.09	-336.09	9279.34	7400.00	1659.76	-741.59	-81.17	410.41	117.60	3.50	PASS
9413.00†	7463.00	1766.08	-337.44	9379.33	7400.00	1759.75	-743.15	-81.17	410.62	123.20	3.35	PASS
9513.00†	7463.00	1866.07	-338.78	9479.33	7400.00	1859.73	-744.71	-81.18	410.84	128.86	3.20	PASS
9613.00†	7463.00	1966.06	-340.13	9579.33	7400.00	1959.72	-746.27	-81.18	411.05	134.57	3.07	PASS
9713.00†	7463.00	2066.05	-341.47	9679.33	7400.00	2059.71	-747.83	-81.19	411.27	140.32	2.94	PASS
9813.00†	7463.00	2166.04	-342.81	9779.33	7400.00	2159.70	-749.39	-81.19	411.48	146.11	2.83	PASS
9913.00†	7463.00	2266.04	-344.16	9879.33	7400.00	2259.68	-750.96	-81.20	411.70	151.93	2.72	PASS
10013.00†	7463.00	2366.03	-345.50	9979.33	7400.00	2359.67	-752.52	-81.20	411.91	157.78	2.62	PASS
10113.00†	7463.00	2466.02	-346.85	10079.33	7400.00	2459.66	-754.08	-81.21	412.13	163.66	2.52	PASS
10213.00†	7463.00	2566.01	-348.19	10179.33	7400.00	2559.65	-755.64	-81.21	412.34	169.56	2.44	PASS
10313.00†	7463.00	2666.00	-349.53	10279.33	7400.00	2659.63	-757.20	-81.22	412.56	175.48	2.36	PASS
10413.00†	7463.00	2765.99	-350.88	10379.33	7400.00	2759.62	-758.76	-81.22	412.77	181.42	2.28	PASS
10513.00†	7463.00	2865.98	-352.22	10479.33	7400.00	2859.61	-760.32	-81.22	412.99	187.37	2.21	PASS
10613.00†	7463.00	2965.97	-353.56	10579.33	7400.00	2959.60	-761.89	-81.23	413.20	193.34	2.14	PASS
10713.00†	7463.00	3065.96	-354.91	10679.33	7400.00	3059.58	-763.45	-81.24	413.42	199.33	2.08	PASS
10813.00†	7463.00	3165.95	-356.25	10779.33	7400.00	3159.57	-765.01	-81.24	413.63	205.33	2.02	PASS
10913.00†	7463.00	3265.95	-357.60	10879.33	7400.00	3259.56	-766.57	-81.24	413.85	211.34	1.96	PASS
11013.00†	7463.00	3365.94	-358.94	10979.33	7400.00	3359.55	-768.13	-81.25	414.06	217.36	1.91	PASS
11113.00†	7463.00	3465.93	-360.28	11079.33	7400.00	3459.53	-769.69	-81.25	414.28	223.40	1.86	PASS
11213.00†	7463.00	3565.92	-361.63	11179.33	7400.00	3559.52	-771.26	-81.26	414.49	229.44	1.81	PASS
11313.00†	7463.00	3665.91	-362.97	11279.33	7400.00	3659.51	-772.82	-81.26	414.71	235.49	1.76	PASS
11413.00†	7463.00	3765.90	-364.31	11379.33	7400.00	3759.50	-774.38	-81.27	414.92	241.55	1.72	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 16 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
11513.00†	7463.00	3865.89	-365.66	11479.33	7400.00	3859.48	-775.94	-81.27	415.14	247.61	1.68	PASS
11613.00†	7463.00	3965.88	-367.00	11579.33	7400.00	3959.47	-777.50	-81.28	415.36	253.68	1.64	PASS
11713.00†	7463.00	4065.87	-368.35	11679.33	7400.00	4059.46	-779.06	-81.28	415.57	259.76	1.60	PASS
11813.00†	7463.00	4165.86	-369.69	11779.33	7400.00	4159.45	-780.62	-81.29	415.79	265.85	1.57	PASS
11913.00†	7463.00	4265.86	-371.03	11879.33	7400.00	4259.43	-782.19	-81.29	416.00	271.94	1.53	PASS
12013.00†	7463.00	4365.85	-372.38	11979.33	7400.00	4359.42	-783.75	-81.29	416.22	278.03	1.50	PASS
12113.00†	7463.00	4465.84	-373.72	12079.33	7400.00	4459.41	-785.31	-81.30	416.43	284.13	1.47	PASS
12213.00†	7463.00	4565.83	-375.06	12179.33	7400.00	4559.40	-786.87	-81.30	416.65	290.24	1.44	PASS
12313.00†	7463.00	4665.82	-376.41	12279.33	7400.00	4659.38	-788.43	-81.31	416.86	296.34	1.41	PASS
12413.00†	7463.00	4765.81	-377.75	12379.33	7400.00	4759.37	-789.99	-81.31	417.08	302.46	1.38	PASS
12513.00†	7463.00	4865.80	-379.10	12479.33	7400.00	4859.36	-791.55	-81.32	417.29	308.58	1.35	PASS
12613.00†	7463.00	4965.79	-380.44	12579.33	7400.00	4959.35	-793.12	-81.32	417.51	314.70	1.33	PASS
12713.00†	7463.00	5065.78	-381.78	12679.33	7400.00	5059.33	-794.68	-81.33	417.72	320.82	1.30	PASS
12813.00†	7463.00	5165.77	-383.13	12779.33	7400.00	5159.32	-796.24	-81.33	417.94	326.95	1.28	PASS
12913.00†	7463.00	5265.76	-384.47	12879.33	7400.00	5259.31	-797.80	-81.33	418.15	333.08	1.26	PASS
13013.00†	7463.00	5365.76	-385.81	12979.33	7400.00	5359.30	-799.36	-81.34	418.37	339.21	1.23	PASS
13113.00†	7463.00	5465.75	-387.16	13079.33	7400.00	5459.29	-800.92	-81.34	418.58	345.35	1.21	PASS
13213.00†	7463.00	5565.74	-388.50	13179.33	7400.00	5559.27	-802.49	-81.35	418.80	351.49	1.19	PASS
13313.00†	7463.00	5665.73	-389.85	13279.33	7400.00	5659.26	-804.05	-81.35	419.01	357.63	1.17	PASS
13413.00†	7463.00	5765.72	-391.19	13379.33	7400.00	5759.25	-805.61	-81.36	419.23	363.77	1.15	PASS
13513.00†	7463.00	5865.71	-392.53	13479.33	7400.00	5859.24	-807.17	-81.36	419.45	369.91	1.13	PASS
13613.00†	7463.00	5965.70	-393.88	13579.32	7400.00	5959.22	-808.73	-81.37	419.66	376.06	1.12	PASS
13713.00†	7463.00	6065.69	-395.22	13679.32	7400.00	6059.21	-810.29	-81.37	419.88	382.21	1.10	PASS
13813.00†	7463.00	6165.68	-396.56	13779.32	7400.00	6159.20	-811.85	-81.38	420.09	388.36	1.08	PASS
13913.00†	7463.00	6265.67	-397.91	13879.32	7400.00	6259.19	-813.42	-81.38	420.31	394.52	1.07	PASS
14013.00†	7463.00	6365.67	-399.25	13979.32	7400.00	6359.17	-814.98	-81.38	420.52	400.67	1.05	PASS
14113.00†	7463.00	6465.66	-400.60	14079.32	7400.00	6459.16	-816.54	-81.39	420.74	406.83	1.03	PASS
14213.00†	7463.00	6565.65	-401.94	14179.32	7400.00	6559.15	-818.10	-81.39	420.95	412.99	1.02	PASS
14313.00†	7463.00	6665.64	-403.28	14279.32	7400.00	6659.14	-819.66	-81.40	421.17	419.15	1.00	PASS
14413.00†	7463.00	6765.63	-404.63	14379.32	7400.00	6759.12	-821.22	-81.40	421.38	425.31	0.99	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 17 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
14513.00†	7463.00	6865.62	-405.97	14479.32	7400.00	6859.11	-822.79	-81.41	421.60	431.47	0.98	FAIL
14613.00†	7463.00	6965.61	-407.32	14579.32	7400.00	6959.10	-824.35	-81.41	421.81	437.63	0.96	FAIL
14713.00†	7463.00	7065.60	-408.66	14679.32	7400.00	7059.09	-825.91	-81.42	422.03	443.80	0.95	FAIL
14813.00†	7463.00	7165.59	-410.00	14779.32	7400.00	7159.07	-827.47	-81.42	422.24	449.97	0.94	FAIL
14913.00†	7463.00	7265.58	-411.35	14879.32	7400.00	7259.06	-829.03	-81.42	422.46	456.14	0.93	FAIL
15013.00†	7463.00	7365.58	-412.69	14979.32	7400.00	7359.05	-830.59	-81.43	422.67	462.30	0.91	FAIL
15113.00†	7463.00	7465.57	-414.03	15079.32	7400.00	7459.04	-832.15	-81.43	422.89	468.48	0.90	FAIL
15213.00†	7463.00	7565.56	-415.38	15179.32	7400.00	7559.02	-833.72	-81.44	423.11	474.65	0.89	FAIL
15313.00†	7463.00	7665.55	-416.72	15279.32	7400.00	7659.01	-835.28	-81.44	423.32	480.82	0.88	FAIL
15413.00†	7463.00	7765.54	-418.07	15379.32	7400.00	7759.00	-836.84	-81.45	423.54	486.99	0.87	FAIL
15513.00†	7463.00	7865.53	-419.41	15479.32	7400.00	7858.99	-838.40	-81.45	423.75	493.17	0.86	FAIL
15613.00†	7463.00	7965.52	-420.75	15579.32	7400.00	7958.97	-839.96	-81.45	423.97	499.34	0.85	FAIL
15713.00†	7463.00	8065.51	-422.10	15679.32	7400.00	8058.96	-841.52	-81.46	424.18	505.52	0.84	FAIL
15813.00†	7463.00	8165.50	-423.44	15779.32	7400.00	8158.95	-843.08	-81.46	424.40	511.70	0.83	FAIL
15913.00†	7463.00	8265.49	-424.78	15879.32	7400.00	8258.94	-844.65	-81.47	424.61	517.88	0.82	FAIL
16013.00†	7463.00	8365.49	-426.13	15979.32	7400.00	8358.92	-846.21	-81.47	424.83	524.05	0.81	FAIL
16113.00†	7463.00	8465.48	-427.47	16079.32	7400.00	8458.91	-847.77	-81.48	425.04	530.23	0.80	FAIL
16213.00†	7463.00	8565.47	-428.82	16179.32	7400.00	8558.90	-849.33	-81.48	425.26	536.41	0.79	FAIL
16313.00†	7463.00	8665.46	-430.16	16279.32	7400.00	8658.89	-850.89	-81.49	425.47	542.60	0.78	FAIL
16413.00†	7463.00	8765.45	-431.50	16379.32	7400.00	8758.87	-852.45	-81.49	425.69	548.78	0.78	FAIL
16513.00†	7463.00	8865.44	-432.85	16479.32	7400.00	8858.86	-854.02	-81.49	425.90	554.96	0.77	FAIL
16613.00†	7463.00	8965.43	-434.19	16579.32	7400.00	8958.85	-855.58	-81.50	426.12	561.15	0.76	FAIL
16713.00†	7463.00	9065.42	-435.53	16679.32	7400.00	9058.84	-857.14	-81.50	426.34	567.33	0.75	FAIL
16813.00†	7463.00	9165.41	-436.88	16779.32	7400.00	9158.83	-858.70	-81.51	426.55	573.51	0.74	FAIL
16913.00†	7463.00	9265.40	-438.22	16879.32	7400.00	9258.81	-860.26	-81.51	426.77	579.70	0.74	FAIL
17013.00†	7463.00	9365.39	-439.57	16979.32	7400.00	9358.80	-861.82	-81.52	426.98	585.89	0.73	FAIL
17113.00†	7463.00	9465.39	-440.91	17079.32	7400.00	9458.79	-863.38	-81.52	427.20	592.07	0.72	FAIL
17213.00†	7463.00	9565.38	-442.25	17179.32	7400.00	9558.78	-864.95	-81.52	427.41	598.26	0.71	FAIL
17313.00†	7463.00	9665.37	-443.60	17279.32	7400.00	9658.76	-866.51	-81.53	427.63	604.45	0.71	FAIL
17413.00†	7463.00	9765.36	-444.94	17379.32	7400.00	9758.75	-868.07	-81.53	427.84	610.64	0.70	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 18 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
17513.00†	7463.00	9865.35	-446.28	17479.32	7400.00	9858.74	-869.63	-81.54	428.06	616.83	0.69	FAIL
17613.00†	7463.00	9965.34	-447.63	17579.32	7400.00	9958.73	-871.19	-81.54	428.27	623.02	0.69	FAIL
17619.74	7463.00	9972.08	-447.72	17586.05	7400.00	9965.46	-871.30	-81.54	428.29	623.43	0.69	FAIL

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	-0.04	-9.13	-1.20	-10.91
8.5in Open Hole	1800.00	17593.78	15793.78	1799.84	N/A	-1.20	-10.91	N/A	N/A

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

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17593.78	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-2NBH PWB

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

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 19 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980'FNL & 2080'FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	18.00	3024.86	-41.87	-0.79	3025.16	25.40	122.93	PASS
113.00†	113.00	0.00	0.00	82.00	113.00	3024.86	-41.87	-0.79	3025.15	51.88	59.16	PASS
213.00†	213.00	0.00	0.00	182.00	213.00	3024.86	-41.87	-0.79	3025.15	54.23	56.56	PASS
313.00†	313.00	0.00	0.00	282.00	313.00	3024.86	-41.87	-0.79	3025.15	56.58	54.18	PASS
413.00†	413.00	0.00	0.00	382.00	413.00	3024.86	-41.87	-0.79	3025.15	58.93	51.99	PASS
513.00†	513.00	0.00	0.00	482.00	513.00	3024.86	-41.87	-0.79	3025.15	61.29	49.96	PASS
613.00†	613.00	0.00	0.00	582.00	613.00	3024.86	-41.87	-0.79	3025.15	63.65	48.09	PASS
713.00†	713.00	0.00	0.00	682.00	713.00	3024.86	-41.87	-0.79	3025.15	66.02	46.34	PASS
813.00†	813.00	0.00	0.00	782.00	813.00	3024.86	-41.87	-0.79	3025.15	68.39	44.72	PASS
913.00†	913.00	0.00	0.00	882.00	913.00	3024.86	-41.87	-0.79	3025.15	70.76	43.20	PASS
1013.00†	1013.00	0.00	0.00	982.00	1013.00	3024.86	-41.87	-0.79	3025.15	73.14	41.78	PASS
1113.00†	1113.00	0.00	0.00	1082.00	1113.00	3024.86	-41.87	-0.79	3025.15	75.52	40.45	PASS
1213.00†	1213.00	0.00	0.00	1182.00	1213.00	3024.86	-41.87	-0.79	3025.15	77.91	39.20	PASS
1313.00†	1313.00	0.00	0.00	1282.00	1313.00	3024.86	-41.87	-0.79	3025.15	80.30	38.03	PASS
1413.00†	1413.00	0.00	0.00	1382.00	1413.00	3024.86	-41.87	-0.79	3025.15	82.69	36.91	PASS
1500.00	1500.00	0.00	0.00	1469.00	1500.00	3024.86	-41.87	-0.79	3025.15	84.77	36.00	PASS
1513.00†	1513.00	-0.02	-0.02	1482.00	1513.00	3024.86	-41.87	144.95	3025.18	85.09	35.87	PASS
1613.00†	1612.97	-1.84	-1.25	1581.97	1612.97	3024.86	-41.87	144.95	3026.98	87.32	34.89	PASS
1713.00†	1712.80	-6.54	-4.46	1681.80	1712.80	3024.86	-41.87	144.96	3031.63	89.77	33.99	PASS
1767.79	1767.40	-10.34	-7.04	1736.40	1767.40	3024.86	-41.87	144.96	3035.40	91.10	33.53	PASS
1813.00†	1812.41	-13.82	-9.42	1781.41	1812.41	3024.86	-41.87	145.01	3038.86	92.14	33.17	PASS
1913.00†	1911.98	-21.54	-14.67	1880.98	1911.98	3024.86	-41.87	145.11	3046.52	94.54	32.40	PASS
2013.00†	2011.54	-29.25	-19.93	1980.54	2011.54	3024.86	-41.87	145.21	3054.19	96.95	31.67	PASS
2113.00†	2111.10	-36.97	-25.18	2080.10	2111.10	3024.86	-41.87	145.31	3061.87	99.37	30.98	PASS
2213.00†	2210.67	-44.68	-30.43	2179.67	2210.67	3024.86	-41.87	145.41	3069.56	101.78	30.31	PASS
2313.00†	2310.23	-52.40	-35.69	2279.23	2310.23	3024.86	-41.87	145.51	3077.26	104.21	29.68	PASS
2413.00†	2409.79	-60.11	-40.94	2378.79	2409.79	3024.86	-41.87	145.60	3084.97	106.64	29.07	PASS
2513.00†	2509.36	-67.82	-46.20	2478.36	2509.36	3024.86	-41.87	145.70	3092.69	109.07	28.49	PASS
2613.00†	2608.92	-75.54	-51.45	2577.92	2608.92	3024.86	-41.87	145.80	3100.42	111.51	27.94	PASS
2713.00†	2708.48	-83.25	-56.71	2677.48	2708.48	3024.86	-41.87	145.90	3108.15	113.95	27.40	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 20 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980'FNL & 2080'FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2808.05	-90.97	-61.96	2777.05	2808.05	3024.86	-41.87	145.99	3115.89	116.40	26.89	PASS	
2913.00†	2907.61	-98.68	-67.22	2876.61	2907.61	3024.86	-41.87	146.09	3123.65	118.85	26.40	PASS	
3013.00†	3007.17	-106.40	-72.47	2976.17	3007.17	3024.86	-41.87	146.18	3131.41	121.30	25.93	PASS	
3113.00†	3106.74	-114.11	-77.73	3075.74	3106.74	3024.86	-41.87	146.28	3139.18	123.76	25.47	PASS	
3213.00†	3206.30	-121.82	-82.98	3175.30	3206.30	3024.86	-41.87	146.37	3146.95	126.23	25.03	PASS	
3313.00†	3305.86	-129.54	-88.24	3274.86	3305.86	3024.86	-41.87	146.47	3154.74	128.69	24.61	PASS	
3413.00†	3405.43	-137.25	-93.49	3374.43	3405.43	3024.86	-41.87	146.56	3162.54	131.17	24.21	PASS	
3513.00†	3504.99	-144.97	-98.74	3473.99	3504.99	3024.86	-41.87	146.65	3170.34	133.64	23.82	PASS	
3613.00†	3604.55	-152.68	-104.00	3573.55	3604.55	3024.86	-41.87	146.74	3178.15	136.12	23.44	PASS	
3713.00†	3704.12	-160.40	-109.25	3673.12	3704.12	3024.86	-41.87	146.84	3185.97	138.60	23.07	PASS	
3813.00†	3803.68	-168.11	-114.51	3772.68	3803.68	3024.86	-41.87	146.93	3193.80	141.09	22.72	PASS	
3913.00†	3903.25	-175.82	-119.76	3872.25	3903.25	3024.86	-41.87	147.02	3201.63	143.58	22.38	PASS	
4013.00†	4002.81	-183.54	-125.02	3971.81	4002.81	3024.86	-41.87	147.11	3209.48	146.08	22.05	PASS	
4113.00†	4102.37	-191.25	-130.27	4071.37	4102.37	3024.86	-41.87	147.20	3217.33	148.57	21.73	PASS	
4213.00†	4201.94	-198.97	-135.53	4170.94	4201.94	3024.86	-41.87	147.29	3225.19	151.07	21.42	PASS	
4313.00†	4301.50	-206.68	-140.78	4270.50	4301.50	3024.86	-41.87	147.38	3233.06	153.58	21.12	PASS	
4413.00†	4401.06	-214.40	-146.04	4370.06	4401.06	3024.86	-41.87	147.47	3240.93	156.09	20.83	PASS	
4513.00†	4500.63	-222.11	-151.29	4469.63	4500.63	3024.86	-41.87	147.56	3248.82	158.60	20.55	PASS	
4613.00†	4600.19	-229.82	-156.55	4569.19	4600.19	3024.86	-41.87	147.64	3256.71	161.11	20.28	PASS	
4713.00†	4699.75	-237.54	-161.80	4668.75	4699.75	3024.86	-41.87	147.73	3264.60	163.63	20.01	PASS	
4813.00†	4799.32	-245.25	-167.05	4768.32	4799.32	3024.86	-41.87	147.82	3272.51	166.15	19.76	PASS	
4913.00†	4898.88	-252.97	-172.31	4867.88	4898.88	3024.86	-41.87	147.91	3280.42	168.67	19.51	PASS	
5013.00†	4998.44	-260.68	-177.56	4967.44	4998.44	3024.86	-41.87	147.99	3288.34	171.20	19.27	PASS	
5113.00†	5098.01	-268.40	-182.82	5067.01	5098.01	3024.86	-41.87	148.08	3296.27	173.72	19.03	PASS	
5213.00†	5197.57	-276.11	-188.07	5166.57	5197.57	3024.86	-41.87	148.16	3304.21	176.26	18.80	PASS	
5313.00†	5297.13	-283.82	-193.33	5266.13	5297.13	3024.86	-41.87	148.25	3312.15	178.79	18.58	PASS	
5413.00†	5396.70	-291.54	-198.58	5365.70	5396.70	3024.86	-41.87	148.33	3320.10	181.33	18.36	PASS	
5513.00†	5496.26	-299.25	-203.84	5465.26	5496.26	3024.86	-41.87	148.42	3328.06	183.87	18.15	PASS	
5613.00†	5595.82	-306.97	-209.09	5564.82	5595.82	3024.86	-41.87	148.50	3336.02	186.41	17.95	PASS	
5713.00†	5695.39	-314.68	-214.35	5664.39	5695.39	3024.86	-41.87	148.58	3343.99	188.95	17.75	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 21 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980'FNL & 2080'FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5794.95	-322.40	-219.60	5763.95	5794.95	3024.86	-41.87	148.67	3351.97	191.50	17.55	PASS	
5913.00†	5894.51	-330.11	-224.86	5863.51	5894.51	3024.86	-41.87	148.75	3359.96	194.05	17.36	PASS	
6013.00†	5994.08	-337.82	-230.11	5963.08	5994.08	3024.86	-41.87	148.83	3367.95	196.60	17.18	PASS	
6113.00†	6093.64	-345.54	-235.36	6062.64	6093.64	3024.86	-41.87	148.91	3375.95	199.15	17.00	PASS	
6213.00†	6193.20	-353.25	-240.62	6162.20	6193.20	3024.86	-41.87	149.00	3383.96	201.71	16.82	PASS	
6313.00†	6292.77	-360.97	-245.87	6261.77	6292.77	3024.86	-41.87	149.08	3391.97	204.26	16.65	PASS	
6413.00†	6392.33	-368.68	-251.13	6361.33	6392.33	3024.86	-41.87	149.16	3399.99	206.82	16.48	PASS	
6513.00†	6491.89	-376.40	-256.38	6460.89	6491.89	3024.86	-41.87	149.24	3408.02	209.39	16.32	PASS	
6613.00†	6591.46	-384.11	-261.64	6560.46	6591.46	3024.86	-41.87	149.32	3416.05	211.95	16.16	PASS	
6713.00†	6691.02	-391.82	-266.89	6660.02	6691.02	3024.86	-41.87	149.40	3424.09	214.52	16.00	PASS	
6813.00†	6790.58	-399.54	-272.15	6759.58	6790.58	3024.86	-41.87	149.48	3432.13	217.08	15.85	PASS	
6869.81	6847.14	-403.92	-275.13	6816.14	6847.14	3024.86	-41.87	149.52	3436.71	218.54	15.76	PASS	
6913.00†	6890.23	-405.63	-277.43	6859.23	6890.23	3024.86	-41.87	95.88	3438.57	219.66	15.69	PASS	
7013.00†	6989.59	-397.11	-282.89	6958.59	6989.59	3024.86	-41.87	22.18	3430.45	222.63	15.44	PASS	
7113.00†	7085.95	-371.44	-288.42	7054.95	7085.95	3024.86	-41.87	14.19	3405.24	226.44	15.07	PASS	
7213.00†	7176.38	-329.40	-293.85	7145.38	7176.38	3024.86	-41.87	11.97	3363.71	229.66	14.68	PASS	
7313.00†	7258.14	-272.27	-299.02	7227.14	7258.14	3024.86	-41.87	11.56	3307.14	232.46	14.26	PASS	
7413.00†	7328.74	-201.78	-303.77	7297.74	7328.74	3024.86	-41.87	12.33	3237.26	234.80	13.82	PASS	
7513.00†	7386.03	-120.09	-307.95	7355.03	7386.03	3024.86	-41.87	14.53	3156.18	236.64	13.37	PASS	
7613.00†	7428.28	-29.66	-311.44	7397.28	7428.28	3024.86	-41.87	19.56	3066.39	237.96	12.91	PASS	
7713.00†	7454.20	66.76	-314.13	7423.20	7454.20	3024.86	-41.87	33.45	2970.61	238.78	12.47	PASS	
7813.00†	7463.00	166.23	-315.94	7432.00	7463.00	3024.86	-41.87	89.42	2871.74	239.12	12.03	PASS	
7813.64	7463.00	166.86	-315.95	7432.00	7463.00	3024.86	-41.87	90.00	2871.11	239.12	12.03	PASS	
7913.00†	7463.00	266.22	-317.28	7432.00	7463.00	3024.86	-41.87	90.00	2772.36	239.23	11.61	PASS	
8013.00†	7463.00	366.21	-318.63	7432.00	7463.00	3024.86	-41.87	90.00	2673.02	239.35	11.19	PASS	
8113.00†	7463.00	466.20	-319.97	7432.00	7463.00	3024.86	-41.87	90.00	2573.73	239.49	10.77	PASS	
8213.00†	7463.00	566.19	-321.31	7432.00	7463.00	3024.86	-41.87	90.00	2474.50	239.64	10.35	PASS	
8313.00†	7463.00	666.18	-322.66	7432.00	7463.00	3024.86	-41.87	90.00	2375.34	239.81	9.93	PASS	
8413.00†	7463.00	766.17	-324.00	7432.00	7463.00	3024.86	-41.87	90.00	2276.24	240.00	9.50	PASS	
8513.00†	7463.00	866.16	-325.34	7432.00	7463.00	3024.86	-41.87	90.00	2177.23	240.22	9.08	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 22 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980'FNL & 2080'FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8613.00†	7463.00	966.15	-326.69	7432.00	7463.00	3024.86	-41.87	90.00	2078.32	240.46	8.66	PASS
8713.00†	7463.00	1066.14	-328.03	7432.00	7463.00	3024.86	-41.87	90.00	1979.51	240.74	8.24	PASS
8813.00†	7463.00	1166.14	-329.38	7432.00	7463.00	3024.86	-41.87	90.00	1880.83	241.06	7.82	PASS
8913.00†	7463.00	1266.13	-330.72	7432.00	7463.00	3024.86	-41.87	90.00	1782.30	241.43	7.40	PASS
9013.00†	7463.00	1366.12	-332.06	7432.00	7463.00	3024.86	-41.87	90.00	1683.94	241.85	6.98	PASS
9113.00†	7463.00	1466.11	-333.41	7432.00	7463.00	3024.86	-41.87	90.00	1585.78	242.35	6.56	PASS
9213.00†	7463.00	1566.10	-334.75	7432.00	7463.00	3024.86	-41.87	90.00	1487.87	242.93	6.14	PASS
9313.00†	7463.00	1666.09	-336.09	7432.00	7463.00	3024.86	-41.87	90.00	1390.26	243.62	5.72	PASS
9413.00†	7463.00	1766.08	-337.44	7432.00	7463.00	3024.86	-41.87	90.00	1293.02	244.45	5.30	PASS
9513.00†	7463.00	1866.07	-338.78	7432.00	7463.00	3024.86	-41.87	90.00	1196.22	245.46	4.88	PASS
9613.00†	7463.00	1966.06	-340.13	7432.00	7463.00	3024.86	-41.87	90.00	1100.00	246.69	4.47	PASS
9713.00†	7463.00	2066.05	-341.47	7432.00	7463.00	3024.86	-41.87	90.00	1004.53	248.22	4.05	PASS
9813.00†	7463.00	2166.04	-342.81	7432.00	7463.00	3024.86	-41.87	90.00	910.02	250.16	3.64	PASS
9913.00†	7463.00	2266.04	-344.16	7432.00	7463.00	3024.86	-41.87	90.00	816.82	252.63	3.24	PASS
10013.00†	7463.00	2366.03	-345.50	7432.00	7463.00	3024.86	-41.87	90.00	725.43	255.84	2.84	PASS
10113.00†	7463.00	2466.02	-346.85	7432.00	7463.00	3024.86	-41.87	90.00	636.64	260.05	2.45	PASS
10213.00†	7463.00	2566.01	-348.19	7432.00	7463.00	3024.86	-41.87	90.00	551.70	265.63	2.08	PASS
10313.00†	7463.00	2666.00	-349.53	7432.00	7463.00	3024.86	-41.87	90.00	472.69	272.95	1.73	PASS
10413.00†	7463.00	2765.99	-350.88	7432.00	7463.00	3024.86	-41.87	90.00	403.11	282.12	1.43	PASS
10513.00†	7463.00	2865.98	-352.22	7432.00	7463.00	3024.86	-41.87	90.00	348.65	292.10	1.19	PASS
10613.00†	7463.00	2965.97	-353.56	7432.00	7463.00	3024.86	-41.87	90.00	317.20	299.43	1.06	PASS
10666.85†	7463.00	3019.82	-354.29	7432.00	7463.00	3024.86	-41.87	90.00	312.45	300.55	1.04	PASS
10667.50†	7463.00	3020.47	-354.30	7431.97	7462.97	3024.86	-41.87	90.00	312.45	300.55	1.04	PASS
10713.00†	7463.00	3065.96	-354.91	7432.00	7463.00	3024.86	-41.87	90.00	315.72	299.50	1.05	PASS
10813.00†	7463.00	3165.95	-356.25	7432.00	7463.00	3024.86	-41.87	90.00	344.59	292.12	1.18	PASS
10913.00†	7463.00	3265.95	-357.60	7432.00	7463.00	3024.86	-41.87	90.00	397.24	281.86	1.41	PASS
11013.00†	7463.00	3365.94	-358.94	7432.00	7463.00	3024.86	-41.87	90.00	465.68	272.41	1.71	PASS
11113.00†	7463.00	3465.93	-360.28	7432.00	7463.00	3024.86	-41.87	90.00	543.99	264.91	2.06	PASS
11213.00†	7463.00	3565.92	-361.63	7432.00	7463.00	3024.86	-41.87	90.00	628.48	259.26	2.43	PASS
11313.00†	7463.00	3665.91	-362.97	7432.00	7463.00	3024.86	-41.87	90.00	716.97	255.05	2.81	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 23 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980'FNL & 2080'FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
11413.00†	7463.00	3765.90	-364.31	7432.00	7463.00	3024.86	-41.87	90.00	808.15	251.91	3.21	PASS
11513.00†	7463.00	3865.89	-365.66	7432.00	7463.00	3024.86	-41.87	90.00	901.20	249.54	3.62	PASS
11613.00†	7463.00	3965.88	-367.00	7432.00	7463.00	3024.86	-41.87	90.00	995.60	247.73	4.03	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1561.00	1561.00	18.00	1579.00	1843.80	-33.99	1843.80	-33.99
8.625in Casing Surface	0.00	1561.00	1561.00	18.00	1579.00	1843.80	-33.99	1843.80	-33.99
7.875in Open Hole	1561.00	8292.00	6731.00	1579.00	8310.00	1843.80	-33.99	1843.80	-33.99
4.5in Casing Production	0.00	8292.00	8292.00	18.00	8310.00	1843.80	-33.99	1843.80	-33.99

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

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 24 of 99



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 25 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	8360.23	59.95	0.41	8360.49	25.40	339.80	PASS
113.00†	113.00	0.00	0.00	60.00	113.00	8360.23	59.95	0.41	8360.44	51.37	165.19	PASS
213.00†	213.00	0.00	0.00	160.00	213.00	8360.23	59.95	0.41	8360.44	53.71	157.88	PASS
313.00†	313.00	0.00	0.00	260.00	313.00	8360.23	59.95	0.41	8360.44	56.06	151.18	PASS
413.00†	413.00	0.00	0.00	360.00	413.00	8360.23	59.95	0.41	8360.44	58.41	145.02	PASS
513.00†	513.00	0.00	0.00	460.00	513.00	8360.23	59.95	0.41	8360.44	60.76	139.33	PASS
613.00†	613.00	0.00	0.00	560.00	613.00	8360.23	59.95	0.41	8360.44	63.12	134.06	PASS
713.00†	713.00	0.00	0.00	660.00	713.00	8360.23	59.95	0.41	8360.44	65.48	129.17	PASS
813.00†	813.00	0.00	0.00	760.00	813.00	8360.23	59.95	0.41	8360.44	67.84	124.62	PASS
913.00†	913.00	0.00	0.00	860.00	913.00	8360.23	59.95	0.41	8360.44	70.21	120.36	PASS
1013.00†	1013.00	0.00	0.00	960.00	1013.00	8360.23	59.95	0.41	8360.44	72.59	116.39	PASS
1113.00†	1113.00	0.00	0.00	1060.00	1113.00	8360.23	59.95	0.41	8360.44	74.97	112.66	PASS
1213.00†	1213.00	0.00	0.00	1160.00	1213.00	8360.23	59.95	0.41	8360.44	77.35	109.15	PASS
1313.00†	1313.00	0.00	0.00	1260.00	1313.00	8360.23	59.95	0.41	8360.44	79.73	105.86	PASS
1413.00†	1413.00	0.00	0.00	1360.00	1413.00	8360.23	59.95	0.41	8360.44	82.12	102.75	PASS
1500.00	1500.00	0.00	0.00	1447.00	1500.00	8360.23	59.95	0.41	8360.44	84.20	100.19	PASS
1513.00†	1513.00	-0.02	-0.02	1460.00	1513.00	8360.23	59.95	146.15	8360.47	84.51	99.81	PASS
1613.00†	1612.97	-1.84	-1.25	1559.97	1612.97	8360.23	59.95	146.14	8362.30	86.75	97.05	PASS
1713.00†	1712.80	-6.54	-4.46	1659.80	1712.80	8360.23	59.95	146.11	8367.02	89.19	94.43	PASS
1767.79	1767.40	-10.34	-7.04	1714.40	1767.40	8360.23	59.95	146.08	8370.83	90.52	93.08	PASS
1813.00†	1812.41	-13.82	-9.42	1759.41	1812.41	8360.23	59.95	146.10	8374.34	91.56	92.01	PASS
1913.00†	1911.98	-21.54	-14.67	1858.98	1911.98	8360.23	59.95	146.13	8382.10	93.96	89.73	PASS
2013.00†	2011.54	-29.25	-19.93	1958.54	2011.54	8360.23	59.95	146.17	8389.86	96.36	87.55	PASS
2113.00†	2111.10	-36.97	-25.18	2058.10	2111.10	8360.23	59.95	146.20	8397.63	98.77	85.48	PASS
2213.00†	2210.67	-44.68	-30.43	2157.67	2210.67	8360.23	59.95	146.24	8405.40	101.19	83.51	PASS
2313.00†	2310.23	-52.40	-35.69	2257.23	2310.23	8360.23	59.95	146.28	8413.17	103.61	81.63	PASS
2413.00†	2409.79	-60.11	-40.94	2356.79	2409.79	8360.23	59.95	146.31	8420.94	106.03	79.82	PASS
2513.00†	2509.36	-67.82	-46.20	2456.36	2509.36	8360.23	59.95	146.35	8428.72	108.46	78.10	PASS
2613.00†	2608.92	-75.54	-51.45	2555.92	2608.92	8360.23	59.95	146.38	8436.50	110.89	76.45	PASS
2713.00†	2708.48	-83.25	-56.71	2655.48	2708.48	8360.23	59.95	146.42	8444.29	113.33	74.86	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 26 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T01S-R65W Slot: SLOT#01 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL, SEC.17, OG, SI, 8190) Well: CHAVEZ #7-17 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2808.05	-90.97	-61.96	2755.05	2808.05	8360.23	59.95	146.45	8452.08	115.77	73.34	PASS
2913.00†	2907.61	-98.68	-67.22	2854.61	2907.61	8360.23	59.95	146.49	8459.87	118.22	71.89	PASS
3013.00†	3007.17	-106.40	-72.47	2954.17	3007.17	8360.23	59.95	146.52	8467.66	120.67	70.48	PASS
3113.00†	3106.74	-114.11	-77.73	3053.74	3106.74	8360.23	59.95	146.56	8475.46	123.13	69.14	PASS
3213.00†	3206.30	-121.82	-82.98	3153.30	3206.30	8360.23	59.95	146.59	8483.26	125.59	67.84	PASS
3313.00†	3305.86	-129.54	-88.24	3252.86	3305.86	8360.23	59.95	146.62	8491.06	128.05	66.59	PASS
3413.00†	3405.43	-137.25	-93.49	3352.43	3405.43	8360.23	59.95	146.66	8498.87	130.52	65.38	PASS
3513.00†	3504.99	-144.97	-98.74	3451.99	3504.99	8360.23	59.95	146.69	8506.68	132.99	64.22	PASS
3613.00†	3604.55	-152.68	-104.00	3551.55	3604.55	8360.23	59.95	146.73	8514.49	135.47	63.10	PASS
3713.00†	3704.12	-160.40	-109.25	3651.12	3704.12	8360.23	59.95	146.76	8522.31	137.94	62.02	PASS
3813.00†	3803.68	-168.11	-114.51	3750.68	3803.68	8360.23	59.95	146.80	8530.12	140.43	60.97	PASS
3913.00†	3903.25	-175.82	-119.76	3850.25	3903.25	8360.23	59.95	146.83	8537.95	142.92	59.96	PASS
4013.00†	4002.81	-183.54	-125.02	3949.81	4002.81	8360.23	59.95	146.87	8545.77	145.41	58.99	PASS
4113.00†	4102.37	-191.25	-130.27	4049.37	4102.37	8360.23	59.95	146.90	8553.60	147.90	58.04	PASS
4213.00†	4201.94	-198.97	-135.53	4148.94	4201.94	8360.23	59.95	146.93	8561.43	150.40	57.13	PASS
4313.00†	4301.50	-206.68	-140.78	4248.50	4301.50	8360.23	59.95	146.97	8569.26	152.90	56.24	PASS
4413.00†	4401.06	-214.40	-146.04	4348.06	4401.06	8360.23	59.95	147.00	8577.10	155.41	55.38	PASS
4513.00†	4500.63	-222.11	-151.29	4447.63	4500.63	8360.23	59.95	147.04	8584.94	157.91	54.55	PASS
4613.00†	4600.19	-229.82	-156.55	4547.19	4600.19	8360.23	59.95	147.07	8592.78	160.42	53.74	PASS
4713.00†	4699.75	-237.54	-161.80	4646.75	4699.75	8360.23	59.95	147.10	8600.63	162.94	52.96	PASS
4813.00†	4799.32	-245.25	-167.05	4746.32	4799.32	8360.23	59.95	147.14	8608.48	165.46	52.20	PASS
4913.00†	4898.88	-252.97	-172.31	4845.88	4898.88	8360.23	59.95	147.17	8616.33	167.98	51.46	PASS
5013.00†	4998.44	-260.68	-177.56	4945.44	4998.44	8360.23	59.95	147.20	8624.18	170.50	50.74	PASS
5113.00†	5098.01	-268.40	-182.82	5045.01	5098.01	8360.23	59.95	147.24	8632.04	173.03	50.04	PASS
5213.00†	5197.57	-276.11	-188.07	5144.57	5197.57	8360.23	59.95	147.27	8639.90	175.56	49.36	PASS
5313.00†	5297.13	-283.82	-193.33	5244.13	5297.13	8360.23	59.95	147.30	8647.76	178.09	48.70	PASS
5413.00†	5396.70	-291.54	-198.58	5343.70	5396.70	8360.23	59.95	147.34	8655.63	180.63	48.06	PASS
5513.00†	5496.26	-299.25	-203.84	5443.26	5496.26	8360.23	59.95	147.37	8663.50	183.16	47.44	PASS
5613.00†	5595.82	-306.97	-209.09	5542.82	5595.82	8360.23	59.95	147.40	8671.37	185.70	46.83	PASS
5713.00†	5695.39	-314.68	-214.35	5642.39	5695.39	8360.23	59.95	147.44	8679.25	188.25	46.24	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 27 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T01S-R65W Slot: SLOT#01 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL, SEC.17, OG, SI, 8190) Well: CHAVEZ #7-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5794.95	-322.40	-219.60	5741.95	5794.95	8360.23	59.95	147.47	8687.12	190.79	45.66	PASS	
5913.00†	5894.51	-330.11	-224.86	5841.51	5894.51	8360.23	59.95	147.50	8695.01	193.34	45.10	PASS	
6013.00†	5994.08	-337.82	-230.11	5941.08	5994.08	8360.23	59.95	147.54	8702.89	195.89	44.55	PASS	
6113.00†	6093.64	-345.54	-235.36	6040.64	6093.64	8360.23	59.95	147.57	8710.78	198.44	44.01	PASS	
6213.00†	6193.20	-353.25	-240.62	6140.20	6193.20	8360.23	59.95	147.60	8718.66	201.00	43.49	PASS	
6313.00†	6292.77	-360.97	-245.87	6239.77	6292.77	8360.23	59.95	147.63	8726.56	203.56	42.98	PASS	
6413.00†	6392.33	-368.68	-251.13	6339.33	6392.33	8360.23	59.95	147.67	8734.45	206.12	42.49	PASS	
6513.00†	6491.89	-376.40	-256.38	6438.89	6491.89	8360.23	59.95	147.70	8742.35	208.68	42.00	PASS	
6613.00†	6591.46	-384.11	-261.64	6538.46	6591.46	8360.23	59.95	147.73	8750.25	211.24	41.53	PASS	
6713.00†	6691.02	-391.82	-266.89	6638.02	6691.02	8360.23	59.95	147.76	8758.15	213.81	41.06	PASS	
6813.00†	6790.58	-399.54	-272.15	6737.58	6790.58	8360.23	59.95	147.80	8766.06	216.37	40.61	PASS	
6869.81	6847.14	-403.92	-275.13	6794.14	6847.14	8360.23	59.95	147.82	8770.55	217.83	40.36	PASS	
6913.00†	6890.23	-405.63	-277.43	6837.23	6890.23	8360.23	59.95	94.16	8772.35	218.95	40.16	PASS	
7013.00†	6989.59	-397.11	-282.89	6936.59	6989.59	8360.23	59.95	20.37	8764.04	221.90	39.59	PASS	
7113.00†	7085.95	-371.44	-288.42	7032.95	7085.95	8360.23	59.95	12.21	8738.61	225.64	38.82	PASS	
7213.00†	7176.38	-329.40	-293.85	7123.38	7176.38	8360.23	59.95	9.72	8696.83	228.84	38.09	PASS	
7313.00†	7258.14	-272.27	-299.02	7205.14	7258.14	8360.23	59.95	8.88	8639.96	231.63	37.39	PASS	
7413.00†	7328.74	-201.78	-303.77	7275.74	7328.74	8360.23	59.95	8.97	8569.74	233.95	36.71	PASS	
7513.00†	7386.03	-120.09	-307.95	7333.03	7386.03	8360.23	59.95	9.99	8488.29	235.77	36.08	PASS	
7613.00†	7428.28	-29.66	-311.44	7375.28	7428.28	8360.23	59.95	12.74	8398.10	237.06	35.51	PASS	
7713.00†	7454.20	66.76	-314.13	7401.20	7454.20	8360.23	59.95	21.34	8301.90	237.83	34.98	PASS	
7813.00†	7463.00	166.23	-315.94	7410.00	7463.00	8360.23	59.95	88.93	8202.62	238.12	34.52	PASS	
7813.64	7463.00	166.86	-315.95	7410.00	7463.00	8360.23	59.95	90.00	8201.98	238.13	34.52	PASS	
7913.00†	7463.00	266.22	-317.28	7410.00	7463.00	8360.23	59.95	90.00	8102.80	238.18	34.09	PASS	
8013.00†	7463.00	366.21	-318.63	7410.00	7463.00	8360.23	59.95	90.00	8002.98	238.24	33.67	PASS	
8113.00†	7463.00	466.20	-319.97	7410.00	7463.00	8360.23	59.95	90.00	7903.17	238.30	33.24	PASS	
8213.00†	7463.00	566.19	-321.31	7410.00	7463.00	8360.23	59.95	90.00	7803.36	238.37	32.81	PASS	
8313.00†	7463.00	666.18	-322.66	7410.00	7463.00	8360.23	59.95	90.00	7703.56	238.44	32.38	PASS	
8413.00†	7463.00	766.17	-324.00	7410.00	7463.00	8360.23	59.95	90.00	7603.76	238.51	31.95	PASS	
8513.00†	7463.00	866.16	-325.34	7410.00	7463.00	8360.23	59.95	90.00	7503.97	238.59	31.52	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 28 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T01S-R65W Slot: SLOT#01 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL, SEC.17, OG, SI, 8190) Well: CHAVEZ #7-17 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8613.00†	7463.00	966.15	-326.69	7410.00	7463.00	8360.23	59.95	90.00	7404.18	238.67	31.09	PASS
8713.00†	7463.00	1066.14	-328.03	7410.00	7463.00	8360.23	59.95	90.00	7304.40	238.76	30.66	PASS
8813.00†	7463.00	1166.14	-329.38	7410.00	7463.00	8360.23	59.95	90.00	7204.62	238.85	30.23	PASS
8913.00†	7463.00	1266.13	-330.72	7410.00	7463.00	8360.23	59.95	90.00	7104.85	238.94	29.80	PASS
9013.00†	7463.00	1366.12	-332.06	7410.00	7463.00	8360.23	59.95	90.00	7005.09	239.04	29.37	PASS
9113.00†	7463.00	1466.11	-333.41	7410.00	7463.00	8360.23	59.95	90.00	6905.33	239.15	28.94	PASS
9213.00†	7463.00	1566.10	-334.75	7410.00	7463.00	8360.23	59.95	90.00	6805.59	239.26	28.51	PASS
9313.00†	7463.00	1666.09	-336.09	7410.00	7463.00	8360.23	59.95	90.00	6705.85	239.38	28.07	PASS
9413.00†	7463.00	1766.08	-337.44	7410.00	7463.00	8360.23	59.95	90.00	6606.11	239.50	27.64	PASS
9513.00†	7463.00	1866.07	-338.78	7410.00	7463.00	8360.23	59.95	90.00	6506.39	239.63	27.21	PASS
9613.00†	7463.00	1966.06	-340.13	7410.00	7463.00	8360.23	59.95	90.00	6406.67	239.76	26.78	PASS
9713.00†	7463.00	2066.05	-341.47	7410.00	7463.00	8360.23	59.95	90.00	6306.96	239.90	26.35	PASS
9813.00†	7463.00	2166.04	-342.81	7410.00	7463.00	8360.23	59.95	90.00	6207.27	240.05	25.91	PASS
9913.00†	7463.00	2266.04	-344.16	7410.00	7463.00	8360.23	59.95	90.00	6107.58	240.21	25.48	PASS
10013.00†	7463.00	2366.03	-345.50	7410.00	7463.00	8360.23	59.95	90.00	6007.90	240.37	25.05	PASS
10113.00†	7463.00	2466.02	-346.85	7410.00	7463.00	8360.23	59.95	90.00	5908.23	240.54	24.62	PASS
10213.00†	7463.00	2566.01	-348.19	7410.00	7463.00	8360.23	59.95	90.00	5808.58	240.72	24.18	PASS
10313.00†	7463.00	2666.00	-349.53	7410.00	7463.00	8360.23	59.95	90.00	5708.93	240.91	23.75	PASS
10413.00†	7463.00	2765.99	-350.88	7410.00	7463.00	8360.23	59.95	90.00	5609.30	241.11	23.31	PASS
10513.00†	7463.00	2865.98	-352.22	7410.00	7463.00	8360.23	59.95	90.00	5509.69	241.32	22.88	PASS
10613.00†	7463.00	2965.97	-353.56	7410.00	7463.00	8360.23	59.95	90.00	5410.08	241.54	22.45	PASS
10713.00†	7463.00	3065.96	-354.91	7410.00	7463.00	8360.23	59.95	90.00	5310.50	241.77	22.01	PASS
10813.00†	7463.00	3165.95	-356.25	7410.00	7463.00	8360.23	59.95	90.00	5210.92	242.01	21.58	PASS
10913.00†	7463.00	3265.95	-357.60	7410.00	7463.00	8360.23	59.95	90.00	5111.37	242.26	21.14	PASS
11013.00†	7463.00	3365.94	-358.94	7410.00	7463.00	8360.23	59.95	90.00	5011.83	242.53	20.71	PASS
11113.00†	7463.00	3465.93	-360.28	7410.00	7463.00	8360.23	59.95	90.00	4912.31	242.81	20.27	PASS
11213.00†	7463.00	3565.92	-361.63	7410.00	7463.00	8360.23	59.95	90.00	4812.81	243.11	19.84	PASS
11313.00†	7463.00	3665.91	-362.97	7410.00	7463.00	8360.23	59.95	90.00	4713.33	243.42	19.40	PASS
11413.00†	7463.00	3765.90	-364.31	7410.00	7463.00	8360.23	59.95	90.00	4613.88	243.76	18.97	PASS
11513.00†	7463.00	3865.89	-365.66	7410.00	7463.00	8360.23	59.95	90.00	4514.45	244.11	18.53	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 29 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T01S-R65W Slot: SLOT#01 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL, SEC.17, OG, SI, 8190) Well: CHAVEZ #7-17 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
11613.00†	7463.00	3965.88	-367.00	7410.00	7463.00	8360.23	59.95	90.00	4415.04	244.48	18.10	PASS
11713.00†	7463.00	4065.87	-368.35	7410.00	7463.00	8360.23	59.95	90.00	4315.66	244.87	17.66	PASS
11813.00†	7463.00	4165.86	-369.69	7410.00	7463.00	8360.23	59.95	90.00	4216.31	245.29	17.23	PASS
11913.00†	7463.00	4265.86	-371.03	7410.00	7463.00	8360.23	59.95	90.00	4117.00	245.73	16.79	PASS
12013.00†	7463.00	4365.85	-372.38	7410.00	7463.00	8360.23	59.95	90.00	4017.71	246.20	16.35	PASS
12113.00†	7463.00	4465.84	-373.72	7410.00	7463.00	8360.23	59.95	90.00	3918.46	246.70	15.92	PASS
12213.00†	7463.00	4565.83	-375.06	7410.00	7463.00	8360.23	59.95	90.00	3819.26	247.24	15.48	PASS
12313.00†	7463.00	4665.82	-376.41	7410.00	7463.00	8360.23	59.95	90.00	3720.09	247.81	15.04	PASS
12413.00†	7463.00	4765.81	-377.75	7410.00	7463.00	8360.23	59.95	90.00	3620.97	248.41	14.61	PASS
12513.00†	7463.00	4865.80	-379.10	7410.00	7463.00	8360.23	59.95	90.00	3521.90	249.07	14.17	PASS
12613.00†	7463.00	4965.79	-380.44	7410.00	7463.00	8360.23	59.95	90.00	3422.89	249.76	13.73	PASS
12713.00†	7463.00	5065.78	-381.78	7410.00	7463.00	8360.23	59.95	90.00	3323.93	250.52	13.29	PASS
12813.00†	7463.00	5165.77	-383.13	7410.00	7463.00	8360.23	59.95	90.00	3225.04	251.32	12.86	PASS
12913.00†	7463.00	5265.76	-384.47	7410.00	7463.00	8360.23	59.95	90.00	3126.22	252.19	12.42	PASS
13013.00†	7463.00	5365.76	-385.81	7410.00	7463.00	8360.23	59.95	90.00	3027.47	253.13	11.98	PASS
13113.00†	7463.00	5465.75	-387.16	7410.00	7463.00	8360.23	59.95	90.00	2928.81	254.15	11.55	PASS
13213.00†	7463.00	5565.74	-388.50	7410.00	7463.00	8360.23	59.95	90.00	2830.25	255.25	11.11	PASS
13313.00†	7463.00	5665.73	-389.85	7410.00	7463.00	8360.23	59.95	90.00	2731.79	256.45	10.67	PASS
13413.00†	7463.00	5765.72	-391.19	7410.00	7463.00	8360.23	59.95	90.00	2633.44	257.75	10.24	PASS
13513.00†	7463.00	5865.71	-392.53	7410.00	7463.00	8360.23	59.95	90.00	2535.23	259.18	9.80	PASS
13613.00†	7463.00	5965.70	-393.88	7410.00	7463.00	8360.23	59.95	90.00	2437.16	260.74	9.36	PASS
13713.00†	7463.00	6065.69	-395.22	7410.00	7463.00	8360.23	59.95	90.00	2339.25	262.46	8.93	PASS
13813.00†	7463.00	6165.68	-396.56	7410.00	7463.00	8360.23	59.95	90.00	2241.53	264.35	8.49	PASS
13913.00†	7463.00	6265.67	-397.91	7410.00	7463.00	8360.23	59.95	90.00	2144.01	266.44	8.06	PASS
14013.00†	7463.00	6365.67	-399.25	7410.00	7463.00	8360.23	59.95	90.00	2046.74	268.75	7.63	PASS
14113.00†	7463.00	6465.66	-400.60	7410.00	7463.00	8360.23	59.95	90.00	1949.75	271.33	7.20	PASS
14213.00†	7463.00	6565.65	-401.94	7410.00	7463.00	8360.23	59.95	90.00	1853.07	274.21	6.77	PASS
14313.00†	7463.00	6665.64	-403.28	7410.00	7463.00	8360.23	59.95	90.00	1756.77	277.44	6.34	PASS
14413.00†	7463.00	6765.63	-404.63	7410.00	7463.00	8360.23	59.95	90.00	1660.90	281.07	5.92	PASS
14513.00†	7463.00	6865.62	-405.97	7410.00	7463.00	8360.23	59.95	90.00	1565.55	285.19	5.50	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 30 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T01S-R65W Slot: SLOT#01 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL,SEC.17,OG,SI, 8190) Well: CHAVEZ #7-17 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
14613.00†	7463.00	6965.61	-407.32	7410.00	7463.00	8360.23	59.95	90.00	1470.82	289.87	5.08	PASS
14713.00†	7463.00	7065.60	-408.66	7410.00	7463.00	8360.23	59.95	90.00	1376.83	295.21	4.67	PASS
14813.00†	7463.00	7165.59	-410.00	7410.00	7463.00	8360.23	59.95	90.00	1283.75	301.35	4.27	PASS
14913.00†	7463.00	7265.58	-411.35	7410.00	7463.00	8360.23	59.95	90.00	1191.79	308.45	3.87	PASS
15013.00†	7463.00	7365.58	-412.69	7410.00	7463.00	8360.23	59.95	90.00	1101.24	316.68	3.48	PASS
15113.00†	7463.00	7465.57	-414.03	7410.00	7463.00	8360.23	59.95	90.00	1012.47	326.29	3.11	PASS
15213.00†	7463.00	7565.56	-415.38	7410.00	7463.00	8360.23	59.95	90.00	925.98	337.53	2.75	PASS
15313.00†	7463.00	7665.55	-416.72	7410.00	7463.00	8360.23	59.95	90.00	842.50	350.70	2.40	PASS
15413.00†	7463.00	7765.54	-418.07	7410.00	7463.00	8360.23	59.95	90.00	762.99	366.07	2.09	PASS
15513.00†	7463.00	7865.53	-419.41	7410.00	7463.00	8360.23	59.95	90.00	688.85	383.75	1.80	PASS
15613.00†	7463.00	7965.52	-420.75	7410.00	7463.00	8360.23	59.95	90.00	621.99	403.49	1.54	PASS
15713.00†	7463.00	8065.51	-422.10	7410.00	7463.00	8360.23	59.95	90.00	565.00	424.23	1.33	PASS
15813.00†	7463.00	8165.50	-423.44	7410.00	7463.00	8360.23	59.95	90.00	521.14	443.56	1.18	PASS
15913.00†	7463.00	8265.49	-424.78	7410.00	7463.00	8360.23	59.95	90.00	493.91	457.71	1.08	PASS
16001.96†	7463.00	8354.44	-425.98	7410.79	7463.79	8360.23	59.95	90.09	485.97	462.78	1.05	PASS
16004.64†	7463.00	8357.13	-426.02	7410.00	7463.00	8360.23	59.95	90.00	485.98	462.79	1.05	PASS
16013.00†	7463.00	8365.49	-426.13	7410.00	7463.00	8360.23	59.95	90.00	486.11	462.80	1.05	PASS
16113.00†	7463.00	8465.48	-427.47	7410.00	7463.00	8360.23	59.95	90.00	498.66	457.35	1.09	PASS
16213.00†	7463.00	8565.47	-428.82	7410.00	7463.00	8360.23	59.95	90.00	530.11	443.38	1.20	PASS
16313.00†	7463.00	8665.46	-430.16	7410.00	7463.00	8360.23	59.95	90.00	577.39	424.85	1.36	PASS
16413.00†	7463.00	8765.45	-431.50	7410.00	7463.00	8360.23	59.95	90.00	636.97	405.28	1.57	PASS
16513.00†	7463.00	8865.44	-432.85	7410.00	7463.00	8360.23	59.95	90.00	705.75	386.78	1.83	PASS
16613.00†	7463.00	8965.43	-434.19	7410.00	7463.00	8360.23	59.95	90.00	781.31	370.24	2.11	PASS
16713.00†	7463.00	9065.42	-435.53	7410.00	7463.00	8360.23	59.95	90.00	861.86	355.87	2.42	PASS
16813.00†	7463.00	9165.41	-436.88	7410.00	7463.00	8360.23	59.95	90.00	946.13	343.53	2.76	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 31 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1472.00	1472.00	40.00	1512.00	5096.45	13.14	5096.45	13.14
8.625in Casing Surface	0.00	1472.00	1472.00	40.00	1512.00	5096.45	13.14	5096.45	13.14
7.875in Open Hole	1472.00	8173.00	6701.00	1512.00	8213.00	5096.45	13.14	5096.45	13.14
4.5in Casing Production	0.00	8173.00	8173.00	40.00	8213.00	5096.45	13.14	5096.45	13.14

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 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 32 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	0.09	30.00	89.82	30.00	1.40	48.67	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.09	30.00	89.82	30.00	1.72	31.70	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.09	30.00	89.82	30.00	2.29	19.60	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.09	30.00	89.82	30.00	2.90	13.95	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.09	30.00	89.82	30.00	3.51	10.78	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.09	30.00	89.82	30.00	4.13	8.78	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.09	30.00	89.82	30.00	4.75	7.39	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.09	30.00	89.82	30.00	5.38	6.38	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.09	30.00	89.82	30.00	6.00	5.62	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.09	30.00	89.82	30.00	6.63	5.01	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.09	30.00	89.82	30.00	7.25	4.53	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.09	30.00	89.82	30.00	7.88	4.13	PASS
1213.00†	1213.00	0.00	0.00	1213.00	1213.00	0.09	30.00	89.82	30.00	8.51	3.79	PASS
1313.00†	1313.00	0.00	0.00	1312.92	1312.92	0.07	30.02	89.87	30.02	9.13	3.51	PASS
1413.00†	1413.00	0.00	0.00	1412.22	1412.19	-1.64	31.36	92.99	31.41	9.79	3.40	PASS
1500.00	1500.00	0.00	0.00	1498.40	1498.24	-5.31	34.24	98.82	34.69	10.49	3.50	PASS
1513.00†	1513.00	-0.02	-0.02	1511.25	1511.06	-6.03	34.81	-114.46	35.39	10.60	3.53	PASS
1613.00†	1612.97	-1.84	-1.25	1610.14	1609.55	-13.01	40.28	-109.03	43.14	11.37	4.01	PASS
1713.00†	1712.80	-6.54	-4.46	1709.66	1708.58	-20.75	46.35	-108.26	52.93	12.03	4.64	PASS
1767.79	1767.40	-10.34	-7.04	1764.12	1762.77	-24.99	49.68	-109.30	58.76	12.38	5.00	PASS
1813.00†	1812.41	-13.82	-9.42	1809.04	1807.47	-28.48	52.42	-110.45	63.74	12.58	5.31	PASS
1913.00†	1911.98	-21.54	-14.67	1908.40	1906.34	-36.21	58.48	-112.45	74.82	13.24	5.91	PASS
2013.00†	2011.54	-29.25	-19.93	2007.75	2005.21	-43.95	64.55	-113.94	85.97	13.92	6.46	PASS
2113.00†	2111.10	-36.97	-25.18	2107.11	2104.08	-51.68	70.61	-115.08	97.17	14.61	6.94	PASS
2213.00†	2210.67	-44.68	-30.43	2206.46	2202.95	-59.41	76.68	-115.99	108.39	15.31	7.37	PASS
2313.00†	2310.23	-52.40	-35.69	2305.82	2301.81	-67.14	82.74	-116.73	119.64	16.03	7.76	PASS
2413.00†	2409.79	-60.11	-40.94	2405.17	2400.68	-74.87	88.80	-117.34	130.90	16.74	8.12	PASS
2513.00†	2509.36	-67.82	-46.20	2504.53	2499.55	-82.60	94.87	-117.85	142.18	17.47	8.44	PASS
2613.00†	2608.92	-75.54	-51.45	2603.88	2598.42	-90.33	100.93	-118.29	153.46	18.21	8.73	PASS
2713.00†	2708.48	-83.25	-56.71	2703.24	2697.29	-98.06	107.00	-118.67	164.75	18.94	9.00	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 33 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2802.59	2796.15	-105.79	113.06	-119.00	176.05	19.69	9.24	PASS
2913.00†	2907.61	-98.68	-67.22	2901.95	2895.02	-113.52	119.12	-119.29	187.36	20.44	9.46	PASS
3013.00†	3007.17	-106.40	-72.47	3001.30	2993.89	-121.25	125.19	-119.54	198.66	21.19	9.67	PASS
3113.00†	3106.74	-114.11	-77.73	3100.66	3092.76	-128.98	131.25	-119.77	209.97	21.94	9.85	PASS
3213.00†	3206.30	-121.82	-82.98	3200.01	3191.62	-136.71	137.32	-119.98	221.29	22.70	10.03	PASS
3313.00†	3305.86	-129.54	-88.24	3299.37	3290.49	-144.44	143.38	-120.16	232.60	23.46	10.19	PASS
3413.00†	3405.43	-137.25	-93.49	3398.72	3389.36	-152.18	149.45	-120.33	243.92	24.23	10.34	PASS
3513.00†	3504.99	-144.97	-98.74	3498.08	3488.23	-159.91	155.51	-120.48	255.24	24.99	10.48	PASS
3613.00†	3604.55	-152.68	-104.00	3597.43	3587.10	-167.64	161.57	-120.63	266.57	25.76	10.61	PASS
3713.00†	3704.12	-160.40	-109.25	3696.79	3685.96	-175.37	167.64	-120.75	277.89	26.53	10.73	PASS
3813.00†	3803.68	-168.11	-114.51	3796.14	3784.83	-183.10	173.70	-120.87	289.21	27.30	10.85	PASS
3913.00†	3903.25	-175.82	-119.76	3895.50	3883.70	-190.83	179.77	-120.98	300.54	28.08	10.96	PASS
4013.00†	4002.81	-183.54	-125.02	3994.85	3982.57	-198.56	185.83	-121.09	311.87	28.85	11.06	PASS
4113.00†	4102.37	-191.25	-130.27	4094.21	4081.44	-206.29	191.89	-121.18	323.20	29.63	11.15	PASS
4213.00†	4201.94	-198.97	-135.53	4193.56	4180.30	-214.02	197.96	-121.27	334.52	30.40	11.24	PASS
4313.00†	4301.50	-206.68	-140.78	4292.92	4279.17	-221.75	204.02	-121.35	345.85	31.18	11.33	PASS
4413.00†	4401.06	-214.40	-146.04	4392.27	4378.04	-229.48	210.09	-121.43	357.18	31.96	11.41	PASS
4513.00†	4500.63	-222.11	-151.29	4491.62	4476.91	-237.21	216.15	-121.50	368.52	32.74	11.48	PASS
4613.00†	4600.19	-229.82	-156.55	4590.98	4575.78	-244.94	222.21	-121.57	379.85	33.52	11.56	PASS
4713.00†	4699.75	-237.54	-161.80	4690.33	4674.64	-252.67	228.28	-121.63	391.18	34.30	11.62	PASS
4813.00†	4799.32	-245.25	-167.05	4789.69	4773.51	-260.41	234.34	-121.69	402.51	35.08	11.69	PASS
4913.00†	4898.88	-252.97	-172.31	4889.04	4872.38	-268.14	240.41	-121.75	413.84	35.87	11.75	PASS
5013.00†	4998.44	-260.68	-177.56	4988.40	4971.25	-275.87	246.47	-121.81	425.18	36.65	11.81	PASS
5113.00†	5098.01	-268.40	-182.82	5087.75	5070.12	-283.60	252.54	-121.86	436.51	37.43	11.87	PASS
5213.00†	5197.57	-276.11	-188.07	5187.11	5168.98	-291.33	258.60	-121.91	447.85	38.22	11.92	PASS
5313.00†	5297.13	-283.82	-193.33	5286.46	5267.85	-299.06	264.66	-121.95	459.18	39.00	11.97	PASS
5413.00†	5396.70	-291.54	-198.58	5385.82	5366.72	-306.79	270.73	-122.00	470.51	39.79	12.02	PASS
5513.00†	5496.26	-299.25	-203.84	5485.17	5465.59	-314.52	276.79	-122.04	481.85	40.58	12.07	PASS
5613.00†	5595.82	-306.97	-209.09	5584.53	5564.45	-322.25	282.86	-122.08	493.18	41.36	12.11	PASS
5713.00†	5695.39	-314.68	-214.35	5683.88	5663.32	-329.98	288.92	-122.12	504.52	42.15	12.16	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 34 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#06 WAKEMAN 20-17-3NAH (293'FSL & 2098'FEL, SEC.20) Well: WAKEMAN 20-17-3NAH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5794.95	-322.40	-219.60	5783.24	5762.19	-337.71	294.98	-122.15	515.85	42.94	12.20	PASS
5913.00†	5894.51	-330.11	-224.86	5882.59	5861.06	-345.44	301.05	-122.19	527.19	43.73	12.24	PASS
6013.00†	5994.08	-337.82	-230.11	5981.95	5959.93	-353.17	307.11	-122.22	538.53	44.51	12.28	PASS
6113.00†	6093.64	-345.54	-235.36	6081.30	6058.79	-360.90	313.18	-122.26	549.86	45.30	12.31	PASS
6213.00†	6193.20	-353.25	-240.62	6180.66	6157.66	-368.63	319.24	-122.29	561.20	46.09	12.35	PASS
6313.00†	6292.77	-360.97	-245.87	6280.01	6256.53	-376.37	325.30	-122.32	572.53	46.88	12.38	PASS
6413.00†	6392.33	-368.68	-251.13	6379.37	6355.40	-384.10	331.37	-122.34	583.87	47.67	12.42	PASS
6513.00†	6491.89	-376.40	-256.38	6478.72	6454.27	-391.83	337.43	-122.37	595.21	48.46	12.45	PASS
6613.00†	6591.46	-384.11	-261.64	6578.08	6553.13	-399.56	343.50	-122.40	606.54	49.25	12.48	PASS
6713.00†	6691.02	-391.82	-266.89	6679.43	6654.10	-405.17	349.66	-122.64	617.80	50.15	12.48	PASS
6813.00†	6790.58	-399.54	-272.15	6779.66	6753.54	-395.29	355.52	-124.27	628.77	51.09	12.47	PASS
6869.81	6847.14	-403.92	-275.13	6833.04	6805.38	-382.98	358.48	-125.75	635.33	51.41	12.52	PASS
6913.00†	6890.23	-405.63	-277.43	6871.95	6842.33	-370.99	360.55	178.85	640.71	51.44	12.62	PASS
7013.00†	6989.59	-397.11	-282.89	6959.03	6921.53	-335.25	364.84	101.11	654.23	51.91	12.76	PASS
7113.00†	7085.95	-371.44	-288.42	7042.63	6991.66	-290.02	368.46	89.19	668.59	52.87	12.80	PASS
7213.00†	7176.38	-329.40	-293.85	7123.52	7052.57	-236.99	371.42	83.17	682.97	52.26	13.24	PASS
7313.00†	7258.14	-272.27	-299.02	7202.28	7104.16	-177.60	373.73	79.03	696.61	51.56	13.68	PASS
7413.00†	7328.74	-201.78	-303.77	7279.41	7146.35	-113.12	375.40	75.94	708.80	51.00	14.08	PASS
7513.00†	7386.03	-120.09	-307.95	7355.31	7179.07	-44.71	376.46	73.65	718.97	50.71	14.37	PASS
7613.00†	7428.28	-29.66	-311.44	7430.33	7202.26	26.57	376.89	72.03	726.67	50.75	14.51	PASS
7713.00†	7454.20	66.76	-314.13	7504.75	7215.90	99.69	376.73	71.03	731.54	51.22	14.47	PASS
7813.00†	7463.00	166.23	-315.94	7580.77	7220.00	175.54	375.96	70.65	733.39	52.18	14.24	PASS
7813.64	7463.00	166.86	-315.95	7581.41	7220.00	176.18	375.95	70.65	733.39	52.19	14.23	PASS
7913.00†	7463.00	266.22	-317.28	7680.77	7220.00	275.53	374.61	70.65	733.39	53.79	13.80	PASS
8013.00†	7463.00	366.21	-318.63	7780.77	7220.00	375.52	373.27	70.65	733.38	56.00	13.25	PASS
8113.00†	7463.00	466.20	-319.97	7880.77	7220.00	475.51	371.92	70.65	733.38	58.74	12.63	PASS
8213.00†	7463.00	566.19	-321.31	7980.77	7220.00	575.50	370.58	70.65	733.38	61.93	11.97	PASS
8313.00†	7463.00	666.18	-322.66	8080.77	7220.00	675.49	369.23	70.65	733.38	65.52	11.30	PASS
8413.00†	7463.00	766.17	-324.00	8180.77	7220.00	775.48	367.88	70.65	733.38	69.44	10.66	PASS
8513.00†	7463.00	866.16	-325.34	8280.77	7220.00	875.47	366.54	70.65	733.37	73.63	10.05	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 35 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
8613.00†	7463.00	966.15	-326.69	8380.77	7220.00	975.46	365.19	70.65	733.37	78.06	9.47	PASS
8713.00†	7463.00	1066.14	-328.03	8480.77	7220.00	1075.46	363.85	70.65	733.37	82.69	8.94	PASS
8813.00†	7463.00	1166.14	-329.38	8580.77	7220.00	1175.45	362.50	70.65	733.37	87.47	8.44	PASS
8913.00†	7463.00	1266.13	-330.72	8680.77	7220.00	1275.44	361.16	70.65	733.37	92.89	7.95	PASS
9013.00†	7463.00	1366.12	-332.06	8780.77	7220.00	1375.43	359.81	70.65	733.37	97.44	7.57	PASS
9113.00†	7463.00	1466.11	-333.41	8880.77	7220.00	1475.42	358.46	70.65	733.36	102.57	7.19	PASS
9213.00†	7463.00	1566.10	-334.75	8980.77	7220.00	1575.41	357.12	70.65	733.36	107.80	6.84	PASS
9313.00†	7463.00	1666.09	-336.09	9080.77	7220.00	1675.40	355.77	70.65	733.36	113.09	6.52	PASS
9413.00†	7463.00	1766.08	-337.44	9180.77	7220.00	1775.39	354.43	70.65	733.36	118.45	6.22	PASS
9513.00†	7463.00	1866.07	-338.78	9280.77	7220.00	1875.38	353.08	70.65	733.36	123.86	5.95	PASS
9613.00†	7463.00	1966.06	-340.13	9380.77	7220.00	1975.37	351.74	70.65	733.35	129.32	5.70	PASS
9713.00†	7463.00	2066.05	-341.47	9480.77	7220.00	2075.37	350.39	70.65	733.35	134.83	5.46	PASS
9813.00†	7463.00	2166.04	-342.81	9580.77	7220.00	2175.36	349.05	70.65	733.35	140.37	5.25	PASS
9913.00†	7463.00	2266.04	-344.16	9680.77	7220.00	2275.35	347.70	70.65	733.35	145.94	5.04	PASS
10013.00†	7463.00	2366.03	-345.50	9780.77	7220.00	2375.34	346.35	70.65	733.35	151.54	4.86	PASS
10113.00†	7463.00	2466.02	-346.85	9880.77	7220.00	2475.33	345.01	70.65	733.35	157.17	4.68	PASS
10213.00†	7463.00	2566.01	-348.19	9980.77	7220.00	2575.32	343.66	70.65	733.34	162.83	4.52	PASS
10313.00†	7463.00	2666.00	-349.53	10080.77	7220.00	2675.31	342.32	70.65	733.34	168.50	4.37	PASS
10413.00†	7463.00	2765.99	-350.88	10180.77	7220.00	2775.30	340.97	70.65	733.34	174.19	4.22	PASS
10513.00†	7463.00	2865.98	-352.22	10280.77	7220.00	2875.29	339.63	70.65	733.34	179.90	4.09	PASS
10613.00†	7463.00	2965.97	-353.56	10380.77	7220.00	2975.28	338.28	70.65	733.34	185.63	3.96	PASS
10713.00†	7463.00	3065.96	-354.91	10480.77	7220.00	3075.27	336.93	70.65	733.34	191.36	3.84	PASS
10813.00†	7463.00	3165.95	-356.25	10580.77	7220.00	3175.27	335.59	70.65	733.33	197.12	3.73	PASS
10913.00†	7463.00	3265.95	-357.60	10680.77	7220.00	3275.26	334.24	70.65	733.33	202.88	3.62	PASS
11013.00†	7463.00	3365.94	-358.94	10780.77	7220.00	3375.25	332.90	70.65	733.33	208.66	3.52	PASS
11113.00†	7463.00	3465.93	-360.28	10880.77	7220.00	3475.24	331.55	70.65	733.33	214.44	3.43	PASS
11213.00†	7463.00	3565.92	-361.63	10980.77	7220.00	3575.23	330.21	70.65	733.33	220.23	3.34	PASS
11313.00†	7463.00	3665.91	-362.97	11080.77	7220.00	3675.22	328.86	70.65	733.32	226.04	3.25	PASS
11413.00†	7463.00	3765.90	-364.31	11180.77	7220.00	3775.21	327.51	70.65	733.32	231.84	3.17	PASS
11513.00†	7463.00	3865.89	-365.66	11280.77	7220.00	3875.20	326.17	70.65	733.32	237.66	3.09	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 36 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
11613.00†	7463.00	3965.88	-367.00	11380.77	7220.00	3975.19	324.82	70.65	733.32	243.49	3.02	PASS
11713.00†	7463.00	4065.87	-368.35	11480.77	7220.00	4075.18	323.48	70.65	733.32	249.32	2.95	PASS
11813.00†	7463.00	4165.86	-369.69	11580.77	7220.00	4175.17	322.13	70.65	733.32	255.15	2.88	PASS
11913.00†	7463.00	4265.86	-371.03	11680.77	7220.00	4275.17	320.79	70.65	733.31	261.00	2.81	PASS
12013.00†	7463.00	4365.85	-372.38	11780.77	7220.00	4375.16	319.44	70.65	733.31	266.84	2.75	PASS
12113.00†	7463.00	4465.84	-373.72	11880.77	7220.00	4475.15	318.09	70.65	733.31	272.69	2.69	PASS
12213.00†	7463.00	4565.83	-375.06	11980.77	7220.00	4575.14	316.75	70.65	733.31	278.55	2.64	PASS
12313.00†	7463.00	4665.82	-376.41	12080.77	7220.00	4675.13	315.40	70.65	733.31	284.41	2.58	PASS
12413.00†	7463.00	4765.81	-377.75	12180.77	7220.00	4775.12	314.06	70.65	733.30	290.27	2.53	PASS
12513.00†	7463.00	4865.80	-379.10	12280.77	7220.00	4875.11	312.71	70.65	733.30	296.14	2.48	PASS
12613.00†	7463.00	4965.79	-380.44	12380.77	7220.00	4975.10	311.37	70.65	733.30	302.01	2.43	PASS
12713.00†	7463.00	5065.78	-381.78	12480.77	7220.00	5075.09	310.02	70.65	733.30	307.89	2.38	PASS
12813.00†	7463.00	5165.77	-383.13	12580.77	7220.00	5175.08	308.67	70.65	733.30	313.76	2.34	PASS
12913.00†	7463.00	5265.76	-384.47	12680.77	7220.00	5275.08	307.33	70.65	733.30	319.64	2.30	PASS
13013.00†	7463.00	5365.76	-385.81	12780.77	7220.00	5375.07	305.98	70.65	733.29	325.53	2.26	PASS
13113.00†	7463.00	5465.75	-387.16	12880.77	7220.00	5475.06	304.64	70.65	733.29	331.41	2.22	PASS
13213.00†	7463.00	5565.74	-388.50	12980.77	7220.00	5575.05	303.29	70.65	733.29	337.30	2.18	PASS
13313.00†	7463.00	5665.73	-389.85	13080.77	7220.00	5675.04	301.95	70.65	733.29	343.19	2.14	PASS
13413.00†	7463.00	5765.72	-391.19	13180.77	7220.00	5775.03	300.60	70.65	733.29	349.09	2.10	PASS
13513.00†	7463.00	5865.71	-392.53	13280.77	7220.00	5875.02	299.25	70.65	733.28	354.98	2.07	PASS
13613.00†	7463.00	5965.70	-393.88	13380.77	7220.00	5975.01	297.91	70.65	733.28	360.88	2.03	PASS
13713.00†	7463.00	6065.69	-395.22	13480.77	7220.00	6075.00	296.56	70.65	733.28	366.78	2.00	PASS
13813.00†	7463.00	6165.68	-396.56	13580.77	7220.00	6174.99	295.22	70.65	733.28	372.68	1.97	PASS
13913.00†	7463.00	6265.67	-397.91	13680.77	7220.00	6274.98	293.87	70.65	733.28	378.58	1.94	PASS
14013.00†	7463.00	6365.67	-399.25	13780.77	7220.00	6374.98	292.53	70.65	733.28	384.48	1.91	PASS
14113.00†	7463.00	6465.66	-400.60	13880.77	7220.00	6474.97	291.18	70.65	733.27	390.39	1.88	PASS
14213.00†	7463.00	6565.65	-401.94	13980.77	7220.00	6574.96	289.83	70.65	733.27	396.30	1.85	PASS
14313.00†	7463.00	6665.64	-403.28	14080.77	7220.00	6674.95	288.49	70.65	733.27	402.20	1.82	PASS
14413.00†	7463.00	6765.63	-404.63	14180.77	7220.00	6774.94	287.14	70.65	733.27	408.11	1.80	PASS
14513.00†	7463.00	6865.62	-405.97	14280.77	7220.00	6874.93	285.80	70.65	733.27	414.03	1.77	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 37 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
14613.00†	7463.00	6965.61	-407.32	14380.77	7220.00	6974.92	284.45	70.65	733.27	419.94	1.75	PASS
14713.00†	7463.00	7065.60	-408.66	14480.77	7220.00	7074.91	283.11	70.65	733.26	425.85	1.72	PASS
14813.00†	7463.00	7165.59	-410.00	14580.77	7220.00	7174.90	281.76	70.65	733.26	431.77	1.70	PASS
14913.00†	7463.00	7265.58	-411.35	14680.77	7220.00	7274.89	280.42	70.65	733.26	437.68	1.68	PASS
15013.00†	7463.00	7365.58	-412.69	14780.77	7220.00	7374.89	279.07	70.65	733.26	443.60	1.65	PASS
15113.00†	7463.00	7465.57	-414.03	14880.77	7220.00	7474.88	277.72	70.65	733.26	449.52	1.63	PASS
15213.00†	7463.00	7565.56	-415.38	14980.77	7220.00	7574.87	276.38	70.65	733.25	455.44	1.61	PASS
15313.00†	7463.00	7665.55	-416.72	15080.77	7220.00	7674.86	275.03	70.65	733.25	461.36	1.59	PASS
15413.00†	7463.00	7765.54	-418.07	15180.77	7220.00	7774.85	273.69	70.65	733.25	467.28	1.57	PASS
15513.00†	7463.00	7865.53	-419.41	15280.77	7220.00	7874.84	272.34	70.65	733.25	473.20	1.55	PASS
15613.00†	7463.00	7965.52	-420.75	15380.77	7220.00	7974.83	271.00	70.65	733.25	479.12	1.53	PASS
15713.00†	7463.00	8065.51	-422.10	15480.77	7220.00	8074.82	269.65	70.65	733.25	485.05	1.51	PASS
15813.00†	7463.00	8165.50	-423.44	15580.77	7220.00	8174.81	268.30	70.65	733.24	490.97	1.49	PASS
15913.00†	7463.00	8265.49	-424.78	15680.77	7220.00	8274.80	266.96	70.65	733.24	496.90	1.48	PASS
16013.00†	7463.00	8365.49	-426.13	15780.77	7220.00	8374.79	265.61	70.65	733.24	502.82	1.46	PASS
16113.00†	7463.00	8465.48	-427.47	15880.77	7220.00	8474.79	264.27	70.65	733.24	508.75	1.44	PASS
16213.00†	7463.00	8565.47	-428.82	15980.77	7220.00	8574.78	262.92	70.65	733.24	514.68	1.43	PASS
16313.00†	7463.00	8665.46	-430.16	16080.77	7220.00	8674.77	261.58	70.65	733.23	520.60	1.41	PASS
16413.00†	7463.00	8765.45	-431.50	16180.77	7220.00	8774.76	260.23	70.65	733.23	526.53	1.39	PASS
16513.00†	7463.00	8865.44	-432.85	16280.77	7220.00	8874.75	258.88	70.65	733.23	532.46	1.38	PASS
16613.00†	7463.00	8965.43	-434.19	16380.77	7220.00	8974.74	257.54	70.65	733.23	538.39	1.36	PASS
16713.00†	7463.00	9065.42	-435.53	16480.77	7220.00	9074.73	256.19	70.65	733.23	544.32	1.35	PASS
16813.00†	7463.00	9165.41	-436.88	16580.77	7220.00	9174.72	254.85	70.65	733.23	550.25	1.33	PASS
16913.00†	7463.00	9265.40	-438.22	16680.77	7220.00	9274.71	253.50	70.65	733.22	556.18	1.32	PASS
17013.00†	7463.00	9365.39	-439.57	16780.77	7220.00	9374.70	252.16	70.65	733.22	562.12	1.30	PASS
17113.00†	7463.00	9465.39	-440.91	16880.77	7220.00	9474.69	250.81	70.65	733.22	568.05	1.29	PASS
17213.00†	7463.00	9565.38	-442.25	16980.77	7220.00	9574.69	249.46	70.65	733.22	573.98	1.28	PASS
17313.00†	7463.00	9665.37	-443.60	17080.77	7220.00	9674.68	248.12	70.65	733.22	579.91	1.26	PASS
17413.00†	7463.00	9765.36	-444.94	17180.77	7220.00	9774.67	246.77	70.65	733.21	585.85	1.25	PASS
17513.00†	7463.00	9865.35	-446.28	17280.77	7220.00	9874.66	245.43	70.65	733.21	591.78	1.24	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 38 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
17613.00†	7463.00	9965.34	-447.63	17376.39	7220.00	9970.27	244.14	70.65	733.22	597.59	1.23	PASS
17619.74	7463.00	9972.08	-447.72	17376.39	7220.00	9970.27	244.14	70.65	733.30	597.75	1.23	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	0.06	18.29	-8.44	24.95
8.5in Open Hole	1800.00	17376.39	15576.39	1798.48	N/A	-8.44	24.95	N/A	N/A

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

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

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 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 39 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	-0.06	-29.95	-90.11	29.95	1.40	48.57	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.06	-29.95	-90.11	29.95	1.73	31.51	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.06	-29.95	-90.11	29.95	2.30	19.47	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.06	-29.95	-90.11	29.95	2.90	13.87	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.06	-29.95	-90.11	29.95	3.52	10.73	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.06	-29.95	-90.11	29.95	4.14	8.73	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.06	-29.95	-90.11	29.95	4.76	7.36	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.06	-29.95	-90.11	29.95	5.39	6.36	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.06	-29.95	-90.11	29.95	6.01	5.59	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.06	-29.95	-90.11	29.95	6.64	4.99	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.06	-29.95	-90.11	29.95	7.26	4.51	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.06	-29.95	-90.11	29.95	7.89	4.11	PASS
1213.00†	1213.00	0.00	0.00	1213.00	1213.00	-0.06	-29.95	-90.11	29.95	8.52	3.78	PASS
1313.00†	1313.00	0.00	0.00	1313.00	1313.00	-0.06	-29.95	-90.11	29.95	9.14	3.49	PASS
1413.00†	1413.00	0.00	0.00	1413.00	1413.00	-0.06	-29.95	-90.11	29.95	9.77	3.25	PASS
1500.00	1500.00	0.00	0.00	1500.00	1500.00	-0.06	-29.95	-90.11	29.95	10.32	3.06	PASS
1513.00†	1513.00	-0.02	-0.02	1512.88	1512.88	-0.07	-29.97	55.66	29.96	10.40	3.04	PASS
1613.00†	1612.97	-1.84	-1.25	1611.91	1611.88	-0.90	-31.96	57.44	30.74	11.10	2.91	PASS
1713.00†	1712.80	-6.54	-4.46	1710.87	1710.68	-3.07	-37.10	61.64	32.89	11.98	2.87	PASS
1767.79	1767.40	-10.34	-7.04	1765.05	1764.67	-4.81	-41.24	64.64	34.75	12.42	2.92	PASS
1813.00†	1812.41	-13.82	-9.42	1809.73	1809.12	-6.54	-45.36	66.84	36.82	12.64	3.03	PASS
1913.00†	1911.98	-21.54	-14.67	1908.36	1906.98	-11.33	-56.73	68.89	43.57	13.40	3.38	PASS
2013.00†	2011.54	-29.25	-19.93	2006.57	2003.93	-17.38	-71.12	68.16	53.10	14.21	3.88	PASS
2113.00†	2111.10	-36.97	-25.18	2104.57	2100.11	-24.67	-88.43	66.00	65.37	14.98	4.53	PASS
2213.00†	2210.67	-44.68	-30.43	2203.67	2197.19	-32.40	-106.81	64.13	78.52	15.71	5.19	PASS
2313.00†	2310.23	-52.40	-35.69	2302.77	2294.26	-40.14	-125.19	62.80	91.73	16.43	5.79	PASS
2413.00†	2409.79	-60.11	-40.94	2401.88	2391.34	-47.87	-143.57	61.80	104.98	17.16	6.34	PASS
2513.00†	2509.36	-67.82	-46.20	2500.98	2488.42	-55.60	-161.94	61.03	118.26	17.91	6.83	PASS
2613.00†	2608.92	-75.54	-51.45	2600.09	2585.50	-63.34	-180.32	60.41	131.54	18.63	7.30	PASS
2713.00†	2708.48	-83.25	-56.71	2699.19	2682.58	-71.07	-198.70	59.91	144.85	19.38	7.72	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 40 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2798.29	2779.65	-78.80	-217.07	59.49	158.16	20.13	8.11	PASS
2913.00†	2907.61	-98.68	-67.22	2897.40	2876.73	-86.54	-235.45	59.14	171.48	20.89	8.46	PASS
3013.00†	3007.17	-106.40	-72.47	2996.50	2973.81	-94.27	-253.83	58.83	184.80	21.66	8.79	PASS
3113.00†	3106.74	-114.11	-77.73	3095.61	3070.89	-102.00	-272.21	58.57	198.13	22.43	9.09	PASS
3213.00†	3206.30	-121.82	-82.98	3194.71	3167.96	-109.74	-290.58	58.34	211.46	23.20	9.37	PASS
3313.00†	3305.86	-129.54	-88.24	3293.81	3265.04	-117.47	-308.96	58.14	224.79	23.98	9.63	PASS
3413.00†	3405.43	-137.25	-93.49	3392.92	3362.12	-125.20	-327.34	57.96	238.13	24.76	9.87	PASS
3513.00†	3504.99	-144.97	-98.74	3492.02	3459.20	-132.94	-345.71	57.80	251.47	25.55	10.10	PASS
3613.00†	3604.55	-152.68	-104.00	3591.13	3556.28	-140.67	-364.09	57.66	264.81	26.34	10.31	PASS
3713.00†	3704.12	-160.40	-109.25	3690.23	3653.35	-148.40	-382.47	57.53	278.15	27.13	10.50	PASS
3813.00†	3803.68	-168.11	-114.51	3789.33	3750.43	-156.14	-400.85	57.41	291.49	27.92	10.69	PASS
3913.00†	3903.25	-175.82	-119.76	3888.44	3847.51	-163.87	-419.22	57.30	304.84	28.72	10.86	PASS
4013.00†	4002.81	-183.54	-125.02	3987.54	3944.59	-171.60	-437.60	57.20	318.18	29.52	11.02	PASS
4113.00†	4102.37	-191.25	-130.27	4086.65	4041.66	-179.34	-455.98	57.11	331.53	30.32	11.17	PASS
4213.00†	4201.94	-198.97	-135.53	4185.75	4138.74	-187.07	-474.35	57.03	344.88	31.12	11.32	PASS
4313.00†	4301.50	-206.68	-140.78	4284.86	4235.82	-194.80	-492.73	56.95	358.22	31.93	11.45	PASS
4413.00†	4401.06	-214.40	-146.04	4383.96	4332.90	-202.54	-511.11	56.88	371.57	32.74	11.58	PASS
4513.00†	4500.63	-222.11	-151.29	4483.06	4429.97	-210.27	-529.49	56.81	384.92	33.54	11.70	PASS
4613.00†	4600.19	-229.82	-156.55	4582.17	4527.05	-218.00	-547.86	56.75	398.27	34.35	11.82	PASS
4713.00†	4699.75	-237.54	-161.80	4681.27	4624.13	-225.74	-566.24	56.69	411.62	35.17	11.93	PASS
4813.00†	4799.32	-245.25	-167.05	4780.38	4721.21	-233.47	-584.62	56.63	424.97	35.98	12.03	PASS
4913.00†	4898.88	-252.97	-172.31	4879.48	4818.29	-241.21	-603.00	56.58	438.32	36.79	12.13	PASS
5013.00†	4998.44	-260.68	-177.56	4978.58	4915.36	-248.94	-621.37	56.53	451.67	37.61	12.22	PASS
5113.00†	5098.01	-268.40	-182.82	5077.69	5012.44	-256.67	-639.75	56.49	465.02	38.42	12.31	PASS
5213.00†	5197.57	-276.11	-188.07	5176.79	5109.52	-264.41	-658.13	56.44	478.37	39.24	12.40	PASS
5313.00†	5297.13	-283.82	-193.33	5275.90	5206.60	-272.14	-676.50	56.40	491.72	40.06	12.48	PASS
5413.00†	5396.70	-291.54	-198.58	5375.00	5303.67	-279.87	-694.88	56.37	505.08	40.88	12.56	PASS
5513.00†	5496.26	-299.25	-203.84	5474.10	5400.75	-287.61	-713.26	56.33	518.43	41.70	12.63	PASS
5613.00†	5595.82	-306.97	-209.09	5573.21	5497.83	-295.34	-731.64	56.29	531.78	42.52	12.70	PASS
5713.00†	5695.39	-314.68	-214.35	5672.31	5594.91	-303.07	-750.01	56.26	545.13	43.34	12.77	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 41 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	5794.95	-322.40	-219.60	5771.42	5691.99	-310.81	-768.39	56.23	558.48	44.16	12.84	PASS
5913.00†	5894.51	-330.11	-224.86	5870.52	5789.06	-318.54	-786.77	56.20	571.84	44.98	12.90	PASS
6013.00†	5994.08	-337.82	-230.11	5969.62	5886.14	-326.27	-805.14	56.17	585.19	45.81	12.96	PASS
6113.00†	6093.64	-345.54	-235.36	6068.73	5983.22	-334.01	-823.52	56.14	598.54	46.63	13.02	PASS
6213.00†	6193.20	-353.25	-240.62	6167.83	6080.30	-341.74	-841.90	56.12	611.90	47.46	13.07	PASS
6313.00†	6292.77	-360.97	-245.87	6266.94	6177.37	-349.47	-860.28	56.09	625.25	48.28	13.13	PASS
6413.00†	6392.33	-368.68	-251.13	6366.04	6274.45	-357.21	-878.65	56.07	638.60	49.11	13.18	PASS
6513.00†	6491.89	-376.40	-256.38	6465.14	6371.53	-364.94	-897.03	56.04	651.96	49.93	13.23	PASS
6613.00†	6591.46	-384.11	-261.64	6564.25	6468.61	-372.67	-915.41	56.02	665.31	50.76	13.28	PASS
6713.00†	6691.02	-391.82	-266.89	6663.35	6565.69	-380.41	-933.78	56.00	678.66	51.59	13.33	PASS
6813.00†	6790.58	-399.54	-272.15	6762.46	6662.76	-388.14	-952.16	55.98	692.02	52.41	13.37	PASS
6869.81	6847.14	-403.92	-275.13	6818.75	6717.91	-392.53	-962.60	55.97	699.60	52.88	13.39	PASS
6913.00†	6890.23	-405.63	-277.43	6861.52	6759.80	-395.87	-970.53	2.74	705.34	53.18	13.43	PASS
7013.00†	6989.59	-397.11	-282.89	6959.20	6855.48	-403.49	-988.64	-71.10	718.41	53.83	13.51	PASS
7113.00†	7085.95	-371.44	-288.42	7056.32	6950.78	-404.08	-1006.79	-80.14	731.71	54.83	13.51	PASS
7213.00†	7176.38	-329.40	-293.85	7158.18	7049.26	-387.16	-1025.82	-83.68	745.17	54.66	13.80	PASS
7313.00†	7258.14	-272.27	-299.02	7265.60	7148.14	-350.42	-1045.24	-85.78	758.32	54.51	14.08	PASS
7413.00†	7328.74	-201.78	-303.77	7379.24	7243.42	-291.83	-1064.31	-87.29	770.59	54.29	14.37	PASS
7513.00†	7386.03	-120.09	-307.95	7499.46	7329.70	-210.33	-1082.02	-88.46	781.35	54.16	14.60	PASS
7613.00†	7428.28	-29.66	-311.44	7626.10	7400.38	-106.66	-1097.11	-89.37	789.93	54.24	14.74	PASS
7713.00†	7454.20	66.76	-314.13	7758.20	7448.40	15.59	-1108.16	-90.00	795.71	54.57	14.76	PASS
7813.00†	7463.00	166.23	-315.94	7893.94	7467.78	149.49	-1113.95	-90.34	798.20	55.23	14.63	PASS
7813.64	7463.00	166.86	-315.95	7894.81	7467.81	150.37	-1113.97	-90.35	798.20	55.23	14.63	PASS
7913.00†	7463.00	266.22	-317.28	7998.22	7468.00	253.76	-1115.62	-90.36	798.45	56.82	14.22	PASS
8013.00†	7463.00	366.21	-318.63	8098.22	7468.00	353.74	-1117.18	-90.36	798.66	59.10	13.66	PASS
8113.00†	7463.00	466.20	-319.97	8198.22	7468.00	453.73	-1118.74	-90.36	798.88	61.95	13.03	PASS
8213.00†	7463.00	566.19	-321.31	8298.22	7468.00	553.72	-1120.30	-90.36	799.10	65.29	12.36	PASS
8313.00†	7463.00	666.18	-322.66	8398.22	7468.00	653.71	-1121.86	-90.36	799.32	69.03	11.69	PASS
8413.00†	7463.00	766.17	-324.00	8498.22	7468.00	753.69	-1123.42	-90.36	799.53	73.13	11.03	PASS
8513.00†	7463.00	866.16	-325.34	8598.22	7468.00	853.68	-1124.98	-90.36	799.75	77.52	10.40	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 42 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	7463.00	966.15	-326.69	8698.22	7468.00	953.67	-1126.54	-90.36	799.97	82.15	9.81	PASS
8713.00†	7463.00	1066.14	-328.03	8798.22	7468.00	1053.66	-1128.10	-90.36	800.18	87.53	9.21	PASS
8813.00†	7463.00	1166.14	-329.38	8898.22	7468.00	1153.64	-1129.66	-90.36	800.40	92.01	8.76	PASS
8913.00†	7463.00	1266.13	-330.72	8998.22	7468.00	1253.63	-1131.22	-90.36	800.62	97.17	8.29	PASS
9013.00†	7463.00	1366.12	-332.06	9098.21	7468.00	1353.62	-1132.78	-90.36	800.83	102.45	7.86	PASS
9113.00†	7463.00	1466.11	-333.41	9198.21	7468.00	1453.61	-1134.34	-90.36	801.05	107.84	7.47	PASS
9213.00†	7463.00	1566.10	-334.75	9298.21	7468.00	1553.59	-1135.91	-90.36	801.27	113.32	7.11	PASS
9313.00†	7463.00	1666.09	-336.09	9398.21	7468.00	1653.58	-1137.47	-90.36	801.48	118.88	6.78	PASS
9413.00†	7463.00	1766.08	-337.44	9498.21	7468.00	1753.57	-1139.03	-90.36	801.70	124.51	6.47	PASS
9513.00†	7463.00	1866.07	-338.78	9598.21	7468.00	1853.56	-1140.59	-90.36	801.92	130.19	6.19	PASS
9613.00†	7463.00	1966.06	-340.13	9698.21	7468.00	1953.54	-1142.15	-90.36	802.13	135.93	5.93	PASS
9713.00†	7463.00	2066.05	-341.47	9798.21	7468.00	2053.53	-1143.71	-90.36	802.35	141.71	5.69	PASS
9813.00†	7463.00	2166.04	-342.81	9898.21	7468.00	2153.52	-1145.27	-90.36	802.57	147.53	5.46	PASS
9913.00†	7463.00	2266.04	-344.16	9998.21	7468.00	2253.51	-1146.83	-90.36	802.79	153.39	5.25	PASS
10013.00†	7463.00	2366.03	-345.50	10098.21	7468.00	2353.49	-1148.39	-90.36	803.00	159.27	5.06	PASS
10113.00†	7463.00	2466.02	-346.85	10198.21	7468.00	2453.48	-1149.95	-90.36	803.22	165.19	4.88	PASS
10213.00†	7463.00	2566.01	-348.19	10298.21	7468.00	2553.47	-1151.51	-90.36	803.44	171.13	4.71	PASS
10313.00†	7463.00	2666.00	-349.53	10398.21	7468.00	2653.46	-1153.07	-90.36	803.65	177.09	4.55	PASS
10413.00†	7463.00	2765.99	-350.88	10498.21	7468.00	2753.45	-1154.63	-90.36	803.87	183.07	4.40	PASS
10513.00†	7463.00	2865.98	-352.22	10598.21	7468.00	2853.43	-1156.19	-90.36	804.09	189.07	4.26	PASS
10613.00†	7463.00	2965.97	-353.56	10698.21	7468.00	2953.42	-1157.75	-90.36	804.30	195.09	4.13	PASS
10713.00†	7463.00	3065.96	-354.91	10798.21	7468.00	3053.41	-1159.31	-90.36	804.52	201.12	4.01	PASS
10813.00†	7463.00	3165.95	-356.25	10898.21	7468.00	3153.40	-1160.88	-90.36	804.74	207.17	3.89	PASS
10913.00†	7463.00	3265.95	-357.60	10998.21	7468.00	3253.38	-1162.44	-90.36	804.95	213.23	3.78	PASS
11013.00†	7463.00	3365.94	-358.94	11098.21	7468.00	3353.37	-1164.00	-90.36	805.17	219.30	3.68	PASS
11113.00†	7463.00	3465.93	-360.28	11198.21	7468.00	3453.36	-1165.56	-90.36	805.39	225.38	3.58	PASS
11213.00†	7463.00	3565.92	-361.63	11298.21	7468.00	3553.35	-1167.12	-90.36	805.61	231.48	3.49	PASS
11313.00†	7463.00	3665.91	-362.97	11398.21	7468.00	3653.33	-1168.68	-90.36	805.82	237.58	3.40	PASS
11413.00†	7463.00	3765.90	-364.31	11498.21	7468.00	3753.32	-1170.24	-90.36	806.04	243.68	3.31	PASS
11513.00†	7463.00	3865.89	-365.66	11598.21	7468.00	3853.31	-1171.80	-90.36	806.26	249.80	3.23	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 43 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	7463.00	3965.88	-367.00	11698.21	7468.00	3953.30	-1173.36	-90.36	806.47	255.92	3.16	PASS
11713.00†	7463.00	4065.87	-368.35	11798.21	7468.00	4053.28	-1174.92	-90.36	806.69	262.06	3.08	PASS
11813.00†	7463.00	4165.86	-369.69	11898.21	7468.00	4153.27	-1176.48	-90.36	806.91	268.19	3.01	PASS
11913.00†	7463.00	4265.86	-371.03	11998.21	7468.00	4253.26	-1178.04	-90.36	807.12	274.33	2.95	PASS
12013.00†	7463.00	4365.85	-372.38	12098.21	7468.00	4353.25	-1179.60	-90.36	807.34	280.48	2.88	PASS
12113.00†	7463.00	4465.84	-373.72	12198.21	7468.00	4453.23	-1181.16	-90.36	807.56	286.64	2.82	PASS
12213.00†	7463.00	4565.83	-375.06	12298.21	7468.00	4553.22	-1182.72	-90.36	807.77	292.79	2.76	PASS
12313.00†	7463.00	4665.82	-376.41	12398.21	7468.00	4653.21	-1184.29	-90.36	807.99	298.96	2.71	PASS
12413.00†	7463.00	4765.81	-377.75	12498.21	7468.00	4753.20	-1185.85	-90.35	808.21	305.12	2.65	PASS
12513.00†	7463.00	4865.80	-379.10	12598.21	7468.00	4853.18	-1187.41	-90.35	808.42	311.29	2.60	PASS
12613.00†	7463.00	4965.79	-380.44	12698.21	7468.00	4953.17	-1188.97	-90.35	808.64	317.47	2.55	PASS
12713.00†	7463.00	5065.78	-381.78	12798.21	7468.00	5053.16	-1190.53	-90.35	808.86	323.64	2.50	PASS
12813.00†	7463.00	5165.77	-383.13	12898.21	7468.00	5153.15	-1192.09	-90.35	809.08	329.82	2.46	PASS
12913.00†	7463.00	5265.76	-384.47	12998.21	7468.00	5253.13	-1193.65	-90.35	809.29	336.01	2.41	PASS
13013.00†	7463.00	5365.76	-385.81	13098.21	7468.00	5353.12	-1195.21	-90.35	809.51	342.20	2.37	PASS
13113.00†	7463.00	5465.75	-387.16	13198.21	7468.00	5453.11	-1196.77	-90.35	809.73	348.38	2.33	PASS
13213.00†	7463.00	5565.74	-388.50	13298.21	7468.00	5553.10	-1198.33	-90.35	809.94	354.58	2.29	PASS
13313.00†	7463.00	5665.73	-389.85	13398.20	7468.00	5653.09	-1199.89	-90.35	810.16	360.77	2.25	PASS
13413.00†	7463.00	5765.72	-391.19	13498.20	7468.00	5753.07	-1201.45	-90.35	810.38	366.97	2.21	PASS
13513.00†	7463.00	5865.71	-392.53	13598.20	7468.00	5853.06	-1203.01	-90.35	810.59	373.17	2.17	PASS
13613.00†	7463.00	5965.70	-393.88	13698.20	7468.00	5953.05	-1204.57	-90.35	810.81	379.37	2.14	PASS
13713.00†	7463.00	6065.69	-395.22	13798.20	7468.00	6053.04	-1206.13	-90.35	811.03	385.57	2.11	PASS
13813.00†	7463.00	6165.68	-396.56	13898.20	7468.00	6153.02	-1207.70	-90.35	811.24	391.78	2.07	PASS
13913.00†	7463.00	6265.67	-397.91	13998.20	7468.00	6253.01	-1209.26	-90.35	811.46	397.99	2.04	PASS
14013.00†	7463.00	6365.67	-399.25	14098.20	7468.00	6353.00	-1210.82	-90.35	811.68	404.20	2.01	PASS
14113.00†	7463.00	6465.66	-400.60	14198.20	7468.00	6452.99	-1212.38	-90.35	811.90	410.41	1.98	PASS
14213.00†	7463.00	6565.65	-401.94	14298.20	7468.00	6552.97	-1213.94	-90.35	812.11	416.62	1.95	PASS
14313.00†	7463.00	6665.64	-403.28	14398.20	7468.00	6652.96	-1215.50	-90.35	812.33	422.83	1.92	PASS
14413.00†	7463.00	6765.63	-404.63	14498.20	7468.00	6752.95	-1217.06	-90.35	812.55	429.05	1.90	PASS
14513.00†	7463.00	6865.62	-405.97	14598.20	7468.00	6852.94	-1218.62	-90.35	812.76	435.27	1.87	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 44 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	7463.00	6965.61	-407.32	14698.20	7468.00	6952.92	-1220.18	-90.35	812.98	441.49	1.84	PASS
14713.00†	7463.00	7065.60	-408.66	14798.20	7468.00	7052.91	-1221.74	-90.35	813.20	447.71	1.82	PASS
14813.00†	7463.00	7165.59	-410.00	14898.20	7468.00	7152.90	-1223.30	-90.35	813.41	453.93	1.79	PASS
14913.00†	7463.00	7265.58	-411.35	14998.20	7468.00	7252.89	-1224.86	-90.35	813.63	460.15	1.77	PASS
15013.00†	7463.00	7365.58	-412.69	15098.20	7468.00	7352.87	-1226.42	-90.35	813.85	466.37	1.75	PASS
15113.00†	7463.00	7465.57	-414.03	15198.20	7468.00	7452.86	-1227.98	-90.35	814.06	472.60	1.72	PASS
15213.00†	7463.00	7565.56	-415.38	15298.20	7468.00	7552.85	-1229.54	-90.35	814.28	478.82	1.70	PASS
15313.00†	7463.00	7665.55	-416.72	15398.20	7468.00	7652.84	-1231.11	-90.35	814.50	485.05	1.68	PASS
15413.00†	7463.00	7765.54	-418.07	15498.20	7468.00	7752.82	-1232.67	-90.35	814.71	491.28	1.66	PASS
15513.00†	7463.00	7865.53	-419.41	15598.20	7468.00	7852.81	-1234.23	-90.35	814.93	497.50	1.64	PASS
15613.00†	7463.00	7965.52	-420.75	15698.20	7468.00	7952.80	-1235.79	-90.35	815.15	503.73	1.62	PASS
15713.00†	7463.00	8065.51	-422.10	15798.20	7468.00	8052.79	-1237.35	-90.35	815.37	509.96	1.60	PASS
15813.00†	7463.00	8165.50	-423.44	15898.20	7468.00	8152.77	-1238.91	-90.35	815.58	516.19	1.58	PASS
15913.00†	7463.00	8265.49	-424.78	15998.20	7468.00	8252.76	-1240.47	-90.35	815.80	522.43	1.56	PASS
16013.00†	7463.00	8365.49	-426.13	16098.20	7468.00	8352.75	-1242.03	-90.35	816.02	528.66	1.54	PASS
16113.00†	7463.00	8465.48	-427.47	16198.20	7468.00	8452.74	-1243.59	-90.35	816.23	534.89	1.53	PASS
16213.00†	7463.00	8565.47	-428.82	16298.20	7468.00	8552.73	-1245.15	-90.35	816.45	541.13	1.51	PASS
16313.00†	7463.00	8665.46	-430.16	16398.20	7468.00	8652.71	-1246.71	-90.35	816.67	547.36	1.49	PASS
16413.00†	7463.00	8765.45	-431.50	16498.20	7468.00	8752.70	-1248.27	-90.35	816.88	553.60	1.48	PASS
16513.00†	7463.00	8865.44	-432.85	16598.20	7468.00	8852.69	-1249.83	-90.35	817.10	559.83	1.46	PASS
16613.00†	7463.00	8965.43	-434.19	16698.20	7468.00	8952.68	-1251.39	-90.35	817.32	566.07	1.44	PASS
16713.00†	7463.00	9065.42	-435.53	16798.20	7468.00	9052.66	-1252.95	-90.35	817.53	572.31	1.43	PASS
16813.00†	7463.00	9165.41	-436.88	16898.20	7468.00	9152.65	-1254.51	-90.35	817.75	578.54	1.41	PASS
16913.00†	7463.00	9265.40	-438.22	16998.20	7468.00	9252.64	-1256.08	-90.35	817.97	584.78	1.40	PASS
17013.00†	7463.00	9365.39	-439.57	17098.20	7468.00	9352.63	-1257.64	-90.35	818.19	591.02	1.38	PASS
17113.00†	7463.00	9465.39	-440.91	17198.20	7468.00	9452.61	-1259.20	-90.35	818.40	597.26	1.37	PASS
17213.00†	7463.00	9565.38	-442.25	17298.20	7468.00	9552.60	-1260.76	-90.35	818.62	603.50	1.36	PASS
17313.00†	7463.00	9665.37	-443.60	17398.20	7468.00	9652.59	-1262.32	-90.35	818.84	609.74	1.34	PASS
17413.00†	7463.00	9765.36	-444.94	17498.20	7468.00	9752.58	-1263.88	-90.35	819.05	615.98	1.33	PASS
17513.00†	7463.00	9865.35	-446.28	17598.20	7468.00	9852.56	-1265.44	-90.35	819.27	622.23	1.32	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 45 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	7463.00	9965.34	-447.63	17698.19	7468.00	9952.55	-1267.00	-90.35	819.49	628.47	1.30	PASS
17619.74	7463.00	9972.08	-447.72	17704.93	7468.00	9959.29	-1267.11	-90.35	819.50	628.89	1.30	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	-0.03	-18.26	-1.89	-22.66
8.5in Open Hole	1800.00	17719.88	15919.88	1799.45	N/A	-1.89	-22.66	N/A	N/A

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

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

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

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 46 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	0.05	45.03	89.94	45.03	1.40	73.72	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.05	45.03	89.94	45.03	1.72	47.97	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.05	45.03	89.94	45.03	2.29	29.65	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.05	45.03	89.94	45.03	2.90	21.11	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.05	45.03	89.94	45.03	3.51	16.32	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.05	45.03	89.94	45.03	4.13	13.28	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.05	45.03	89.94	45.03	4.75	11.19	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.05	45.03	89.94	45.03	5.38	9.66	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.05	45.03	89.94	45.03	6.00	8.50	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.05	45.03	89.94	45.03	6.63	7.59	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.05	45.03	89.94	45.03	7.26	6.85	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.05	45.03	89.94	45.03	7.88	6.25	PASS
1213.00†	1213.00	0.00	0.00	1212.86	1212.86	0.03	45.05	89.96	45.05	8.51	5.74	PASS
1313.00†	1313.00	0.00	0.00	1311.71	1311.69	-1.50	46.56	91.85	46.60	9.18	5.47	PASS
1413.00†	1413.00	0.00	0.00	1410.30	1410.11	-5.46	50.44	96.17	50.82	10.00	5.44	PASS
1500.00	1500.00	0.00	0.00	1495.86	1495.34	-10.82	55.71	101.00	56.95	10.69	5.68	PASS
1513.00†	1513.00	-0.02	-0.02	1508.80	1508.21	-11.74	56.61	-112.55	58.03	10.78	5.73	PASS
1613.00†	1612.97	-1.84	-1.25	1608.32	1607.24	-18.79	63.53	-109.41	67.21	11.43	6.25	PASS
1713.00†	1712.80	-6.54	-4.46	1707.77	1706.20	-25.83	70.45	-109.43	77.63	12.08	6.81	PASS
1767.79	1767.40	-10.34	-7.04	1762.18	1760.34	-29.68	74.24	-110.37	83.84	12.44	7.13	PASS
1813.00†	1812.41	-13.82	-9.42	1807.05	1804.99	-32.86	77.36	-111.39	89.15	12.64	7.41	PASS
1913.00†	1911.98	-21.54	-14.67	1906.31	1903.76	-39.89	84.26	-113.26	100.95	13.30	7.96	PASS
2013.00†	2011.54	-29.25	-19.93	2005.56	2002.52	-46.91	91.16	-114.74	112.84	13.98	8.45	PASS
2113.00†	2111.10	-36.97	-25.18	2104.81	2101.28	-53.94	98.07	-115.94	124.80	14.66	8.89	PASS
2213.00†	2210.67	-44.68	-30.43	2204.06	2200.04	-60.97	104.97	-116.93	136.79	15.36	9.28	PASS
2313.00†	2310.23	-52.40	-35.69	2303.32	2298.81	-68.00	111.87	-117.76	148.82	16.07	9.64	PASS
2413.00†	2409.79	-60.11	-40.94	2402.57	2397.57	-75.03	118.77	-118.46	160.88	16.79	9.96	PASS
2513.00†	2509.36	-67.82	-46.20	2501.82	2496.33	-82.05	125.68	-119.07	172.96	17.51	10.25	PASS
2613.00†	2608.92	-75.54	-51.45	2601.07	2595.09	-89.08	132.58	-119.60	185.05	18.24	10.52	PASS
2713.00†	2708.48	-83.25	-56.71	2700.33	2693.86	-96.11	139.48	-120.06	197.16	18.97	10.76	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 47 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2799.58	2792.62	-103.14	146.39	-120.47	209.27	19.71	10.98	PASS
2913.00†	2907.61	-98.68	-67.22	2898.83	2891.38	-110.16	153.29	-120.83	221.40	20.45	11.18	PASS
3013.00†	3007.17	-106.40	-72.47	2998.08	2990.14	-117.19	160.19	-121.16	233.54	21.19	11.37	PASS
3113.00†	3106.74	-114.11	-77.73	3097.34	3088.91	-124.22	167.10	-121.45	245.68	21.94	11.54	PASS
3213.00†	3206.30	-121.82	-82.98	3196.59	3187.67	-131.25	174.00	-121.72	257.83	22.69	11.70	PASS
3313.00†	3305.86	-129.54	-88.24	3295.84	3286.43	-138.28	180.90	-121.96	269.98	23.44	11.84	PASS
3413.00†	3405.43	-137.25	-93.49	3395.10	3385.19	-145.30	187.80	-122.18	282.14	24.20	11.98	PASS
3513.00†	3504.99	-144.97	-98.74	3494.35	3483.96	-152.33	194.71	-122.39	294.30	24.96	12.11	PASS
3613.00†	3604.55	-152.68	-104.00	3593.60	3582.72	-159.36	201.61	-122.57	306.46	25.72	12.23	PASS
3713.00†	3704.12	-160.40	-109.25	3692.85	3681.48	-166.39	208.51	-122.75	318.63	26.48	12.34	PASS
3813.00†	3803.68	-168.11	-114.51	3792.11	3780.24	-173.41	215.42	-122.91	330.80	27.24	12.44	PASS
3913.00†	3903.25	-175.82	-119.76	3891.36	3879.01	-180.44	222.32	-123.05	342.97	28.00	12.54	PASS
4013.00†	4002.81	-183.54	-125.02	3990.61	3977.77	-187.47	229.22	-123.19	355.15	28.77	12.63	PASS
4113.00†	4102.37	-191.25	-130.27	4089.86	4076.53	-194.50	236.12	-123.32	367.32	29.54	12.72	PASS
4213.00†	4201.94	-198.97	-135.53	4189.12	4175.29	-201.52	243.03	-123.44	379.50	30.30	12.80	PASS
4313.00†	4301.50	-206.68	-140.78	4288.37	4274.06	-208.55	249.93	-123.56	391.68	31.07	12.88	PASS
4413.00†	4401.06	-214.40	-146.04	4387.62	4372.82	-215.58	256.83	-123.66	403.86	31.84	12.95	PASS
4513.00†	4500.63	-222.11	-151.29	4486.87	4471.58	-222.61	263.74	-123.76	416.04	32.61	13.02	PASS
4613.00†	4600.19	-229.82	-156.55	4586.13	4570.34	-229.64	270.64	-123.86	428.23	33.38	13.08	PASS
4713.00†	4699.75	-237.54	-161.80	4685.38	4669.11	-236.66	277.54	-123.95	440.41	34.16	13.15	PASS
4813.00†	4799.32	-245.25	-167.05	4784.63	4767.87	-243.69	284.45	-124.03	452.60	34.93	13.21	PASS
4913.00†	4898.88	-252.97	-172.31	4883.88	4866.63	-250.72	291.35	-124.11	464.78	35.70	13.26	PASS
5013.00†	4998.44	-260.68	-177.56	4983.14	4965.39	-257.75	298.25	-124.19	476.97	36.48	13.32	PASS
5113.00†	5098.01	-268.40	-182.82	5082.39	5064.16	-264.77	305.15	-124.26	489.16	37.25	13.37	PASS
5213.00†	5197.57	-276.11	-188.07	5181.64	5162.92	-271.80	312.06	-124.33	501.35	38.03	13.42	PASS
5313.00†	5297.13	-283.82	-193.33	5280.89	5261.68	-278.83	318.96	-124.40	513.54	38.80	13.46	PASS
5413.00†	5396.70	-291.54	-198.58	5380.15	5360.45	-285.86	325.86	-124.46	525.73	39.58	13.51	PASS
5513.00†	5496.26	-299.25	-203.84	5479.40	5459.21	-292.89	332.77	-124.52	537.92	40.36	13.55	PASS
5613.00†	5595.82	-306.97	-209.09	5578.65	5557.97	-299.91	339.67	-124.58	550.11	41.13	13.59	PASS
5713.00†	5695.39	-314.68	-214.35	5677.91	5656.73	-306.94	346.57	-124.63	562.30	41.91	13.63	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 48 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
5813.00†	5794.95	-322.40	-219.60	5777.16	5755.50	-313.97	353.47	-124.68	574.49	42.69	13.67	PASS
5913.00†	5894.51	-330.11	-224.86	5876.41	5854.26	-321.00	360.38	-124.73	586.69	43.47	13.70	PASS
6013.00†	5994.08	-337.82	-230.11	5975.66	5953.02	-328.02	367.28	-124.78	598.88	44.25	13.74	PASS
6113.00†	6093.64	-345.54	-235.36	6074.92	6051.78	-335.05	374.18	-124.83	611.07	45.02	13.77	PASS
6213.00†	6193.20	-353.25	-240.62	6174.17	6150.55	-342.08	381.09	-124.87	623.27	45.80	13.81	PASS
6313.00†	6292.77	-360.97	-245.87	6273.42	6249.31	-349.11	387.99	-124.91	635.46	46.58	13.84	PASS
6413.00†	6392.33	-368.68	-251.13	6372.67	6348.07	-356.13	394.89	-124.96	647.66	47.36	13.87	PASS
6513.00†	6491.89	-376.40	-256.38	6471.93	6446.83	-363.16	401.80	-124.99	659.85	48.14	13.90	PASS
6613.00†	6591.46	-384.11	-261.64	6571.18	6545.60	-370.19	408.70	-125.03	672.05	48.93	13.92	PASS
6713.00†	6691.02	-391.82	-266.89	6670.43	6644.36	-377.22	415.60	-125.07	684.24	49.71	13.95	PASS
6813.00†	6790.58	-399.54	-272.15	6769.68	6743.12	-384.25	422.50	-125.10	696.44	50.49	13.98	PASS
6869.81	6847.14	-403.92	-275.13	6826.06	6799.22	-388.24	426.43	-125.12	703.37	50.93	13.99	PASS
6913.00†	6890.23	-405.63	-277.43	6868.90	6841.85	-391.27	429.41	-179.20	708.63	51.24	14.01	PASS
7013.00†	6989.59	-397.11	-282.89	6966.79	6939.25	-398.20	436.21	106.94	720.86	52.19	13.99	PASS
7113.00†	7085.95	-371.44	-288.42	7061.87	7033.88	-404.63	442.82	99.70	733.85	53.47	13.90	PASS
7213.00†	7176.38	-329.40	-293.85	7165.04	7136.53	-399.33	449.83	98.44	748.02	53.33	14.20	PASS
7313.00†	7258.14	-272.27	-299.02	7277.00	7244.90	-372.83	456.94	98.62	762.74	52.68	14.66	PASS
7413.00†	7328.74	-201.78	-303.77	7399.51	7355.11	-320.32	463.83	99.36	777.15	52.86	14.89	PASS
7513.00†	7386.03	-120.09	-307.95	7533.93	7460.22	-237.25	469.96	100.29	790.17	52.19	15.33	PASS
7613.00†	7428.28	-29.66	-311.44	7680.39	7549.39	-121.65	474.55	101.15	800.57	51.78	15.66	PASS
7713.00†	7454.20	66.76	-314.13	7836.78	7609.12	22.33	476.73	101.70	807.11	52.02	15.72	PASS
7813.00†	7463.00	166.23	-315.94	7992.95	7628.00	176.89	475.95	101.77	808.97	53.16	15.41	PASS
7813.64	7463.00	166.86	-315.95	7993.59	7628.00	177.52	475.94	101.77	808.97	53.17	15.41	PASS
7913.00†	7463.00	266.22	-317.28	8092.95	7628.00	276.88	474.61	101.77	808.96	54.80	14.94	PASS
8013.00†	7463.00	366.21	-318.63	8192.95	7628.00	376.87	473.26	101.77	808.96	57.08	14.34	PASS
8113.00†	7463.00	466.20	-319.97	8292.95	7628.00	476.86	471.91	101.77	808.96	59.90	13.65	PASS
8213.00†	7463.00	566.19	-321.31	8392.95	7628.00	576.85	470.57	101.77	808.96	63.21	12.93	PASS
8313.00†	7463.00	666.18	-322.66	8492.95	7628.00	676.84	469.22	101.77	808.96	66.92	12.21	PASS
8413.00†	7463.00	766.17	-324.00	8592.95	7628.00	776.83	467.88	101.77	808.95	70.98	11.50	PASS
8513.00†	7463.00	866.16	-325.34	8692.95	7628.00	876.82	466.53	101.77	808.95	75.32	10.83	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 49 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
8613.00†	7463.00	966.15	-326.69	8792.95	7628.00	976.81	465.18	101.77	808.95	79.90	10.21	PASS
8713.00†	7463.00	1066.14	-328.03	8892.95	7628.00	1076.80	463.84	101.77	808.95	84.69	9.62	PASS
8813.00†	7463.00	1166.14	-329.38	8992.95	7628.00	1176.79	462.49	101.77	808.95	89.64	9.09	PASS
8913.00†	7463.00	1266.13	-330.72	9092.95	7628.00	1276.79	461.15	101.77	808.94	95.07	8.57	PASS
9013.00†	7463.00	1366.12	-332.06	9192.95	7628.00	1376.78	459.80	101.77	808.94	99.95	8.14	PASS
9113.00†	7463.00	1466.11	-333.41	9292.95	7628.00	1476.77	458.45	101.77	808.94	105.26	7.73	PASS
9213.00†	7463.00	1566.10	-334.75	9392.95	7628.00	1576.76	457.11	101.77	808.94	110.67	7.35	PASS
9313.00†	7463.00	1666.09	-336.09	9492.95	7628.00	1676.75	455.76	101.77	808.93	116.14	7.00	PASS
9413.00†	7463.00	1766.08	-337.44	9592.95	7628.00	1776.74	454.42	101.77	808.93	121.69	6.68	PASS
9513.00†	7463.00	1866.07	-338.78	9692.95	7628.00	1876.73	453.07	101.77	808.93	127.28	6.39	PASS
9613.00†	7463.00	1966.06	-340.13	9792.95	7628.00	1976.72	451.72	101.77	808.93	132.93	6.11	PASS
9713.00†	7463.00	2066.05	-341.47	9892.95	7628.00	2076.71	450.38	101.77	808.93	138.62	5.86	PASS
9813.00†	7463.00	2166.04	-342.81	9992.95	7628.00	2176.70	449.03	101.77	808.92	144.35	5.63	PASS
9913.00†	7463.00	2266.04	-344.16	10092.95	7628.00	2276.70	447.69	101.77	808.92	150.11	5.41	PASS
10013.00†	7463.00	2366.03	-345.50	10192.95	7628.00	2376.69	446.34	101.77	808.92	155.90	5.21	PASS
10113.00†	7463.00	2466.02	-346.85	10292.95	7628.00	2476.68	444.99	101.77	808.92	161.72	5.02	PASS
10213.00†	7463.00	2566.01	-348.19	10392.95	7628.00	2576.67	443.65	101.77	808.91	167.56	4.84	PASS
10313.00†	7463.00	2666.00	-349.53	10492.95	7628.00	2676.66	442.30	101.77	808.91	173.42	4.68	PASS
10413.00†	7463.00	2765.99	-350.88	10592.95	7628.00	2776.65	440.96	101.77	808.91	179.31	4.53	PASS
10513.00†	7463.00	2865.98	-352.22	10692.95	7628.00	2876.64	439.61	101.77	808.91	185.21	4.38	PASS
10613.00†	7463.00	2965.97	-353.56	10792.95	7628.00	2976.63	438.26	101.77	808.91	191.12	4.24	PASS
10713.00†	7463.00	3065.96	-354.91	10892.95	7628.00	3076.62	436.92	101.77	808.90	197.05	4.12	PASS
10813.00†	7463.00	3165.95	-356.25	10992.95	7628.00	3176.61	435.57	101.77	808.90	202.99	4.00	PASS
10913.00†	7463.00	3265.95	-357.60	11092.95	7628.00	3276.60	434.23	101.77	808.90	208.95	3.88	PASS
11013.00†	7463.00	3365.94	-358.94	11192.95	7628.00	3376.60	432.88	101.77	808.90	214.91	3.77	PASS
11113.00†	7463.00	3465.93	-360.28	11292.95	7628.00	3476.59	431.53	101.77	808.89	220.89	3.67	PASS
11213.00†	7463.00	3565.92	-361.63	11392.95	7628.00	3576.58	430.19	101.77	808.89	226.88	3.57	PASS
11313.00†	7463.00	3665.91	-362.97	11492.95	7628.00	3676.57	428.84	101.77	808.89	232.87	3.48	PASS
11413.00†	7463.00	3765.90	-364.31	11592.95	7628.00	3776.56	427.50	101.77	808.89	238.87	3.39	PASS
11513.00†	7463.00	3865.89	-365.66	11692.95	7628.00	3876.55	426.15	101.77	808.89	244.88	3.31	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 50 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
11613.00†	7463.00	3965.88	-367.00	11792.95	7628.00	3976.54	424.80	101.77	808.88	250.90	3.23	PASS
11713.00†	7463.00	4065.87	-368.35	11892.95	7628.00	4076.53	423.46	101.77	808.88	256.92	3.15	PASS
11813.00†	7463.00	4165.86	-369.69	11992.95	7628.00	4176.52	422.11	101.77	808.88	262.95	3.08	PASS
11913.00†	7463.00	4265.86	-371.03	12092.95	7628.00	4276.51	420.76	101.77	808.88	268.98	3.01	PASS
12013.00†	7463.00	4365.85	-372.38	12192.95	7628.00	4376.50	419.42	101.77	808.88	275.02	2.95	PASS
12113.00†	7463.00	4465.84	-373.72	12292.95	7628.00	4476.50	418.07	101.77	808.87	281.06	2.88	PASS
12213.00†	7463.00	4565.83	-375.06	12392.95	7628.00	4576.49	416.73	101.77	808.87	287.11	2.82	PASS
12313.00†	7463.00	4665.82	-376.41	12492.95	7628.00	4676.48	415.38	101.77	808.87	293.16	2.76	PASS
12413.00†	7463.00	4765.81	-377.75	12592.95	7628.00	4776.47	414.03	101.77	808.87	299.22	2.71	PASS
12513.00†	7463.00	4865.80	-379.10	12692.95	7628.00	4876.46	412.69	101.77	808.86	305.28	2.65	PASS
12613.00†	7463.00	4965.79	-380.44	12792.95	7628.00	4976.45	411.34	101.77	808.86	311.34	2.60	PASS
12713.00†	7463.00	5065.78	-381.78	12892.95	7628.00	5076.44	410.00	101.77	808.86	317.41	2.55	PASS
12813.00†	7463.00	5165.77	-383.13	12992.95	7628.00	5176.43	408.65	101.77	808.86	323.48	2.50	PASS
12913.00†	7463.00	5265.76	-384.47	13092.95	7628.00	5276.42	407.30	101.77	808.86	329.55	2.46	PASS
13013.00†	7463.00	5365.76	-385.81	13192.95	7628.00	5376.41	405.96	101.77	808.85	335.63	2.41	PASS
13113.00†	7463.00	5465.75	-387.16	13292.95	7628.00	5476.41	404.61	101.77	808.85	341.71	2.37	PASS
13213.00†	7463.00	5565.74	-388.50	13392.95	7628.00	5576.40	403.27	101.77	808.85	347.79	2.33	PASS
13313.00†	7463.00	5665.73	-389.85	13492.95	7628.00	5676.39	401.92	101.77	808.85	353.87	2.29	PASS
13413.00†	7463.00	5765.72	-391.19	13592.95	7628.00	5776.38	400.57	101.77	808.84	359.96	2.25	PASS
13513.00†	7463.00	5865.71	-392.53	13692.95	7628.00	5876.37	399.23	101.77	808.84	366.05	2.21	PASS
13613.00†	7463.00	5965.70	-393.88	13792.95	7628.00	5976.36	397.88	101.77	808.84	372.14	2.18	PASS
13713.00†	7463.00	6065.69	-395.22	13892.95	7628.00	6076.35	396.54	101.77	808.84	378.23	2.14	PASS
13813.00†	7463.00	6165.68	-396.56	13992.95	7628.00	6176.34	395.19	101.77	808.84	384.32	2.11	PASS
13913.00†	7463.00	6265.67	-397.91	14092.95	7628.00	6276.33	393.84	101.77	808.83	390.42	2.07	PASS
14013.00†	7463.00	6365.67	-399.25	14192.95	7628.00	6376.32	392.50	101.77	808.83	396.51	2.04	PASS
14113.00†	7463.00	6465.66	-400.60	14292.95	7628.00	6476.31	391.15	101.77	808.83	402.61	2.01	PASS
14213.00†	7463.00	6565.65	-401.94	14392.95	7628.00	6576.31	389.81	101.77	808.83	408.71	1.98	PASS
14313.00†	7463.00	6665.64	-403.28	14492.95	7628.00	6676.30	388.46	101.77	808.83	414.81	1.95	PASS
14413.00†	7463.00	6765.63	-404.63	14592.95	7628.00	6776.29	387.11	101.77	808.82	420.92	1.92	PASS
14513.00†	7463.00	6865.62	-405.97	14692.95	7628.00	6876.28	385.77	101.77	808.82	427.02	1.90	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 51 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
14613.00†	7463.00	6965.61	-407.32	14792.95	7628.00	6976.27	384.42	101.77	808.82	433.12	1.87	PASS
14713.00†	7463.00	7065.60	-408.66	14892.95	7628.00	7076.26	383.08	101.77	808.82	439.23	1.84	PASS
14813.00†	7463.00	7165.59	-410.00	14992.95	7628.00	7176.25	381.73	101.77	808.81	445.34	1.82	PASS
14913.00†	7463.00	7265.58	-411.35	15092.95	7628.00	7276.24	380.38	101.77	808.81	451.45	1.79	PASS
15013.00†	7463.00	7365.58	-412.69	15192.95	7628.00	7376.23	379.04	101.77	808.81	457.56	1.77	PASS
15113.00†	7463.00	7465.57	-414.03	15292.95	7628.00	7476.22	377.69	101.77	808.81	463.67	1.75	PASS
15213.00†	7463.00	7565.56	-415.38	15392.95	7628.00	7576.21	376.35	101.77	808.81	469.78	1.72	PASS
15313.00†	7463.00	7665.55	-416.72	15492.95	7628.00	7676.21	375.00	101.77	808.80	475.90	1.70	PASS
15413.00†	7463.00	7765.54	-418.07	15592.95	7628.00	7776.20	373.65	101.77	808.80	482.01	1.68	PASS
15513.00†	7463.00	7865.53	-419.41	15692.95	7628.00	7876.19	372.31	101.77	808.80	488.12	1.66	PASS
15613.00†	7463.00	7965.52	-420.75	15792.95	7628.00	7976.18	370.96	101.77	808.80	494.24	1.64	PASS
15713.00†	7463.00	8065.51	-422.10	15892.95	7628.00	8076.17	369.62	101.77	808.79	500.36	1.62	PASS
15813.00†	7463.00	8165.50	-423.44	15992.95	7628.00	8176.16	368.27	101.77	808.79	506.47	1.60	PASS
15913.00†	7463.00	8265.49	-424.78	16092.95	7628.00	8276.15	366.92	101.77	808.79	512.59	1.58	PASS
16013.00†	7463.00	8365.49	-426.13	16192.95	7628.00	8376.14	365.58	101.77	808.79	518.71	1.56	PASS
16113.00†	7463.00	8465.48	-427.47	16292.95	7628.00	8476.13	364.23	101.77	808.79	524.83	1.54	PASS
16213.00†	7463.00	8565.47	-428.82	16392.95	7628.00	8576.12	362.89	101.77	808.78	530.95	1.52	PASS
16313.00†	7463.00	8665.46	-430.16	16492.95	7628.00	8676.12	361.54	101.77	808.78	537.07	1.51	PASS
16413.00†	7463.00	8765.45	-431.50	16592.95	7628.00	8776.11	360.19	101.77	808.78	543.19	1.49	PASS
16513.00†	7463.00	8865.44	-432.85	16692.95	7628.00	8876.10	358.85	101.77	808.78	549.32	1.47	PASS
16613.00†	7463.00	8965.43	-434.19	16792.95	7628.00	8976.09	357.50	101.77	808.77	555.44	1.46	PASS
16713.00†	7463.00	9065.42	-435.53	16892.95	7628.00	9076.08	356.16	101.77	808.77	561.56	1.44	PASS
16813.00†	7463.00	9165.41	-436.88	16992.95	7628.00	9176.07	354.81	101.77	808.77	567.69	1.43	PASS
16913.00†	7463.00	9265.40	-438.22	17092.95	7628.00	9276.06	353.46	101.77	808.77	573.81	1.41	PASS
17013.00†	7463.00	9365.39	-439.57	17192.95	7628.00	9376.05	352.12	101.77	808.77	579.94	1.40	PASS
17113.00†	7463.00	9465.39	-440.91	17292.95	7628.00	9476.04	350.77	101.77	808.76	586.06	1.38	PASS
17213.00†	7463.00	9565.38	-442.25	17392.95	7628.00	9576.03	349.43	101.77	808.76	592.19	1.37	PASS
17313.00†	7463.00	9665.37	-443.60	17492.95	7628.00	9676.02	348.08	101.77	808.76	598.31	1.35	PASS
17413.00†	7463.00	9765.36	-444.94	17592.95	7628.00	9776.02	346.73	101.77	808.76	604.44	1.34	PASS
17513.00†	7463.00	9865.35	-446.28	17692.95	7628.00	9876.01	345.39	101.77	808.76	610.57	1.32	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 52 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
17613.00†	7463.00	9965.34	-447.63	17786.94	7628.00	9969.99	344.12	101.77	808.78	616.52	1.31	PASS
17619.74	7463.00	9972.08	-447.72	17786.94	7628.00	9969.99	344.12	101.77	808.85	616.69	1.31	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	0.03	27.45	-9.85	37.15
8.5in Open Hole	1800.00	17786.94	15986.94	1797.97	7628.00	-9.85	37.15	3038.87	118.61

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 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 53 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	-0.09	-45.00	-90.11	45.00	1.40	73.67	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.09	-45.00	-90.11	45.00	1.73	47.77	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.09	-45.00	-90.11	45.00	2.30	29.51	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.09	-45.00	-90.11	45.00	2.90	21.03	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.09	-45.00	-90.11	45.00	3.52	16.26	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.09	-45.00	-90.11	45.00	4.14	13.24	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.09	-45.00	-90.11	45.00	4.76	11.16	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.09	-45.00	-90.11	45.00	5.39	9.64	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.09	-45.00	-90.11	45.00	6.01	8.48	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.09	-45.00	-90.11	45.00	6.64	7.57	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.09	-45.00	-90.11	45.00	7.26	6.84	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.09	-45.00	-90.11	45.00	7.89	6.24	PASS
1213.00†	1213.00	0.00	0.00	1213.00	1213.00	-0.09	-45.00	-90.11	45.00	8.52	5.73	PASS
1313.00†	1313.00	0.00	0.00	1313.00	1313.00	-0.09	-45.00	-90.11	45.00	9.15	5.30	PASS
1413.00†	1413.00	0.00	0.00	1412.81	1412.81	-0.09	-45.03	-90.12	45.03	9.77	4.93	PASS
1500.00	1500.00	0.00	0.00	1498.50	1498.48	-0.65	-46.60	-90.80	46.63	10.37	4.79	PASS
1513.00†	1513.00	-0.02	-0.02	1511.29	1511.27	-0.80	-47.04	54.78	47.06	10.46	4.79	PASS
1613.00†	1612.97	-1.84	-1.25	1609.61	1609.43	-2.63	-52.23	54.75	51.11	11.36	4.76	PASS
1713.00†	1712.80	-6.54	-4.46	1707.72	1707.13	-5.57	-60.58	56.45	56.42	12.25	4.86	PASS
1767.79	1767.40	-10.34	-7.04	1761.36	1760.40	-7.64	-66.47	57.91	59.90	12.71	4.96	PASS
1813.00†	1812.41	-13.82	-9.42	1805.55	1804.19	-9.60	-72.04	59.11	63.30	12.96	5.11	PASS
1913.00†	1911.98	-21.54	-14.67	1902.93	1900.35	-14.71	-86.54	60.53	73.12	13.73	5.56	PASS
2013.00†	2011.54	-29.25	-19.93	1999.66	1995.29	-20.85	-103.99	60.66	86.03	14.52	6.18	PASS
2113.00†	2111.10	-36.97	-25.18	2095.51	2088.70	-27.98	-124.25	59.99	101.97	15.29	6.95	PASS
2213.00†	2210.67	-44.68	-30.43	2193.81	2184.08	-35.87	-146.66	59.14	119.56	15.98	7.78	PASS
2313.00†	2310.23	-52.40	-35.69	2292.24	2279.59	-43.77	-169.11	58.50	137.16	16.68	8.54	PASS
2413.00†	2409.79	-60.11	-40.94	2390.66	2375.10	-51.67	-191.55	58.01	154.78	17.42	9.22	PASS
2513.00†	2509.36	-67.82	-46.20	2489.09	2470.61	-59.57	-214.00	57.63	172.41	18.12	9.86	PASS
2613.00†	2608.92	-75.54	-51.45	2587.52	2566.12	-67.47	-236.44	57.31	190.05	18.85	10.44	PASS
2713.00†	2708.48	-83.25	-56.71	2685.95	2661.63	-75.37	-258.89	57.05	207.69	19.59	10.96	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 54 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2784.38	2757.13	-83.27	-281.33	56.82	225.33	20.34	11.44	PASS
2913.00†	2907.61	-98.68	-67.22	2882.80	2852.64	-91.17	-303.77	56.63	242.97	21.10	11.88	PASS
3013.00†	3007.17	-106.40	-72.47	2981.23	2948.15	-99.07	-326.22	56.47	260.62	21.87	12.28	PASS
3113.00†	3106.74	-114.11	-77.73	3079.66	3043.66	-106.97	-348.66	56.33	278.27	22.64	12.65	PASS
3213.00†	3206.30	-121.82	-82.98	3178.09	3139.17	-114.87	-371.11	56.20	295.92	23.42	13.00	PASS
3313.00†	3305.86	-129.54	-88.24	3276.52	3234.68	-122.77	-393.55	56.09	313.58	24.20	13.32	PASS
3413.00†	3405.43	-137.25	-93.49	3374.94	3330.19	-130.67	-415.99	55.99	331.23	24.99	13.61	PASS
3513.00†	3504.99	-144.97	-98.74	3473.37	3425.69	-138.57	-438.44	55.90	348.88	25.79	13.88	PASS
3613.00†	3604.55	-152.68	-104.00	3571.80	3521.20	-146.47	-460.88	55.82	366.54	26.58	14.14	PASS
3713.00†	3704.12	-160.40	-109.25	3670.23	3616.71	-154.37	-483.33	55.74	384.20	27.39	14.38	PASS
3813.00†	3803.68	-168.11	-114.51	3768.65	3712.22	-162.27	-505.77	55.68	401.85	28.19	14.60	PASS
3913.00†	3903.25	-175.82	-119.76	3867.08	3807.73	-170.17	-528.21	55.62	419.51	29.00	14.80	PASS
4013.00†	4002.81	-183.54	-125.02	3965.51	3903.24	-178.07	-550.66	55.56	437.17	29.81	15.00	PASS
4113.00†	4102.37	-191.25	-130.27	4063.94	3998.75	-185.97	-573.10	55.51	454.82	30.62	15.18	PASS
4213.00†	4201.94	-198.97	-135.53	4162.37	4094.25	-193.87	-595.55	55.46	472.48	31.44	15.35	PASS
4313.00†	4301.50	-206.68	-140.78	4260.79	4189.76	-201.77	-617.99	55.41	490.14	32.25	15.52	PASS
4413.00†	4401.06	-214.40	-146.04	4359.22	4285.27	-209.67	-640.44	55.37	507.80	33.07	15.67	PASS
4513.00†	4500.63	-222.11	-151.29	4457.65	4380.78	-217.57	-662.88	55.33	525.46	33.89	15.81	PASS
4613.00†	4600.19	-229.82	-156.55	4556.08	4476.29	-225.47	-685.32	55.30	543.12	34.72	15.95	PASS
4713.00†	4699.75	-237.54	-161.80	4654.51	4571.80	-233.37	-707.77	55.26	560.78	35.54	16.08	PASS
4813.00†	4799.32	-245.25	-167.05	4752.93	4667.31	-241.27	-730.21	55.23	578.44	36.37	16.20	PASS
4913.00†	4898.88	-252.97	-172.31	4851.36	4762.81	-249.17	-752.66	55.20	596.10	37.20	16.32	PASS
5013.00†	4998.44	-260.68	-177.56	4949.79	4858.32	-257.07	-775.10	55.17	613.76	38.03	16.43	PASS
5113.00†	5098.01	-268.40	-182.82	5048.22	4953.83	-264.97	-797.54	55.14	631.42	38.86	16.53	PASS
5213.00†	5197.57	-276.11	-188.07	5146.64	5049.34	-272.87	-819.99	55.12	649.08	39.69	16.63	PASS
5313.00†	5297.13	-283.82	-193.33	5245.07	5144.85	-280.77	-842.43	55.10	666.74	40.52	16.73	PASS
5413.00†	5396.70	-291.54	-198.58	5343.50	5240.36	-288.67	-864.88	55.07	684.40	41.36	16.82	PASS
5513.00†	5496.26	-299.25	-203.84	5441.93	5335.87	-296.57	-887.32	55.05	702.06	42.19	16.91	PASS
5613.00†	5595.82	-306.97	-209.09	5540.36	5431.37	-304.46	-909.77	55.03	719.72	43.03	16.99	PASS
5713.00†	5695.39	-314.68	-214.35	5638.78	5526.88	-312.36	-932.21	55.01	737.38	43.87	17.07	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 55 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	5794.95	-322.40	-219.60	5737.21	5622.39	-320.26	-954.65	54.99	755.04	44.70	17.15	PASS
5913.00†	5894.51	-330.11	-224.86	5835.64	5717.90	-328.16	-977.10	54.97	772.70	45.54	17.22	PASS
6013.00†	5994.08	-337.82	-230.11	5934.07	5813.41	-336.06	-999.54	54.96	790.36	46.38	17.29	PASS
6113.00†	6093.64	-345.54	-235.36	6032.50	5908.92	-343.96	-1021.99	54.94	808.02	47.22	17.36	PASS
6213.00†	6193.20	-353.25	-240.62	6130.92	6004.43	-351.86	-1044.43	54.93	825.68	48.06	17.42	PASS
6313.00†	6292.77	-360.97	-245.87	6229.35	6099.94	-359.76	-1066.87	54.91	843.34	48.91	17.48	PASS
6413.00†	6392.33	-368.68	-251.13	6327.78	6195.44	-367.66	-1089.32	54.90	861.00	49.75	17.54	PASS
6513.00†	6491.89	-376.40	-256.38	6426.21	6290.95	-375.56	-1111.76	54.88	878.67	50.59	17.60	PASS
6613.00†	6591.46	-384.11	-261.64	6524.64	6386.46	-383.46	-1134.21	54.87	896.33	51.43	17.66	PASS
6713.00†	6691.02	-391.82	-266.89	6623.06	6481.97	-391.36	-1156.65	54.86	913.99	52.28	17.71	PASS
6813.00†	6790.58	-399.54	-272.15	6721.49	6577.48	-399.26	-1179.10	54.84	931.65	53.12	17.76	PASS
6869.81	6847.14	-403.92	-275.13	6777.18	6631.52	-403.70	-1191.80	54.84	941.68	53.60	17.79	PASS
6913.00†	6890.23	-405.63	-277.43	6818.19	6671.40	-405.09	-1201.21	1.97	949.35	53.91	17.83	PASS
7013.00†	6989.59	-397.11	-282.89	6913.08	6763.26	-397.07	-1223.14	-70.10	967.11	54.71	17.90	PASS
7113.00†	7085.95	-371.44	-288.42	7008.09	6852.61	-373.55	-1244.83	-76.77	984.46	55.82	17.85	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1798.70	-0.05	-27.43	-2.87	-35.45
8.5in Open Hole	1800.00	17526.80	15726.80	1798.70	N/A	-2.87	-35.45	N/A	N/A



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 56 of 99



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17526.80	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-2NAH PWB

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 57 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	0.15	60.03	89.86	60.03	1.40	98.72	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.15	60.03	89.86	60.03	1.73	64.08	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.15	60.03	89.86	60.03	2.30	39.60	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.15	60.03	89.86	60.03	2.90	28.20	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.15	60.03	89.86	60.03	3.52	21.81	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.15	60.03	89.86	60.03	4.14	17.76	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.15	60.03	89.86	60.03	4.76	14.96	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.15	60.03	89.86	60.03	5.38	12.93	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.15	60.03	89.86	60.03	6.01	11.37	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.15	60.03	89.86	60.03	6.64	10.15	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.15	60.03	89.86	60.03	7.26	9.17	PASS
1113.00†	1113.00	0.00	0.00	1112.77	1112.77	0.14	60.06	89.87	60.06	7.89	8.36	PASS
1213.00†	1213.00	0.00	0.00	1210.91	1210.88	-0.88	61.92	90.81	61.96	8.58	7.86	PASS
1313.00†	1313.00	0.00	0.00	1308.79	1308.60	-3.49	66.71	93.00	66.94	9.48	7.62	PASS
1413.00†	1413.00	0.00	0.00	1406.18	1405.60	-7.68	74.38	95.90	75.14	10.37	7.77	PASS
1500.00	1500.00	0.00	0.00	1490.35	1489.14	-12.58	83.34	98.58	84.98	11.08	8.19	PASS
1513.00†	1513.00	-0.02	-0.02	1502.87	1501.55	-13.40	84.85	-115.27	86.68	11.20	8.26	PASS
1613.00†	1612.97	-1.84	-1.25	1600.82	1598.41	-20.40	97.65	-113.32	101.68	11.87	9.12	PASS
1713.00†	1712.80	-6.54	-4.46	1699.44	1695.90	-27.51	110.68	-113.32	118.24	12.52	10.03	PASS
1767.79	1767.40	-10.34	-7.04	1753.34	1749.18	-31.39	117.79	-113.89	127.90	12.80	10.59	PASS
1813.00†	1812.41	-13.82	-9.42	1797.78	1793.12	-34.60	123.66	-114.59	136.07	13.11	10.95	PASS
1913.00†	1911.98	-21.54	-14.67	1896.07	1890.29	-41.69	136.64	-115.89	154.18	13.70	11.81	PASS
2013.00†	2011.54	-29.25	-19.93	1994.37	1987.47	-48.78	149.62	-116.92	172.36	14.36	12.57	PASS
2113.00†	2111.10	-36.97	-25.18	2092.66	2084.64	-55.87	162.60	-117.75	190.58	15.05	13.24	PASS
2213.00†	2210.67	-44.68	-30.43	2190.95	2181.81	-62.95	175.58	-118.43	208.83	15.72	13.86	PASS
2313.00†	2310.23	-52.40	-35.69	2289.24	2278.99	-70.04	188.56	-119.00	227.11	16.42	14.41	PASS
2413.00†	2409.79	-60.11	-40.94	2387.54	2376.16	-77.13	201.54	-119.49	245.40	17.13	14.90	PASS
2513.00†	2509.36	-67.82	-46.20	2485.83	2473.33	-84.22	214.52	-119.91	263.71	17.84	15.35	PASS
2613.00†	2608.92	-75.54	-51.45	2584.12	2570.51	-91.31	227.50	-120.28	282.03	18.57	15.75	PASS
2713.00†	2708.48	-83.25	-56.71	2682.41	2667.68	-98.40	240.48	-120.60	300.36	19.30	16.12	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 58 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2780.71	2764.86	-105.49	253.46	-120.89	318.70	20.04	16.45	PASS
2913.00†	2907.61	-98.68	-67.22	2879.00	2862.03	-112.58	266.44	-121.14	337.05	20.78	16.76	PASS
3013.00†	3007.17	-106.40	-72.47	2977.29	2959.20	-119.66	279.42	-121.37	355.40	21.53	17.04	PASS
3113.00†	3106.74	-114.11	-77.73	3075.58	3056.38	-126.75	292.40	-121.57	373.75	22.28	17.29	PASS
3213.00†	3206.30	-121.82	-82.98	3173.88	3153.55	-133.84	305.38	-121.76	392.11	23.03	17.53	PASS
3313.00†	3305.86	-129.54	-88.24	3272.17	3250.72	-140.93	318.36	-121.93	410.48	23.79	17.75	PASS
3413.00†	3405.43	-137.25	-93.49	3370.46	3347.90	-148.02	331.34	-122.08	428.85	24.56	17.95	PASS
3513.00†	3504.99	-144.97	-98.74	3468.75	3445.07	-155.11	344.32	-122.22	447.22	25.32	18.14	PASS
3613.00†	3604.55	-152.68	-104.00	3567.05	3542.24	-162.20	357.30	-122.35	465.59	26.09	18.32	PASS
3713.00†	3704.12	-160.40	-109.25	3665.34	3639.42	-169.28	370.28	-122.48	483.96	26.86	18.48	PASS
3813.00†	3803.68	-168.11	-114.51	3763.63	3736.59	-176.37	383.26	-122.59	502.34	27.63	18.63	PASS
3913.00†	3903.25	-175.82	-119.76	3861.92	3833.76	-183.46	396.24	-122.69	520.72	28.40	18.78	PASS
4013.00†	4002.81	-183.54	-125.02	3960.22	3930.94	-190.55	409.22	-122.79	539.10	29.18	18.91	PASS
4113.00†	4102.37	-191.25	-130.27	4058.51	4028.11	-197.64	422.20	-122.88	557.48	29.96	19.04	PASS
4213.00†	4201.94	-198.97	-135.53	4156.80	4125.28	-204.73	435.18	-122.96	575.86	30.74	19.15	PASS
4313.00†	4301.50	-206.68	-140.78	4255.09	4222.46	-211.82	448.16	-123.04	594.25	31.52	19.27	PASS
4413.00†	4401.06	-214.40	-146.04	4353.38	4319.63	-218.91	461.14	-123.12	612.63	32.30	19.37	PASS
4513.00†	4500.63	-222.11	-151.29	4451.68	4416.80	-225.99	474.12	-123.19	631.02	33.08	19.47	PASS
4613.00†	4600.19	-229.82	-156.55	4549.97	4513.98	-233.08	487.10	-123.26	649.40	33.87	19.56	PASS
4713.00†	4699.75	-237.54	-161.80	4648.26	4611.15	-240.17	500.08	-123.32	667.79	34.65	19.65	PASS
4813.00†	4799.32	-245.25	-167.05	4746.55	4708.32	-247.26	513.06	-123.38	686.18	35.44	19.74	PASS
4913.00†	4898.88	-252.97	-172.31	4844.85	4805.50	-254.35	526.04	-123.43	704.57	36.23	19.82	PASS
5013.00†	4998.44	-260.68	-177.56	4943.14	4902.67	-261.44	539.02	-123.49	722.96	37.01	19.89	PASS
5113.00†	5098.01	-268.40	-182.82	5041.43	4999.84	-268.53	552.00	-123.54	741.35	37.80	19.97	PASS
5213.00†	5197.57	-276.11	-188.07	5139.72	5097.02	-275.62	564.98	-123.59	759.74	38.59	20.04	PASS
5313.00†	5297.13	-283.82	-193.33	5238.02	5194.19	-282.70	577.96	-123.63	778.13	39.38	20.10	PASS
5413.00†	5396.70	-291.54	-198.58	5336.31	5291.36	-289.79	590.94	-123.68	796.52	40.17	20.16	PASS
5513.00†	5496.26	-299.25	-203.84	5434.60	5388.54	-296.88	603.92	-123.72	814.91	40.97	20.22	PASS
5613.00†	5595.82	-306.97	-209.09	5532.89	5485.71	-303.97	616.90	-123.76	833.31	41.76	20.28	PASS
5713.00†	5695.39	-314.68	-214.35	5631.19	5582.88	-311.06	629.88	-123.80	851.70	42.55	20.34	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 59 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#04 WAKEMAN 20-17-4NCH (293'FSL & 2068'FEL, SEC.20) Well: WAKEMAN 20-17-4NCH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5794.95	-322.40	-219.60	5729.48	5680.06	-318.15	642.86	-123.83	870.09	43.35	20.39	PASS
5913.00†	5894.51	-330.11	-224.86	5827.77	5777.23	-325.24	655.84	-123.87	888.48	44.14	20.44	PASS
6013.00†	5994.08	-337.82	-230.11	5926.06	5874.40	-332.32	668.82	-123.90	906.88	44.94	20.49	PASS
6113.00†	6093.64	-345.54	-235.36	6024.36	5971.58	-339.41	681.80	-123.94	925.27	45.73	20.54	PASS
6213.00†	6193.20	-353.25	-240.62	6122.65	6068.75	-346.50	694.78	-123.97	943.67	46.53	20.58	PASS
6313.00†	6292.77	-360.97	-245.87	6220.94	6165.92	-353.59	707.76	-124.00	962.06	47.32	20.62	PASS
6413.00†	6392.33	-368.68	-251.13	6319.23	6263.10	-360.68	720.74	-124.03	980.46	48.12	20.66	PASS
6513.00†	6491.89	-376.40	-256.38	6417.53	6360.27	-367.77	733.72	-124.05	998.85	48.92	20.70	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	0.09	36.60	-10.55	56.08
8.5in Open Hole	1800.00	17654.03	15854.03	1795.31	7458.00	-10.55	56.08	3038.58	243.86

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 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 60 of 99



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 61 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	-0.11	-59.98	-90.11	59.98	1.40	98.63	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.11	-59.98	-90.11	59.98	1.73	63.94	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.11	-59.98	-90.11	59.98	2.30	39.50	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.11	-59.98	-90.11	59.98	2.90	28.14	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.11	-59.98	-90.11	59.98	3.52	21.77	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.11	-59.98	-90.11	59.98	4.14	17.73	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.11	-59.98	-90.11	59.98	4.76	14.94	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.11	-59.98	-90.11	59.98	5.39	12.91	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.11	-59.98	-90.11	59.98	6.01	11.36	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.11	-59.98	-90.11	59.98	6.64	10.14	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.11	-59.98	-90.11	59.98	7.27	9.16	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.11	-59.98	-90.11	59.98	7.89	8.35	PASS
1213.00†	1213.00	0.00	0.00	1213.00	1213.00	-0.11	-59.98	-90.11	59.98	8.52	7.67	PASS
1313.00†	1313.00	0.00	0.00	1312.75	1312.74	-0.12	-60.00	-90.12	60.01	9.14	7.10	PASS
1413.00†	1413.00	0.00	0.00	1410.73	1410.70	-0.75	-62.02	-90.69	62.07	9.84	6.78	PASS
1500.00	1500.00	0.00	0.00	1495.77	1495.62	-2.10	-66.36	-91.82	66.54	10.62	6.69	PASS
1513.00†	1513.00	-0.02	-0.02	1508.46	1508.27	-2.37	-67.21	53.73	67.40	10.73	6.71	PASS
1613.00†	1612.97	-1.84	-1.25	1605.85	1605.27	-4.97	-75.55	53.16	74.76	11.60	6.85	PASS
1713.00†	1712.80	-6.54	-4.46	1702.89	1701.57	-8.53	-86.98	53.96	83.31	12.50	7.05	PASS
1767.79	1767.40	-10.34	-7.04	1755.89	1753.96	-10.89	-94.53	54.82	88.52	12.96	7.22	PASS
1813.00†	1812.41	-13.82	-9.42	1799.51	1796.98	-13.05	-101.44	55.60	93.32	13.26	7.40	PASS
1913.00†	1911.98	-21.54	-14.67	1895.47	1891.19	-18.47	-118.85	56.65	106.27	13.98	7.95	PASS
2013.00†	2011.54	-29.25	-19.93	1990.58	1983.91	-24.77	-139.05	56.96	122.37	14.73	8.68	PASS
2113.00†	2111.10	-36.97	-25.18	2088.18	2078.55	-31.87	-161.81	56.92	140.55	15.41	9.51	PASS
2213.00†	2210.67	-44.68	-30.43	2186.50	2173.89	-39.04	-184.79	56.88	158.78	16.08	10.28	PASS
2313.00†	2310.23	-52.40	-35.69	2284.83	2269.22	-46.20	-207.77	56.85	177.01	16.80	10.96	PASS
2413.00†	2409.79	-60.11	-40.94	2383.15	2364.55	-53.37	-230.75	56.82	195.24	17.48	11.60	PASS
2513.00†	2509.36	-67.82	-46.20	2481.48	2459.88	-60.54	-253.72	56.80	213.47	18.20	12.17	PASS
2613.00†	2608.92	-75.54	-51.45	2579.80	2555.22	-67.70	-276.70	56.78	231.70	18.93	12.68	PASS
2713.00†	2708.48	-83.25	-56.71	2678.12	2650.55	-74.87	-299.68	56.76	249.93	19.67	13.14	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 62 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2776.45	2745.88	-82.04	-322.66	56.75	268.16	20.43	13.56	PASS
2913.00†	2907.61	-98.68	-67.22	2874.77	2841.21	-89.20	-345.64	56.74	286.39	21.19	13.95	PASS
3013.00†	3007.17	-106.40	-72.47	2973.10	2936.55	-96.37	-368.62	56.72	304.62	21.96	14.30	PASS
3113.00†	3106.74	-114.11	-77.73	3071.42	3031.88	-103.53	-391.60	56.72	322.85	22.74	14.62	PASS
3213.00†	3206.30	-121.82	-82.98	3169.74	3127.21	-110.70	-414.57	56.71	341.08	23.52	14.92	PASS
3313.00†	3305.86	-129.54	-88.24	3268.07	3222.54	-117.87	-437.55	56.70	359.31	24.31	15.20	PASS
3413.00†	3405.43	-137.25	-93.49	3366.39	3317.88	-125.03	-460.53	56.69	377.54	25.10	15.45	PASS
3513.00†	3504.99	-144.97	-98.74	3464.72	3413.21	-132.20	-483.51	56.69	395.77	25.90	15.68	PASS
3613.00†	3604.55	-152.68	-104.00	3563.04	3508.54	-139.37	-506.49	56.68	414.00	26.70	15.90	PASS
3713.00†	3704.12	-160.40	-109.25	3661.37	3603.87	-146.53	-529.47	56.68	432.23	27.51	16.10	PASS
3813.00†	3803.68	-168.11	-114.51	3759.69	3699.21	-153.70	-552.45	56.67	450.46	28.32	16.29	PASS
3913.00†	3903.25	-175.82	-119.76	3858.01	3794.54	-160.87	-575.43	56.67	468.69	29.14	16.46	PASS
4013.00†	4002.81	-183.54	-125.02	3956.34	3889.87	-168.03	-598.40	56.66	486.92	29.95	16.63	PASS
4113.00†	4102.37	-191.25	-130.27	4054.66	3985.20	-175.20	-621.38	56.66	505.15	30.77	16.78	PASS
4213.00†	4201.94	-198.97	-135.53	4152.99	4080.54	-182.36	-644.36	56.66	523.38	31.60	16.92	PASS
4313.00†	4301.50	-206.68	-140.78	4251.31	4175.87	-189.53	-667.34	56.65	541.61	32.42	17.06	PASS
4413.00†	4401.06	-214.40	-146.04	4349.64	4271.20	-196.70	-690.32	56.65	559.84	33.25	17.18	PASS
4513.00†	4500.63	-222.11	-151.29	4447.96	4366.53	-203.86	-713.30	56.65	578.07	34.07	17.30	PASS
4613.00†	4600.19	-229.82	-156.55	4546.28	4461.87	-211.03	-736.28	56.64	596.30	34.91	17.42	PASS
4713.00†	4699.75	-237.54	-161.80	4644.61	4557.20	-218.20	-759.25	56.64	614.53	35.74	17.52	PASS
4813.00†	4799.32	-245.25	-167.05	4742.93	4652.53	-225.36	-782.23	56.64	632.76	36.57	17.62	PASS
4913.00†	4898.88	-252.97	-172.31	4841.26	4747.86	-232.53	-805.21	56.64	650.99	37.41	17.72	PASS
5013.00†	4998.44	-260.68	-177.56	4939.58	4843.20	-239.69	-828.19	56.63	669.22	38.24	17.81	PASS
5113.00†	5098.01	-268.40	-182.82	5037.91	4938.53	-246.86	-851.17	56.63	687.45	39.08	17.90	PASS
5213.00†	5197.57	-276.11	-188.07	5136.23	5033.86	-254.03	-874.15	56.63	705.68	39.92	17.98	PASS
5313.00†	5297.13	-283.82	-193.33	5234.55	5129.19	-261.19	-897.13	56.63	723.91	40.76	18.06	PASS
5413.00†	5396.70	-291.54	-198.58	5332.88	5224.53	-268.36	-920.10	56.63	742.14	41.60	18.13	PASS
5513.00†	5496.26	-299.25	-203.84	5431.20	5319.86	-275.53	-943.08	56.62	760.37	42.45	18.20	PASS
5613.00†	5595.82	-306.97	-209.09	5529.53	5415.19	-282.69	-966.06	56.62	778.60	43.29	18.27	PASS
5713.00†	5695.39	-314.68	-214.35	5627.85	5510.52	-289.86	-989.04	56.62	796.83	44.13	18.33	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 63 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	5794.95	-322.40	-219.60	5726.18	5605.86	-297.02	-1012.02	56.62	815.06	44.98	18.39	PASS
5913.00†	5894.51	-330.11	-224.86	5824.50	5701.19	-304.19	-1035.00	56.62	833.29	45.83	18.45	PASS
6013.00†	5994.08	-337.82	-230.11	5922.82	5796.52	-311.36	-1057.98	56.62	851.52	46.67	18.51	PASS
6113.00†	6093.64	-345.54	-235.36	6021.15	5891.85	-318.52	-1080.95	56.62	869.75	47.52	18.56	PASS
6213.00†	6193.20	-353.25	-240.62	6119.47	5987.19	-325.69	-1103.93	56.62	887.98	48.37	18.62	PASS
6313.00†	6292.77	-360.97	-245.87	6217.80	6082.52	-332.86	-1126.91	56.61	906.21	49.22	18.67	PASS
6413.00†	6392.33	-368.68	-251.13	6316.12	6177.85	-340.02	-1149.89	56.61	924.44	50.07	18.71	PASS
6513.00†	6491.89	-376.40	-256.38	6414.45	6273.18	-347.19	-1172.87	56.61	942.67	50.92	18.76	PASS
6613.00†	6591.46	-384.11	-261.64	6512.77	6368.52	-354.35	-1195.85	56.61	960.90	51.77	18.80	PASS
6713.00†	6691.02	-391.82	-266.89	6611.09	6463.85	-361.52	-1218.83	56.61	979.13	52.62	18.85	PASS
6813.00†	6790.58	-399.54	-272.15	6709.42	6559.18	-368.69	-1241.80	56.61	997.36	53.48	18.89	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1797.47	-0.07	-36.56	-4.02	-49.23
8.5in Open Hole	1800.00	17954.40	16154.40	1797.47	N/A	-4.02	-49.23	N/A	N/A



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 64 of 99



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17954.40	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-2CDH PWB

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 65 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	0.22	75.03	89.84	75.03	1.40	123.72	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.22	75.03	89.84	75.03	1.73	80.24	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.22	75.03	89.84	75.03	2.30	49.57	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.22	75.03	89.84	75.03	2.90	35.31	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.22	75.03	89.84	75.03	3.52	27.32	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.22	75.03	89.84	75.03	4.14	22.24	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.22	75.03	89.84	75.03	4.76	18.74	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.22	75.03	89.84	75.03	5.39	16.19	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.22	75.03	89.84	75.03	6.01	14.25	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.22	75.03	89.84	75.03	6.64	12.72	PASS
1013.00†	1013.00	0.00	0.00	1012.69	1012.69	0.21	75.06	89.84	75.06	7.26	11.49	PASS
1113.00†	1113.00	0.00	0.00	1110.24	1110.21	-0.53	77.02	90.39	77.07	7.97	10.63	PASS
1213.00†	1213.00	0.00	0.00	1207.54	1207.36	-2.41	82.08	91.68	82.30	8.91	10.05	PASS
1313.00†	1313.00	0.00	0.00	1304.36	1303.79	-5.43	90.17	93.44	90.80	9.81	10.00	PASS
1413.00†	1413.00	0.00	0.00	1400.49	1399.18	-9.54	101.22	95.39	102.61	10.66	10.33	PASS
1500.00	1500.00	0.00	0.00	1483.39	1481.10	-13.99	113.16	97.05	115.58	11.37	10.86	PASS
1513.00†	1513.00	-0.02	-0.02	1495.72	1493.25	-14.72	115.12	-116.95	117.74	11.48	10.95	PASS
1613.00†	1612.97	-1.84	-1.25	1589.72	1585.56	-20.91	131.71	-115.67	137.09	12.26	11.90	PASS
1713.00†	1712.80	-6.54	-4.46	1686.92	1680.68	-27.90	150.46	-115.56	159.65	12.91	13.12	PASS
1767.79	1767.40	-10.34	-7.04	1740.12	1732.74	-31.72	160.73	-115.91	172.64	13.26	13.79	PASS
1813.00†	1812.41	-13.82	-9.42	1783.96	1775.64	-34.88	169.19	-116.46	183.56	13.50	14.35	PASS
1913.00†	1911.98	-21.54	-14.67	1880.93	1870.54	-41.85	187.90	-117.46	207.76	14.08	15.49	PASS
2013.00†	2011.54	-29.25	-19.93	1977.90	1965.43	-48.82	206.61	-118.26	232.01	14.76	16.46	PASS
2113.00†	2111.10	-36.97	-25.18	2074.87	2060.32	-55.80	225.33	-118.91	256.30	15.39	17.41	PASS
2213.00†	2210.67	-44.68	-30.43	2171.84	2155.21	-62.77	244.04	-119.44	280.60	16.07	18.22	PASS
2313.00†	2310.23	-52.40	-35.69	2268.81	2250.10	-69.74	262.75	-119.89	304.93	16.76	18.95	PASS
2413.00†	2409.79	-60.11	-40.94	2365.78	2344.99	-76.72	281.47	-120.27	329.28	17.47	19.60	PASS
2513.00†	2509.36	-67.82	-46.20	2462.75	2439.89	-83.69	300.18	-120.60	353.63	18.19	20.19	PASS
2613.00†	2608.92	-75.54	-51.45	2559.72	2534.78	-90.67	318.89	-120.89	378.00	18.91	20.73	PASS
2713.00†	2708.48	-83.25	-56.71	2656.69	2629.67	-97.64	337.60	-121.14	402.37	19.65	21.21	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 66 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2753.66	2724.56	-104.61	356.32	-121.37	426.75	20.39	21.65	PASS
2913.00†	2907.61	-98.68	-67.22	2850.63	2819.45	-111.59	375.03	-121.57	451.13	21.14	22.05	PASS
3013.00†	3007.17	-106.40	-72.47	2947.60	2914.34	-118.56	393.74	-121.75	475.52	21.89	22.41	PASS
3113.00†	3106.74	-114.11	-77.73	3044.57	3009.23	-125.54	412.45	-121.91	499.91	22.65	22.75	PASS
3213.00†	3206.30	-121.82	-82.98	3141.55	3104.13	-132.51	431.17	-122.05	524.31	23.42	23.06	PASS
3313.00†	3305.86	-129.54	-88.24	3238.52	3199.02	-139.48	449.88	-122.19	548.71	24.18	23.34	PASS
3413.00†	3405.43	-137.25	-93.49	3335.49	3293.91	-146.46	468.59	-122.31	573.11	24.96	23.61	PASS
3513.00†	3504.99	-144.97	-98.74	3432.46	3388.80	-153.43	487.30	-122.42	597.51	25.73	23.85	PASS
3613.00†	3604.55	-152.68	-104.00	3529.43	3483.69	-160.41	506.02	-122.53	621.92	26.51	24.07	PASS
3713.00†	3704.12	-160.40	-109.25	3626.40	3578.58	-167.38	524.73	-122.62	646.33	27.29	24.28	PASS
3813.00†	3803.68	-168.11	-114.51	3723.37	3673.48	-174.35	543.44	-122.71	670.74	28.08	24.48	PASS
3913.00†	3903.25	-175.82	-119.76	3820.34	3768.37	-181.33	562.15	-122.79	695.15	28.87	24.66	PASS
4013.00†	4002.81	-183.54	-125.02	3917.31	3863.26	-188.30	580.87	-122.87	719.56	29.66	24.83	PASS
4113.00†	4102.37	-191.25	-130.27	4014.28	3958.15	-195.28	599.58	-122.94	743.97	30.45	24.99	PASS
4213.00†	4201.94	-198.97	-135.53	4111.25	4053.04	-202.25	618.29	-123.01	768.39	31.24	25.14	PASS
4313.00†	4301.50	-206.68	-140.78	4208.22	4147.93	-209.22	637.00	-123.07	792.80	32.04	25.28	PASS
4413.00†	4401.06	-214.40	-146.04	4305.19	4242.82	-216.20	655.72	-123.13	817.22	32.84	25.41	PASS
4513.00†	4500.63	-222.11	-151.29	4402.16	4337.72	-223.17	674.43	-123.19	841.64	33.64	25.54	PASS
4613.00†	4600.19	-229.82	-156.55	4499.13	4432.61	-230.14	693.14	-123.24	866.05	34.44	25.66	PASS
4713.00†	4699.75	-237.54	-161.80	4596.10	4527.50	-237.12	711.85	-123.29	890.47	35.24	25.77	PASS
4813.00†	4799.32	-245.25	-167.05	4693.07	4622.39	-244.09	730.57	-123.34	914.89	36.04	25.87	PASS
4913.00†	4898.88	-252.97	-172.31	4790.04	4717.28	-251.07	749.28	-123.38	939.31	36.85	25.97	PASS
5013.00†	4998.44	-260.68	-177.56	4887.01	4812.17	-258.04	767.99	-123.42	963.73	37.65	26.07	PASS
5113.00†	5098.01	-268.40	-182.82	4983.98	4907.07	-265.01	786.70	-123.46	988.15	38.46	26.16	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 67 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1791.34	0.13	45.74	-10.92	75.38
8.5in Open Hole	1800.00	17645.62	15845.62	1791.34	7390.00	-10.92	75.38	3038.28	369.11

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

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

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

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 68 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20) Well: WAKEMAN 20-17-1NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	-0.14	-74.98	-90.11	74.98	1.40	123.63	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.14	-74.98	-90.11	74.98	1.73	80.13	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.14	-74.98	-90.11	74.98	2.30	49.50	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.14	-74.98	-90.11	74.98	2.91	35.27	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.14	-74.98	-90.11	74.98	3.52	27.28	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.14	-74.98	-90.11	74.98	4.14	22.22	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.14	-74.98	-90.11	74.98	4.76	18.72	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.14	-74.98	-90.11	74.98	5.39	16.17	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.14	-74.98	-90.11	74.98	6.01	14.23	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.14	-74.98	-90.11	74.98	6.64	12.71	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.14	-74.98	-90.11	74.98	7.27	11.48	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.14	-74.98	-90.11	74.98	7.89	10.46	PASS
1213.00†	1213.00	0.00	0.00	1212.68	1212.68	-0.15	-75.01	-90.12	75.01	8.52	9.62	PASS
1313.00†	1313.00	0.00	0.00	1310.14	1310.12	-0.65	-77.04	-90.49	77.09	9.22	9.06	PASS
1413.00†	1413.00	0.00	0.00	1407.36	1407.18	-1.94	-82.26	-91.35	82.49	10.13	8.76	PASS
1500.00	1500.00	0.00	0.00	1491.55	1491.05	-3.70	-89.37	-92.37	89.89	10.90	8.82	PASS
1513.00†	1513.00	-0.02	-0.02	1504.10	1503.52	-4.01	-90.64	53.20	91.20	11.01	8.86	PASS
1613.00†	1612.97	-1.84	-1.25	1600.33	1599.03	-6.85	-102.09	52.67	101.92	11.85	9.15	PASS
1713.00†	1712.80	-6.54	-4.46	1696.08	1693.60	-10.43	-116.57	53.25	113.82	12.73	9.48	PASS
1767.79	1767.40	-10.34	-7.04	1748.30	1744.95	-12.70	-125.76	53.90	120.85	13.12	9.75	PASS
1813.00†	1812.41	-13.82	-9.42	1791.24	1787.05	-14.73	-134.00	54.55	127.14	13.49	9.92	PASS
1913.00†	1911.98	-21.54	-14.67	1885.55	1879.03	-19.74	-154.23	55.55	143.41	14.17	10.60	PASS
2013.00†	2011.54	-29.25	-19.93	1978.82	1969.26	-25.39	-177.12	56.07	162.83	14.92	11.41	PASS
2113.00†	2111.10	-36.97	-25.18	2070.85	2057.50	-31.66	-202.49	56.22	185.31	15.66	12.34	PASS
2213.00†	2210.67	-44.68	-30.43	2165.60	2147.64	-38.68	-230.86	56.17	210.18	16.36	13.38	PASS
2313.00†	2310.23	-52.40	-35.69	2262.41	2239.66	-45.88	-260.01	56.12	235.25	17.05	14.35	PASS
2413.00†	2409.79	-60.11	-40.94	2359.22	2331.69	-53.09	-289.17	56.08	260.32	17.75	15.24	PASS
2513.00†	2509.36	-67.82	-46.20	2456.02	2423.72	-60.30	-318.33	56.04	285.39	18.47	16.03	PASS
2613.00†	2608.92	-75.54	-51.45	2552.83	2515.75	-67.51	-347.49	56.01	310.46	19.20	16.75	PASS
2713.00†	2708.48	-83.25	-56.71	2649.64	2607.78	-74.72	-376.65	55.98	335.52	19.95	17.40	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 69 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20) Well: WAKEMAN 20-17-1NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2808.05	-90.97	-61.96	2746.45	2699.81	-81.93	-405.81	55.96	360.59	20.72	17.99	PASS
2913.00†	2907.61	-98.68	-67.22	2843.25	2791.84	-89.13	-434.97	55.94	385.66	21.49	18.52	PASS
3013.00†	3007.17	-106.40	-72.47	2940.06	2883.87	-96.34	-464.12	55.93	410.73	22.27	19.01	PASS
3113.00†	3106.74	-114.11	-77.73	3036.87	2975.90	-103.55	-493.28	55.91	435.80	23.06	19.46	PASS
3213.00†	3206.30	-121.82	-82.98	3133.67	3067.93	-110.76	-522.44	55.90	460.86	23.86	19.87	PASS
3313.00†	3305.86	-129.54	-88.24	3230.48	3159.96	-117.97	-551.60	55.89	485.93	24.67	20.25	PASS
3413.00†	3405.43	-137.25	-93.49	3327.29	3251.99	-125.18	-580.76	55.88	511.00	25.48	20.60	PASS
3513.00†	3504.99	-144.97	-98.74	3424.09	3344.02	-132.38	-609.92	55.87	536.07	26.30	20.92	PASS
3613.00†	3604.55	-152.68	-104.00	3520.90	3436.04	-139.59	-639.08	55.86	561.14	27.12	21.22	PASS
3713.00†	3704.12	-160.40	-109.25	3617.71	3528.07	-146.80	-668.24	55.85	586.21	27.95	21.49	PASS
3813.00†	3803.68	-168.11	-114.51	3714.51	3620.10	-154.01	-697.39	55.84	611.27	28.78	21.75	PASS
3913.00†	3903.25	-175.82	-119.76	3811.32	3712.13	-161.22	-726.55	55.84	636.34	29.62	21.99	PASS
4013.00†	4002.81	-183.54	-125.02	3908.13	3804.16	-168.42	-755.71	55.83	661.41	30.46	22.21	PASS
4113.00†	4102.37	-191.25	-130.27	4004.93	3896.19	-175.63	-784.87	55.83	686.48	31.30	22.42	PASS
4213.00†	4201.94	-198.97	-135.53	4101.74	3988.22	-182.84	-814.03	55.82	711.55	32.15	22.61	PASS
4313.00†	4301.50	-206.68	-140.78	4198.55	4080.25	-190.05	-843.19	55.82	736.62	33.00	22.79	PASS
4413.00†	4401.06	-214.40	-146.04	4295.36	4172.28	-197.26	-872.35	55.81	761.68	33.85	22.96	PASS
4513.00†	4500.63	-222.11	-151.29	4392.16	4264.31	-204.47	-901.51	55.81	786.75	34.70	23.12	PASS
4613.00†	4600.19	-229.82	-156.55	4488.97	4356.34	-211.67	-930.66	55.80	811.82	35.56	23.27	PASS
4713.00†	4699.75	-237.54	-161.80	4585.78	4448.37	-218.88	-959.82	55.80	836.89	36.42	23.42	PASS
4813.00†	4799.32	-245.25	-167.05	4682.58	4540.40	-226.09	-988.98	55.79	861.96	37.28	23.55	PASS
4913.00†	4898.88	-252.97	-172.31	4779.39	4632.42	-233.30	-1018.14	55.79	887.03	38.14	23.68	PASS
5013.00†	4998.44	-260.68	-177.56	4876.20	4724.45	-240.51	-1047.30	55.79	912.10	39.01	23.80	PASS
5113.00†	5098.01	-268.40	-182.82	4973.00	4816.48	-247.72	-1076.46	55.78	937.16	39.87	23.91	PASS
5213.00†	5197.57	-276.11	-188.07	5069.81	4908.51	-254.92	-1105.62	55.78	962.23	40.74	24.02	PASS
5313.00†	5297.13	-283.82	-193.33	5166.62	5000.54	-262.13	-1134.78	55.78	987.30	41.61	24.12	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 70 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1795.62	-0.09	-45.71	-4.67	-64.23
8.5in Open Hole	1800.00	17835.13	16035.13	1795.62	N/A	-4.67	-64.23	N/A	N/A

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

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

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

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 71 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T1S-R65W Slot: SLOT#02 EX. COLLINS HH #20-3J (814'FNL & 1886'FWL, SEC.20, 8163, PR) Well: COLLINS HH #20-3J Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	49.00	4193.90	-1354.86	-17.90	4407.46	25.40	179.12	PASS
113.00†	113.00	0.00	0.00	51.00	113.00	4193.90	-1354.86	-17.90	4407.32	51.16	87.44	PASS
213.00†	213.00	0.00	0.00	151.00	213.00	4193.90	-1354.86	-17.90	4407.32	53.50	83.56	PASS
313.00†	313.00	0.00	0.00	251.00	313.00	4193.90	-1354.86	-17.90	4407.32	55.84	80.00	PASS
413.00†	413.00	0.00	0.00	351.00	413.00	4193.90	-1354.86	-17.90	4407.32	58.19	76.73	PASS
513.00†	513.00	0.00	0.00	451.00	513.00	4193.90	-1354.86	-17.90	4407.32	60.54	73.71	PASS
613.00†	613.00	0.00	0.00	551.00	613.00	4193.90	-1354.86	-17.90	4407.32	62.90	70.91	PASS
713.00†	713.00	0.00	0.00	651.00	713.00	4193.90	-1354.86	-17.90	4407.32	65.26	68.32	PASS
813.00†	813.00	0.00	0.00	751.00	813.00	4193.90	-1354.86	-17.90	4407.32	67.63	65.90	PASS
913.00†	913.00	0.00	0.00	851.00	913.00	4193.90	-1354.86	-17.90	4407.32	70.00	63.65	PASS
1013.00†	1013.00	0.00	0.00	951.00	1013.00	4193.90	-1354.86	-17.90	4407.32	72.37	61.54	PASS
1113.00†	1113.00	0.00	0.00	1051.00	1113.00	4193.90	-1354.86	-17.90	4407.32	74.74	59.56	PASS
1213.00†	1213.00	0.00	0.00	1151.00	1213.00	4193.90	-1354.86	-17.90	4407.32	77.13	57.70	PASS
1313.00†	1313.00	0.00	0.00	1251.00	1313.00	4193.90	-1354.86	-17.90	4407.32	79.51	55.96	PASS
1413.00†	1413.00	0.00	0.00	1351.00	1413.00	4193.90	-1354.86	-17.90	4407.32	81.90	54.31	PASS
1500.00	1500.00	0.00	0.00	1438.00	1500.00	4193.90	-1354.86	-17.90	4407.32	83.98	52.95	PASS
1513.00†	1513.00	-0.02	-0.02	1451.00	1513.00	4193.90	-1354.86	127.84	4407.34	84.29	52.75	PASS
1613.00†	1612.97	-1.84	-1.25	1550.97	1612.97	4193.90	-1354.86	127.84	4408.68	86.52	51.30	PASS
1713.00†	1712.80	-6.54	-4.46	1650.80	1712.80	4193.90	-1354.86	127.84	4412.18	88.94	49.93	PASS
1767.79	1767.40	-10.34	-7.04	1705.40	1767.40	4193.90	-1354.86	127.84	4415.00	90.26	49.23	PASS
1813.00†	1812.41	-13.82	-9.42	1750.41	1812.41	4193.90	-1354.86	127.89	4417.60	91.30	48.67	PASS
1913.00†	1911.98	-21.54	-14.67	1849.98	1911.98	4193.90	-1354.86	127.98	4423.35	93.70	47.48	PASS
2013.00†	2011.54	-29.25	-19.93	1949.54	2011.54	4193.90	-1354.86	128.08	4429.12	96.11	46.34	PASS
2113.00†	2111.10	-36.97	-25.18	2049.10	2111.10	4193.90	-1354.86	128.17	4434.89	98.52	45.26	PASS
2213.00†	2210.67	-44.68	-30.43	2148.67	2210.67	4193.90	-1354.86	128.26	4440.68	100.94	44.23	PASS
2313.00†	2310.23	-52.40	-35.69	2248.23	2310.23	4193.90	-1354.86	128.36	4446.49	103.36	43.24	PASS
2413.00†	2409.79	-60.11	-40.94	2347.79	2409.79	4193.90	-1354.86	128.45	4452.30	105.79	42.30	PASS
2513.00†	2509.36	-67.82	-46.20	2447.36	2509.36	4193.90	-1354.86	128.55	4458.13	108.23	41.39	PASS
2613.00†	2608.92	-75.54	-51.45	2546.92	2608.92	4193.90	-1354.86	128.64	4463.96	110.67	40.53	PASS
2713.00†	2708.48	-83.25	-56.71	2646.48	2708.48	4193.90	-1354.86	128.73	4469.81	113.12	39.70	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 72 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2746.05	2808.05	4193.90	-1354.86	128.83	4475.68	115.57	38.91	PASS
2913.00†	2907.61	-98.68	-67.22	2845.61	2907.61	4193.90	-1354.86	128.92	4481.55	118.02	38.14	PASS
3013.00†	3007.17	-106.40	-72.47	2945.17	3007.17	4193.90	-1354.86	129.01	4487.43	120.48	37.41	PASS
3113.00†	3106.74	-114.11	-77.73	3044.74	3106.74	4193.90	-1354.86	129.10	4493.33	122.95	36.70	PASS
3213.00†	3206.30	-121.82	-82.98	3144.30	3206.30	4193.90	-1354.86	129.20	4499.24	125.42	36.02	PASS
3313.00†	3305.86	-129.54	-88.24	3243.86	3305.86	4193.90	-1354.86	129.29	4505.16	127.90	35.37	PASS
3413.00†	3405.43	-137.25	-93.49	3343.43	3405.43	4193.90	-1354.86	129.38	4511.09	130.38	34.74	PASS
3513.00†	3504.99	-144.97	-98.74	3442.99	3504.99	4193.90	-1354.86	129.47	4517.03	132.86	34.13	PASS
3613.00†	3604.55	-152.68	-104.00	3542.55	3604.55	4193.90	-1354.86	129.56	4522.99	135.35	33.55	PASS
3713.00†	3704.12	-160.40	-109.25	3642.12	3704.12	4193.90	-1354.86	129.65	4528.95	137.84	32.98	PASS
3813.00†	3803.68	-168.11	-114.51	3741.68	3803.68	4193.90	-1354.86	129.74	4534.93	140.34	32.43	PASS
3913.00†	3903.25	-175.82	-119.76	3841.25	3903.25	4193.90	-1354.86	129.83	4540.92	142.84	31.91	PASS
4013.00†	4002.81	-183.54	-125.02	3940.81	4002.81	4193.90	-1354.86	129.92	4546.92	145.35	31.40	PASS
4113.00†	4102.37	-191.25	-130.27	4040.37	4102.37	4193.90	-1354.86	130.01	4552.93	147.86	30.90	PASS
4213.00†	4201.94	-198.97	-135.53	4139.94	4201.94	4193.90	-1354.86	130.10	4558.95	150.37	30.42	PASS
4313.00†	4301.50	-206.68	-140.78	4239.50	4301.50	4193.90	-1354.86	130.19	4564.99	152.89	29.96	PASS
4413.00†	4401.06	-214.40	-146.04	4339.06	4401.06	4193.90	-1354.86	130.28	4571.03	155.41	29.51	PASS
4513.00†	4500.63	-222.11	-151.29	4438.63	4500.63	4193.90	-1354.86	130.37	4577.09	157.94	29.08	PASS
4613.00†	4600.19	-229.82	-156.55	4538.19	4600.19	4193.90	-1354.86	130.46	4583.15	160.47	28.65	PASS
4713.00†	4699.75	-237.54	-161.80	4637.75	4699.75	4193.90	-1354.86	130.55	4589.23	163.00	28.25	PASS
4813.00†	4799.32	-245.25	-167.05	4737.32	4799.32	4193.90	-1354.86	130.64	4595.32	165.53	27.85	PASS
4913.00†	4898.88	-252.97	-172.31	4836.88	4898.88	4193.90	-1354.86	130.72	4601.42	168.07	27.46	PASS
5013.00†	4998.44	-260.68	-177.56	4936.44	4998.44	4193.90	-1354.86	130.81	4607.53	170.62	27.09	PASS
5113.00†	5098.01	-268.40	-182.82	5036.01	5098.01	4193.90	-1354.86	130.90	4613.65	173.16	26.72	PASS
5213.00†	5197.57	-276.11	-188.07	5135.57	5197.57	4193.90	-1354.86	130.99	4619.78	175.71	26.37	PASS
5313.00†	5297.13	-283.82	-193.33	5235.13	5297.13	4193.90	-1354.86	131.07	4625.92	178.26	26.03	PASS
5413.00†	5396.70	-291.54	-198.58	5334.70	5396.70	4193.90	-1354.86	131.16	4632.08	180.81	25.69	PASS
5513.00†	5496.26	-299.25	-203.84	5434.26	5496.26	4193.90	-1354.86	131.25	4638.24	183.37	25.37	PASS
5613.00†	5595.82	-306.97	-209.09	5533.82	5595.82	4193.90	-1354.86	131.33	4644.41	185.93	25.05	PASS
5713.00†	5695.39	-314.68	-214.35	5633.39	5695.39	4193.90	-1354.86	131.42	4650.60	188.49	24.74	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 73 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	5794.95	-322.40	-219.60	5732.95	5794.95	4193.90	-1354.86	131.51	4656.80	191.06	24.44	PASS
5913.00†	5894.51	-330.11	-224.86	5832.51	5894.51	4193.90	-1354.86	131.59	4663.00	193.63	24.15	PASS
6013.00†	5994.08	-337.82	-230.11	5932.08	5994.08	4193.90	-1354.86	131.68	4669.22	196.20	23.86	PASS
6113.00†	6093.64	-345.54	-235.36	6031.64	6093.64	4193.90	-1354.86	131.76	4675.44	198.77	23.58	PASS
6213.00†	6193.20	-353.25	-240.62	6131.20	6193.20	4193.90	-1354.86	131.85	4681.68	201.34	23.31	PASS
6313.00†	6292.77	-360.97	-245.87	6230.77	6292.77	4193.90	-1354.86	131.93	4687.93	203.92	23.05	PASS
6413.00†	6392.33	-368.68	-251.13	6330.33	6392.33	4193.90	-1354.86	132.01	4694.18	206.50	22.79	PASS
6513.00†	6491.89	-376.40	-256.38	6429.89	6491.89	4193.90	-1354.86	132.10	4700.45	209.08	22.54	PASS
6613.00†	6591.46	-384.11	-261.64	6529.46	6591.46	4193.90	-1354.86	132.18	4706.73	211.67	22.29	PASS
6713.00†	6691.02	-391.82	-266.89	6629.02	6691.02	4193.90	-1354.86	132.27	4713.02	214.25	22.05	PASS
6813.00†	6790.58	-399.54	-272.15	6728.58	6790.58	4193.90	-1354.86	132.35	4719.32	216.84	21.82	PASS
6869.81	6847.14	-403.92	-275.13	6785.14	6847.14	4193.90	-1354.86	132.40	4722.90	218.31	21.69	PASS
6913.00†	6890.23	-405.63	-277.43	6828.23	6890.23	4193.90	-1354.86	78.79	4724.04	219.43	21.58	PASS
7013.00†	6989.59	-397.11	-282.89	6927.59	6989.59	4193.90	-1354.86	4.76	4714.49	222.18	21.27	PASS
7113.00†	7085.95	-371.44	-288.42	7023.95	7085.95	4193.90	-1354.86	-4.21	4688.24	225.35	20.85	PASS
7213.00†	7176.38	-329.40	-293.85	7114.38	7176.38	4193.90	-1354.86	-8.19	4646.07	228.36	20.39	PASS
7313.00†	7258.14	-272.27	-299.02	7196.14	7258.14	4193.90	-1354.86	-11.51	4589.28	230.97	19.91	PASS
7413.00†	7328.74	-201.78	-303.77	7266.74	7328.74	4193.90	-1354.86	-15.48	4519.61	233.10	19.43	PASS
7513.00†	7386.03	-120.09	-307.95	7324.03	7386.03	4193.90	-1354.86	-21.40	4439.20	234.71	18.95	PASS
7613.00†	7428.28	-29.66	-311.44	7366.28	7428.28	4193.90	-1354.86	-31.78	4350.54	235.78	18.49	PASS
7713.00†	7454.20	66.76	-314.13	7392.20	7454.20	4193.90	-1354.86	-52.56	4256.34	236.32	18.05	PASS
7813.00†	7463.00	166.23	-315.94	7401.00	7463.00	4193.90	-1354.86	-89.74	4159.51	236.37	17.64	PASS
7813.64	7463.00	166.86	-315.95	7401.00	7463.00	4193.90	-1354.86	-90.00	4158.89	236.37	17.63	PASS
7913.00†	7463.00	266.22	-317.28	7401.00	7463.00	4193.90	-1354.86	-90.00	4062.42	236.19	17.24	PASS
8013.00†	7463.00	366.21	-318.63	7401.00	7463.00	4193.90	-1354.86	-90.00	3965.48	236.03	16.84	PASS
8113.00†	7463.00	466.20	-319.97	7401.00	7463.00	4193.90	-1354.86	-90.00	3868.69	235.87	16.44	PASS
8213.00†	7463.00	566.19	-321.31	7401.00	7463.00	4193.90	-1354.86	-90.00	3772.07	235.73	16.04	PASS
8313.00†	7463.00	666.18	-322.66	7401.00	7463.00	4193.90	-1354.86	-90.00	3675.63	235.60	15.63	PASS
8413.00†	7463.00	766.17	-324.00	7401.00	7463.00	4193.90	-1354.86	-90.00	3579.38	235.50	15.23	PASS
8513.00†	7463.00	866.16	-325.34	7401.00	7463.00	4193.90	-1354.86	-90.00	3483.35	235.42	14.83	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 74 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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
8613.00†	7463.00	966.15	-326.69	7401.00	7463.00	4193.90	-1354.86	-90.00	3387.55	235.37	14.42	PASS
8713.00†	7463.00	1066.14	-328.03	7401.00	7463.00	4193.90	-1354.86	-90.00	3292.00	235.36	14.02	PASS
8813.00†	7463.00	1166.14	-329.38	7401.00	7463.00	4193.90	-1354.86	-90.00	3196.71	235.39	13.61	PASS
8913.00†	7463.00	1266.13	-330.72	7401.00	7463.00	4193.90	-1354.86	-90.00	3101.73	235.47	13.20	PASS
9013.00†	7463.00	1366.12	-332.06	7401.00	7463.00	4193.90	-1354.86	-90.00	3007.07	235.62	12.79	PASS
9113.00†	7463.00	1466.11	-333.41	7401.00	7463.00	4193.90	-1354.86	-90.00	2912.77	235.83	12.38	PASS
9213.00†	7463.00	1566.10	-334.75	7401.00	7463.00	4193.90	-1354.86	-90.00	2818.86	236.12	11.96	PASS
9313.00†	7463.00	1666.09	-336.09	7401.00	7463.00	4193.90	-1354.86	-90.00	2725.38	236.51	11.55	PASS
9413.00†	7463.00	1766.08	-337.44	7401.00	7463.00	4193.90	-1354.86	-90.00	2632.39	237.01	11.13	PASS
9513.00†	7463.00	1866.07	-338.78	7401.00	7463.00	4193.90	-1354.86	-90.00	2539.92	237.64	10.71	PASS
9613.00†	7463.00	1966.06	-340.13	7401.00	7463.00	4193.90	-1354.86	-90.00	2448.05	238.41	10.29	PASS
9713.00†	7463.00	2066.05	-341.47	7401.00	7463.00	4193.90	-1354.86	-90.00	2356.84	239.36	9.87	PASS
9813.00†	7463.00	2166.04	-342.81	7401.00	7463.00	4193.90	-1354.86	-90.00	2266.37	240.49	9.44	PASS
9913.00†	7463.00	2266.04	-344.16	7401.00	7463.00	4193.90	-1354.86	-90.00	2176.74	241.85	9.02	PASS
10013.00†	7463.00	2366.03	-345.50	7401.00	7463.00	4193.90	-1354.86	-90.00	2088.04	243.45	8.59	PASS
10113.00†	7463.00	2466.02	-346.85	7401.00	7463.00	4193.90	-1354.86	-90.00	2000.42	245.33	8.17	PASS
10213.00†	7463.00	2566.01	-348.19	7401.00	7463.00	4193.90	-1354.86	-90.00	1914.01	247.52	7.75	PASS
10313.00†	7463.00	2666.00	-349.53	7401.00	7463.00	4193.90	-1354.86	-90.00	1828.98	250.05	7.33	PASS
10413.00†	7463.00	2765.99	-350.88	7401.00	7463.00	4193.90	-1354.86	-90.00	1745.54	252.97	6.91	PASS
10513.00†	7463.00	2865.98	-352.22	7401.00	7463.00	4193.90	-1354.86	-90.00	1663.93	256.30	6.50	PASS
10613.00†	7463.00	2965.97	-353.56	7401.00	7463.00	4193.90	-1354.86	-90.00	1584.42	260.08	6.10	PASS
10713.00†	7463.00	3065.96	-354.91	7401.00	7463.00	4193.90	-1354.86	-90.00	1507.36	264.35	5.71	PASS
10813.00†	7463.00	3165.95	-356.25	7401.00	7463.00	4193.90	-1354.86	-90.00	1433.14	269.13	5.33	PASS
10913.00†	7463.00	3265.95	-357.60	7401.00	7463.00	4193.90	-1354.86	-90.00	1362.22	274.44	4.97	PASS
11013.00†	7463.00	3365.94	-358.94	7401.00	7463.00	4193.90	-1354.86	-90.00	1295.14	280.28	4.63	PASS
11113.00†	7463.00	3465.93	-360.28	7401.00	7463.00	4193.90	-1354.86	-90.00	1232.53	286.63	4.31	PASS
11213.00†	7463.00	3565.92	-361.63	7401.00	7463.00	4193.90	-1354.86	-90.00	1175.11	293.41	4.01	PASS
11313.00†	7463.00	3665.91	-362.97	7401.00	7463.00	4193.90	-1354.86	-90.00	1123.66	300.53	3.74	PASS
11413.00†	7463.00	3765.90	-364.31	7401.00	7463.00	4193.90	-1354.86	-90.00	1079.06	307.80	3.51	PASS
11513.00†	7463.00	3865.89	-365.66	7401.00	7463.00	4193.90	-1354.86	-90.00	1042.17	314.99	3.31	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 75 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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 AWP Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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†	7463.00	3965.88	-367.00	7401.00	7463.00	4193.90	-1354.86	-90.00	1013.83	321.82	3.15	PASS
11713.00†	7463.00	4065.87	-368.35	7401.00	7463.00	4193.90	-1354.86	-90.00	994.79	327.95	3.04	PASS
11813.00†	7463.00	4165.86	-369.69	7401.00	7463.00	4193.90	-1354.86	-90.00	985.57	333.11	2.96	PASS
11855.24†	7463.00	4208.10	-370.26	7401.80	7463.80	4193.90	-1354.86	-90.05	984.71	334.95	2.94	PASS
11913.00†	7463.00	4265.86	-371.03	7401.00	7463.00	4193.90	-1354.86	-90.00	986.46	337.05	2.93	PASS
11939.08†	7463.00	4291.93	-371.38	7401.00	7463.00	4193.90	-1354.86	-90.00	988.35	337.86	2.93	PASS
12013.00†	7463.00	4365.85	-372.38	7401.00	7463.00	4193.90	-1354.86	-90.00	997.42	339.65	2.94	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1529.00	1529.00	49.00	1578.00	2552.78	-837.57	2552.78	-837.57
8.625in Casing Surface	0.00	1529.00	1529.00	49.00	1578.00	2552.78	-837.57	2552.78	-837.57
7.875in Open Hole	1529.00	8141.00	6612.00	1578.00	8190.00	2552.78	-837.57	2552.78	-837.57
4.5in Casing Production	0.00	8141.00	8141.00	49.00	8190.00	2552.78	-837.57	2552.78	-837.57

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 76 of 99



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 77 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.17-T1S-R65W Slot: SLOT#03 EX. AMOCO #44-17 (990'FSL & 1320'FEL, SEC.17, OG, PR, 8130) Well: AMOCO #44-17 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	46.00	6023.98	773.00	7.31	6073.46	25.40	246.84	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	3674.31	454.29	3674.31	454.29
9.625in Casing Surface	0.00	224.00	224.00	46.00	270.00	3674.31	454.29	3674.31	454.29
7.875in Open Hole	224.00	8129.00	7905.00	270.00	8175.00	3674.31	454.29	3674.31	454.29
4.5in Casing Production	0.00	8129.00	8129.00	46.00	8175.00	3674.31	454.29	3674.31	454.29

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

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

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

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 78 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	0.13	89.98	89.92	89.98	1.40	148.63	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.13	89.98	89.92	89.98	1.73	96.37	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.13	89.98	89.92	89.98	2.30	59.53	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.13	89.98	89.92	89.98	2.90	42.41	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.13	89.98	89.92	89.98	3.52	32.81	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.13	89.98	89.92	89.98	4.14	26.71	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.13	89.98	89.92	89.98	4.76	22.51	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.13	89.98	89.92	89.98	5.39	19.45	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.13	89.98	89.92	89.98	6.01	17.11	PASS
913.00†	913.00	0.00	0.00	912.62	912.62	0.13	90.01	89.92	90.01	6.64	15.29	PASS
1013.00†	1013.00	0.00	0.00	1009.66	1009.63	-0.50	91.98	90.31	92.04	7.36	13.92	PASS
1113.00†	1113.00	0.00	0.00	1106.45	1106.27	-2.10	97.07	91.24	97.33	8.32	12.83	PASS
1213.00†	1213.00	0.00	0.00	1202.77	1202.20	-4.67	105.23	92.54	105.88	9.23	12.46	PASS
1313.00†	1313.00	0.00	0.00	1298.40	1297.12	-8.17	116.36	94.02	117.72	10.12	12.55	PASS
1413.00†	1413.00	0.00	0.00	1393.16	1390.72	-12.59	130.37	95.51	132.85	10.92	13.05	PASS
1500.00	1500.00	0.00	0.00	1474.72	1470.87	-17.13	144.78	96.75	148.67	11.64	13.64	PASS
1513.00†	1513.00	-0.02	-0.02	1486.83	1482.73	-17.86	147.11	-117.30	151.26	11.73	13.77	PASS
1613.00†	1612.97	-1.84	-1.25	1579.08	1572.74	-23.93	166.39	-116.26	173.81	12.49	14.81	PASS
1713.00†	1712.80	-6.54	-4.46	1674.25	1665.09	-30.83	188.30	-116.08	200.05	13.17	16.11	PASS
1767.79	1767.40	-10.34	-7.04	1726.89	1716.17	-34.66	200.46	-116.30	215.11	13.51	16.86	PASS
1813.00†	1812.41	-13.82	-9.42	1770.28	1758.26	-37.82	210.48	-116.76	227.73	13.75	17.47	PASS
1913.00†	1911.98	-21.54	-14.67	1866.22	1851.35	-44.80	232.64	-117.63	255.69	14.37	18.67	PASS
2013.00†	2011.54	-29.25	-19.93	1962.17	1944.45	-51.78	254.80	-118.32	283.70	14.97	19.85	PASS
2113.00†	2111.10	-36.97	-25.18	2058.12	2037.54	-58.76	276.97	-118.89	311.74	15.63	20.84	PASS
2213.00†	2210.67	-44.68	-30.43	2154.06	2130.63	-65.74	299.13	-119.37	339.80	16.31	21.73	PASS
2313.00†	2310.23	-52.40	-35.69	2250.01	2223.72	-72.72	321.29	-119.77	367.88	17.01	22.52	PASS
2413.00†	2409.79	-60.11	-40.94	2345.96	2316.81	-79.69	343.45	-120.11	395.97	17.72	23.24	PASS
2513.00†	2509.36	-67.82	-46.20	2441.91	2409.90	-86.67	365.62	-120.41	424.07	18.44	23.88	PASS
2613.00†	2608.92	-75.54	-51.45	2537.85	2502.99	-93.65	387.78	-120.68	452.19	19.17	24.45	PASS
2713.00†	2708.48	-83.25	-56.71	2633.80	2596.08	-100.63	409.94	-120.91	480.31	19.91	24.97	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 79 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2729.75	2689.17	-107.61	432.10	-121.12	508.44	20.66	25.45	PASS
2913.00†	2907.61	-98.68	-67.22	2825.70	2782.27	-114.59	454.27	-121.30	536.57	21.42	25.88	PASS
3013.00†	3007.17	-106.40	-72.47	2921.64	2875.36	-121.57	476.43	-121.47	564.71	22.18	26.27	PASS
3113.00†	3106.74	-114.11	-77.73	3017.59	2968.45	-128.55	498.59	-121.62	592.85	22.95	26.63	PASS
3213.00†	3206.30	-121.82	-82.98	3113.54	3061.54	-135.53	520.75	-121.75	621.00	23.72	26.95	PASS
3313.00†	3305.86	-129.54	-88.24	3209.48	3154.63	-142.51	542.92	-121.88	649.15	24.50	27.25	PASS
3413.00†	3405.43	-137.25	-93.49	3305.43	3247.72	-149.49	565.08	-121.99	677.30	25.28	27.53	PASS
3513.00†	3504.99	-144.97	-98.74	3401.38	3340.81	-156.47	587.24	-122.10	705.45	26.07	27.79	PASS
3613.00†	3604.55	-152.68	-104.00	3497.33	3433.90	-163.45	609.40	-122.20	733.61	26.86	28.02	PASS
3713.00†	3704.12	-160.40	-109.25	3593.27	3527.00	-170.43	631.57	-122.29	761.77	27.65	28.24	PASS
3813.00†	3803.68	-168.11	-114.51	3689.22	3620.09	-177.41	653.73	-122.37	789.93	28.45	28.45	PASS
3913.00†	3903.25	-175.82	-119.76	3785.17	3713.18	-184.39	675.89	-122.45	818.09	29.25	28.64	PASS
4013.00†	4002.81	-183.54	-125.02	3881.11	3806.27	-191.37	698.06	-122.52	846.25	30.05	28.82	PASS
4113.00†	4102.37	-191.25	-130.27	3977.06	3899.36	-198.35	720.22	-122.59	874.41	30.86	28.98	PASS
4213.00†	4201.94	-198.97	-135.53	4073.01	3992.45	-205.33	742.38	-122.65	902.58	31.66	29.14	PASS
4313.00†	4301.50	-206.68	-140.78	4168.96	4085.54	-212.31	764.54	-122.71	930.74	32.47	29.28	PASS
4413.00†	4401.06	-214.40	-146.04	4264.90	4178.63	-219.29	786.71	-122.77	958.91	33.28	29.42	PASS
4513.00†	4500.63	-222.11	-151.29	4360.85	4271.72	-226.27	808.87	-122.82	987.08	34.09	29.55	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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 80 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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	0.08	54.85	-12.14	93.67
8.5in Open Hole	1800.00	17516.82	15716.82	1787.10	7215.00	-12.14	93.67	3038.02	463.87

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 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 81 of 99



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	0.20	104.98	89.89	104.98	1.40	173.63	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.20	104.98	89.89	104.98	1.73	112.56	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.20	104.98	89.89	104.98	2.30	69.53	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.20	104.98	89.89	104.98	2.91	49.54	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.20	104.98	89.89	104.98	3.52	38.32	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.20	104.98	89.89	104.98	4.14	31.20	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.20	104.98	89.89	104.98	4.76	26.30	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.20	104.98	89.89	104.98	5.39	22.72	PASS
813.00†	813.00	0.00	0.00	812.56	812.56	0.19	105.01	89.90	105.01	6.01	20.01	PASS
913.00†	913.00	0.00	0.00	909.10	909.07	-0.37	106.98	90.20	107.05	6.74	17.88	PASS
1013.00†	1013.00	0.00	0.00	1005.40	1005.22	-1.80	112.06	90.92	112.35	7.74	16.09	PASS
1113.00†	1113.00	0.00	0.00	1101.23	1100.67	-4.10	120.21	91.96	120.91	8.66	15.28	PASS
1213.00†	1213.00	0.00	0.00	1196.39	1195.13	-7.25	131.33	93.16	132.74	9.55	15.07	PASS
1313.00†	1313.00	0.00	0.00	1290.68	1288.28	-11.20	145.32	94.41	147.83	10.35	15.40	PASS
1413.00†	1413.00	0.00	0.00	1383.91	1379.87	-15.93	162.05	95.61	166.16	11.19	15.92	PASS
1500.00	1500.00	0.00	0.00	1464.02	1458.09	-20.63	178.71	96.59	184.71	11.85	16.65	PASS
1513.00†	1513.00	-0.02	-0.02	1475.90	1469.64	-21.38	181.35	-117.49	187.70	11.95	16.77	PASS
1613.00†	1612.97	-1.84	-1.25	1570.16	1561.06	-27.64	203.49	-116.55	212.79	12.61	17.96	PASS
1713.00†	1712.80	-6.54	-4.46	1666.47	1654.39	-34.09	226.34	-116.43	239.66	13.25	19.19	PASS
1767.79	1767.40	-10.34	-7.04	1719.01	1705.31	-37.62	238.81	-116.62	255.03	13.61	19.85	PASS
1813.00†	1812.41	-13.82	-9.42	1762.31	1747.27	-40.52	249.08	-117.07	267.91	13.88	20.36	PASS
1913.00†	1911.98	-21.54	-14.67	1858.07	1840.08	-46.94	271.80	-117.90	296.45	14.42	21.58	PASS
2013.00†	2011.54	-29.25	-19.93	1953.83	1932.88	-53.36	294.53	-118.60	325.04	15.06	22.59	PASS
2113.00†	2111.10	-36.97	-25.18	2049.59	2025.68	-59.78	317.25	-119.18	353.66	15.73	23.49	PASS
2213.00†	2210.67	-44.68	-30.43	2145.35	2118.49	-66.20	339.97	-119.67	382.31	16.42	24.29	PASS
2313.00†	2310.23	-52.40	-35.69	2241.11	2211.29	-72.62	362.69	-120.09	410.98	17.12	25.00	PASS
2413.00†	2409.79	-60.11	-40.94	2336.87	2304.09	-79.04	385.42	-120.46	439.68	17.83	25.64	PASS
2513.00†	2509.36	-67.82	-46.20	2432.63	2396.89	-85.46	408.14	-120.79	468.38	18.55	26.21	PASS
2613.00†	2608.92	-75.54	-51.45	2528.39	2489.70	-91.88	430.86	-121.07	497.10	19.28	26.72	PASS
2713.00†	2708.48	-83.25	-56.71	2624.15	2582.50	-98.30	453.58	-121.33	525.83	20.03	27.18	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 82 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2719.91	2675.30	-104.73	476.30	-121.56	554.56	20.77	27.60	PASS
2913.00†	2907.61	-98.68	-67.22	2815.67	2768.11	-111.15	499.03	-121.76	583.31	21.53	27.98	PASS
3013.00†	3007.17	-106.40	-72.47	2911.43	2860.91	-117.57	521.75	-121.95	612.06	22.29	28.32	PASS
3113.00†	3106.74	-114.11	-77.73	3007.19	2953.71	-123.99	544.47	-122.12	640.82	23.06	28.63	PASS
3213.00†	3206.30	-121.82	-82.98	3102.95	3046.52	-130.41	567.19	-122.28	669.58	23.84	28.92	PASS
3313.00†	3305.86	-129.54	-88.24	3198.71	3139.32	-136.83	589.92	-122.42	698.34	24.61	29.18	PASS
3413.00†	3405.43	-137.25	-93.49	3294.47	3232.12	-143.25	612.64	-122.55	727.11	25.40	29.42	PASS
3513.00†	3504.99	-144.97	-98.74	3390.22	3324.92	-149.67	635.36	-122.67	755.88	26.18	29.64	PASS
3613.00†	3604.55	-152.68	-104.00	3485.98	3417.73	-156.09	658.08	-122.79	784.66	26.97	29.85	PASS
3713.00†	3704.12	-160.40	-109.25	3581.74	3510.53	-162.51	680.80	-122.89	813.43	27.77	30.04	PASS
3813.00†	3803.68	-168.11	-114.51	3677.50	3603.33	-168.93	703.53	-122.99	842.21	28.56	30.21	PASS
3913.00†	3903.25	-175.82	-119.76	3773.26	3696.14	-175.35	726.25	-123.08	870.99	29.36	30.37	PASS
4013.00†	4002.81	-183.54	-125.02	3869.02	3788.94	-181.77	748.97	-123.16	899.78	30.16	30.53	PASS
4113.00†	4102.37	-191.25	-130.27	3964.78	3881.74	-188.19	771.69	-123.24	928.56	30.96	30.67	PASS
4213.00†	4201.94	-198.97	-135.53	4060.54	3974.55	-194.61	794.42	-123.32	957.35	31.77	30.80	PASS
4313.00†	4301.50	-206.68	-140.78	4156.30	4067.35	-201.03	817.14	-123.39	986.14	32.58	30.92	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	0.12	64.00	-13.06	110.64
8.5in Open Hole	13.00	17963.99	17950.99	13.00	7638.00	0.12	64.00	3037.95	498.92



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 83 of 99



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17963.99	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-4CDH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)	
MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 84 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20) Well: WAKEMAN 20-17-1NCH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	16.00	13.00	-0.17	-89.92	-90.11	89.92	1.40	148.54	PASS
113.00†	113.00	0.00	0.00	116.00	113.00	-0.17	-89.92	-90.11	89.92	1.73	96.26	PASS
213.00†	213.00	0.00	0.00	216.00	213.00	-0.17	-89.92	-90.11	89.92	2.30	59.46	PASS
313.00†	313.00	0.00	0.00	316.00	313.00	-0.17	-89.92	-90.11	89.92	2.91	42.37	PASS
413.00†	413.00	0.00	0.00	416.00	413.00	-0.17	-89.92	-90.11	89.92	3.52	32.78	PASS
513.00†	513.00	0.00	0.00	516.00	513.00	-0.17	-89.92	-90.11	89.92	4.14	26.69	PASS
613.00†	613.00	0.00	0.00	616.00	613.00	-0.17	-89.92	-90.11	89.92	4.76	22.49	PASS
713.00†	713.00	0.00	0.00	716.00	713.00	-0.17	-89.92	-90.11	89.92	5.39	19.43	PASS
813.00†	813.00	0.00	0.00	816.00	813.00	-0.17	-89.92	-90.11	89.92	6.01	17.10	PASS
913.00†	913.00	0.00	0.00	916.00	913.00	-0.17	-89.92	-90.11	89.92	6.64	15.27	PASS
1013.00†	1013.00	0.00	0.00	1015.52	1012.52	-0.18	-89.97	-90.11	89.97	7.26	13.80	PASS
1113.00†	1113.00	0.00	0.00	1112.48	1109.45	-0.61	-92.09	-90.38	92.16	7.98	12.72	PASS
1213.00†	1213.00	0.00	0.00	1209.18	1205.99	-1.69	-97.40	-91.00	97.67	8.94	11.91	PASS
1313.00†	1313.00	0.00	0.00	1305.40	1301.83	-3.41	-105.86	-91.85	106.50	9.84	11.70	PASS
1413.00†	1413.00	0.00	0.00	1400.94	1396.64	-5.75	-117.37	-92.81	118.65	10.68	11.93	PASS
1500.00	1500.00	0.00	0.00	1483.34	1478.05	-8.28	-129.79	-93.65	131.89	11.39	12.38	PASS
1513.00†	1513.00	-0.02	-0.02	1495.60	1490.13	-8.70	-131.83	51.94	134.06	11.50	12.46	PASS
1613.00†	1612.97	-1.84	-1.25	1589.44	1582.29	-12.22	-149.14	51.38	151.39	12.32	13.07	PASS
1713.00†	1712.80	-6.54	-4.46	1682.56	1673.12	-16.30	-169.23	51.62	169.76	13.15	13.68	PASS
1767.79	1767.40	-10.34	-7.04	1733.23	1722.25	-18.78	-181.37	52.00	180.28	13.58	14.04	PASS
1813.00†	1812.41	-13.82	-9.42	1774.83	1762.42	-20.93	-191.98	52.47	189.42	13.87	14.39	PASS
1913.00†	1911.98	-21.54	-14.67	1865.94	1849.81	-26.06	-217.20	53.26	211.90	14.55	15.26	PASS
2013.00†	2011.54	-29.25	-19.93	1955.68	1935.05	-31.66	-244.68	53.77	237.43	15.27	16.25	PASS
2113.00†	2111.10	-36.97	-25.18	2044.73	2018.74	-37.73	-274.52	54.08	265.90	15.98	17.37	PASS
2213.00†	2210.67	-44.68	-30.43	2140.24	2108.08	-44.46	-307.60	54.29	295.54	16.64	18.50	PASS
2313.00†	2310.23	-52.40	-35.69	2235.74	2197.41	-51.19	-340.67	54.47	325.18	17.33	19.52	PASS
2413.00†	2409.79	-60.11	-40.94	2331.24	2286.75	-57.92	-373.74	54.62	354.82	18.04	20.43	PASS
2513.00†	2509.36	-67.82	-46.20	2426.74	2376.09	-64.64	-406.82	54.74	384.47	18.77	21.24	PASS
2613.00†	2608.92	-75.54	-51.45	2522.24	2465.43	-71.37	-439.89	54.85	414.11	19.52	21.97	PASS
2713.00†	2708.48	-83.25	-56.71	2617.74	2554.77	-78.10	-472.97	54.94	443.76	20.28	22.63	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 85 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

Facility: SEC.20-T01S-R65W Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20) Well: WAKEMAN 20-17-1NCH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2808.05	-90.97	-61.96	2713.25	2644.11	-84.83	-506.04	55.03	473.41	21.06	23.23	PASS
2913.00†	2907.61	-98.68	-67.22	2808.75	2733.45	-91.56	-539.11	55.10	503.06	21.85	23.76	PASS
3013.00†	3007.17	-106.40	-72.47	2904.25	2822.78	-98.29	-572.19	55.16	532.71	22.65	24.25	PASS
3113.00†	3106.74	-114.11	-77.73	2999.75	2912.12	-105.02	-605.26	55.22	562.36	23.45	24.69	PASS
3213.00†	3206.30	-121.82	-82.98	3095.25	3001.46	-111.75	-638.34	55.27	592.01	24.27	25.10	PASS
3313.00†	3305.86	-129.54	-88.24	3190.75	3090.80	-118.48	-671.41	55.32	621.67	25.09	25.46	PASS
3413.00†	3405.43	-137.25	-93.49	3286.26	3180.14	-125.21	-704.48	55.36	651.32	25.93	25.80	PASS
3513.00†	3504.99	-144.97	-98.74	3381.76	3269.48	-131.94	-737.56	55.40	680.97	26.76	26.11	PASS
3613.00†	3604.55	-152.68	-104.00	3477.26	3358.82	-138.67	-770.63	55.43	710.62	27.61	26.39	PASS
3713.00†	3704.12	-160.40	-109.25	3572.76	3448.15	-145.39	-803.71	55.47	740.27	28.45	26.66	PASS
3813.00†	3803.68	-168.11	-114.51	3668.26	3537.49	-152.12	-836.78	55.50	769.93	29.31	26.90	PASS
3913.00†	3903.25	-175.82	-119.76	3763.76	3626.83	-158.85	-869.85	55.52	799.58	30.16	27.12	PASS
4013.00†	4002.81	-183.54	-125.02	3859.27	3716.17	-165.58	-902.93	55.55	829.23	31.02	27.33	PASS
4113.00†	4102.37	-191.25	-130.27	3954.77	3805.51	-172.31	-936.00	55.57	858.89	31.89	27.52	PASS
4213.00†	4201.94	-198.97	-135.53	4050.27	3894.85	-179.04	-969.08	55.60	888.54	32.75	27.70	PASS
4313.00†	4301.50	-206.68	-140.78	4145.77	3984.19	-185.77	-1002.15	55.62	918.19	33.63	27.87	PASS
4413.00†	4401.06	-214.40	-146.04	4241.27	4073.52	-192.50	-1035.22	55.64	947.85	34.50	28.03	PASS
4513.00†	4500.63	-222.11	-151.29	4336.77	4162.86	-199.23	-1068.30	55.65	977.50	35.38	28.18	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 86 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	16.00	1800.00	1784.00	16.00	1789.64	-0.10	-54.82	-6.85	-87.96
8.5in Open Hole	1800.00	18013.26	16213.26	1789.64	N/A	-6.85	-87.96	N/A	N/A

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

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

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

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 87 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	-0.16	-104.98	-90.09	104.98	1.40	173.63	PASS
113.00†	113.00	0.00	0.00	116.00	113.00	-0.16	-104.98	-90.09	104.98	1.73	112.52	PASS
213.00†	213.00	0.00	0.00	216.00	213.00	-0.16	-104.98	-90.09	104.98	2.30	69.51	PASS
313.00†	313.00	0.00	0.00	316.00	313.00	-0.16	-104.98	-90.09	104.98	2.91	49.52	PASS
413.00†	413.00	0.00	0.00	416.00	413.00	-0.16	-104.98	-90.09	104.98	3.52	38.31	PASS
513.00†	513.00	0.00	0.00	516.00	513.00	-0.16	-104.98	-90.09	104.98	4.14	31.20	PASS
613.00†	613.00	0.00	0.00	616.00	613.00	-0.16	-104.98	-90.09	104.98	4.76	26.29	PASS
713.00†	713.00	0.00	0.00	716.00	713.00	-0.16	-104.98	-90.09	104.98	5.39	22.71	PASS
813.00†	813.00	0.00	0.00	816.00	813.00	-0.16	-104.98	-90.09	104.98	6.01	19.99	PASS
913.00†	913.00	0.00	0.00	915.44	912.44	-0.17	-105.02	-90.09	105.02	6.64	17.86	PASS
1013.00†	1013.00	0.00	0.00	1011.91	1008.88	-0.58	-107.13	-90.31	107.21	7.36	16.21	PASS
1113.00†	1113.00	0.00	0.00	1108.13	1104.95	-1.59	-112.40	-90.81	112.70	8.34	14.85	PASS
1213.00†	1213.00	0.00	0.00	1203.88	1200.31	-3.21	-120.79	-91.52	121.50	9.25	14.28	PASS
1313.00†	1313.00	0.00	0.00	1298.95	1294.66	-5.41	-132.21	-92.35	133.59	10.14	14.23	PASS
1413.00†	1413.00	0.00	0.00	1393.14	1387.71	-8.18	-146.56	-93.20	148.95	10.93	14.63	PASS
1500.00	1500.00	0.00	0.00	1474.23	1467.40	-11.03	-161.30	-93.91	164.93	11.65	15.13	PASS
1513.00†	1513.00	-0.02	-0.02	1486.28	1479.19	-11.48	-163.68	51.69	167.51	11.74	15.25	PASS
1613.00†	1612.97	-1.84	-1.25	1578.49	1569.16	-15.31	-183.50	51.11	187.92	12.51	15.99	PASS
1713.00†	1712.80	-6.54	-4.46	1669.87	1657.64	-19.64	-205.94	51.19	209.32	13.34	16.63	PASS
1767.79	1767.40	-10.34	-7.04	1719.56	1705.43	-22.21	-219.31	51.44	221.45	13.76	17.02	PASS
1813.00†	1812.41	-13.82	-9.42	1760.32	1744.45	-24.44	-230.88	51.82	231.90	14.04	17.40	PASS
1913.00†	1911.98	-21.54	-14.67	1849.49	1829.20	-29.69	-258.07	52.50	257.22	14.71	18.32	PASS
2013.00†	2011.54	-29.25	-19.93	1937.17	1911.66	-35.33	-287.33	52.96	285.51	15.47	19.29	PASS
2113.00†	2111.10	-36.97	-25.18	2024.90	1993.24	-41.45	-319.02	53.26	316.63	16.12	20.49	PASS
2213.00†	2210.67	-44.68	-30.43	2119.61	2080.95	-48.21	-354.10	53.51	348.71	16.79	21.64	PASS
2313.00†	2310.23	-52.40	-35.69	2214.32	2168.66	-54.98	-389.18	53.71	380.80	17.49	22.65	PASS
2413.00†	2409.79	-60.11	-40.94	2309.02	2256.36	-61.74	-424.26	53.88	412.88	18.21	23.56	PASS
2513.00†	2509.36	-67.82	-46.20	2403.73	2344.07	-68.51	-459.34	54.03	444.97	18.94	24.36	PASS
2613.00†	2608.92	-75.54	-51.45	2498.43	2431.78	-75.27	-494.42	54.15	477.07	19.70	25.08	PASS
2713.00†	2708.48	-83.25	-56.71	2593.14	2519.49	-82.04	-529.49	54.26	509.16	20.47	25.73	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 88 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2687.84	2607.20	-88.81	-564.57	54.36	541.26	21.25	26.31	PASS
2913.00†	2907.61	-98.68	-67.22	2782.55	2694.91	-95.57	-599.65	54.45	573.36	22.05	26.84	PASS
3013.00†	3007.17	-106.40	-72.47	2877.25	2782.62	-102.34	-634.73	54.53	605.45	22.85	27.31	PASS
3113.00†	3106.74	-114.11	-77.73	2971.96	2870.33	-109.10	-669.81	54.60	637.55	23.67	27.73	PASS
3213.00†	3206.30	-121.82	-82.98	3066.66	2958.03	-115.87	-704.89	54.66	669.65	24.49	28.12	PASS
3313.00†	3305.86	-129.54	-88.24	3161.37	3045.74	-122.64	-739.96	54.72	701.76	25.33	28.48	PASS
3413.00†	3405.43	-137.25	-93.49	3256.07	3133.45	-129.40	-775.04	54.77	733.86	26.17	28.80	PASS
3513.00†	3504.99	-144.97	-98.74	3350.78	3221.16	-136.17	-810.12	54.82	765.96	27.01	29.09	PASS
3613.00†	3604.55	-152.68	-104.00	3445.49	3308.87	-142.93	-845.20	54.86	798.06	27.86	29.36	PASS
3713.00†	3704.12	-160.40	-109.25	3540.19	3396.58	-149.70	-880.28	54.90	830.16	28.72	29.61	PASS
3813.00†	3803.68	-168.11	-114.51	3634.90	3484.29	-156.46	-915.36	54.94	862.27	29.58	29.84	PASS
3913.00†	3903.25	-175.82	-119.76	3729.60	3572.00	-163.23	-950.43	54.97	894.37	30.45	30.05	PASS
4013.00†	4002.81	-183.54	-125.02	3824.31	3659.71	-170.00	-985.51	55.01	926.47	31.32	30.24	PASS
4113.00†	4102.37	-191.25	-130.27	3919.01	3747.41	-176.76	-1020.59	55.04	958.58	32.20	30.42	PASS
4213.00†	4201.94	-198.97	-135.53	4013.72	3835.12	-183.53	-1055.67	55.07	990.68	33.07	30.59	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	-0.10	-64.00	-8.19	-105.96
8.5in Open Hole	1800.00	17822.97	16022.97	1785.27	7230.00	-8.19	-105.96	3041.30	-870.54



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 89 of 99



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

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 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 90 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	5966.78	-1892.47	-17.60	6259.99	25.40	254.43	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	3632.02	-1170.19	3632.02	-1170.19
8.625in Casing Surface	0.00	218.00	218.00	73.00	291.00	3632.02	-1170.19	3632.02	-1170.19
7.875in Open Hole	218.00	8129.00	7911.00	291.00	8202.00	3632.02	-1170.19	3632.02	-1170.19
4.5in Casing Production	0.00	8129.00	8129.00	73.00	8202.00	3632.02	-1170.19	3632.02	-1170.19

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

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

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

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 91 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	-0.26	-119.93	-90.13	119.93	1.40	198.54	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.26	-119.93	-90.13	119.93	1.73	128.65	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.26	-119.93	-90.13	119.93	2.30	79.47	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.26	-119.93	-90.13	119.93	2.91	56.62	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.26	-119.93	-90.13	119.93	3.52	43.81	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.26	-119.93	-90.13	119.93	4.14	35.67	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.26	-119.93	-90.13	119.93	4.76	30.06	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.26	-119.93	-90.13	119.93	5.39	25.97	PASS
813.00†	813.00	0.00	0.00	812.48	812.48	-0.27	-119.95	-90.13	119.95	6.01	22.87	PASS
913.00†	913.00	0.00	0.00	908.47	908.44	-0.61	-121.95	-90.29	122.04	6.75	20.39	PASS
1013.00†	1013.00	0.00	0.00	1004.21	1004.04	-1.51	-127.09	-90.68	127.42	7.75	18.23	PASS
1113.00†	1113.00	0.00	0.00	1099.50	1098.96	-2.94	-135.34	-91.24	136.10	8.68	17.18	PASS
1213.00†	1213.00	0.00	0.00	1194.13	1192.89	-4.89	-146.60	-91.91	148.05	9.57	16.79	PASS
1313.00†	1313.00	0.00	0.00	1287.90	1285.54	-7.35	-160.76	-92.62	163.26	10.36	17.00	PASS
1413.00†	1413.00	0.00	0.00	1380.63	1376.66	-10.28	-177.70	-93.31	181.67	11.19	17.41	PASS
1500.00	1500.00	0.00	0.00	1460.31	1454.48	-13.21	-194.57	-93.88	200.26	11.84	18.06	PASS
1513.00†	1513.00	-0.02	-0.02	1472.14	1465.99	-13.68	-197.26	51.73	203.23	11.94	18.18	PASS
1613.00†	1612.97	-1.84	-1.25	1562.62	1553.65	-17.51	-219.35	51.17	226.56	12.70	18.97	PASS
1713.00†	1712.80	-6.54	-4.46	1652.19	1639.68	-21.77	-243.90	51.17	250.82	13.52	19.66	PASS
1767.79	1767.40	-10.34	-7.04	1700.86	1686.09	-24.27	-258.34	51.34	264.49	13.94	20.08	PASS
1813.00†	1812.41	-13.82	-9.42	1740.76	1723.94	-26.43	-270.76	51.68	276.20	14.21	20.47	PASS
1913.00†	1911.98	-21.54	-14.67	1827.93	1806.02	-31.44	-299.69	52.29	304.24	14.91	21.37	PASS
2013.00†	2011.54	-29.25	-19.93	1913.53	1885.70	-36.79	-330.48	52.74	335.17	15.57	22.50	PASS
2113.00†	2111.10	-36.97	-25.18	2006.09	1971.17	-42.86	-365.48	53.11	367.99	16.23	23.67	PASS
2213.00†	2210.67	-44.68	-30.43	2100.51	2058.35	-49.05	-401.21	53.41	400.87	16.91	24.71	PASS
2313.00†	2310.23	-52.40	-35.69	2194.93	2145.52	-55.25	-436.95	53.68	433.76	17.61	25.62	PASS
2413.00†	2409.79	-60.11	-40.94	2289.34	2232.70	-61.45	-472.69	53.90	466.66	18.34	26.43	PASS
2513.00†	2509.36	-67.82	-46.20	2383.76	2319.87	-67.65	-508.43	54.10	499.56	19.08	27.15	PASS
2613.00†	2608.92	-75.54	-51.45	2478.18	2407.04	-73.85	-544.17	54.27	532.47	19.84	27.79	PASS
2713.00†	2708.48	-83.25	-56.71	2572.60	2494.22	-80.05	-579.91	54.42	565.38	20.62	28.36	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 92 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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†	2808.05	-90.97	-61.96	2667.02	2581.39	-86.25	-615.65	54.56	598.30	21.41	28.87	PASS
2913.00†	2907.61	-98.68	-67.22	2761.44	2668.56	-92.45	-651.38	54.68	631.22	22.21	29.32	PASS
3013.00†	3007.17	-106.40	-72.47	2855.86	2755.74	-98.65	-687.12	54.79	664.14	23.03	29.73	PASS
3113.00†	3106.74	-114.11	-77.73	2950.28	2842.91	-104.85	-722.86	54.89	697.06	23.85	30.09	PASS
3213.00†	3206.30	-121.82	-82.98	3044.70	2930.09	-111.05	-758.60	54.98	729.98	24.68	30.42	PASS
3313.00†	3305.86	-129.54	-88.24	3139.11	3017.26	-117.25	-794.34	55.06	762.91	25.52	30.72	PASS
3413.00†	3405.43	-137.25	-93.49	3233.53	3104.43	-123.44	-830.08	55.13	795.83	26.36	30.99	PASS
3513.00†	3504.99	-144.97	-98.74	3327.95	3191.61	-129.64	-865.81	55.20	828.76	27.22	31.24	PASS
3613.00†	3604.55	-152.68	-104.00	3422.37	3278.78	-135.84	-901.55	55.27	861.69	28.07	31.46	PASS
3713.00†	3704.12	-160.40	-109.25	3516.79	3365.95	-142.04	-937.29	55.33	894.62	28.94	31.67	PASS
3813.00†	3803.68	-168.11	-114.51	3611.21	3453.13	-148.24	-973.03	55.38	927.55	29.81	31.85	PASS
3913.00†	3903.25	-175.82	-119.76	3705.63	3540.30	-154.44	-1008.77	55.43	960.48	30.68	32.03	PASS
4013.00†	4002.81	-183.54	-125.02	3800.05	3627.48	-160.64	-1044.51	55.48	993.41	31.55	32.18	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	-0.16	-73.11	-9.16	-124.99
8.5in Open Hole	1800.00	18287.12	16487.12	1779.82	7638.00	-9.16	-124.99	3041.35	-905.57



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 93 of 99



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH PWB
Facility	SEC.20-T01S-R65W		

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

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 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 94 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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 station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	29.00	4015.56	1045.23	14.59	4149.40	25.40	168.63	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	91.00	91.00	29.00	120.00	2450.77	625.87	2450.77	625.87
8.625in Casing Surface	0.00	91.00	91.00	29.00	120.00	2450.77	625.87	2450.77	625.87
7.875in Open Hole	91.00	8123.00	8032.00	120.00	8152.00	2450.77	625.87	2450.77	625.87
4.5in Casing Production	0.00	8123.00	8123.00	29.00	8152.00	2450.77	625.87	2450.77	625.87

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

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

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

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 95 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	6832.41	-2847.86	-22.63	7402.48	25.40	300.87	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	4157.08	-1754.90	4157.08	-1754.90
8.625in Casing Surface	0.00	1450.00	1450.00	81.00	1531.00	4157.08	-1754.90	4157.08	-1754.90
7.875in Open Hole	1450.00	8150.00	6700.00	1531.00	N/A	4157.08	-1754.90	N/A	N/A
4.5in Casing Production	0.00	8150.00	8150.00	81.00	N/A	4157.08	-1754.90	N/A	N/A

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

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

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

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 96 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	718.46	1102.85	56.92	1316.23	50.15	26.63	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	441.06	670.26	441.06	670.26
8.625in Casing Surface	0.00	250.00	250.00	-8.00	242.00	441.06	670.26	441.06	670.26
7.875in Open Hole	250.00	8200.00	7950.00	242.00	8192.00	441.06	670.26	441.06	670.26
4.5in Casing Production	0.00	8200.00	8200.00	-8.00	8192.00	441.06	670.26	441.06	670.26

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

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

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

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



Clearance Report

WAKEMAN 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 97 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	9345.35	2981.43	17.69	9809.41	25.40	398.69	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	5705.25	1790.93	5705.25	1790.93
8.625in Casing Surface	0.00	1549.00	1549.00	23.00	1572.00	5705.25	1790.93	5705.25	1790.93
7.875in Open Hole	1549.00	8173.00	6624.00	1572.00	8196.00	5705.25	1790.93	5705.25	1790.93
4.5in Casing Production	0.00	8173.00	8173.00	23.00	8196.00	5705.25	1790.93	5705.25	1790.93

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 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 98 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	703.60	-2189.42	-72.18	2299.71	25.40	93.44	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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

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

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	150.00	150.00	17.00	167.00	422.84	-1336.60	422.84	-1336.60
8.625in Casing Surface	0.00	150.00	150.00	17.00	167.00	422.84	-1336.60	422.84	-1336.60
7.875in Open Hole	150.00	8194.00	8044.00	167.00	8211.00	422.84	-1336.60	422.84	-1336.60
4.5in Casing Production	0.00	8194.00	8194.00	17.00	8211.00	422.84	-1336.60	422.84	-1336.60

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 20-17-3NCH PWP (REV-A.0)
Closest Approach
Page 99 of 99



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#08 WAKEMAN 20-17-3NCH (293'FSL & 2128'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NCH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NCH 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	9200.37	-4337.54	-25.24	10171.99	25.40	413.45	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